From: Heiser, Gerald R.
To: Kadrmas, Bethany R.
Subject: Wenck Study Comments
Date: Wednesday, June 20, 2018 4:58:49 PM
Attachments: 0269_001[2].pdf
0270_001[2].pdf

Mr. Kadrmas,

I emailed the State Engineers comments to Mr. Helms but failed to copy you. So, attached please find a copy of our comments. Thank you.

Jerry

Gerald R. Heiser
Sovereign Land Manager
Office of the State Engineer
900 East Boulevard Avenue
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State of North Dakota
Office of the State Engineer

Regulatory Division

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June 20, 2018

Mr. Lynn Helms, Director
Oil and Gas Division
North Dakota Industrial Commission
600 East Boulevard Avenue, Department 405
Bismarck, ND 58503-0840

RE: Ordinary High Water Mark of the Missouri River – N.D.C.C. ch. 61-33.1 (SB 2134)

Dear Mr. Helms:

Thank you for the opportunity to provide my comments on the *Ordinary High Water Mark of the Missouri River Bed* study prepared by Wenck Associates, Inc. Below please find my comments, separated by specific study sections. These comments are limited to issues with the study itself and do not address any legal issues with the underlying law upon which the study is based.

Executive Summary:

It should be stated in the first paragraph that definitions and assumptions in the report are per N.D.C.C. ch. 61-33.1. This is important because some of the definitions provided in N.D.C.C. ch. 61-33.1 do not comport with definitions provided in other areas of State Code or State case law. For example, the ordinary high water mark (OHWM) definition for this analysis is the definition provided in N.D.C.C. ch. 61-33.1, not case law, statute, or administrative code. Case law cited in the study makes no mention of "hay lands" when describing "ordinary agricultural crops" or "the value of land for agricultural purposes." The definition of OHWM provided in N.D.A.C. § 89-10-01-03(7) makes no mention of "hay lands" either.

Within the Executive Summary, as well as throughout the report, the author describes the effort and results as an OHWM "analysis; delineation; estimate; study; boundaries; and determination." Consistent terminology should be used throughout the report.

Further, this study effort is not an OHWM "delineation." The State Engineer has developed OHWM Delineation Guidelines for both riverine and lake settings in North Dakota. OHWM delineations are conducted in the field, observing and identifying the presence of several field indicators of the OHWM. The primary field indicator is vegetation type and dominance, supported by soils data, physical characteristics, hydrology, and aerial imagery interpretation. This effort is primarily a "photo interpretation" of the study area, augmented with any supporting historical

information and data that may be available. I would suggest describing this effort as an OHWM "study" and the study results as the OHWM "determination."

The author states that the OHWM is caused by "flood flows." This is incorrect. The OHWM is caused by "ordinary" high flows. Webster's Dictionary describes flood as "a rising and overflowing of a body of water especially onto normally dry land." Land above the OHWM is normally dry. Land below the OHWM is normally wet enough to support predominantly wetland plants. Therefore, use of the term "flood flow" is not appropriate. This has been repeatedly affirmed by numerous courts throughout the country. See, e.g., *Heckman Ranches, Inc. v. State, By & Through Dep't of Pub. Lands*, 99 Idaho 793, 804, 589 P.2d 540, 551 (1979) ("The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, and the name implies, From the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow. This is in accord with holdings of the Supreme Court. *United States v. Claridge*, 416 F.2d 933, 934 (1969) (citations omitted) (emphasis added)"; *State Dep't of Nat. Res. v. Pankratz*, 538 P.2d 984, 988–89 (Alaska 1975), *holding modified by Honsinger v. State*, 642 P.2d 1352 (Alaska 1982) (same); *State ex rel. O'Connor v. Sorenson*, 222 Iowa 1248, 271 N.W. 234, 236 (1937) ("The term 'ordinary high-water mark' has been frequently defined by this and many other courts. It is not the line reached by unusual floods, but it is the line to which high water ordinarily reaches."); *Provo City v. Jacobsen*, 111 Utah 39, 51, 176 P.2d 130, 136, *opinion modified on reh'g sub nom. Provo City v. Jacobson*, 111 Utah 68, 181 P.2d 213 (1947) ("The courts and authorities are in accord as to where the boundary mark should lie. It is the line of ordinary high water mark or the level where the body of water would normally stand during high water period, when not affected by floods and draught and free from all other disturbing causes.").

2.0 Ordinary High Water Mark Definitions:

There are two definitions for the OHWM in North Dakota. The first is the definition provided by SB 2134, codified as N.D.C.C. ch. 61-33.1, and employed in this study to a specific reach of the Missouri River. There is also the definition provided in N.D.A.C. § 89-10-01 that applies to the remainder of the Missouri River and all other navigable waters of the State. The definitions used by the U.S. Army Corps of Engineers and the U.S. Bureau of Land Management provide for the extent of their regulatory authority and the limits of the U.S. Government's interests in unpatented lands, respectively. They have nothing to do with the extent or limits of the State's title interests in the bed and banks of the State's navigable waters.

On pages 2-1 and 2-2, the author describes other non-physical evidence, such as "lake and stream gage data, flood predictions, historic records of water flow, and statistical evidence" as methods to assist in the determination of the OHWM. These are not methods, but rather data.

4.0 Data Processing:

In section 4.4 on the bottom of page 4-3, the author states that daily Missouri River pre-dam flow records from the U.S. Geological Service (USGS) Williston gage were analyzed to determine a

relatively frequent flood that would cause damage to riparian vegetation. What does that mean? What does "damage to riparian vegetation" mean and how did you determine at what flow it might occur?

USGS Williston gage data indicates that a flow of approximately 80,000 cfs occurs every two years or less. The State of Washington has completed research that indicates the ordinary high flow is typically associated with approximately a 1.0 to 1.7-year recurrence interval. See, Washington Department of Ecology, Washington Department of Fish and Wildlife, Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits, Draft Copy, June, 2006. Several OHWM delineations completed by the State Engineer on various portions of the Missouri River in Burleigh and Morton Counties indicates a strong correlation between the location of the OHWM and the 1.7-year discharge elevation.

If a pre-dam flow of 80,000 cfs corresponds to the 1.7-year recurrence interval, it might indicate the ordinary high flow and corresponding OHWM of the pre-inundation Missouri River. Flow data could be modeled to determine the pre-dam 1.7-year discharge rate.

5.0 Delineation Methodology:

Again, it is erroneously stated that the OHWM is caused by flood flows.

6.0 Results:

Strike the word "provides" in the first sentence, third paragraph on page 6-1.

On Maps 10 and 11 of 18 (copies attached), the OHWM as determined in the study includes an abandoned meander that is only partially connected to the Missouri River at the time the image was captured. When comparing that image to the original Government Land Office (GLO) survey, it would appear that this change in the river channel was the result of an avulsive event. As such, the State would take title to the channel formed and would forfeit title to the channel abandoned, even though it is still situated below the OHWM. Therefore, the OHWM should cut across the meander where it meets the river, much as it would at the mouth of a tributary river.

On Map 17 of 18 (copy attached), there exists an island below the OHWM identified as being owned by the U.S. Department of Interior. What is the basis for that ownership determination? When comparing this 1951 image to the GLO survey, it appears that this island formed on the bed of the Missouri River after statehood. As such, title to the island rests with the State of North Dakota.

Other Comments and Concerns:

There are two other areas I would like to address.

On page 5-2, the author states that a comparison of the river banks between the 1943 and 1951 imagery indicates significant movement of the meander lines and accounts for a significant portion of the recommended modifications to the OHWM. This is at least partially true.

A significant percentage of the changes might also be attributed to the presumption that the Corps condemned riparian land to the OHWM only, when in fact, the Corps likely acquired riparian land to the ordinary low water mark (OLWM). Title to the beds and banks, up to the OHWM, of navigable waters passed to the State incidental to statehood under the Equal Footing Doctrine. N.D.C.C. § 47-01-15 states that "the owner of the upland, when it borders on a navigable lake or stream, takes to the edge of the lake or stream at low water mark." While this has been determined by the North Dakota Supreme Court to be in violation of the Gift Clause of the State Constitution and therefore unconstitutional, it was likely understood to be the law at the time the Corps was condemning land for the Garrison Reservoir. Since it was understood that the riparian took to the ordinary low water mark of the Missouri River, the Corps would have needed to acquire all riparian lands to the OLWM.

There is also the issue of islands that formed on the bed of the Missouri River after statehood. Islands that form on the bed of a river after statehood, navigable or not, belong to the owner of the bed as well as any accretions to the island. And, once an island, always an island. That is, even if an island eventually attaches to riparian land and becomes indistinguishable from the riparian land, title rests with whomever owns the bed of the river. See generally, *Hogue v. Bourgois*, 71 N.W.2d 47, 55 (N.D. 1955). As stated in N.D.C.C. § 47-06-05, the riparian landowner is entitled to any riparian accretions. Therefore, in the case of this study, even if the OHWM was accurately determined as it existed in 1951, any islands that formed on the bed of the Missouri River after statehood and eventually attached to riparian land were likely not identified as belonging to the State of North Dakota and erroneously identified as belonging to the formerly riparian landowner.

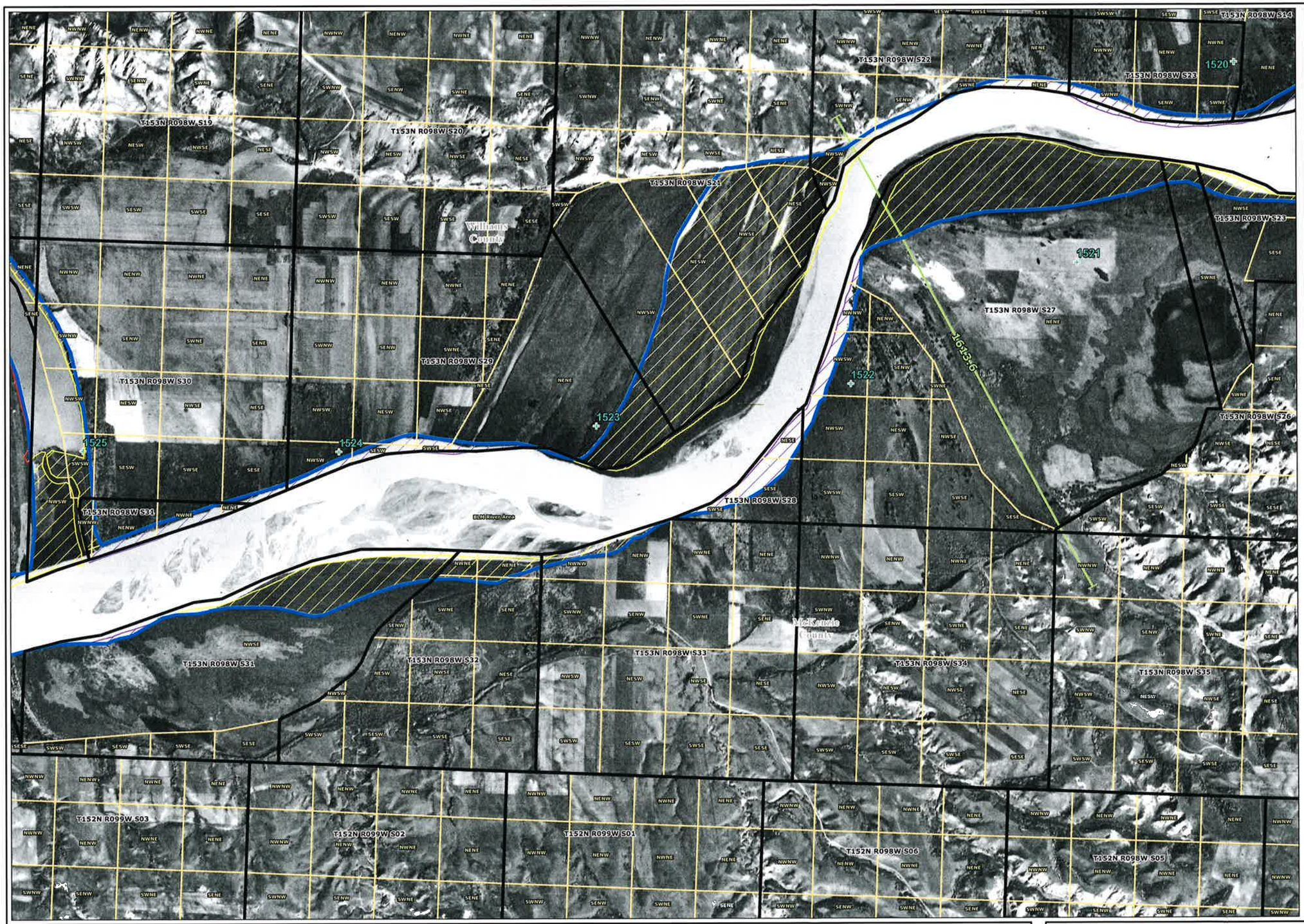
Thank you again for the opportunity to review the report and provide my comments. If you have any questions to specific comments or would like to discuss, please feel free to contact me at (701) 328-4942 or by email at gerbele@nd.gov.

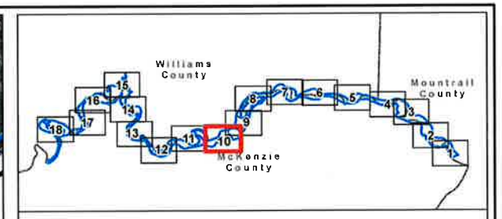
Sincerely,

Garland Erbele, PE
State Engineer

GE:GRH:pdh/1625

Enclosures





- BLM PLSS Section Boundary
- BLM PLSS Qtr Qtr Section Boundary
- River Miles
- USACE Cross Section
- Ordinary High-Water Mark (OHWM)
- Recommend Correction to Account for More Recent Aerial Information
- Recommend Correction to Account for Frequently Flooded Accretion
- Recommend Correction to Account for Active Meandering (Reliction)

Notes:
1. PLSS Sections and Quarter Sections: BLM National Public Land Survey System, Department of the Interior
2. 1951 Aerial Photographs (Source: ND Department of Mineral Resources)

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1 inch = 1,000 feet

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NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES

OHWM Delineation

WENCK

Responsive partner. Exceptional outcomes.

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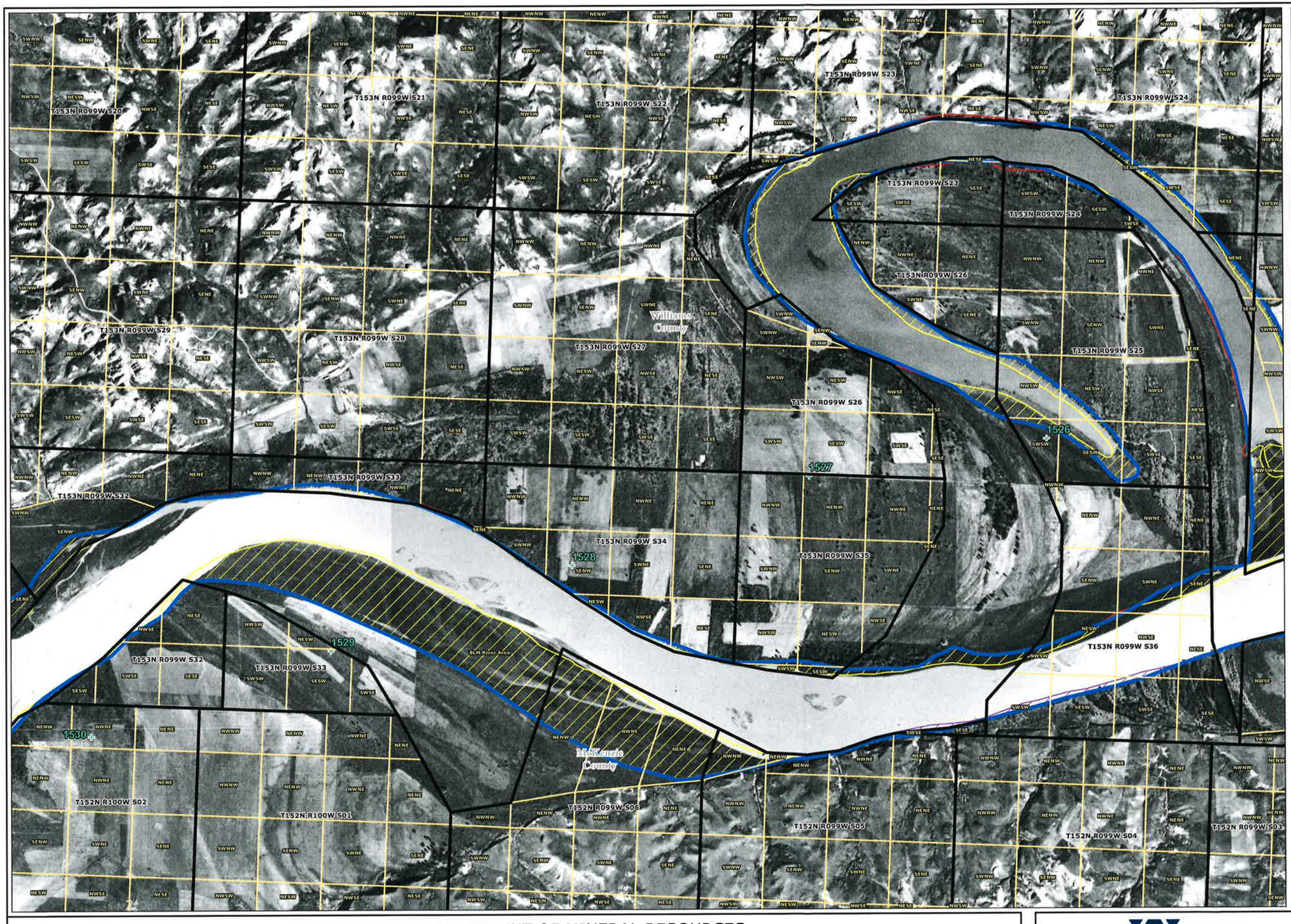
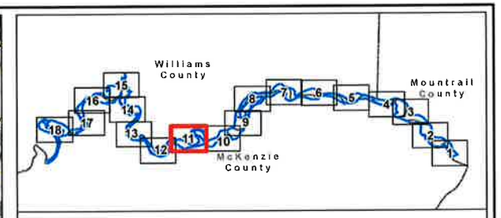
Map 10 of 18





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NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES

OHWM Delineation

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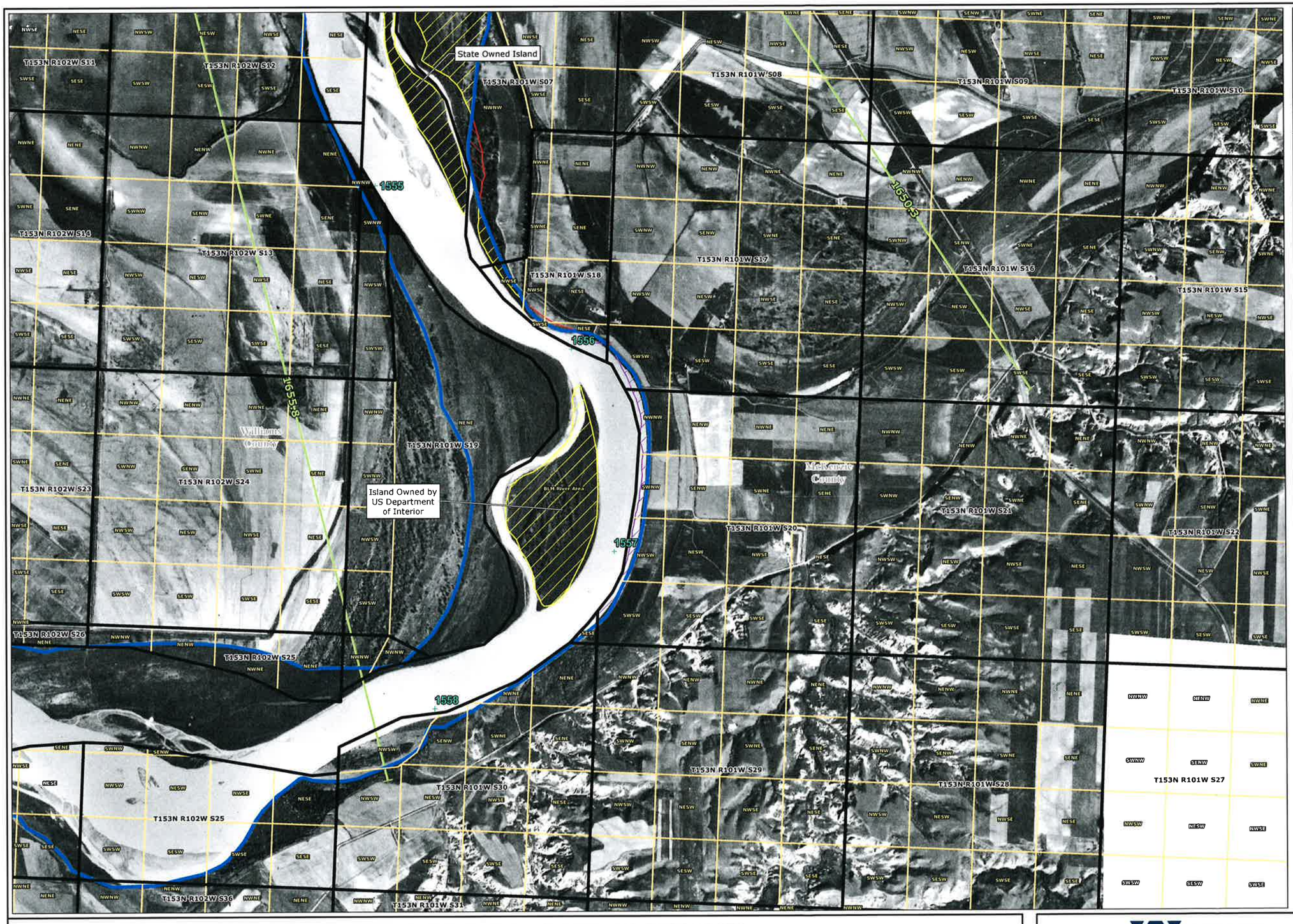
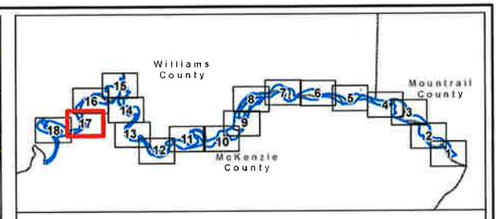
Map 11 of 18





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NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES

OHWM Delineation

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MAR 2018

Map 17 of 18

From:	Stephen Moore
To:	Nick Swartzendruber; Kadrmas, Bethany R.
Cc:	Stephen Moore
Subject:	Ordinary High Water Mark Comment on Behalf of Northern Oil
Date:	Wednesday, June 20, 2018 4:58:12 PM
Attachments:	Figure 4 BurrLeaseComparison.pdf Figure 5 WoldAreaLeaseComp.pdf Figure1 1951 Aerial Burr.pdf Figure2 1943 Aerial Burr.pdf Figure3 1943 Topo Burr.pdf ObjectIDs 185 and 186 Bartlett & West 2011.pdf Exhibit A ImseJohnCV-18June20_.pdf Exhibit B V 1928 Appraisal.pdf 180620 Final Comment.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

TO: Bethany Kadrmas

RE**: CAUSE NO. 26584**, IN THE MATTER OF A HEARING CALLED ON A MOTION OF THE COMMISSION TO CONSIDER PUBLIC COMMENTS ON THE REVIEW OF THE DELINEATION OF THE ORDINARY HIGH WATER MARK OF THE USE ARMY CORP OF ENGINEERS SURVEY SEGMENTS FROM THE NORTHERN BOUNDARY OF THE FORT BERTHOLD INDIAN RESERVATION TO THE SOUTHERN BORDER OF SECTIONS 33 AND 34, TOWNSHIP 153 NORTH, RANGE 102 WEST.

ON BEHALF OF: **Northern Oil and Gas, Inc. ("Northern")** on the Ordinary High Water Mark of the Missouri River Bed Pre-Garrison Dam for the Reach Extending Approximately 83 Miles Upstream of New Town, ND.

Ms. Kadrmas,

Please find the attached comment and supporting materials regarding the Ordinary High Water Mark Delineation of the Missouri River.

Comment: 180620 Final Comment.pdf
Exhibits: 2
Figures: 5
Other: Object ID 185 and 186 Bartlett & West

Stephen Moore
Law Clerk
Phone (303) 264-4415

smoore@popllc.com

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BEFORE THE INDUSTRIAL COMMISSION
OF THE STATE OF NORTH DAKOTA

CAUSE NO. 26584

IN THE MATTER OF A HEARING CALLED ON A MOTION OF THE COMMISSION TO CONSIDER PUBLIC COMMENTS ON THE REVIEW OF THE DELINEATION OF THE ORDINARY HIGH WATER MARK OF THE USE ARMY CORP OF ENGINEERS SURVEY SEGMENTS FROM THE NORTHERN BOUNDARY OF THE FORT BERTHOLD INDIAN RESERVATION TO THE SOUTHERN BORDER OF SECTIONS 33 AND 34, TOWNSHIP 153 NORTH, RANGE 102 WEST

Public Comment of Northern Oil and Gas, Inc. ("Northern") on the Ordinary High Water Mark of the Missouri River Bed Pre-Garrison Dam for the Reach Extending Approximately 83 Miles Upstream of New Town, ND

Northern holds oil and gas leasehold interests from the State of North Dakota, Department of Trust Lands, covering all or a portion of the lands identified below and is therefore a party interested in these proceedings:

(1) T153N-R93W, NW ¼ and NE ¼ of Section 27; and

(2) T153N-R98W, SW ¼ of Section 12.

Northern intends to present its comments at the hearing held on June 26, 2018 through John P. Imse, RG, Principal Consultant at Environmental Resources Management (ERM) and its undersigned legal counsel. Mr. Imse's CV is submitted herewith as Exhibit A.

Comment 1

Focus of Comment: T153N-R93W, NW ¼ and NE ¼ of Section 27

The current delineation of the Ordinary High Water Mark (OHWM) for the Missouri River bed at the above-referenced location, as presented in the Department of Mineral Resources (DMR) project report prepared by Wenck Associates, Inc. in their report dated 17 April 2018 (Wenck 2018), does not accurately reflect the technical data presented in Wenck 2018, does not accurately reflect the appraisal data for the area in question, and does not correctly apply land use exclusions. The delineation presented in Wenck 2018 is a result of an overly broad application of exclusions applied to the technical analysis, based on a narrow and incorrect application of North Dakota case law.

The available technical data, the appraisal information for the area in question, land use, and relevant case law in this context support, with clear and convincing evidence, maintaining the Department of Mineral Resources 2011 delineation of the OHWM in the above-referenced section.

Basis for Comment:

The Wenck 2018 analysis of the OHWM began with compilation and analysis of publicly available topographic data and river flow data for the channel prior to the impoundment filling. Those data were used to develop a model allowing the prediction of the water level for an approximate 2.5-year flood event throughout the studied reach. Wenck 2018 compared the predicted flood water level to the topographic data at each of nineteen (19) topographic cross-sections previously established across the Missouri River channel (Figure 8, Wenck 2018). Profile section 1567.2, as shown on the referenced Figure and on Map 2 of 18 in Wenck 2018, is immediately northwest of the referenced area. The topographic profile for cross-section 1567.2 presented with the model-derived 2.5 year flood water level are plotted on a figure titled "US ACE Section 1567.2", as included in Appendix D to Wenck 2018. That figure illustrates that most of the land inside the bend in the Missouri River in that reach would have been inundated by each 2.5-year flood event. Those data and the model analysis are consistent with the findings of the prior DMR analysis (Bartlett & West 2011) in which the lands and vegetation in the above-referenced area were classified as "caused by backwater flooding" (Bartlett & West, 2011, Table page 7 of 9, ObjectIDs 325-329).

Wenck 2018 states that they also evaluated appraisal documents that were prepared by the US Army Corps of Engineers (USACE) prior to purchasing those lands for the impoundment of the Missouri River. Appraisal V 1928 (REF), submitted herewith as Exhibit B, was prepared for lands along the northern boundary of Section 27, referenced above, as well as lands in the adjacent and contiguous sections to the north, northeast, and east. The appraisal refers to the soil type on the tract as consistent with recent accretion (sandy clay loams and riverwash sands, similar to the above interpretations of the area as susceptible to flooding), and not suitable for commercial agriculture, but possibly suitable for occasional haying of native grasses or periodic grazing. The appraisal states that the referenced lands are "low level bottomlands." The appraisal did note that two areas (apparently in separate locations) had been cleared for future use. The appraisal concludes, "This is a mediocre property, but when utilized in conjunction ***more dependable lands*** [emphasis added] it will provide summer grazing..." In other words, all or a vast majority of the surveyed acreage is not dependable for agricultural use and does not have substantial value independent of more productive contiguous tracts

After identifying those areas that would have been inundated by the 2.5 –year flood event, and in conjunction with reviewing the available appraisal documents, Wenck 2018 examined a series of aerial photos taken in 1951 to further refine the delineation of

the OHWM. Map 2 of 18 in Wenck 2018 presents their delineation of the OHWM relative to the earlier USACE determination covering the above-referenced portion of Section 27. A portion of the above-referenced area of interest is designated for inclusion below the OHWM – however, not to the extent that those areas were included within the 2011 DMR determination of the OHWM (Bartlett & West, 2011). No explanation for the difference is provided in Wenck 2018.

On examination of Map 2 of 18 in Wenck 2018, there are two small areas that appear white or reflective, one in the NE ¼ of the NW ¼ of Section 27, and the other in the NW ¼ of the NE ¼ of Section 27. These areas appear to be cleared of vegetation. Figure 1, attached, is a portion of the 1951 aerial photograph that was used as part of the base for Map 2 of 18, enlarged to focus on Section 27. The "cleared" areas discussed above are readily apparent. However, there is no indication of any pattern in the cleared areas that may indicate any type of agricultural cultivation. It is conceivable that these open areas are those mentioned in Appraisal V 1928, and are those areas that are only noted in the appraisal as sometimes suitable for grazing when used in conjunction with "more dependable lands".

Attached as Figure 2 is the 1943 aerial photograph, also provided by DMR for use in developing Wenck 2018, enlarged to focus on the above referenced Section 27. As an example of un-sustained land use, there is a cleared area present in the NE ¼ of the NW ¼ of Section 27 that has reverted to overgrown conditions in the 1951 aerial photograph. The rectangular cleared area in the NW ¼ of the NE ¼ of Section 27 appears to be outlined in pencil and is larger and shaped differently than in 1951. As noted with respect to the 1951 aerial photograph, there are no crop patterns evident on the 1943 aerial photograph in the cleared areas that would indicate usage other than grazing. It also is important to note the flood channel with open water present in the SW ¼ of Section 22 – just to the north of the area in question. The channel orientation appears to line up with the rectangular cleared area in the NW ¼ of the NE ¼ of Section 27 – indicative of that cleared area likely serving as an outlet for floodwater from the areas to the north.

Figure 3, attached hereto, is a portion of the 1943 topographic map for the area covered by Figures 1 and 2. The pattern of the contour lines within the indicated area on Figure 3 clearly demonstrates that the cleared area visible at this location on the 1943 and 1951 aerial photos is in fact an outlet channel for floodwaters draining from the lands to the north. This cleared area would therefore be inundated during the 2.5 year flood event and would serve as a flow channel for drainage of floodwaters – compromising the ability of the land to support any "dependable" usage. That would also be consistent with the appraisal V 1928, discussed above, indicating the lands would be suitable for grazing only if used in conjunction with "more dependable lands" - grazing lands inundated less frequently would meet the description of "more dependable".

Figure 4, attached, presents a comparison of the findings from Wenck 2018 to the delineation developed and relied upon by DMR (Bartlett & West 2011) since 2011 for the above-referenced portions of Section 27. There is no disagreement between the two studies regarding whether the area in question was subjected to frequent flooding. The same appraisal report, V 1928, was available to both sets of investigators. That leaves the only possible discrepancy as the interpretation of land use and its significance. Wenck 2018 categorically excludes "farmed and hayed areas" (Section 2.1 of Wenck 2018), without regard to whether the farming practices were grazing only, or where haying was of a lesser quality due to a preponderance of native grasses and frequent inundation. Wenck 2018 reportedly based this bright-line exclusion on a review of relevant case law.

The OHWM is defined as "that line below which the action of water is frequent enough to either prevent the growth of vegetation or to restrict its growth to predominantly wetland species." N.D. Admin. Code. § 89-10-01-03.7. The North Dakota Supreme Court has said,

> "High-water mark" means what its language imports – a water mark. It is co-ordinate with the limit of the bed of the water; and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks.
>
> In such cases the effect of the water upon vegetation must be the principal test in determining the location of high-water mark as a line between the riparian owner and the public. It is the point up to which the presence and action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ***ordinary*** agricultural crop.

State ex rel. Sprynczynatyk v. Mills, 593 N.W.2d 591 (1999), (citing 423 N.W.2d at 144-45 (*quoting Rutten v. State,* 93 N.W.2d 796,79 (N.D. 1958)(emphasis added)).

Thus, the principal test for determining the OHWM in situations like the current one is the productivity of the lands for "ordinary" agricultural crops (*i.e.*, grown regularly for commercial purposes). As N.D.C.C. § 61-33.1-03 states, "[l]ands having agricultural value capable of ***growing*** crops or hay, but not merely intermittent grazing or location of cattle, generally must be considered above the ordinary high water mark." Conversely, lands not capable of "growing" crops due to frequent inundation or infertile soils are below the OHWM. Lands where the owners occasionally grazed cattle or cut hay when they were not flooded, without intentionally growing the crop, cannot be considered above the OHWM.

Wenck 2018 references *In State ex rel Sprynczynatyk*, 1999 ND 75. There, the North Dakota Supreme Court affirmed the Burleigh County District Court's determination of the OHWM. The lower court considered the following evidence in delineating the OWHM (generally centering around "agricultural usefulness," as discussed below):

- Growing of crops on the property (*i.e.*, seeding, tilling, irrigating, etc. – not "native" crops) (p. 7, at lines 6-7)
- Sandy gray soils/soil quality, soil stratification indicative of frequent flooding (p. 7, at lines 4-5)
- The location of upland plants and trees/tree lines (p. 7, at line 6)
- An inability to use the land dependably for productive purposes (p. 8, at lines 17-24)
- Whether the land is classified as floodplain (p. 7, at line 22)
- Whether the water table is close to the surface/whether the soils are often saturated (p. 7, at line 23)
- Difficulty in installing or maintaining fencing (p. 8, at line 21)
- An absence of usual "pasture grasses" (p. 8, at line 8)
- An absence of row crops (*i.e.*, "ordinary" crops) (p. 8, at line 9)
- An inability to include the land in a farm plan or loan against it (p. 8, at line 27)
- Frequency of flooding (p.7, at line 14)
- Remarkable elevation changes (p. 9, at line 7)

(All pinpoint cites are derived from *Wenck Report*, Appendix B: *In State ex rel Sprynczynatyk,* 1999 ND 75, (Memorandum Decision & Order))

Notably, the trial court in *Sprynczynatyk* said that occasional haying is insufficient to find that lands are above the OHWM. There, the evidence showed that the lands ultimately found to be below the OHWM were hayed at least one year. Similarly, grazing is not determinative. The court said, "The evidence indicates that the area immediately adjacent to Riverwood Drive on the west side was hayed one year, but that alone would not suffice to change the result. The term 'ordinary agricultural crop' . . . requires a greater showing . . . usefulness for livestock is not determinative of the issue [and] . . . one instance of haying " is insufficient. (*Id.* p. 8, at lines 21-23).

Simply put, the location of the OHWM is defined by agricultural usefulness. Agricultural usefulness is coordinate with "ordinary agricultural crop" which includes an element of commerciality. The term "ordinary agricultural crop" has been defined in the Code of Federal Regulations as

> [A]ny agricultural product to which the land under consideration is generally adapted, and which would return a ***fair reward for the expense of***

producing them. Ordinary agricultural crops do not include forest products but may include orchards and other plants which cannot be grown on the land without irrigation and from which a ***profitable crop*** may be harvested.

43 § C.F.R. 2610.0-5(g)(cited by Rinke Noonan 2018)(emphasis added).

The *Sprynczynatyk* court determined that the OHWM is "ambulatory", and "is not determined as of a fixed date." *Sprynczynatyk*, p. 8, at line 20. The land must have "economic usefulness." *Id.*, p. 8 at line 18. Were the standard to be otherwise, *any* existence of haying (commercial or non-commercial) would be sufficient to find an agricultural purpose, the court would have ruled to the contrary.

Based on the legal standards cited above and the associated technical analysis, the evidence leads to a firm belief or conviction that the referenced lands are below the OWHM. *Zundel v. Zundel*, 278 N.W.2d 123 (1979). The only apparent difference between the DMR delineation in 2011 of the OHWM in the referenced portions of Section 27, and the delineation of the OHWM in the same area presented in Wenck 2018, is the overly broad land use exclusion applied by Wenck 2018 that is not supported by case law in this regard. Evidence of occasional haying or grazing is not sufficient. Therefore, the delineation of the OHWM in T153N-R93W, NW ¼ and NE ¼ of Section 27 should remain as determined by DMR in 2011 and as maintained by DMR since that time.

Comment 2

Focus of Comment: T153N-R98W, SW ¼ of Section 12

Basis for Comment:

As illustrated on Figure 5, the Wenck 2018 delineation of the OHWM in the above-referenced section differs from the prior DMR determination (Bartlett & West, 2011) of OHWM through that section. Wenck 2018 indicates on Map 9 of 18 that the OHWM was placed on the edge of the channel as it existed in 1951. This delineation differed from the USACE delineation due to movement of the channel during the years between 1943 (the date of photos used by USACE) and the 1951 aerial photos relied upon by Wenck 2018. The prior DMR determination (Bartlett & West, 2011) utilized the same 1951 aerial photos, and ObjectIDs 185 and 186 located along this reach contained the following qualifier when referring to the main channel: "old river channel above" (ObjectIDs 185 and 186, table page 3 of 9, Bartlett & West, 2011). Mr. Imse attempted to contact the DMR contractor for the 2011 delineation, Bartlett & West, to obtain clarification or supporting technical evidence for their determination. As of the date of this submittal, Bartlett & West has not responded to the inquiries. Given that Wenck 2018 did not consider the previous DMR determination in its analysis and delineation, resolution of this discrepancy will require input from the prior DMR contractor or the results of an independent analysis. Northern reserves its right to present evidence and

argument concerning the location of the riverbed for the above referenced lands based on additional information from Bartlett & West (or otherwise).

Comment 3

Procedural Comment

The process of implementing N.D. Cent. Code § 61-33.1-03 is an adjudicative proceeding. See N.D.C.C. § 28-32-01. The procedural statutes pertinent to adjudicative proceedings state:

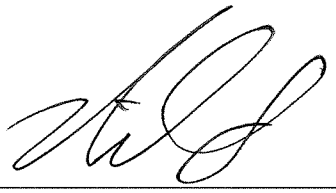
> To the extent necessary for full disclosure of all relevant facts and issues, the person presiding at the hearing shall afford to all parties and other persons allowed to participate the opportunity to respond, present evidence and argument, conduct cross-examination, and submit rebuttal evidence, except as restricted or conditioned by a grant of intervention or by a prehearing order.

N.D.C.C. § 28-32-35.

Northern, as a party holding over 142,250 net leasehold acres in the Williston Basin and over 3,700 Bakken/Three Forks wells, has a significant interest in responding to comments that potentially affect the location of the OHWM for river segments where Northern holds its interests. At this juncture, Northern's comments necessarily address only those locations impacted by the Wenck 2018 report. Northern is concerned that it will not have an adequate opportunity to respond to comments of other parties which, if accepted, would result in significant acreage losses. The process to date in this cause provides only six (6) days to potentially address adverse comments. Northern respectfully submits that this is not adequate, and that the parties should be given a second opportunity to submit responsive comments to the NDIC after a reasonable time period, with a corresponding hearing for live presentation of the responsive comments. Northern believes that this is the only manner by which the statute referenced above (and due process) may be satisfied.

Northern is appreciative of the opportunity to submit these comments, and looks forward to presenting its evidence, argument and technical analysis to the NDIC.

Dated: June 20, 2018

By: 

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Attorneys for Northern Oil and Gas, Inc.

John P. Imse, RG

Principal Consultant

John has experience focusing on the geologic and hydrogeologic evaluation of complex site settings (e.g., fractured bedrock, karstic bedrock, glacial sequences, alluvial sequence) to delineate potential sources of impact, to characterize the extent and severity of that impact, and to assess the fate and transport of that impact. John's experience includes Merger & Acquisition projects, CERCLA and RCRA site project management, regulatory agency negotiation, state voluntary investigation/ remediation programs, risk-based corrective action, private party allocation negotiations, litigation support, and expert witness testimony. Litigation support and Expert testimony includes NCP consistency, State regulatory consistency, insurance cost recovery, toxic tort, allocation of liability, appropriateness and effectiveness of remediation technologies, and state of the practice field data acquisition.

Experience: 35 years' experience in chemical, manufacturing, mining, and oil and gas

Email: john.imse@erm.com

LinkedIn: https://www.linkedin.com/in/john-imse-6678b214/

Education

- M.S. Geology, Idaho State University, Pocatello, ID, 1979
- B.A. Geology, Lawrence University, Appleton, WI, 1976

Professional Affiliations and Registrations

- National Groundwater Association
- American Institute of Professional Geologists
- Registered Professional Geologist: Missouri, Wisconsin, Minnesota, Indiana, and Kansas

Languages

- English, native speaker

Fields of Competence

- Land pollution control
- Geologic and hydrogeologic evaluations
- NAPL
- CERCLA and RCRA

Key Industry Sectors

- Chemical
- Manufacturing
- Mining
- Oil and Gas

Key Projects

Site Permitting Experience

Utility-Scale Solar Project
Conducted a water demand and availability assessment for a planned solar facility in eastern Colorado located in a historically over-allocated water basin. Evaluated the following: permitting for a large volume water well; purchase of water from area agricultural water rights owners; and purchase of water from multiple municipal and county water owners/users. In all cases, analyzed various on-site storage facilities to accommodate the source of the water and the peak demands for water usage during site development and construction.

NEPA-compliant Environmental Assessment
Completed the assessment for a proposed wind power generating facility in northeastern Colorado, including water demand assessment; water rights purchases; geological/hydrogeological studies; wildlife and wildlife habitat surveys; and archaeological surveys. Site received finding of no significant impact from the U.S. Department of Energy mitigating the need for a complete environmental impact assessment.

Geologic/Geophysical Studies
Completed studies (site specific ground based and regional airborne investigations) to support a nuclear power plant siting efforts for private utility power plants proposed for the Hanford Reservation in Washington.

Geophysical Studies
Evaluated potential earthquake mechanisms and locations in the northeastern U.S. in support of licensing projects for multiple nuclear power plants.

Geologic Mapping
Mapped in the epicentral area for an earthquake swarm in New Brunswick, Canada to evaluate potential surface ruptures resulting from earthquake ground motions. This effort was part of a regional study evaluating the adequacy of design for nuclear power plants in the northeastern U. S.

Consultant/U.S. Nuclear Regulatory Commission
Evaluated proposed geologic waste repository sites in basalt, bedded salt, salt dome, and crystalline rock terranes.

Siting Project
Conducted activities for a New England utility to locate and test potential geologic ground electrode sites as a part of planning for the construction of power transmission lines from Canada to the U.S.

Hydropower Dam
Evaluated the potential low-head dam location in New York.

Slope Stability Evaluation Studies
Supported permit renewal for a pump storage power generation facility in western Massachusetts.

Litigation Support/Expert Testimony Experience

Private Party Litigation
Completed the site investigation, prepared the expert report, and provided expert testimony (NCP compliance and allocation) related to historical operations at a paint manufacturing facility in Indianapolis, IN. Identified the nature and extent of impact at the site. Focused on identifying, to the extent practicable, differences in site operations, product lines, and formulations between client and the former owner/operator. In the allocation portion of the project and testimony, focused on distinguishing relative contribution to the impact by the parties; the volume of waste released by the parties; variations in product lines and paint formulation as it would affect a determination of the toxicity of the waste released by the parties; and the degree of care exercised by the parties in conducting operations at the facility. Other factors weighed as a part of the allocation included years of ownership/operation and the

relative degree of control and procedures implemented by the parties with respect to waste handling and management.

Major Independent Natural Gas Producer
Evaluated and assessed the categorical RCRA exemption for oil and gas exploration and production waste. Included a detailed analysis of the original basis for the exemption and the potential impact technically and financially, if USEPA were to remove that exemption.

Natural Gas Industry Trade Association
Provided expert review and comment on published documents relevant to development and production of natural gas from tight geologic formations.

Civil Case Litigation Support/Expert Testimony
Focused project work and expert testimony on design and implementation of sampling protocol as state of practice.

Litigation Support/Expert Witness
Supported a civil case representing property owner with respect to site contamination and remediation attributable to prior tenant of the property. Evaluated extent and magnitude of impact and the efficacy of the chosen environmental response action.

Litigation Support/Insurance Cost Recovery
Source of impact was catastrophic release of petroleum hydrocarbons as a result of explosion and fire at aboveground storage tank facility. Technical support for litigation included prediction of karst solution pathways in bedrock as part of evaluation of fate and transport of released hydrocarbons.

Expert Witness/CERCLA Cost Recovery
Served as expert witness in a case related to an industrial facility in Indiana. Focused testimony on fate and transport of chlorinated solvents in groundwater, potential for vapor intrusion of chlorinated solvents into structures resulting from the impacted groundwater, and an evaluation of prior investigations with respect to consistency with the National Contingency Plan.

Expert Report/Testimony
Served as expert witness in an insurance recovery case on behalf of industrial facility located in Joplin, Mo. Testimony included identification of insurable event as source of groundwater impact; evaluation of DNAPL migration through fractures in unconsolidated clay that were the result of dissolution of underlying bedrock; groundwater transport in fractured and karstic bedrock from source area to residential wells; and timing of the onset of impact.

Litigation Support/Expert Testimony
Supported and testified in a toxic tort case filed against client with a facility in Joplin, Mo. Included identification of source; fate and transport of the contaminants through fractured clays and karstic bedrock to residential well exposure points; timing of the onset of exposure; and magnitude of impact during the period of exposure.

Expert Report/Testimony
Reported and testified in a private party litigation related to the investigation and remediation of contamination resulting from historical operations at an electronics assembly plant in Milwaukee, WI. Focused on standard of care for investigation and remediation activities.

Private Party Litigation
Provided litigation support in a cast related to historical operations, waste management practices, investigations, and remediation at a research and development facility in North Carolina. Focused on standard of practice during prior site investigations and response actions, and allocation of responsibility for identified groundwater impact in a fractured bedrock aquifer. Case was settled prior to preparation of expert reports or testimony.

Exhibit A to Comment

Fact Witness
Provided testimony as a fact witness in support of a former owner of an industrial facility in Chamblee, GA, regarding conditions at the site and the potential/ likelihood that subsequent owner/operator was responsible for bulk of groundwater impact requiring corrective action. Client was successful in receiving federal court judgment allocating minor cost share for cleanup.

Mine and Mining Related Experience

Geomorphology Analysis
Served as the Lead Technical Investigator analysis for proposed expansion areas of an active coal mine operation in Montana. Analysis was a component of baseline studies required to allow the MDEQ to make a determination with respect to the presence or extent of alluvial valley floor (AVF) conditions within the proposed permit areas, as well as downstream from the boundaries of those permit areas.

Industrial Mineral Quarry Operation
Managed and led the investigation for an operation in Missouri. Retained in anticipation of litigation. Evaluated historical underground mining operations on the property using available maps of underground workings; the effect of surface water bodies, net annual infiltration, and groundwater discharge on the availability of groundwater in the mine for the quarry operations; and the possible impact of municipal water supply well (completed within historical underground mine) production on availability of groundwater beneath the quarry property.

Phosphate Mine
Managed and investigated the mine in southeast Idaho. Issues at the site included both surface water and groundwater impact attributable to closed portions of the mine, portions undergoing closure, and an active operating area. Evaluated surface water/groundwater interaction at the site and source(s) of impact. Developed potential response actions. Significant results of the effort were to determine the primary source of impact (waste rock piles) and recommended response, and to capture and utilize the reducing conditions within the groundwater system to take advantage of MNA.

Abandoned Mine
Evaluated the mine in southern Arizona. Retained by the owner to evaluate continued mineral processing on site by adjacent mine operator, identify and allocate groundwater impact between owned site and adjacent operating mine, and identify significant issues that may impact development of the property.

Groundwater Impact
Analyzed impact attributed to historical mining and processing operations in the Tri-State Mining District of Oklahoma, Kansas, and Missouri. Assessed the impact potentially attributable to historical mining operations, and impact attributable to naturally occurring conditions in the regional lead-zinc mining district.

Superfund Site
Evaluated surface water and groundwater impact of a fractured rock setting in Joplin, MO. Assessed the impact (chemical and hydraulic) attributable to existing manufacturing facilities, historical mining and processing facilities, and naturally occurring conditions.

Potential Natural Resource Damages
Evaluated damages related to surface water and groundwater impacts attributable to mining and processing operations in the Viburnum Trend Lead Belt of southeastern Missouri.

Merger and Acquisition/Due Diligence

Midstream and Downstream Oil and Gas Client
As part of a merger of two midstream/downstream oil & gas companies, retained to assist the entities in establishing environmental reserves for the newly formed company. The assets evaluated for the process included 3 refineries, 3 storage terminals

and approximately 350 miles of gathering and transmission pipelines.

Underground Trona Mine
On behalf of the eventual buyer, assessed the environmental conditions, including threatened and endangered species and surface water rights, for a large mine in southwest Wyoming.

Due Diligence
Managed a multi-site effort. As a part of a large merger, the two entities were required to divest 22 aluminum can manufacturing plants in Europe, South America, and the United States. Represented both parties in providing “Sellers” due diligence services as a part of the divestiture process.

Natural Resource Damages Experience

Individual PRP
Managed and investigated an individual PRP related to NRD claims resulting from an operating mine and smelter in the Viburnum Trend Lead Belt of southeastern Missouri.

Natural Resource Damage Settlement
Negotiated a settlement for a Superfund site located in southwestern Missouri. Negotiations were directly with Missouri DNR staff and eventual sign-off from Washington, D.C. Focused on loss of usage of groundwater resource. Analysis and negotiations incorporated prediction of onset of impact, statistical analysis of number of potential users over time, and existing background conditions in the aquifers of the region.

NRD Analysis
Investigated for an NRD analysis related to potential damages to groundwater in southwest Missouri, southeast Kansas, and northeast Oklahoma related to historical mining and smelting operations in the Tri-State Mining District. Incorporated loss of use for the groundwater and naturally occurring conditions in the regional lead-zinc mining district.

Site Investigation/Remediation Experience

Remediation System Performance
Evaluated the performance and interpreted site investigation data for a former manufacturing facility on Long Island. Retained by respondents responsible for off-site groundwater evaluation and remediation. Respondents completed the investigation and remediation, if necessary, under the oversight of New York State Department of Environmental Conservation and the Suffolk County Health Department.

Redevelopment Project
Managed and investigated the environmental due diligence activities and provided management planning support for a project at the former Fitzsimons Army Medical Center in Aurora, CO. In addition to completing necessary investigations and reviews to meet the requirements of All Appropriate Inquiry, assisted the client in developing a comprehensive GIS database for historical facilities on the property including buildings and all subsurface utilities. Established a secure web-hosted map server enabling client access to all current work product.

Brownfield Redevelopment Site
Managed and investigated a site in Denver, CO. Evaluated the facility, formerly used for manufacture of lead-acid batteries, drive belts, and luggage, for soil and groundwater contamination and the potential impact on redevelopment of the site for both residential and commercial uses. Assessed the extent of lead dust and asbestos in the structures, and the potential for volatile organic vapors within the structures resulting from groundwater impacted with chlorinated solvents.

Environmental Due Diligence Review
Reviewed compliance for multiple landfill and waste-transfer locations for a Colorado-based solid waste disposal company.

Exhibit A to Comment

Industrial Facility
Completed a comprehensive investigation of TCE and other volatiles in soils and groundwater for a facility in Joplin, MO. Contaminants of concern were chlorinated solvents, and DNAPL was present in the source area with subsequent migration of DNAPL through fractures in clay deposits to the underlying aquifer. Completed remedial investigation and feasibility study of the fractured bedrock aquifer supporting monitored natural attenuation as the proposed remedial response for the site.

SRP Investigation
Managed and completed the investigation at a specialty jewelry manufacturer in Illinois. Primary constituents were chlorinated solvents. Sampled ambient air in basements and confined spaces of residences to support a risk assessment to evaluate appropriate interim and final response actions.

Soil/Groundwater Impact Evaluation
Represented the seller in the evaluation at an industrial site in Iowa. Based on a risk-based corrective action analysis, the seller obtained a No Further Action letter from the Iowa DNR, enabling sale and redevelopment of the property.

Remedial Investigation/Feasibility Study (RI/FS)
Managed and investigated a site, located in Muskegon, MI, that was a former solvent recycling and incineration facility. Negotiated the Consent Order, implemented the soil and groundwater investigation, interpreted site investigation data, completed a risk assessment, developed feasible alternatives for remediation of the site, negotiated with MDEQ and USEPA for surface water/sediment studies, and provided a technical review (on behalf of the PRPs) for USEPA studies (conducted by staff from the Kerr Research Center in Ada, OK) regarding monitored natural attenuation.

Remedial Investigation
Implemented the investigation of an Oil NPL site in Lemont, IL. Soil and groundwater impact (PCBs, aromatic hydrocarbons, and chlorinated solvents) was a result of historical recycling and storage activities. LNAPL was present in the unconsolidated sediments beneath the site and extending off-site beneath adjacent residential/commercial properties. Dissolved phase impact was present in unconsolidated sediments and a fractured limestone aquifer. Assessed potential impact resulting from bedrock aquifer discharge to nearby surface water.

Primary PRP Representation
Represented for a farm site in Byron, IL. Evaluated removal activities conducted by the PRP and their beneficial effect on soil and groundwater conditions; characterized and assessed the impact from historical disposal operations conducted prior to PRP purchase; assisted legal counsel in preparation of case for divisibility of farm impact resulting from the adjacent NPL site; assisted legal counsel in preparation of documentation supporting innocent purchaser buyout for environmental liability at the site. Completed well installation and investigation of contaminant fate and transport in fractured bedrock.

Due Diligence Evaluation
During the course of an evaluation of an industrial facility in northern Illinois, discovered a burial location for drums and a former transport tanker for product and solvent wastes. Waste materials were primarily aromatic hydrocarbons. Investigated delineated extent of residual soil and groundwater impact subsequent to exhumation and off-site disposal of drums, tanker trailer, and contents. Designed and permitted groundwater extraction and discharge system (discharge without treatment to local POTW) with resultant receipt of no further remediation determination from the IEPA.

Industrial Facility
Investigated soil and groundwater impact providing the basis for identifying impact resulting from materials management/handling within a plant, as divisible from impact resulting from disposal practices in a former tail-race used to provide power for the

Exhibit A to Comment

facility. Developed conceptual design and implemented containment remedy for historical disposal operations in tail-race.

Soil/Groundwater Impact
Investigated impact at a manufacturing operation in Nebraska. Identified occurrence of buried stream channel sediments within the unconsolidated glacial deposits at the site. The stream sediments served as preferential flow and migration pathways in the overburden. Analysis provided the basis for establishing source areas, as well as the basis for a determination of the extent of offsite impact.

Coke/Coking By-product Facility
Investigated the facility in Tennessee.

Manufacturing Operations
Evaluated the development of operations at the site (including U.S. ownership during WWII), and an assessment of waste handling practices. Demonstrated limits of groundwater impact in the fractured rock aquifer attributable to the facility. Determined that neither facility materials handling nor migration of materials in surface water/groundwater could produce observed impact in the nearby stream.

Chemical Plant Site Investigation
In anticipation of litigation, investigated a chemical plant in Louisiana. Client purchased the facility in bankruptcy and investigation served as baseline assessment and due diligence prior to start of operations. Focused activities on the adequacy of prior site characterization and establishing baseline conditions for liability and divisibility impact.

RCRA Facility Assessment
Assessed potential surface water and groundwater impacts at a former lead smelter in southwest Missouri. Potential surface water impact resulted from surface water entrainment of dust and smelting byproduct into adjacent streams. Groundwater impact in fractured/mined bedrock aquifer resulted from the leaching of elements from smelting byproduct.

Groundwater Impact
Evaluated the extent of impact at a manufacturing facility in Danville, Illinois. Primary contaminants of concern were chlorinated solvents. Began the investigation as a RCRA closure for an AST. Investigated groundwater impact off-site to evaluate potential impact to adjacent surface water, and to assess potential exposure on residential properties resulting from migration of vapors from groundwater to indoor air.

RCRA Facility Investigation
Investigated a secondary brass smelter in northern Illinois. Negotiated scope of work, completed RCRA facility investigation, negotiated corrective action with IEPA, and implemented corrective action, which was limited to paving the site to eliminate infiltration of precipitation and entrainment of particulates in surface run-off.

Munitions/Foundry Operation
Assisted the operation in Illinois in obtaining closure for RCRA surface water impoundment. Evaluated historical RCRA groundwater monitoring data, determined the source of apparent impact in the groundwater from unrelated site operations, and determined the lack of impact from the RCRA impoundment in question. Analysis served as the basis for obtaining RCRA closure for the unit.

APPRAISAL REPORT

REVISED APPRAISAL

PROJECT: Garrison Dam and Reservoir, North Dakota

TRACT: V-1928

STATE	COUNTY	CITY, DISTRICT, OR TOWNSHIP
North Dakota	Mountrail	Twp. 153 N., Rge. 93 W.

PROPERTY OF	ADDRESS
W. M. Harrington	Minot, North Dakota

LAND DESCRIPTION

Tenant on Cropland - Arthur Auverson
Tenant on Grazing land - Earl L. Nice

South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$) of Section 22, Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 23, Northwest quarter of the Northwest quarter ($NW\frac{1}{4}NW\frac{1}{4}$) of Section 26, Lots 1, 2, 3 and 4, of Section 27, all in Township 153 North, Range 93 West of the 5th P.M., plus accretions.

6/4/52
blg

AREA (Acres)	APPRAISAL VALUATION	
565.33	TOTAL PRESENT MARKET VALUE $5,000.00	VALUE OF GROWING CROPS: SEVERANCE DAMAGES $

I CERTIFY THAT I HAVE CAREFULLY EXAMINED THE ABOVE DESCRIBED PREMISES AND THE AMOUNT INDICATED REPRESENTS MY BEST UNBIASED JUDGMENT AS TO THE PRESENT MARKET VALUE OF THE FEE SIMPLE TITLE THERETO, EXCEPT AS OTHERWISE INDICATED. I DO FURTHER CERTIFY THAT I HAVE NO PRESENT OR INTENDED FUTURE INTEREST THEREIN.

VL

DATE: 30 April 1952

APPRAISER: Victor Lundeen

APPROVED BY (Name and Title)

3

Exhibit B to Comment

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6/4/52

Army-CE-Omaha, Nebr.

LOCATION, NEIGHBORHOOD, ETC. Subj tract is located 7 miles Nort st from Sanish, North Dakota (population 400) in a general farming community of white farmers of mixed nationalities. Main roads of graded dirt follow the Missouri Valley to Sanish, the nearest market, shipping point, and location of churches and high school. Rural schools are situated throughout the area, and R.F.D. routes serve farms and ranches. The area is characterized by both large and small farms, and by a few ranches which include a thousand or more acres of grazing land together with extensive acreages of bottom cropland. The economy of the area combines the raising of cereal grain and flax with production of above average grade beef cattle. Farms are operated with tractor drawn power equipment. With a few exceptions, most sets of building improvements are below average and not indicative of the development or present prosperity of the area. Lands of the area range from low level bottomlands of the Missouri flood plain to steeply rolling and rough uplands and level plateaus at an elevation of 175 to 250 feet above the flood plain. Soils of the flood plain vary in texture from fine sandy loams to silty clay loams of variable fertility and productive capacity. Soils of the uplands are mostly clay loams of variable texture utilized primarily for hay and pasture. The most desirable lands of the flood plain are usually utilized for alfalfa and cash grains, while poorly drained lands, valley slopes, and the uplands are used for feed crops, hay, and grazing. Dry farming, which incorporates summer fallow practice, is most common. Yields are variable, but have been excellent during the past ten years. Average carrying capacity of grazing lands is about 2.5 acres per A.U. month. Farm tenancy is about 20 per cent and usual terms are 1/4 crop delivered plus cash for improvements and pasture. Average rainfall is about 15 inches, of which major portion falls during the 4½ month growing season. Cold winters, with snow and blizzards, are not uncommon. Drought is a major hazard in crop production, but recent years have been favorable to crops.

CHARACTER, TOPOGRAPHY AND ADAPTABILITY: Subject tract of 565.33 acres borders the Missouri River and includes approximately 395 acres of bottomland, the major portion which has accreted since the time of the General Land Office Survey. Soils of the bottomlands range from sandy clay loams to the riverwash sands of recent accretion. An estimated 30 acres have been adapted to cultivation and an additional area of 30 acres has been "brushed" in preparation for crop adaptation. Balance of the bottomland has a heavy cover of brush, willows and small trees with a few grassy swales which could be cut for hay and some open grassy spots which afford fair grazing. The upland, approximately 170 acres, ranges from gently rolling to rough broken hills with deep ravines and steep slopes and is suitable only for grazing. The tract is fenced, but fences on the bottomlands are in poor condition. Yearlong water supply is available from springs and seeps. Buildings on the property are unoccupied and unhabitable and contribute very little to the value. This is a mediocre property, but when utilized in conjunction with more dependable lands it will provide summer grazing and adequate natural shelter for winter feed grounds and grazing

ASSESSED VALUE					
YEAR	ACRES	LAND	IMPROVEMENTS	OTHER	TOTAL
1947	263.10	$ 968.00	$ --	$ --	$ 968.00

REMARKS RELATIVE TO ASSESSED VALUE 1947 tax $54.10 on 263.10 acres G.L.O. Survey acreage.

Assessed value bears no relationship to the present market value of properties in this area.

Exhibit B to Comment

VALUATION OF LAND

PRESENT USE	SOIL TYPE	TOPOGRAPHY	AREA	UNIT VALUE	TOTAL VALUE
Cropland (Bottom)	SandyClay	Undulating	30	$ 35.00	$ 1,050.00
"Brushed" Bottom - tillable	SandyClay	Undulating	30	25.00	750.00
Pasture (Upland)	Clay Loam	G. Rolling to Rough	170	7.50	1,275.00
Pasture (brush bottom and grassy swales)	Clay and SandyLoams	Level to Undulating	185	7.50	1,387.50
Pasture (brush and sandbar accretion area)	Loamy sand and sand	Level to Undulating	150.33	2.00	300.66
			565.33	TOTAL	$ 4,763.16

VALUATION OF IMPROVEMENTS

	KIND	SIZE	CONSTRUCTION	ROOF	FOUNDATION	CONDITION	PRESENT VAL.*	SALVAGE VALUE
1.	Log Shack	14x28x7	Logs	Comp. & Shgl.	None	V.Poor	$ 100.00	$ None
	Addition	10x20-6	Logs	Shgl.	None	V.Poor		
2.	Barn(calf)	12x24-4½-5	Frame	Board	None	V.Poor	25.00	None
3.	H en house	10x12-7	Concrete Walls & Floor	Cotton-wood & Clay	Concrete Floor	Poor	50.00	None
4.	Toilet	4x4-6/ 7	Cotton-wood	Board	None	V.Poor	5.00	None

The buildings are for the most part constructed of cottonwood material except hen house. They are not habitable, have but little value and have no salvage value.

Check before listing on property.

						TOTAL*	$ 180.00	$ None

* Estimated contribution improvements to appraised market value of the property as a whole.

Exhibit B to Comment

SALES AND OFFERS OF SALE OF NEARBY PROPERTIES

GRANTOR	GRANTEE	DATE	DEED BOOK	PAGE	ACRES OR AREA	ACTUAL CONSIDERATION	PRICE PER ACRE
State Land Dept.	Stolson	9/22/50	Unrecorded		240.00	$2500.00	$10.83

COMPARISON OF ABOVE WITH PROPERTY APPRAISED The above tract consists of all upland pasture without improvements. It is fairly well located, gently to medium rolling in topography. It is fairly well grassed, affords fairly good grazing of average carrying capacity and is more desirable for season grazing than subject tract. No similar property has been sold to make a direct comparison with subject tract. Sales of somewhat similar lands in other areas were noted, and with appraisal experience of various types of lands were considered.

GROWING CROPS

TYPE	ACRES	ESTIMATED YIELD PER ACRE	UNIT VALUE	GROSS MARKET VALUE	COSTS TO MATURE, HARVEST & MARKET	NET CASH VALUE
			$	$	$	$
None						

APPRAISAL OF TIMBER, MINERALS, ETC.

No timber of merchantable value. No proof of existing minerals. Oil and gas rights may be reserved by owners and are therefore not considered in this appraisal.

GENERAL REMARKS *(Discuss principal factors affecting conclusions)* A mediocre property which has had little recognizable value until recent years when there has been an increased demand for all lands adaptable to any agricultural use. The subject tract if utilized in a unit relationship with other lands could provide abundant water, yearlong grazing in open winters, and winter quarters for shelter and feeding of livestock. This is a saleable and rentable property at this time.

Exhibit B to Comment

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TRACT MAP (WITH GRID)

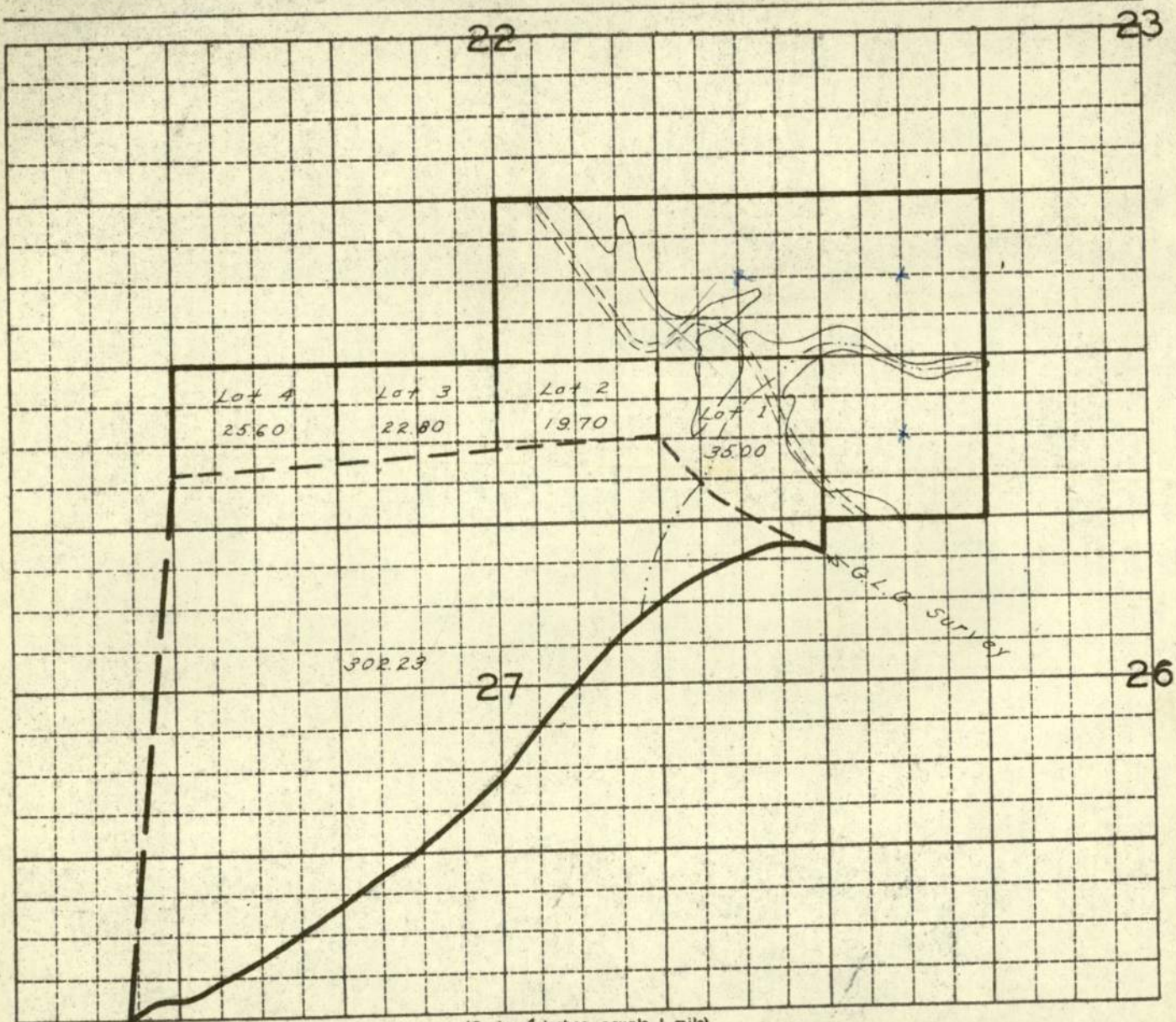
Project symbol No. Garrison Dam - Reservoir Area Tract No. V-1928

Name of owner Harrington Brothers

Field work by Jack Turnquist Date 1 February 1951

Description of tract State - North Dakota County - Mountrail

South half of the Southeast quarter (S½SE¼) of Section 22, Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 23, Northwest quarter of the Northwest quarter (NW¼NW¼) of Section 26, Lots 1, 2, 3 and 4, of Section 27, all in Township 153 North, Range 93 West of the 5th P.M., plus accretions.



(Scale: 4 inches equals 1 mile)

CLASSES OF LAND

Crop land ____ ☐

Pasture land ____ ☐

Forest land ____ ☐

* ____ ☐

Grades of each class of land must be shown on the map proper.

* Name of any other class of land involved

I certify that this is an accurate map of Tract V-1928 based on Survey, Deed Description and G.L.O. Records shows this tract to contain 565.33 acres, more or less

Name Jack Turnquist

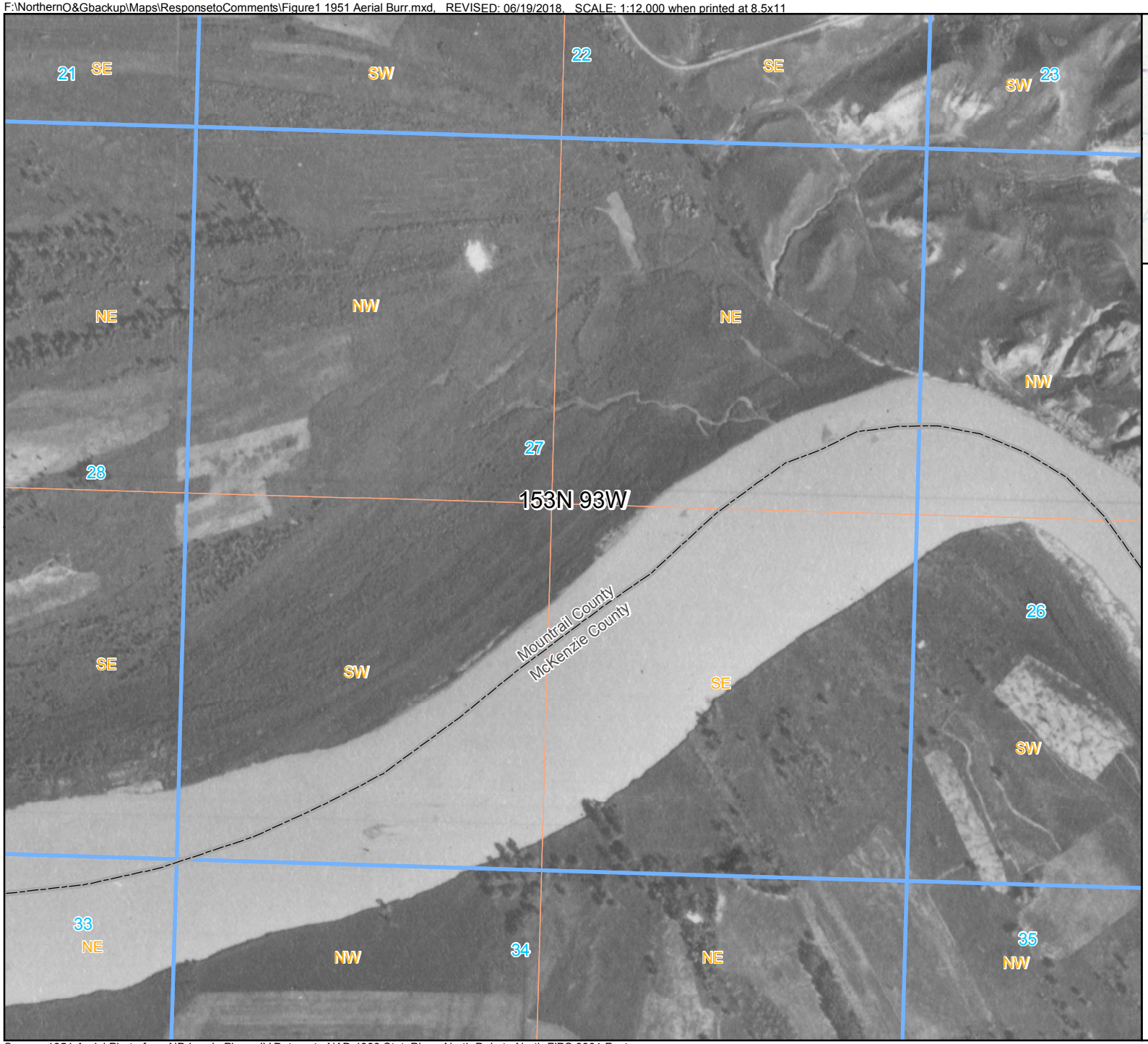
Title Draftsman

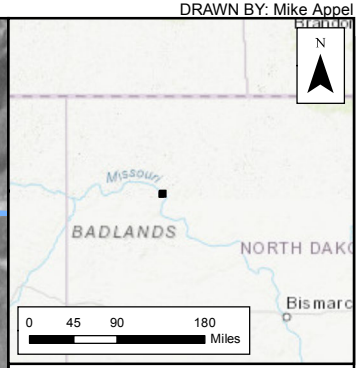
Date 1 February 1951

Indicate whether map is based on General Land Office records, deed survey, deed description or actual survey.

Exhibit B to Comment

F:\NorthernO&Gbackup\Maps\ResponsetoComments\Figure1 1951 Aerial Burr.mxd, REVISED: 06/19/2018, SCALE: 1:12,000 when printed at 8.5x11 DRAWN BY: Mike Appel





Legend

- County Boundary
- PLSSTownship
- PLSS Section
- PLSS Quarter

N

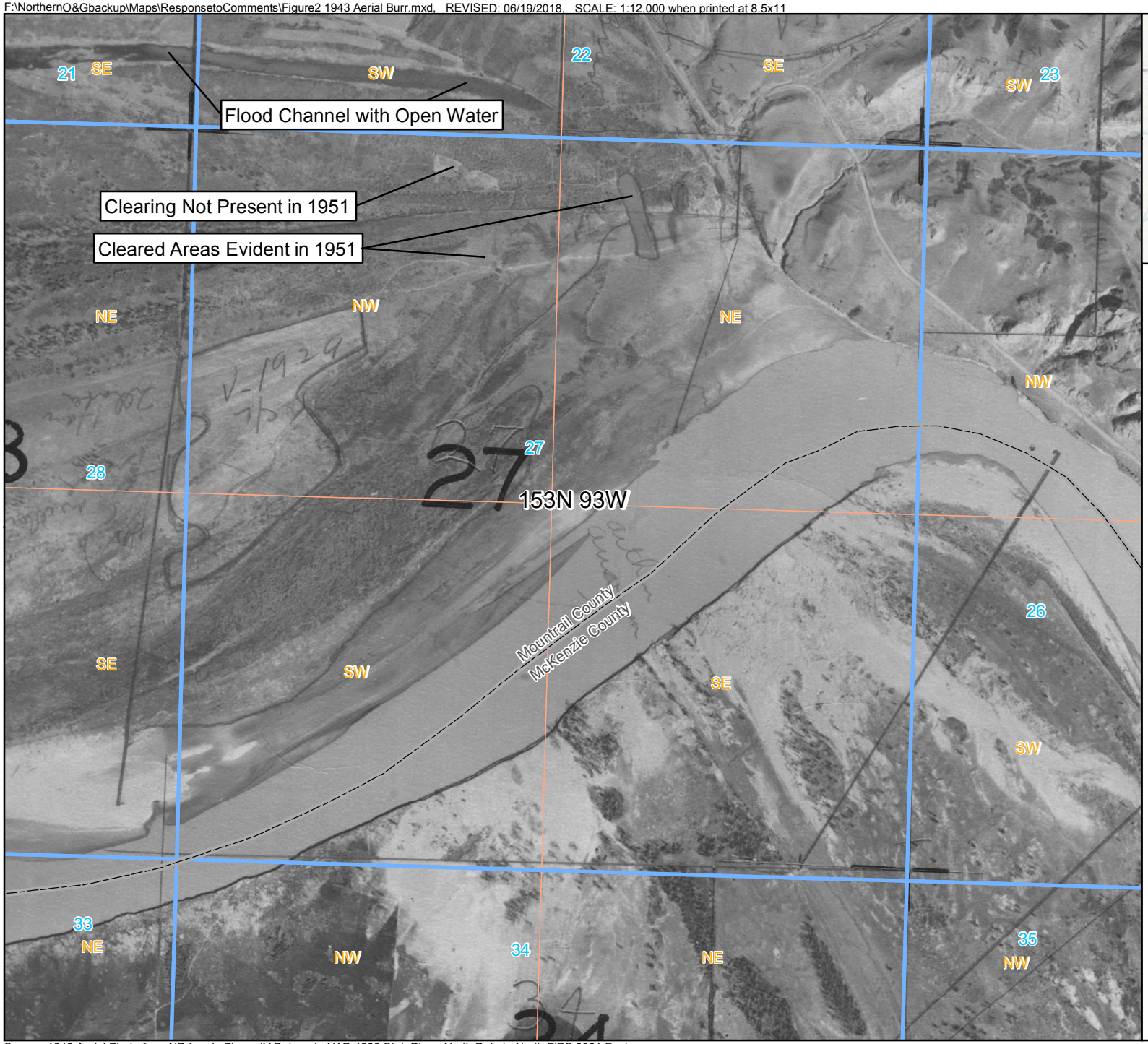
0 250 500 1,000
Feet

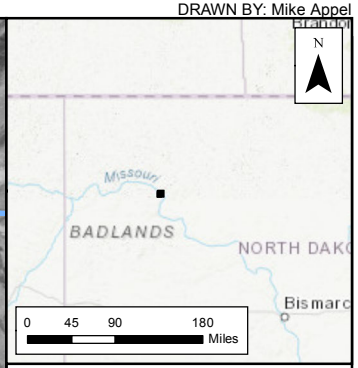
Figure 1
1951 Aerial Photo
T153N, R93W, Section 27
Public Comment
North Dakota Industrial Commission Case No.: 26584

Environmental Resources Management
www.erm.com
ERM

Source: 1951 Aerial Photo from ND Lands Phase IV Data set; NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

F:\NorthernO&Gbackup\Maps\ResponsetoComments\Figure2 1943 Aerial Burr.mxd, REVISED: 06/19/2018, SCALE: 1:12,000 when printed at 8.5x11 DRAWN BY: Mike Appel





Legend

- County Boundary
- PLSSTownship
- PLSS Section
- PLSS Quarter

N

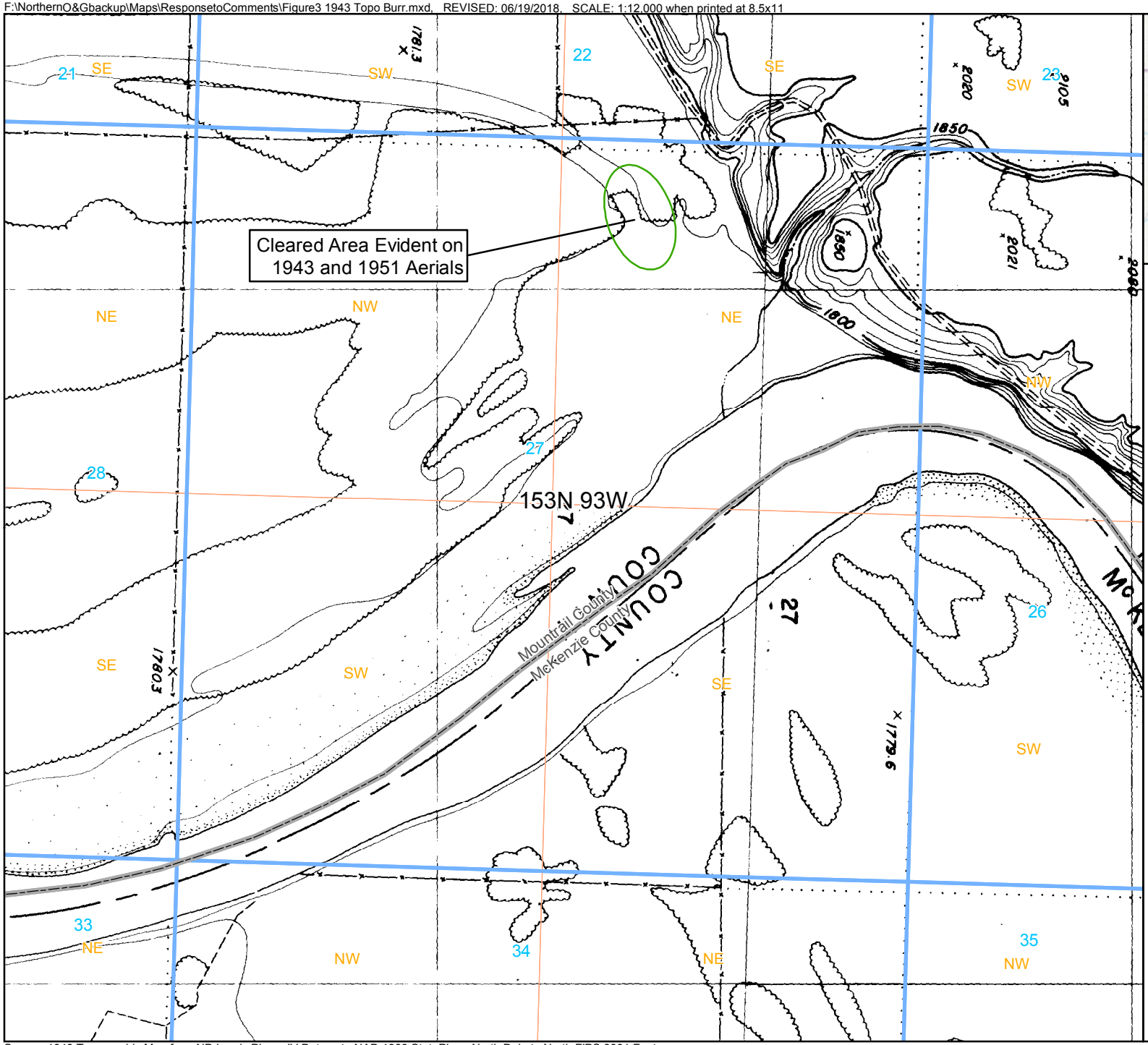
0 250 500 1,000
Feet

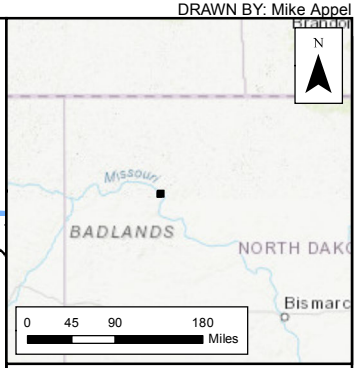
Figure 2
1943 Aerial Photo
T153N, R93W, Section 27
Public Comment
North Dakota Industrial Commission Case No.: 26584

Environmental Resources Management
www.erm.com
ERM

Source: 1943 Aerial Photo from ND Lands Phase IV Data set; NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

F:\NorthernO&Gbackup\Maps\ResponsetoComments\Figure3 1943 Topo Burr.mxd, REVISED: 06/19/2018, SCALE: 1:12,000 when printed at 8.5x11 DRAWN BY: Mike Appel





Legend

- County Boundary
- PLSSTownship
- PLSS Section
- PLSS Quarter

N

0 250 500 1,000
Feet

Figure 3
1943 Topographic Map
T153N, R93W, Section 27
Public Comment
North Dakota Industrial
Commission Case
No.: 26584

Environmental Resources Management
www.erm.com
ERM

Source: 1943 Topographic Map from ND Lands Phase IV Data set; NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

DRAWN BY: Mike Appel

SCALE: 1:24,000 when printed at 11x17

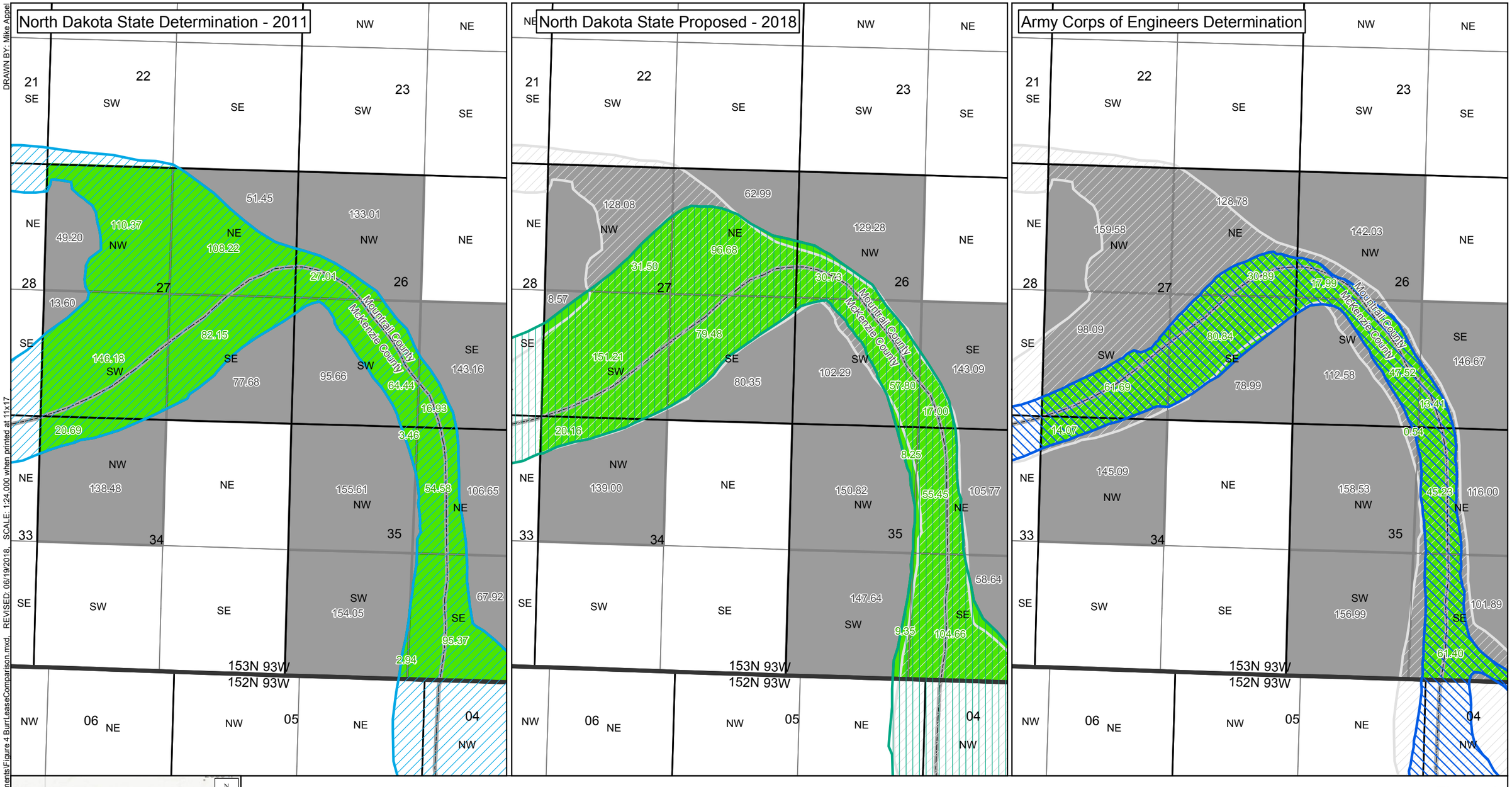
REVISED: 06/19/2018

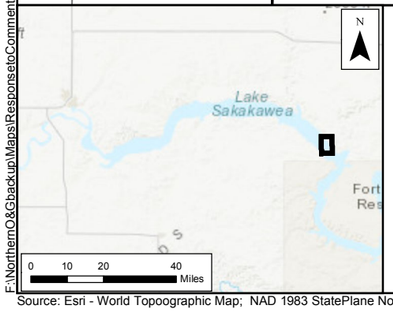
F:\Northern\O&G\backup\Maps\ResponsestoComments\Figure 4 BurrLeaseComparison.mxd

North Dakota State Determination - 2011

North Dakota State Proposed - 2018

Army Corps of Engineers Determination





Legend

- NOG Holding
- Non-NOG Holding
- Pre Sakakawea Missouri River (ND 2011)
- Pre Sakakawea Missouri River (ND 2018)
- Pre Sakakawea Missouri River (ACOE)
- Township Range (BLM)
- Section (BLM)
- Section Quarter (BLM)

Notes:
ACOE: Army Corp of Engineers
ND: North Dakota Land Board
Areas in US Acres.

N

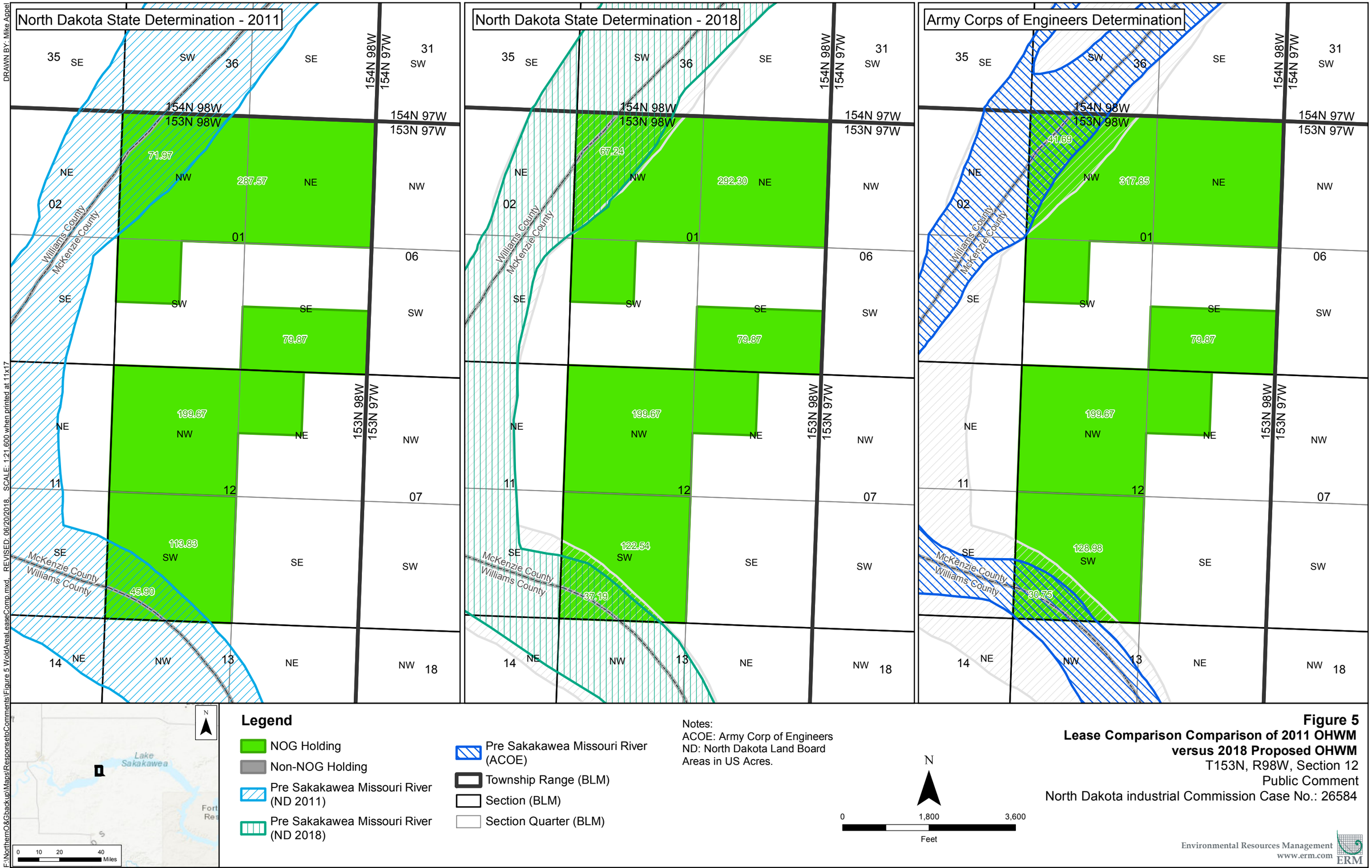
0 2,000 4,000

Feet

Figure 4
Comparison of 2011 OHWM versus 2018 Proposed OHWM
T153N, R93W, Section 27
Public Comment
North Dakota Industrial Commission Case No.: 26584

Environmental Resources Management
www.erm.com
ERM

Source: Esri - World Topoographic Map; NAD 1983 StatePlane North Dakota North FIPS 3301 Feet



Source: Esri - World Topoographic Map; NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

Figure 5

OBJECTID	Transect	Comment	Photo_Date	Date_	Confidence	Township	Range	Section_	Photo_File	Topo
1	LS15410030L2	Cut bank, shadowing on wall, shading of upland vegetation	Aug. 1958	4/7/2010	Yes	154	100	30	BUL-2V-131	ga015_1943
2	LS15410030L1	Color change in photo, vegetation change near river, '43 topo elevation change	Aug. 1958	4/7/2010	Yes	154	100	30	BUL-2V-131	ga014_1943
3	LS15410030L3	Cut bank, shadowing on wall, vegetation change, old oxbow above OHWL	Aug. 1958	4/7/2010	Yes	154	100	30	BUL-2V-131	ga015_1943
4	LS15410125R1	Mature trees vs. low vegetation, '43 topo lines, clear riverbank	Aug. 1958	4/7/2010	Yes	154	101	25	BUL-2V-130	ga015_1943
5	LS15410136R1	River channel and cut above, Mature vegetation above and water below, willow flat below channel	Aug. 1958	4/7/2010	Yes	154	101	36	BUL-2V-130	ga015_1943
6	LS15410136R2	Mature vegetation along river edge, color change, '43 topo elevation change, on main river channel	Aug. 1958	4/7/2010	Yes	154	101	36	BUL-2V-130	ga015_1943
7	LS15410031L1	Clear change from main channel, mature vegetation, cut bank, old oxbow above OHWL	Aug. 1958	4/7/2010	Yes	154	100	31	BUL-2V-131	ga015_1943
8	LS15410031L2	Long line of mature trees into cut bank, willow flat west of tree line, turning point of high bank, riverbank north of tree line, old oxbow above OHWL	Aug. 1958	4/7/2010	Yes	154	100	31	BUL-2V-131	ga015_1943
9	LS15310006L1	Edge of willow area vs. row of trees below cultivated field, old oxbow above OHWL	Aug. 1958	4/7/2010	Yes	153	100	6	BUL-2V-131	ga015_1943
10	LS15310006L2	Abrupt change in vegetation, old water channel above OHWL with mature trees, willows below OHWL, old oxbow above OHWL	Aug. 1958	4/7/2010	Yes	153	100	6	BUL-2V-84	ga015_1943
11	LS15310005L1	Vegetation change, potentially willows above, follows '43 topo, old oxbow above OHWL	Aug. 1958	4/7/2010	NO	153	100	5	BUL-2V-84	ga015_1943
12	LS15310009L3	Cut bank with willows below, steep hills above, old oxbow above OHWL	Aug. 1958	4/7/2010	Yes	153	100	9	BUL-2V-82	ga019_1943
13	LS15310008L1	Above a smaller channel lined by willows, trees and open above the OHWL, ridge apparent in 2009 aerial imagery and 1943 photo	Aug. 1958	4/7/2010	Yes	153	100	8	BUL-2V-83	ga015_1943
14	LS15310008L2	Above a smaller channel lined be willows, trees and open above the OHWL, ridge apparent in 2009 aerial imagery and 1943 photo	Aug. 1958	4/7/2010	Yes	153	100	8	BUL-2V-83	ga015_1943
15	LS15310009L1	Above a willow flat, below start of larger vegetation	Aug. 1958	4/7/2010	Yes	153	100	9	BUL-2V-83	ga015_1943
16	LS15310009L2	Above a small channel, below a bank, at turn in river to a cut bank, '43 topo shows rise in elevation	Aug. 1958	4/7/2010	Yes	153	100	9	BUL-2V-83	ga019_1943
17	LS15310101R1	Cut bank, vegetation line, scattered trees above.	Aug. 1958	4/7/2010	Yes	153	101	1	BUL-2V-85	ga015_1943
18	LS15310101R2	Above willow flat, below cut bank noted on photo, vegetation line	Aug. 1958	4/7/2010	Yes	153	101	1	BUL-2V-85	ga015_1943
19	LS15310006R1	Above willow flat, below cut bank noted on photo, vegetation line	Aug. 1958	4/7/2010	Yes	153	100	6	BUL-2V-85	ga015_1943
20	LS15310006R2	Above willow flat, below cut bank noted on photo, vegetation line, appears to be upland drain above	Aug. 1958	4/7/2010	Yes	153	100	6	BUL-2V-85	ga015_1943
21	LS15310007R1	Larger, more dense vegetation above OHWL, shorter stature below, apparent small river in 2009 aerials indicating elevation change	Aug. 1958	4/7/2010	Yes	153	100	7	BUL-2V-84	ga015_1943
22	LS15310007R2	Larger, more dense vegetation above OHWL, shorter stature below, apparent small river in 2009 aerials indicating elevation change	Aug. 1958	4/7/2010	Yes	153	100	7	BUL-2V-84	ga015_1943
23	LS15310008R1	Larger, more dense vegetation above OHWL, shorter stature below, longer willow flat	Aug. 1958	4/7/2010	Yes	153	100	8	BUL-2V-84	ga015_1943
24	LS15310008R2	Cut bank at main river channel, evidence of farming or haying, clear riverbank and '43 topo line	Aug. 1958	4/7/2010	Yes	153	100	8	BUL-2V-83	ga015_1943
25	LS15310009R1	Apparent bank and '43 topo line	Aug. 1958	4/9/2010	Yes	153	100	9	BUL-2V-46	ga015_1943
26	LS15310009R2	Turn in peninsula, mature trees vs. barren ground, clear bank	Aug. 1958	4/9/2010	Yes	153	100	9	BUL-2V-46	ga015_1943
27	LS15310016R1	Change in vegetation density, shrubs and open vs. trees, '43 topo shows elevation change	Aug. 1958	4/9/2010	Yes	153	100	16	BUL-2V-46	ga015_1943
28	LS15310016R2	Depositional levee, some trees forming and establishing below OHWL, vegetation more dense and taller above OHWL, color change	Aug. 1958	4/9/2010	Yes	153	100	16	BUL-2V-46	ga015_1943
29	LS15310017R1	Depositional levee, some trees forming and establishing below OHWL but less then at LS15310016R2, vegetation more dense and taller above OHWL, color change	Aug. 1958	4/9/2010	Yes	153	100	17	BUL-2V-46	ga015_1943
30	LS15310020R1	Depositional levee, vegetation more dense and taller above OHWL, color change, below is relatively barren	Aug. 1958	4/9/2010	Yes	153	100	20	BUL-2V-46	ga015_1943
31	LS15310020R2	Vegetation more dense and taller above OHWL, color change, lower structure below	Aug. 1958	4/9/2010	Yes	153	100	20	BUL-2V-46	ga016_1943
32	LS15310019R1	Willow flat below OHWL, dense, more mature vegetation and trees above, at turn in river	Aug. 1958	4/9/2010	Yes	153	100	19	BUL-2V-45	ga016_1943
33	LS15310019R2	Cut bank, '43 topo elevation change	Aug. 1958	4/9/2010	Yes	153	100	19	BUL-2V-45	ga016_1943
34	LS15310016L1	Cut bank, at edge of main channel, vegetation above, water below.	Aug. 1958	4/9/2010	Yes	153	100	16	BUL-2V-47	ga019_1943
35	LS15310016L2	Cut bank, at edge of main channel, vegetation above, water below, two-tracks above OHWL	Aug. 1958	4/9/2010	Yes	153	100	16	BUL-2V-47	ga015_1943
36	LS15310016L3	Cut bank at main channel with wooded vegetation above, '43 topo shows elevation change	Aug. 1958	4/9/2010	Yes	153	100	16	BUL-2V-47	ga015_1943
37	LS15310020L1	Cut bank at main channel with wooded vegetation above, '43 topo shows elevation change, cultivated field and road within ¼ mile	Aug. 1958	4/9/2010	Yes	153	100	20	BUL-2V-47	ga016_1943
38	LS15310020L2	Bank of main river channel, some wooded vegetation above, two-tracks above	Aug. 1958	4/9/2010	Yes	153	100	20	BUL-2V-47	ga016_1943
39	LS15310020L3	Bank of main river channel, some wooded vegetation above, cultivated or hayed field 175ft above.	Aug. 1958	4/9/2010	Yes	153	100	20	BUL-2V-47	ga016_1943
40	LS15310030R1	Cut bank, vertical barren area along main channel, topo shows steep elevation change	Aug. 1958	4/9/2010	Yes	153	100	30	BUL-1V-68	ga016_1943
41	LS15310030R2	Cut bank, vertical barren area along main channel, topo shows steep elevation change	Aug. 1958	4/9/2010	Yes	153	100	30	BUL-1V-68	ga016_1943
42	LS15310029R1	Cut bank, vertical barren area along main channel, topo shows steep elevation change	Aug. 1958	4/9/2010	Yes	153	100	29	BUL-1V-68	ga016_1943
43	LS15310032R1	Cut bank, tree line above OHWL, apparent bank on main channel	Aug. 1958	4/9/2010	Yes	153	100	32	BUL-1V-68	ga016_1943
44	LS15310032R2	Along wooded vegetation adjacent to hay field, along main channel	Aug. 1958	4/9/2010	Yes	153	100	32	BUL-1V-68	ga016_1943
45	LS15310033R1	Along cut bank, along main channel, upland vegetation, trees	Aug. 1958	4/9/2010	Yes	153	100	33	BUL-1V-67	ga016_1943
46	LS15310033R2	Along clear bank on main river channel, cleared field above, river below	Aug. 1958	4/9/2010	Yes	153	100	33	BUL-1V-67	ga020_1943
47	LS15310034R1	Along clear bank on main river channel, cleared field above, river below	Aug. 1958	4/9/2010	Yes	153	100	34	BUL-1V-67	ga020_1943
48	LS15310034R2	North side is cut bank, turn in river, wooded above OHWL, lacking wooded vegetation below OHWL	Aug. 1958	4/9/2010	Yes	153	100	34	BUL-1V-66	ga020_1943
49	LS15310034R3	Wooded vegetation above OHWL, low structure vegetation below,	Aug. 1958	4/9/2010	Yes	153	100	34	BUL-1V-66	ga020_1943
50	LS15210006R1	Farmstead above, main river channel below, end of willow flat to the north	Aug. 1958	4/9/2010	Yes	152	100	6	BUL-1V-44	ga020_1943
51	LS15210005R1	Apparent cut on over bank, wooded dense vegetation above, fields behind trees	Aug. 1958	4/9/2010	Yes	152	100	5	BUL-1V-44	ga020_1943
52	LS15210005R2	Apparent bank along river channel, hay field above, section lines demarcated on 1958 photo are incorrect	Aug. 1958	4/9/2010	Yes	152	100	5	BUL-1V-44	ga020_1943
53	LS15210008R1	Apparent bank along river channel, hay or crop field above,	Aug. 1958	4/9/2010	Yes	152	100	8	BUL-1V-44	ga020_1943
54	LS15210008R2	Apparent bank along river channel, hay or crop field above, begins turn in river	Aug. 1958	4/9/2010	Yes	152	100	8	BUL-1V-44	ga020_1943
55	LS15210009R1	Apparent bank along river channel, wooded area to west and beginning of willow flat to the east, turns away from main channel	Aug. 1958	4/9/2010	Yes	152	100	9	BUL-1V-44	ga020_1943
56	LS15210009R2	Bank above secondary channel, willow flat below, wooded trees above, old oxbow behind	May-43	4/9/2010	Yes	152	100	9	MRD-8-114	ga020_1943
57	LS15210010R1	Apparent bank, behind secondary channel, willow flat below, wooded area above, hay field between and behind LS15210009R2 and LS15210010R1, old oxbow behind	Aug. 1958	4/9/2010	Yes	152	100	10	BUL-1V-47	ga022_1943
58	LS15210010R2	Behind secondary channel, transitional area, less then 50% tree species, apparent vegetation change along older bank, old oxbow behind	Aug. 1958	4/9/2010	No	152	100	10	BUL-1V-47	ga022_1943
59	LS15210003R1	Behind secondary channel, transitional area, less then 50% tree species, apparent vegetation change along older bank, old oxbow behind	Aug. 1958	4/9/2010	No	152	100	3	BUL-1V-47	ga022_1943
60	LS15210002R1	Behind secondary channel, transitional area, less then 50% tree species, apparent vegetation change along older bank, old oxbow behind	Aug. 1958	4/9/2010	No	152	100	2	BUL-1V-47	ga022_1943

ObjectIDs 185 and 186 Bartlett & West 2011

OBJECTID	Transect	Comment	Photo_Date	Date_	Confidence	Township	Range	Section_	Photo_File	Topo
61	LS15210002R2	Secondary river channel, apparent bank above, trees behind, islands in front of channel	Aug. 1958	4/9/2010	Yes	152	100	2	BUL-1V-47	ga022_1943
62	LS15310029L1	Transition area between low, shrub and tree vegetation	Aug. 1958	4/9/2010	Yes	153	100	20	BUL-1V-67	ga016_1943
63	LS15310029L2	Transition area between low, shrub and tree vegetation, few trees below, but not 50%	Aug. 1958	4/9/2010	Yes	153	100	29	BUL-1V-67	ga016_1943
64	LS15310029L3	Transition area between low, shrub and tree vegetation, lacking vegetation below	Aug. 1958	4/9/2010	Yes	153	100	29	BUL-1V-67	ga016_1943
65	LS15310032L1	Transition area, area between OHWL and river is narrowing from upstream	Aug. 1958	4/9/2010	Yes	153	100	32	BUL-1V-67	ga016_1943
66	LS15310033L1	Along main river channel, narrow band of vegetation below a cultivated field above OHWL	Aug. 1958	4/9/2010	No	153	100	33	BUL-1V-67	ga016_1943
67	LS15310033L2	Along main river channel, narrow band of vegetation below a cultivated field above OHWL	Aug. 1958	4/9/2010	No	153	100	33	BUL-1V-67	ga016_1943
68	LS15310034L1	Along main river channel with few island forming, vegetation behind, potentially willow shrubs, hayed field 600' from OHWL	Aug. 1958	4/9/2010	No	153	100	34	BUL-1V-66	ga020_1943
69	LS15310034L2	River turns along cut bank, '43 topo shows steep change in elevation	Aug. 1958	4/9/2010	Yes	153	100	34	BUL-1V-66	ga020_1943
70	LS15310034L3	Vegetation transition line, dense above, low stature below	Aug. 1958	4/9/2010	Yes	153	100	34	BUL-1V-66	ga020_1943
71	LS15310035L1	Along main river channel, dense wooded vegetation above	Aug. 1958	4/9/2010	Yes	153	100	35	BUL-1V-66	ga020_1943
72	LS15210005L1	Along main river channel, dense wooded vegetation above, cultivated area within 100'	Aug. 1958	4/9/2010	Yes	152	100	5	BUL-1V-44	ga020_1943
73	LS15210005L2	Along main river channel, upland is dense wooded vegetation	Aug. 1958	4/9/2010	Yes	152	100	5	BUL-1V-44	ga020_1943
74	LS15210004L1	Transition area between shrubs and trees, taller vegetation above, willow flat below	Aug. 1958	4/9/2010	Yes	152	100	4	BUL-1V-44	ga020_1943
75	LS15210004L2	Behind secondary channel, above willow flat, below dense trees	Aug. 1958	4/9/2010	Yes	152	100	4	BUL-1V-44	ga020_1943
76	LS15210004L3	Above secondary channel, dense trees above, islands with low willows	Aug. 1958	4/9/2010	Yes	152	100	4	BUL-1V-47	ga022_1943
77	LS15210003L1	Above secondary channel, dense trees above, islands with low willows	Aug. 1958	4/9/2010	Yes	152	100	3	BUL-1V-47	ga022_1943
78	LS15210003L2	Along main river channel, sandy terrain below, wooded vegetation above	Aug. 1958	4/9/2010	Yes	152	100	3	BUL-1V-47	ga022_1943
79	LS15309931L1	Vegetation line between willow flat and trees, field within 160'	Aug. 1958	4/9/2010	Yes	153	99	31	BUL-1V-62	ga022_1943
80	LS15309931L2	Vegetation line between willow flat and trees	Aug. 1958	4/9/2010	Yes	153	99	31	BUL-1V-62	ga022_1943
81	LS15309932L1	Vegetation line between willow flat and trees	Aug. 1958	4/9/2010	Yes	153	99	32	BUL-1V-62	ga022_1943
82	LS15309932L2	Vegetation line between willow flat and trees	Aug. 1958	4/9/2010	Yes	153	99	32	BUL-1V-62	ga022_1943
83	LS15309933L1	On main channel, dense tree area above, farmed field 800' to the north	Aug. 1958	4/9/2010	Yes	153	99	33	BUL-1V-62	ga022_1943
84	LS15309933L2	On main channel, dense tree area above,	Aug. 1958	4/9/2010	Yes	153	99	33	BUL-1V-61	ga022_1943
85	LS15309933L3	On main river channel, vegetation above, farmed field 250' to the north	Aug. 1958	4/9/2010	Yes	153	99	33	BUL-1V-61	ga025_1943
86	LS15309934L1	On main river channel, vegetation on old clearing above, farmed field 320' to the north	Aug. 1958	4/9/2010	Yes	153	99	34	BUL-1V-61	ga025_1943
87	LS15309934L2	On main river channel and on an old channel, vegetation established, some upland areas are cultivated, beginning of old oxbow	Aug. 1958	4/9/2010	No	153	99	34	BUL-1V-59	ga025_1943
88	LS15309935L1	A bank above willow flat, upland vegetated with scattered trees and fields, beginning of old oxbow	Aug. 1958	4/9/2010	No	153	99	35	BUL-1V-59	ga025_1943
89	LS15309935L2	A bank above willow flat, upland vegetated with scattered trees and fields, beginning of old oxbow	Aug. 1958	4/9/2010	No	153	99	35	BUL-1V-59	ga025_1943
90	LS15309935L3	Entrance to oxbow, trees above OHWL, barren below with some low willows	Aug. 1958	4/9/2010	No	153	99	35	BUL-1V-59	ga025_1943
91	LS15309936L1	Trees above OHWL, barren below	Aug. 1958	4/9/2010	No	153	99	36	BUL-1V-59	ga025_1943
92	LS15309932R1	On main river channel, fields above, narrow band of dense vegetation with trees	Aug. 1958	4/9/2010	Yes	153	99	32	BUL-1V-62	ga022_1943
93	LS15309932R2	Near main river channel, dense vegetation between fields upland, two-track above	Aug. 1958	4/9/2010	No	153	99	32	BUL-1V-62	ga022_1943
94	LS15309932R3	Appears to be willow flats, barren areas, and hayed grass areas below; two-track on tilled fields above. old river channel area	Aug. 1958	4/9/2010	No	153	99	32	BUL-1V-61	ga022_1943
95	LS15309933R1	Appears to be willow flats, barren areas, and hayed grass areas below; two-track on tilled fields above. old river channel area	Aug. 1958	4/9/2010	No	153	99	33	BUL-1V-61	ga022_1943
96	LS15210001R1	Appears to be willow flats, barren areas, and hayed grass areas below; two-track on tilled fields above. old river channel area	Aug. 1958	4/9/2010	No	152	100	1	BUL-1V-49	ga025_1943
97	LS15209906R1	Cut bank of old river channel, willows and hayed grass below, Topo shows steep elevation change	Aug. 1958	4/9/2010	No	152	99	6	BUL-1V-49	ga025_1943
98	LS15209906R2	Cut bank of old river channel, willows and hayed grass below, Topo shows steep elevation change	Aug. 1958	4/9/2010	No	152	99	6	BUL-1V-49	ga025_1943
99	LS15209905R1	Cut bank of old river channel, willow below, topo shows steep elevation change	Aug. 1958	4/9/2010	Yes	152	99	5	BUL-1V-58	ga025_1943
100	LS15209905R2	Cut bank of main river channel, no vegetation below, topo shows steel elevation change	Aug. 1958	4/9/2010	Yes	152	99	5	BUL-1V-58	ga025_1943
101	LS15309935R1	Cut bank of main river channel, no vegetation below, trees above, topo shows steel elevation change	Aug. 1958	4/9/2010	Yes	153	99	35	BUL-1V-58	ga025_1943
102	LS15410131L1	Main river channel, construction behind, follows the line area where vegetation has not been disturbed	Aug. 1958	4/12/2010	Yes	154	101	31	BUL-2V-90	ga007_1943
103	LS15410132L1	On secondary channel behind willow sandbar, higher denser vegetation above	Aug. 1958	4/12/2010	Yes	154	101	32	BUL-2V-127	ga007_1943
104	LS15410132L2	On main river channel, above there are trees and shrubs for 300' and the rest fields	Aug. 1958	4/12/2010	Yes	154	101	32	BUL-2V-127	ga007_1943
105	LS15410132L3	On main river channel, narrow band of trees and fields behind, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	32	BUL-2V-127	ga007_1943
106	LS15410133L1	Behind willow flat, below field, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	33	BUL-2V-127	ga007_1943
107	LS15410133L2	Main river channel, upland is old field with two-track adjacent to river, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	33	BUL-2V-127	ga007_1943
108	LS15410134L1	On main river channel behind sandbar. upland is field and two-track, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	34	BUL-2V-128	ga011_1943
109	LS15410134L2	Main river channel, upland is old field with two-track adjacent to river, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	34	BUL-2V-128	ga011_1943
110	LS15410134L3	Behind willow sandbar, field upland , '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	34	BUL-2V-128	ga011_1943
111	LS15410135L1	Above willow flat, upland is old river bed with trees, trees following old levees and expanding out, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	35	BUL-2V-130	ga011_1943
112	LS15410135L2	Above willow flat, fields above with scattered trees, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	Yes	154	101	35	BUL-2V-130	ga011_1943
113	LS15410135L3	Above willow flat, fields above with scattered trees, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	No	154	101	35	BUL-2V-130	ga011_1943
114	LS15410125L1	Above willow flat, upland is corner of cleared field, drainage fields above levee construction, '43 COE photos show old river bed to the north	Aug. 1958	4/12/2010	No	154	101	25	BUL-2V-130	ga011_1943
115	LS15410125L2	Above willow flat, upland vegetation modified, drainage fields above levee construction	Aug. 1958	4/12/2010	No	154	101	25	BUL-2V-130	ga015_1943
116	LS15410125L3	Above willow flat, upland vegetation modified, drainage fields above levee construction	Aug. 1958	4/12/2010	No	154	101	25	BUL-2V-130	ga015_1943
117	LS15310106R3	On main river channel, wooded area with mature trees above, near bridge, old river channel behind	Aug. 1958	4/12/2010	Yes	153	101	6	BUL-2V-127	ga007_1943
118	LS15410132R1	Along tree line, vegetation more dense above and high stature, old river channel behind	Aug. 1958	4/12/2010	Yes	154	101	32	BUL-2V-127	ga007_1943
119	LS15410132R2	Along tree line, vegetation more dense above and high stature, old river channel behind	Aug. 1958	4/12/2010	Yes	154	101	32	BUL-2V-127	ga007_1943
120	LS15410133R1	Along tree line, vegetation more dense above and high stature, old river channel behind	Aug. 1958	4/12/2010	Yes	154	101	33	BUL-2V-127	ga007_1943

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121	LS15310104R1	Along tree line, vegetation more dense above and high stature, old river channel behind	Aug. 1958	4/12/2010	Yes	153	101	4	BUL-2V-127	ga011_1943
122	LS15310103R1	Along tree line, vegetation more dense above and high stature, old river channel behind	Aug. 1958	4/12/2010	Yes	153	101	3	BUL-2V-128	ga011_1943
123	LS15310103R2	Along tree line, vegetation more dense above and high stature, old river channel behind, homestead adjacent, some standing water below	Aug. 1958	4/12/2010	Yes	153	101	3	BUL-2V-128	ga011_1943
124	LS15310103R3	Along back channel, below hayed field	Aug. 1958	4/12/2010	Yes	153	101	3	BUL-2V-128	ga011_1943
125	LS15310102R1	Behind old channel with willow flat, below field	Aug. 1958	4/12/2010	Yes	153	101	2	BUL-2V-130	ga011_1943
126	LS15310102R2	Behind old channel with willow flat, below field	Aug. 1958	4/12/2010	Yes	153	101	2	BUL-2V-130	ga011_1943
127	LS15410136R1	Cut bank along main river channel, upland is wooded and fields	Aug. 1958	4/12/2010	Yes	154	101	36	BUL-2V-130	ga011_1943
128	LS15410136R2	Along wooded tree line, narrow willow flat below,	Aug. 1958	4/12/2010	Yes	154	101	36	BUL-2V-130	ga015_1943
129	LS15410136R3	Along main river channel cut bank	Aug. 1958	4/12/2010	Yes	154	101	36	BUL-2V-130	ga015_1943
130	LS15309936R1	Cut on main river channel, wooded vegetation upland, may include some wetland vegetation from runoff	Aug. 1958	4/12/2010	Yes	153	99	36	BUL-1V-58	ga025_1943
131	LS15309936R2	Cut on main river channel, wooded vegetation upland, may include some wetland vegetation from runoff	Aug. 1958	4/12/2010	Yes	153	99	36	BUL-1V-57	ga027_1943
132	LS15309831R1	Above willow flat with more wooded species above	Aug. 1958	4/12/2010	Yes	153	98	31	BUL-1V-57	ga027_1943
133	LS15309831R2	Above wetland area in sandbar flat, trees above	Aug. 1958	4/12/2010	Yes	153	98	31	BUL-1V-57	ga027_1943
134	LS15309832R1	Above wetland area in sandbar flat, trees above	Aug. 1958	4/12/2010	Yes	153	98	32	BUL-1V-57	ga027_1943
135	LS15309832R2	Above channel area in sandbar flat, trees above	Aug. 1958	4/12/2010	Yes	153	98	32	BUL-1V-57	ga027_1943
136	LS15309832R3	Above secondary channel and willow flat, below field	Aug. 1958	4/12/2010	Yes	153	98	32	BUL-1V-56	ga027_1943
137	LS15309833R1	Above secondary channel and willow flat, below wooded area and field	Aug. 1958	4/12/2010	Yes	153	98	33	BUL-1V-56	ga027_1943
138	LS15309828R1	On main channel, upland is wooded areas between fields	Aug. 1958	4/12/2010	Yes	153	98	28	BUL-1V-55	ga027_1943
139	LS15309833R2	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	33	BUL-1V-54	ga030_1943
140	LS15309834R1	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	34	BUL-1V-54	ga030_1943
141	LS15309834R2	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	34	BUL-1V-54	ga030_1943
142	LS15309834R3	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	34	BUL-1V-54	ga030_1943
143	LS15309826R1	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	26	BUL-1V-54	ga030_1943
144	LS15309826R2	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	26	BUL-1V-54	ga030_1943
145	LS15309826R3	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	26	BUL-1V-54	ga030_1943
146	LS15309823R1	Old river bed area, primarily low & clumped willows, some trees but not many, fields are within area but have obvious drains, adjacent uplands steep & have significant runoff drainages influencing the area	Aug. 1958	4/12/2010	No	153	98	23	BUL-1V-53	ga030_1943
147	LS15309926L1	River is turning and creating an oxbow, OHWL is drawn at waters edge, vegetation is low with some trees, wet areas and fields apparent above OHWL,	Aug. 1958	4/12/2010	No	153	99	26	BUL-1V-59	ga025_1943
148	LS15309926L2	River is turning and creating an oxbow, OHWL is drawn at waters edge, vegetation is low with some trees, wet areas and fields apparent above OHWL,	Aug. 1958	4/12/2010	No	153	99	26	BUL-1V-59	ga025_1943
149	LS15309926L3	River is turning and creating an oxbow, OHWL is drawn at waters edge, vegetation is low with some trees, wet areas and fields apparent above OHWL,	Aug. 1958	4/12/2010	No	153	99	26	BUL-1V-59	ga025_1943
150	LS15309923L1	Cut bank with steep elevations above	Aug. 1958	4/12/2010	No	153	99	23	BUL-1V-59	ga025_1943
151	LS15309923L2	Cut bank with steep elevations above	Aug. 1958	4/12/2010	No	153	99	23	BUL-1V-59	ga025_1943
152	LS15309924L1	Cut bank with steep elevations above	Aug. 1958	4/12/2010	No	153	99	24	BUL-1V-59	ga025_1943
167	LS15309813L2	Willows below most likely sandbar with diamond, scattered trees above in linear formations	Aug. 1958	4/19/2010	No	153	98	13	BUL-2V-61	ga029_1943
168	LS15309814L1	Willows below most likely sandbar with diamond, scattered trees above in linear formations and a hayed area	Aug. 1958	4/19/2010	No	153	98	14	BUL-2V-61	ga029_1943
169	LS15309811L1	Along secondary channel, willow flat area, old river bed above	Aug. 1958	4/19/2010	No	153	98	11	BUL-2V-61	ga029_1943
170	LS15309811L2	Cut bank, elevation changes above, along main river channel	Aug. 1958	4/19/2010	Yes	153	98	11	BUL-2V-68	ga029_1943
171	LS15309811L3	Cut bank, elevation changes above, along main river channel	Aug. 1958	4/19/2010	Yes	153	98	11	BUL-2V-68	ga029_1943
172	LS15309802L1	Sandbar flat below, steep bank and road above	Aug. 1958	4/19/2010	Yes	153	98	2	BUL-2V-68	ga029_1943
173	LS15309802L2	In a willow flat, channel above as assumed to be from overland flow, cultivated fields above	Aug. 1958	4/19/2010	Yes	153	98	2	BUL-2V-68	ga029_1943
174	LS15409835L1	On main river channel. consistent with topo change, steep elevation change	Aug. 1958	4/19/2010	Yes	154	98	35	BUL-2V-68	ga029_1943
175	LS15409836L1	On main river channel. consistent with topo change, steep elevation change	Aug. 1958	4/19/2010	Yes	154	98	36	BUL-2V-68	ga029_1943
176	LS15409836L2	On main river channel. consistent with topo change, steep elevation change	Aug. 1958	4/19/2010	Yes	154	98	36	BUL-2V-149	ga029_1943
177	LS15409825L1	Above channel, behind willow sandbar, some fields above, topo shows elevation change	Aug. 1958	4/19/2010	Yes	154	98	25	BUL-2V-149	ga029_1943
178	LS15409730L1	Above willows and below field	Aug. 1958	4/19/2010	Yes	154	97	30	BUL-2V-149	ga032_1943
179	LS15409730L2	On main river channel. below field	Aug. 1958	4/19/2010	Yes	154	97	30	BUL-2V-149	ga031_1943
180	LS15409730L3	On main river channel, below tree growth, old river bed above	Aug. 1958	4/19/2010	No	154	97	30	BUL-2V-149	ga031_1943
181	LS15309824R1	On main river channel, below an older depositional area	Aug. 1958	4/19/2010	Yes	153	98	24	BUL-2V-61	ga030_1943
182	LS15309824R2	On main river channel, at steep bank above	Aug. 1958	4/19/2010	Yes	153	98	24	BUL-2V-61	ga030_1943
183	LS15309813R1	On main river channel, at steep bank above	Aug. 1958	4/19/2010	Yes	153	98	13	BUL-2V-61	ga029_1943
184	LS15309813R2	On main river channel, at steep bank above	Aug. 1958	4/19/2010	Yes	153	98	13	BUL-2V-61	ga029_1943
185	LS15309813R3	On main river channel, old river channel above with two-tracks through the area	Aug. 1958	4/19/2010	Yes	153	98	13	BUL-2V-61	ga029_1943
186	LS15309812R1	On main river channel, old river channel above with two-tracks and fields through the area	Aug. 1958	4/19/2010	Yes	153	98	12	BUL-2V-68	ga029_1943
187	LS15309811R1	Above willow flat, remnant back channel	Aug. 1958	4/19/2010	Yes	153	98	11	BUL-2V-68	ga029_1943
188	LS15309811R2	Above willow flat, remnant back channel	Aug. 1958	4/19/2010	Yes	153	98	11	BUL-2V-68	ga029_1943
189	LS15309802R1	On bank with field above	Aug. 1958	4/19/2010	Yes	153	98	2	BUL-2V-68	ga029_1943
190	LS15309801R1	Cut bank, fields above	Aug. 1958	4/19/2010	Yes	153	98	1	BUL-2V-68	ga029_1943
191	LS15409836R1	On cut bank along main channel	Aug. 1958	4/19/2010	Yes	154	98	36	BUL-2V-68	ga029_1943
192	LS15409836R2	On cut bank along main channel	Aug. 1958	4/19/2010	Yes	154	98	36	BUL-2V-68	ga029_1943
193	LS15409731R1	On cut bank along main channel, scattered trees and fields above	Aug. 1958	4/19/2010	Yes	154	97	31	BUL-2V-149	ga032_1943
194	LS15409730R1	On cut bank along main channel, scattered trees and fields above	Aug. 1958	4/19/2010	Yes	154	97	30	BUL-2V-150	ga032_1943

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195	LS15409730R2	On main river channel, willow flat below, scattered trees and fields above	Aug. 1958	4/19/2010	Yes	154	97	30	BUL-2V-150	ga032_1943
196	LS15409729R1	On main river channel, island forming below, above scattered trees and two-track to field	Aug. 1958	4/19/2010	Yes	154	97	29	BUL-2V-150	ga032_1943
197	LS15409729R2	Placement based on vegetation density, willows and channels below, above older river bed, two-tracks, fields, remnant channel segments above	Aug. 1958	4/19/2010	Yes	154	97	29	BUL-2V-150	ga032_1943
198	LS15409728R1	Placement based on vegetation density, willows and channels below, above older river bed, two-tracks, fields, remnant channel segments above	Aug. 1958	4/19/2010	Yes	154	97	28	BUL-2V-150	ga032_1943
199	LS15409728R2	Above back channel, narrow wooded banded field above	Aug. 1958	4/19/2010	Yes	154	97	28	BUL-2V-150	ga032_1943
200	LS15409727R1	Above back channel, narrow wooded banded field above	Aug. 1958	4/19/2010	Yes	154	97	27	BUL-2V-152	ga035_1943
201	LS15409727R2	On main river channel, dense wooded area above	Aug. 1958	4/19/2010	Yes	154	97	27	BUL-2V-152	ga034_1943
202	LS15409726R1	On main river channel, fields above	Aug. 1958	4/19/2010	Yes	154	97	26	BUL-2V-152	ga034_1943
203	LS15409723R1	On main river channel, fields above	Aug. 1958	4/19/2010	Yes	154	97	23	BUL-2V-152	ga034_1943
204	LS15409724L1	Above secondary channel, fields above	Sept. 1951	4/19/2010	Yes	154	97	24	340-271	ga034_1943
205	LS15409724L2	On main river channel, fields above	Sept. 1951	4/19/2010	Yes	154	97	24	340-271	ga034_1943
206	LS15409724L3	On main river channel, fields above	Sept. 1951	4/19/2010	Yes	154	97	24	340-271	ga034_1943
207	LS15409619L1	On main river channel, fields above	Sept. 1951	4/19/2010	Yes	154	96	19	340-271	ga036_1943
208	LS15409630L1	On main river channel, fields above	Sept. 1951	4/19/2010	Yes	154	96	30	340-271	ga036_1943
209	LS15409630L2	Line of demarcations, between river flow direction, vegetation below shows east, west growth, above vegetation shows north, south growth with scattered trees along old levees, '43 topo shows sandbar below OHWL	Sept. 1951	4/19/2010	Yes	154	96	30	340-271	ga036_1943
210	LS15409629L1	On main river channel, wooded vegetation above, on old river channel	Sept. 1951	4/19/2010	Yes	154	96	29	340-271	ga036_1943
211	LS15409629L2	On main river channel, wooded vegetation above, on old river channel	Sept. 1951	4/19/2010	Yes	154	96	29	340-271	ga036_1943
212	LS15409629L3	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	96	29	340-271	ga036_1943
213	LS15409621L1	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	96	21	340-271	ga036_1943
214	LS15409628L1	On main river channel, wooded vegetation above, on old river channel	Sept. 1951	4/19/2010	Yes	154	96	28	340-271	ga036_1943
215	LS15409627L1	On main river channel, wooded vegetation above, on old river channel	Sept. 1951	4/19/2010	Yes	154	96	27	340-271	ga036_1943
216	LS15409627L2	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	96	27	340-271	ga038_1943
217	LS15409627L3	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	96	27	340-271	ga038_1943
218	LS15409626L1	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	96	26	340-271	ga038_1943
219	LS15409626L2	On main river channel, appears to be an old field above	Sept. 1951	4/19/2010	Yes	154	96	26	340-271	ga038_1943
220	LS15409723R2	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	97	23	340-271	ga034_1943
221	LS15409725R1	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	97	25	340-271	ga034_1943
222	LS15409726R2	Above secondary channel, sandbar willow flat below, fields above	Sept. 1951	4/19/2010	Yes	154	97	26	340-271	ga035_1943
223	LS15409736R1	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	97	36	340-271	ga035_1943
224	LS15409736R2	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	97	36	340-271	ga035_1943
225	LS15409631R1	Above sandbar willow flat, dense larger wooded vegetation above	Sept. 1951	4/19/2010	Yes	154	96	31	340-271	ga035_1943
226	LS15409630R1	Along main river channel cut, elevation change, field above	Sept. 1951	4/19/2010	Yes	154	96	30	340-271	ga037_1943
227	LS15409630R2	On main river channel, elevation change, potential fields above	Sept. 1951	4/19/2010	Yes	154	96	30	340-271	ga037_1943
228	LS15409629R1	On main river channel, elevation change, potential fields above	Sept. 1951	4/19/2010	Yes	154	96	29	340-271	ga037_1943
229	LS15409629R2	Above sandbar willow flat, '43 topo shows elevation change	Sept. 1951	4/19/2010	Yes	154	96	29	340-271	ga037_1943
230	LS15409628R1	Above sandbar willow flat, '43 topo shows elevation change	Sept. 1951	4/19/2010	Yes	154	96	28	340-271	ga037_1943
231	LS15409628R2	On main river channel, dense wooded area above, large island in river	Sept. 1951	4/19/2010	Yes	154	96	28	340-271	ga037_1943
153	LS15309924L2	Cut bank with trees and fields above	Aug. 1958	4/12/2010	No	153	99	24	BUL-1V-58	ga025_1943
154	LS15309925L1	Cut bank with trees and fields above	Aug. 1958	4/12/2010	No	153	99	24	BUL-1V-58	ga025_1943
155	LS15309830L1	Cut bank with trees and fields above	Aug. 1958	4/12/2010	No	153	98	30	BUL-1V-57	ga027_1943
156	LS15309830L2	OHWL at obvious line between shrubs and trees	Aug. 1958	4/12/2010	No	153	98	30	BUL-1V-57	ga027_1943
157	LS15309831L1	On main river channel, near oxbow outlet, cut bank with trees above	Aug. 1958	4/12/2010	Yes	153	98	31	BUL-1V-57	ga027_1943
158	LS15309830L3	On main river channel, cut bank with trees above	Aug. 1958	4/12/2010	Yes	153	98	30	BUL-1V-56	ga027_1943
159	LS15309829L1	On main river channel, cut bank with trees and fields above	Aug. 1958	4/12/2010	Yes	153	98	29	BUL-1V-56	ga027_1943
160	LS15309829L2	On main river channel, cut bank with trees and fields above	Aug. 1958	4/12/2010	Yes	153	98	29	BUL-1V-56	ga027_1943
161	LS15309822L1	Cut bank, barren sandbar below, elevation changes above	Aug. 1958	4/19/2010	Yes	153	98	22	BUL-2V-60	ga030_1943
162	LS15309822L2	Cut bank, trees above, along main river channel	Aug. 1958	4/19/2010	Yes	153	98	22	BUL-2V-60	ga030_1943
163	LS15309823L1	Cut bank, trees above, along main river channel	Aug. 1958	4/19/2010	Yes	153	98	23	BUL-2V-60	ga030_1943
164	LS15309823L2	Cut bank, trees above, along main river channel	Aug. 1958	4/19/2010	Yes	153	98	23	BUL-2V-61	ga030_1943
165	LS15309824L1	Cut bank, scattered trees above, along main river channel	Aug. 1958	4/19/2010	Yes	153	98	24	BUL-2V-61	ga030_1943
166	LS15309813L1	Above willow flat with few tress, several trees above	Aug. 1958	4/19/2010	Yes	153	98	13	BUL-2V-61	ga029_1943
399	LS15210312L2	Wooded area with fields and irrigation canal above OHWL, OHWL on main channel	Aug. 1958	4/22/2010	Yes	152	103	12	BUL-1V-38	ga004_1943
400	LS15210207L1	Wooded area with fields and irrigation canal above OHWL, OHWL on main channel	Aug. 1958	4/22/2010	Yes	152	102	7	BUL-1V-38	ga004_1943
401	LS15210206L1	Wooded area with fields and irrigation canal above OHWL, OHWL on main channel	Aug. 1958	4/22/2010	Yes	152	102	6	BUL-1V-38	ga004_1943
402	LS15210206L2	Wooded area with fields above OHWL, OHWL on main channel	Aug. 1958	4/22/2010	Yes	152	102	6	BUL-1V-38	ga004_1943
403	LS15310234L1	Along main river channel, wetland vegetation above OHWL attributed to upland drains from fields above	Aug. 1958	4/22/2010	Yes	153	102	34	BUL-2V-7	ga004_1943
404	LS15310233L1	Along main river channel, fields above with drainage lines to river creating some wetland above OHWL	Aug. 1958	4/22/2010	Yes	153	102	33	BUL-2V-7	ga004_1943
405	LS15310233L2	OHWL above willow flat, fields above with drains to river, unable to determine vegetation type immediately	Aug. 1958	4/22/2010	Yes	153	102	33	BUL-2V-7	ga004_1943
406	LS15310228L1	OHWL above willow flat, hayed field directly above	Aug. 1958	4/22/2010	Yes	153	102	27	BUL-2V-7	ga004_1943

OBJECTID	Transect	Comment	Photo_Date	Date_	Confidence	Township	Range	Section_	Photo_File	Topo
407	LS15310228L2	Above willow flat with some hayed areas, upland includes hayed fields and several irrigation manipulations	Aug. 1958	4/22/2010	Yes	153	102	28	BUL-2V-8	ga004_1943
408	LS15310221L1	OHWL at elevation change in hayed area	Aug. 1958	4/22/2010	Yes	153	102	21	BUL-2V-8	ga004_1943
409	LS15310228L3	OHWL follows contour lines and wetland vegetation in back water channel, diverting north at this point, resuming it flow downstream	Aug. 1958	4/22/2010	Yes	153	102	28	BUL-2V-8	ga004_1943
410	LS15310221L2	Above channel where Trenton Lake enters into the river, sandbar willow below OHWL, trees above	Aug. 1958	4/22/2010	Yes	153	102	21	BUL-2V-8	ga004_1943
411	LS15310221L3	OHWL above sandbar willow flat and below field areas, irrigation canal about 1000' north of OHWL	Aug. 1958	4/22/2010	Yes	153	102	21	BUL-2V-36	ga004_1943
412	LS15310222L1	OHWL above willow flat, below row of trees along irrigation dam and fields	Aug. 1958	4/22/2010	Yes	153	102	22	BUL-2V-36	ga004_1943
413	LS15310222L2	Above willow flat, upland is a field	Aug. 1958	4/22/2010	Yes	153	102	22	BUL-2V-36	ga004_1943
414	LS15310222L3	Above sandbar willow flat, follows vegetation line and irrigation ditch	Aug. 1958	4/22/2010	Yes	153	102	22	BUL-2V-38	ga004_1943
415	LS15310223L1	Above sandbar willow flat, follows vegetation line and irrigation ditch	Aug. 1958	4/22/2010	Yes	153	102	23	BUL-2V-38	ga004_1943
416	LS15310226L1	Above sandbar willow flat, upland distinguished by tree growth and two-tracks	Aug. 1958	4/22/2010	Yes	153	102	26	BUL-2V-38	ga004_1943
417	LS15310226L2	Above willow flat, below hayed area with significant disturbance of trailing and cultivation	Aug. 1958	4/22/2010	Yes	153	102	26	BUL-2V-5	ga004_1943
418	LS15310225L1	Above sandbar willow flat, with one small hayed inclusion, upland area includes fields, road, and trails	Aug. 1958	4/22/2010	Yes	153	102	25	BUL-2V-5	ga008_1943
419	LS15310225L2	Above sandbar willow flat, with one small hayed inclusion, upland area includes fields, road, and trails	Aug. 1958	4/22/2010	Yes	153	102	25	BUL-2V-5	ga008_1943
420	LS15310225L3	Back water area, OHWL above back water channel, below upland road	Aug. 1958	4/22/2010	Yes	153	102	25	BUL-2V-5	ga008_1943
421	LS15310225L4	OHWL above sandbar willow flat, below wooded area with established trails	Aug. 1958	4/22/2010	Yes	153	102	25	BUL-2V-5	ga008_1943
422	LS15310130L1	On main river channel, upland low vegetation with established trails	Aug. 1958	4/22/2010	Yes	153	101	30	BUL-2V-5	ga008_1943
423	LS15310119L1	Above willow flat, below area with scattered trees and established trails	Aug. 1958	4/22/2010	Yes	153	101	19	BUL-2V-5	ga008_1943
424	LS15310119L2	Above willow flat, below area with scattered trees and established trails	Aug. 1958	4/22/2010	Yes	153	101	19	BUL-2V-39	ga008_1943
425	LS15310118L1	OHWL is between sandbar willow flat, and area with dense tree growth	Aug. 1958	4/22/2010	Yes	153	101	18	BUL-2V-39	ga007_1943
426	LS15310118L2	Follows lower channel in willow flat, drained fields above	Aug. 1958	4/22/2010	Yes	153	101	18	BUL-2V-39	ga007_1943
427	LS15310213L1	Cut bank with fields above	Aug. 1958	4/22/2010	Yes	153	102	13	BUL-2V-91	ga007_1943
428	LS15310112L1	Cut bank with fields above	Aug. 1958	4/22/2010	Yes	153	102	12	BUL-2V-91	ga007_1943
429	LS15310212L2	On main river channel, field upland	Aug. 1958	4/22/2010	Yes	153	102	12	BUL-2V-91	ga007_1943
430	LS15310201L1	On main river channel, upland is disturbed from railroad	Aug. 1958	4/22/2010	Yes	153	102	1	BUL-2V-91	ga007_1943
431	LS15310106L1	On main river channel, upland is disturbed from railroad	Aug. 1958	4/22/2010	Yes	153	101	6	BUL-2V-91	ga007_1943
432	LS15310106L2	On main river channel, upland is disturbed from railroad	Aug. 1958	4/22/2010	Yes	153	101	6	BUL-2V-91	ga007_1943
433	LS15210321R1	Above willow flat, trees and fields above	Aug. 1958	4/22/2010	Yes	152	103	21	BUL-1V-13	ga002_1943
434	LS15210315R1	Above willow flat, trees and fields above	Aug. 1958	4/22/2010	Yes	152	103	15	BUL-1V-13	ga002_1943
435	LS15210315R2	Along construction area for Furlong diversion, willows below OHWL	Aug. 1958	4/22/2010	Yes	152	103	15	BUL-1V-13	ga002_1943
436	LS15210315R3	Above older back channel, with wooded area above	Aug. 1958	4/22/2010	Yes	152	103	15	BUL-1V-13	ga002_1943
437	LS15210315R4	Above older back channel, with wooded area above	Aug. 1958	4/22/2010	Yes	152	103	15	BUL-1V-13	ga002_1943
438	LS15210310R1	Above older back channel, with wooded area above	Aug. 1958	4/22/2010	Yes	152	103	10	BUL-1V-13	ga002_1943
439	LS15210315R5	OHWL above willow flat, below wooded area	Aug. 1958	4/22/2010	Yes	152	103	15	BUL-1V-13	ga002_1943
440	LS15210315R6	OHWL above back channel, follows more mature tree growth	Aug. 1958	4/22/2010	Yes	152	103	15	BUL-1V-13	ga002_1943
441	LS15210323R1	Follows back channel along more mature tree growth	Aug. 1958	4/22/2010	Yes	152	103	23	BUL-1V-11	ga002_1943
442	LS15210323R2	OHWL above barren shore area and below established trees	Aug. 1958	4/22/2010	Yes	152	103	23	BUL-1V-11	ga002_1943
443	LS15210314R1	Cut bank along main river channel	Aug. 1958	4/22/2010	Yes	152	103	14	BUL-1V-11	ga002_1943
444	LS15210313R1	Cut bank along main river channel with small willow flat in front of bank, steep elevation change	Aug. 1958	4/22/2010	Yes	152	103	13	BUL-1V-11	ga005_1943
445	LS15210313R2	Cut bank along main river channel	Aug. 1958	4/22/2010	Yes	152	103	13	BUL-1V-11	ga005_1943
446	LS15210312R1	Cut bank along main river channel	Aug. 1958	4/22/2010	Yes	152	103	12	BUL-1V-38	ga005_1943
447	LS15210207R1	Cut bank along main river channel	Aug. 1958	4/22/2010	Yes	152	102	7	BUL-1V-38	ga004_1943
448	LS15210207R2	Cut bank along main river channel	Aug. 1958	4/22/2010	Yes	152	102	7	BUL-1V-38	ga004_1943
449	LS15210206R1	Cut bank along main river channel	Aug. 1958	4/22/2010	Yes	152	102	6	BUL-1V-38	ga004_1943
450	LS15210206R2	Cut bank along main river channel	Aug. 1958	4/22/2010	Yes	152	102	6	BUL-1V-38	ga004_1943
451	LS15310234R1	On cut bank behind secondary channel, willow flat island in front, fields upland	Aug. 1958	4/22/2010	Yes	153	102	34	BUL-1V-38	ga004_1943
452	LS15310234R2	Cut bank along main river channel, fields upland	Aug. 1958	4/22/2010	Yes	153	102	34	BUL-1V-38	ga004_1943
453	LS15310234R3	Cut bank along main river channel, upland is established wooded area	Aug. 1958	4/22/2010	Yes	153	102	34	BUL-2V-7	ga004_1943
454	LS15310227R1	Cut bank along main river channel, scattered trees and fields above	Aug. 1958	4/22/2010	Yes	153	102	27	BUL-2V-8	ga004_1943
455	LS15310227R2	Cut bank along main river channel, scattered trees and fields above	Aug. 1958	4/22/2010	Yes	153	102	27	BUL-2V-8	ga004_1943
456	LS15310227R3	On main river channel, field upland	Aug. 1958	4/22/2010	Yes	153	102	27	BUL-2V-37	ga004_1943
457	LS15310222R1	On main river channel, sandbar in front and field upland	Aug. 1958	4/22/2010	Yes	153	102	22	BUL-2V-37	ga004_1943
458	LS15310227R4	Sandbar willow below, field upland	Aug. 1958	4/22/2010	Yes	153	102	27	BUL-2V-37	ga004_1943
459	LS15310226R1	Sandbar willows flat below with numerous channels though it, hayed field upland	Aug. 1958	4/22/2010	Yes	153	102	26	BUL-2V-6	ga004_1943
460	LS15310226R2	Sandbar willows flat below with numerous channels though it, hayed field upland	Aug. 1958	4/22/2010	Yes	153	102	26	BUL-2V-6	ga004_1943
461	LS15310226R3	Dense vegetation below with channel though willows, farming has been attempted in a portion of it below OHWL, OHWL follows road with drier fields above	Aug. 1958	4/22/2010	Yes	153	102	26	BUL-2V-6	ga004_1943
462	LS15310236R1	OHWL above back channel and willow flat, upland includes a road and fields	Aug. 1958	4/22/2010	Yes	153	102	36	BUL-2V-6	ga004_1943
463	LS15310225R1	OHWL above willow flat, sparse vegetation with road and a line of trees above	Aug. 1958	4/22/2010	Yes	153	102	25	BUL-2V-6	ga008_1943
464	LS15310225R2	OHWL on cut bank, willow flat below, more mature vegetation and fields above	Aug. 1958	4/22/2010	Yes	153	102	25	BUL-2V-5	ga008_1943
465	LS15310130R1	OHWL on cut bank, willow flat below, more mature vegetation and fields above	Aug. 1958	4/22/2010	Yes	153	101	30	BUL-2V-5	ga008_1943
466	LS15310130R2	Depositional dirt from upland, row of trees above OHWL	Aug. 1958	4/22/2010	Yes	153	101	30	BUL-2V-5	ga008_1943

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OBJECTID	Transect	Comment	Photo_Date	Date_	Confidence	Township	Range	Section_	Photo_File	Topo
467	LS15310130R3	On main channel, road directly above that parallels river channel	Aug. 1958	4/22/2010	Yes	153	101	30	BUL-2V-40	ga008_1943
468	LS15310120R1	On main channel, road directly above that parallels river channel	Aug. 1958	4/22/2010	Yes	153	101	20	BUL-2V-40	ga008_1943
469	LS15310120R2	On main channel, road directly above that parallels river channel	Aug. 1958	4/22/2010	Yes	153	101	20	BUL-2V-40	ga008_1943
470	LS15310117R1	On main channel, road directly above that parallels river channel	Aug. 1958	4/22/2010	Yes	153	101	17	BUL-2V-40	ga007_1943
471	LS15310118R1	On main channel, road directly above that parallels river channel	Aug. 1958	4/22/2010	Yes	153	101	18	BUL-2V-40	ga007_1943
472	LS15310118R2	OHWL is behind a mostly barren depositional area, upland vegetation is mature trees	Aug. 1958	4/22/2010	Yes	153	101	18	BUL-2V-91	ga007_1943
473	LS15310107R1	OHWL follows old back channel with various flow striations, upland is more dense vegetation and fields	Aug. 1958	4/22/2010	Yes	153	101	7	BUL-2V-91	ga007_1943
474	LS15310107R2	OHWL follows old back channel with various flow striations, upland is more dense vegetation and fields	Aug. 1958	4/22/2010	Yes	153	101	7	BUL-2V-91	ga007_1943
475	LS15310106R1	OHWL follows old back channel with various flow striations, upland is more dense vegetation and fields	Aug. 1958	4/22/2010	Yes	153	101	6	BUL-2V-91	ga007_1943
476	LS15310106R2	OHWL above sandbar willow flat with line of trees and road upland	Aug. 1958	4/22/2010	Yes	153	101	6	BUL-2V-91	ga007_1943
477	LS15309402L2	Cut bank on former White Earth River, creek combined with river in the north edge of section 2, OHWL follows cut bank	Sept. 1951	4/28/2010	Yes	153	94	2	340-275	ga051_1943
478	LS15309402L3	Cut bank on former White Earth River, river combined with Missouri river in the north edge of section 2, OHWL follows cut bank	Sept. 1951	4/28/2010	Yes	153	94	2	340-275	ga051_1943
479	LS15309401L1	Cut bank on former White Earth River, river combined with Missouri river in the north edge of section 2, OHWL follows cut bank	Sept. 1951	4/28/2010	Yes	153	94	1	340-275	ga051_1943
480	LS15309401L2	Cut bank on former White Earth River, river combined with Missouri river in the north edge of section 2, OHWL follows cut bank	Sept. 1951	4/28/2010	Yes	153	94	1	340-275	ga051_1943
481	LS15309401L3	Cut bank on former White Earth River, river combined with Missouri river in the north edge of section 2, OHWL follows cut bank	Sept. 1951	4/28/2010	Yes	153	94	1	340-275	ga051_1943
482	LS15309306L1	Cut bank on former White Earth River, river combined with Missouri river in the north edge of section 2, OHWL follows cut bank	Sept. 1951	4/28/2010	Yes	153	93	6	340-275	ga051_1943
232	LS15409627R1	On main river channel, field above, large island in river	Sept. 1951	4/19/2010	Yes	154	96	27	340-271	ga037_1943
233	LS15409627R2	On main river channel, field above, large island in river	Sept. 1951	4/19/2010	Yes	154	96	27	340-271	ga039_1943
234	LS15409626R1	On main river channel, field above	Sept. 1951	4/19/2010	Yes	154	96	26	340-271	ga039_1943
235	LS15409626R2	On main river channel, '43 topo shows elevation change	Sept. 1951	4/19/2010	Yes	154	96	26	340-271	ga038_1943
236	LS15409626R3	Follows old channel, old island below OHWL, evidenced by '43 photos and follows 1800' '43 topo line	Sept. 1951	4/20/2010	No	154	96	26	340-271	ga039_1943
237	LS15409625R1	Follows old channel, old island below OHWL, evidenced by '43 photos and follows 1800' '43 topo line	Sept. 1951	4/20/2010	No	154	96	25	340-271	ga039_1943
238	LS15409624L1	On main river channel, fields above, cut bank	Sept. 1951	4/20/2010	Yes	154	96	24	340-273	ga038_1943
239	LS15409625L1	On main river channel, fields above, cut bank	Sept. 1951	4/20/2010	Yes	154	96	25	340-273	ga038_1943
240	LS15409530L1	On main river channel, fields above, cut bank	Sept. 1951	4/20/2010	Yes	154	95	30	340-273	ga040_1943
241	LS15409530L2	On secondary river channel. behind some islands, fields above	Sept. 1951	4/20/2010	Yes	154	95	30	340-273	ga040_1943
242	LS15409529L1	On secondary river channel. behind some islands, fields above	Sept. 1951	4/20/2010	Yes	154	95	29	340-273	ga040_1943
243	LS15409529L2	On secondary river channel. behind some islands, fields above	Sept. 1951	4/20/2010	Yes	154	95	29	340-273	ga041_1943
244	LS15409529L3	On main river channel, below stabilized oxbow area with trees above	Sept. 1951	4/20/2010	Yes	154	95	29	340-273	ga041_1943
245	LS15409533L1	On main river channel, below stabilized oxbow area with trees above	Sept. 1951	4/20/2010	Yes	154	95	33	340-273	ga041_1943
246	LS15409528L1	At edge of sandbar willow flat in oxbow, below older oxbow area, less dense vegetation and scattered trees above	Sept. 1951	4/20/2010	No	154	95	28	340-273	ga041_1943
247	LS15409528L2	At edge of sandbar willow flat in oxbow, below older oxbow area, less dense vegetation, trails below believe to be associated with pipeline in area	Sept. 1951	4/20/2010	No	154	95	28	340-273	ga041_1943
248	LS15409521L1	At edge of sandbar willow flat in oxbow, below older oxbow area, less dense vegetation, trails below believe to be associated with pipeline in area	Sept. 1951	4/20/2010	No	154	95	21	340-273	ga041_1943
249	LS15409522L1	At edge of sandbar willow flat in oxbow, below older oxbow area, less dense vegetation, trails below believe to be associated with pipeline in area	Sept. 1951	4/20/2010	No	154	95	22	340-273	ga041_1943
250	LS15409522L2	At edge of sandbar willow flat in oxbow, below older oxbow area, less dense vegetation, trails below believe to be associated with pipeline in area, trees above	Sept. 1951	4/20/2010	No	154	95	22	340-273	ga042_1943
251	LS15409526L1	On main river channel, behind islands, wooded growth above	Sept. 1951	4/20/2010	Yes	154	95	26	340-273	ga042_1943
252	LS15409625R2	Follows old channel, old island below OHWL, evidenced by '43 photos and follows 1800' '43 topo line	Sept. 1951	4/20/2010	No	154	96	25	340-273	ga039_1943
253	LS15409531R1	Follows old channel, old island below OHWL, evidenced by '43 photos and follows 1800' '43 topo line	Sept. 1951	4/20/2010	No	154	95	31	340-273	ga039_1943
254	LS15409531R2	Follows old channel, old island below OHWL, evidenced by '43 photos and follows 1800' '43 topo line	Sept. 1951	4/20/2010	No	154	95	31	340-273	ga041_1943
255	LS15409531R3	Follows old channel, old island below OHWL, evidenced by '43 photos and follows 1800' '43 topo line	Sept. 1951	4/20/2010	No	154	95	31	340-273	ga041_1943
256	LS15409532R1	Along main river channel, where it appears back channel enters river	Sept. 1951	4/20/2010	No	154	95	32	340-273	ga041_1943
257	LS15409532R2	On main river channel. wooded vegetation and fields above	Sept. 1951	4/20/2010	Yes	154	95	32	340-273	ga041_1943
258	LS15409533R1	On main river channel. wooded vegetation and fields above	Sept. 1951	4/20/2010	Yes	154	95	33	340-273	ga041_1943
259	LS15409533R2	On main river channel. wooded vegetation and fields above	Sept. 1951	4/20/2010	Yes	154	95	33	340-273	ga041_1943
260	LS15409534R1	On main river channel. wooded vegetation and fields above, turns above a small sandbar willow flat	Sept. 1951	4/20/2010	Yes	154	95	34	340-273	ga041_1943
261	LS15409527R1	On main river channel. wooded vegetation and fields above, turns along wood line edge downstream	Sept. 1951	4/20/2010	Yes	154	95	27	340-273	ga041_1943
262	LS15409527R2	Along edge of sandbar willow flat, below wooded vegetation	Sept. 1951	4/20/2010	Yes	154	95	27	340-273	ga043_1943
263	LS15409526R1	Along edge of sandbar willow flat, below wooded vegetation	Sept. 1951	4/20/2010	Yes	154	95	26	340-273	ga043_1943
264	LS15409526R2	Along edge of sandbar willow flat, below wooded vegetation	Sept. 1951	4/20/2010	Yes	154	95	26	340-273	ga043_1943
265	LS15409525R1	Along edge of sandbar willow flat, below wooded vegetation	Sept. 1951	4/20/2010	Yes	154	95	25	340-273	ga043_1943
266	LS15409536R1	On main river channel. trees above	Sept. 1951	4/20/2010	Yes	154	95	36	340-273	ga043_1943
267	LS15409526L2	On main river channel. trees above	Sept. 1951	4/20/2010	Yes	154	95	26	340-273	ga042_1943
268	LS15409526L3	On back channel, above sandbar willow flat, taller more mature trees above	Sept. 1951	4/20/2010	Yes	154	95	26	340-273	ga042_1943
269	LS15409525L1	On back channel, above sandbar willow flat, taller more mature trees above	Sept. 1951	4/20/2010	Yes	154	95	25	340-273	ga042_1943
270	LS15409525L2	On back channel, above sandbar willow flat, taller more mature trees above	Sept. 1951	4/20/2010	Yes	154	95	25	340-273	ga042_1943
271	LS15409430L1	On wider back channel, island below and taller more mature trees above	Sept. 1951	4/20/2010	Yes	154	94	30	340-273	ga042_1943
272	LS15409430L2	On wider back channel, island below and taller more mature trees above	Sept. 1951	4/20/2010	Yes	154	94	30	340-273	ga047_1943
273	LS15409431R1	On main river channel, cut bank, '43 topo shows elevation change	Sept. 1951	4/20/2010	Yes	154	94	31	340-273	ga043_1943
274	LS15409431R2	On main river channel, cut bank, '43 topo shows elevation change	Sept. 1951	4/20/2010	Yes	154	94	31	340-273	ga043_1943
275	LS15409431R3	On main river channel, cut bank, '43 topo shows elevation change, beginning of older oxbow downstream	Sept. 1951	4/20/2010	Yes	154	94	31	340-273	ga047_1943

OBJECTID	Transect	Comment	Photo_Date	Date_	Confidence	Township	Range	Section_	Photo_File	Topo
276	LS15409429L1	Above sandbar willow flat behind back channel, more mature vegetation above	Sept. 1951	4/20/2010	Yes	154	94	29	340-275	ga047_1943
277	LS15409429L2	Above sandbar willow flat behind back channel, more mature vegetation above	Sept. 1951	4/20/2010	Yes	154	94	29	340-275	ga047_1943
278	LS15409428L1	Above sandbar willow flat behind back channel, more mature vegetation above	Sept. 1951	4/20/2010	Yes	154	94	28	340-275	ga047_1943
279	LS15409428L2	Above sandbar willow flat behind back channel, more mature vegetation above	Sept. 1951	4/20/2010	Yes	154	94	28	340-275	ga047_1943
280	LS15409428L3	On main channel, cut bank, steep elevation change above	Sept. 1951	4/20/2010	Yes	154	94	28	340-275	ga047_1943
281	LS15409427L1	On main channel, cut bank, steep elevation change above	Sept. 1951	4/20/2010	Yes	154	94	27	340-275	ga047_1943
282	LS15409427L2	On main channel, cut bank, steep elevation change above	Sept. 1951	4/20/2010	Yes	154	94	27	340-275	ga051_1943
283	LS15409435L1	On main channel, cut bank, steep elevation change above	Sept. 1951	4/20/2010	Yes	154	94	35	340-275	ga051_1943
284	LS15409435L2	On main channel, cut bank, steep elevation change above	Sept. 1951	4/20/2010	Yes	154	94	35	340-275	ga051_1943
285	LS15309402L1	Cut bank, field directly above	Sept. 1951	4/20/2010	Yes	153	94	2	340-275	ga051_1943
286	LS15309307L1	Above willows behind back channel, steep elevation changes upland	Sept. 1951	4/20/2010	Yes	153	93	7	340-275	ga051_1943
287	LS15309307L2	Above willows behind back channel, steep elevation changes upland	Sept. 1951	4/20/2010	Yes	153	93	7	340-275	ga058_1943
288	LS15309308L1	Above sandbar willow flat, behind back channel, upland change to older river bed	Sept. 1951	4/20/2010	Yes	153	93	8	340-275	ga058_1943
289	LS15309317L1	On main river bank, farmland upland,	Sept. 1951	4/20/2010	Yes	153	93	17	340-275	ga058_1943
290	LS15309317L2	On main river bank, farmland upland,	Sept. 1951	4/20/2010	Yes	153	93	17	340-275	ga058_1943
291	LS15309320L1	On main river bank, mature vegetation upland	Sept. 1951	4/20/2010	Yes	153	93	20	340-275	ga058_1943
292	LS15309320L2	On main river bank, mature vegetation upland	Sept. 1951	4/20/2010	Yes	153	93	20	340-275	ga059_1943
293	LS15309620L3	On main river bank, mature woodland vegetation upland	Sept. 1951	4/20/2010	Yes	153	90	20	340-275	ga059_1943
294	LS15409432R1	On main river channel, old river bed upland, '43 topo shows elevation change	Sept. 1951	4/20/2010	Yes	154	94	32	340-275	ga047_1943
295	LS15409432R2	On main river channel, old river bed upland, '43 topo shows elevation change	Sept. 1951	4/20/2010	Yes	154	94	32	340-275	ga047_1943
296	LS15409433R1	On main river channel, old river bed upland, '43 topo shows elevation change	Sept. 1951	4/20/2010	Yes	154	94	33	340-275	ga047_1943
297	LS15409433R2	On main river channel, mature vegetation on upland peninsula	Sept. 1951	4/20/2010	Yes	154	94	33	340-275	ga047_1943
298	LS15409428R1	Elevation change above a barren area on main river channel, mature vegetation upland	Sept. 1951	4/20/2010	Yes	154	94	28	340-275	ga047_1943
299	LS15409434R1	Vegetation changes at OHWL, mature upland vegetation, sandbar willows below on back channel	Sept. 1951	4/20/2010	Yes	154	94	34	340-275	ga047_1943
300	LS15409433R3	Vegetation changes at OHWL, mature upland vegetation, sandbar willows below on back channel	Sept. 1951	4/20/2010	Yes	154	94	33	340-275	ga047_1943
301	LS15409433R4	Vegetation changes at OHWL, mature upland vegetation, sandbar willows below on back channel, large island formed between back channel and main channel	Sept. 1951	4/20/2010	Yes	154	94	33	340-275	ga047_1943
302	LS15309404R1	Vegetation changes at OHWL, mature upland vegetation, sandbar willows below on back channel, large island formed between back channel and main channel	Sept. 1951	4/20/2010	Yes	153	94	4	340-275	ga047_1943
303	LS15309404R2	Vegetation changes at OHWL, mature upland vegetation, behind a smaller back channel with sandbar willow flat	Sept. 1951	4/20/2010	Yes	153	94	4	340-275	ga047_1943
304	LS15309409R1	Along steep edge of upland, sandbar willow flat below	Sept. 1951	4/20/2010	Yes	153	94	9	340-275	ga047_1943
305	LS15309410R1	Along steep edge of upland, sandbar willow flat below	Sept. 1951	4/20/2010	Yes	153	94	10	340-275	ga047_1943
306	LS15309410R2	On bank of main channel, below steep upland elevation change, cut bank	Sept. 1951	4/20/2010	Yes	153	94	10	340-275	ga047_1943
307	LS15309410R3	On bank of main channel, below steep upland elevation change, cut bank	Sept. 1951	4/20/2010	Yes	153	94	10	340-275	ga051_1943
308	LS15309411R1	On bank of main channel, below steep upland elevation change, cut bank	Sept. 1951	4/20/2010	Yes	153	94	11	340-275	ga051_1943
309	LS15309411R2	Sandbar willows below OHWL, elevation change with mature vegetation upland	Sept. 1951	4/20/2010	Yes	153	94	11	340-275	ga051_1943
310	LS15309412R1	Sandbar willows below OHWL, elevation change with field upland	Sept. 1951	4/20/2010	Yes	153	94	12	340-275	ga051_1943
311	LS15309412R2	On main river channel, elevation change and woodland vegetation upland	Sept. 1951	4/20/2010	Yes	153	94	12	340-275	ga051_1943
312	LS15309307R1	On main river channel, elevation change and woodland vegetation upland	Sept. 1951	4/20/2010	Yes	153	93	7	340-275	ga051_1943
313	LS15309318R1	On main river channel, elevation change and field upland	Sept. 1951	4/20/2010	Yes	153	93	18	340-275	ga051_1943
314	LS15309318R2	On main river channel, elevation change and mature vegetation upland	Sept. 1951	4/20/2010	Yes	153	93	18	340-275	ga058_1943
315	LS15309317R1	On main river channel, elevation change and mature vegetation upland	Sept. 1951	4/20/2010	Yes	153	93	17	340-275	ga058_1943
316	LS15309317R2	Above sandbar willow flat with trees above, follows back channel	Sept. 1951	4/20/2010	Yes	153	93	17	340-275	ga058_1943
317	LS15309320R1	Follows back channel, above sandbar willow flat, old river bed behind	Sept. 1951	4/20/2010	Yes	153	93	20	340-275	ga058_1943
318	LS15309320R2	Follows back channel, above sandbar willow flat, old river bed behind	Sept. 1951	4/20/2010	Yes	153	93	20	340-275	ga059_1943
319	LS15309320R3	On main river channel behind sandbar, old river bed behind	Sept. 1951	4/20/2010	Yes	153	93	20	340-275	ga059_1943
320	LS15309329L1	On main river bank, on elevation change, mature vegetation upland	Sept. 1951	4/20/2010	Yes	153	93	29	340-301	ga059_1943
321	LS15309329L2	Above barren sand area on main river channel, mature vegetation above.	Sept. 1951	4/20/2010	Yes	153	93	29	340-301	ga059_1943
322	LS15309328L1	Above area with little vegetation. along main river channel, more mature vegetation above	Sept. 1951	4/20/2010	Yes	153	93	28	340-301	ga059_1943
323	LS15309328L2	Along flow line, slight change in vegetation cover, trees developing above on old river bed	Sept. 1951	4/20/2010	Yes	153	93	28	340-301	ga059_1943
324	LS15309327L1	Along flow line, slight change in vegetation cover, trees developing above on old river bed	Sept. 1951	4/20/2010	Yes	153	93	27	340-301	ga059_1943
325	LS15309327L2	Along vegetation line, created by backwater flooding, trees and fields above OHWL	Sept. 1951	4/20/2010	Yes	153	93	27	340-301	ga059_1943
326	LS15309328L3	Along vegetation line, created by backwater flooding, trees and fields above OHWL	Sept. 1951	4/20/2010	Yes	153	93	28	340-301	ga059_1943
327	LS15309321L1	Along vegetation line, created by backwater flooding, trees and fields above OHWL	Sept. 1951	4/20/2010	Yes	153	93	21	340-301	ga059_1943
328	LS15309322L1	Along vegetation line, created by backwater flooding, trees and fields above OHWL	Sept. 1951	4/20/2010	Yes	153	93	22	340-301	ga059_1943
329	LS15309327L3	Along vegetation line, created by backwater flooding, trees above OHWL	Sept. 1951	4/20/2010	Yes	153	93	27	340-301	ga059_1943
330	LS15309326L1	On main river channel, at elevation change	Sept. 1951	4/20/2010	Yes	153	93	26	340-301	ga066_1943
331	LS15309326L2	On main river channel, cut bank at elevation change	Sept. 1951	4/20/2010	Yes	153	93	26	340-301	ga066_1943
332	LS15309326L3	On main river channel, cut bank at elevation change, two-track above	Sept. 1951	4/20/2010	Yes	153	93	26	340-301	ga066_1943
333	LS15309335L1	On main river channel, mature trees upland	Sept. 1951	4/20/2010	Yes	153	93	35	340-301	ga066_1943
334	LS15309335L2	Above sandbar willow flat, upland with mature trees	Sept. 1951	4/20/2010	Yes	153	93	35	340-301	ga066_1943
335	LS15209304L1	Above back channel cut, mature trees upland, island in front of channel	Sept. 1951	4/20/2010	Yes	152	93	4	340-301	ga066_1943

ObjectIDs 185 and 186 Bartlett & West 2011

OBJECTID	Transect	Comment	Photo_Date	Date_	Confidence	Township	Range	Section_	Photo_File	Topo
336	LS15209304L2	On main river channel, mature trees upland,	Sept. 1951	4/20/2010	Yes	152	93	4	340-301	ga066_1943
337	LS15209304L3	Above sandbar willow flat on main river channel, mature trees upland	Sept. 1951	4/20/2010	Yes	152	93	4	340-301	ga066_1943
338	LS15209310L1	Above sandbar willow flat on main river channel, mature trees upland	Sept. 1951	4/20/2010	Yes	152	93	10	340-301	ga066_1943
339	LS15209310L2	On main river channel, houses upland	Sept. 1951	4/20/2010	Yes	152	93	10	340-301	ga066_1943
340	LS15209311L1	On main river channel, two-track and major drainage upland, drainage enter river downstream	Sept. 1951	4/20/2010	Yes	152	93	11	340-301	ga066_1943
341	LS15209311L2	On main river channel, just below where drainage enters river, steep topo change	Sept. 1951	4/20/2010	Yes	152	93	11	340-301	ga074_1943
342	LS15209311L3	On main river channel, steep topo change, cut bank	Sept. 1951	4/20/2010	Yes	152	93	11	340-301	ga074_1943
343	LS15209314L1	On main river channel, steep topo change, cut bank	Sept. 1951	4/20/2010	Yes	152	93	14	340-301	ga074_1943
344	LS15309329R1	On topo change. above a sandbar with a band of sandbar willow	Sept. 1951	4/20/2010	Yes	153	93	29	340-301	ga059_1943
345	LS15309329R2	On main river channel, at topo elevation change, two-track on upland	Sept. 1951	4/20/2010	Yes	153	93	29	340-301	ga059_1943
346	LS15309332R1	On main river channel, at topo elevation change, two-track on upland	Sept. 1951	4/20/2010	Yes	153	93	29	340-301	ga059_1943
347	LS15309333R1	On main river channel, at topo elevation change, field upland	Sept. 1951	4/20/2010	Yes	153	93	33	340-301	ga059_1943
348	LS15309333R2	On main river channel, at topo elevation change, field upland	Sept. 1951	4/20/2010	Yes	153	93	33	340-301	ga059_1943
349	LS15309334R1	On main river channel, at topo elevation change, field upland	Sept. 1951	4/20/2010	Yes	153	93	34	340-301	ga059_1943
350	LS15309327R1	On main river channel, at topo elevation change, field upland	Sept. 1951	4/20/2010	Yes	153	93	27	340-301	ga059_1943
351	LS15309327R2	On main river channel, at topo elevation change, on old river bed	Sept. 1951	4/20/2010	Yes	153	93	27	340-301	ga066_1943
352	LS15309326R1	Follows water line on willow flat, field upland	Sept. 1951	4/20/2010	Yes	153	93	26	340-301	ga066_1943
353	LS15309335R1	On main river channel, topo change	Sept. 1951	4/20/2010	Yes	153	93	35	340-301	ga066_1943
354	LS15309335R2	On flow line above willow flat,	Sept. 1951	4/20/2010	Yes	153	93	35	340-301	ga066_1943
355	LS15209305R1	On flow line above willow flat,	Sept. 1951	4/20/2010	Yes	152	93	5	340-301	ga066_1943
356	LS15209305R2	On main river channel, small elevation change	Sept. 1951	4/20/2010	Yes	152	93	5	340-301	ga066_1943
357	LS15209304R1	On flow line, above willow flat	Sept. 1951	4/20/2010	Yes	152	93	5	340-301	ga066_1943
358	LS15209309R1	On main river channel, topo change, field upland	Sept. 1951	4/20/2010	Yes	152	93	9	340-301	ga066_1943
359	LS15209310R1	On main river channel, topo change, field upland	Sept. 1951	4/20/2010	Yes	152	93	10	340-301	ga066_1943
360	LS15209310R2	On main river channel, topo change, old depositional area with trees upland	Sept. 1951	4/20/2010	Yes	152	93	10	340-301	ga066_1943
361	LS15209310R3	On main river channel, topo change, old depositional area with trees upland	Sept. 1951	4/20/2010	Yes	152	93	10	340-301	ga067_1943
362	LS15209311R1	Above depositional willow flat with trees upland	Sept. 1951	4/20/2010	Yes	152	93	11	340-301	ga067_1943
363	LS15209314R1	Above depositional willow flat with trees upland	Sept. 1951	4/20/2010	Yes	152	93	14	340-301	ga067_1943
364	LS15409729L1	On main river channel, cut bank, mature trees upland, small willow trees on turning point of main river channel	Aug. 1958	4/21/2010	Yes	154	97	29	BUL-2V-189	ga031_1943
365	LS15409720L1	OHWL based on vegetation structure, low willows below and taller trees above	Aug. 1958	4/21/2010	Yes	154	97	20	BUL-2V-189	ga031_1943
366	LS15409720L2	OHWL above marshy area indicated by standing water, OHWL dissects trees area based on density of trees, more trees above OHWL vs. scattered trees below and indication of saturation area based on appearance of two-track	Aug. 1958	4/21/2010	Yes	154	97	20	BUL-2V-189	ga031_1943
367	LS15409720L3	OHWL above marshy area, upland has a row of trees in front of a silty barren area from drainage	Aug. 1958	4/21/2010	Yes	154	97	20	BUL-2V-189	ga031_1943
368	LS15409720L4	OHWL is above back channel, standing water below	Aug. 1958	4/21/2010	Yes	154	97	20	BUL-2V-189	ga031_1943
369	LS15409721L1	On cut bank, upland steep elevation change with barren hills, standing water below OHWL	Aug. 1958	4/21/2010	Yes	154	97	21	BUL-2V-189	ga031_1943
370	LS15409721L2	On cut bank, upland steep elevation change with barren hills, standing water below OHWL	Aug. 1958	4/21/2010	Yes	154	97	21	BUL-2V-189	ga031_1943
371	LS15409721L3	On cut bank, upland steep elevation change with barren hills, standing water below OHWL	Aug. 1958	4/21/2010	Yes	154	97	21	BUL-2V-189	ga031_1943
372	LS15409722L1	On cut bank, standing water below OHWL	Aug. 1958	4/21/2010	Yes	154	97	22	BUL-2V-188	ga034_1943
373	LS15409722L2	On cut bank, standing water below OHWL	Aug. 1958	4/21/2010	Yes	154	97	22	BUL-2V-186	ga034_1943
374	LS15409714L1	On cut bank, standing water below OHWL, Tobacco Garden Creek on upland above, low structure vegetation with two-tracks in area	Aug. 1958	4/21/2010	Yes	154	97	14	BUL-2V-186	ga034_1943
375	LS15409714L2	On cut bank, marshy below. above OHWL steep elevation change, fields upland	Aug. 1958	4/21/2010	Yes	154	97	14	BUL-2V-186	ga034_1943
376	LS15409723L1	On cut bank, along main river channel, sandbar in front, upland includes farmstead. roads and fields	Aug. 1958	4/21/2010	Yes	154	97	23	BUL-2V-186	ga034_1943
377	LS15309829L3	OHWL below mature trees, above willow flat with hayed fields	Aug. 1958	4/21/2010	Yes	153	98	29	BUL-1V-55	ga027_1943
378	LS15309821L1	OHWL below mature trees, above willow flat with hayed fields	Aug. 1958	4/21/2010	Yes	153	98	21	BUL-1V-55	ga027_1943
379	LS15309821L2	OHWL below mature trees, above willow flat with hayed fields, steep elevation change	Aug. 1958	4/21/2010	Yes	153	98	21	BUL-1V-55	ga027_1943
380	LS15309821L3	OHWL below mature trees, above willow flat with hayed fields, steep elevation change	Aug. 1958	4/21/2010	Yes	153	98	21	BUL-1V-55	ga027_1943
381	LS15210321L1	Above a mostly barren sandbar flat with vegetation beginning establishment on the farther downstream, mature trees on large old oxbow above that is farmed (1958); topo lines indicate low cut bank	Aug. 1958	4/22/2010	Yes	152	103	21	BUL-1V-13	ga002_1943
382	LS15210316L1	On main river channel, mature trees on large old oxbow above that is farmed (1958) above an irrigation ditch 1500' above bank, area within 1500' is drained, but does include some barren areas with wetland veg	Aug. 1958	4/22/2010	Yes	152	103	16	BUL-1V-13	ga002_1943
383	LS15210316L2	Above sandbar willow flat, below established trees, willow flats above assumed from drained field	Aug. 1958	4/22/2010	Yes	152	103	16	BUL-1V-13	ga002_1943
384	LS15210309L1	OHWL lies between an area with low dense sandbar willows below with mature trees and fields above with developed roads	Aug. 1958	4/22/2010	Yes	152	103	9	BUL-1V-13	ga002_1943
385	LS15210309L2	OHWL follows wooded line, fields above with developed roads, upland drainage channel, sandbar willow flat below	Aug. 1958	4/22/2010	Yes	152	103	9	BUL-1V-34	ga001_1943
386	LS15210309L3	Above willow flat, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	9	BUL-1V-34	ga001_1943
387	LS15210304L1	Above willow flat, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	4	BUL-1V-34	ga001_1943
388	LS15210303L1	cut channel on main river course, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	3	BUL-1V-34	ga001_1943
389	LS15210303L2	cut channel on main river course, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	3	BUL-1V-34	ga001_1943
390	LS15210303L3	cut channel on main river course, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	3	BUL-1V-35	ga001_1943
391	LS15210311L1	cut channel on main river course, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	11	BUL-1V-35	ga001_1943
392	LS15210311L2	cut channel on main river course, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	11	BUL-1V-35	ga002_1943
393	LS15210311L3	cut channel on main river course, upland is blocked from over land drainage above from irrigation canal and roads, follows '43 topo line	Aug. 1958	4/22/2010	Yes	152	103	11	BUL-1V-35	ga002_1943
394	LS15210314L1	On main river channel, below wooded area on depositional peninsula	Aug. 1958	4/22/2010	Yes	152	103	14	BUL-1V-11	ga002_1943
395	LS15210314L2	near end of depositional peninsula; barren sandbar below with island developing; developed vegetation above OHWL	Aug. 1958	4/22/2010	Yes	152	103	14	BUL-1V-11	ga002_1943

ObjectIDs 185 and 186 Bartlett & West 2011

OBJECTID	Transect	Comment	Photo_Date	Date_	Confidence	Township	Range	Section_	Photo_File	Topo
396	LS15210313L1	On main river channel, below wooded area on depositional peninsula	Aug. 1958	4/22/2010	Yes	152	103	13	BUL-1V-11	ga005_1943
397	LS15210313L2	Wooded area with fields above OHWL, OHWL on main channel	Aug. 1958	4/22/2010	Yes	152	103	13	BUL-1V-11	ga005_1943
398	LS15210312L1	Wooded area with fields and irrigation canal above OHWL, OHWL on main channel	Aug. 1958	4/22/2010	Yes	152	103	12	BUL-1V-11	ga005_1943

ObjectIDs 185 and 186 Bartlett & West 2011

From:	David Mackie
To:	Kadrmas, Bethany R.
Cc:	Don Key
Subject:	Wenck OHWM Survey - Comments from Continental Resources, Inc.
Date:	Wednesday, June 20, 2018 2:48:54 PM
Attachments:	Wenck OHWM Survey - Continental Resources Inc Comments.pdf
Importance:	High

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Please see the attached comments from Continental Resources, Inc. regarding the Wenck OHWM survey. We respectfully ask that you confirm receipt.

Thank you,

David L. Mackie
Continental Resources, Inc.
20 N. Broadway
Oklahoma City, OK 73102
P/F: 405.234.9727
david.mackie@clr.com
www.**clr**.com

Mailing
P.O. Box 269091
Oklahoma City, OK 73126

Continental
RESOURCES

June 20, 2018

VIA EMAIL ONLY (brkadrmas@nd.gov)

North Dakota Industrial Commission
Oil and Gas Division
1016 E. Calgary Ave
Bismarck, North Dakota 58503-5512

Re: Wenck Ordinary High Water Mark of the Missouri River Bed

To Whom It May Concern:

Continental Resources, Inc. ("Continental") has reviewed the survey of the Ordinary High Water Mark ("OHWM") of the Missouri River prepared by Wenck Associates, Inc. as it pertains to Continental's operated and non-operated wells. In response to the North Dakota Industrial Commission's ("NDIC") request for comments on the OHWM survey, Continental provides the following comments.

Prior to commencing review of the OHWM survey, Continental expected the OHWM survey to calculate acreage values lying above and below the OHWM within the linear confines of each section affected. Continental planned to use these calculations to make the necessary adjustments to our records to comply with the OHWM survey. However, the OHWM survey prepared by Wenck only illustrates the OHWM boundary with supplemental schedules listing the acreage calculations on a quarter-quarter section basis. The current format of the OHWM survey completely ignores governmental lots and, in many cases, fails to delineate acreage from one section to another. In addition, the maps and tables included with the current format of the OHWM survey do not correspond with the Bureau of Land Management's Master Title Plats ("BLM Plats") in which our spacing unit boundaries are derived. As a result, the current format of the OHWM survey makes it impossible to incorporate its results into Continental's well ownership records in order to make the necessary adjustments to comply with the OHWM survey.

For the reasons set forth above, Continental respectfully request the OHWM survey be re-formatted to align with the BLM Plats noted above while listing the number of acres in each affected quarter section/governmental lot above and below the OHWM.

Should you have any questions or concerns regarding this matter, please contact me at 405-234-9200 or by e-mail at don.key@clr.com.

Sincerely,

Don Key
Manager, Regional Land

P.O. Box 269091 · Oklahoma City, OK 73126
405.234.9000 www.clr.com

From: garyjhagen
To: Kadrmas, Bethany R.
Subject: NDIC Hearing on Wenck Study - document attached
Date: Wednesday, June 20, 2018 1:14:26 PM
Attachments: OHWM Hearing Wenck Study June 26 2018.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Bethany,

Attached is a document I would like to submit on behalf of my family as rebuttal to the findings of the Wenck OHWM 2.0 Study.
We would like to file it as evidence for the hearing and review process.

Thank you,

Gary Hagen

To the North Dakota Industrial Commission:

My father was a homesteader along the Missouri River in McKenzie County, North Dakota. Seventy years ago, the federal government took his land as impoundment for the Garrison Dam under the Pick-Sloan Act. They gave him a check for what they decided the land was worth and told him to get out. He fought for ten years to retain his mineral rights and finally prevailed despite the government's self-serving opinions, judgments, hired "experts", a rigged bureaucracy and false justifications as to why they should be able to take his property for a noble, greater purpose – just like the State of North Dakota, which now seeks to steal these mineral rights all over again.

I am here to continue the family tradition by contesting the findings of the Wenck study, which is mostly a cleaned-up rehash of the first OHWM land grab that the state ginned up in 2009, with the same definitions, methodology and conclusions. This time they removed some of the more egregious parts, such as places where the state tried to steal land by claiming it was flooded regularly, even though the aerial photos showed houses and buildings present. However, the state still gives itself the right to set all of the definitions, make all of the rules, decide what "counts" or not, ignore any contradictory data or studies not approved by the state and most importantly to decide that its own interpretation of digitized aerial photos and cherry-picked data supersedes the terms of the SB2134 law, along with all evidence acquired by live humans who made handwritten ground surveys for various federal agencies.

Our property is located at T153N, Range 98W, sections 1, 2 and 11, river miles 1517-1518. USACE Segments AA2465 and AA2468 totalling 310.18 acres were owned by my father, Henry T. Hagen, who passed away in 2007 at the age of 95.

The mineral rights the state is attempting to steal from my family were on the east bank of the river and include:
1.4 acres located in 153N098W11 NENE (Lot 1, 31.7 acres deeded by land patent,)
3.9 acres located in 153N098W11 NESE (Lot 4, 35.7 acres deeded by land patent)
92 acres located in 153N098W11 NWNE (93.5 acres of accretions deeded to my father by the BLM/USACE surveys for the Garrison Dam takings, shown on page 56 of the Wenck document, on the black label)

The 5.3 acres in Lots 1 and 4 were described in the original 1896 ground survey as:
"section 11 and corner of 1,2,11,12 are level, covered with dense brush and cottonwood trees, and NOT SUBJECT TO INUNDATION."
Page 16: across section 11 to corner of 10,11,14,15 still described as timber and dense undergrowth**, not subject to inundation east of river but four foot inundation on west side.**
What that means is that the river land on the other side of the river was lower than it was on the east side. After 1896, the east bank moved west and was built up by accretion so that the east side became even higher as the river channel moved west.

So the river moved west and created "rolling, undulating" accretions. How exactly does the river that moved away, come back over rolling land every two years on average to inundate and destroy level land for agricultural purposes when that property was not subject to inundation in the first place? What proof can you show that this actually happened? Look at page 14 of the USACE segment AA2468 appraisal. The land you are trying to claim in Lot 1 is clearly labeled as "Native Hay – Alfalfa Mix" and other parts of both lots are described as "brush and mixed hardwoods". Exactly which 5.3 acres is it that you claim are below the high watermark? What is your clear and conclusive evidence that this land was inundated regularly and rendered unfit for agricultural use? My Dad planted that alfalfa and other hay crops there and in the "open area" in between, where he mowed the hay far past that point, out across the accretions to the west. By the state's own definition according to the SB2134 law, native hay, alfalfa, volunteer hay and clover are all hay, and haylands are considered to be above the OWHM.

The State is also attempting to steal an additional 92 acres of accretive land that were deeded to my father by the original BLM/COE ground surveys. According to North Dakota law, accretions are defined accordingly:

a. State case law regarding the identification of the point at which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes, including hay lands. Land where the high and continuous presence of water has destroyed its value for agricultural purposes, including hay land, generally must be considered within the ordinary high water mark. The value for agricultural purposes is destroyed at the level where significant, major, and substantial terrestrial vegetation ends or ceases to grow. Lands having agricultural value capable of growing crops or hay, but not merely intermittent grazing or location of cattle, generally must be considered above the ordinary high water mark; and

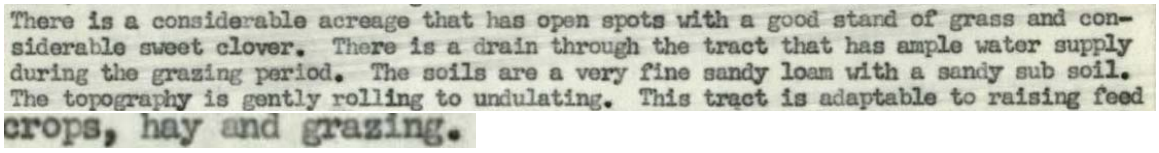
b. Subsection 3 of section 61-33-01 and section 47-06-05, which provide all accretions are presumed to be above the ordinary high water mark and are not sovereign lands. Accreted lands may be determined to be within the ordinary high water mark of the historical Missouri riverbed channel based on clear and convincing evidence. Areas of low-lying and flat lands where the ordinary high water mark may be impracticable to determine due to inconclusive aerial photography or inconclusive vegetation analysis must be presumed to be above the ordinary high water mark and owned by the riparian landowner.

I will now cite two different proofs that these accretions qualify as being above the OWHM and by law not subject to theft by the state. First, the 1951 and 1943 aerial photographs both show that the accretive lands are covered with large trees clear to the river shoreline. In addition, an open area lying east of the tree belt in the 1951 photo is obviously under cultivation. In the center of the accretions in section 11 is a cleared area containing a dark shadow thrown by what looks like a haystack. Above the haystack is a chimney-shaped cultivation line reaching north to the border of section 2. At the bottom of the accretive area, crossing the border into NESE, appears to be a loop shape that was made by mowing. This loop shape is even more prominent in the 1949 aerial photos than it is in the 1951 photos.
Although "the state has decided" that forest products do not count as agriculture, I would nonetheless like to point out that my father also had a sawmill on the

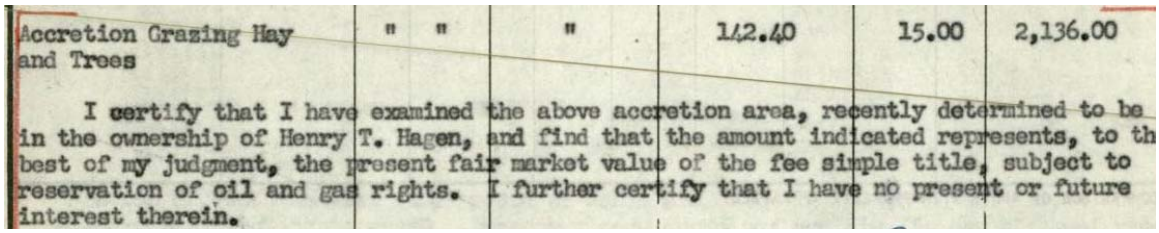
property, the only one in the area. He cut trees and probably cleared the open area in the accretions himself to use as hay land. One year a cyclone carried away cut lumber from his property but some of the neighbors returned the boards they found because they knew it belonged to him.

The 1943 photograph, MRD_8_28, even has handwritten notes on it, describing the vegetation: Alfalfa, native hay, volunteer hay, sweet clover. 1943 was the highest flood year ever recorded and the photo was taken less than a month after the peak flood stage, yet only a small sliver on the inside of the river bend was scrubbed of vegetation. If the river couldn't scrub any more than that in the worst flood ever recorded, then it is extremely unlikely that the entire accretive area was being inundated and rendered free of vegetation and useless for agriculture by merely average floods every two years. Besides, do you really expect anyone to believe that every other year on average, the river made a 90-degree right turn in order to flood our acreage, without a corresponding flood on the opposite shore WHERE THE CURRENT PUSHES INTO THE BANK at a point where houses and buildings were located in section 14? Authorities on river hydraulics such as J.F. Friedkin and Jim Simpson say that the amount of rise in the water level must be equal on both banks of the river. It is physically impossible for a river to flood higher on the inside bend than it does on the outside bend at the same point.

The second proof that our accretions belong to us by state law is that they are both suitable and being used for agriculture, they are not being destroyed by water action and they are not covered with wetland species. It comes from the appraisal documents for segment AA2468. Here are a couple of excerpts:


There is a considerable acreage that has open spots with a good stand of grass and considerable sweet clover. There is a drain through the tract that has ample water supply during the grazing period. The soils are a very fine sandy loam with a sandy sub soil. The topography is gently rolling to undulating. This tract is adaptable to raising feed crops, hay and grazing.

NOTE THE FOLLOWING FROM PAGE 3 of the Appraisal Document: the accretions were examined on the ground by a live human who described them as "Accretion Grazing HAY and Trees". The property is described in the appraisals as gently rolling to undulating, meaning it is not flat land that is easily inundated and stripped of vegetation. In addition, the soil type and topography listed for the accretions is "very fine sandy loam" -- IDENTICAL to the cultivated acres where my father grew wheat, oats and other feed grains.


Accretion Grazing Hay and Trees " " " 142.40 15.00 2,136.00

I certify that I have examined the above accretion area, recently determined to be in the ownership of Henry T. Hagen, and find that the amount indicated represents, to the best of my judgment, the present fair market value of the fee simple title, subject to reservation of oil and gas rights. I further certify that I have no present or future interest therein.

Because the 1951 aerial photo shows that there are substantial stands of trees all the way to the rivers edge in our accretions, state case law serves as a third proof that the accretions belong to my family. According to the Burleigh case prominently cited by the

study**, "the tree line identifies the ordinary high watermark. Along the tree line there is a clear change in the characteristics of the land."**

2. **Findings of Fact, Conclusions of Law, and Order for Judgment (Civ. No 91-C-1669) – Burleigh County District Court**
This order provides a discussion of the defendant's assertions and evidence presented by the defendant that was used to determine the OHWM. The plaintiff provided evidence (as listed above) to demonstrate the presence of the OHWM, which the court concluded was "substantial and persuasive". An important statement in the document is that "aerial photos of the land and the areas adjoining it to the north and the south, make apparent, even to the layperson, the location o[f] the ordinary high watermark. The tree line of the river valley forest identifies the ordinary high watermark.

My family and I therefore want to know exactly what specific "clear and conclusive" evidence you cite from the study in order to overturn the SB2134 law, supersede the federal surveys that are by law the presumptive determination of the ordinary high watermark, and steal the mineral rights that were lawfully deeded to us by the federal government. You have already stolen well over a million dollars from us and we want it back, along with the mineral rights and all of the future revenues. Our evidence includes your own aerial photographs and appraisal documents that contain handwritten notes, drawings and maps made by people who were physically on the ground and described what they saw in writing. The state's evidence is a conglomeration of cherry-picked data, opinions of hired "experts", backward-engineered river flow data based on one gauge located 46 miles upstream and a computer model that even Wenck admits is subject to distortions and inaccuracies due to reasons such as unclear resolution in the digital imagery, that "limits exact placement of lines." You have not proven that the original USACE surveys were wrong or that the 2014 Bureau of Land Management Supplemental surveys were wrong, only that you believe your own methodology is right.

From a scientific viewpoint, the study contains other methodological flaws, omissions and distortions of the data, all designed to support the state's theft of the mineral rights. For example, aerial photographs exist for the years 1939, 1943, 1947, 1949, and 1952, yet the study chooses to ignore all of these years and focus on 1951 for a variety of reasons given in the document. The real reason is that the 1951 photos are grainy and unclear by comparison, therefore easier to tweak in a computer model to get the desired results. Also, many of the farmers like my father had already been kicked off their land and were no longer planting new crops or keeping their cultivation lines fresh, so that allows the state to "interpret" the 1951 aerial photos as saying the land was just weeds, only used for grazing, without haystacks or evidence of agricultural use, etc.
The BLM and USACE used the 1949 photos for their surveys because the quality is so much better. I have a 1949 photo for our property from NARA, index number AXD-4F-123 and totally agree. You can even see the shadows of the big trees along the shoreline.

Then there is the problem of the stream flow data used for the hydraulic computer models to "estimate" where the high watermark "might" have been for each area, "on average". It relies entirely on the data from one river gauge located at the Williston Bridge, and it

uses the peak flows from 1929-1953 to claim that the river flooded every two years on average with a high flow of 80,000 cfs or more. I say that this choice of years skews the hydraulic model in favor of higher and more frequent floods because it ignores the fact that the completion of the Fort Peck dam in 1939 changed the river flows so that the average flood frequency and volumes were much less starting in 1940 until 1953, the last year of the study. The high water points from Appendix C of the study show that from 1940 through 1953, floods were only happening every three to four years, even considering that two of the biggest flood years in history happened in 1943 and 1947, during a decade of abundant moisture and good crops. For the years 1929-1939, the maximum flow reached or exceeded 80,000 cfs eight times, or about 72%. From 1940 through 1953, 80,000 cfs was reached only five times or 35%, about once every three years on average, with 40,000 to 65,000 cfs being more of the norm for a peak flow. Indeed, anyone can see from the flow graph that for the first three years after the dam closure, the peak flows were about 40,000, 40,000 and 70,000 cfs. A similar four year period occurs between 1948 and 1952. This fact would lengthen the average time between floods from two to three years at minimum (a 50% change), thus reducing the average high watermarks both in reality and in the computerized hydraulic model.

The timing of the high water periods changed as well during the 1940's. Before the Ft Peck dam closure, the high water tended to happen later in the year but after 1940, the major historical floods of 1943, 1947 and 1952 all have a big, short-lived spike in late March/early April, probably caused by ice jams as opposed to runoff. Who is to say that ice jams weren't backing up to the gauge at the Williston Bridge, while the areas below the jam were still frozen and not flooding at all, or at least at a much lower level. Satellite images even today show that the Sakakawea Reservoir thaws first in the reaches near Williston and the Garrison Dam, while the ice in T153-98 and T154 Ranges 94-98 is generally the last to melt.

Not to mention that the single gauge used for the study is 46 miles upstream from my family's property, and the study itself says that the flows are higher upstream than they are downstream. The flows from the Yellowstone River get backed up at the Williston end too. Were there no other gauges or measurements taken by anyone on the entire river from Williston to the Garrison Dam site between 1929 and 1953?

By the way, the hydraulic table in the study document does not list any data for the eastern BLM reach where our minerals are located. Why not? Likewise, I do not see any explanation of what the "clear and conclusive" evidence might be for overturning the law. The original OHWM 1.0 scam had a little table with an explanation, however I don't see anything like that in this study… unless it is hidden in the table data that was submitted in GDB format that the average layman can't open and use without specialized software. An Excel spreadsheet or a Word table would have been easier to use but it is not in the state's interest to make things easier for the victims of this fraud.

In conclusion, the federal government says the original shoreline by all of their surveys and methodologies is the correct one. The reason why the state is "giving back" the federal lands is because the state knows it can't win outside of the corrupt ND courts.

The whole scam now depends on getting the feds out of the way in order to set a precedent that ND law controls the private river lands, so the state can then come back and steal all of the private mineral rights under the entire reservoir.
I've said before that if your "methodology" is sound and just, then it should apply to all of the river lands, not just the parts owned by the peasants who don't have the power to stop you or the money to win in courts that are stacked with judges who were appointed by the same crooks who invented this disgusting money-grab in the first place. You are not good people doing what is right "for the children of the future". You are trying to rob OUR children's future so that a gang of dishonorable, scheming North Dakota politicians can enjoy the wealth and power that comes from controlling the distribution of the stolen oil money.

It is both immoral and cowardly to allow this farce to continue. It shames the state and reveals the government officials behind it to be not only greedy and untrustworthy but downright evil. We urge the NDIC to reject the Wenck study and honor the SB2134 law in its original form as introduced by Senator Kelly Armstrong, to return all of the stolen mineral rights according to the federal surveys without any gamesmanship and tricky amendments, as was originally intended.

Sincerely,

Gary Hagen, for the family and 11 heirs of Henry T. Hagen

From: NDPC
To: Kadrmas, Bethany R.
Subject: NDPC Comments Regarding Case No. 26584
Date: Wednesday, June 20, 2018 12:54:15 PM
Attachments: NDPC Comments to Case No. 26584 - 6.20.2018.pdf
Importance: High

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Attached please find comments from the North Dakota Petroleum Council regarding Case No. 26584: In the matter of a hearing called on a motion of the Commission to consider public of the delineation of the ordinary high water mark of the US Army Corps of Engineers survey segments from the northern boundary of the Fort Berthold Indian reservation to the southern border of Sections 33 and 34, Township 153 North, Range 102 West.

If you have any questions, please feel free to contact our office.

Thank you.

Ron Ness, President
North Dakota Petroleum Council

NORTH DAKOTA
PETROLEUM
COUNCIL

100 West Broadway, Ste. 200 | P.O. Box 1395 | Bismarck, ND 58502-1395
701.223.6380 | ndpc@ndoil.org | www.NDOil.org

June 20, 2018

North Dakota Industrial Commission
State Capitol, 14th Floor
600 E Boulevard Ave. Dept. 405
Bismarck, ND 58505-0840

RE: Case No. 26584: In the matter of a hearing called on a motion of the Commission to consider public of the delineation of the ordinary high water mark of the US Army Corps of Engineers survey segments from the northern boundary of the Fort Berthold Indian reservation to the southern border of Sections 33 and 34, Township 153 North, Range 102 West.

North Dakota Industrial Commission:

The North Dakota Petroleum Council ("NDPC") is a trade association representing more than 500 companies involved in all aspects of the oil and gas industry, including oil and gas production, in North Dakota, South Dakota, and the Rocky Mountain Region. North Dakota is ranked second in the nation in the production of oil, and NDPC members produce 98 percent of the oil and gas in North Dakota.

The NDPC appreciates the efforts of the Industrial Commission, Department of Mineral Resources, and Wenck & Associates regarding the ordinary high water mark study as required by NDCC Chapter 61-33.1 adopted by the 2017 Legislature. NDPC does not offer any technical comments as to the specific ordinary high water mark boundary delineations, but NDPC does have suggestions relating to the necessity of additional acreage calculations above and below the ordinary high water mark in order to implement the final study once adopted.

Operators distribute production proceeds on Bakken wells to the many mineral and leasehold owners based on their acreage ownership interests within a particular size spacing unit, typically 1280 acres. While the study released for public comment does delineate the location of the OHWM, the study does not fully allocate acreages above or below the OHWM so that an Operator can calculate the number of acres of the Missouri River OHWM lying within a particular spacing unit or the acreage upland of the Missouri River OHWM within a spacing unit. In order for Operators (and Department of Trust Lands) to implement acreage adjustments as required under the Act, NDPC recommends Wenck & Associates calculate the acreages that are above and below the ordinary high water mark.

More specifically, because the State issued its oil and gas leases on a quarter section basis, if the OHWM of the river courses through any part of a particular quarter section, the study should identify the amount of acreage in that quarter section that would be sovereign lands below the OHWM and subject to the State lease, and how many acres are above OHWM in each quarter section owned by upland owners.

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Second, NDPC recommends that the study also calculate acreages allocations for accretions (where accretions are present) lying above the OHWM and riparian to the upland tracts within each section. NDPC believes these calculations would be best prepared by an independent surveying and engineering firm under the supervision of the NDIC.

Sincerely,

Ron Ness, President
North Dakota Petroleum Council

From:	Lonney White
To:	Kadrmas, Bethany R.
Subject:	Whitetail Wave LLC- Written Comments-June 26, 2018 Special Hearing- Wenck OHWM Survey
Date:	Wednesday, June 20, 2018 11:54:45 AM
Attachments:	6-20-18 Letter Whitetail Wave LLC-NDIC- Wenck Survey.pdf

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Bethany, in accordance with the North Dakota Industrial Commission Docket for Hearing Notice dated for Tuesday, June 26, 2018 @ 9:00 a.m., regarding delineation of the ordinary high water mark ("OHWM") received by the Commission on April 17, 2018, from Wenck Associates, Inc. ("Wenck"), I wish to submit the following comments attached hereto as a pdf file for your further handling.

As per our phone discussion yesterday, I will bring 10 color copies of my attached comments for your distribution at the hearing.

Will you please acknowledge your receipt of this email and the opening of my large pdf file.

Thanks.

Whitetail Wave LLC
Lonney H. White, Jr., Sole Member
POB 21495
Billings, MT 59104
406.248.5627
Cell 406.861.0832
lonneywhitejr@gmail.com

WHITETAIL WAVE LLC

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June 20, 2018

VIA Email: brkadrmas@nd.gov

North Dakota Industrial Commission-
Department of Mineral Resources
Oil and Gas Division
Attn: B R Kadrmas
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

Re: NDIC-The Dept of Mineral Resources
June 26, 2018 Special Hearing Regarding The Wenck OHWM Survey

To the Department of Mineral Resources:

As per the North Dakota Industrial Commission Docket for Hearing Notice dated for Tuesday, June 26, 2018 @ 9:00 a.m., regarding delineation of the ordinary high water mark ("OHWM") received by the Commission on April 17, 2018, from Wenck Associates, Inc. ("Wenck"), I wish to submit the following comments.

I'm Lonney H. White, Jr., Sole Member of Whitetail Wave LLC ("Whitetail"), a Montana Limited Liability Company, who is a mineral owner under certain tracts of lands covered under Wenck's delineation of OHWM, received by the Commission on April 17, 2018 ("Wenck Survey"). The record title chain to mineral interest acquired by Whitetail ties back to H. B. Mendenhall and Carrie E. Mendenhall, the previous owners at the time of United States of America's taking of surface. ***(See Attachment 1, Judgment On Declaration of Taking, dated 8/15/1953) (See Attachment 2, Y 2282 Appraisal Docs)***

For the purpose of this hearing and so that I may be able to more fully understand the Wenck Survey, as it applies specifically to three (3) tracts under which Whitetail owns a mineral interest, I request that you provide me with some additional help, information and consideration, either directly or through Wenck.

For your reference, see below a table that sets out information obtained from Wenck Survey-Table 2a OHWM Delineation Results, covering my three (3) Tracts. In addition to the six (6)

columns contain therein, I added columns 2 & 5 set out in red for reference and discussion purposes herein:

1	2	3	4	5	6	7	8
Wenck Survey Tracts **(aka Whitetail Wave LLC Tracts)**	**Corps Segment Map Y Above OHWM (acres)**	USACE Survey (acres)	USACE Survey Below OHWM (acres)	**USACE Survey Above OHWM (acres)**	Project Area Below OHWM (acres)	Project Area Above OHWM (acres)	Net Change (acres)
154N096W27S ESW	**21.20**	21.90	1.90	**20.00**	4.50	17.40	2.60
154N096W27S WSE	**27.10**	26.60	2.10	**24.50**	4.20	22.40	2.10
154N096W27S WSW **(aka Lot 8)**	**20.72**	19.80	1.90	**17.90**	3.10	16.70	1.20
TOTAL	**69.02**	68.30	5.90	**62.40**	11.80	56.50	5.90

See # 11 below for breakout of 12.52 acres							
TOTAL	**69.02**					56.50	12.52

My request for help, information and consideration is as follows:

1. ***1.*** Regarding Column 2 & 3, can you explain why Column 3, USACE Survey was used and not Column 2, Corps Segment Map Y Survey? ***(See Attachment 3, Corps Segment Map Y Survey)***
2. Regarding Column 3, can you provide me with a PDF Copy of the USACE Survey Plat used in Wenck Survey?
3. Regarding Column 3, are the USACE Survey points taken from work done under Column 2, Corps Segment Map Y Survey?
4. Regarding Table 2a Column 3, 4, 5, 6, 7 & 8, how were the areas computed and can you provide me with PDF Copies that highlights any and all details or documents specifically used in calculating the areas set out for each of my three tracts listed in Column 1?
5. Regarding Column 2 & 3, can you provide me with a PDF Copy of the Corps Segment Map Y with an overlay of the USACE survey, as well as overlays of the acreage amounts set out in Columns 4 through 7?
6. As a follow up to Question 4, regarding Column 1 Tracts specifically, what is the percentage of error in the calculations used to determine the acreage amounts set out in Columns 3 through 8?

7. Regarding Wenck Survey OHWM Delineation Maps 1-18, more specifically Map 6 of 18 that covers my Tracts set out in Column 1, please explain the georeferencing issues that are evident on Map 6 of 18. ***(See Attachment 4, Wenck Survey OHWM Delineation Map 6 of 18)***

8. Did the Wenck Survey use, in any way, the Bartlett & West Phase II Survey ("Phase II Survey") and if not, why and if so, can you explain when and how it was used and why the Wenck Survey shows less Above OHWM Acres and more Below OHWM Acres than the Phase II Survey, covering my Tracts set out in Column 1? ***(See Attachment 5, Bartlett & West Plats. Be advised, Whitetail has overlaid its tracts to one of the 3 attached Bartlett & West Plats)***

9. Regarding Column 1, please provide me with the metes and bounds legal description, for each of the three Tracts for the area laying Above the OHWM? If metes and bounds description cannot be provided, please explain why.

10. Regarding Column 1, please provide me with the metes and bounds legal description, for each of the three Tracts for the area laying Below the OHWM? If metes and bounds description cannot be provided, please explain why.

11. As a Owner under the three tracts in Column 1, I argue that Column 2 Corps Segment Map Y Survey should have been used as the starting point, or ground ZERO of the Wenck Survey due to distortions and georeferencing errors. By using Column 3, USACE Survey, containing 68.30 acres instead of Column 2, Corps Segment Map Y Survey, containing 69.02 acres, it appears as though I lose 0.72 acres (69.02- 68.30 = 0.72) . Additionally it appears that I lose 5.90 acres to OHWM, using certain USACE Survey data considered under Column 4, plus an additional 5.90 acres using certain other Survey data considered under Column 6. By not using the Column 2, Corps Segment Map Y Survey, l actually lose a net total of 12.52 acres to OHWM, rather than the Winck Survey 5.90 net loss acres set out in Column 8 (0.72 + 5.90 + 5.90 = 12.52). Considering the above, can you please account for each of the acreage amounts that total the net 12.52 acres lost to the OHWM by providing me with details of any and all things considered that are specific to said acres?

12. Regarding Column 1 Tracts specifically, can you explain reasons why the Wenck Survey is right and the Corps Segment Map Y Survey is wrong? Why doesn't the Corps Segment Map Y Survey areas match those of the Wenck report Table 2a? Did the Wenck Survey take into account the Supplemental Plats by the USACE? In providing explanation, please consider that certain Response Letter, dated March 23, 2016 from Aden L. Seidlitz, Acting State Director of the United States Department of the Interior, Montana Bureau of Land Management to Mr. Lance D. Gaebe, Commissioner of the University and School Lands, ND Dept of Trust Lands and Mr. Todd Sands, State Engineer, ND State Water Commission, wherein, among other things, Mr. Seidlitz concludes

"...The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial

rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in--the-field investigations by BLM, and involved from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey Performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines..." ***(See Attachment 6, Response Letter, dated March 23, 2016 from Aden L. Seidlitz, Acting State Director of the United States Department of the Interior, Montana Bureau of Land Management)***

13. Further to Item 12 above, please be informed that I have had discussions with Cadastral Surveyors, Josh and Blaise with the United States Department of the Interior, Montana Bureau of Land Management, Billings Office, regarding the Wenck Survey, as it relates to my tracts. All discussions and information was provided to me as helpful information and not as a decision by the BLM. Through discussions with Josh and Blaise I have reached my own conclusion, as follows:

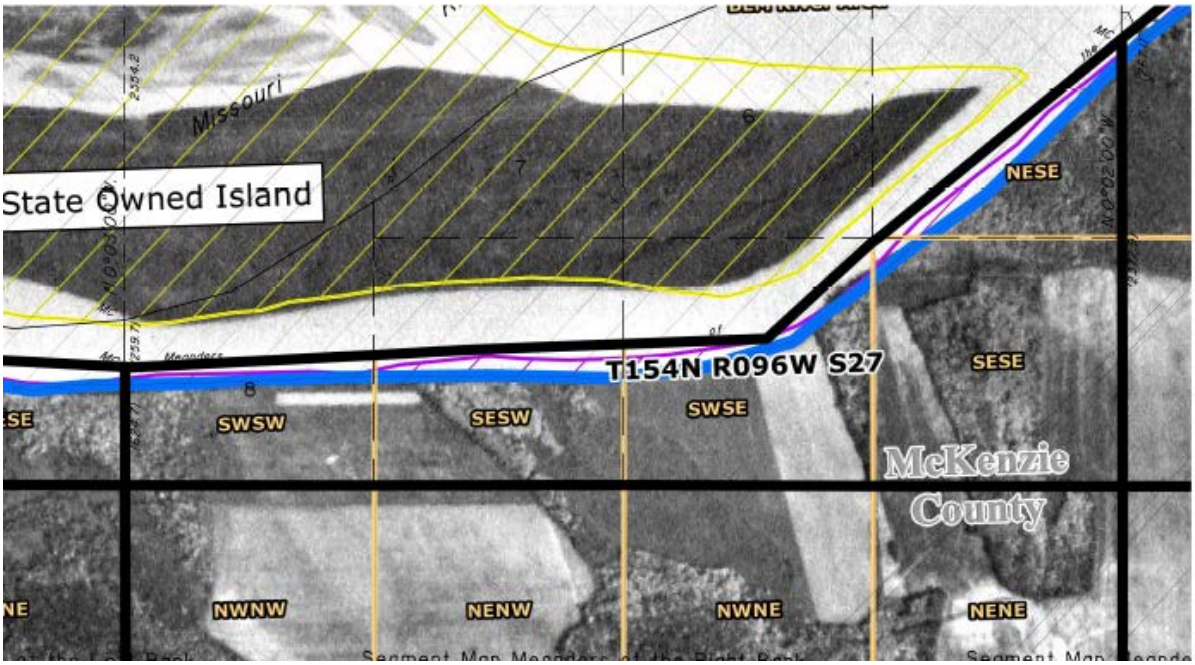
This is my short analysis of the area in and around my Tracts. This is not a final opinion or decision. But rather a quick analysis to help Wenck identify differences between the Segment Map, Supplemental Plats and Wenck Survey.

Conclusion

-This area has a definable OHWM and the same feature (bank) was used by the COE Segment Map, verified by BLM Supplemental Plats, and Wencks Survey. The discrepancy lies in georeferencing Discrepancy/differences.

The Discrepancy/Difference

-The difference between the Wenck Survey and BLM'S determination is between 80 and 170 feet. The difference between Wenck's OHWM and its georeferenced Segment Map is 0-120 feet. See below PDF - Lonney1 -The Black line is BLM's Segment Map OHWM, Pink is where Wenck says Segment Map is. Blue is their OHWM.



-Another point is that the Wenck survey gave no indication that BLM Black line was its representation of the OHWM prior to the lake.

<u>The Cause of the Discrepancy/Difference</u>

-The Wenck Survey says that their georeferencing average error was 48.5 feet. In BLM's Supplemental Plat reports they acknowledge some distortions of 100 feet, with most being around 30 ft. I would think that any line within 48.5 would become the presumptive OHWM.... I would expect that this area would be in the realm of having a 30-75 feet difference considering we definitely identified the same bank, and this is all the better a georeferencing process of old photos in a flooded river plain can achieve.

However, this area definitely has greater error, which explains why there is a greater difference than expected (120-170 feet).
Look at PDF -Lonney1 again, notice on the South boundary of the SWSW and SESW that there is an occupation that is approximately 100 feet South of the used GCDB section line.

This same offset is evident in the adjacent sections, indicating that there is around 100 feet of distortion in the georeferencing of this photo (over twice the

stated average). Once this error is corrected we have a difference of 20-70 which is what we would expect and should warrant acceptance of the Segment Map/BLM Supplemental Plat.

*This is the problem with ONLY georeferencing old photos compared to current photos **a mile away** from the original river (which is what Wenck did). Wencks procedure in doing this is very valid to start, however after that is complete, they should have evaluated things such as local control on a photo to adjust the section lines to. This local control is the BEST EVIDENCE of the section line. When one line that does not match up with the rest probably doesn't warrant adjustment, but when multiple visible lines of occupation show a 100 ft. distortion, that needs to be addressed by re-georeferencing to get the photo best overlaid on the section lines.*

14. In addition to owning an interest in Column 1 Tracts, I own an interest in Section 34, T154N-R96W, not covered by the Wenck Survey. With the completion of the Wenck Survey, was there ever a possibility that the OHWM travelled into Section 34, T154N-R96W? Is Section 34, T154N-R96W at risk to being taken or acquired by the State?
15. Was there any evidence on any of the information utilized in the Wenck Survey or previously by the State that created the possibility that the OHWM travelled into Section 34, T154N-R96W?
16. Why didn't the State accomplish the delineation of the OHWM when it claimed the island just north of Column 1 Tracts? ***(See Attachment 3, Corps Segment Map Y Survey)***, ***(See Attachment 4, Wenck Survey OHWM Delineation Map 6 of 18)***
17. Regarding Wenck Survey Power Points, was full consideration given to each of the points of interest that I have highlighted in yellow, as the same applies specifically to my three Tract? Regarding the highlighted Overall Results, I request that additional numbers be added to provide for the Corps Segment Map Y Survey area. This should give a more accurate overview between actual survey areas. ***(See Attachment 8, Partial Copy of Wenck Survey Power Points)***

OVERALL RESULTS

(from River Mile 1482 to 1553.5).

USACE OHWM	16,687 acres
Project OHWM	27,089 acres
Total increase in OHWM	10,402 acres
Total increase in OHWM	162%

Thank you in advance for your help and assistance regarding the above matter. Please don't hesitate to contact me if you have any question or if anything further is need. It's my hope that upon further review and consideration given to the above, the Wenck Survey will be amended so as to utilize the Corps Segment Map Y Survey when determining the OHWM, as it relates to my tracts.

Regards,

Lonney H. White, Jr.

Whitetail Wave LLC
Lonney H. White, Jr., Sole Member

w/Attachments

Attachment 1
Judgment On Declaration of Taking

BOOK 43 PAGE 167

Document No. 1150123

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NORTH DAKOTA
SOUTHWESTERN DIVISION

FILED
AUG 17 1953
BEATRICE A. McMICHAEL, Clerk

UNITED STATES OF AMERICA,
Plaintiff,

-vs-

3,059.56 Acres of Land, More or Less, Situate in McKenzie County, State of North Dakota; Harry B. Mendenhall, et al., and Unknown Owners,
Defendants.

Civil No. 2639 .

JUDGMENT ON DECLARATION OF TAKING

This day comes the Plaintiff in the above-entitled cause, the United States of America, by Harry Lashkowitz, Assistant United States Attorney for the District of North Dakota, and moves the Court to enter Judgment vesting title in the United States of America in fee simple, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, and the reservations of minerals to the land owners specifically set forth in paragraph three of the Declaration of Taking herein, in and to the property hereinafter described and described in the Declaration of Taking, as well as the Complaint herein.

Thereupon the Court proceeded to hear and pass upon said Motion, Complaint and Declaration of Taking, and finds as follows:

First- That each and all of the allegations in the Complaint and the Declaration of Taking are true; and that the United States of America is entitled to acquire property by eminent domain for the purposes set out and prayed in said Complaint.

Second - That a Complaint in condemnation was filed in the above-entitled action at the request of the Secretary of the Army, the authority empowered by law to acquire the lands described in the Complaint, under instructions from the Attorney General of the United States, the person authorized by law to direct the institution of such condemnation proceedings.

Third- That in said Complaint and Declaration of Taking a statement of the authority under which the public use for which said lands are taken is set out, and that the Secretary of the Army is the person authorized and empowered by law to acquire lands such as are described in the Complaint, which is in pursuance of and under the authority of the provisions of the Act of Congress approved February 26, 1931 (46 Stat. 1421, 40 U.S.C. Sec. 258a) and Acts supplementary to and amendatory thereof; the Acts of Congress approved April 24, 1888 (25 Stat. 94, 33 U.S.C. 591); March 1, 1917 (39 Stat. 948, 33 U.S.C. 701); December 22, 1944 (Public Law 534, 78th Congress, Second Session); also under the Civil Functions Appropriation Act,195 approved October 24, 1951 (Public Law 203, 82nd Congress); and that the public use for which said lands are taken is in connection with the construction and establish-

ment of a project known as the Garrison Dam and Reservoir Project, the purpose of which is to adequately provide flood control in the basin of the Missouri River for the use and benefit of the public generally and for such other uses as may be authorized by Congress or by Executive Order.

Fourth- That a proper description of the lands sought to be taken sufficient for the identification thereof is set out in said Declaration of Taking.

Fifth- A statement of the estate or interest in said lands taken for said public use is set out in the Declaration of Taking.

Sixth-A plat showing the lands taken is set out.

Seventh- A statement is contained in said Declaration of Taking to the effect that the estimated amount of compensation for the taking of the property desdribed therein, in the opinion of the Secretary of the Army, will probably be within any limits prescribed by Congress on the price to be paid therefor.

Eighth- A statement is contained in said Declaration of Taking of the sum of money estimated by the acquiring authority to be just compensation for all of the lands to be taken thereunder, together with all buildings and improvements thereon and appurtenances thereto, which is a total of $ 85,200.00, and said sum has been deposited in the Registry of this Court.

And the Court having considered the Complaint in condemnation herein as it relates to the hereinafter described lands, Declaration of Taking, and the statutes in such case made and provided, and it appearing to the Court that the United States of America was and is entitled to take said described property and have title thereto vested in it pursuant to law, it is, therefore, considered by the Court, and it is the

ORDER AND JUDGMENT of the Court that title to the hereinafter described lands vested in the United States of America upon the filing of the Declaration of Taking herein and the deposit in the Registry of the Court of the sum of $ _____ and the estate taken is the fee simple title, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines and reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the

construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

IT IS FURTHER ORDERED that leave be and is hereby granted the United States of America to take immediate possession of all of the tracts of land in this action, to the extent of the interest to be acquired by the United States of America and proceed with such public works thereon as have been authorized by Congress.

The lands taken herein are situate in the County of Williams, State of North Dakota, and are described in Exhibit "A", attached hereto and made a part hereof.

This case is held open for such other and further orders, judgments and decrees as may be held necessary in the premises.

Dated this 15th day of August, 1953.

CHARLES J. VOGEL
Judge, U. S. District Court.

The following described lands situate in McKenzie County, North Dakota, and more particularly described as follows:

TRACT NO. Y-2282 - Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35, all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M., containing 1200.51 acres, more or less.

TRACT NO. Y-2284 - Lot 8, Northeast quarter of the Southwest quarter ($NE\frac{1}{4}SW\frac{1}{4}$) of Section 26, and also those portions of Northwest quarter of the Southwest quarter ($NW\frac{1}{4}SW\frac{1}{4}$) of Section 26, and Northeast quarter of the Southeast quarter ($NE\frac{1}{4}SE\frac{1}{4}$) of Section 27, lying South and East of the Missouri River, all in Township 154 North, Range 96 West of the 5th P.M., plus accretions, containing 157.63 acres, more or less.

TRACT NO. Y-2288 - Lot 6 of Section 25 in Township 154 North, Range 96 West of the 5th P.M., plus accretions, containing 31.30 acres, more or less.

TRACT NO. Z-2332 - East half of the Southwest quarter ($E\frac{1}{2}SW\frac{1}{4}$), Lots 4 and 5 of Section 31 in Township 154 North, Range 97 West of the 5th P.M., containing 156.58 acres, more or less.

TRACT NO. AA-2482 - North half of Lot 4 of Section 5, North half of Lot 1 in Section 6 in Township 153 North, Range 97 West of the 5th P.M., containing 39.86 acres, more or less.

TRACT NO. Z-2333 - South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Southeast quarter ($SE\frac{1}{4}$), of Section 31, Southwest quarter of the Northwest quarter ($SW\frac{1}{4}NW\frac{1}{4}$), North half of the Southwest quarter ($N\frac{1}{2}SW\frac{1}{4}$) of Section 32 in Township 154 North, Range 97 West of the 5th P.M., containing 360.00 acres, more or less.

TRACT NO. AA-2469 - Lots 3, 4 and 5, Southeast quarter of the Northwest quarter ($SE\frac{1}{4}NW\frac{1}{4}$) of Section 1 in Township 153 North, Range 98 West of the 5th P.M., plus accretions, containing 152.50 acres, more or less.

TRACT NO. Z-2337 - West half of the Southeast quarter ($W\frac{1}{2}SE\frac{1}{4}$), South half of the Southwest quarter ($S\frac{1}{2}SW\frac{1}{4}$) of Section 32 in Township 154 North, Range 97 West of the 5th P.M., containing 160.00 acres, more or less.

TRACT NO. Z-2342 - Lot 7 of Section 28, Lots 5, 6, 7, and 8 of Section 29, Lots 7 and 8 of Section 30, that portion of the Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) lying South of the Missouri River, Northeast quarter of the Northeast quarter ($NE\frac{1}{4}NE\frac{1}{4}$) of Section 31 in Township 154 North, Range 97 West of the 5th P.M., containing 258.44 acres, more or less.

TRACT NO. AA-2477 - Southeast quarter of the Northeast quarter ($SE\frac{1}{4}NE\frac{1}{4}$), Northeast quarter of the Southeast quarter ($NE\frac{1}{4}SE\frac{1}{4}$) of Section 1 in Township 153 North, Range 98 West of the 5th P.M., Lots 5 and 6 of Sec.6 in Township 153 North, Range 97 West of the 5th P.M., containing 157.00 acres, more or less.

TRACT NO. Z-2344 - Lot 3 of Section 4 in Township 153 North, Range 97 West of the 5th P.M., containing 39.97 acres, more or less.

EXHIBIT "A"

BOOK 43 PAGE 171

District Court of the United States

District of North Dakota

UNITED STATES OF AMERICA }
DISTRICT of NORTH DAKOTA } SS:

I, Beatrice A. McMichael, Clerk of the District Court of the United States for the District of North Dakota, do hereby certify that I have carefully compared the foregoing copy with the original thereof which is in my possession as such Clerk and that such copy is a correct transcript from such original. JUDGMENT ON DECLARATION OF TAKING in the matter of United States of America vs. 3,059.56 Acres of Land, More or Less, Situate in McKenzie County, State of North Dakota; Harry B. Mendenhall, et al., and Unknown Owners, - Civil No. 2639;

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed the seal of said Court, at Fargo, in said District, this 17th day of August, A. D. 1953

Beatrice A. McMichael, *Clerk*

By Eula G. Baldwin, *Deputy*

Document No. 145029

Delinquent Taxes and Special Assessments, or Installments of Special Assessments, paid and transfer entered this 29 day of Dec. 1953.

Anne Nelleson
COUNTY AUDITOR

By Anne Nelleson Deputy

STATE OF NORTH DAKOTA, }
COUNTY OF McKENZIE. } ss. OFFICE OF REGISTER OF DEEDS

I hereby certify that the within instrument was filed in this office for record on the 29th day of Dec. A. D. 1953 at 11 o'clock A. M., and was duly recorded in Book 43 of Misc. on Page 169

E. F. Baldwin
REGISTER OF DEEDS

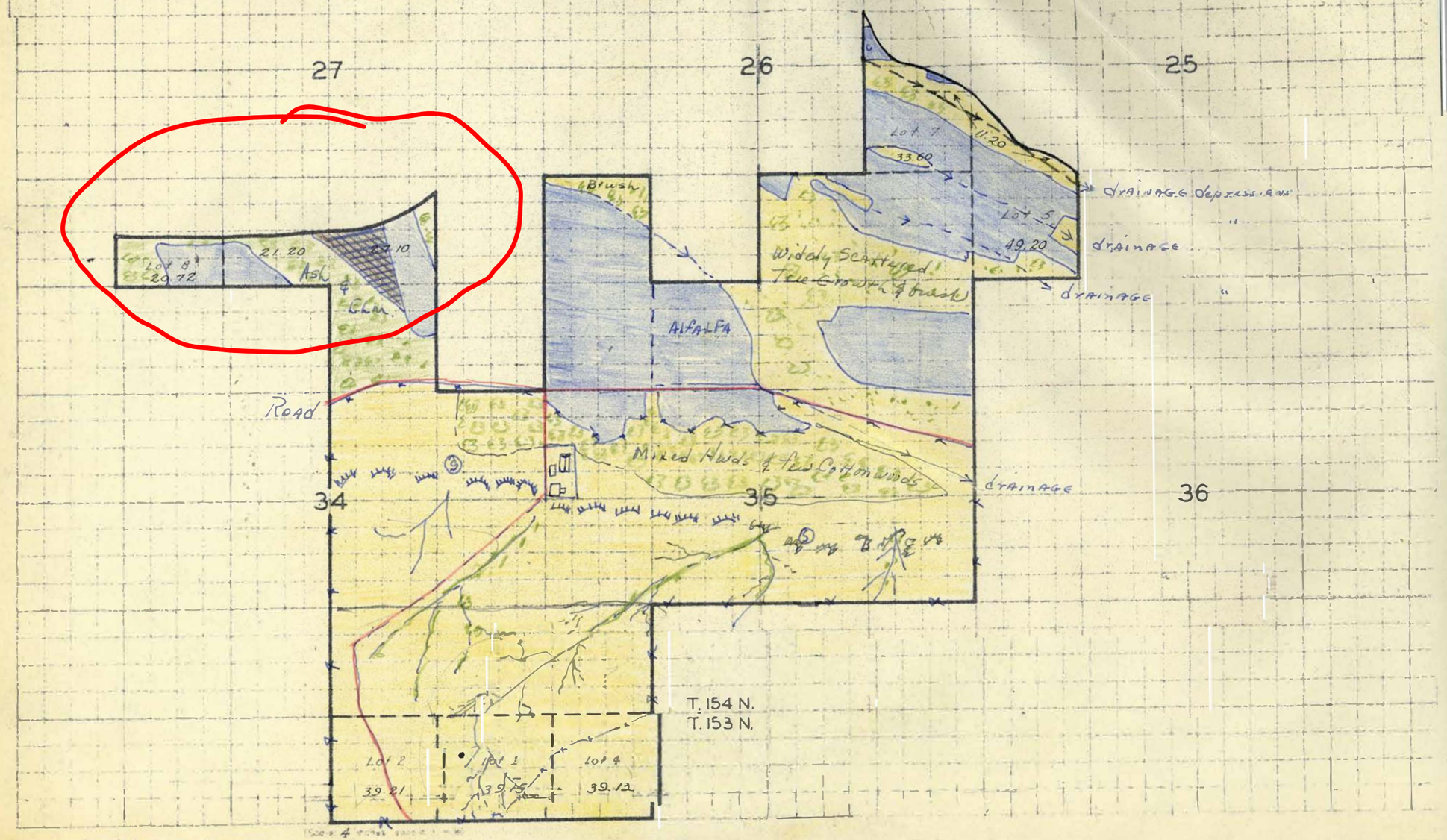
By _____ Deputy

Fee $5.00

Attachment 2
Y 2282 Appraisal Docs.

Project symbol No. Garrison Dam - Reservoir Area Tract No Y-2282
Name of owner H. B. Mandenhall
Field work by Jack Turnquist Date 29 January 1951
Description of tract State - North Dakota County - McKenzie

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter (S½SE¼), Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter (SW¼SE¼), and the Southeast quarter of the Southwest quarter (SE¼SW¼) of Section 27 lying South of the Missouri River, Southeast quarter (SE¼), South half of the Northeast quarter (S½NE¼), Northwest quarter of the Northeast quarter (NW¼NE¼) of Section 34, North half (N½), North half of the South half (N½S½), Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.



CLASSES OF LAND

Crop land
Pasture land & Tree & Brush Past. 160
Forest land 1120
Tall & Grass - XXXX

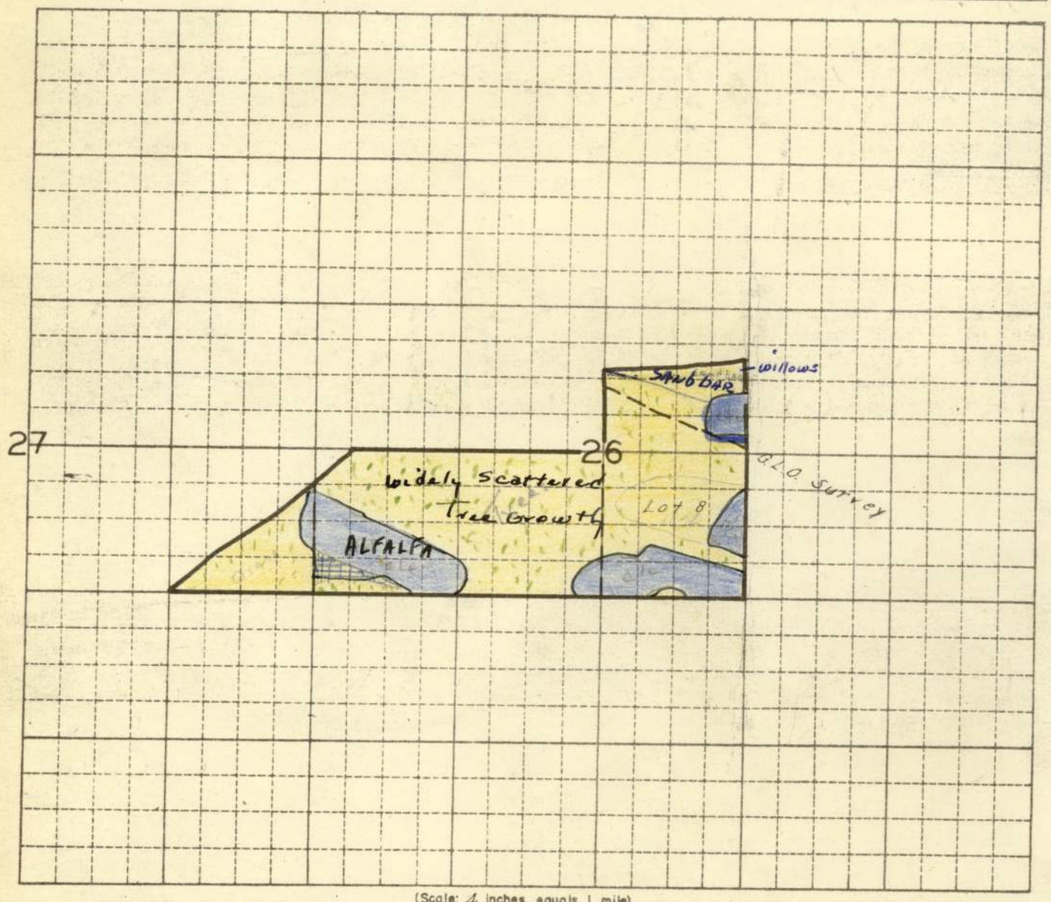
Grades of each class of land must be shown on the map proper
Name of any other class of land involved

I certify that this is an accurate map of tract Y-2282
based on Survey, Deed Desc. & G.L.O. Rods. which shows this tract to contain 1200.51 acres, more or less
Name Jack Turnquist (Revised 1 October 1951 and 17 February 1953 by M.C.J.)
Title
Date
Indicate whether map is based on General Land Office records, aerial survey, deed description or actual survey

ENG FORM 998
1 JAN 46

TRACT MAP (WITH GRID)

Project symbol No. Garrison Dam - Reservoir Area Tract No. Y-2284
Name of owner Carrie E. Mendenhall
Field work by Jack Turnquist Date 8 November 1950
Description of tract State - North Dakota County - McKenzie.
Lot 8, Northeast quarter of the Southwest quarter (NE¼SW¼) of Section 26, and also those portions of Northwest quarter of the Southwest quarter (NW¼SW¼) of Section 26, and Northeast quarter of the Southeast quarter (NE¼SE¼) of Section 27, lying South and East of the Missouri River, all in Township 154 North, Range 96 West of the 5th P.M., plus accretions.



(Scale: 4 inches equals 1 mile)

CLASSES OF LAND

Crop land
Pasture land Tillable
Forest land + Trees & Brush
*

Grades of each class of land must be shown on the map proper.
* Name of any other class of land involved.

I certify that this is an accurate map of Tract Y-2284 based on Survey, Deed Desc. & G.L.O. Rods, which shows this tract to contain 157.63 acres, more or less.
Name Jack Turnquist
Title Draftsman
Date 8 November 1950
Indicate whether map is based on General Land Office records, aerial survey, deed description or actual survey.

TRACT MAP (WITH GRID)

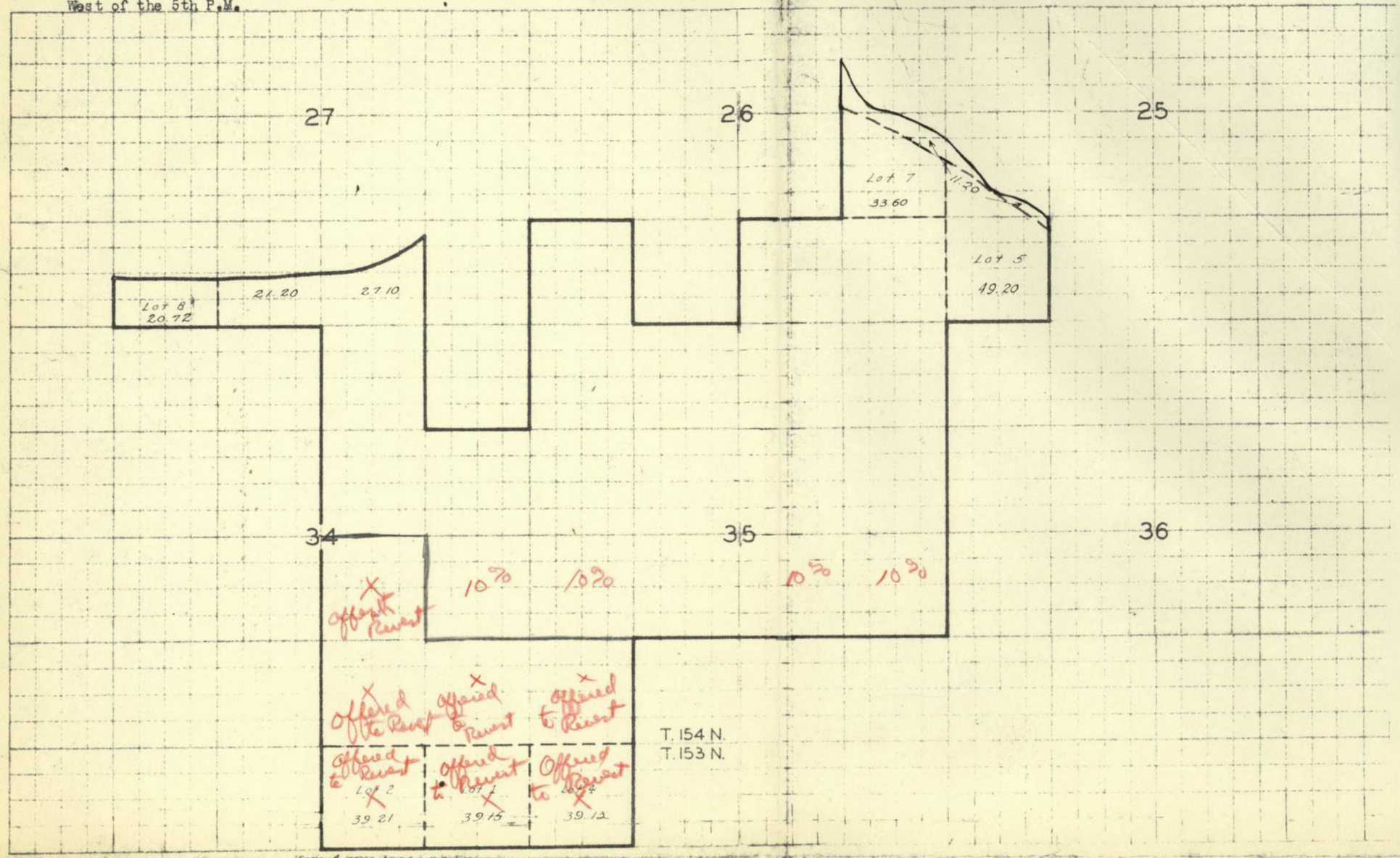
Project symbol No. Garrison Dam - Reservoir Area — Tract No Y-2282

Name of owner H. B. Mendenhall

Field work by Jack Turnquist — Date 29 January 1951

Description of tract State - North Dakota County - McKenzie

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter (S½SE¼), Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter (SW¼SE¼), and the Southeast quarter of the Southwest quarter (SE¼SW¼) of Section 27 lying South of the Missouri River, Southeast quarter (SE¼), South half of the Northeast quarter (S½NE¼), Northwest quarter of the Northeast quarter (NW¼NE¼) of Section 34, North half (N½), North half of the South half (N½S½), Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.



CLASSES OF LAND

Crop land

Pasture land

Forest land

*

Grades of each class of land must be shown on the map proper

* Name of any other class of land involved

I certify that this is an accurate map of Tract Y-2282 based on Survey, Deed Desc. & G.L.O. Rods. which shows this tract to contain 1200.51 acres, more or less

Name Jack Turnquist (Revised 1 October 1951 and 17 February 1953 by M.C.J.)

Title

Date

(Scale: 4 inches to 1 mile)

footnote whether map of tract or taken from official records and if survey, basis for description or acreage if any

998

TRACT MAP (WITH GRID)

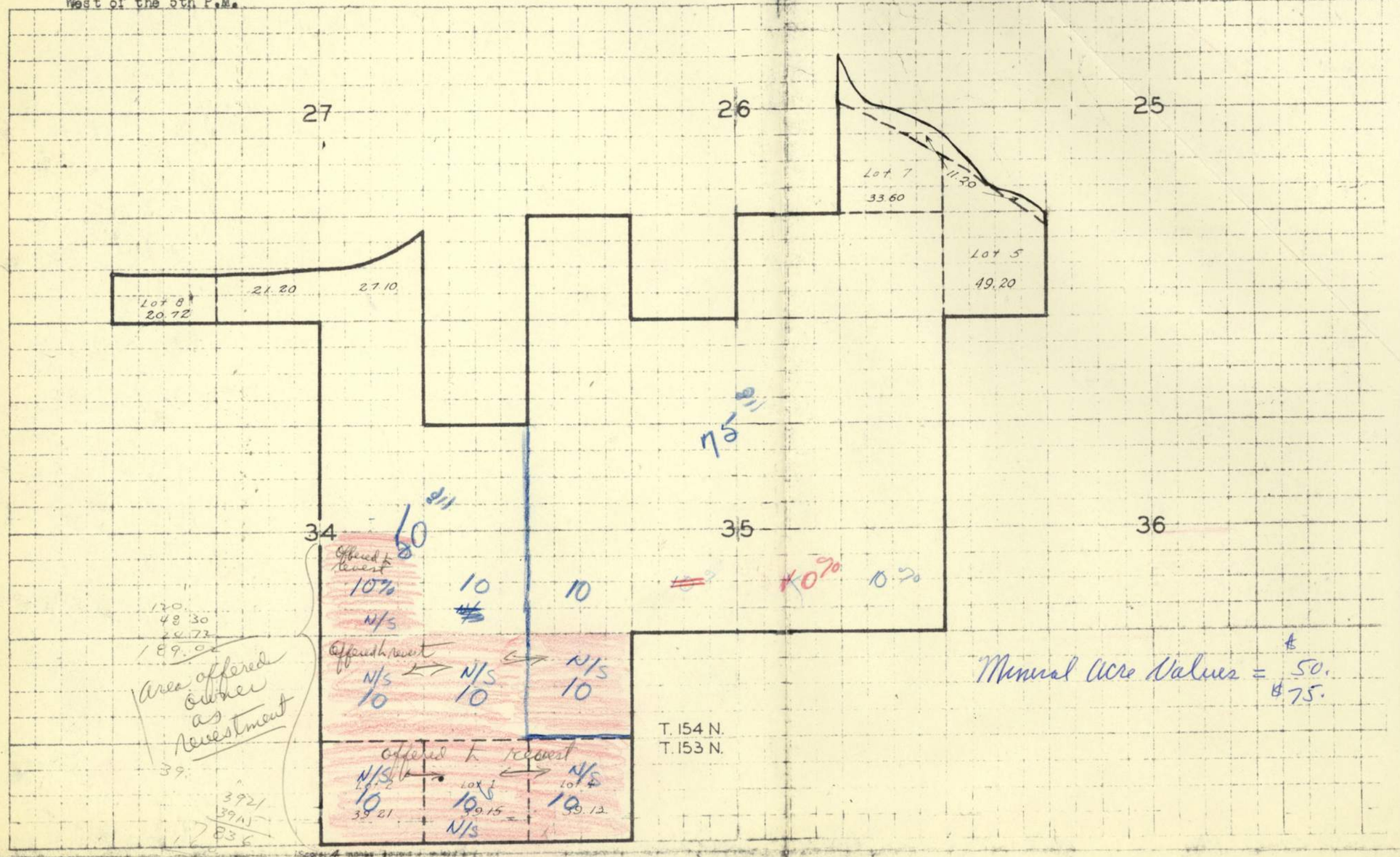
Project symbol No. Garrison Dam - Reservoir Area — Tract No. Y-2282

Name of owner H. B. Mendenhall

Field work by Jack Turnquist — Date 29 January 1951

Description of tract State - North Dakota — County - McKenzie

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.



CLASSES OF LAND

Crop land

Pasture land

Forest land

*

Grades of each class of land must be shown on the map proper

* Name of any other class of land involved

I certify that this is an accurate map of Tract Y-2282 based on Survey, Deed Desc. & G.L.O. Rods. which shows this tract to contain 1200.51 acres, more or less

Name Jack Turnquist (Revised 1 October 1951 and 17 February 1953 by M.C.J.)

Title

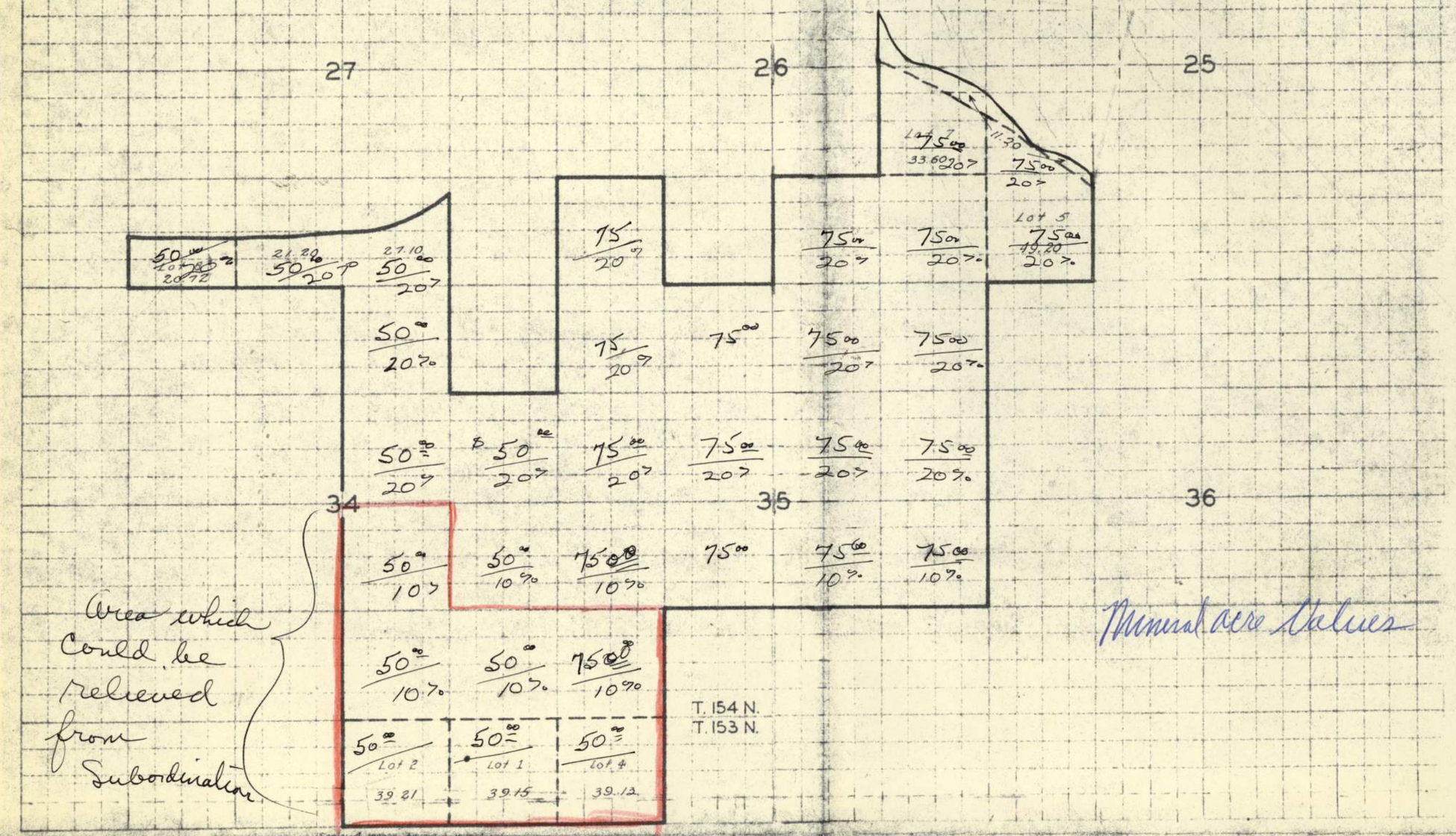
Date

Indicate whether tract is based on General Land Office records or on survey deed description or acreage figures

TRACT MAP (WITH GRID)

Project symbol No. Garrison Dam - Reservoir Area — Tract No. Y-2282
Name of owner H. B. Mendenhall
Field work by Jack Turnquist — Date 29 January 1951
Description of tract State - North Dakota — County - McKenzie

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.



CLASSES OF LAND

Crop land
Pasture land
Forest land
*

Grades of each class of land must be shown on the map proper.
* Name of any other class of land involved

I certify that this is an accurate map of Tract Y-2282 based on Survey, Deed Desc. & G.L.O. Rods. which shows this tract to contain 1200.51 acres, more or less
Name Jack Turnquist (Revised 1 October 1951 and 17 February 1953 by M.C.J.)
Title
Date

Indicate whether map is based on General Land Office records, aerial survey, deed description or actual survey

Appraisal Supplement
Impairment of Interest in Gas and Oil Rights

Tract No. Y2284 Twp._____, Rge._____

Name of Owner (Surface) Carrie E Mendenhall (Tract Map Attached)

Acres 157.63

Acres which can be drilled out from onshore locations by vertical drilling methods under 40 acre spacing pattern _____.

Acres which cannot be drilled out from onshore locations by vertical drilling methods under 40 acre spacing pattern 157.63.

A. Impairment of Royalty Interest in Gas and Oil Rights:

Acres	Mineral Acre Value $	Total Mineral Acre Value $	Est. % of Impairment	Total Amount of impairment $
157.63	75.00		20%	2364.45

Recommended Compensation for Impairment of Royalty Interest - - $2365

B. Impairment of Leasehold Interest in Gas and Oil Rights:

Acres	Impairment Per Acre $	Amount of Impairment $

Recommended Compensation for Impairment of Leasehold Interest - - $_____

C. Total of Impairment: Royalty and Leasehold - - $_____

Remarks:
Oil & gas Minerals on this area have been greatly depreciated since time of taking because of dry hole in adjoining Section 36.

D. The amounts above indicated are believed to be the impairment which results to the value of the gas and oil interests in this tract when such interests are reserved to owners and subordinated to the Government's right to flood permanently or intermittently. The amounts determined as impairment are substantiated by the best information available and by the opinions and recommendations provided by experts following study of the impairment problem. I certify that I have no present or intended future interest in this property.

Date of Valuation 7 Aug 1953

Date of Report 22 May 1956

Appraiser

MRG FORM 230 23 MAR 55 (Tentative)

APPRAISAL REPORT

REVISED APPRAISAL

PROJECT: Garrison Dam and Reservoir, North Dakota
TRACT: Y-2282 and Y-2284

STATE	COUNTY	CITY, DISTRICT, OR TOWNSHIP
North Dakota	McKenzie	Twp. 154 N., Rge. 96 W.

PROPERTY OF: H. B. Mendenhall and Carrie E. Mendenhall
ADDRESS: Charlson, North Dakota

LAND DESCRIPTION: Owner Supervised (H. Jellesed, Charlson, North Dakota, does farming on part)

Tract No. Y-2282

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M., plus accretions. **Also Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.**

Tract No. Y-2284

Lot 8, Northeast quarter of the Southwest quarter ($NE\frac{1}{4}SW\frac{1}{4}$) of Section 26, and also those portions of Northwest quarter of the Southwest quarter ($NW\frac{1}{4}SW\frac{1}{4}$) of Section 26, and Northeast quarter of the Southeast quarter ($NE\frac{1}{4}SE\frac{1}{4}$) of Section 27, lying South and East of the Missouri River, all in Township 154 North, Range 96 West of the 5th P.M., plus accretions.

2/24/53
blv

AREA (Acres)	APPRAISAL VALUATION	
1,358.14	TOTAL PRESENT MARKET VALUE $46,600.00	VALUE OF GROWING CROPS: SEVERANCE DAMAGES $ None

I CERTIFY THAT I HAVE CAREFULLY EXAMINED THE ABOVE DESCRIBED PREMISES AND THE AMOUNT INDICATED REPRESENTS MY BEST UNBIASED JUDGMENT AS TO THE PRESENT MARKET VALUE OF THE FEE SIMPLE TITLE THERETO, EXCEPT AS OTHERWISE INDICATED. I DO FURTHER CERTIFY THAT I HAVE NO PRESENT OR INTENDED FUTURE INTEREST THEREIN.

RHP

DATE: Reappraised 2/20/53
8 August 1951

APPRAISER: Lalles N. Pupin

APPROVED BY (Name and Title): Victor Lundeen, Chief, Appraisal Branch

3/5/53

ENG FORM 241
1 Jan 46

Incl #2 51

Army-CE-Omaha, Nebr.

ENG FORM 1 JAN 46 998

TRACT MAP (WITH GRID)

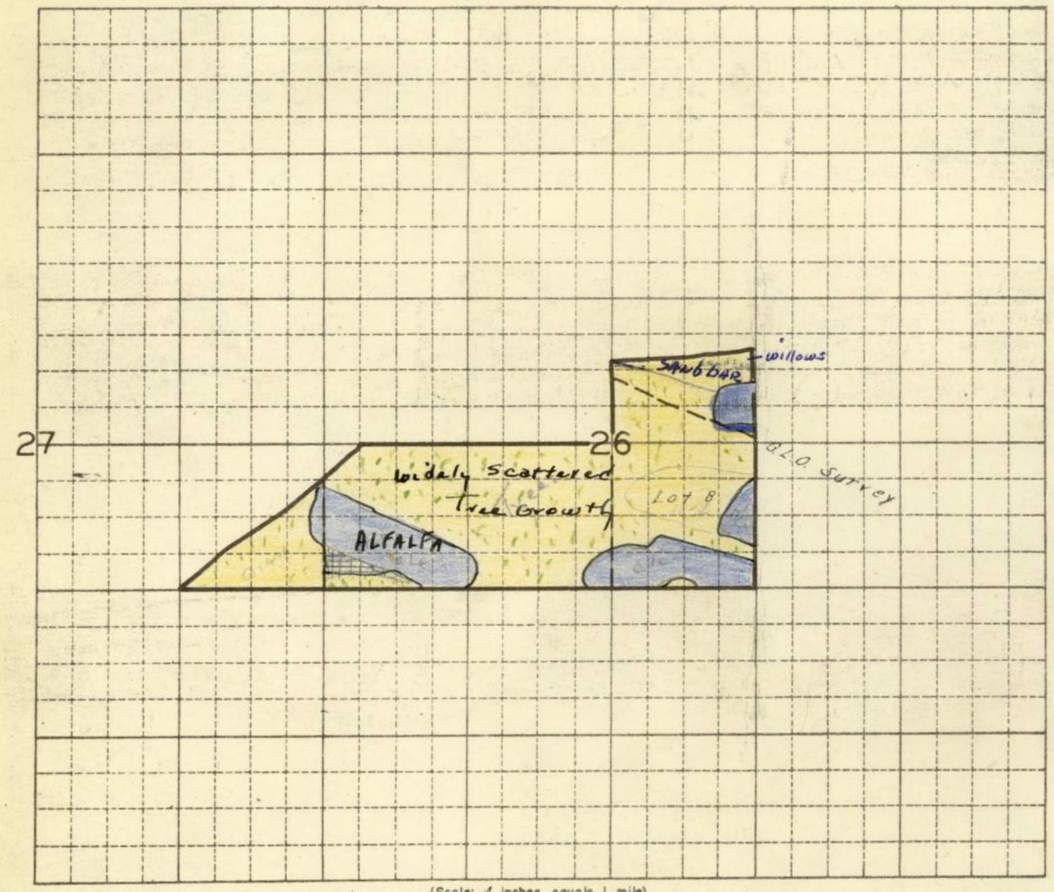
Project symbol No. Garrison Dam - Reservoir Area Tract No. Y-2284

Name of owner Carrie E. Mendenhall

Field work by Jack Turnquist Date 8 November 1950

Description of tract State - North Dakota County - McKenzie.

Lot 8, Northeast quarter of the Southwest quarter (NE¼SW¼) of Section 26, and also those portions of Northwest quarter of the Southwest quarter (NW¼SW¼) of Section 26, and Northeast quarter of the Southeast quarter (NE¼SE¼) of Section 27, lying South and East of the Missouri River, all in Township 154 North, Range 96 West of the 5th P.M., plus accretions.



(Scale: 4 inches equals 1 mile)

CLASSES OF LAND

Crop land _____

Pasture land Tillable

Forest land + Trees + Brush

* _____

Grades of each class of land must be shown on the map proper.

* Name of any other class of land involved.

I certify that this is an accurate map of Tract Y-2284 based on Survey, Deed Desc. & G.L.O. Rods, which shows this tract to contain 157.63 acres, more or less.

Name Jack Turnquist

Title Draftsman

Date 8 November 1950

Indicate whether map is based on General Land Office records, aerial survey, deed description or actual survey.

TRACT MAP (WITH GRID)

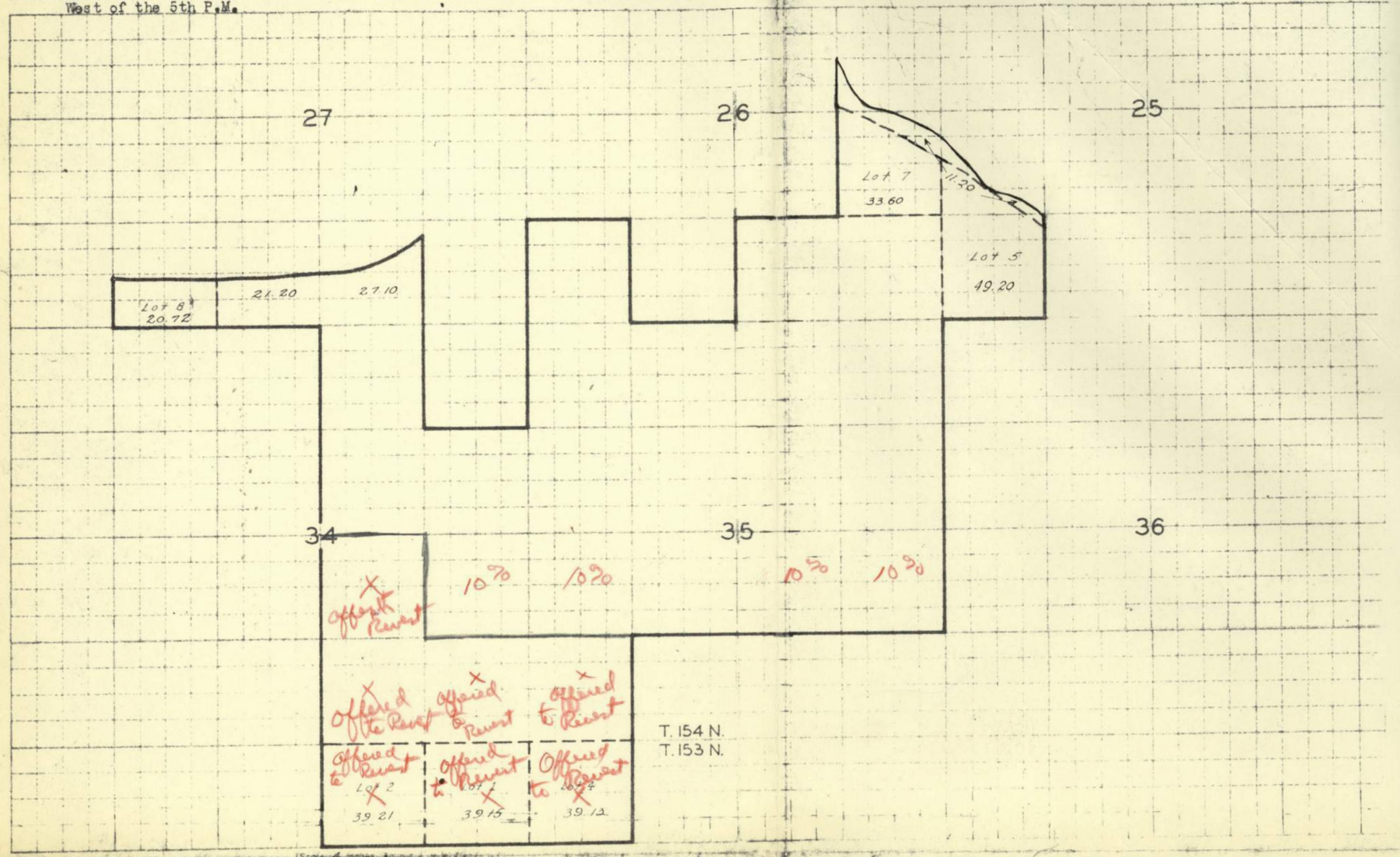
Project symbol No. Garrison Dam - Reservoir Area — Tract No. Y-2282

Name of owner H. B. Mendenhall

Field work by Jack Turnquist — Date 29 January 1951

Description of tract State - North Dakota — County - McKenzie

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.



CLASSES OF LAND

Crop land

Pasture land

Forest land

*

Grades of each class of land must be shown on the map proper

* Name of any other class of land involved

(Score 4 holes before filing)

I certify that this is an accurate map of Tract Y-2282 based on Survey, Deed Desc. & G.L.O. Reds. which shows this tract to contain 1200.51 acres, more or less

Name Jack Turnquist (Revised 1 October 1951 and 17 February 1953 by M.C.J.)

Title

Date

(whether map of record or Gen. Land Office records and survey field examination or both)

998

TRACT MAP (WITH GRID)

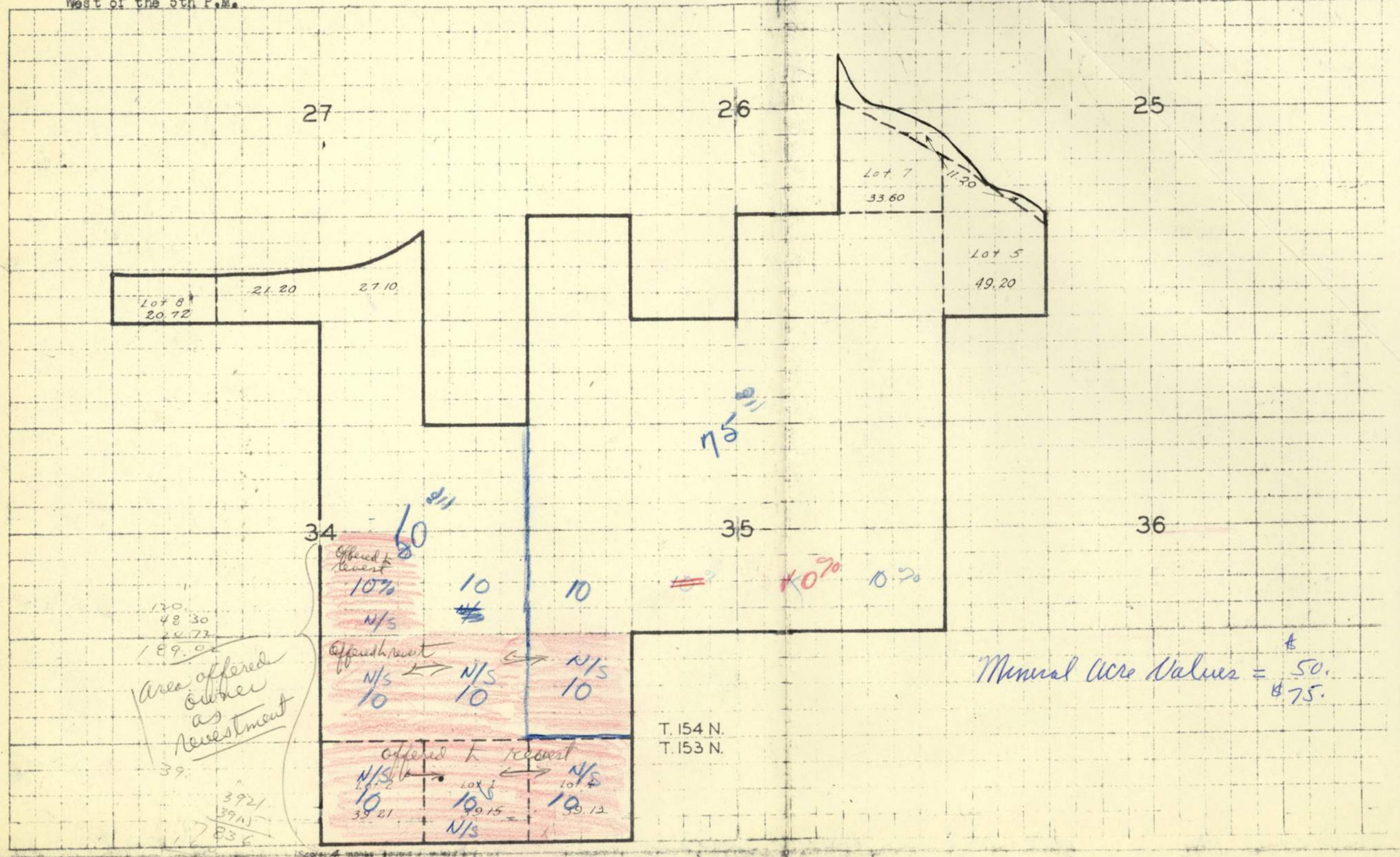
Project symbol No. Garrison Dam - Reservoir Area — Tract No. Y-2282

Name of owner H. B. Mendenhall

Field work by Jack Turnquist — Date 29 January 1951

Description of tract State - North Dakota — County - McKenzie

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.



CLASSES OF LAND

Crop land

Pasture land

Forest land

*

Grades of each class of land must be shown on the map proper

* Name of any other class of land involved

I certify that this is an accurate map of Tract Y-2282 based on Survey, Deed Desc. & G.L.O. Rods. which shows this tract to contain 1200.51 acres, more or less

Name Jack Turnquist (Revised 1 October 1951 and 17 February 1953 by M.C.J.)

Title

Date

Indicate whether tract is based on General Land Office records or on survey deed description or acreage figures

TRACT MAP (WITH GRID)

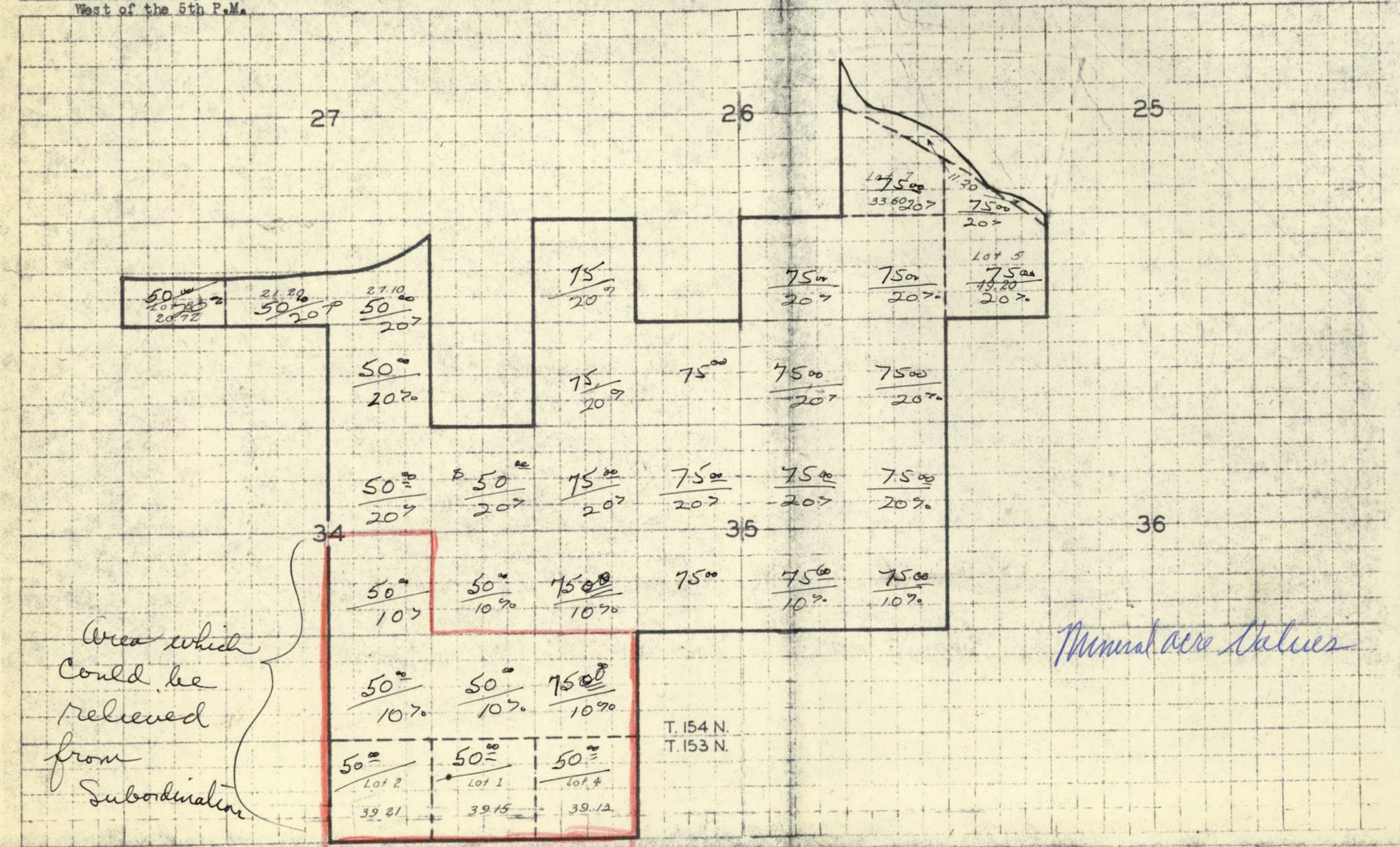
Project symbol No. Garrison Dam - Reservoir Area — Tract No. Y-2282

Name of owner H. B. Mendenhall

Field work by Jack Turnquist — Date 29 January 1951

Description of tract State - North Dakota — County - McKenzie

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter (S½SE¼), Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter (SW¼SE¼), and the Southeast quarter of the Southwest quarter (SE¼SW¼) of Section 27 lying South of the Missouri River, Southeast quarter (SE¼), South half of the Northeast quarter (S½NE¼), Northwest quarter of the Northeast quarter (NW¼NE¼) of Section 34, North half (N½), North half of the South half (N½S½), Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M. plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.



CLASSES OF LAND

Crop land

Pasture land

Forest land

*

Grades of each class of land must be shown on the map proper.

* Name of any other class of land involved

Scale 4 inches = 1 mile

I certify that this is an accurate map of tract Y-2282 based on Survey, Deed Desc. & G.L.O. Rods. which shows this tract to contain 1200.51 acres, more or less

Name Jack Turnquist (Revised 1 October 1951 and 17 February 1953 by M.C.J.)

Title

Date

Indicate whether map is based on General Land Office records, official survey, deed description or actual survey.

Appraisal Supplement
Impairment of Interest in Gas and Oil Rights

Tract No. Y2284 Twp._____, Rge._____

Name of Owner (Surface) Carrie E Mendenhall (Tract Map Attached)

Acres 157.63

Acres which can be drilled out from onshore locations by vertical drilling methods under 40 acre spacing pattern _____.

Acres which cannot be drilled out from onshore locations by vertical drilling methods under 40 acre spacing pattern 157.63.

A. Impairment of Royalty Interest in Gas and Oil Rights:

Acres	Mineral Acre Value $	Total Mineral Acre Value $	Est. % of Impairment	Total Amount of impairment $
157.63	75.00		20%	2364.45

Recommended Compensation for Impairment of Royalty Interest - - $2365

B. Impairment of Leasehold Interest in Gas and Oil Rights:

Acres	Impairment Per Acre $	Amount of Impairment $

Recommended Compensation for Impairment of Leasehold Interest - - $_____

C. Total of Impairment: Royalty and Leasehold - - $_____

Remarks:
Oil & gas Minerals on this area have been greatly depreciated since time of taking because of dry hole in adjoining Section 36.

D. The amounts above indicated are believed to be the impairment which results to the value of the gas and oil interests in this tract when such interests are reserved to owners and subordinated to the Government's right to flood permanently or intermittently. The amounts determined as impairment are substantiated by the best information available and by the opinions and recommendations provided by experts following study of the impairment problem. I certify that I have no present or intended future interest in this property.

Date of Valuation 7 Aug 1953

Date of Report 22 May 1956

Appraiser

MRG FORM 230 23 MAR 55 (Tentative)

APPRAISAL REPORT

REVISED APPRAISAL

PROJECT: Garrison Dam and Reservoir, North Dakota
TRACT: Y-2282 and Y-2284

STATE	COUNTY	CITY, DISTRICT, OR TOWNSHIP
North Dakota	McKenzie	Twp. 154 N., Rge. 96 W.

PROPERTY OF: H. B. Mendenhall and Carrie E. Mendenhall
ADDRESS: Charlson, North Dakota

LAND DESCRIPTION: Owner Supervised (H. Jellesed, Charlson, North Dakota, does farming on part)

Tract No. Y-2282

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M., plus accretions. **Also Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M.**

Tract No. Y-2284

Lot 8, Northeast quarter of the Southwest quarter ($NE\frac{1}{4}SW\frac{1}{4}$) of Section 26, and also those portions of Northwest quarter of the Southwest quarter ($NW\frac{1}{4}SW\frac{1}{4}$) of Section 26, and Northeast quarter of the Southeast quarter ($NE\frac{1}{4}SE\frac{1}{4}$) of Section 27, lying South and East of the Missouri River, all in Township 154 North, Range 96 West of the 5th P.M., plus accretions.

2/24/53
blv

AREA (Acres)	APPRAISAL VALUATION	
1,358.14	TOTAL PRESENT MARKET VALUE $46,600.00	VALUE OF GROWING CROPS: SEVERANCE DAMAGES $ None

I CERTIFY THAT I HAVE CAREFULLY EXAMINED THE ABOVE DESCRIBED PREMISES AND THE AMOUNT INDICATED REPRESENTS MY BEST UNBIASED JUDGMENT AS TO THE PRESENT MARKET VALUE OF THE FEE SIMPLE TITLE THERETO, EXCEPT AS OTHERWISE INDICATED. I DO FURTHER CERTIFY THAT I HAVE NO PRESENT OR INTENDED FUTURE INTEREST THEREIN.

RHP

DATE: Reappraised 2/20/53
8 August 1951

APPRAISER: Lalles N. Pupin

APPROVED BY (Name and Title): Victor Lundeen, Chief, Appraisal Branch

3/5/53

ENG FORM 241
1 Jan 46

Incl #2 51

Army-CE-Omaha, Nebr.

LOCATION, NEIGHBORHOOD, ETC.

See Attached Sheets

CHARACTER, TOPOGRAPHY AND ADAPTABILITY

See Attached Sheet

ASSESSED VALUE

YEAR	ACRES	LAND	IMPROVEMENTS	OTHER	TOTAL
1948	1437.12	$ 2078	$ --	$ --	$ 2078

REMARKS RELATIVE TO ASSESSED VALUE 1948 tax $124.24

Assessed valuation bears no relation to present market values in this area.

Location, Neighborhood, Etc.

This tract is 33 miles Northwest from Sanish, North Dakota, on a reasonably good earth surfaced township road which also serves as a daily mail route. Subject tract is nine miles Northwest from Charlson rural school and 10 miles Northwest from rural Lutheran Church. There is no REA or telephone service on this tract.

This area is characterized by general farms, which combine the raising of cereal grains and flax with the production of above average beef cattle. Farms are both large and small along with a few ranches which includes a thousand or more acres of grazing land together with extensive acreages of bottom land. Farm operations are with tractor drawn power equipment. With few exceptions, the building improvements are below average mostly due to the high rate of tenancy in this immediate area. Farm buildings of resident owner operators are modest but very suitable. Lands of the area range from low level bottomlands of the Missouri flood plain to steeply rolling rough uplands and level plateaus which range in elevation from 100-200 feet above the flood plain. Soils of the flood plain vary in texture from fine sandy loams to silty clay loams of variable fertility and productive capacity. Soils of the uplands are mostly clay loams of variable texture utilized primarily for hay and grazing purposes. The most desirable lands of the flood plain are utilized for alfalfa and cash grains, while poorly drained phases of the flood plain, valley slopes and the uplands are used for feed crops, hay and grazing. Dry land farming which incorporates summer fallow practice is most common. Yields are variable, but have been excellent the past ten years. Average carrying capacity of grazing land is about 2.5 acres per a.u. month. Farm tenancy is about 25 per cent and the usual terms are 1/4 crop delivered and cash for improvements and pasture. Average rainfall is about 15 inches, with the major portion falling during the 4½ month growing season. Drought is a major hazard in crop production and cold winters with snow and blizzard conditions present some hazard in stock production.

Character, Topography and Adaptability

Subject tract incorporates 157.63 acres of land title of which is vested in name of Carrie E. Mendenhall, wife of H. B. Mendenhall, and 1203.02 acres vested in name of H. B. Mendenhall. The above acreage plus 460 acres of leased grazing land makes up a contiguous well balanced farm unit. The owner carries and cares for from 80-100 head of cattle and supervises the cropping operations which are carried on by H. Jellesed, Charlson, North Dakota, a neighbor, on a share rent basis.

The 340 acres of cropland is all located on the Missouri River flood plain. 75 acres are used for production of alfalfa and the balance for the production of feed grains and cash crops. The balance of the tract 1020 acres and the 460 acres leased are used for grazing with some native hay being cut in years of more abundant production.

The cropland soil is clay and silty clay loam, a well drained soil which requires specialized handling, but yields abundantly even in years of sub-normal rainfall. 100 acres of this bottomland cropland is a nearly levelblock very well located in relation to the buildings and feed lots. 200 acres of the cropland has a topography which is level to undulating except for a few drainage depressions, which do aid surface drainage without materially affecting tillage operations. This portion of the cropland while comparable in production to the above mentioned 100

acres, lies away some distance from the farmstead and in irregular non-contiguous fields which lessens the operational efficiency.

Approximately 400 acres of this tract is bottomland tree and brush pasture which provides along with crop residues very good grazing and shelter during the bad weather seasons of the year. The tree cover is predominately hardwood growth, with a few scattered cottonwoods and some shrubs and brush. The tree cover is open canopied and a reasonably good cover of tall grasses, sweet clover, bromus and Canada wild rye and bluestems is present. Considerable edible browse is also available. Stock water can be found at frequent intervals all along the bottoms. No special water development efforts were viewed in the bottom pasture. In addition to the above acreage, 60 acres of more dense tree and brush pasture is located in the Northwest corner of the tract. While this acreage is not quite as well adapted to grazing it provides the needed poast and pole replacements for the unit. The post and pole stock in this portion of the tract has been given consideration in the overall land price as virtually no market for posts and poles exist locally.

The soils of the bottomland pasture range from poorly drained phases of silt and silt clay loams of light sandy loams of accreted lands. The topography is level to undulating being cut occasionally by drainage depressions.

For summer pasture, this tract has 520 acres, plus a rented 460 acres of upland pasture. Topography of this portion is rolling to steep with large level plateaus at an elevation of 100-150 feet above the flood plain floor. The soils are predominantly clay loams rather thin and occasionally some stones. This upland pasture shows good management and it carries a very good stand of upland grasses, grama, western wheat, needle and thread, and edible sedges. The owner has two springs developed in this area which along with drainage water found in the draws through out the pasture provides a very good distribution of stock water. The draws which bisect this pasture acreage are for the most part gentle and carry a fairly good cover of grass and a spotted cover of tree growth which offers protection to stock. The tract is fenced around the perimeter and the only crossfences are between owned and leased tracts. Consideration for the value of the fence has been given in the overall value of the farm.

The balance of the tract is a 25 acre farmstead and feed lot. The farmstead has a good location, it is protected from the wind and snow on the North, West and East by a shelter belt of mixed hardwoods. It is situated about 20 rods from the township road. The feed lot covers about 15 acres, very good protection from wind and snow is provided by a dense growth of hardwoods. A spring is available right in the feed area and provides excellent water throughout the year.

The buildings on this tract are above average and some new construction, enlargement and repair have been carried on during the past 10-12 years, which have brought about a well balanced building situation. The owner started farming by purchasing a headquarter unit in 1921 during the later 1920's enlarged it some and finally rounded out his unit in 1944, by the purchase of 160 acres lying within his holdings.

VALUATION OF IMPROVEMENTS

Kind	Size	Construction	Roof	Foundation	Cond.	Present Value	Salvage Value
Dwelling Addition	24x32-8) 12x16-8)	Frame	Shingles	Concrete	Good	$ 6,500.00	$ 1,000.00
Bunk House	16x22 7/8	Frame Stucco	Cedar Shgls.	Concrete	Fair	725.00	75.00
Log House	18x28x6	Log	Boards - Roll Roofing	None	Poor	100.00 no	--
Toilet	4x6x6	Frame	Cedar Shgls.	None	Good	50.00 no	10.00
Coal Shed	8x10x6	Frame	Boards	None	Poor	25.00 no	--
Garage	12x16-7	Frame	Roll Roofing	Concrete	Fair	200.00	75.00
Root Cellar	9x12-7 Frame entrance	Dirt Walls	Plank and Pole Straw	None (Dirt Floor)	Fair	100.00 no	--
Chicken House	16x24-5-7	Fr. & Built Rite Siding	A.Shgls.	Concrete	Good	600.00	165.00
Barn Addition	24x30-12 16x30-5-12	Frame Frame	C.Shgls. C.Shgls.	Concrete Concrete	Fair) Fair)	1,600.00	300.00
Grain Bin	10x12-7/9	Frame	R.Roofing	Concrete	Fair	75.00	15.00
Machine Shed	12-6x8 panels	Frame	R.Roofing	Concrete	Good	500.00	100.00
Grain Bin	10x14x7/9	Frame	R.Roofing	Concrete	Poor	75.00	15.00
2 Grain Bins	1,000 bu. cap.	Steel	Metal	Scoria Base	Good	250.00	100.00
Granary	14x16x8	Frame	R.Roofing	Timber	Fair	100.00	20.00
Hog House Addition	8x12x6/9 10x14x6/9	Frame) Frame)	R.Roofing	None	Poor	25.00 no	--
Shop	12x14-8	Frame	R.Roofing	Concrete & floor	Fair	175.00	35.00
Garage	16x24-8	Frame	R.Roofing	None	Good	500.00	150.00
Ice House	14x18-6	Log	Roof Bds. and paper	None	Poor	25.00 no	--
Windcharger and 16 batteries 4 steel post - 30 ft. tower						300.00	50.00
Windmill - Lindsay Brothers - 30 ft. 4 post tower 8 ft. wheel						75.00	25.00
				TOTAL		$12,000.00	$2,135.00

ES AND OFFERS OF SALE OF NEARBY PROPERT

GRANTOR	GRANTEE	DATE	DEED BOOK	PAGE	ACRES OR AREA	ACTUAL CONSIDERATION	PRICE PER ACRE
1. Gilbert Yttredahl	Woodrow Sveen	3/28/49	94	539	160	$6700	$41.87
2. Edward Goldberg Estate	J. Ernest Johnson	8/15/51	288	398	320	$20500	64.06
3. Ilene A. Merk	Helga Lakken	6/6/50	297	44	160	1800	11.00

COMPARISON OF ABOVE WITH PROPERTY APPRAISED 1. Above tract composed of 150 acres of level to undulating silty clay cropland-10 acres of creek bottom-access fairly good, however, no buildings or fences. 2. 310 acres of cropland(clay Loam), undulating to gently rolling topography, well improved and good access. 3. Upland grazing land with good cover of native grasses and sedges. Topography is rolling to steep. Soils-clay and clay loam. No improvements. Water is available but not well situated for maximum utilization.
Subject tract cropland very similar in soil type and topography to #1 above, further it is tied with sufficient upland grazing land to form a suitable diversified unit. Subject

GROWING CROPS

TYPE	ACRES	ESTIMATED YIELD PER ACRE	UNIT VALUE	GROSS MARKET VALUE	COSTS TO MATURE, HARVEST & MARKET	NET CASH VALUE
			$	$	$	$

tract croplands similar in productive capacity and development but not as to exact type and access is inferior to #2 above. Subject tract upland grazing land similar in type and topography to #3, however, it is fenced, has good stock water development and is tied in with a good feed producing base. Adequate buildings are situated on subject tract. Consideration has been given the increase in land values since dates of above sales.

APPRAISAL OF TIMBER, MINERALS, ETC.

Timber on tract consists of mixed hardwood which has potential for posts and poles, however, market for such products is restrained and affects value adversely. Consideration has been given the wood products in the overall land value. No consideration has been given in this appraisal to the value of mineral rights except as such value may have been reflected in recent sales of comparable properties where fee simple title without mineral reservation has been conveyed.

GENERAL REMARKS *(Discuss principal factors affecting conclusions)*

Desirability and saleability of this tract is good. Access is fair. This unit while not large is well balanced with better than average producing capacity from both cereal grain and grass producing standpoints. It is reasonably well improved and is well adapted to its present use.

VALUATION OF LAND

PRESENT USE	L TYPE	TOPOGRAPHY	AREA	UNIT VALUE	TOTAL VALUE
				$	$
Bottom Cropland	Silty Clay Loam	Level	100	60.00	6,000.00
Bottom Cropland	Clay Loam	Level to Und.	203	50.00	10,150.00
Bottom Pasture	Clay Loam Heavy Clay Sandy Clay Loam	Level to Undulating	282.53	15.00	4,237.95
Upland Pasture	Clay and Clay Loams	Rolling to Steep	515	15.00	7,725.00
Bottom tree and brush Pasture	Clay and Clay Loams	Level to Undulating	60	20.00	1,200.00
Sandbar	Riverwash	Level to Hummocky	19.98 Rlp	5.00	99.90 Rlp
Feed Lot & Bldg. site Tract No. Y-2284	Clay	Level to Und.	20	50.00	1,000.00
Bottom Cropland	Clay Loam	Level to Und.	37	50.00	1,850.00
Bottom Tree & Brush Past.	Clay Loam	Level to Und.	115.63	20.00	2,312.60
Sandbar	Riverwash	Level to Hummocky	5	5.00	25.00
			1,358.14 Rlp	TOTAL	$ 34,600.45 Rlp

VALUATION OF IMPROVEMENTS

KIND	SIZE	CONSTRUCTION	ROOF	FOUNDATION	CONDITION	PRESENT VAL.*	SALVAGE VALUE
						$	$
See Attached Sheet							
					TOTAL*	$	$

* Estimated contribution improvements to appraised market value of the property as a whole.

ENG FORM 241 (Con't)
1 Jan 46

Appraisal Supplement
Impairment of Interest in Gas and Oil Rights

Tract No. 2282 Twp._____, Rge._____
(Tract Map Attached)

Name of Owner (Surface) H. B. Mendenhall Acres 1200.51

~~Acres which can be drilled out from onshore locations by vertical drilling methods under 40 acre spacing pattern _____.~~

Acres which cannot be drilled out from onshore locations by vertical drilling methods under 40 acre spacing pattern _____.

A. Impairment of Royalty Interest in Gas and Oil Rights:

Acres	Mineral Acre Value	Total Mineral Acre Value	Est. % of Impairment	Total Amount of impairment
	$	$		
238.36	50		10%	$1191.80
39.13	50		10%	195.65
189.02	50		20%	1890.20
160.00	75		10%	1200.00
574.00	75		20	8610.00
1200.51				13087.65

Recommended Compensation for Impairment of Royalty Interest - - $ 13100 ≈

B. Impairment of Leasehold Interest in Gas and Oil Rights:

Acres	Impairment Per Acre $	Amount of Impairment $

Recommended Compensation for Impairment of Leasehold Interest - - $_____

C. Total of Impairment: Royalty and Leasehold - - $_____

Remarks: See map attached - Subordination could be released from portions Colored in red. This would result in approximate 1500 ≈ saving to the Govt. This report supersedes all previous dated reports Covering Estimate Concerning impairment.

D. The amounts above indicated are believed to be the impairment which results to the value of the gas and oil interests in this tract when such interests are reserved to owners and subordinated to the Government's right to flood permanently or intermittently. The amounts determined as impairment are substantiated by the best information available and by the opinions and recommendations provided by experts following study of the impairment problem. I certify that I have no present or intended future interest in this property.

Date of Valuation May 53

Date of Report 22 May 1956 Victor Lindsay
Appraiser

MRG FORM 230 23 MAR 55 (Tentative)

232685

IN THE COUNTY COURT OF WILLIAMS COUNTY, STATE OF NORTH DAKOTA.

IN THE MATTER OF THE ESTATE OF CARRIE E. MENDENHALL, DECEASED.

425571

PERSONAL REPRESENTATIVE DEED OF DISTRIBUTION

This indenture made this 2nd day of April, 1981, by and between John D. French, Personal Representative of the estate of Carrie E. Mendenhall, deceased, whose post office address is P. O. Drawer 7, Ronan, Montana 59864, hereinafter referred to as Grantor, and the following named eleven separate parties, as tenants in common, hereinafter referred to as Grantees, to-wit:

Merle Jones and Bertha Jones, husband and wife, as joint tenants with right of survivorship	An undivided 1/11th Interest	716 E. Liveoak, Altus, OK 73521
Thomas Tipton and Ruby Tipton, husband and wife, as joint tenants with right of survivorship	An undivided 1/11th Interest	2338 Gunn Road, Carmichael, CA 95608
Len Humble and Hazel Humble, husband and wife, as joint tenants with right of survivorship	An undivided 1/11th Interest	P.O. Box 652, Hamilton, MT 59840
Kirk Mendenhall	An undivided 1/11th Interest	P.O. Box 216, Ray, ND 58849
Ward Mendenhall	An undivided 1/11th Interest	Route 2, Box 72A, Ronan, MT 59864
Robert Boucher	An undivided 1/11th Interest	Rural Route, Conrad, MT 59425
Thomas Boucher	An undivided 1/11th Interest	Rural Route, Valier, MT 59486
Mrs. Jo Mendenhall	An undivided 1/11th Interest	505 South 41st Street, Boulder, CO 80302
St. Luke Community Hospital, a Non-Profit Corporation	An undivided 1/11th Interest	P.O. Drawer J, Ronan, MT 59864
Bethel Lutheran Home for the Aged, a Non-Profit Corporation	An undivided 1/11th Interest	1515 2nd Avenue West, Williston, ND 58801
Montana Children's Home and Hospital	An undivided 1/11th Interest	840 Helena Ave., Helena, MT 59601

WITNESSETH:

WHEREAS, Grantor is the duly appointed and acting personal representative of the estate of Carrie E. Mendenhall, deceased, having been appointed and issued Letters Testamentary by the County Court in and for Williams County, North Dakota, on the 9th day of July, 1980; and

WHEREAS, Grantor, as the personal representative of said estate, has the power and authority pursuant to Chapter 30.1-18 N.D.C.C. to sell, transfer, and convey the real and personal property of said decedent; and

WHEREAS, under the provisions of the Last Will and Testament of Carrie E. Mendenhall, the Grantees named above are entitled to distribution of the real estate hereinafter described, as tenants in common.

NOW, THEREFORE, In accordance with the provisions of the Last Will and Testament of Carrie E. Mendenhall, deceased, Grantor does hereby grant, convey, transfer and assign to the Grantees, named above as tenants in common, free and clear of all liens and encumbrances, all of that certain real property in the Counties designated in the State of North Dakota, described more fully as follows, to-wit:

SEE SCHEDULE "A" ATTACHED AND MADE A PART HEREOF FOR A DETAILED DESCRIPTION AND THE INTERESTS CONVEYED HEREIN.

WITNESS, The hand of the Grantor as of the day and year first above written.

John D. French

John D. French, Personal Representative

BOOK 144 PAGE 281 363

EXHIBIT "A"

IN THE MATTER OF THE ESTATE OF CARRIE E. MENDENHALL, DECEASED

A. Undivided 1/3 interest in all of the oil, gas and all other minerals in and under the following described premises:

McKenzie County, North Dakota
Township 151 North, Range 104 West
Section 27: Lot 2, $NW\frac{1}{4}NE\frac{1}{4}$ (84.10 acres)

B. Undivided 1/4 interest in and to all of the oil, gas and other minerals in and under the following described premises:

Williams County, North Dakota
Township 154 North, Range 95 West
Section 20: $E\frac{1}{2}$, $S\frac{1}{2}NW\frac{1}{4}$, $NE\frac{1}{4}NW\frac{1}{4}$
Section 21: $W\frac{1}{2}W\frac{1}{2}$, $SE\frac{1}{4}SE\frac{1}{4}$
Section 22: $W\frac{1}{2}SW\frac{1}{4}$
Section 29: $NE\frac{1}{4}$

C. Undivided 1/4 interest in and to all of the oil, gas and other minerals in and under

Township 154 North, Range 95 West
Section 17: $SE\frac{1}{4}SW\frac{1}{4}$
Section 18: $W\frac{1}{2}SE\frac{1}{4}$, $SE\frac{1}{4}SE\frac{1}{4}$

D. Undivided 1/4 interest in and to all of the oil, gas and other minerals in and under

Township 154 North, Range 95 West
Section 22: $NW\frac{1}{4}$

E. All of the oil, gas and other minerals in and under the following described premises
McKenzie County, North Dakota
Township 154 North, Range 96 West
Section 26: $SW\frac{1}{4}SE\frac{1}{4}$
Section 35: $SE\frac{1}{4}NW\frac{1}{4}$, $W\frac{1}{2}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$

F. All of the oil, gas and other minerals in and under that may be produced from the following described property, subject however, to prior assignments of oil and gas royalty totaling 9.75%, to-wit:

McKenzie County, North Dakota
Township 154 North, Range 96 West
Section 25: Lot 5 and accretions thereto
Section 26: $SE\frac{1}{4}SE\frac{1}{4}$, and Lot 7 and accretions thereto
Section 35: $NE\frac{1}{4}NE\frac{1}{4}$, $N\frac{1}{2}SE\frac{1}{4}$, $N\frac{1}{2}SW\frac{1}{4}$, $SW\frac{1}{4}SW\frac{1}{4}$
Section 34: $W\frac{1}{2}SE\frac{1}{4}$, $SE\frac{1}{4}SE\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}$
Section 27: $SW\frac{1}{4}SE\frac{1}{4}$

G. All of the oil and gas in and under that may be produced from the following described property, subject however to prior assignments of oil and gas royalty totaling 9.75%, to-wit:

Township 153 North, Range 96 West
Section 2: Lot 4
Section 3: Lots 1 and 2

H. An undivided 1/12th of the 1% royalty of all of the oil and gas in and under that may be produced from the following described lands, to-wit:

McKenzie County, North Dakota
Township 153 North, Range 96 West
Section 3: $S\frac{1}{2}NW\frac{1}{4}$, Lots 3 & 4

Section 4: Lots 1, 2, 3, 4, S½NW¼, W½SW¼, NE¼SW¼ and W½SE¼
Section 5: E½SW¼, SE¼, SE¼NE¼
Section 7: SE¼NE¼, NE¼SE¼
Section 8: NE¼NE¼, NW¼, N½SW¼
Section 9: NW¼NE¼, NW¼NW¼

Township 154 North, Range 96 West
Section 28: Lots 5, 6, 7, 8
Section 29: Lots 7 & 8
Section 32: All
Section 33: All
Section 34: SW¼

I. 100% interest in the oil and gas in and under and that may be produced from the following described property, subject however to prior assignments of oil and gas royalty totaling 9.75%
McKenzie County, North Dakota
Township 154 North, Range 96 West
Section 34: NE¼SE¼ and NW¼NE¼
Section 35: W½NW¼ and NE¼NW¼
Section 26: SW¼SW¼
Section 27: Lot 8 and SE¼SW¼

J. An undivided 1% royalty of all oil and gas saved and that may be produced from the following described lands, to-wit:
McKenzie County, North Dakota
Township 152 North, Range 95 West
Section 6: Lot 4

McKenzie County, North Dakota
Township 152 North, Range 96 West
Section 1: Lots 1, 2, 3 & 4

McKenzie County, North Dakota
Township 153 North, Range 95 West
Section 19: Lots 3, & 4, NE¼SW¼
Section 29: SE¼
Section 30: Lot 1

McKenzie County, North Dakota
Township 153 North, Range 96 West
Section 24: NE¼

OFFICE OF REGISTER OF DEEDS
County of Williams, N. D.
I hereby certify that the within instrument was filed in this state for record the 4 day of MAY A. D. 19 1981 at 3:44 o'clock P. M., and was duly entered in book 280 MD page 363
Marion Hockins Register of Deeds

REGISTER OF DEEDS OFFICE WILLIAMS COUNTY Seal STATE OF NORTH DAKOTA

Recording Fee $11.00

DOC. NO. 425571
COPIED M of T COMPARED
GRANTOR TRACT
GRANTEE MARGINED

232695

REGISTER OF DEEDS OFFICE McKENZIE COUNTY STATE OF NORTH DAKOTA

STATE OF NORTH DAKOTA, COUNTY OF McKENZIE } SS OFFICE OF REGISTER OF DEEDS
I hereby certify that the instrument was filed in this office for record on the 15th day of May A.D. 19 81 at 1:15 o'clock P M and was duly recorded in Book 144 of Deeds page 281
Marion Hockins
REGISTER OF DEEDS
By
Book 144 283

Attachment 3
Corps Segment Map Y Survey

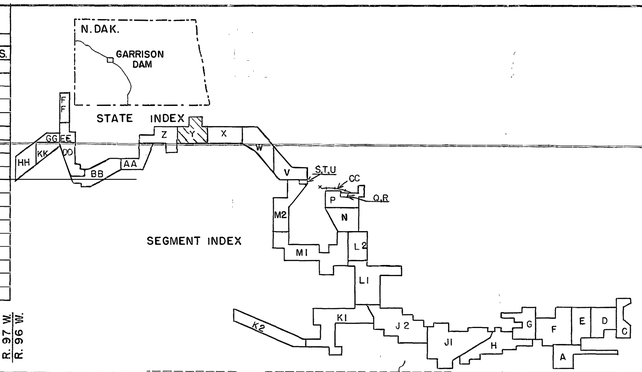
(or what Whitetail Wave LLC would argue- should be considered ground Zero Survey)

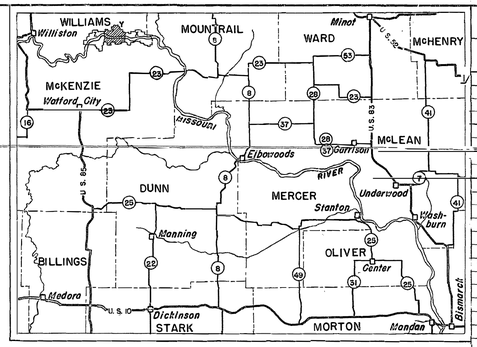
CORPS OF ENGINEERS

U.S. ARMY

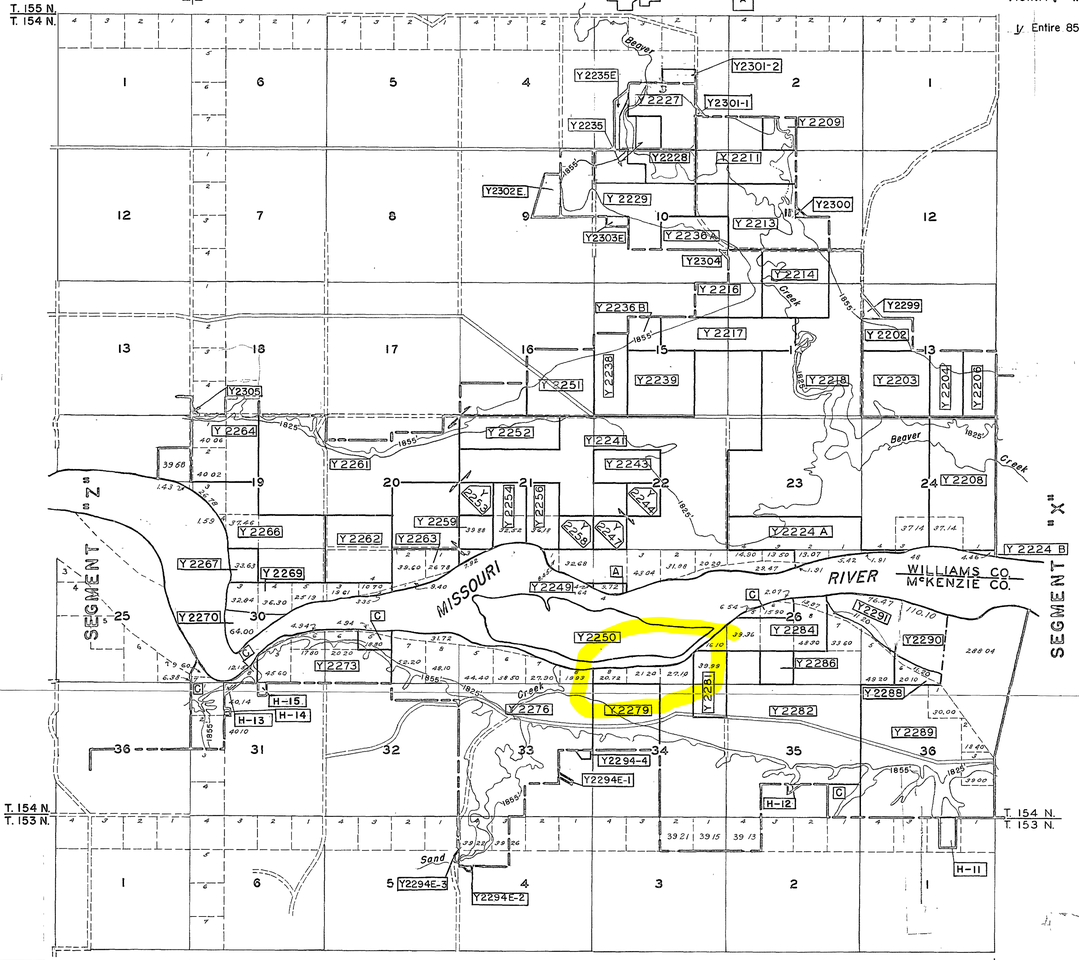
TRACT REGISTER

TRACT NO.	LANDOWNER	ACREAGE FEE	EASE.	TRANS.
Y 2294E-1	HOMER A. SORENSON, ET UX		2.14	
Y 2294E-2	HOMER A. SORENSON, ET UX		1.27	
Y 2294E-3	HOMER A. SORENSON, ET UX		1.42	
Y 2294-4	HOMER A. SORENSON, ET UX	3.13		
H	DEPT. OF AGRICULTURE, FOREST SERVICE			see remarks





VICINITY MAP WITH SEGMENT INDEX



NOTE:
Boundary lines of this segment were determined by deed descriptions, General Land Office Plats, and aerial photos.
Contours of 1850 m.s.l. and 1855 m.s.l. extend into tract Y-2294-4.

NOTE:
Oil and gas reserved in all fee tracts except Y2251.

ACQUISITION AUTHORIZATION

Public Law No. 534, 22 Dec. 1944
6th Ind. O.C.E. to M.R.D., dated 4 May 1950
Letter O.C.E. to Dept. of Justice, dated 22 Dec. 1955
10th Ind. O.C.E. to M.R.D., dated 4 Nov. 1971

TRACT NO.	REMARKS
Y2235E	Permanent flowage Easement from 8-10-77
Y2302E	" " " " 12-12-78
Y2303E	" " " " 7-20-78
Y2294E-1	" " " " 12-20-80
Y2294E-2	" " " "
Y2294E-3	" " " "
H	Memo. of understanding dtd. 6-29-79. Entire acreage in Tract Register of Segment W. Segment Y contains Par. H-11, 16.53 Ac.; Par. H-12, 1.38 Ac., Par. H-13, 1.72 Ac., Par. H-14, 0.92 Ac., Par. H-15, 2.93 Ac.

MICROFILMED	DATE	BY	REVISIONS	APPROVED
	6-30-86	D.A.	Revised up to date	
	4-15-88	WKD	Audit Revisions	

DATE	BY	REVISIONS	APPROVED
7-3-69	M.P.	Name of Project added transfer	
9-29-70	R.E.P.	Revised Project Name	
12-9-77	P.L.P.	REVISED Y2303 TO EASEMENT	
1-26-78	P.L.P.	REVISED TRS. 2302, 2294-1, 2294-2, 2294-3 TO EASEMENT	
1-25-78	K.R.V.	DELETED TRACT Y2302 AND ADDED TRACT Y2302E	
11-8-78	L.K.N.	Revised Acreage Trs. Y2294E-1, E-2, E-3	
3-9-79	R.C.I.	ADDED TRACT H	
7-2-79	T.E.E.	REVISED OWNER'S NAME FOR TRACTS H-11, 12, 13, 14, 15	

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED
INSTALLATION OR PROJECT NO. C2-2-1885

ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE SIMPLE	EASEMENT
V Y 2235	VIRGIL HARTSOCH, ET UX (FORMERLY Y2228E)	85.00	
Y 2237	DELETED		
Y 2201	DELETED		
Y 2202	DANIEL T. McCARTHY	60.00	
Y 2203	HAAKON M. HOVE, ET UX	160.00	
Y 2204	EDDIE SANDERSON, ET UX	80.00	
Y 2293	DELETED		
Y 2206	MYRTLE SANDERSON	80.00	
Y 2207	DELETED		
Y 2208	RUDY BARSTAD, ET UX	317.14	
Y 2209	WOODROW SVEEN	40.00	
Y 2294-1	DELETED		
Y 2211	ALBERT A. JOHNSON	200.00	
Y 2212	DELETED		
Y 2294-2	DELETED		
Y 2213	AUGUST MATTSON	240.00	
Y 2214	HERMAN MILES ZAHL	160.00	
Y 2294-3	DELETED		
Y 2216	EUGENE F. PARKER	120.00	
Y 2217	JOHN AUGUST PETERSON	160.00	
Y 2218	CLARA CARTER	1157.14	
Y 2219	DELETED		
Y2295	DELETED		
Y 2221	DELETED		
Y 2222	DELETED		
Y 2223	DELETED		
Y 2224	ELMER HENDRICKSON		
	PARCEL 'A' 182.79 PARCEL 'B' 4.46	187.25	
Y 2226	DELETED		
Y 2227	ROSA KAMP	120.00	
Y 2228	ELLEN HARTSOCH	87.50	
V Y 2228E	DELETED (NOW KNOWN AS Y2235)		
Y 2229	WALTER S. FERGUSON	240.00	
Y 2231	DELETED		
Y 2232	DELETED		
Y 2233	DELETED		
Y 2234	DELETED		
Y 2297	DELETED		
Y 2236	HAROLD S. NELSON		
	PARCEL 'A' 80.00 'B' 40.00	120.00	
Y2298	DELETED		
Y 2238	B. P. MURPHY	100.00	
Y 2239	E. L. GUNDERSON	160.00	
Y 2299	ARVEY J. HARTSOCH, ET UX	6.82	
Y 2241	BRUNO H. WEYRAUCH, ET UX	1322.04	
Y 2242	DELETED		
Y 2243	MARGARET M. FLICK	80.00	
Y 2244	CLARA CARTER	40.00	
Y 2300	CRAIG A. HARTSOCH, ET UX	1.03	
Y 2246	DELETED		
Y 2247	G. E. PETTERS	40.00	
A	U.S.A. DEP'T OF INTERIOR	see remarks	
Y 2249	WILLIAMS COUNTY, NORTH DAKOTA	.64	
Y 2301-1	WALTER C. KAMP, ET UX	1.40	
Y 2251	STATE OF N. DAK.	160.00	
Y 2252	EVA BROWNELL ESTATE	120.00	
Y 2253	LILLIAN E. HAGEN	40.00	
Y 2254	HAL S. DAVIES	72.52	
Y 2301-2	WALTER C. KAMP, ET UX	13.64	
Y 2256	MILDRED H. REED, ET AL	76.18	
Y 2257	DELETED		
Y 2258	WALTER C. KAMP	40.00	
Y 2259	A. R. HEALEY	39.88	
Y 2302	DELETED		
Y 2261	J. G. HOVE ET UX	630.00	
Y 2262	MRS. DOROTHY WHEELER	160.00	
Y 2263	J. C. BOLINGER, TRUSTEE	75.78	
Y 2264	ELLEN HARTSOCH	180.08	
Y 2303	DELETED		
Y 2266	VERNON KNOX	306.94	
Y 2267	MRS. WINIFRED I. WEISS	33.63	
Y 2304	ROGER BAKER, ET UX	0.72	
Y 2269	BRUNO H. WEYRAUCH, ET UX	127.99	
Y 2270	BRUNO H. WEYRAUCH, ET UX	64.00	
Y 2235 E	VIRGIL A. HARTSOCH, ET UX		10.82
Y 2303E	BEAVER CREEK FREE LUTHERAN CONGREGATION		6.43
Y 2250	STATE OF N. DAK.	188.66	
Y 2271	DELETED		
Y 2272	DELETED		
Y 2273	SHANNON WALTER, ET AL	208.54	
Y 2274	DELETED		
Y 2276	R. J. COUGHLIN	911.60	
Y 2277	DELETED		
Y 2278	DELETED		
Y 2279	JOSIE PETERSON COX, ET AL	160.00	
Y 2305	VIRGIL HARTSOCH, ET UX	0.46	
Y 2281	ELVA ANNA GABBERT, ET AL	79.99	
Y 2282	CARRIE MENDENHALL	1200.51	
Y 2283	DELETED		
Y 2284	CARRIE MENDENHALL	157.63	
Y2302E	FRED FERGUSON		32.60
Y 2286	JULIA M BJORKLUND	40.00	
Y 2287	DELETED		
Y 2288	ANNA THOMPSON MEHLUM	31.30	
Y 2289	STATE OF N. DAK.	855.44	
Y2290	ANNA THOMPSON MEHLUM	110.10	
Y2291	CARRIE MENDENHALL	76.47	
C	U.S.A. (DEP'T. OF AGR.)	see remarks	

TRACT	REMARKS
A	Transferred 25 Feb. 1955, Public Land Order No. 1078, acreage included in tract register of segment A.
C	Transferred 10 March 1954, Executive Order No. 10520, acreage included in tract register of Segment W
Y2226E	Perpet'l. Flowage Easm't. from 27 Feb. 1956. (Entire acreage merged into fee tract Y-2235)
Y2291	Formerly part of Tract No. Y2290

DATE	BY	REVISIONS	APPROVED
5-25-62	M.A.Z.	Due to Final Audit	R.P.
9-12-55	M.C.J.	Taking line change: Y 2209, 60.00 ac. to 40.00	R.P.
1-9-53	M.C.J.	Taking line change: Y 2264, 240.08 ac. to 180.08	

FINAL PROJECT MAP

TYPE OF MAP

STATE NORTH DAKOTA

COUNTY McKENZIE & WILLIAMS

DIVISION MISSOURI RIVER

DISTRICT GARRISON
TO OMAHA DISTRICT 1 APRIL 1960

LOCATION OF DAM SEC. 5 T. 146 N. R. 84 W. OF 5TH P.M.

10 MILES S OF GARRISON

15 MILES N OF STANTON

SEGMENT Y
— LAND AREA —

TOTAL ACRES IN SEGMENT 11,585.83 2/

ACRES FEE

ACRES EASEMENT

ACRES TRANSFERRED TO W.D.

ACRES PERMITS OR LICENSES

2/ Total does not include 85.00 acres Easement merged into fee.

— DISPOSALS —

TOTAL ACRES DISPOSED OF

ACRES TRANSFERRED

ACRES LEASED FROM W.D.

ACRES OTHERWISE

— LEGEND —

BOUNDARY MARKER (BRASS CAP)

TAKING LINE FOR RESERVOIR

PERTINENT CONTOUR LINES

CEMETERY

STATE OR PROVINCE LINES

COUNTY LINE

TOWNSHIP LINE

SECTION LINE

PROPERTY LINE

STREAMS

RAILROADS

POWER LINES

TELEPHONE LINES

IMPROVED ROADS

UNIMPROVED ROADS

— SCALE — 2" = 1 MILE
5280' 2640' 1320' 0 1/4 1/2 1 MILE

DEPARTMENT OF THE ARMY
OFFICE OF THE DISTRICT ENGINEER
GARRISON DISTRICT
MISSOURI RIVER DIVISION
REAL ESTATE

GARRISON DAM - LAKE SAKAKAWEA, NO. DAK.

SEGMENT Y

RECOMMENDED: DATE: 14 Mar 1950

APPROVED: LT. COL., CORPS OF ENGINEERS DATE: 20 Mar 1950

COMPILED: TRACED: CHECKED: W.L.

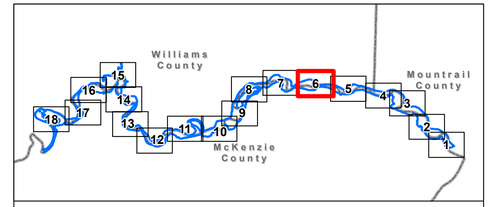
DATE	BY	REVISIONS	APPROVED
10-10-51	W.B.	Correct to date	
3-13-52	W.B.	Correct to date	
5-1-52	M.C.J.	Taking line change Y 2201 (20.00 ac.) eliminated	
6-16-52	M.C.J.	Taking line change Y2202, 160.00 ac. to 60.00 ac.	
3-14-52	M.C.J.	Taking line change Y2261, 720.00 ac. to 630.00ac.	
1-8-53	M.C.J.	Taking line change: Y2294, Y2293 & Y2252 ELIMINATED Y2253 160.00 AC. TO 72.52 AC.	

SHEET: 26 OF 6 DRAWING NO. G-26-ND-C

U. S. BLUE CO., CHICAGO 75 3-50-47
FORM 177A

G-26-ND-C

Attachment 4
Wenck Survey OHWM Delineation Map 6 of 18



BLM PLSS Section Boundary

BLM PLSS Qtr Qtr Section Boundary

River Miles

USACE Cross Section

Ordinary High-Water Mark (OHWM)

Recommend Correction to Account for More Recent Aerial Information

Recommend Correction to Account for Frequently Flooded Accretion

Recommend Correction to Account for Active Meandering (Reliction)

Notes:
1. PLSS Sections and Quarter Sections: BLM National Public Land Survey System, Department of the Interior
2. 1951 Aerial Photographs (Source: ND Department of Mineral Resources)

2,000 1,000 0 2,000 Feet

1 inch = 1,000 feet

N

Path: L:\4384\0001\mxd\Draft Report 03142018\NDDMR_1951_Aerials_w_OHWM_D_Size.mxd
Time: 1:20:11 PM Date: 4/2/2018 User: shuic0243

NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES

OHWM Delineation

WENCK

Responsive partner. Exceptional outcomes.

MAR 2018

Map 6 of 18

Attachment 5
Bartlett & West Phase II Survey Plats

157.03 Acres

21

22

23

157.41 Acres

24

157.06 Acres

37.64 Acres

98.16 Acres

51.1 Acres

17.69 Acres

14.82 Acres

1.81 Acres

2.14 Acres

2.52 Acres

122.15 Acres

61.24 Acres

108.29 Acres

117.2 Acres

129.34 Acres

157.95 Acres

154.43 Acres

28

27

1.62 Acres

24.76 Acres

26

15.64 Acres

3.73 Acres

25

115.19 Acres

123.21 Acres

84.45 Acres

78.13 Acres

158.09 Acres

156.01 Acres

149.87 Acres

75.05 Acres

44.62 Acres

36.26 Acres

81.63 Acres

9.8 Acres

139.73 Acres

33

34

35

36

T 154N, R 096W

NORTH

McCain and Associates, Inc.

ND STATE LAND DEPARTMENT

OHWM INVESTIGATION
UNDER LAKE SAKAKAWEA

BARTLETT & WEST

GIS Technician:	DDF
Ecologist:	KJK
Project Manager:	JDL
Project Number:	16073.002
Date:	01/04/11
Scale:	1" = 1000'
Sheet Number	39
	39 of 53

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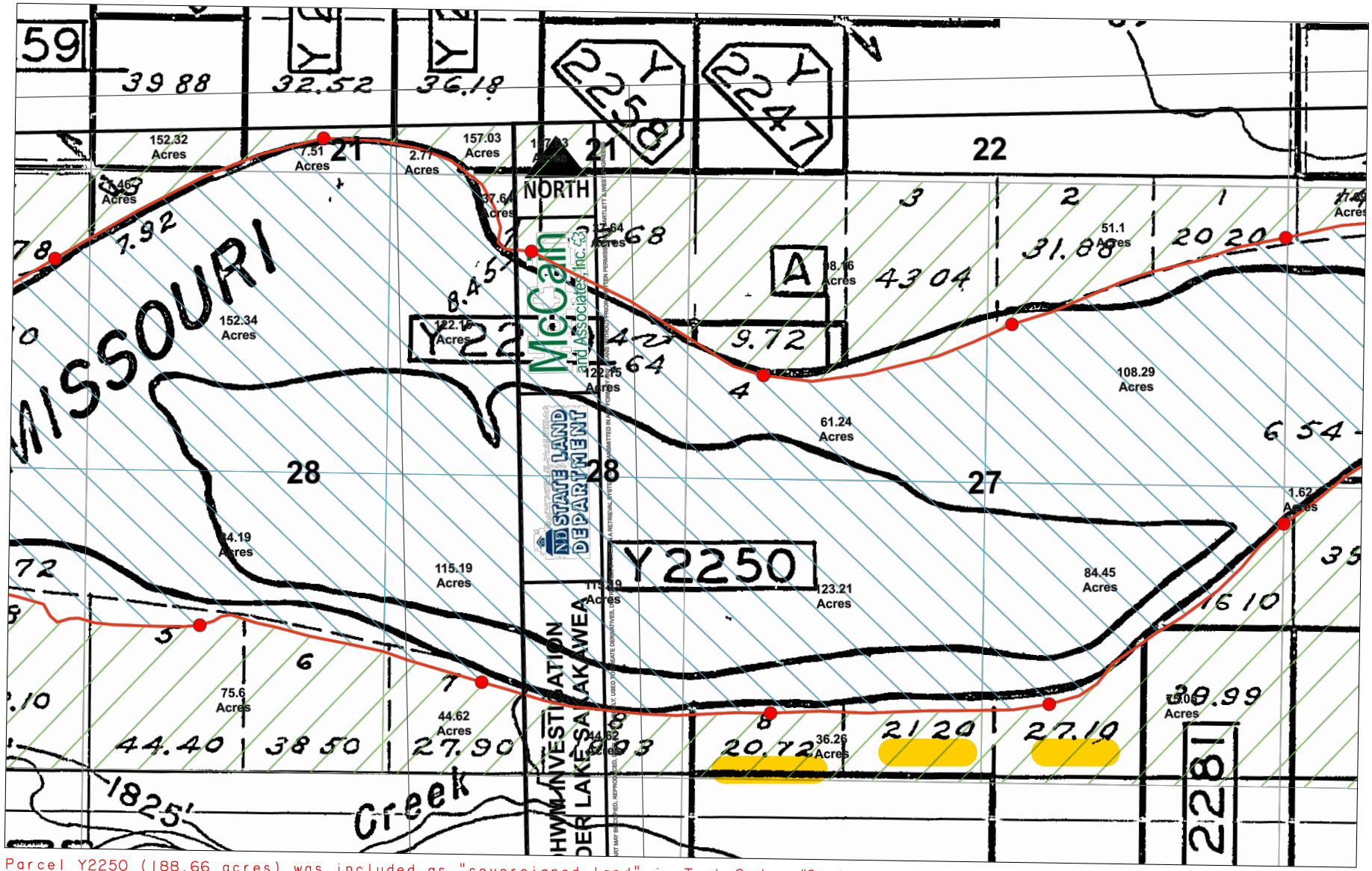


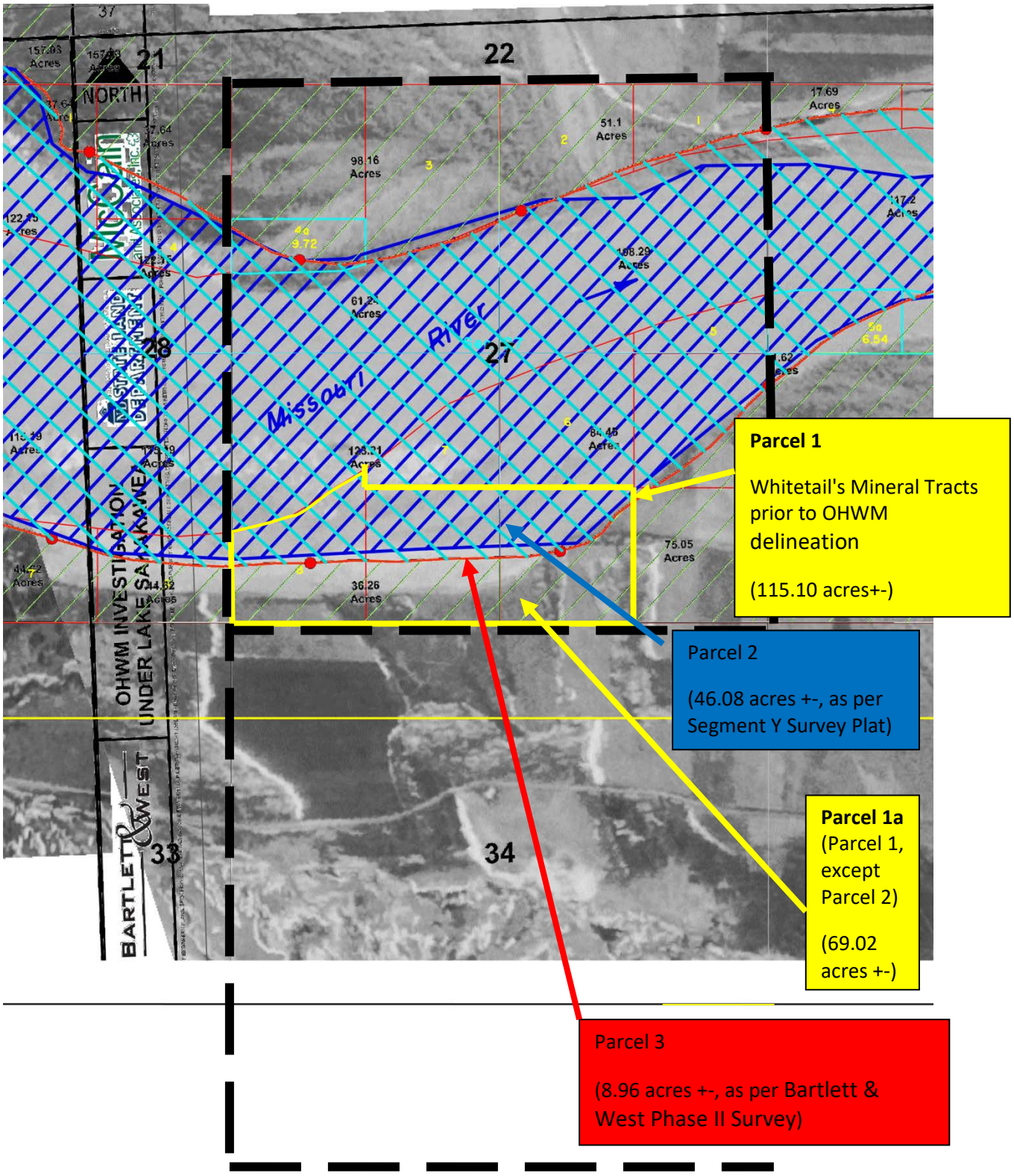
Parcel Y2250 (188.66 acres) was included as "sovereigned land" in Task Order #2, however Y2250 was acquired by the COE from the State.

LEGEND

Missouri Riverbed between OHWM's as determined in ND Task Order #2.

Land above the OHWM as determined in ND Task Order #2.

Enclosure 5A


22
21
NORTH
17.69 Acres
51.1 Acres
98.16 Acres
108.29 Acres
61.24 Acres
Missouri River
27
28
84.45 Acres
123.21 Acres
75.05 Acres
36.26 Acres
OHWM INVESTIGATION UNDER LAKE SAKAKAWEA
BARTLETT & WEST
33
34
Parcel 1
Whitetail's Mineral Tracts prior to OHWM delineation
(115.10 acres+-)
Parcel 2
(46.08 acres +-, as per Segment Y Survey Plat)
Parcel 1a
(Parcel 1, except Parcel 2)
(69.02 acres +-)
Parcel 3
(8.96 acres +-, as per Bartlett & West Phase II Survey)

Attachment 6

Response Letter, dated March 23, 2016 from Aden L. Seidlitz, Acting State Director of the United States Department of the Interior, Montana Bureau of Land Management to Mr. Lance D. Gaebe, Commissioner of the University and School Lands, ND Dept of Trust Lands and Mr. Todd Sands, State Engineer, ND State Water Commission

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive
Billings, Montana 59101-4669
www.blm.gov/mt

In Reply Refer To:
9661 (MT926)

March 23, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Lance D. Gaebe
Commissioner of University and School Lands
North Dakota Department of Trust Lands
P.O. Box 5523
Bismarck, ND 58506-5523

Mr. Todd Sando
State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505-0850

Dear Messrs. Gaebe and Sando:

We are in receipt of your statement of reasons received on December 10, 2014, supporting the two letters of intent to protest the official filing of Supplemental Plats by the Branch of Cadastral Survey. The letters of intent to protest were received on August 6, 2014, from the North Dakota Department of Trust Lands and August 7, 2014, from the Office of the State Engineer (OSE).

In your statement of reasons, you assert two reasons why the Bureau of Land Management (BLM) should not officially file the Supplemental Plats, approved April 9, 2014, and May 8, 2014, representing the geographic limits of the Public Domain interests. Your reasons are:

1) The BLM's Supplemental Plats should utilize the Ordinary High Water Mark (OHWM) survey initiated by North Dakota in 2009 that follows the OSE's 2007 guidelines; and
2) The Army Corp of Engineer's (COE) Acquisition Segment Maps (Segment Maps), upon which the Supplemental Plats are based, are not an accurate reflection of the OHWM.

The State of North Dakota's (State) OHWM delineation, as depicted on Enclosure 1, claims approximately 1,140 acres of Public Domain[1] subsurface estate and 896 acres of Public Domain surface estate on the Supplemental Plats to be State sovereign land. In addition, the State also claims approximately 2,637 acres of fee subsurface estate and 2,881 acres of COE-acquired surface estate as State sovereign land, which are not addressed on the Supplemental Plats.

[1] For clarification, Public Domain interests in the State of North Dakota refer to land interests (surface and subsurface) where title has never left the Federal Government.

Your protest points are focused on the location of the OHWM line, depicted on the Supplemental Plats, which is the boundary between upland ownership and State riverbed title under the Equal Footing Doctrine.

Riverbed Title Under the Equal Footing Doctrine

Your protest concerns riverbed title and not public trust issues. This distinction is important because it controls the source of law to be applied in defining the OHWM. A recent United States Supreme Court decision distinguishes the two in *PPL Montana, LLC v. Montana* 132 S. Ct. 1215, 1235 (2012):

> *"Under accepted rules of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine."*

Thus, federal law determines riverbed title under the equal footing doctrine. The following leading federal court cases provide the controlling definitions of the OHWM.

In *Howard v. Ingersoll*, 54 U.S. 381, ___ (1851), the United States Supreme Court's ruling focused on a line impressed upon the bank by the action of water as the primary indicator of the OHWM and marking the permanent bed of the river. The court also found that the bed of a river does not encompass lands outside of the banks that are subject to periodic overflow nor does it include those lands that are viable for agriculture or grazing:

> *"It neither takes in overflowed land beyond the bank, nor includes swamps or low grounds liable to be overflowed, but reclaimable for meadows or agriculture, or which, being to low for reclamation, though not always covered with water, may be used for cattle to range upon, as natural or uninclosed pasture. 54 U.S. at 415-16."*

The concurring opinions provide more clarification and established the importance of an examination of vegetation that separates the riverbed from upland, and help provide basis for subsequent federal court case definitions.

Approximately 50 years later, the Eighth Circuit reiterated *Howard v. Ingersoll* in slightly different wording:

> *"The bed of the river is that soil so usually covered by water that it is wrested from vegetation . . . and does not extend to or include that upon which grasses, shrubs, and trees grow, though covered by the great annual rises."*

Harrison v. Fite, 148 F. 781, 783 (8th Cir.1906).

A more recent federal district court case addressed the OHWM of a lake but lends guidance that transitional marshlands are not enough evidence for inclusion within the OHWM:

> *"At most the evidence shows that the dike stands on property that has historically served as marshland for Lake Harney periodically absorbing the lake's high waters*

and periodically serving as productive agricultural land for its owners. This is not enough to infer that the dike stands below the ordinary high water mark the point at which the bed of the lake ends and the fast lands begin."

United States v. Cameron, 466 F. Supp. 1099, 1114 (M.D. Fla. 1978)

And, finally, *United States v. Claridge*, 416 F. 2d 933, 934 (9th Cir.1969) references the definition in *Howard v. Ingersoll* and calls for a natural feature and further explains that the OHWM does not include the floodplain from bluff to bluff due to spring floods:

"The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."

The BLM's Manual of Surveying Instructions, 2009 (Manual) has interpreted these leading cases on OHWM and summarized them into a contemporary definition of the OHWM for the surveyor in section 3-164:

"For inland waters, the OHWM normally used is the line below which the water impresses on the soil by covering it for sufficient periods to deprive it of terrestrial vegetation, and the soil loses its value for agriculture, including the grazing of livestock."

The Manual provides guidance in section 3-167 on locating the OHWM by utilizing the vegetation examination:

"A small pocket of an aquatic type plant growing in low places not in the riverbed is also not an indicator of the OHWM and does not indicate that the OHWM should be moved toward upland to include that pocket of aquatics. It is the most water-ward location of the terrestrial species that is determinative."

Rivers and OHWMs have been moving on the earth's surface for thousands of years and remnants of those movements are evidenced on virtually every aerial photo. However, we concern ourselves with the date on which rights were established, such as date of statehood and subsequent river movements for riverbed title under the Equal Footing Doctrine and entry dates for patents. The original surveys by the General Land Office classified upland of the Public Domain for patenting and created survey plats; generating the first representation of all of the rights within a township in relationship to one another. Since you are not challenging the validity of the original surveys, in this case we concern ourselves with the location of the OHWM prior to the artificial rising of the Missouri River to form Lake Sakakawea.[2]

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[2] Serving as background timeline information, the construction of Garrison Dam was authorized by the Flood Waters Control Act of 1946 and caused the artificial rising of the Missouri River to form Lake Sakakawea. Construction began in 1946 with reservoir filling initiated in December of 1953 and reaching minimum operating pool on August 7, 1955. http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487634/garrison-project-statistics.aspx

To resolve your protest, we will address locating the line of ordinary high water, both legally and factually. It must be accepted that the OHWM along a river is an ambulatory boundary that migrates through the normal actions of accretion and erosion and has moved since rights were bounded by it. While we agree there will be some differences in location based on dates of aerial photography and dates of field work due to accretion and erosion, it appears that your OHWM guidelines do not comport with federal law and cannot be used to determine riverbed title under the Equal Footing Doctrine.

Discussion of State Reason No. 1

A) OSE's OHWM Delineation Guidelines of 2007

The BLM's Branch of Cadastral Survey has reviewed the OSE's OHWM Delineation Guidelines of 2007 and finds it mostly in conformity with the federal definition except for defining grazing of livestock and certain agriculture as being below the OHWM, as outlined in the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea which states:

> *"Areas below the OHWM may have vegetation suitable for grazing but wetland vegetation capable of being grazed is not an "ordinary agricultural crop."*
>
> *Another complicated area included the low lying hayfields. For this study, the term "field" refers to hayed or mowed areas, and does not imply that the area has been cultivated or seeded. Farming practices along the river during drier, low water periods often extended into the lower floodplain areas, closer to the water's edge. These "fields" may be cut for hay, or cultivated for a short time, but rapid colonization of wetland species on these hay fields likely occurred when the wetter period and subsequent higher water levels returned."*

The grazing statement is in direct contradiction to the *Howard v. Ingersoll* reference of *natural or uninclosed* pasture and the Manual definition of OHWM. *United States v. Cameron* references marshland that periodically absorbs the high waters and periodically serves as productive agriculture which was directly tied to the grazing of livestock and was found not enough to infer the lands were below the OHWM.

The hay field statement is in direct contradiction to the *Howard v. Ingersoll* reference to lands liable to overflow but reclaimable for meadows or agriculture. It also contradicts *Harrison v. Fite* in that the bed does not extend to land which grasses grow although covered by rises in the water. The implication is that the land can ordinarily be utilized for agriculture, even though the remnants of water in low areas of the floodplain caused by rises in the river allow for pockets of aquatic vegetation to grow periodically, which is also addressed in the aforementioned cases.

The BLM's Branch of Cadastral Survey has reviewed the State's OHWM survey Task Order No. 2 and finds the intent to locate the OHWM of the Missouri River prior to the artificial rising of the Missouri River to form Lake Sakakawea to be correct and does not believe the State is attempting to claim the pooled lakebed of Lake Sakakawea as a navigable waterway under the Equal Footing Doctrine.

Cultivation and seeding are not prerequisites for *productive agriculture*[3] which would thereby exclude *natural or uninclosed*[4] pasture suitable for grazing or natural grass haying. Specifically the upland extends towards the river to the lowest extent of upland vegetation and not the landward extent of aquatic vegetation.

These deviations from the Federal definition of OHWM allow the State's delineation of OHWM, which is visually represented on Enclosure 2 hatched in blue and overlaid on the 1958 aerial photo, to impermissibly encompass upland with terrestrial vegetation, hay fields, and cultivated fields.

Likewise, the State's OHWM delineation, depicted on Enclosure 3 hatched in blue and overlaid onto the 1952 aerial photo, spans from *bluff to bluff*[5] taking in uplands temporarily overflowed by *freshets*[6] which is in direct contradiction to all Federal case law and moreover, the State's delineation, which does not reference utilizing the 1952 aerial photo follows the extent of water on the 1952 photo very closely. But, this photo is a representation of one of the highest recorded flows, which is not characterized as "ordinary." The date of the aerial photo, April 5, 1952, has been correlated to United States Geological Survey (USGS) flow data obtained at: http://waterdata.usgs.gov/usa/nwis/inventory/?site_no=06330000&agency_cd=USGS. Thirty-seven years of flow data from 1928-1965 shows that only 21 days had higher flows than the aerial photo date (April 5, 1952), of which 4 days were also in 1952. Enclosure 4a is the mean daily discharges for 1952; 4b is the highest daily means from 1928-1965; 4c is a graph of the 37 year discharges.

Therefore, BLM believes the State's OHWM delineation is skewed due to the aforementioned deviations from the Federal definition of OHWM and residual flood waters from an extraordinary event onto the floodplain. The State's OHWM delineation depicts the riverbed to be three times the width of the General Land Office's originally surveyed meanders. Originally surveyed meanders are typically landward of the actual OHWM, and while it is acknowledged that OHWMs move laterally, no evidence shows why the riverbed has widened, up to triple in size, to encompass lands classified as upland in the original survey.

The sheer width of the State's OHWM delineation, as depicted on Enclosure 1, clearly shows that it ignores the *natural physical characteristic*[7] of the OHWM which is a *natural object*[8] and extends *beyond the banks*[6] to encompass significant portions of the floodplain. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

B) Chain of Title

At the meeting on July 22, 2014, in Bismarck, ND, Josh Alexander, BLM's Acting Chief Cadastral Surveyor for public lands in North Dakota, specifically asked if the State's OHWM delineation was to determine surface rights, subsurface rights, or both. The verbal response was

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[3] *United States v. Cameron*, 466 F. Supp. 1099 (M.D. Fla. 1978)
[4] *Howard v. Ingersoll*, 54 U.S. 381 (1851)
[5] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[6] *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991)
[7] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[8] *Howard v. Ingersoll*, 54 U.S. 381 (1851)

that it determined the boundary of State Sovereign land encompassing both surface and subsurface rights.

But, the State's delineation did not consider previous conveyances, as evidenced by chain of title research. Enclosures 5a, 5b, and 5c are the State's OHWM delineation, which is hatched in blue and overlaid onto the COE Segment maps, in which the State's delineation encompasses:

1) 188.66 acre island, Y2250 (Enclosure 5a)
2) 228 acres within Y2289 (Enclosure 5b)
3) 71.07 acres within Z2382 (Enclosure 5c)

These parcels were conveyed to the United States by the State as upland (see Enclosure 6 for conveyance documents). The magnitude of acquisitions by the COE clearly shows the intent was to purchase displaced uplands. The chain of title clearly shows that the State agreeably conveyed upland and islands, which is now being depicted and claimed as riverbed. An island must exist above the OHWM to be considered an island; otherwise it is a part of the bed (sandbar). At the time of the conveyance, an OHWM determination was made to facilitate the conveyance of the island and the upland. These conveyances were for upland surface only. The State's new OHWM delineation must omit these areas as they have previously been classified as upland, not below the OHWM, and are not part of surface Sovereign Lands of the State. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

C) Sovereign Lands

In its protest, the State is utilizing its delineation as a basis for claim to sovereign land and to require mineral lease and royalty payments from oil and gas operators. However, prior to viewing the delineations at https://land.nd.gov/minerals/mineralapps/OHWM2/OHWM2Disclaimer.aspx, there is a caveat:

> *"The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land.""*

Thus, it is unclear how much weight to give to the State's OHWM delineation even though the State's Statement of Reasons infers that we should honor it wholly. Instead, BLM's Supplemental Plats are without limitation and provide the better evidence of riverbed title.

For the foregoing reasons, the State's first protest point is denied.

Discussion of State Reason No. 2

A) BLM Field Investigations Prior to Flooding

The COE Segment Maps were the basis for land title acquisition by the COE for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most

comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea.

To determine what lands were classified as public lands, the COE engaged BLM's Branch of Cadastral Engineering (now Branch of Cadastral Survey) to execute field investigations prior to flooding. BLM surveyors were guided by Special Instructions dated October 24, 1952 (Enclosure 7). Importantly, there is no evidence that the State of North Dakota raised concerns about the Special Instructions or subsequent acquisitions.

The Special Instructions stated the following regarding the lot or legal subdivision listed:

> *"Ascertain whether any or all of it is above mean high water at the present time*
>
> *If it is found to be above water at present, determine whether any or all of it has been in existence above mean high water continuously since the original survey was made*
>
> *Show what part of the tract has been in existence since the date of the original survey*
>
> *If the land has been entirely washed away and has re-appeared, determine the date it was submerged and when it re-appeared*
>
> *If accretion to a tract of public domain land has formed, show the extent of such accretion*
>
> *If substantial accretion appears to have formed in front of riparian privately-owned lands prior to the date of entry, show the extent of such accretion and the date a substantial amount had formed in front of the original tract*
>
> *Where changes have taken place in the river channel, determine whether the change was due to avulsive action, or to the slow and imperceptible process of reliction and accretion*
>
> *To determine the above facts, you will study all plats, charts, maps, aerial photographs and records found that may have a bearing on the case at hand. You will determine the age of timber growing on the land and obtain such other information as is available including the interviewing of old settlers who may be familiar with the river changes at those places."*

BLM officers were operating under the BLM's Manual of Surveying Instructions, 1947 (1947 Manual), and the term "mean high water" for inland waters carries the same determination principles and conformance to law as the OHWM, as evidenced by guidelines in the 1947 Manual.

The BLM conducted extensive field investigations to determine what lands existed above the OHWM, made a determination on river movement, its effect on land title, and compiled this information in an investigative report. These reports were utilized to determine public lands above the OHWM, addressing both accretion and erosion to public lands. Those determinations

were depicted on the Segment Maps. In other words, the COE Segment maps are based on BLM field work, analysis, and standard practices. See Enclosures 8, 9, and 10 for the progression from BLM field investigation report map (8) to Segment Map (9) to Supplemental Plat (10), all of which depict the same findings from the field investigations.

B) North Dakota State Lands Department (SLD)'s Previous OHWM Delineation

1) Land acquisition documents show that SLD participated in the COE survey process.

A conveyance document in Enclosure 6 infers that the SLD performed an OHWM determination prior to the conveyance. The last page of Enclosure 6 states:

> *"The above is based on Survey Report furnished by the State School Land Department."*

The SLD Survey Report was requested by the BLM's Branch of Cadastral Survey. However, its whereabouts are unknown and remains unfurnished. But, based on the subsequent conveyance, the referenced SLD Survey Report likely made a determination that Y2250 was an island existing above the OHWM, thereby necessitating the need for purchase by the COE as uplands that would be displaced by the artificial rising of the Missouri River to create Lake Sakakawea.

Although the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea states that the SLD was unaware of any previous OHWM determinations, we believe that the land acquisition documents establish that the SLD participated in the OHWM determinations upon which the COE segment maps are based.

2) Documents show that SLD participated in the condemnation process for uplands.

To further outline the SLD's involvement and conclude that the State was aware of upland acquisitions, we obtained correspondence documents (Enclosure 11) showing that SLD and COE deliberations led to a formal and friendly condemnation process, which was followed by the SLD and the COE.

Despite legislation being passed to convey State lands without mineral reservation, the condemnation process was instituted due to the reluctance of then SLD Commissioner, John O. Lyngstad. Mr. Lyngstad was reluctant to sell State lands and supported the condemnation process for fear of political repercussions of selling State land. Mr. Lyngstad relays his reluctance by predicting accusations from farmers that they would be willing to pay the State more money than was being offered by the Federal Government. It is certain that farmers would not be willing to pay for these uplands if they were not productive for agriculture indicating the lands existed as upland above the OHWM. The State's OHWM delineation incorrectly classifies these same uplands as riverbed.

Revisit Enclosure 6 showing the execution of this process whereby the COE sent appraisals for displaced state uplands asking for consideration by the Board of University and School Lands, execution by the Land Commissioner, and condemnation.

C) Appraisals

Full appraisals were conducted for acquisition of displaced uplands to justify and provide basis for the expenditure of appropriated funds. These appraisals quantify upland area and quantify the uses of the upland, including agricultural production, timber, brush, etc. While utilized for appraisal values, these quantifications provide significant documentation with regard to the acquired displaced uplands, depicted on the COE Segment maps, existing above the OHWM. See Enclosure 12, which is the same area as Enclosure 2 showing the State's OHWM delineation encompassing brush and productive agriculture as identified by the land appraisal. The State's delineation does not follow Federal case law or OHWM definitions with the inclusion of these uplands.

For the reasons outlined above, we reject the State's assertion that the COE Segment Maps are not an accurate reflection of the OHWM. The OHWM was established by BLM-led field investigations using Special Instructions that were not disputed by the State. In fact, there is ample evidence showing that the SLD participated in the establishment of the OHWM determination. The second protest point is denied.

Conclusion

The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM, and involvement from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines.

Based on the aforementioned analysis, the BLM finds the State's OHWM delineation:

1) does not comply with the federal definition of the OHWM
2) does not honor chain of title or previous involvement with the COE
3) is an overreaching delineation that impairs:
   a) the mineral rights of private owners as vested from original patents from the Federal Government
   b) the Federal Government's acquired rights in land, and
   c) the rights of all in the Public Domain interests in land.

Your protest to the official filing of plats of survey posted in the *Federal Register* on July 8, 2014, is hereby dismissed. The Supplemental Plats shall be officially filed in this office.

You have the right to appeal this decision to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of the Interior, Board of Land Appeals (Board), in accordance with the regulations contained in 43 CFR Part 4 and the enclosed Form 1842-1 (Enclosure 13). In taking an appeal, there must be strict compliance with the regulations. If you choose to appeal, a notice of appeal must be filed in this office within thirty (30) days of receipt of this letter for transmittal to the Board. If your notice of appeal does not include a statement of reasons, one must be filed with the Board within thirty (30) days after the notice of appeal was filed. A copy of your notice of appeal and any statement of reasons, written arguments, or briefs, must also be served upon the Office of the Solicitor, Rocky Mountain Region, 2021 Fourth Avenue N., Suite 112, Billings MT 59101. Service must be accomplished within fifteen (15) days after filing in order to be in compliance with appeal regulations.

As provided by 43 CFR Part 4, you have the right to petition the Office of Hearings and Appeals to stay implementation of the decision; however, you must show standing and present reasons for requesting a stay of the decision that address your interests and the manner by which they would be harmed. A petition for stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) The relative harm to the parties if the stay is granted or denied; (2) The likelihood of the appellant's success on the merits; (3) The likelihood of immediate and irreparable harm if the stay is not granted; and (4) Whether the public interest favors granting the stay. Should you choose to file one, your stay request must accompany your notice of appeal. A notice of appeal with petition for stay must be served upon the Board, Regional Solicitor, and adverse parties at the same time such documents are served on the deciding official at this office. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR 1.3.

Sincerely,

Aden L. Seidlitz

Aden L. Seidlitz
Acting State Director

13 Enclosures
1- Overall comparison of OHWM delineations in protested area
2- OHWM comparison overlaid onto 1958 aerial photography
3- OHWM comparison overlaid onto 1952 flood aerial photography
4- USGS flow data
5- State OHWM delineation overlaid onto Segment Maps
6- State land conveyance correspondence and execution documents
7- BLM Special Instructions
8- BLM field investigation report map
9- Portion of Segment Map

10- Portion of BLM Supplemental Plat
11- COE and SLD correspondence
12- Land appraisal map
13- Form 1842-1

cc: Karan Dunnigan
Office of the Solicitor
Billings, MT

Attachment 7

Various copies of State correspondence regarding States claim to island north of Column 1 Tracts
ALSO
a copy of recorded Certificate as to Title of Island, wherein State claims ownership.

MRGRP 24 July 1951

Mr. John Lyngstad
State Land Commissioner
Bismarck, North Dakota

Dear Mr. Lyngstad:

Tract map tracings provided by your office covering islands in the Missouri River are herewith returned and in accordance with your verbal suggestion two copies each of multilith prints from the tracings are also inclosed for your convenience.

Attention will be given by this office to the inclusion of these islands for acquisition by the Government if they are found to be within the proposed Garrison Reservoir.

FOR THE DISTRICT ENGINEER:

Very truly yours,

5 Incl (in trip)
Tract Maps

ROY DORY
Chief, Real Estate Division

VL/bg

ENCLOSURE 6

JAN 1 1952

MRGRC (Tracts Nos. W-2050, X-2180,
Y-2250, Y-2289, Z-2313, Z-2331, Z-2382)

Mr. John O. Lyngstad
State Land Commissioner
Bismarck, North Dakota

Dear Mr. Lyngstad:

Appraisals have been completed on additional lands, reputedly owned by the State of North Dakota, needed for the Garrison Reservoir. Pertinent information concerning them is as follows:

Tract No.	Acres	Appraised Value
W-2050	1111.15	$13,000.00
X-2180	521.60	3,000.00
Y-2250	188.66	950.00
Y-2289	855.44	9,500.00
Z-2313	120.00	1,200.00
Z-2331	153.64	2,600.00
Z-2382	320.00	3,050.00
Totals	3,270.49	$33,300.00

My office may now acquire title to land for the Garrison Reservoir subject to reservation of oil and gas rights by the owners. The only restrictions that are imposed in the reservation are the subordination of the oil and gas rights to the right of the United States to flood the land for the Garrison Reservoir, compliance with Federal and State laws on water pollution, and approval by the District Engineer, Garrison District, of the type of structures and appurtenances to assure their being constructed of a material that would not create floatable debris.

An option to purchase the fee simple title to the above-listed tracts, subject to the oil and gas reservation, is inclosed in quintuple for your consideration. It will be appreciated if you will give the option your early consideration and sign and return four executed copies to my office. As previously requested by you, the option will be used as a stipulation in Court and title will be passed by judicial order rather than by deed.

Very truly yours,

R. J. B. PAGE
Lt. Col., Corps of Engineers
District Engineer

GSW/elk

3 Incls
1. Option (in quin)
2. Tract map
3. Self-addressed envl.

J. O. LYNGSTAD, LAND COMMISSIONER

STATE OF NORTH DAKOTA
OFFICE OF
State Land Department
UNIVERSITY AND SCHOOL LANDS
BISMARCK, NORTH DAKOTA

January 12, 1952

Lt. Colonel R. J. B. Page
Corps of Engineers
Box 300
Ft. Lincoln
Bismarck, North Dakota

Dear Colonel Page:

We acknowledge receipt of your letter of January 11 enclosing options to seven tracts of land which you desire to secure in connection with the Garrison Reservoir.

The options will be presented to the Board of University and School Lands at its next regular meeting which will be held on or about January 31.

Yours very truly,

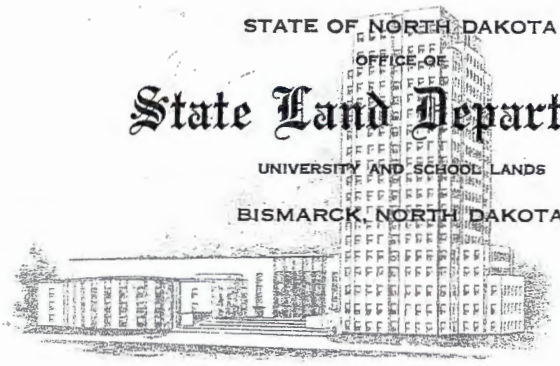
John O. Lyngstad

JOHN O. LYNGSTAD
Land Commissioner

JOL:eg

BUY "DAKOTA MAID" FLOUR

STATE OF NORTH DAKOTA
OFFICE OF
State Land Department
UNIVERSITY AND SCHOOL LANDS
BISMARCK, NORTH DAKOTA



1 February 1952

Lt. Col. R. J. B. Page
District Engineer, Garrison District
Corps of Engineers
Attn: Real Estate Division
Riverdale, North Dakota

Re: MRGRC (Tracts Nos. W-2050, X-2180, Y-2250, Y-2289, Z-2313, Z-2331, Z-2382)

Dear Sir:

We are returning four copies of the options for the purchase of land sent us in your letters of January 11 and January 24, which have been approved by the Board of University and School Lands, and executed by the Land Commissioner.

Trusting you will find the same satisfactory, I am,

Yours very truly,

John O. Lyngstad

JOHN O. LYNGSTAD
Land Commissioner

JOL/cso

Enclosures (4)

BUY "DAKOTA MAID" FLOUR

FILED
9/18/52

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NORTH DAKOTA
NORTHWESTERN DIVISION

UNITED STATES OF AMERICA, Plaintiff, -vs- 4,183.66 Acres of Land, More or Less, in Mountrail, McKenzie and Williams Counties, North Dakota State of North Dakota, et al Defendants,	CIVIL NO. 2606 DECLARATION OF TAKING

TO THE HONORABLE,
THE UNITED STATES DISTRICT COURT:

I, Frank Pace, Jr., Secretary of the Army of The United States do hereby declare that:

1. (a) The lands hereinafter described are taken under and in accordance with the Act of Congress approved February 26, 1931 (46 Stat. 1421, 40 U. S. C. Sec. 258a) and acts supplementary and amendatory thereof, and under the further authority of the Acts of Congress, approved April 24, 1888 (25 Stat. 94, 33 U. S. C. Sec. 591); March 1, 1917 (39 Stat. 948, 33 U. S. C. Sec. 701); December 22, 1944, (Public Law 534, 78th Congress, Second Session), also under the Civil Functions Appropriation Act, 1952, approved October 24, 1951 (Public Law 203, 82nd Congress), which act appropriated funds for such purposes.

(b) The public uses for which lands are taken are as follows: The said lands are necessary adequately to provide for Flood Control in the Missouri River Basin and for uses incident thereto. The said lands have been selected by me for acquisition by the United States for use in connection with the construction and establishment of the Garrison Dam and Reservoir, North Dakota, and for such other uses as may be authorized by Congress or by Executive Order.

2. Detailed descriptions of the lands being taken are set forth in Schedule "A" attached hereto, and made a part hereof, and are descriptions of the same lands described in the complaint in the above entitled cause.

3. The estate taken for said public uses is the fee simple title thereto, subject to existing easements for public roads and highways, public utilitites, railroads and pipe lines and reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, sucessors and assigns, all oil and gas rights therein, on or under said

described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas, upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir, provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

4. Plans showing the lands taken are annexed hereto as Schedule "B" and made a part hereof.

5. The sum estimated by me as just compensation for said lands, with all buildings and improvements thereon, and all appurtenances thereto, except where specifically reserved to the owners, and including any and all interests hereby taken in said lands, is set forth in Schedule "A" herein, which sum I cause to be deposited herewith in the Registry of said Court for the use and benefit of the persons entitled thereto. I am of the opinion that the ultimate award for said lands probably will be within any limits prescribed by law as the price to be paid therefor.

IN WITNESS WHEREOF, the plaintiff, by its Secretary of the Army thereunto authorized, has caused this declaration to be signed in its name by said Frank Pace, Jr., Secretary of the Army, this the 16th day of July, A. D. 1952, in the City of Washington, District of Columbia.

(Signed) Frank Pace, Jr.
Secretary of the Army

2600

SCHEDULE "A"

The land which is the subject matter of this Declaration of Taking aggregates 4,183.66 acres, more or less, situated in the Counties of Mountrail, McKenzie and Williams, State of North Dakota. Descriptions of the lands taken, together with the names of the purported owners thereof, and a statement of the sums estimated to be just compensation therefor, are as follows:

TRACT NO. V-1920 ✓

An island lying in the Missouri River consisting of parts of: Lot 6, Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$) of Section 35 in Township 153 North, Range 93 West of the 5th P.M., Lots 2 and 3, Northwest quarter of the Northwest quarter ($NW\frac{1}{4}NW\frac{1}{4}$), Northeast quarter of the Northwest quarter ($NE\frac{1}{4}NW\frac{1}{4}$), Southeast quarter of the Northwest quarter ($SE\frac{1}{4}NW\frac{1}{4}$) of Section 4 in Township 152 North, Range 93 West of the 5th P.M., said island containing 53.88 acres, more or less and the plat thereof being on file in McKenzie County, North Dakota.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $300.00

TRACT NO. V-2050

An island in the Missouri River lying opposite the following Sections in Mountrail County: Sections 2 and 3 in Township 153 North, Range 94 West of the 5th P.M., and Sections 27, 34 and 35 in Township 154 North, Range 94 West of the 5th P.M., and lying opposite the following Sections in McKenzie County: Section 4 in Township 153 North, Range 94 West of the 5th P.M., and Section 33 in Township 154 North, Range 94 West of the 5th P.M., said island containing 1111.15 acres, more or less, and the plat thereof being on file in McKenzie County, North Dakota.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $13,000.00

TRACT NO. V-2065

Parcel "A" - An island lying in the Missouri River consisting of parts of: Lots 3, 4 and 5, Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), Southwest quarter ($SW\frac{1}{4}$), of Section 12, Lot 8, East half of the Southeast quarter ($E\frac{1}{2}SE\frac{1}{4}$) of Section 11. Parcel "B" - A small island lying in the Missouri River consisting of part of the North half of the Southeast quarter ($N\frac{1}{2}SE\frac{1}{4}$) of Section 11. All in Township 153 North, Range 94 West of the 5th P.M. Said islands containing 121.30 acres, more or less, and the plats thereof being on file in McKenzie County, North Dakota.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $625.00

TRACT NO. X-2180

An island lying in the Missouri River consisting of parts of: Southeast quarter (SE¼) of Section 25 in Township 154 North, Range 95 West, Lot 5 of Section 28, Southeast quarter (SE¼), Southwest quarter (SW¼) of Section 29, Southeast quarter (SE¼), Southwest quarter (SW¼), Lots 4, 5 and 6 of Section 30, Northwest quarter (NW¼), Northeast quarter (NE¼), Lot 5 of Section 31, Northwest quarter (NW¼), Northeast quarter (NE¼) of Section 32, Northwest quarter (NW¼) of Section 33 in Township 154 North, Range 94 West of the 5th P.M. Said island containing 521.60 acres, more or less, and the plat thereof being on file in Mountrail County, North Dakota.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $3,000.00

TRACT NO. Y-2250

An island lying in the Missouri River consisting of parts of: Lots 6, 7, and 8, Northeast quarter of the Southeast quarter (NE¼SE¼), Southwest quarter of the Southeast quarter (SW¼SE¼), Northwest quarter of the Southwest quarter (NW¼SW¼), East half of the Southwest quarter (E½SW¼) of Section 27, Lots 6, 7 and 8, North half of the Southeast quarter (N½SE¼), Southeast quarter of the Southeast quarter (SE¼SE¼), North half of the Southwest quarter (N½SW¼) of Section 28. All in Township 154 North, Range 96 West of the 5th P.M. Said island containing 188.66 acres, more or less, and the plat thereof being on file in McKenzie County, North Dakota.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $950.00

TRACT NO. Y-2289

Lots 1, 2 and 3, West half (W½), Southwest quarter of the Northeast quarter (SW¼NE¼), West half of the Southeast quarter (W½SE¼), Southeast quarter of the Southeast quarter (SE¼SE¼), of Section 36 in Township 154 North, Range 96 West of the 5th P.M., plus accretions, situate in McKenzie County, North Dakota, containing 855.44 acres, more or less.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $9,500.00

TRACT NO. Z-2313

Southwest quarter of the Southeast quarter (SW¼SE¼), East half of the Southwest quarter (E½SW¼) of Section 16 in Township 154 North, Range 97 West of the 5th P.M., situate in Williams County, North Dakota, containing 120.00 acres, more or less.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $1,200.00

TRACT NO. Z-2320

That portion of an island lying in the Missouri River consisting of Parts of: Lots 5, 4 and 3, North half of the Southeast quarter (N½SE¼) Southeast quarter of the Northeast quarter (SE¼NE¼) of Section 30, Southwest quarter of the Northwest quarter (SW¼NW¼), Northwest quarter of the Southwest quarter (NW¼SW¼) of Section 29 in Township 154 North, Range 97 West of the 5th P.M. Said island containing 76.80 acres, more or less, and the plat thereof being on file in Williams County, North Dakota.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $[illegible].00

TRACT NO. Z-2324

That portion of an island lying in the Missouri River consisting of parts of: West half of the Northeast quarter (W½NE¼), East half of the Northwest quarter (E½NW¼), Southwest quarter of the Northwest quarter (SW¼NW¼), North half of the Southwest quarter (N½SW¼), Southwest quarter of the Southwest quarter (SW¼SW¼) of Section 36 in Township 154 North, Range 98 West of the 5th P.M. Said island containing 91.20 acres, more or less, and the plat thereof being on file in Williams County, North Dakota.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $500.00

TRACT NO. Z-2331

Lots 3, 4 and 6, the Southeast quarter of the Southeast quarter (SE¼SE¼) and those portions of the Northeast quarter of the Southeast quarter (NE¼SE¼) and of the Southwest quarter of the Southeast quarter (SW¼SE¼) lying south and east of the Missouri River, all in Section 36, Township 154 North, Range 98 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 153.64 acres, more or less.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $2,600.00

TRACT NO. Z-2361

Parcel "A" - That portion of the South half of the Northwest quarter (S½NW¼) of Section 27 lying South and East of the Missouri River.
Parcel "B" - That portion of the Northwest quarter of the Northeast quarter (NW¼NE¼) of Section 27 lying South and East of the Missouri River. All in Township 154 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 33.39 acres, more or less.

Name of Purported Owners: O. F. Warren and Thomas W. Leach
Address of Purported Owners: 619 South Warren, Tulsa, Oklahoma

Estimated Compensation: $300.00

TRACT NO. Z-2382

Northeast quarter (NE¼), Northwest quarter (NW¼) of Section 36 in Township 154 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 320.00 acres, more or less.

Name of Purported Owner: State of North Dakota
Address of Purported Owner: Bismarck, North Dakota

Estimated Compensation: $3,200.00

TRACT NO. AA-2403

West half of the Southwest quarter (W½SW¼), Lots 5 and 6 of Section 2 in Township 153 North, Range 98 West of the 5th P.M., plus accretions, situate in Williams County, North Dakota, containing 176.60 acres, more or less.

Name of Purported Owner: Clinton French
Address of Purported Owner: Epping, North Dakota

Estimated Compensation: $10,000.00

TRACT NO. AA-2417

Southeast quarter of the Southeast quarter (SE¼SE¼) of Section 19, South half of the Southwest quarter (S½SW¼), Northeast quarter of the Southwest quarter (NE¼SW¼) of Section 20 in Township 153 North, Range 98 West of the 5th P.M., situate in Williams County, North Dakota, containing 160.00 acres, more or less.

Name of Purported Owners:	E. C. Lundstrom and Frank C. Lundstrom
Address of Purported Owners:	Williston, North Dakota
Estimated Compensation:	$6,300.00

TRACT NO. AA-2418

Northwest quarter (NW¼), Northwest quarter of the Southwest quarter (NW¼SW¼) of Section 29 in Township 153 North, Range 98 West of the 5th P.M., situate in Williams County, North Dakota, containing 200.00 acres, more or less.

Name of Purported Owner:	Asa R. Babcock
Address of Purported Owner:	Williston, North Dakota
Estimated Compensation:	$10,600.00

The gross sum estimated to be just compensation for the lands hereby taken is . . . . . $62,575.00.

ENG FORM 998
1 JAN 46

TRACT MAP (WITH GRID)

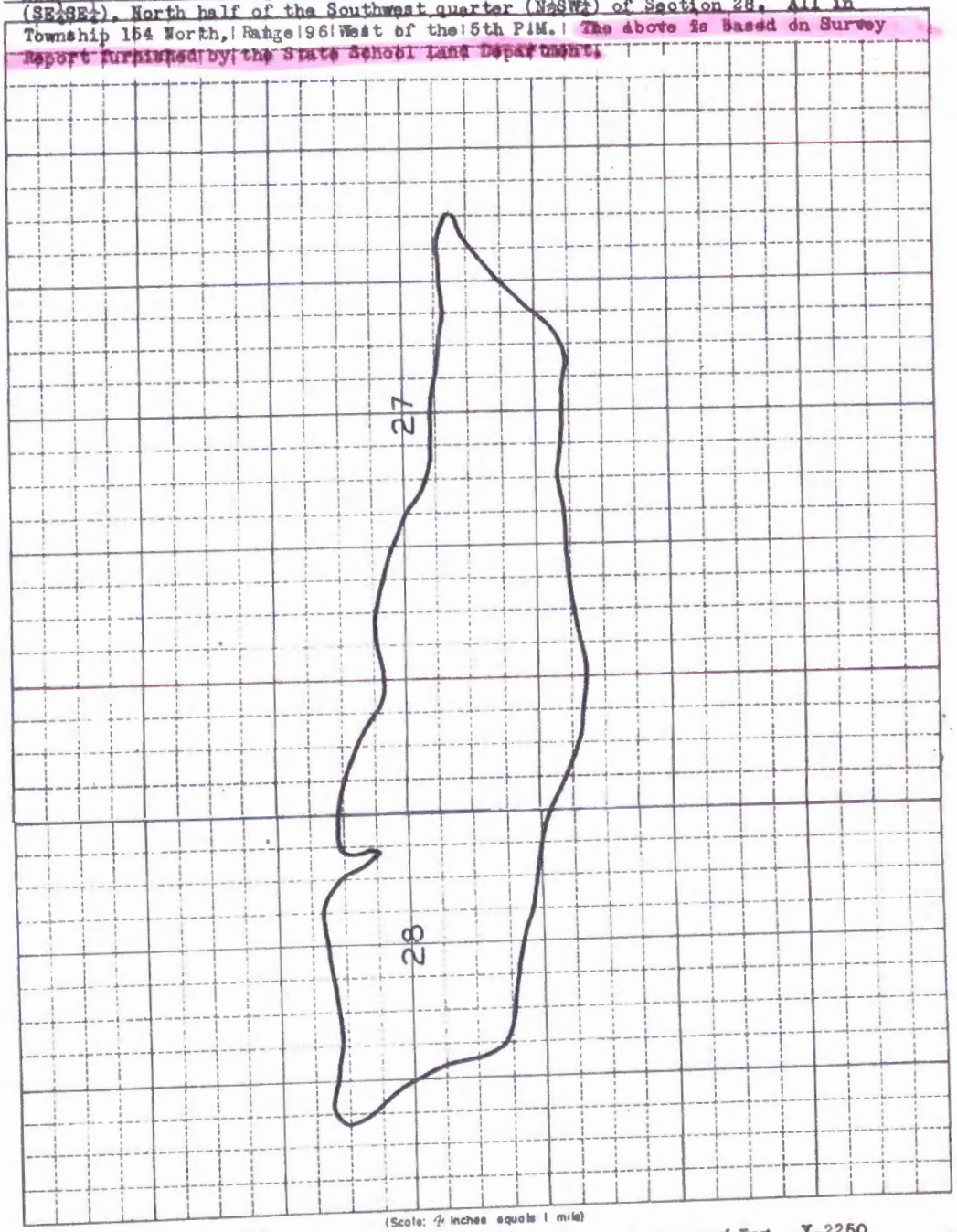
Project symbol No. Garrison Dam - Reservoir Area Tract No. Y-2250

Name of owner State of North Dakota

Field work by Mary Jackson Date 24 August 1951

Description of tract State - North Dakota County - McKenzie

An island lying in the Missouri River consisting of parts of: Lots 6, 7 and 8, Northeast quarter of the Southeast quarter (NE¼SE¼), Southwest quarter of the Southeast quarter (SW¼SE¼), Northwest quarter of the Southwest quarter (NW¼SW¼), East half of the Southwest quarter (E½SW¼) of Section 27, Lots 6, 7 and 8, North half of the Southeast quarter (N½SE¼), Southeast quarter of the Southeast quarter (SE¼SE¼), North half of the Southwest quarter (N½SW¼) of Section 28, All in Township 154 North, Range 96 West of the 5th PM. The above is based on Survey Report furnished by the State School Land Department.



(Scale: 4 inches equals 1 mile)

CLASSES OF LAND

Crop land _____

Pasture land _____

Forest land _____

* _____

Grades of each class of land must be shown on the map proper.

* Name of any other class of land involved.

I certify that this is an accurate map of Tract Y-2250 based on G.L.O. Rods. & Aerial Survey (1949), which shows this tract to contain 188.66 acres, more or less

Name Mary Jackson

Title Draftsman

Date 24 August 1951

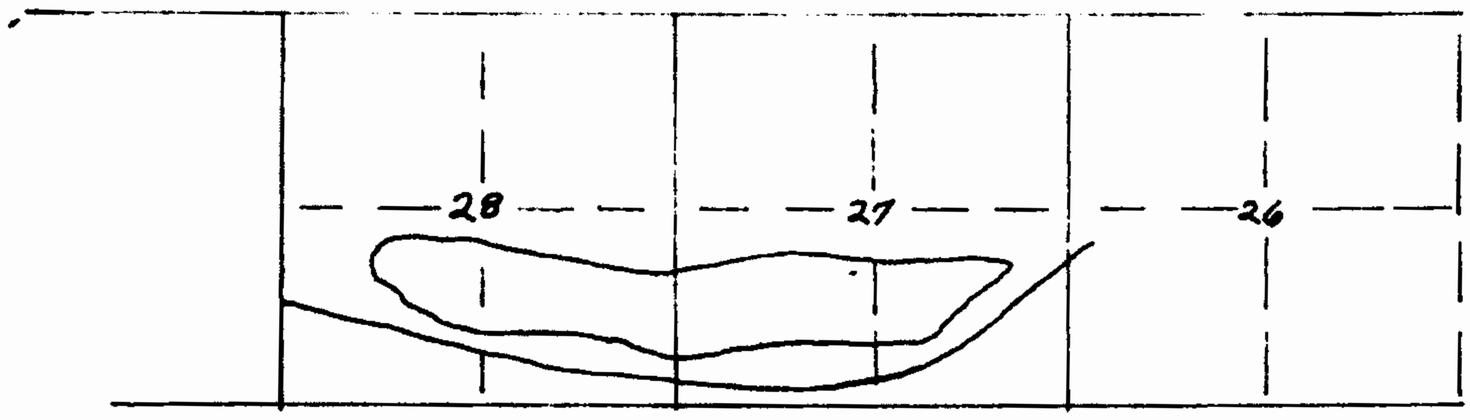
Indicate whether map is based on General Land Office records, aerial survey, deed description or actual survey.

Document No.
134939

Tract Map
STATE OF NORTH DAKOTA BY COMMISSIONER TO THE PUBLIC

22M131

MAP SHOWING Area of an island in the Missouri River lying in Sections 27 and 28 in Township 154 North and Range 96 West of P.M. in McKenzie County, North Dakota.
Garrison Dam- Reservoir Area.



Part of	Section	Township	Range	Acres
NE¼SE¼	27	154	96	3.40
Lot 6	27	154	96	15.62
S½SE¼	27	154	96	9.12
Lot 7	27	154	96	15.62
SE¼SW¼	27	154	96	15.62
Lot 8	27	154	96	17.67
NW¼SW¼	27	154	96	16.42
SW¼SW¼	27	154	96	1.37
Lot 8	28	154	96	13.11
SESE¼	28	154	96	3.08
NE¼SE¼	28	154	96	14.36
Lot 7	28	154	96	2.92
NW¼SE¼	28	154	96	20.29
Lot 6	28	154	96	9.35
NE¼SW¼	28	154	96	21.20
N½SW¼	28	154	96	2.51
Tract to contain				188.66 Acres More or Less.

The above is based on General Land Office records and Aerial Survey made in 1949.

Certified Correct
L. S. Ekstrand
L. S. Ekstrand
County Engineer, McKenzie County, North Dakota

CERTIFICATE AS TO TITLE OF ISLAND LYING IN MISSOURI RIVER

State of North Dakota)
County of Burleigh)

I, the undersigned, John O. Lyngstad, the duly appointed, qualified and acting Commissioner of University and School Lands of the State of North Dakota, hereby certify that the island lying in the Missouri River, consisting of a part of Sections 27 and 28 in Township 154 North, of Range 96 West, and of the area of approximately 188.66 acres, and shown on the annexed plat, certified by L. S. Ekstrand, County Surveyor of McKenzie County, North Dakota, in July, 1951, with the accompanying data as to the area of said island, is the property of the State of North Dakota and a part of the permanent school fund of said state by virtue of the law as stated in the case of State vs. Loy, 74 N.D. 182, 20 NW 2d 668, and Section 15-0719 of the North Dakota Revised Code of 1943.

Dated this 10th day of August, 1951.

(SEAL)

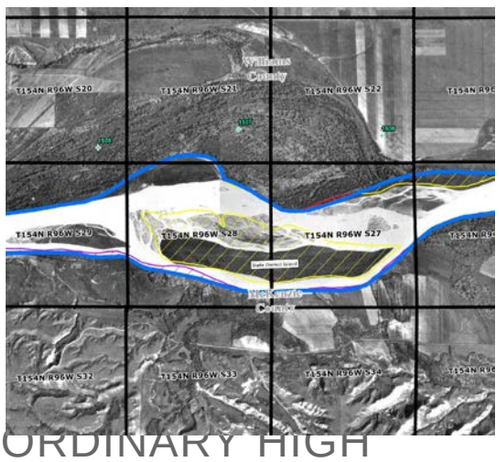
John O. Lyngstad
Commissioner of University and School Lands of the State of North Dakota.

Filed for record on the 15th day of Aug. A. D. 1951 at 4:05 o'clock P. M. and was recorded in Book 22 of Miscel on Page 131.

E. F. Raddatz, Register of Deeds.

Attachment 8

Partial Copy of Wenck Survey Power Points



ORDINARY HIGH WATER MARK OF THE MISSOURI RIVER BED

WENCK

April 17, 2018

PROJECT SCOPE AND PURPOSE

- OHWM analysis of historic Missouri River bed under what is now Lake Sakakawea.
- Initiated by State Legislation for reviewing the delineation of state-owned land.
- Presumptive determination is the US Army Corps of Engineers (USACE) survey.

Goal – Determine if clear and convincing evidence is present that the USACE survey does not accurately represent the OHWM of the historic Missouri riverbed per state law.

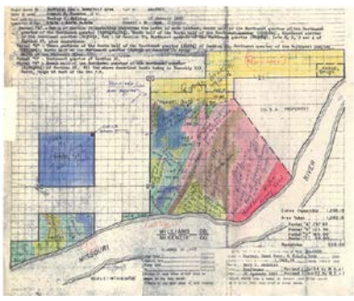
OHWM DEFINITION

Based on State case law:

The OHWM is the point at which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes, including hay lands.

DATA COMPILATION

- State provided data – digital copies of aerial photography, USACE survey, and topography.
- USACE – historical records (appraisal documents) at Riverdale office, cross sections and details from Omaha office.
- USGS – flow records.
- Research case law.



LEGAL RESEARCH – State Case Law

- Existing law focuses on delineating the OHWM of current waterbodies.
- Aerial photographs can provide evidence of the change in land characteristic.
- ACCRETIONS: to be sovereign, accretions must be from natural causes and on the bank of the river above the OHWM.
- Lack of cropping history or hay harvest that is more than intermittent frequency.
- Soil types or classifications that are unusable for any productive purpose.
- Vertical changes in elevation coupled with a change from wetland to terrestrial vegetation.

LEGAL RESEARCH

CLEAR & CONVINCING STANDARD

- 61-33.1-03(1) directs that the presumed OHWM is the Army Corps survey completed for surface rights acquisition and supplemental plats created by the branch of cadstral survey of the BLM.
- 61-33.1-03(3) – the review must determine whether clear and convincing evidence establishes that a portion of the Corps survey does not reasonably reflect the OHWM of the historical Missouri riverbed channel under state law.

LEGAL RESEARCH

CLEAR & CONVINCING STANDARD (continued)

- Clear & convincing evidence – the evidence must be such that the trier of fact is reasonably satisfied with the facts the evidence tends to prove as to be led to a firm belief or conviction. Zundel v. Zundel, 278 N.W.2d 123, 130 (N.D. 1979).
- The “clear & convincing evidence” requires less evidence than that required to meet the standard of “beyond a reasonable doubt.” Id.

DATA ANALYSIS

- Analyze Corps survey data with river flow data, hydraulic model, geo-referenced aerial photography, topography, and identify discrepancies.
- Document areas where clear and convincing evidence exists based on OHWM definition and legal interpretation.

DATA PROCESSING

- Geo-referencing aerial photography.
- Geo-referencing improvements of the USACE survey.
- Modeling river elevations for frequent flood events (USGS flow data and USACE cross sections).

DELINEATION METHODOLOGY

- Topographic information with flow levels from modeling.
- Aerial photo interpretation.
- Appraisal documents.

OVERALL RESULTS

(from River Mile 1482 to 1553.5).

USACE OHWM	16,687 acres
Project OHWM	27,089 acres
Total increase in OHWM	10,402 acres
Total increase in OHWM	162%

From: Karen M. Haugen
To: Kadrmas, Bethany R.
Cc: Joshua A. Swanson
Subject: Cynthia A. Brunk and Patrick Mendenhall
Date: Wednesday, June 20, 2018 11:13:22 AM
Attachments: VOGEL-#3303812-v1-Comments_on_Wenck_Associates_Survey_-_Case_No__26584_with_Exhibits_A-G.PDF

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Please find attached regarding the above-referenced matter Joshua Swanson correspondence re comments on **Wenck Associates Survey re Case Number 26584**.

Karen M. Haugen | Senior Legal Administrative Assistant

VOGEL Law Firm

218 NP Avenue
P.O. Box 1389 | Fargo, ND 58107-1389
Tel: 701.237.6983 | Dir: 701.356.6374 | Fax: 701.476.7676

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Joshua A. Swanson

jswanson@vogellaw.com

June 20, 2018

North Dakota Industrial Commission
Department of Mineral Resources, Oil & Gas Division
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

e-mail only to: brkadrmas@nd.gov

Re: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03
Case No. 26584
Our File No.: 052859.18000
Cynthia A. Brunk and Patrick Mendenhall

Dear Department of Mineral Resources:

I represent Cynthia A. Brunk and Patrick Mendenhall (collectively, "Mendenhall"). They are the undivided owners of certain oil, gas, and other minerals in, on, or underlying the following property in McKenzie County:

Township 153 North, Range 96 West
Section 2: Lot 4
Section 3: Lot 1, Lot 2, Lot 3, Lot 4, S/2NW/4

Township 154 North, Range 96 West
Section 25: Lot 5
Section 26: Lot 7, SW/4SW/4, S/2SE/4
Section 27: Lot 5, Lot 6, Lot 7, Lot 8, SE/4SW/4, SW/4SE/4
Section 28: Lot 5, Lot 6, Lot 7, and Lot 8
Section 29: Lot 7, Lot 8
Section 32: NW/4, NE/4, SW/4, SE/4
Section 33: NW/4, SW/4, W/2NE/4, W/2SE/4, E/2NE/4, NE/4SE/4, SE/4SE/4
Section 34: NW/4NE/4, S/2NE/4, W/2SE/4, SE/4SE/4, NE/4SE/4, SW/4
Section 35: N/2, N/2S/2, SW/4SW/4

(the "Property"). Mendenhall acquired their interest in the Property through a Personal Representative's Deed of Distribution from the Estate of Jo R. Mendenhall ("Personal Representative's Deed") recorded on July 29, 2009 in McKenzie County at Document No. 390839. A copy of the Personal Representative's Deed is attached hereto as Exhibit A. Cynthia A. Brunk

and Patrick Mendenhall are the sole heirs and devisees of Jo R. Mendenhall. Jo R. Mendenhall was a successor in interest to Carrie E. and Harry B. Mendenhall, husband and wife. [1] As explained herein, the surface of the Property was condemned when the United States acquired it for the Garrison Project; however, the minerals underlying the Property were reserved in the Mendenhall's predecessors (Carrie and Harry Mendenhall) when the land was condemned as evidenced by documentation from the United States Army Corps of Engineers ("Corps").

1. **The surface of the Property is subject to inundation by Lake Sakakawea, and is above the OHWM of the historic Missouri River as was determined by the United States Army Corps of Engineers when they acquired land for the Garrison project**

The surface of the Property was acquired by the United States under the authority of the Flood Control Act of 1944, Public Law 534, 78th Congress, 2nd session. The Corps acquired fee title to all land that would be inundated when Lake Sakakawea reached full pool at 1,854 feet msl. The Property is within the 1,854 msl elevation. The United States acquired title to the surface of the Property because it was within the operational pool of Lake Sakakawea, and as such, the lake would inundate the Property. A copy of the Corps' Segment Map showing that the Property was acquired by the United States for the Garrison Project is enclosed as Exhibit B (Segment Map Y).

The Property is Tracts Y 2282 (1,200.51 acres), Y 2284 (157.63 acres), and Y 2291 (76.47 acres). Documents from the Corps, including a March 31, 1958 letter to the Secretary of the Army, Wilbur M. Brucker, from the United States Attorney General, William P. Rogers, specifically provide that while the Mendenhall's predecessors were compensated for the taking of their surface acres, the oil and gas rights were reserved in Carrie and Harry Mendenhall:

> "The proceeding is regular, the judgments are satisfied, and a valid fee simple title to said tracts, subject to existing easements, and reserving all oil and gas rights therein, has heretofore vested in the United States of America, as more fully set forth in my opinion dated November 18, 1953."

(emphasis added). The Property was condemned in *United States of America v. 3,059.56 acres of land, more or less, situate in McKenzie County, State of North Dakota, and Harry B. Mendenhall, et al.,* Civil No. 2639 in the United States District Court for the District of North Dakota, Southwestern Division. The Schedule "A" that follows the March 1958 letter further identifies the Property as being condemned by the United States for the Garrison Project. The letter from the Office of the Attorney General and Schedule "A" are attached as Exhibit C.

---

[1] Jo Mendenhall was married to Carrie Mendenhall's nephew, E. Ward Mendenhall. While they eventually divorced, Carrie left an interest in the Property to Jo via the Amended Personal Representative Deed of Distribution, recorded at Document No. 236166, which is attached hereto as Exhibit G. Carrie is the great aunt of Cynthia A. Brunk and Patrick Mendenhall.

In a March 2016 decision rejecting the State's previous position regarding the location of the OHWM of the historic Missouri River riverbed, the United States Department of Interior described these Segment Maps as the "most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea," stating: "The [Corps] Segment Maps were the basis for land title acquisition by the [Corps] for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea." See March 23, 2016 decision by the United States Department of Interior, Bureau of Land Management ("2016 United States Report"). The 2016 United States Report is attached as Exhibit D.

The 2016 United States Report concluded that the Segment Maps, like Exhibit B, were the basis of appropriating millions of dollars by the United States Congress to acquire land, like the Property, for Garrison Dam and Lake Sakakawea.

> "The [Corps] Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM [Bureau of Land Management], and involvement from the BLM, and ND SLD [North Dakota Land Board], and have gone uncontested for over 60 years."

See Exhibit D at p. 9. The final sentence of the preceding paragraph from the 2016 United States Report is significant – the Segments Maps were uncontested for over 60 years after Garrison Dam was closed and Lake Sakakawea inundated hundreds of thousands of acres in North Dakota. The Corps' Segment Map indicates the United States acquired at least 1,434.61 surface acres from the Mendenhall's predecessors, through which Carrie and Harry Mendenhall had the minerals reserved in them as provided for in the condemnation proceeding brought by the United States.

Mendenhall, and their immediate successor in interest, Jo R. Mendenhall, have leased the Property many times in the last several decades since the United States acquired the surface for Lake Sakakawea. The North Dakota Supreme Court held that, "There is undisputed evidence the plaintiffs [Wilkinsons] have leased the minerals numerous times since they conveyed the surface property to the United States." Wilkinson at ¶ 24. The Mendenhall's leasing of the Property is significant, and includes, but is not limited to, the following leases:

1. Mrs. Jo Mendenhall leased to LoneTree Energy, Inc., Doc. #308170 (Nov. 1990);

2. Patrick Mendenhall & Cynthia Brunk as the sole heirs of the Estate of Jo. Mendenhall, and Patrick Mendenhall & Cynthia Brunk as Co-Executors of the Estate of Jo Mendenhall, leased to Headington Oil, Doc. #353117 (Dec. 2004);

3. Extension of Oil and Gas Leases by Patrick Mendenhall & Cynthia Brunk as Co-Executors of the Estate of Jo Mendenhall, such leases acquired by XTO Energy Inc., Doc. #387586 (Mar. 2009); and

4. Ratification of Oil and Gas Lease by Patrick Mendenhall & Cynthia Brunk, the sole heirs of the Estate of Jo. Mendenhall, and Patrick Mendenhall & Cynthia Brunk as Co-Executors of the Estate of Jo Mendenhall, leased to XTO Energy, Inc., Doc. #388531 (May 2009).

Copies of these leases are attached as Exhibit E. A summary of other conveyances of record between Jo Mendenhall, and additional successors in interest of Carrie and Harry Mendenhall, are attached at Exhibit F.

2. The State has no interest in the Mendenhall's Property, and any attempt by the State to claim an interest is an unconstitutional taking according to the Supreme Court's decision in *Wilkinson v. Board of University and School Lands*

The government cannot flood a private citizen's land and then claim it owns the valuable, yet inundated, mineral interests reserved by the private landowner. The State has no right, title, or interest in the Mendenhall's Property. As explained by the United States Court of Claims, such a claim by the State epitomizes the very definition of an impermissible and unlawful taking by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). In 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. [2]

[2] Any attempt by the State to "take" the Property via eminent domain would still fail as such a taking cannot withstand the scrutiny of the public use requirement under the Constitution's Fifth Amendment. See Kelo v. City of New London, Conn., 545 U.S. 469, 477, 125 S.Ct. 2655 (2005) (stating, "As for the first proposition, the City would no doubt be forbidden from taking

In Wilkinson, the Supreme Court held that any outcome resulting in the State having title to the mineral interests of private landowners, whose surface was acquired by the Corps for the Garrison Project, would be an unconstitutional taking.

> Mineral interests in Williams County, in the oil-producing Bakken formation, have value. *See Jacobs-Raak v. Raak*, 2016 ND 240, ¶ 12, 888 N.W.2d 770 (stating it would be disingenuous to believe mineral interests in a county in the Bakken formation have little or no value). There is undisputed evidence the plaintiffs have leased the minerals numerous times since they conveyed the surface property to the United States. **If the district court determines the State owns the minerals, the plaintiffs will be deprived of the mineral interests. The federal government compensated the plaintiffs for the surface property, but the plaintiffs have not been compensated for the mineral interests. The plaintiffs are entitled to compensation if the government's actions result in a "taking" of the mineral interests.** *See Arkansas Game & Fish Comm'n v. United States*, 568 U.S. 23, 31-34, 133 S.Ct. 511, 184 L.Ed.2d 417 (2012) (stating permanent physical occupation of property authorized by government is a taking, and government-induced flooding can constitute a taking); *Tarrant Reg'l Water Dist. v. Gragg*, 43 S.W.3d 609, 620-21 (Tex. Ct. App. 2001) (holding flooding of property will be considered a taking if the flooding after the construction of a reservoir was greater than it previously had been).

Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, ¶ 24, 903 N.W.2d 51, 58–59. [3]

As many legislators noted during the committee hearings on SB 2134 and HB 1199 during the 2017 legislative session, landowners like the Wilkinsons and Mendenhall's predecessors specifically reserved the minerals interests when the United States acquired their property for Lake Sakakawea. Rep. George Keiser – who championed the rights of private landowners during the legislative session – appropriately summarized the impetus for SB 2134 when describing the legislative efforts that culminated in the codification of Chpt. 61-33.1, N.D.C.C. Rep. Keiser noted that the State's attempt to claim these valuable mineral interests was the greatest taking of property that North Dakota had ever seen. Counsel for the Wilkinsons, who is the signatory to this

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petitioners' land for the purpose of conferring a private benefit on a particular private party. A purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.") (internal quotations omitted).

[3] After the decision in Wilkinson, the State concedes that owners like Mendenhall, the Wilkinsons, Ed Lynch, and Suzanne Vohs are the rightful owners of the minerals that were reserved when the United States acquired the surface for Lake Sakakawea in the 1950s. As such, it appears the State has relinquished any claim or interest in the Property. See Sorum et al. v. Bd. of Univ. & Sch. Lands et al., case no. 09-2018-cv-00089, State Defendants Response to Plaintiffs' Motion for Preliminary Injunction (Doc. ID #120).

letter and also counsel for Mendenhall, testified before the Legislature on SB 2134 and HB 1199, providing a background on the Wilkinson case and related litigation, and testified as to the reasons why the State cannot claim the mineral rights of private property owners like Mendenhall, the Wilkinsons, and others. Copies of that testimony were provided to the Industrial Commission as part of the Wilkinsons' comment letter and are incorporated herein by reference to avoid duplicity of exhibits (see Wilkinsons comment letter at Exhibits J-1, J-2, and J-3).

Fortunately, Chpt. 61-33.1, N.D.C.C., recognizes that owners like Mendenhall were, and are, the rightful owners of the mineral interests that were reserved decades ago when the surface of these lands, including the Property, were acquired by the United States for the Garrison Project. So too, in Sorum, see supra at n. 2, the State now recognizes that mineral owners like Mendenhall and the Wilkinsons are the rightful owners, and that the State does not have any claim to minerals laying outside the historic Missouri River riverbed. Any result under Chpt. 61-33.1, N.D.C.C., that ends up with Mendenhall not being recognized as the owners of the Property would be an unconstitutional taking pursuant to Wilkinson and will result in a legal challenge.

3. **Wenck Associates Survey concludes that the Property is above the historical OHWM of the Missouri River**

The survey completed by Wenck Associates as provided for by Chpt. 61-33.1, N.D.C.C., concluded the Property is above the OHWM of the historic Missouri River riverbed, and largely tracks the Corps' Segment Map Y (Exhibit B), including the presence of a state island in Sections 27 and 28 of Township 154, Range 96. The survey completed by Wenck Associates as provided for by Chpt. 61-33.1, N.D.C.C., concluded that the Property is above the OHWM of the historical Missouri River riverbed with a potentially minor deviation. The Property is shown on Map 6 of 18, at page 53, of the Wenck Associates' Report. It appears that Wenck Associates slightly enlarges that portion of Section 25 that is below the OHWM of the historic Missouri River based on "more recent aerial information." Great caution should be exercised in adopting any deviations from the Corps' Segment Maps as set in Wenck Associates' survey to the OHWM of the historic Missouri River. As the 2016 United States Report makes emphatically clear:

> "These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM [Bureau of Land Management], and involvement from the BLM, and ND SLD [North Dakota Land Board], and have gone uncontested for over 60 years."

Like the lion's share of the Wenck Associates survey, the "Phase II survey" previously commissioned by the State, and completed by Bartlett and West, determined the Property was above the OHWM of the historic Missouri River riverbed. Considering the foregoing, Mendenhall

supports any conclusion by the Department of Mineral Resources that results in the State immediately disclaiming and releasing any and all claims to their Property, and Mendenhall being recognized as the rightful owner to the minerals underlying the Property as such acreage was determined in Segment Map Y, attached hereto as Exhibit B, and as Mendenhall has leased to several oil companies over the course of the last several decades.

Chpt. 61-33.1, N.D.C.C., requires that within six months after the Industrial Commission's action, any royalty proceeds held by the Land Board that are attributable to oil and gas mineral tracts above the OHWM under both the Corps survey and the Phase II delineation – being the non-contested acreage – must be distributed by the Board to the owners of such tracts. Mendenhall requests that the State complies with this statutory requirement, and releases any proceeds due and owing to them in a timely manner.

We appreciate your attention to this. If you have any questions, I would be glad to visit. I can be reached via phone at 701.237.6983 or e-mail at jswanson@vogellaw.com. I will be in Bismarck on June 26 to testify at the public hearing in this matter.

Respectfully,

Joshua A. Swanson

enc:

Exhibit List

Exhibit A	Personal Representative's Mineral Deed (July 2009)
Exhibit B	United States Army Corps of Engineers Segment Map Y, Garrison Project
Exhibit C	March 1958 documents from United States Office of the Attorney General
Exhibit D	2016 United States Report
Exhibit E	Mendenhall Oil and Gas Leases
Exhibit F	Summary of conveyances, including leases, involving the successors in interest to Carrie and Harry Mendenhall
Exhibit G	Amended Personal Representative Deed of Distribution (Sept. 1981)

Document Prepared By:	Return to: 390839
McKENNETT STENEHJEM FORSBERG & HERMANSON, P.C. P.O. Box 1366 314 First Avenue East Williston, North Dakota 58802-1366 Telephone: (701) 577-6771	MCKENNETT LAW FIRM PO BOX 1366 WILLISTON ND 58802-1366 COUNTY RECORDER, MCKENZIE COUNTY, ND I certify that this instrument was filed and recorded, 390839 Ann M Johnsrud, County Recorder Fee $48.00 By Ann M. Johnsrud Jul 29, 2009 02:11 PM County Recorder McKenzie County Watford City ND 58854 Page 1 of 6

COUNTY RECORDER ☆ McKENZIE COUNTY ☆ STATE OF NORTH DAKOTA

PERSONAL REPRESENTATIVE'S DEED OF DISTRIBUTION

THIS INDENTURE, Made this 13th day of July, 2009, between Cynthia A. Brunk and Patrick Mendenhall, Co-Personal Representatives of the Estate of Jo R. Mendenhall (Grantor), and **CYNTHIA A. BRUNK**, of 1478 High Plains Court, Lafayette, Colorado; and **PATRICK MENDENHALL**, of 16011 Warden R., Omaha, Arkansas 72662, in equal shares, (Grantees), WITNESSETH

WHEREAS, Grantors are the duly appointed and acting Co-Personal Representatives of the Estate of Jo R. Mendenhall; and

WHEREAS, the Grantees are entitled to distribution of certain real property hereinafter described from the Estate of said decedent;

NOW THEREFORE, the Grantor does hereby grant, convey, transfer and distribute to Grantees an equal undivided interest of all of the right, title and interest of said decedent and said estate in and to the oil, gas, casinghead gas, casinghead gasoline, royalty and other minerals in and under and that may be produced from the following described lands located in McKenzie County, North Dakota:

T151N, R104W, McKenzie County, ND
Section 27: Lot 2, NW¼NE¼

EXHIBIT
tabbies
A

T153N, R96W, McKenzie County, ND
Section 2: Lot 4
Section 3: Lots 1, 2

T154N, R96W, McKenzie County, ND
Section 25: Lot 5
Section 26: Lot 7
Section 26: SE¼SE¼, SW¼SW¼
Section 26: SW¼SE¼
Section 27: Lot 8, SE¼SW¼, SW¼SE¼, Lot 7
Section 34: NW¼NE¼, S½NE¼, NE¼SE¼,
W½SE¼, SE¼SE¼
Section 35: N½, N½S½, SW¼SW¼

T152N, R95W, McKenzie County, ND
Section 6: Lot 4

T152N, R96W, McKenzie County, ND
Section 1: Lots 1, 2, 3, 4

T153N, R95W, McKenzie County, ND
Section 19: Lots 3, 4, NE¼SW¼
Section 29: SE¼ less a 3.02 acre tract more
fully described in Book 20, Page 405
Section 30: Lot 1

T153N, R96W, McKenzie County, ND
Section 3: Lots 3, 4, S½NW¼
Section 4: Lots 3, 4, S½NW¼,
W½SW¼, NE¼SW¼, W½SE¼
Section 5: SE½NE¼, E½SW¼, SE¼
Section 7: SE¼NE¼, NE¼SE¼
Section 8: NE¼NE¼, NW¼, N½SW¼
Section 9: NW¼NE¼, NW¼NW¼
Section 24: NE¼

T154N, R96W, McKenzie County, ND
Section 28: Lots 5, 6, 7, 8
Section 29: Lot 8, Lot 7
Section 32: NW¼, NE¼, SW¼, SE¼
Section 33: NW¼, SW¼, W½NE¼, W½SE¼,
E½NE¼, NE¼SE¼, SE¼SE¼
Section 34: SW¼
Section 27: Lots 5 and 6

together with the appurtenances thereto.

Cynthia A Brunk

CYNTHIA A. BRUNK
Co-Personal Representative of the
Estate of Jo. R. Mendenhall

Patrick Mendenhall

PATRICK MENDENHALL
Co-Personal Representative of the
Estate of Jo. R. Mendenhall

STATE OF COLORADO)
:ss.
COUNTY OF)

On this 13th day of July, 2009, before me personally appeared CYNTHIA A. BRUNK, Personal Representative of the Estate of Jo R. Mendenhall, known to me to be the person who is described in and who executed the within instrument and acknowledged to me that she executed the same.

(SEAL)

Notary Public for the State of Colorado

My Commission Expires: October 31, 2011

STATE OF ARKANSAS)
:ss.
COUNTY OF)

On this 16th day of July, 2009, before me personally appeared PATRICK MENDENHALL, Personal Representative of the Estate of Jo R. Mendenhall, known to me to be the person who is described in and who executed the within instrument and acknowledged to me that he executed the same.

JUDITH EPLEY
NOTARY PUBLIC
Boone County, Arkansas
My Commission Expires 4/12/2017
Commission Number 12359873

(SEAL)

Notary Public for the State of Arkansas

My Commission Expires:
4-12-2017

Richard A. McKennett
McKennett Stenehjem Reierson
Forsberg & Hermanson, P.C.
314 First Avenue East
P.O. Box 1366
Williston, North Dakota 58801

Telephone: (701) 577-6771

Attorneys for Estate

Probate No. 06-P-0091

FILED IN THE OFFICE OF THE CLERK OF THE DISTRICT COURT
JUL 12 2006
4:31 pm
WILLIAMS COUNTY, NORTH DAKOTA

IN THE DISTRICT COURT OF WILLIAMS COUNTY, STATE OF NORTH DAKOTA

IN THE MATTER OF THE ESTATE OF JO R. MENDENHALL, DECEASED.

ORDER ESTABLISHING FILING OF AUTHENTICATED COPIES OF DOMICILIARY PERSONAL REPRESENTATIVE

Cynthia A. Brunk and Patrick Mendenhall, having filed a Proof of Authority of Domiciliary Foreign Personal Representative, together with an authenticated copy of the Order Admitting Will to Probate and Appointing Personal Representative from the Boone County, Arkansas Court, in this Court; and this Court having reviewed the same, hereby makes this Order as proof of the filing with this Court the authenticated copies of Cynthia A. Brunk and Patrick Mendenhall's appointment as Co-Personal Representative and the Proof of Authority of Domiciliary Foreign Personal Representative, pursuant to 30.1-24-05 NDCC.

DATED this 11 day of July, 2006.

JUDGE OF THE DISTRICT COURT

STATE OF NORTH DAKOTA
COUNTY OF WILLIAMS
I do hereby certify that the foregoing is a true and correct copy of the original instrument recorded in this office. IN WITNESS WHEREOF, I have hereunto signed and affixed the Seal of said Court at Williston ND this 20 day of July 2009
Jody Fren
By Tracy Hall, Deputy

COUNTY OF WILLIAMS DISTRICT COURT SEAL NORTH DAKOTA

IN THE CIRCUIT COURT OF BOONE COUNTY, ARKANSAS
PROBATE DIVISION

IN THE MATTER OF THE ESTATE OF
JO R. MENDENHALL, DECEASED

RECORDED IN
BOOK 57 PAGE 388 NO. 2003-142

FILED
03 NOV 12 AM 11:46
MELINDA MULFORD
BOONE COUNTY CLERK
By [illegible] D.C.

ORDER ADMITTING WILL TO PROBATE
AND APPOINTING PERSONAL REPRESENTATIVE

On this 11 day of November, 2003, there is presented to the Court the petition of CYNTHIA A. BRUNK, of 1478 High Plains Court, Lafayette, CO 80026, and PATRICK MENDENHALL, of 16011 Warden Road, Omaha, AR 72662, for probate of the will of JO R. MENDENHALL, deceased, and for appointment of personal representatives for the estate, and upon consideration of such petition and the facts and evidence in support thereof, the Court finds: That the testatrix of said will is deceased; that the instrument offered for probate was executed in all respects according to law when the testatrix was competent to do so and acting without undue influence, fraud or restraint; that the will was not revoked, and the instrument offered for probate is her last will; and that this court has jurisdiction and venue properly lies in this county. The Court further finds that CYNTHIA A. BRUNK and PATRICK MENDENHALL are the proper persons and fully qualified by law to serve as executors of said will and administer the estate of the deceased.

It is therefore by the Court CONSIDERED and ORDERED that the said will be, and it hereby is, admitted to probate as the last will of said deceased; that administration is hereby opened in said estate and that CYNTHIA A. BRUNK and PATRICK MENDENHALL be, and they hereby are, named and appointed executors of the estate of the decedent; and that letters testamentary shall be issued to said personal representatives upon the filing of a designation of process agent.

Probate Judge

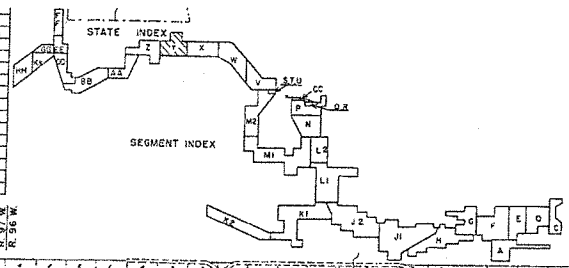
County Recorder
McKenzie County
Watford City ND 58854

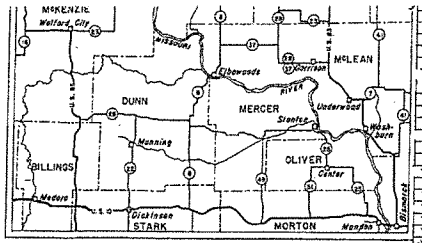
390839

11-10-03/par/mendenhall/ORDERADMIT/5273-1

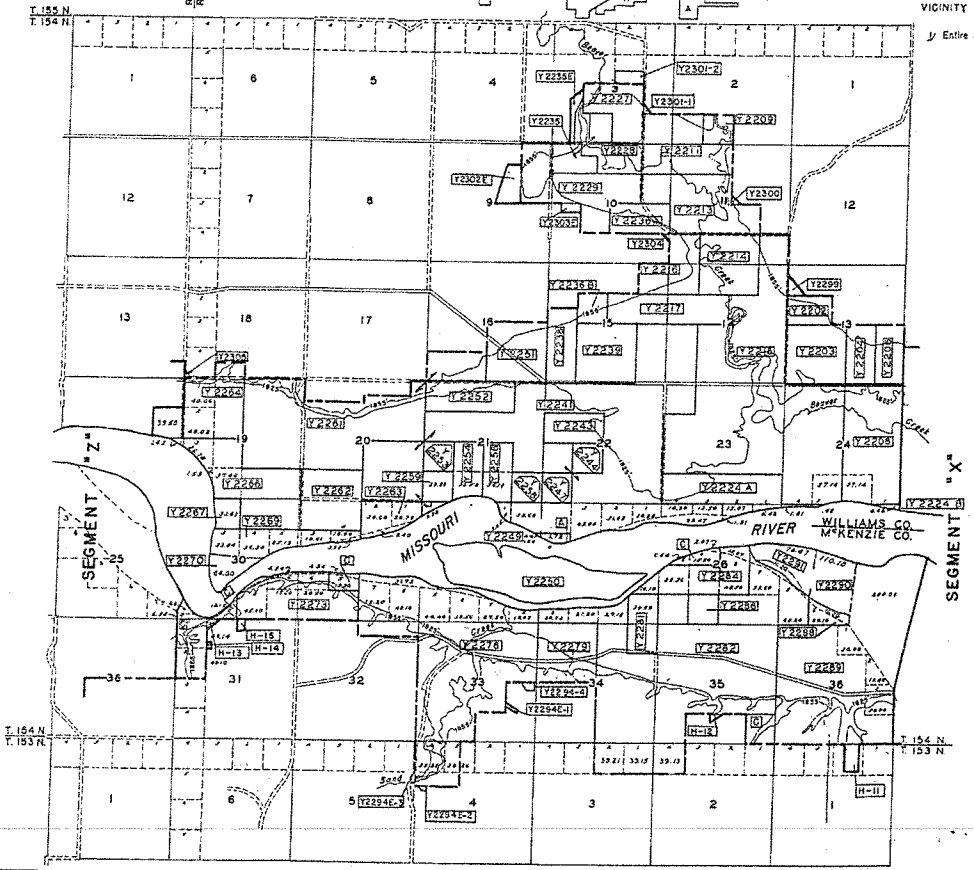
STATE OF ARKANSAS
COUNTY OF BOONE
I hereby certify this to be a true copy of the original Order filed in the Probate Court of this County on 11/12/2003
CRYSTAL GRADDY
CLERK
By Deputy

SORENSON, ET UX	3.13	
AGRICULTURE, FOREST SERVICE		see remarks





VICINITY MAP WITH SEGMENT INDEX



NOTE:
Boundary lines of this segment were determined by deed descriptions, General Land Office Plats, and aerial photos.
Contours of 1850 m.s.l. and 1855 m.s.l. extend into tract Y-2294-4.

TRACT	REMARKS
A	Transferred 25 Feb. 1955, Public Land Order No. 1078, acreage included in tract register of segment A.
C	Transferred 10 March 1954, Executive Order No. 10520, acreage included in tract register of Segment W
Y2228E	Parcel 1, Flowage Easm't. from 27 Feb. 1956.
Y2241	Easements part of Tract No. Y2230

Y 2237	DELETED		
Y 2201	DELETED		
Y 2202	DANIEL T. McCARTHY	60.00	
Y 2203	HAAKON M. HOVE, ET UX	160.00	
Y 2204	EDDIE SANDERSON, ET UX	80.00	
Y 2293	DELETED		
Y 2206	MYRTLE SANDERSON	80.00	
Y 2207	DELETED		
Y 2208	RUDY BARSTAD, ET UX	317.14	
Y 2209	WOODROW SVEEN	40.00	
Y 2294-1	DELETED		
Y 2211	ALBERT A. JOHNSON	200.00	
Y 2212	DELETED		
Y 2294-2	DELETED		
Y 2213	AUGUST MATTSON	240.00	
Y 2214	HERMAN MILES ZAHL	160.00	
Y 2294-3	DELETED		
Y 2216	EUGENE F. PARKER	120.00	
Y 2217	JOHN AUGUST PETERSON	160.00	
Y 2218	CLARA CARTER	1157.14	
Y 2219	DELETED		
Y 2295	DELETED		
Y 2221	DELETED		
Y 2222	DELETED		
Y 2223	DELETED		
Y 2224	ELMER HENDRICKSON PARCEL 'A' 182.79 PARCEL 'B' 4.46	187.25	
Y 2226	DELETED		
Y 2227	ROSA KAMP	120.00	
Y 2228	ELLEN HARTSOCH	87.50	
Y 2228E	DELETED (NOW KNOWN AS Y2233)		-
Y 2229	WALTER S. FERGUSON	240.00	
Y 2231	DELETED		
Y 2232	DELETED		
Y 2233	DELETED		
Y 2234	DELETED		
Y 2297	DELETED		
Y 2236	HAROLD S NELSON PARCEL 'A' 80.00 'B' 40.00	120.00	
Y 2298	DELETED		
Y 2238	B. P. MURPHY	100.00	
Y 2239	E. L. GUNDERSON	160.00	
Y 2299	ARVEY J. HARTSOCH, ET UX	6.82	
Y 2241	BRUNO H. WEYRAUCH, ET UX	1322.04	
Y 2242	DELETED		
Y 2243	MARGARET M. FLICK	80.00	
Y 2244	CLARA CARTER	40.00	
Y 2300	CRAIG A. HARTSOCH, ET UX	1.03	
Y 2246	DELETED		
Y 2247	G. E. PETTERS	40.00	
A	U.S.A. DEP'T OF INTERIOR	see remarks	
Y 2249	WILLIAMS COUNTY, NORTH DAKOTA	.94	
Y 2301-1	WALTER C. KAMP, ET UX	1.40	
Y 2251	STATE OF N. DAK.	160.00	
Y 2252	EVA BROWNELL ESTATE	120.00	
Y 2253	LILLIAN E HAGEN	40.00	
Y 2254	HAL S. DAVIES	72.52	
Y 2301-2	WALTER C. KAMP ET UX	13.64	
Y 2256	MILDRED H. REED, ET AL	76.15	
Y 2257	DELETED		
Y 2258	WALTER C. KAMP	40.00	
Y 2259	A. R. HEALEY	39.88	
Y 2302	DELETED		
Y 2261	J. HOVE ET UX	630.00	
Y 2262	MRS. DOROTHY WHEELER	160.00	
Y 2263	J.C. BOLINGER, TRUSTEE	75.78	
Y 2264	ELLEN HARTSOCH	180.06	
Y 2303	DELETED		
Y 2266	VERNON KNOX	308.94	
Y 2267	MRS. WINIFRED I. WEISS	33.63	
Y 2304	ROGER BAKER, ET UX	0.72	
Y 2269	BRUNO H. WEYRAUCH, ET UX	127.99	
Y 2270	BRUNO H. WEYRAUCH, ET UX	64.00	
Y 2235E	VIRGIL A. HARTSOCH, ET UX		10.82
Y 2305E	BEAVER CREEK FREE LUTHERAN CONGREGATION		6.43
Y 2250	STATE OF N. DAK.	188.66	
Y 2271	DELETED		
Y 2272	DELETED		
Y 2273	SHANNON WALTER, ET AL	208.54	
Y 2274	DELETED		
Y 2276	R. J. COUGHLIN	911.60	
Y 2277	DELETED		
Y 2278	DELETED		
Y 2279	JOSIE PETERSON COX, ET AL	160.00	
Y 2305	VIRGIL HARTSOCH, ET UX	0.46	
Y 2281	ELVA ANNA GABBERT, ET AL	79.99	
Y 2282	CARRIE MENDENHALL	1200.51	
Y 2283	DELETED		
Y 2284	CARRIE MENDENHALL	157.63	
Y 2302E	FRED FERGUSON		32.50
Y 2285	JULIA M. BJORKLUND	40.00	
Y 2287	DELETED		
Y 2288	ANNA THOMPSON MEHLUM	21.30	
Y 2289	STATE OF N. DAK.	855.44	
Y 2290	ANNA THOMPSON MEHLUM	110.10	
Y 2291	CARRIE MENDENHALL	76.47	
C	U.S.A. (DEP'T. OF AGR.)	see remarks	

1/ Entire 85.00 Acres Easement merged into fee. Tract Y-2235.

NOTE:
Oil and gas reserved in all fee tracts except Y2251.

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

ACQUISITION AUTHORIZATION

Public Law No. 534, 22 Dec. 1944
6th. Ind. O.C.E. to M.R.D., dated 4 May 1950
Letter O.C.E. to Dept. of Justice, dated 22 Dec. 1955
10th Ind. O.C.E. to M.R.D., dated 4 Nov. 1971

STATE NORTH DAKOTA
COUNTY McKENZIE & WILL
DIVISION MISSOURI RIVE
DISTRICT GARRISON
TO OMAHA DISTRICT APRIL 1960
LOCATION OF DAM SEC. 5 T. 146 N. R
10 MILES S OF GAR
15 MILES N OF STA

SEGMENT Y
— LAND AREA -

TOTAL ACRES IN SEGMENT
ACRES FEE
ACRES EASEMENT
ACRES TRANSFERRED TO W.D.
ACRES PERMITS OR LICENSES
2/ Total does not include 85.00 acres Eas

— DISPOSALS -

TOTAL ACRES DISPOSED OF
ACRES TRANSFERRED
ACRES LEASED FROM W.D.
ACRES OTHERWISE

— LEGEND —

BOUNDARY MARKER (BRASS CAP)
TAKING LINE FOR RESERVOIR
PERTINENT CONTOUR LINES
CEMETERY
STATE OR PROVINCE LINES
COUNTY LINE
TOWNSHIP LINE
SECTION LINE
PROPERTY LINE
STREAMS
RAILROADS
POWER LINES
TELEPHONE LINES
IMPROVED ROADS
UNIMPROVED ROADS

— SCALE — 2" = 1 MI
5280' 2640' 1320' 0 1/4 1/2

DEPARTMENT OF THE ARMY
OFFICE OF THE DISTRICT ENGINE
GARRISON DISTRICT
MISSOURI RIVER DIVISION
REAL ESTATE

GARRISON DAM - LAKE SAKAKAW

SEGMENT Y

RECOMMENDED:
APPROVED:
LT. COL., CORPS OF ENGINEERS

COMPILED: TRACED:

DATE	BY	REVISIONS
10-10-51	W.B.	Correct to date
3-13-56	W.B.	Correct to date
5-1-57	M.C.J.	Taking line change Y2201 (20.00 ac.) elimi

REMARKS
ge Easement from 6-10-77
" " 12-12-78
" " 7-20-78
" " 12-20-80
" "
" "
funding dtd. 6-29-79.
Tract Register of Segment W.
ins Par. H-11, 16.83 Ac., Par. H-12,
1.72 Ac., Par. H-14, 0.92 Ac., Par.

MICROFILMED	DATE	BY	REVISIONS	APPROVED
	8-30-86	D.A.	Revised up to date	
	4-15-88	WKD	Audit Revisions	

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED

DATE	BY	REVISIONS	APPROVED
7-3-69	W.P.	Name of Project, added Transfer	
9-29-70	W.P.	Revised Project Name	
12-9-72	P.L.A.	REVISED Y2305 TO EASEMENT	
1-26-78	R.P.	REVISED TRS. FROM Y2294-1, Y2294-2, Y2294-3 TO EASEMENT	
1-25-78	C.K.V.	DELETED TRACT Y2305 AND ADDED TRACT Y2305E	
11-8-78	L.K.N.	Revised Acreage Trs. Y2294E-1, E-2, E-3	

EXHIBIT B

tabbies

Office of the Attorney General
Washington, D. C.

March 31, 1958

GARRISON DAM AND RESERVOIR

CIVIL NO. 2639

N. D.

Honorable Wilber M. Brucker
Secretary of the Army
Washington 25, D. C.

My dear Mr. Secretary:

I have examined the evidence of title and the transcript of record in the condemnation proceeding entitled United States of America v. 3,059.56 acres of land, more or less, situate in McKenzie County, State of North Dakota, and Harry B. Mendenhall, et al., Civil No. 2639, in the United States District Court for the District of North Dakota, Southwestern Division, pertaining to the tracts enumerated below of the Garrison Dam and Reservoir Project.

The abstracts of title, continued to a date subsequent to the filing of the declaration of taking or recording of the lis pendens, were prepared by The Abstract and Title Company and McKenzie County Title Company, Watford City, North Dakota, and are in satisfactory form.

In the final judgments, the awards for the respective tracts are determined to be:

Tract	Date of Judgment	Award
Y-2282	10/18/55	$ 1,526.04
	1/4/57 Order to relieve subordination of minerals (277.48 acres)	
	1/18/57	86.00
	1/23/57 (with Y-2284)	60,279.44
	3/29/57	5,762.00
	10/21/57	945.20
	11/14/57 (with Y-2284)	No compensation
Y-2284	10/18/55	315.26
	1/23/57	(with Y-2282)
	3/29/57	2,364.45
	11/14/57	(with Y-2282)
Z-2337	11/13/57	4,250.00

EXHIBIT
C

Tract	Date of Judgment	Award
Z-2342	10/5/55	$ 32.00
	1/23/57 (with AA-2477)	21,545.20
	3/29/57	516.88

The total amount of the awards has been deposited into the registry of the court.

The proceeding is regular, the judgments are satisfied, and a valid fee simple title to said tracts, subject to existing easements, and reserving all oil and gas rights therein, has heretofore vested in the United States of America, as more fully set forth in my opinion dated November 18, 1953.

Enclosed are the title evidence, a certified copy of the judgment filed November 14, 1957, for Tracts Y-2282 and Y-2284, the clerk's receipts for deficiency deposits, and related papers.

Sincerely yours,

William P. Rogers

Attorney General

SCHEDULE "A"

The land which is the subject matter of this Declaration of Taking aggregates 2713.79 acres, more or less, situated in McKenzie County, North Dakota. Descriptions of the lands taken, together with the names of the purported owners thereof, and a statement of the sums estimated to be just compensation therefor, are as follows:

TRACT NO. Y-2282

Lot 5 of Section 25, Lot 7, South half of the Southeast quarter ($S\frac{1}{2}SE\frac{1}{4}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 26, Lot 8 and those portions of the Southwest quarter of the Southeast quarter ($SW\frac{1}{4}SE\frac{1}{4}$), and the Southeast quarter of the Southwest quarter ($SE\frac{1}{4}SW\frac{1}{4}$) of Section 27 lying South of the Missouri River, Southeast quarter ($SE\frac{1}{4}$), South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Northwest quarter of the Northeast quarter ($NW\frac{1}{4}NE\frac{1}{4}$) of Section 34, North half ($N\frac{1}{2}$), North half of the South half ($N\frac{1}{2}S\frac{1}{2}$), Southwest quarter of the Southwest quarter ($SW\frac{1}{4}SW\frac{1}{4}$) of Section 35 all in Township 154 North, Range 96 West of the 5th P.M., plus accretions, Lot 4 of Section 2, Lots 1 and 2 of Section 3 in Township 153 North, Range 96 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 1200.51 acres, more or less.

Name of Purported Owner:	Harry B. Mendenhall and Carrie E. Mendenhall
Address of Purported Owner:	Charlson, North Dakota
Estimated Compensation for Tracts Nos. Y-2282 and Y-2284:	$46,600.00

TRACT NO. Y-2284

Lot 8, Northeast quarter of the Southwest quarter ($NE\frac{1}{4}SW\frac{1}{4}$) of Section 26, and also those portions of Northwest quarter of the Southwest quarter ($NW\frac{1}{4}SW\frac{1}{4}$) of Section 26, and Northeast quarter of the Southeast quarter ($NE\frac{1}{4}SE\frac{1}{4}$) of Section 27, lying South and East of the Missouri River, all in Township 154 North, Range 96 West of the 5th P.M., plus accretions. situate in McKenzie County, North Dakota, containing 157.63 acres, more or les

Name of Purported Owner:	Harry B. Mendenhall and Carrie E. Mendenhall
Address of Purported Owner:	Charlson, North Dakota
Estimated Compensation:	See Tract No. Y-2282

TRACT NO. Y-2288

Lot 6 of Section 25 in Township 154 North, Range 96 West of the 5th P.M., plus accretions, situate in McKenzie County, North Dakota, containing 31.30 acres, more or less.

Name of Purported Owner:	Anna Thompson Mehlum
Address of Purported Owner:	4232 NE 73rd Ave. Portland 13, Oregon
Estimated Compensation:	$700.00

TRACT NO. Z-2332

East half of the Southwest quarter ($E\frac{1}{2}SW\frac{1}{4}$), Lots 4 and 5 of Section 31 in Township 154 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 156.58 acres, more or less.

Name of Purported Owner:	Ingrid Hellie
Address of Purported Owner:	Watford City, North Dakota
Estimated Compensation for Tracts Nos. Z-2332 and AA-2482:	$6,300.00

TRACT NO. AA-2482

North half of Lot 4 of Section 5, North half of Lot 1 in Section 6 in Township 153 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 39.86 acres, more or less.

Name of Purported Owner:	Ingrid Hellie
Address of Purported Owner:	Watford City, North Dakota
Estimated Compensation:	See Tract No. Z-2332

TRACT NO. Z-2333

South half of the Northeast quarter ($S\frac{1}{2}NE\frac{1}{4}$), Southeast quarter ($SE\frac{1}{4}$), of Section 31, Southwest quarter of the Northwest quarter ($SW\frac{1}{4}NW\frac{1}{4}$), North half of the Southwest quarter ($N\frac{1}{2}SW\frac{1}{4}$) of Section 32 in Township 154 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 360.00 acres, more or less.

Names and Addresses of Purported Owners:	Nora Agnes Hayes Wolf Point, Montana August Hoffman Hayes Wolf Point, Montana Permila Vandel Wahpeton, North Dakota Betty Lois Martin Wolf Point, Montana William Archie Hayes, minor Wolf Point, Montana Francis B. Hayes, minor Wolf Point, Montana Frances Harmon, special guardian of said minors Wolf Point, Montana
Estimated Compensation for Tracts Nos. Z-2333 and AA-2469:	$13,000.00

TRACT NO. AA-2469

Lots 3, 4 and 5, Southeast quarter of the Northwest quarter ($SE\frac{1}{4}NW\frac{1}{4}$) of Section 1 in Township 153 North, Range 98 West of the 5th P.M., plus accretions, situate in McKenzie County, North Dakota, containing 152.50 acres, more or less.

Names and Address of Purported Owners:	Nora Agnes Hayes Wolf Point, Montana August Hoffman Hayes Wolf Point, Montana Permila Vandel Wahpeton, North Dakota Betty Lois Martin Wolf Point, Montana William Archie Hayes, minor Wolf Point, Montana Francis B. Hayes, minor Wolf Point Montana Frances Harmon, special Guardian of said minors Wolf Point, Montana
Estimated Compensation:	See Tract No. Z-2333

TRACT NO. Z-2337

West half of the Southeast quarter (W½SE¼), South half of the Southwest quarter (S½SW¼) of Section 32 in Township 154 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 160.00 acres, more or less.

Names and Addresses of Purported Owners: Joseph Nicholas Stephens
Wilmer Stephens
Marvin Stephens
Walter Stephens
Frank Stephens
Augusta Stephens
Cecil Stephens
Albert Stephens
Heirs of Elizabeth Fitzsimmons, deceased

c/o Mrs. Amanza Powell
Route No. 4
Dodgeville, Wisconsin

Estimated Compensation: $3,400.00

TRACT NO. Z-2342

Lot 7 of Section 28, Lots 5, 6, 7, and 8 of Section 29, Lots 7 and 8 of Section 30, that portion of the Northwest quarter of the Northeast quarter (NW¼NE¼) lying South of the Missouri River, Northeast quarter of the Northeast quarter (NE¼NE¼) of Section 31 in Township 154 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 258.44 acres, more or less.

Name of Purported Owner: John Landers and Lucy Landers
Address of Purported Owner: Banks, North Dakota

Estimated Compensation for Tracts Nos. Z-2342 and AA-2477: $15,300.00

TRACT NO. AA-2477

Southeast quarter of the Northeast quarter (SE¼NE¼), Northeast quarter of the Southeast quarter (NE¼SE¼) of Section 1 in Township 153 North, Range 98 West of the 5th P.M., Lots 5 and 6 of Section 6 in Township 153 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 157.00 acres, more or less.

Name of Purported Owner: John Landers and Lucy Landers
Address of Purported Owner: Banks, North Dakota

Estimated Compensation: See Tract No. Z-2342

TRACT NO. Z-2344

Lot 3 of Section 4 in Township 153 North, Range 97 West of the 5th P.M., situate in McKenzie County, North Dakota, containing 39.97 acres, more or less.

Name of Purported Owner: Thor Olson, Incompetent
Address of Purported Owner: c/o Mrs. Olga Landers
809 E. Broadway
Williston, North Dakota

Estimated Compensation: $500.00

The gross sum estimated to be just compensation for the lands hereby taken is - $85,800.00

75.44

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive
Billings, Montana 59101-4669
www.blm.gov/mt

In Reply Refer To:
9661 (MT926)

March 23, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Lance D. Gaebe
Commissioner of University and School Lands
North Dakota Department of Trust Lands
P.O. Box 5523
Bismarck, ND 58506-5523

Mr. Todd Sando
State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505-0850

Dear Messrs. Gaebe and Sando:

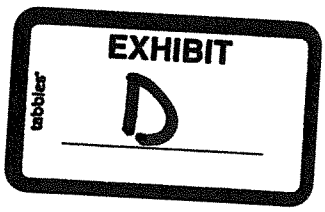
We are in receipt of your statement of reasons received on December 10, 2014, supporting the two letters of intent to protest the official filing of Supplemental Plats by the Branch of Cadastral Survey. The letters of intent to protest were received on August 6, 2014, from the North Dakota Department of Trust Lands and August 7, 2014, from the Office of the State Engineer (OSE).

In your statement of reasons, you assert two reasons why the Bureau of Land Management (BLM) should not officially file the Supplemental Plats, approved April 9, 2014, and May 8, 2014, representing the geographic limits of the Public Domain interests. Your reasons are:

1) The BLM's Supplemental Plats should utilize the Ordinary High Water Mark (OHWM) survey initiated by North Dakota in 2009 that follows the OSE's 2007 guidelines; and
2) The Army Corp of Engineer's (COE) Acquisition Segment Maps (Segment Maps), upon which the Supplemental Plats are based, are not an accurate reflection of the OHWM.

The State of North Dakota's (State) OHWM delineation, as depicted on Enclosure 1, claims approximately 1,140 acres of Public Domain[1] subsurface estate and 896 acres of Public Domain surface estate on the Supplemental Plats to be State sovereign land. In addition, the State also claims approximately 2,637 acres of fee subsurface estate and 2,881 acres of COE-acquired surface estate as State sovereign land, which are not addressed on the Supplemental Plats.

[1] For clarification, Public Domain interests in the State of North Dakota refer to land interests (surface and subsurface) where title has never left the Federal Government.



Your protest points are focused on the location of the OHWM line, depicted on the Supplemental Plats, which is the boundary between upland ownership and State riverbed title under the Equal Footing Doctrine.

Riverbed Title Under the Equal Footing Doctrine

Your protest concerns riverbed title and not public trust issues. This distinction is important because it controls the source of law to be applied in defining the OHWM. A recent United States Supreme Court decision distinguishes the two in *PPL Montana, LLC v. Montana* 132 S. Ct. 1215, 1235 (2012):

> *"Under accepted rules of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine."*

Thus, federal law determines riverbed title under the equal footing doctrine. The following leading federal court cases provide the controlling definitions of the OHWM.

In *Howard v. Ingersoll*, 54 U.S. 381, ___ (1851), the United States Supreme Court's ruling focused on a line impressed upon the bank by the action of water as the primary indicator of the OHWM and marking the permanent bed of the river. The court also found that the bed of a river does not encompass lands outside of the banks that are subject to periodic overflow nor does it include those lands that are viable for agriculture or grazing:

> *"It neither takes in overflowed land beyond the bank, nor includes swamps or low grounds liable to be overflowed, but reclaimable for meadows or agriculture, or which, being to low for reclamation, though not always covered with water, may be used for cattle to range upon, as natural or uninclosed pasture. 54 U.S. at 415-16."*

The concurring opinions provide more clarification and established the importance of an examination of vegetation that separates the riverbed from upland, and help provide basis for subsequent federal court case definitions.

Approximately 50 years later, the Eighth Circuit reiterated *Howard v. Ingersoll* in slightly different wording:

> *"The bed of the river is that soil so usually covered by water that it is wrested from vegetation . . . and does not extend to or include that upon which grasses, shrubs, and trees grow, though covered by the great annual rises."*

Harrison v. Fite, 148 F. 781, 783 (8th Cir.1906).

A more recent federal district court case addressed the OHWM of a lake but lends guidance that transitional marshlands are not enough evidence for inclusion within the OHWM:

> *"At most the evidence shows that the dike stands on property that has historically served as marshland for Lake Harney periodically absorbing the lake's high waters*

and periodically serving as productive agricultural land for its owners. This is not enough to infer that the dike stands below the ordinary high water mark the point at which the bed of the lake ends and the fast lands begin."

United States v. Cameron, 466 F. Supp. 1099, 1114 (M.D. Fla. 1978)

And, finally, *United States v. Claridge*, 416 F. 2d 933, 934 (9th Cir.1969) references the definition in *Howard v. Ingersoll* and calls for a natural feature and further explains that the OHWM does not include the floodplain from bluff to bluff due to spring floods:

"The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."

The BLM's Manual of Surveying Instructions, 2009 (Manual) has interpreted these leading cases on OHWM and summarized them into a contemporary definition of the OHWM for the surveyor in section 3-164:

"For inland waters, the OHWM normally used is the line below which the water impresses on the soil by covering it for sufficient periods to deprive it of terrestrial vegetation, and the soil loses its value for agriculture, including the grazing of livestock."

The Manual provides guidance in section 3-167 on locating the OHWM by utilizing the vegetation examination:

"A small pocket of an aquatic type plant growing in low places not in the riverbed is also not an indicator of the OHWM and does not indicate that the OHWM should be moved toward upland to include that pocket of aquatics. It is the most water-ward location of the terrestrial species that is determinative."

Rivers and OHWMs have been moving on the earth's surface for thousands of years and remnants of those movements are evidenced on virtually every aerial photo. However, we concern ourselves with the date on which rights were established, such as date of statehood and subsequent river movements for riverbed title under the Equal Footing Doctrine and entry dates for patents. The original surveys by the General Land Office classified upland of the Public Domain for patenting and created survey plats; generating the first representation of all of the rights within a township in relationship to one another. Since you are not challenging the validity of the original surveys, in this case we concern ourselves with the location of the OHWM prior to the artificial rising of the Missouri River to form Lake Sakakawea.[2]

[2] Serving as background timeline information, the construction of Garrison Dam was authorized by the Flood Waters Control Act of 1946 and caused the artificial rising of the Missouri River to form Lake Sakakawea. Construction began in 1946 with reservoir filling initiated in December of 1953 and reaching minimum operating pool on August 7, 1955. http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487634/garrison-project-statistics.aspx

To resolve your protest, we will address locating the line of ordinary high water, both legally and factually. It must be accepted that the OHWM along a river is an ambulatory boundary that migrates through the normal actions of accretion and erosion and has moved since rights were bounded by it. While we agree there will be some differences in location based on dates of aerial photography and dates of field work due to accretion and erosion, it appears that your OHWM guidelines do not comport with federal law and cannot be used to determine riverbed title under the Equal Footing Doctrine.

Discussion of State Reason No. 1

A) OSE's OHWM Delineation Guidelines of 2007

The BLM's Branch of Cadastral Survey has reviewed the OSE's OHWM Delineation Guidelines of 2007 and finds it mostly in conformity with the federal definition except for defining grazing of livestock and certain agriculture as being below the OHWM, as outlined in the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea which states:

> *"Areas below the OHWM may have vegetation suitable for grazing but wetland vegetation capable of being grazed is not an "ordinary agricultural crop."*
>
> *Another complicated area included the low lying hayfields. For this study, the term "field" refers to hayed or mowed areas, and does not imply that the area has been cultivated or seeded. Farming practices along the river during drier, low water periods often extended into the lower floodplain areas, closer to the water's edge. These "fields" may be cut for hay, or cultivated for a short time, but rapid colonization of wetland species on these hay fields likely occurred when the wetter period and subsequent higher water levels returned."*

The grazing statement is in direct contradiction to the *Howard v. Ingersoll* reference of *natural or uninclosed* pasture and the Manual definition of OHWM. *United States v. Cameron* references marshland that periodically absorbs the high waters and periodically serves as productive agriculture which was directly tied to the grazing of livestock and was found not enough to infer the lands were below the OHWM.

The hay field statement is in direct contradiction to the *Howard v. Ingersoll* reference to lands liable to overflow but reclaimable for meadows or agriculture. It also contradicts *Harrison v. Fite* in that the bed does not extend to land which grasses grow although covered by rises in the water. The implication is that the land can ordinarily be utilized for agriculture, even though the remnants of water in low areas of the floodplain caused by rises in the river allow for pockets of aquatic vegetation to grow periodically, which is also addressed in the aforementioned cases.

The BLM's Branch of Cadastral Survey has reviewed the State's OHWM survey Task Order No. 2 and finds the intent to locate the OHWM of the Missouri River prior to the artificial rising of the Missouri River to form Lake Sakakawea to be correct and does not believe the State is attempting to claim the pooled lakebed of Lake Sakakawea as a navigable waterway under the Equal Footing Doctrine.

Cultivation and seeding are not prerequisites for *productive agriculture*[3] which would thereby exclude *natural or uninclosed*[4] pasture suitable for grazing or natural grass haying. Specifically the upland extends towards the river to the lowest extent of upland vegetation and not the landward extent of aquatic vegetation.

These deviations from the Federal definition of OHWM allow the State's delineation of OHWM, which is visually represented on Enclosure 2 hatched in blue and overlaid on the 1958 aerial photo, to impermissibly encompass upland with terrestrial vegetation, hay fields, and cultivated fields.

Likewise, the State's OHWM delineation, depicted on Enclosure 3 hatched in blue and overlaid onto the 1952 aerial photo, spans from *bluff to bluff*[5] taking in uplands temporarily overflowed by *freshets*[6] which is in direct contradiction to all Federal case law and moreover, the State's delineation, which does not reference utilizing the 1952 aerial photo follows the extent of water on the 1952 photo very closely. But, this photo is a representation of one of the highest recorded flows, which is not characterized as "ordinary." The date of the aerial photo, April 5, 1952, has been correlated to United States Geological Survey (USGS) flow data obtained at: http://waterdata.usgs.gov/usa/nwis/inventory/?site_no=06330000&agency_cd=USGS. Thirty-seven years of flow data from 1928-1965 shows that only 21 days had higher flows than the aerial photo date (April 5, 1952), of which 4 days were also in 1952. Enclosure 4a is the mean daily discharges for 1952; 4b is the highest daily means from 1928-1965; 4c is a graph of the 37 year discharges.

Therefore, BLM believes the State's OHWM delineation is skewed due to the aforementioned deviations from the Federal definition of OHWM and residual flood waters from an extraordinary event onto the floodplain. The State's OHWM delineation depicts the riverbed to be three times the width of the General Land Office's originally surveyed meanders. Originally surveyed meanders are typically landward of the actual OHWM, and while it is acknowledged that OHWMs move laterally, no evidence shows why the riverbed has widened, up to triple in size, to encompass lands classified as upland in the original survey.

The sheer width of the State's OHWM delineation, as depicted on Enclosure 1, clearly shows that it ignores the *natural physical characteristic*[7] of the OHWM which is a *natural object*[8] and extends *beyond the banks*[6] to encompass significant portions of the floodplain. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

B) Chain of Title

At the meeting on July 22, 2014, in Bismarck, ND, Josh Alexander, BLM's Acting Chief Cadastral Surveyor for public lands in North Dakota, specifically asked if the State's OHWM delineation was to determine surface rights, subsurface rights, or both. The verbal response was

[3] *United States v. Cameron*, 466 F. Supp. 1099 (M.D. Fla. 1978)
[4] *Howard v. Ingersoll*, 54 U.S. 381 (1851)
[5] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[6] *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991)
[7] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[8] *Howard v. Ingersoll*, 54 U.S. 381 (1851)

that it determined the boundary of State Sovereign land encompassing both surface and subsurface rights.

But, the State's delineation did not consider previous conveyances, as evidenced by chain of title research. Enclosures 5a, 5b, and 5c are the State's OHWM delineation, which is hatched in blue and overlaid onto the COE Segment maps, in which the State's delineation encompasses:

1) 188.66 acre island, Y2250 (Enclosure 5a)
2) 228 acres within Y2289 (Enclosure 5b)
3) 71.07 acres within Z2382 (Enclosure 5c)

These parcels were conveyed to the United States by the State as upland (see Enclosure 6 for conveyance documents). The magnitude of acquisitions by the COE clearly shows the intent was to purchase displaced uplands. The chain of title clearly shows that the State agreeably conveyed upland and islands, which is now being depicted and claimed as riverbed. An island must exist above the OHWM to be considered an island; otherwise it is a part of the bed (sandbar). At the time of the conveyance, an OHWM determination was made to facilitate the conveyance of the island and the upland. These conveyances were for upland surface only. The State's new OHWM delineation must omit these areas as they have previously been classified as upland, not below the OHWM, and are not part of surface Sovereign Lands of the State. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

C) Sovereign Lands

In its protest, the State is utilizing its delineation as a basis for claim to sovereign land and to require mineral lease and royalty payments from oil and gas operators. However, prior to viewing the delineations at https://land.nd.gov/minerals/mineralapps/OHWM2/OHWM2Disclaimer.aspx, there is a caveat:

"The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land.""

Thus, it is unclear how much weight to give to the State's OHWM delineation even though the State's Statement of Reasons infers that we should honor it wholly. Instead, BLM's Supplemental Plats are without limitation and provide the better evidence of riverbed title.

For the foregoing reasons, the State's first protest point is denied.

Discussion of State Reason No. 2

A) BLM Field Investigations Prior to Flooding

The COE Segment Maps were the basis for land title acquisition by the COE for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most

comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea.

To determine what lands were classified as public lands, the COE engaged BLM's Branch of Cadastral Engineering (now Branch of Cadastral Survey) to execute field investigations prior to flooding. BLM surveyors were guided by Special Instructions dated October 24, 1952 (Enclosure 7). Importantly, there is no evidence that the State of North Dakota raised concerns about the Special Instructions or subsequent acquisitions.

The Special Instructions stated the following regarding the lot or legal subdivision listed:

> *"Ascertain whether any or all of it is above mean high water at the present time*
>
> *If it is found to be above water at present, determine whether any or all of it has been in existence above mean high water continuously since the original survey was made*
>
> *Show what part of the tract has been in existence since the date of the original survey*
>
> *If the land has been entirely washed away and has re-appeared, determine the date it was submerged and when it re-appeared*
>
> *If accretion to a tract of public domain land has formed, show the extent of such accretion*
>
> *If substantial accretion appears to have formed in front of riparian privately-owned lands prior to the date of entry, show the extent of such accretion and the date a substantial amount had formed in front of the original tract*
>
> *Where changes have taken place in the river channel, determine whether the change was due to avulsive action, or to the slow and imperceptible process of reliction and accretion*
>
> *To determine the above facts, you will study all plats, charts, maps, aerial photographs and records found that may have a bearing on the case at hand. You will determine the age of timber growing on the land and obtain such other information as is available including the interviewing of old settlers who may be familiar with the river changes at those places."*

BLM officers were operating under the BLM's Manual of Surveying Instructions, 1947 (1947 Manual), and the term "mean high water" for inland waters carries the same determination principles and conformance to law as the OHWM, as evidenced by guidelines in the 1947 Manual.

The BLM conducted extensive field investigations to determine what lands existed above the OHWM, made a determination on river movement, its effect on land title, and compiled this information in an investigative report. These reports were utilized to determine public lands above the OHWM, addressing both accretion and erosion to public lands. Those determinations

were depicted on the Segment Maps. In other words, the COE Segment maps are based on BLM field work, analysis, and standard practices. See Enclosures 8, 9, and 10 for the progression from BLM field investigation report map (8) to Segment Map (9) to Supplemental Plat (10), all of which depict the same findings from the field investigations.

B) North Dakota State Lands Department (SLD)'s Previous OHWM Delineation

1) Land acquisition documents show that SLD participated in the COE survey process.

A conveyance document in Enclosure 6 infers that the SLD performed an OHWM determination prior to the conveyance. The last page of Enclosure 6 states:

"The above is based on Survey Report furnished by the State School Land Department."

The SLD Survey Report was requested by the BLM's Branch of Cadastral Survey. However, its whereabouts are unknown and remains unfurnished. But, based on the subsequent conveyance, the referenced SLD Survey Report likely made a determination that Y2250 was an island existing above the OHWM, thereby necessitating the need for purchase by the COE as uplands that would be displaced by the artificial rising of the Missouri River to create Lake Sakakawea.

Although the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea states that the SLD was unaware of any previous OHWM determinations, we believe that the land acquisition documents establish that the SLD participated in the OHWM determinations upon which the COE segment maps are based.

2) Documents show that SLD participated in the condemnation process for uplands.

To further outline the SLD's involvement and conclude that the State was aware of upland acquisitions, we obtained correspondence documents (Enclosure 11) showing that SLD and COE deliberations led to a formal and friendly condemnation process, which was followed by the SLD and the COE.

Despite legislation being passed to convey State lands without mineral reservation, the condemnation process was instituted due to the reluctance of then SLD Commissioner, John O. Lyngstad. Mr. Lyngstad was reluctant to sell State lands and supported the condemnation process for fear of political repercussions of selling State land. Mr. Lyngstad relays his reluctance by predicting accusations from farmers that they would be willing to pay the State more money than was being offered by the Federal Government. It is certain that farmers would not be willing to pay for these uplands if they were not productive for agriculture indicating the lands existed as upland above the OHWM. The State's OHWM delineation incorrectly classifies these same uplands as riverbed.

Revisit Enclosure 6 showing the execution of this process whereby the COE sent appraisals for displaced state uplands asking for consideration by the Board of University and School Lands, execution by the Land Commissioner, and condemnation.

C) Appraisals

Full appraisals were conducted for acquisition of displaced uplands to justify and provide basis for the expenditure of appropriated funds. These appraisals quantify upland area and quantify the uses of the upland, including agricultural production, timber, brush, etc. While utilized for appraisal values, these quantifications provide significant documentation with regard to the acquired displaced uplands, depicted on the COE Segment maps, existing above the OHWM. See Enclosure 12, which is the same area as Enclosure 2 showing the State's OHWM delineation encompassing brush and productive agriculture as identified by the land appraisal. The State's delineation does not follow Federal case law or OHWM definitions with the inclusion of these uplands.

For the reasons outlined above, we reject the State's assertion that the COE Segment Maps are not an accurate reflection of the OHWM. The OHWM was established by BLM-led field investigations using Special Instructions that were not disputed by the State. In fact, there is ample evidence showing that the SLD participated in the establishment of the OHWM determination. The second protest point is denied.

Conclusion

The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM, and involvement from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines.

Based on the aforementioned analysis, the BLM finds the State's OHWM delineation:

1) does not comply with the federal definition of the OHWM
2) does not honor chain of title or previous involvement with the COE
3) is an overreaching delineation that impairs:
   a) the mineral rights of private owners as vested from original patents from the Federal Government
   b) the Federal Government's acquired rights in land, and
   c) the rights of all in the Public Domain interests in land.

Your protest to the official filing of plats of survey posted in the *Federal Register* on July 8, 2014, is hereby dismissed. The Supplemental Plats shall be officially filed in this office.

You have the right to appeal this decision to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of the Interior, Board of Land Appeals (Board), in accordance with the regulations contained in 43 CFR Part 4 and the enclosed Form 1842-1 (Enclosure 13). In taking an appeal, there must be strict compliance with the regulations. If you choose to appeal, a notice of appeal must be filed in this office within thirty (30) days of receipt of this letter for transmittal to the Board. If your notice of appeal does not include a statement of reasons, one must be filed with the Board within thirty (30) days after the notice of appeal was filed. A copy of your notice of appeal and any statement of reasons, written arguments, or briefs, must also be served upon the Office of the Solicitor, Rocky Mountain Region, 2021 Fourth Avenue N., Suite 112, Billings MT 59101. Service must be accomplished within fifteen (15) days after filing in order to be in compliance with appeal regulations.

As provided by 43 CFR Part 4, you have the right to petition the Office of Hearings and Appeals to stay implementation of the decision; however, you must show standing and present reasons for requesting a stay of the decision that address your interests and the manner by which they would be harmed. A petition for stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) The relative harm to the parties if the stay is granted or denied; (2) The likelihood of the appellant's success on the merits; (3) The likelihood of immediate and irreparable harm if the stay is not granted; and (4) Whether the public interest favors granting the stay. Should you choose to file one, your stay request must accompany your notice of appeal. A notice of appeal with petition for stay must be served upon the Board, Regional Solicitor, and adverse parties at the same time such documents are served on the deciding official at this office. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR 1.3.

Sincerely,

Aden L. Seidlitz

Aden L. Seidlitz
Acting State Director

13 Enclosures
1- Overall comparison of OHWM delineations in protested area
2- OHWM comparison overlaid onto 1958 aerial photography
3- OHWM comparison overlaid onto 1952 flood aerial photography
4- USGS flow data
5- State OHWM delineation overlaid onto Segment Maps
6- State land conveyance correspondence and execution documents
7- BLM Special Instructions
8- BLM field investigation report map
9- Portion of Segment Map

10- Portion of BLM Supplemental Plat
11- COE and SLD correspondence
12- Land appraisal map
13- Form 1842-1

cc: Karan Dunnigan
Office of the Solicitor
Billings, MT

308170

PRODUCERS 88—PAID UP
Rev. 1990, No. 1

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 14th day of November, 19 90 by and between

Mrs. Jo Mendenhall, a single woman

whose post office address is Route 1, Box 31E, Omaha, AR 72661, hereinafter called Lessor (whether one or more) and

LoneTree Energy, Inc. whose post office address is 1050 17th St., Ste. 1730, Prudential Plaza, Denver, CO 80265, hereinafter called Lessee

WITNESSETH, That the Lessor, for and in consideration of Ten and More ($10.00+) DOLLARS cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas of whatsoever nature or kind, with rights of way and easements for laying pipe lines, and erection of structures thereon to produce, save and take care of said products, all that certain tract of land situated in the County of McKenzie State of North Dakota, described as follows, to-wit:

Township 153 North, Range 96 West
Section 2: Lot 4(39.13)
Section 3: Lots 1(39.15), 2(39.21)

Any reference herein to a Lessor's royalty of one-eighth (1/8th) is hereby deleted and changed to a Lessor's royalty of one-sixth (1/6th).

INITIAL

*SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

and containing 117.49 acres, more or less.

March 31, 1991

1. It is agreed that this lease shall remain in force for a term of four (4) years from ~~this date~~ and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or re-working operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith; and operations shall be considered to be continuously prosecuted if not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this lease shall not terminate if Lessee commences additional drilling or re-working operations within ninety (90) days from date of cessation of production or from date of completion of dry hole. Drilling operations shall be deemed to be commenced when the first material is placed on the leased premises or when the first work, other than surveying or staking the location, is done thereon which is necessary for such operations. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the lease premises or on acreaged pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost in the pipe to which Lessee may connect his wells, the equal one-eighth (1/8th) part of all oil produced and saved from the leased premises, or at the Lessee's option, may pay to the Lessor for such one-eighth (1/8th) royalty, one-eighth (1/8th) of the then market value at the mouth of the well of all oil produced and saved hereunder by the Lessee from the leased premises.

2nd. To pay Lessor for gas of whatsoever nature or kind (with all of its constituents) produced and sold or used off the leased premises, or used in the manufacture of products therefrom, one-eighth (1/8) of the gross proceeds received for the gas sold, used off the premises, or in the manufacture of products therefrom, but in no event more than one-eighth (1/8) of the actual amount received by the Lessee, said payments to be made monthly. During any period (whether before or after expiration of the primary term hereof) when gas is not being so sold or used and the well or wells are shut in and there is no current production of oil or operations on said leased premises sufficient to keep this lease in force, Lessee shall pay or tender a royalty of One Dollar ($1.00) per year per net royalty acre retained hereunder, such payment or tender to be made, on or before the anniversary date of this lease next ensuing after the expiration of ninety (90) days from the date such well is shut in and thereafter on the anniversary date of this lease during the period such well is shut in, to the royalty owners or to the royalty owner's credit in the rental depository bank hereinafter designated. When such a payment or tender is made it will be considered that gas is being produced within the meaning of the entire lease.

3rd. To pay Lessor for gas produced from any oil well and used off the premises, or for the manufacture of casing-head gasoline or dry commercial gas, one eighth (1/8) of the gross proceeds, at the mouth of the well, received by Lessee for the gas during the time such gas shall be used, said payments to be made monthly.

4. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the said Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee.

5. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for Lessee's operation thereon, except water from the wells of Lessor.

6. When requested by Lessor, Lessee shall bury Lessee's pipe lines below plow depth.

7. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of Lessor.

8. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

9. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

10. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest(by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other kind of notice, whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other leasehold owner.

11. Lessee is hereby granted the right at any time and from time to time to unitize the leased premises or any portion or portions thereof, as to all strata or any stratum or strata, with any other lands as to all strata or any stratum or strata, for the production primarily of oil or primarily of gas with or without distillate. However, no unit for the production primarily of oil shall embrace more than 640 acres, or for the production primarily of gas with or without distillate more than 640 acres; provided that if any governmental regulation shall prescribe a spacing pattern for the development of the field or allocate a producing allowable based on acreage per well, then any such unit may embrace as much additional acreage as may be so prescribed or as may be used in such allocation of allowable. Lessee shall file written unit designations in the county in which the leased premises are located. Operations upon and production from the unit shall be treated as if such operations were upon or such production were from the leased premises whether or not the well or wells are located thereon. The entire acreage within a unit shall be treated for all purposes as if it were covered by and included in this lease except that the royalty on production from the unit shall be as below provided, and except that in calculating the amount of any rentals or shut in gas royalties, only that part of the acreage originally leased and then actually embraced by this lease shall be counted. In respect to production from the unit, Lessee shall pay Lessor, in lieu of other royalties thereon, only such proportion of the royalties stipulated herein as the amount of his acreage placed in the unit, or his royalty interest therein on an acreage basis bears to the total acreage in the unit.

12. All expreas or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

13. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor, and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs, successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

14. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word "Lessor," as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

x Mrs. Jo Mendenhall

Mrs. Jo Mendenhall

EXHIBIT
tabbies
E

STATE OF ARKANSAS }
COUNTY OF [illegible] } SS

ACKNOWLEDGMENT, Applicable where lands are in Oklahoma, Kansas, Nebraska, South Dakota, North Dakota and/or New Mexico

BE IT REMEMBERED, That on this 27 day of November, A. D., 19 90, before me, a Notary Public in and for said County and State, personally appeared Mrs. Jo Mendenhall, a single woman

to me known to be the identical person described in and who executed the within and foregoing instrument and acknowledged to me that she executed the same as her free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal the day and year first above written.

My commission expires 5-25-00 Notary Public

STATE OF ..... }
COUNTY OF ..... } SS.

ACKNOWLEDGMENT, Applicable where lands are in Oklahoma, Kansas, Nebraska, South Dakota, North Dakota and/or New Mexico

BE IT REMEMBERED, That on this ..... day of ....., A. D., 19....., before me, a Notary Public, in and for said County and State, personally appeared .....

to me known to be the identical person..... described in and who executed the within and foregoing instrument and acknowledged to me that.....

executed the same as.....free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal, the day and year first above written.

My commission expires..... Notary Public

STATE OF ..... }
COUNTY OF ..... } SS.

ACKNOWLEDGMENT, Montana or Colorado

I, ..., a Notary Public, in and for said County and State, do hereby certify that .....

personally known to me to be the person..... whose name.....subscribed to the within instrument, appeared before me this day in person and acknowledged that.....signed, sealed and delivered the said instrument of writing as.....free and voluntary act and deed for the uses and purposes therein set forth.

WITNESS my hand and official seal this.....day of.....A. D., 19.....

My commission expires..... Notary Public

No. .....

OIL AND GAS LEASE

FROM .....

TO .....

Dated ....., 19.....

Lot..... Block..... Addition .....

Section..... Township..... Range.....

County.....

No. of Acres..... Term.....

STATE OF .....
COUNTY OF ..... } SS.

This instrument was filed for record on the ..... day of ....., 19..... at ..... o'clock .....M., and duly recorded in Book..... Page..... of the records of this office.

County Clerk—Register of Deeds

By..... Deputy

When Recorded Return to.....

STATE OF ..... }
COUNTY OF ..... } SS.

ACKNOWLEDGMENT, CORPORATION

Before me, the undersigned, a Notary Public, in and for said County and State, on this.....day of....., 19....., personally appeared .....

....., to me known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its.....

.....and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of such corporation, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires..... Notary Public

P. O.....

EXHIBIT "A"

ADDENDUM TO OIL AND GAS LEASE

THIS ADDENDUM is attached to and by reference made a part hereof that certain Oil and Gas Lease by and between Mrs Jo Mendenhall, a single woman, of Route 1, Box 31E, Omaha, Arkansas 72661, as LESSOR (whether one or more) and LoneTree Energy, Inc., of 1050 17th Street, Suite 1730, Prudential Plaza, Denver, Colorado 80265, as LESSEE, dated November 14, 1990, covering the following described lands in McKenzie County, North Dakota:

Township 153 North, Range 96 West
Section 2: Lot 4(39.13)
Section 3: Lots 1(39.15), 2(39.21)

It is recognized by Lessor and Lessee that Lessor, or Lessor's predecessor in interest has heretofore executed an Oil and Gas Lease dated the 19th day of November, 1985, and recorded as Document #278517 herein referred to as the "prior lease" covering all or a portion of the lands described herein. This lease is granted expressly subject to the existing rights, if any, held by the Lessee or the Lessee's successors in interest, under and by virtue of the "prior lease". Lessor agrees not to execute any agreements or instruments or take or fail to take any act or action the effect of which would be to extend the primary term of the "prior lease". This lease shall not affect the lands described herein which remain effectively subject to the "prior lease" of the 19th day of November, 1985.

DATED THIS 25th day of Nov, 19 90.

SIGNED FOR IDENTIFICATION:

x Mrs. Jo Mendenhall
Mrs. Jo Mendenhall

OFFICE OF REGISTER OF DEEDS
County of McKenzie N.D. } ss.
I hereby certify that the within instrument was filed in this office for record the 10th day of Dec A.D. 1990 at 1:40 o'clock P M., and was duly recorded as Microfilm Document no. 308170
Register of Deeds

9.00 LoneTree Energy Inc.
P.O. Box 1303
Williston, ND 58802-1303

REGISTER OF DEEDS OFFICE · McKENZIE COUNTY · STATE OF NORTH DAKOTA

RETURN TO:
McCartney Petroleum, Inc.
P.O.Box 1438
Sidney, MT 59270

Returned to:
MCCARTNEY PETROLEUM INC
PO BOX 1438

SIDNEY MT 59270

353117
County Recorder
McKenzie County
Watford City ND 58854

COUNTY RECORDER, MCKENZIE COUNTY, ND
I certify that this instrument was filed and recorded,
Ann M Johnsrud, County Recorder
By Ann M. Johnsrud

353117
Fee **$21.00**
Dec 20, 2004 03:03 PM

PRODUCERS 88-PAID UP
Rev. 5-60, No. 2 4-89 -GMAC

OIL AND GAS LEASE

AGREEMENT, Made and entered into the **12th** day of **November, 2004** by and between **Patrick J. Mendenhall, a single man and Cynthia A. Brunk, a married woman dealing in her sole and separate property, both as the sole heirs of the Estate of Mrs. Jo Mendenhall, deceased and Patrick J. Mendenhall and Cynthia A. Brunk as Co-executors of the Estate of Mrs. Jo Mendenhall, deceased**, whose post office address is **16011 Warden Road, Omaha, Arkansas 72662**, hereinafter called Lessor (whether one or more) and **Headington Oil, Limited Partnership**, whose post office address is **7557 Rambler Road, Suite 1100, Dallas, TX 75231**, hereinafter called Lessee:

WITNESSETH, That the Lessor, for and in consideration of **Ten and more ($10.00+)** DOLLARS cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas of whatsoever nature or kind, with rights of way and easements for laying pipe lines, and erection of structures thereon to produce, save and take care of said products, all that certain tract of land situated in the Counties of **McKenzie**, State of **North Dakota** described as follows, to-wit:

Township 154 North, Range 96 West of the 5th P.M.
Section 25: Lot 5(49.20)
Section 26: Lot 7(33.60), SW¼SW¼, S½SE¼
Section 27: Lot 8(35.10), SE¼SW¼, SW¼SE¼
Section 34: NW¼NE¼, S½NE¼, W½SE¼, SE¼SE¼
Section 35: N½, N½S½, SW¼SW¼

Township 153 North, Range 96 West of the 5th P.M.
Section 2: Lot 4(39.13)
Section 3: Lots 1(39.15), 2(39.21)

Including all accretion and riparian rights pertaining to these lands.

and containing **1236.98** acres, more or less.

Anything to the contrary notwithstanding, where ever the term one-eighth (1/8) appears in regards to royalty, it is hereby amended to read Fifteen percent (15%)

1. It is agreed that this lease shall remain in force for a term of **Five(5)** years from this date and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or reworking operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith; and operations shall be considered to be continuously prosecuted if not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this

lease shall not terminate if Lessee commences additional drilling or reworking operations within ninety (90) days from the date of cessation of production or from date of completion of dry hole. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the lease premises or on acreage pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost in the pipe line to which Lessee may connect wells on said land, the equal one-eighth (1/8th) part of all oil produced and saved from the leased premises.

2nd. To pay Lessor one-eighth (1/8) of the gross proceeds each year, payable quarterly, for the gas from each well where gas only is found, while the same is being used off the premises and if used in the manufacture of gasoline a royalty of one-eighth (1/8), payable monthly at the prevailing market rate for gas.

3rd. To pay Lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline or any other product a royalty of one-eighth (1/8th) of the proceeds, at the mouth of the well, payable monthly at the prevailing market rate.

Any interest in production from the lands herein described to which the interest of Lessor may be subject, shall be deducted from the lessor's royalty herein reserved.

4. Where gas from a well capable of producing gas is not sold or used, Lessee may pay or tender as royalty to the royalty owners One Dollar per year per net royalty acreretained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in and thereafter on or before the anniversary date of this lease during the period such well is shut in. If such payment or tender is made, it will be considered that gas is being produced within the meaning of this lease.

5. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the said Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee.

6. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for the Lessee's operations thereon, except water from wells of Lessor.

7. When requested by Lessor, Lessee shall bury Lessee's pipelines below plow depth.

8. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of the Lessor.

9. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

10. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

11. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest (by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other kind of notice whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other leasehold owner.

12. Lessee, at its option, is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formation. The forming or reforming of any unit shall be accomplished by Lessee executing and filling of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of market anywhere on a unit which includes all

or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, inducing shut-in gas royalties, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, Lessee shall have the right to unitize, pool, or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development of operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to Lessor shall be based upon production only as so allocated. Lessor shall formally express Lessor's consent to any cooperative or unit plan of development or operation adopted by Lessee and approved by any governmental agency by executing the same upon request of Lessee.

13. All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules and Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

14. Lessor hereby ~~warrants and agrees to defend the title to the lands herein described, and~~ agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor, and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs, successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

15. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word "Lessor", as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

x Patrick J Mendenhall
Patrick J. Mendenhall, a single man, as an heir to the Estate of Mrs. Jo Mendenhall, Deceased

x Cynthia A Brunk
Cynthia A. Brunk, as an heir to the Estate of Mrs. Jo Mendenhall, Deceased

x Patrick J Mendenhall
Patrick J. Mendenhall, as Co-executor of the Estate of Mrs. Jo Mendenhall, deceased

x Cynthia A Brunk
Cynthia A. Brunk as Co-executors of the Estate of Mrs. Jo Mendenhall, deceased

***

STATE OF ARKANSAS
COUNTY OF Boone)SS

OFFICIAL SEAL
CRETIA A. BIGGS
NOTARY PUBLIC-STATE OF ARKANSAS
BOONE COUNTY
My Commission Expires 09-21-10

On this 19 day of November, 2004 before me personally appeared **Patrick J. Mendenhall, a single man and as an heir to the Estate of Mrs. Jo Mendenhall, deceased**, known to me to be the person(s) who are described in and who/whom executed the within instrument as parties of the first part, and acknowledged to me that he/she/they executed the same.

My Commission expires: 9.21.10

Notary Public

Signatures of Cynthia A. Brunk

My Commission Expires
09/23/2007

County Recorder
McKenzie County
Watford City ND 58854

353117

STATE OF ARKANSAS
)SS
COUNTY OF _____

On this _____ day of November, 2004 before me personally appeared **Patrick J. Mendenhall, as Co-executor of the Estate of Mrs. Jo Mendenhall, deceased**, known to me to be the person(s) who are described in and who/whom executed the within instrument as parties of the first part, and acknowledged to me that he/she/they executed the same.

My Commission expires: _____ _____
, Notary Public

***

STATE OF Colorado
)SS
COUNTY OF _____

On this _____ day of November, 2004 before me personally appeared **Cynthia A. Brunk, a married woman dealling in her sole and separate property and as an heir to the Estate of Mrs. Jo Mendenhall, deceased**, known to me to be the person(s) who are described in and who/whom executed the within instrument as parties of the first part, and acknowledged to me that he/she/they executed the same.

My Commission expires: _____ _____
, Notary Public

***

STATE OF Colorado
)SS
COUNTY OF _____

On this _____ day of November, 2004 before me personally appeared **Cynthia A. Brunk as Co-executors of the Estate of Mrs. Jo Mendenhall, deceased**, known to me to be the person(s) who are described in and who/whom executed the within instrument as parties of the first part, and acknowledged to me that he/she/they executed the same.

My Commission expires: _____ _____
, Notary Public

RETURN TO:
Bakken Oil LLC
P.O. Box 471
Sidney, MT 59270

Return to:
BAKKEN OIL LLC
PO BOX 471
SIDNEY MT 59270

387586

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 2

EXTENSION OF OIL AND GAS LEASES

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned, or their predecessors in interest, is the Lessor in certain Oil and Gas Leases Dated November 12, 2004, executed in favor of Headington Oil, Limited Partnership, as Lessee, recorded in Document # 353117 and of the records of McKenzie County, North Dakota and covering the following described land in said County and State:

Township 154 North, Range 96 West of the 5th P.M..
Section 25: Lot 5(49.20)
Section 26: 7(33.60), SW¼SW¼, S½SE¼
Section 27: Lot 8(35.10), SE¼SW¼, SW¼SE¼
Section 34: NW¼NE¼, S½NE¼, W½SE¼, SE¼SE¼
Section 35: N½, N½S½, SW¼SW¼

Township 153 North, Range 96 West of the 5th P.M..
Section 2: Lot 4(39.13)
Section 3: Lot 1(39.15), 2(39.21)

Which lease is now owned by XTO Energy Inc.;

It is the mutual desire of Lessor and Lessee to amend the Leases to extend the primary term of the Leases as provided for in this Agreement insofar as it covers:

Township 154 North, Range 96 West of the 5th P.M..
Section 25: Lot 5(49.20)
Section 26: 7(33.60), SW¼SW¼, S½SE¼
Section 27: Lot 8(35.10), SE¼SW¼, SW¼SE¼
Section 34: NW¼NE¼, S½NE¼, W½SE¼, SE¼SE¼
Section 35: N½, N½S½, SW¼SW¼

Township 153 North, Range 96 West of the 5th P.M..
Section 2: Lot 4(39.13)
Section 3: Lot 1(39.15), 2(39.21)

Only as to the Extended Lands described above, Lessor's royalty is hereby amended to 3/16 effective upon the expiration of the original primary term of the lease and as to those lands in which drilling operations have not yet commenced.

For and in consideration of Ten Dollars and other good and valuable consideration, the receipt and sufficiency of which are acknowledged by Lessor, the primary term of Five (5) years stated in the Leases, are deleted and in lieu of that statement there is substituted the words and figure " Eight (8)," extending the primary term of the Leases to (November 11, 2012).

Except as amended by this Agreement, the Lease shall remain unchanged, and for the consideration paid by Lessee and received by Lessor: (a) Lessor ratify, confirm, and adopt the Leases as amended and acknowledge that it is valid, subsisting, in full force and effect, and agree that the sum paid by Lessee to Lessor shall be considered not only the consideration for this Agreement but shall also constitute the full delay rental payment accruing under the Lease, as amended, for the extended period of the Lease; and, (b) Lessor grants, leases and lets the lands described in the Lease to Lessee, its successors and assigns, on all the terms and provisions of the Lease as amended by this Agreement.

This Agreement is binding on and shall inure to the benefit of the respective heirs, successors, legal representatives or assigns of Lessor and Lessee. It is executed by Lessor as of the date of the acknowledgment of their signatures below, but is effective, for all purposes, as of the Effective Date stated above.

EXECUTED THIS 3rd day of February, 2009.

Patrick J. Mendenhall
Co Executor of the Jo Mendenhall Estate

Cynthia A. Brunk
Co Executor of the Jo Mendenhall Estate

370
15

RETURN TO:
Bakken Oil LLC
P.O. Box 471
Sidney, MT 59270

STATE OF Arkansas)
) ss
COUNTY OF White)

ACKNOWLEDGMENT, INDIVIDUAL

On this 3rd day of February, in the year 2009, before me personally appeared Patrick J. Mendenhall known to me to be the person(s) described in and who executed the foregoing instrument, and who acknowledged to me that he (she, they) executed the same.

(Notary Seal)

Vicki R. Williams, Notary Public
White County, Arkansas
My Commission Expires 3/1/2009

Notary Signature Vicki R. Williams
Printed Name of Notary Vicki R. Williams
Notary Public for the State of AR
Residing at Green Forest
My commission expires 3-1-09

STATE OF Colorado)
) ss
COUNTY OF Boulder)

ACKNOWLEDGMENT, INDIVIDUAL

On this 10th day of February, in the year 2009, before me personally appeared Cynthia A. Brunk known to me to be the person(s) described in and who executed the foregoing instrument, and who acknowledged to me that he (she, they) executed the same.

(Notary Seal)

DESIREE A. BAESSLER NOTARY PUBLIC STATE OF COLORADO My Commission Expires Dec. 07, 2011

Notary Signature Desiree A. Baessler
Printed Name of Notary Desiree A. Baessler
Notary Public for the State of Colorado
Residing at Boulder
My commission expires Dec 7th, 2011

387586

County Recorder
McKenzie County
Watford City ND 58854

Page 2 of 2

COUNTY RECORDER, MCKENZIE COUNTY, ND

I certify that this instrument was filed and recorded. 387586

Ann M Johnsrud, County Recorder Fee $15.00

By Ann M Johnsrud Mar 23, 2009 11:21 AM

COUNTY RECORDER McKENZIE COUNTY STATE OF NORTH DAKOTA

Return to:

BAKKEN OIL LLC
PO BOX 471

SIDNEY MT 59270

388531

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 4

COUNTY RECORDER, MCKENZIE COUNTY, ND

I certify that this instrument was filed and recorded, 388531
Ann M Johnsrud, County Recorder Fee $24.00
By Jodi Hanson, Deputy May 04, 2009 03:17 PM

RETURN TO:
Bakken Oil LLC
P.O. Box 471
Sidney, MT 59270

COUNTY RECORDER * McKENZIE COUNTY * STATE OF NORTH DAKOTA

RATIFICATION OF OIL AND GAS LEASE (paid up)

KNOW ALL MEN BY THESE PRESENTS:

That whereas under date of October 27, 2004, an Oil and Gas Lease was entered into by Patrick J. Mendenhall, a single man and Cynthia A. Brunk, a married woman dealing in her sole and separate property, both as the sole heirs of the Estate of Mrs. Jo Mendenhall, deceased and Patrick J. Mendenhall & Cynthia A. Brunk as Co-executors of the Estate of Mrs. Jo Mendenhall, deceased, as lessor, and Headington Oil, Limited Partnership as lessee, which lease is recorded as Document No. 353117; and extended by Document No. 387587, and is now owned by XTO Energy Inc., as lessee, and;

WHEREAS, the undersigned desires to ratify, adopt and confirm said lease insofar as it is covers all of the undersigned interests, including all interests in adjoining or nearby accretions, relictions, erosions and all riparian and littoral rights thereto in the following described land in McKenzie County, State of North Dakota:

TOWNSHIP 154 NORTH, RANGE 96 WEST, 5TH PM
Section 25: Lot 5(48.20)
Section 26: Lot 7(33.60), SW¼SW¼, S½SE¼
Section 27: Lot 8(35.10), SE¼SW¼, SW¼SE¼
Section 34: NW¼NE¼, S½NE¼, W½SE¼, SE¼SE¼
Section 35: N½, N½S½, SW¼SW¼

TOWNSHIP 153 NORTH, RANGE 96 WEST, 5TH PM
Section 2: Lot 4(39.13)
Section 3: Lots 1(39.15), 2(39.21)

NOW, THEREFORE, in consideration of a valuable consideration paid by lessee, receipt of which is hereby acknowledged, the undersigned does hereby grant, lease and let the above-described land unto XTO Energy Inc., his/her or its heirs, successors and assigns upon the terms and subject to the provisions of said lease, and said lease is by reference made a part hereof with the same force and effect as if the undersigned had originally joined in the execution thereof as lessor; except that as to the interest of the undersigned the lease is PAID-UP for its entire term, the undersigned agreeing that the consideration paid for this ratification includes his proportionate part of all rentals provided for by the terms of said lease.

EXECUTED, this 6 of April, 2009.

Signed: Patrick J Mendenhall
Patrick J. Mendenhall, individually and as heir and
Co-Executor of the Estate of Jo Mendenhall, deceased

STATE OF ARKANSAS)
) ss
COUNTY OF Boone)

ACKNOWLEDGMENT, INDIVIDUAL

On this 6th day of April, in the year 2009, before me personally appeared Patrick J. Mendenhall, individually and as heir and Co-Executor of the Estate of Jo Mendenhall, deceased known to me to be the person(s) described in and who executed the foregoing instrument, and who acknowledged to me that he (she, they) executed the same.

(Notary Seal)

JUDITH EPLEY
NOTARY PUBLIC
Boone County, Arkansas
My Commission Expires 4/12/2017
Commission Number 12359873

Notary Signature Judith Epley
Printed Name of Notary Judith Epley
Notary Public for the State of Arkansas
Residing at Alpena AR 72611
My commission expires April 12, 2017

Signed: Cynthia A. Brunk
Cynthia A. Brunk, individually and as heir and
Co-Executor of the Estate of Jo Mendenhall, deceased

STATE OF Colorado)
) ss
COUNTY OF Boulder)

ACKNOWLEDGMENT, INDIVIDUAL

On this 15th day of April, 2009, in the year 2009, before me personally appeared Patrick J. Mendenhall, individually and as heir and Co-Executor of the Estate of Jo Mendenhall, deceased known to me to be the person(s) described in and who executed the foregoing instrument, and who acknowledged to me that he (she, they) executed the same.

(Notary Seal)

Notary Signature Joyce A. Layne
Printed Name of Notary Joyce A. Layne
Notary Public for the State of Colorado
Residing at 198 Lakeside Dr. Gardner, Co 80305
My commission expires Oct 31, 2011

IN THE CIRCUIT COURT OF BOONE COUNTY, ARKANSAS
PROBATE DIVISION

IN THE MATTER OF THE ESTATE OF
JO R. MENDENHALL, DECEASED

NO.: PR-2003-142

FILED
2003 NOV 12 AM 11:47
MELINDA MULFORD
BOONE COUNTY CLERK
BY: Amanda Mills D.C.

ORDER ADMITTING WILL TO PROBATE
AND APPOINTING PERSONAL REPRESENTATIVE

On this 11 day of November, 2003, there is presented to the Court the petition of CYNTHIA A. BRUNK, of 1478 High Plains Court, Lafayette, CO 80026, and PATRICK MENDENHALL, of 16011 Warden Road, Omaha, AR 72662, for probate of the will of JO R. MENDENHALL, deceased, and for appointment of personal representatives for the estate, and upon consideration of such petition and the facts and evidence in support thereof, the Court finds: That the testatrix of said will is deceased; that the instrument offered for probate was executed in all respects according to law when the testatrix was competent to do so and acting without undue influence, fraud or restraint; that the will was not revoked, and the instrument offered for probate is her last will; and that this court has jurisdiction and venue properly lies in this county. The Court further finds that CYNTHIA A. BRUNK and PATRICK MENDENHALL are the proper persons and fully qualified by law to serve as executors of said will and administer the estate of the deceased.

County Recorder
McKenzie County
Watford City ND 58854

388531

Page 3 of 4

It is therefore by the Court CONSIDERED and ORDERED that the said will be, and it hereby is, admitted to probate as the last will of said deceased; that administration is hereby opened in said estate and that CYNTHIA A. BRUNK and PATRICK MENDENHALL be, and they hereby are, named and appointed executors of the estate of the decedent; and that letters testamentary shall be issued to said personal representatives upon the filing of a designation of process agent.

Probate Judge

11-10-03/par/mendenhall/ORDERADMIT/5273-1

County Recorder
McKenzie County
Watford City ND 58854

388531

Page 4 of 4

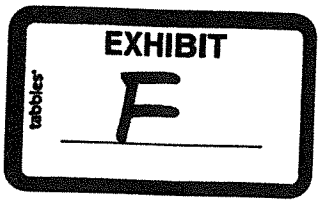
Return to Search Results

You searched for: exact search in BothID for Mendenhall and Search Results For=McKenzie County

47 items found, displaying all items.**1**

Purchase Selected

Description	Summary	Add All to My Images	Select All / None
McKenzie County 507647	Instrument # 507647 Recording Date: Thu Apr 26 12:50:00 CDT 2018 Grantor: MENDENHALL ESTATE, KIRK OLIVER, TROJAHN PR, KATHERINE Grantee: MENDENHALL TRUST, KIRK O, TROJAHN TRUSTEE, KATHERINE Legal: , ...Quarter: NE Section: 27 Township: 151 Range: 104, Quarter: NW Section: 27 Township: 151 Range: 104, Quarter: SE Section: 27 Township: 151 Range: 104, Quarter: SW Section: 27 Township: 151 Range: 104, Quarter: NE Section: 1 Township: 152 Range: 96, ... Document Type: PR'S MINERAL DEED & LETTERS Document Date: 04/13/2018	No images	
McKenzie County 505757	**Instrument #** 505757 **Recording Date:** Mon Jan 29 12:35:00 CST 2018 **Grantor:** MENDENHALL ESTATE, KIRK, MENDENHALL TRUST, KIRK, TROJAHN TRUSTEE, KATHERINE, TROJAHN PR, KATHERINE, MENDENHALL, ELLA, CARTWRIGHT, ELORIE J, CARTWRIGHT AKA, ELORIE JOY **Grantee:** MENDENHALL ESTATE, KIRK, MENDENHALL TRUST, KIRK, TROJAHN PR, KATHERINE, TROJAHN TRUSTEE, DATHERINE, MENDENHALL, ELLA, CARTWRIGHT, ELORIE J, CARTWRIGHT AKA, ELORIE JOY **Legal:** , ...Sixteenth: SW Quarter: SW Section: 14 Township: 154 Range: 95, Sixteenth: SE Quarter: SE Section: 15 Township: 154 Range: 95, Sixteenth: SE Quarter: SW Section: 17 Township: 154 Range: 95, Sixteenth: W Quarter: SE Section: 18 Township: 154 Range: 95, Sixteenth: SE Quarter: SE Section: 18 Township: 154 Range: 95, ... **Document Type: STIPULATION AND CROSS CONVEYANCE** **Document Date:** 01/16/2018	Preview Image	☐ Purchase



Description	Summary		Add All to My Images	Select All / None
McKenzie County 506063	**Instrument #** 506063 2018	**Recording Date:** Tue Feb 06 11:48:00 CST	Preview Image	☐ Purchase
	Grantor: MENDENHALL ESTATE, KIRK OLIVER, WILLIAMS COUNTY DISTRICT COURT	**Grantee:** TROJAHN, KATHERINE		
	Legal: , ...Sixteenth: NW Quarter: NW Section: 2 Township: 153 Range: 96, Sixteenth: SW Quarter: SW Section: 14 Township: 154 Range: 95, Sixteenth: SE Quarter: SE Section: 15 Township: 154 Range: 95, Sixteenth: SE Quarter: SW Section: 17 Township: 154 Range: 95, Sixteenth: W Quarter: SE Section: 18 Township: 154 Range: 95, ...	**Document Type: LETTERS TESTAMENTARY** **Document Date:** 08/15/2016		
McKenzie County 484683	**Instrument #** 484683 2015	**Recording Date:** Wed Sep 02 14:18:00 CDT	Preview Image	☐ Purchase
	Grantor: MENDENHALL, EWARD, MENDENHALL, MARY	**Grantee:** MENDENHALL, EWARD, MENDENHALL, MARY		
	Legal: , ...Sixteenth: NW Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: SW Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: SE Quarter: SE Section: 29 Township: 154 Range: 96, Quarter: NE Section: 32 Township: 154 Range: 96, Quarter: NW Section: 32 Township: 154 Range: 96, ...	**Document Type: QUIT CLAIM DEED** **Document Date:** 08/28/2015		
McKenzie County 484715	**Instrument #** 484715 2015	**Recording Date:** Thu Sep 03 14:04:00 CDT	Preview Image	☑ Purchase
	Grantor: MENDENHALL, KIRK O	**Grantee:** MENDENHALL, KIRK O, MENDENHALL, ELLA		
	Legal: , ...Quarter: NE Section: 6 Township: 152 Range: 95, Quarter: NW Section: 6 Township: 152 Range: 95, Quarter: NE Section: 7 Township: 152 Range: 95, Quarter: NW Section: 7 Township: 152 Range: 95, Quarter: SE Section: 7 Township: 152 Range: 95, ...	**Document Type: JOINT TENANCY DEED** **Document Date:** 08/24/2015		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 484252	**Instrument #** 484252 2015	**Recording Date:** Thu Aug 20 14:48:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, EWARD, MENDENHALL, MARY	**Grantee:** MENDENHALL, EWARD, MENDENHALL, MARY		
	Legal: , ...Sixteenth: NW Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: SW Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: SE Quarter: SE Section: 29 Township: 154 Range: 96, Quarter: NE Section: 32 Township: 154 Range: 96, ...	**Document Type: QUIT CLAIM DEED** **Document Date:** 08/14/2015		
McKenzie County 483996	**Instrument #** 483996 2015	**Recording Date:** Wed Aug 12 11:28:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, EDWARD, MENDENHALL, MARY	**Grantee:** MENDENHALL, EDWARD, MENDENHALL, MARY		
	Legal: , ...Sixteenth: NW Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: SW Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 29 Township: 154 Range: 96, Sixteenth: SE Quarter: SE Section: 29 Township: 154 Range: 96, Quarter: NE Section: 32 Township: 154 Range: 96, ...	**Document Type: QUIT CLAIM DEED** **Document Date:** 08/04/2015		
McKenzie County 475881	**Instrument #** 475881 2014	**Recording Date:** Fri Dec 12 14:11:00 CST	Preview Image	Purchase
	Grantor: CARTWRIGHT, ELORIE J, MENDENHALL, KIRK O	**Grantee:** PUBLIC		
	Legal: , ...Quarter: NE Section: 20 Township: 154 Range: 95, Quarter: NW Section: 20 Township: 154 Range: 95, Quarter: SE Section: 20 Township: 154 Range: 95, Quarter: SW Section: 20 Township: 154 Range: 95, Quarter: NE Section: 29 Township: 154 Range: 95, ...	**Document Type: REVOC TRANSFER ON DEATH DEED** **Document Date:** 10/27/2014		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 441765	**Instrument #** 441765 2012	**Recording Date:** Mon Oct 22 14:45:00 CDT	Preview Image	☐ Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL, MARY	**Grantee:** MENDENHALL, WARD, MENDENHALL AKA, E WARD, MENDENHALL, MARY		
	Legal: , ...Sixteenth: SW Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SE Quarter: NW Section: 35 Township: 154 Range: 96, Sixteenth: W Quarter: NE Section: 35 Township: 154 Range: 96, Sixteenth: SE Quarter: NE Section: 35 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, ...	**Document Type: CORRECTION MINERAL DEED** **Document Date:** 10/09/2012		
McKenzie County 445715	**Instrument #** 445715 2013	**Recording Date:** Tue Jan 15 11:31:00 CST	Preview Image	☐ Purchase
	Grantor: MENDENHALL, PATRICK	**Grantee:** ZENERGY INC		
	Legal: Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104	**Document Type: OIL AND GAS LEASE** **Document Date:** 08/01/2012		
McKenzie County 423814	**Instrument #** 423814 2011	**Recording Date:** Tue Oct 04 15:11:00 CDT	Preview Image	☐ Purchase
	Grantor: MENDENHALL, EDWARD, MENDENHALL, MARY	**Grantee:** PUBLIC		
	Legal: , ...Sixteenth: SW Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SE Quarter: NW Section: 35 Township: 154 Range: 96, Sixteenth: W Quarter: NE Section: 35 Township: 154 Range: 96, Sixteenth: SE Quarter: NE Section: 35 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, ...	**Document Type: STATEMENT OF CLAIM OF MINERAL INTER** **Document Date:** 09/30/2011		
McKenzie County 402100	**Instrument #** 402100 2010	**Recording Date:** Fri May 14 13:36:00 CDT	Preview Image	☐ Purchase
	Grantor: MENDENHALL ESTATE, JUNE M, MENDENHALL ESTATE AKA, ELEANOR J, MENDENHALL, KIRK O	**Grantee:** PUBLIC		
	Legal: Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104	**Document Type: AFFIDAVIT HEIRSHIP** **Document Date:** 04/28/2010		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 400026	**Instrument #** 400026 2010	**Recording Date:** Tue Mar 30 14:07:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, KIRK O	**Grantee:** GREAT NORTHERN ENERGY INC		
	Legal: Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104	**Document Type: OIL AND GAS LEASE** **Document Date:** 02/15/2010		
McKenzie County 397592	**Instrument #** 397592 2010	**Recording Date:** Fri Feb 05 11:26:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL, MARY	**Grantee:** GREAT NORTHERN ENERGY INC		
	Legal: Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104	**Document Type: OIL AND GAS LEASE** **Document Date:** 01/20/2010		
McKenzie County 390839	**Instrument #** 390839 2009	**Recording Date:** Wed Jul 29 14:11:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL ESTATE, JO R, BRUNK CO PR, CYNTHIA A, MENDENHALL CO PR, PATRICK	**Grantee:** BRUNK, CYNTHIA A, MENDENHALL, PATRICK		
	Legal: , ...Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NW Section: 2 Township: 153 Range: 96, Sixteenth: NE Quarter: NE Section: 3 Township: 153 Range: 96, Sixteenth: NW Quarter: NE Section: 3 Township: 153 Range: 96, ...	**Document Type: MINERAL DEED** **Document Date:** 07/13/2009		
McKenzie County 389868	**Instrument #** 389868 2009	**Recording Date:** Fri Jun 19 11:27:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL, MARY	**Grantee:** XTO ENERGY INC		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: RATIFICATION OF OIL & GAS LEASE** **Document Date:** 06/09/2009		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 388771	**Instrument #** 388771 2009	**Recording Date:** Mon May 11 14:03:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, KIRK O, MENDENHALL AKA, KIRK, MENDENHALL, JUNE M	**Grantee:** XTO ENERGY INC		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: EXTENSION & MODIFICATION OF OGL** **Document Date:** 04/22/2009		
McKenzie County 388531	**Instrument #** 388531 2009	**Recording Date:** Mon May 04 15:17:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL ESTATE, JO, MENDENHALL CO EXECUTOR, PATRICK J, MENDENHALL, PATRICK J	**Grantee:** XTO ENERGY INC		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: RATIFICATION OF OIL & GAS LEASE** **Document Date:** 04/06/2009		
McKenzie County 387587	**Instrument #** 387587 2009	**Recording Date:** Mon Mar 23 11:21:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL AKA, WARD, MENDENHALL, MARY	**Grantee:** XTO ENERGY INC		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: EXTENSION OF OIL AND GAS LEASE** **Document Date:** 03/04/2009		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 387586	**Instrument #** 387586 2009	**Recording Date:** Mon Mar 23 11:21:00 CDT	Preview Image	Purchase

Grantor: MENDENHALL ESTATE, JO, MENDENHALL CO EXECUTOR, PATRICK J, BRUNK CO EXECUTOR, CYNTHIA A

Grantee: XTO ENERGY INC

Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...

Document Type: EXTENSION OF OIL AND GAS LEASE
Document Date: 02/03/2009

McKenzie County 362862	**Instrument #** 362862 2006	**Recording Date:** Wed Apr 26 15:56:00 CDT	Preview Image	Purchase

Grantor: MENDENHALL, E WARD, MENDENHALL, MARY

Grantee: DIAMOND RESOURCES INC

Legal: Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104

Document Type: OIL AND GAS LEASE
Document Date: 03/17/2006

McKenzie County 364426	**Instrument #** 364426 2006	**Recording Date:** Tue Jun 27 14:43:00 CDT	Preview Image	Purchase

Grantor: MENDENHALL, KIRK O, MENDENHALL, JUNE M

Grantee: DIAMOND RESOURCES INC

Legal: Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104

Document Type: OIL AND GAS LEASE
Document Date: 03/13/2006

McKenzie County 355774	**Instrument #** 355774 2005	**Recording Date:** Mon Apr 11 13:54:00 CDT	Preview Image	Purchase

Grantor: MENDENHALL, WARD, MENDENHALL, MARY

Grantee: MENDENHALL, E WARD, MENDENHALL, MARY

Legal: , ...Sixteenth: SW Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SE Quarter: NW Section: 35 Township: 154 Range: 96, Sixteenth: W Quarter: NE Section: 35 Township: 154 Range: 96, Sixteenth: SE Quarter: NE Section: 35 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, ...

Document Type: CORRECTIVE MINERAL DEED
Document Date: 04/07/2005

Description	Summary		Add All to My Images	Select All / None
McKenzie County 353117	**Instrument #** 353117 2004	**Recording Date:** Mon Dec 20 15:03:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, PATRICK J, MENDENHALL ESTATE, MRS JO, MENDENHALL CO-EXECUTOR, PATRICK J, BRUNK, CYNTHIA A, BRUNK CO-EXECUTOR, CYNTHIA A	**Grantee:** HEADINGTON OIL LIMITED PARTNERSHIP		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: OIL AND GAS LEASE** **Document Date:** 11/12/2004		
McKenzie County 352659	**Instrument #** 352659 2004	**Recording Date:** Wed Nov 24 14:00:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL, MARY	**Grantee:** HEADINGTON OIL LP		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: OIL AND GAS LEASE** **Document Date:** 10/27/2004		
McKenzie County 352090	**Instrument #** 352090 2004	**Recording Date:** Fri Nov 05 13:21:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, KIRK O, MENDENHALL, JUNE M	**Grantee:** HEADINGTON OIL LP		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: OIL AND GAS LEASE** **Document Date:** 10/22/2004		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 373826	**Instrument #** 373826 2007	**Recording Date:** Mon Nov 26 15:33:00 CST	Preview Image	Purchase
	Grantor: ARKANSAS DEPTARTMENT OF HEALTH	**Grantee:** MENDENHALL, JO R		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, ...	**Document Type: CERTIFICATE OF DEATH** **Document Date:** 10/08/2003		
McKenzie County 335161	**Instrument #** 335161 1999	**Recording Date:** Mon Jul 26 13:20:00 CDT	Preview Image	Purchase
	Grantor: AMERADA HESS CORPORATION	**Grantee:** ST LUKE COMMUNITY HOSPITAL, BOUCHER ESTATE, ROBERT W, BOUCHER CO-TRUSTEE, BERNICE L, HUSEBY CO-TRUSTEE, RAYMOND, MENDENHALL, E WARD, MENDENHALL, MARY, MENDENHALL, KIRK, MENDENHALL, JUNE M, STATE OF NORTH DAKOTA, BRANDON, LINDA, ...		
	Legal: , ...Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: SW Quarter: SE Section: 27 Township: 154 Range: 96, Sixteenth: SE Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: S Quarter: NE Section: 34 Township: 154 Range: 96, Sixteenth: NW Quarter: NE Section: 34 Township: 154 Range: 96, ...	**Document Type: RELEASE** **Document Date:** 07/14/1999		
McKenzie County 328494	**Instrument #** 328494 1997	**Recording Date:** Mon Jun 02 11:00:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, MARY, MENDENHALL, E. WARD ET UX	**Grantee:** PUBLIC		
	Legal:	**Document Type: STATEMENT OF CLAIM** **Document Date:** 06/02/1997		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 321088	**Instrument #** 321088 1994	**Recording Date:** Tue Nov 22 13:43:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, MRS. JO	**Grantee:** LONETREE ENERGY INC.		
	Legal:	**Document Type: OIL AND GAS LEASE** **Document Date:** 07/05/1994		
McKenzie County 321089	**Instrument #** 321089 1994	**Recording Date:** Tue Nov 22 13:44:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, JUNE M., MENDENHALL, KIRK	**Grantee:** LONETREE ENERGY INC.		
	Legal:	**Document Type: OIL AND GAS LEASE** **Document Date:** 06/29/1994		
McKenzie County 321087	**Instrument #** 321087 1994	**Recording Date:** Tue Nov 22 13:42:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, E. WARD, MENDENHALL, MARY	**Grantee:** LONETREE ENERGY INC.		
	Legal:	**Document Type: OIL AND GAS LEASE** **Document Date:** 06/29/1994		
McKenzie County 314389	**Instrument #** 314389 1992	**Recording Date:** Mon Aug 24 09:08:00 CDT	Preview Image	Purchase
	Grantor: TEXACO INC.	**Grantee:** C.C.B. INC., MENDENHALL, JO, MENDENHALL, KIRK ET UX, MENDENHALL, E.W. ET UX, JONES, MERLE ET UX, TIPTON, THOMAS, HUMBLE, HAZEL		
	Legal:	**Document Type: RELEASE** **Document Date:** 08/07/1992		
McKenzie County 313544	**Instrument #** 313544 1992	**Recording Date:** Mon May 11 13:40:00 CDT	Preview Image	Purchase
	Grantor: TEXACO INC.	**Grantee:** KUMMER, V.L., BENTZ, V., FLECKTEN, B.M., EISENLOHR 1980 TRUST, EISENLOHR, OTTO WILLIAM ET UX, EISENLOHR, OTTO WILLIAM, TRUSTEE, EISENLOHR, MARY HILL, TRUSTEE, GUNDERSON, J.R., GUNDERSON, S.G., SLATTUM, IRVIN ET UX, ...		
	Legal:	**Document Type: RELEASE** **Document Date:** 04/20/1992		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 314616	**Instrument #** 314616 1992	**Recording Date:** Mon Sep 14 14:00:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, KIRK O. ET UX	**Grantee:** LONETREE ENERGY INC.		
	Legal:	**Document Type: OIL AND GAS LEASE** **Document Date:** 04/02/1992		
McKenzie County 310699	**Instrument #** 310699 1991	**Recording Date:** Thu Jun 06 13:30:00 CDT	Preview Image	Purchase
	Grantor: ANR PRODUCTION COMPANY, TOTAL MINATOME CORPORATION, ANR PRODUCTION CORPORATION	**Grantee:** MENDENHALL, KIRK O, MENDENHALL, E WARD, BOUCHER, ROBERT W, MONTANA CHILDREN'S HOME & HOSPITAL, MENDENHALL, JO R, TIPTON, GEORGE T, JONES, MERLE E, HUMBLE, HAZEL L, SAINT LUKE COMMUNITY HOSPITAL, BETHEL LUTHERAN HOME, ...		
	Legal: Sixteenth: NW Quarter: NE Section: 27 Township: 151 Range: 104, Sixteenth: SW Quarter: NE Section: 27 Township: 151 Range: 104, Quarter: NE Section: 28 Township: 151 Range: 104	**Document Type: RELEASE OIL & GAS LEASE** **Document Date:** 05/06/1991		
McKenzie County 308210	**Instrument #** 308210 1990	**Recording Date:** Wed Dec 12 09:00:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL, MARY	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: NW Quarter: NW Section: 2 Township: 153 Range: 96, Sixteenth: NE Quarter: NE Section: 3 Township: 153 Range: 96, Sixteenth: NW Quarter: NE Section: 3 Township: 153 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 11/14/1990		
McKenzie County 308211	**Instrument #** 308211 1990	**Recording Date:** Wed Dec 12 09:02:00 CST	Preview Image	Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL, MARY	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: W Quarter: SE Section: 34 Township: 154 Range: 96, Sixteenth: SE Quarter: SE Section: 34 Township: 154 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 11/14/1990		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 308170	**Instrument #** 308170 1990	**Recording Date:** Mon Dec 10 13:40:00 CST	View Image Add to My Images	
	Grantor: MENDENHALL, MRS JO	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: NW Quarter: NW Section: 2 Township: 153 Range: 96, Sixteenth: NE Quarter: NE Section: 3 Township: 153 Range: 96, Sixteenth: NW Quarter: NE Section: 3 Township: 153 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 11/14/1990		
McKenzie County 308171	**Instrument #** 308171 1990	**Recording Date:** Mon Dec 10 13:42:00 CST	Preview Image	☐ Purchase
	Grantor: MENDENHALL, MRS JO	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: W Quarter: SE Section: 34 Township: 154 Range: 96, Sixteenth: SE Quarter: SE Section: 34 Township: 154 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 11/14/1990		
McKenzie County 307946	**Instrument #** 307946 1990	**Recording Date:** Thu Nov 15 13:36:00 CST	Preview Image	☐ Purchase
	Grantor: MENDENHALL, KIRK, MENDENHALL, JUNE M	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: W Quarter: SE Section: 34 Township: 154 Range: 96, Sixteenth: SE Quarter: SE Section: 34 Township: 154 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 11/08/1990		
McKenzie County 307673	**Instrument #** 307673 1990	**Recording Date:** Wed Oct 17 14:10:00 CDT	Preview Image	☐ Purchase
	Grantor: MENDENHALL, JO	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 09/27/1990		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 307598	**Instrument #** 307598 1990	**Recording Date:** Tue Oct 09 14:34:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, KIRK, MENDENHALL, JUNE M	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 09/11/1990		
McKenzie County 307674	**Instrument #** 307674 1990	**Recording Date:** Wed Oct 17 14:12:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, E WARD, MENDENHALL, MARY	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: SW Quarter: SW Section: 25 Township: 154 Range: 96, Sixteenth: NE Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: S Quarter: SE Section: 26 Township: 154 Range: 96, Sixteenth: SW Quarter: SW Section: 26 Township: 154 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 09/11/1990		
McKenzie County 306210	**Instrument #** 306210 1990	**Recording Date:** Fri Sep 07 13:14:00 CDT	Preview Image	Purchase
	Grantor: MENDENHALL, MRS JO	**Grantee:** LONETREE ENERGY INC		
	Legal: Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: SW Quarter: SE Section: 27 Township: 154 Range: 96, Sixteenth: SE Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: S Quarter: NE Section: 34 Township: 154 Range: 96, Sixteenth: NW Quarter: NE Section: 34 Township: 154 Range: 96	**Document Type: OIL AND GAS LEASE** **Document Date:** 08/14/1990		

Description	Summary		Add All to My Images	Select All / None
McKenzie County 306207	**Instrument #** 306207 1990	**Recording Date:** Fri Sep 07 13:08:00 CDT	Preview Image	☐ Purchase

Grantor: MENDENHALL, KIRK, MENDENHALL, JUNE M

Grantee: LONETREE ENERGY INC

Legal: Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: SW Quarter: SE Section: 27 Township: 154 Range: 96, Sixteenth: SE Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: S Quarter: NE Section: 34 Township: 154 Range: 96, Sixteenth: NW Quarter: NE Section: 34 Township: 154 Range: 96

Document Type: OIL AND GAS LEASE
Document Date: 07/17/1990

McKenzie County 305832	**Instrument #** 305832 1990	**Recording Date:** Fri Aug 03 13:40:00 CDT	Preview Image	☐ Purchase

Grantor: MENDENHALL, E WARD, MENDENHALL, MARY

Grantee: LONETREE ENERGY INC

Legal: Sixteenth: SW Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: SW Quarter: SE Section: 27 Township: 154 Range: 96, Sixteenth: SE Quarter: SW Section: 27 Township: 154 Range: 96, Sixteenth: S Quarter: NE Section: 34 Township: 154 Range: 96, Sixteenth: NW Quarter: NE Section: 34 Township: 154 Range: 96

Document Type: OIL AND GAS LEASE
Document Date: 07/06/1990

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IN THE COUNTY COURT OF WILLIAMS COUNTY, STATE OF NORTH DAKOTA.

IN THE MATTER OF THE ESTATE OF CARRIE E. MENDENHALL, DECEASED.

AMENDED PERSONAL REPRESENTATIVE DEED OF DISTRIBUTION

This indenture made this 26th day of August, 1981, by and between John D. French, Personal Representative of the estate of Carrie E. Mendenhall, deceased, whose post office address is P.O. Drawer 7, Ronan, Montana 59864, hereinafter referred to as Grantor, and the following named eleven separate parties, as tenants in common, hereinafter referred to as Grantees, to-wit:

Merle Jones and Bertha Jones, husband and wife, as joint tenants with right of survivorship	An undivided 1/11th Interest	716 E. Liveoak, Altus, OK 7352
Thomas Tipton and Ruby Tipton, husband and wife, as joint tenants with right of survivorship	An undivided 1/11th Interest	2338 Gunn Road, Carmichael, CA 95608
Len Humble and Hazel Humble, husband and wife, as joint tenants with right of survivorship	An undivided 1/11th Interest	P.O. Box 652, Hamilton, MT 59840
Kirk Mendenhall	An undivided 1/11th Interest	P.O. Box 216, Ray, ND 58849
Ward Mendenhall	An undivided 1/11th Interest	Route 2, Box 72A, Ronan, MT 59864
Robert Boucher	An undivided 1/11th Interest	Rural Route, Conrad, MT 59425
Thomas Boucher	An undivided 1/11th Interest	Rural Route, Walier, MT 59486
Mrs. Jo Mendenhall	An undivided 1/11th Interest	Ms. Jo Mendenhall 16052 W Warden Dr. Omaha, AR 72662
St. Luke Community Hospital, a Non-Profit Corporation	An undivided 1/11th Interest	P.O. Drawer J, Ronan, MT 59864
Bethel Lutheran Home for the Aged, a Non-Profit Corporation	An undivided 1/11th Interest	1515 2nd Avenue West, Williston, ND 58801
Montana Children's Home and Hospital	An undivided 1/11th Interest	840 Helena Ave., Helena, MT 59601

WHEREAS, Grantor is the duly appointed and acting personal representative of the estate of Carrie E. Mendenhall, deceased, having been appointed and issued Letters Testamentary by the County Court in and for Williams County, North Dakota, on the 9th day of July, 1980; and

WHEREAS, Grantor, as the personal representative of said estate, has the power and authority pursuant to Chapter 30.1-18 N.D.C.C. to sell, transfer, and convey the real and personal property of said decedent; and

WHEREAS, under the provisions of the Last Will and Testament of Carrie E. Mendenhall, the Grantees named above are entitled to distribution of the real estate hereinafter described, as tenants in common.

WHEREAS, On the 2nd day of April, 1981, the Grantor herein did execute and deliver to the Grantees a "Personal Representative Deed of Distribution" conveying a certain interest in and to mineral interests described therein, including an "undivided 1/3 interest of all of the oil, gas and all other minerals in and under the following described premises":

McKenzie County, North Dakota
Township 151 North, Range 104 West
Section 27: Lot 2, NW¼NE¼ (84.10 acres)

BOOK 145 PAGE 445

EXHIBIT G

WHEREAS, It now appears to the Grantor that the decedent at the time of her death only owned an undivided 1/8 interest in and to all of the oil, gas and all other minerals in and under the above described land, and that the Personal Representative Deed of Distribution heretofore executed by the Grantor on the 2nd day of April, 1981, and thereafter filed for record in the office of the McKenzie County Register of Deeds on May 18, 1981, in Book 144 of Deeds on Page 281, should be modified so as to only convey and distribute to the Grantees an undivided 1/8 interest in and to the oil, gas and all other minerals in and under said lands hereinabove described.

NOW, THEREFORE, In accordance with the provisions of the Last Will and Testament of Carrie E. Mendenhall, deceased, the Personal Representative Deed of Distribution heretofore executed by the Grantor in favor of the Grantees on the 2nd day of April, 1981, is modified and amended so that the Grantor does hereby grant, convey, transfer and assign to the Grantees named above, as tenants in common, free and clear of all liens and encumbrances, all of the interests described in said Personal Representative Deed of Distribution, except as to the following described tracts situated in McKenzie County, North Dakota, which is amended, modified and corrected to read as follows, to-wit:

An undivided 1/8 interest in and to all of the oil, gas and all other minerals in and under the following described tract:

Township 151 North, Range 104 West
Section 27: Lot 2, NW¼NE¼ (84.10 acres)

In all other respects the aforesaid original P.R. Deed is and remains the same.

WITNESS, The hand of the Grantor as of the day and year first above written.

John D. French

John D. French, Personal Representative

STATE OF MONTANTA)
ss.
COUNTY OF LAKE)

On this 31st day of August, 1981, before me personally appeared John D. French, known to me to be the Personal Representative of the Estate of Carrie E. Mendenhall, deceased, and the person who is described in and who executed the within and foregoing instrument and acknowledged to me that he executed the same.

Donna J. Eskelton

Notary Public

Residing at Ronan, Mt.
My Commission expires 8/23/81

REGISTER OF DEEDS OFFICE · McKENZIE COUNTY · STATE OF NORTH DAKOTA

236166

STATE OF NORTH DAKOTA, COUNTY OF McKENZIE } SS
OFFICE OF REGISTER OF DEEDS

I hereby certify that the instrument was filed in this office for record on the 14th day of Sept. A.D. 19 81 at 9:00 o'clock A.M. and was duly recorded in Book 145 on page 446.

Marian Sanford
REGISTER OF DEEDS

By

Joe

McIntee & Wheaton
P.O. Box 1307
Minot, N.D.

EXHIBIT "A"

down 1/8 on share of lease

IN THE MATTER OF THE ESTATE OF CARRIE E. MENDENHALL, DECEASED

A. Undivided 1/8 interest in all of the oil, gas and all other minerals in and under the following described premises:

Watford City ND 58854

McKenzie County, North Dakota
Township 151 North, Range 104 West
Section 27: Lot 2, $NW\frac{1}{4}NE\frac{1}{4}$ (84.10 acres)

B. Undivided 1/4 interest in and to all of the oil, gas and other minerals in and under the following described premises:

Williams County, North Dakota
Township 154 North, Range 95 West
Section 20: $E\frac{1}{2}$, $S\frac{1}{2}NW\frac{1}{4}$, $NE\frac{1}{4}NW\frac{1}{4}$
Section 21: $W\frac{1}{2}W\frac{1}{2}$, $SE\frac{1}{4}SE\frac{1}{4}$
Section 22: $W\frac{1}{2}SW\frac{1}{4}$
Section 29: $NE\frac{1}{4}$

C. Undivided 1/4 interest in and to all of the oil, gas and other minerals in and under

Township 154 North, Range 95 West
Section 17: $SE\frac{1}{4}SW\frac{1}{4}$
Section 18: $W\frac{1}{2}SE\frac{1}{4}$, $SE\frac{1}{4}SE\frac{1}{4}$

D. Undivided 1/4 interest in and to all of the oil, gas and other minerals in and under

Township 154 North, Range 95 West
Section 22: $NW\frac{1}{4}$

E. All of the oil, gas and other minerals in and under the following described premises
McKenzie County, North Dakota
Township 154 North, Range 96 West
Section 26: $SW\frac{1}{4}SE\frac{1}{4}$
Section 35: $SE\frac{1}{4}NW\frac{1}{4}$, $W\frac{1}{2}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$

F. All of the oil, gas and other minerals in and under that may be produced from the following described property, subject however, to prior assignments of oil and gas royalty totaling 9.75%, to-wit:

McKenzie County, North Dakota
Township 154 North, Range 96 West
Section 25: Lot 5 and accretions thereto
Section 26: $SE\frac{1}{4}SE\frac{1}{4}$, and Lot 7 and accretions thereto
Section 35: $NE\frac{1}{4}NE\frac{1}{4}$, $N\frac{1}{2}SE\frac{1}{4}$, $N\frac{1}{2}SW\frac{1}{4}$, $SW\frac{1}{4}SW\frac{1}{4}$
Section 34: $W\frac{1}{2}SE\frac{1}{4}$, $SE\frac{1}{4}SE\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}$
Section 27: $SW\frac{1}{4}SE\frac{1}{4}$

G. All of the oil and gas in and under that may be produced from the following described property, subject however to prior assignments of oil and gas royalty totaling 9.75%, to-wit:

Township 153 North, Range 96 West
Section 2: Lot 4
Section 3: Lots 1 and 2

H. An undivided 1/12th of the 1% royalty of all of the oil and gas in and that may be produced from the following described lands, to-wit:

McKenzie County, North Dakota
Township 153 North, Range 96 West
Section 3: $S\frac{1}{2}NW\frac{1}{4}$, Lots 3 & 4

Gabriel Resources Share

Section 4: Lots 1, 2, 3, 4, $S\frac{1}{2}NW\frac{1}{4}$, $W\frac{1}{2}SW\frac{1}{4}$, $NE\frac{1}{4}SW\frac{1}{4}$ and $W\frac{1}{2}SE\frac{1}{4}$
Section 5: $E\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$
Section 7: $SE\frac{1}{4}NE\frac{1}{4}$, $NE\frac{1}{4}SE\frac{1}{4}$
Section 8: $NE\frac{1}{4}NE\frac{1}{4}$, $NW\frac{1}{4}$, $N\frac{1}{2}SW\frac{1}{4}$
Section 9: $NW\frac{1}{4}NE\frac{1}{4}$, $NW\frac{1}{4}NW\frac{1}{4}$

Township 154 North, Range 96 West
Section 28: Lots 5, 6, 7, 8
Section 29: Lots 7 & 8
Section 32: All
Section 33: All
Section 34: $SW\frac{1}{4}$

I. 100% interest in the oil and gas in and under and that may be produced from the following described property, subject however to prior assignments of oil and gas royalty totaling 9.75%
McKenzie County, North Dakota
Township 154 North, Range 96 West
Section 34: $NE\frac{1}{4}SE\frac{1}{4}$ and $NW\frac{1}{4}NE\frac{1}{4}$
Section 35: $W\frac{1}{2}NW\frac{1}{4}$ and $NE\frac{1}{4}NW\frac{1}{4}$
Section 26: $SW\frac{1}{4}SW\frac{1}{4}$
Section 27: Lot 8 and $SE\frac{1}{4}SW\frac{1}{4}$

J. An undivided 1% royalty of all oil and gas saved and that may be produced from the following described lands, to-wit:
McKenzie County, North Dakota
Township 152 North, Range 95 West
Section 6: Lot 4

McKenzie County, North Dakota
Township 152 North, Range 96 West
Section 1: Lots 1, 2, 3 & 4

McKenzie County, North Dakota
Township 153 North, Range 95 West
Section 19: Lots 3, & 4, $NE\frac{1}{4}SW\frac{1}{4}$
Section 29: $SE\frac{1}{4}$
Section 30: Lot 1

McKenzie County, North Dakota
Township 153 North, Range 96 West
Section 24: $NE\frac{1}{4}$

North Dakota Elks Association

Paul Bosch
President
1924 Prairie Oak Dr.
Dickinson ND 58601

PO Box 1854
Bismarck ND 58502

Steve Vaughan
Secretary
522 15th Street
Bismarck ND 58501

June 19, 2018

Received
JUN 20 2018
ND Oil & Gas Division

Oil and Gas Division
1016 E Calgary Ave.
Bismarck ND 58503

RE: Wenck Report on OHWM (Case No. 26584)

I, Cary Backstrand PE, reviewed the Wenck Report for the North Dakota Elks Association (NDEA). I'm a Registered Professional Engineer in North Dakota and was the Chief to the Regulatory Section of the North Dakota State Engineer Office for 20 years retiring in 1999. My duties included management of the State's Sovereign Lands including leasing of Islands and determination of Ordinary High Water Mark (OHWM). My review of the Wenck Report for the NDEA was confined to those areas within Lake Sakakawea where NDEA hold mineral rights for the benefit of Elks Camp Grassick. I'm an Elks member and serve on the Elks Land & Mineral Committee.

I reviewed the determination of the Ordinary High Water Mark (OHWM) as depicted on the Wenck Report in those areas where the NDEA has mineral rights. If it appears that the OHWM depicted on the Wenck Report has no impact on NDEA mineral acreage, I did not express an opinion concerning the location of the OHWM. In those areas where the OHWM depicted on the Wenck Report appears to have an impact on NDEA mineral acreage I determined if I agree or disagree with the Wenck Report OHWM.

The Wenck Report states **"The OHWM definition for this analysis is based on State case law. In brief, it is the point at which the presence of action on the water is so continuous as to destroy the value of the land for agricultural purposes, including hay lands."** *I disagree with the use of above definition of OHWM.* The State's Sovereign Lands, those areas lying within the OHWM of navigable waters, were obtained under the Equal-Footing Doctrine. In accordance with the Equal-Footing Doctrine the Federal Government held these lands in trust for future States, therefor, federal law determined title to these lands. *The Federal definition of OHWM should be used to determine ownership.*

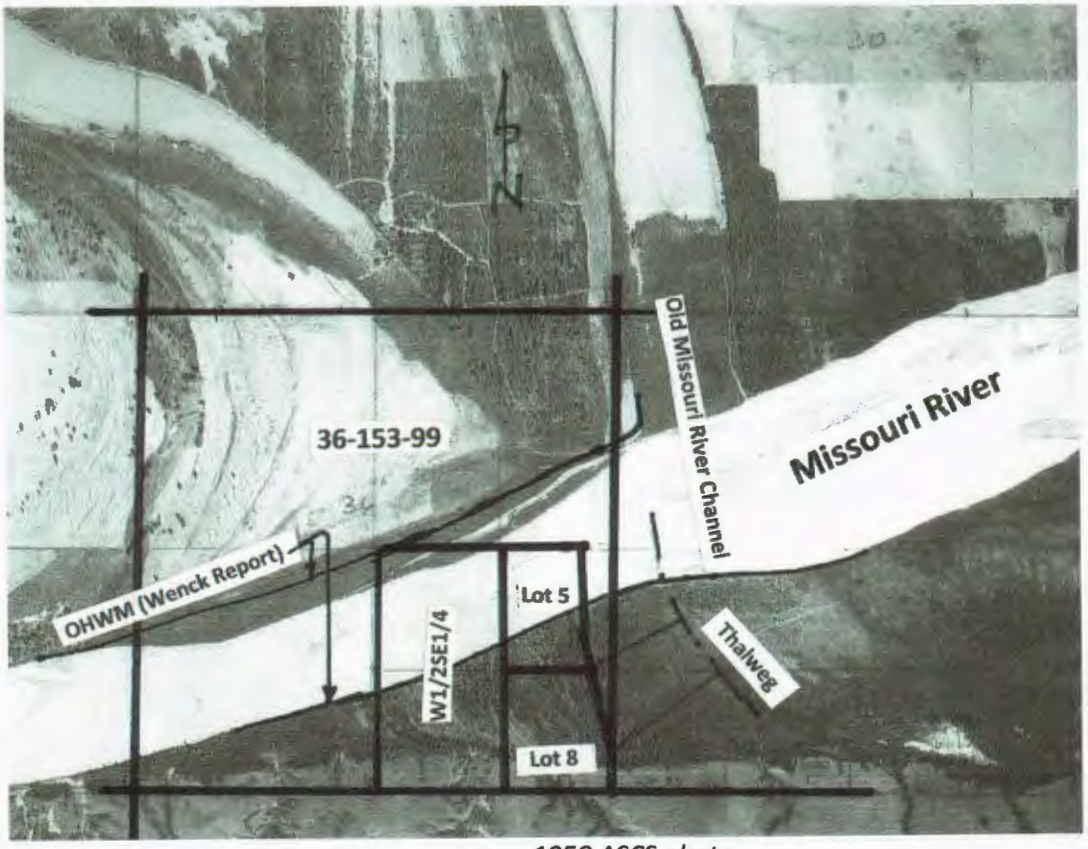
The OHWM along a navigable river is an ambulatory boundary that migrates through normal action of accretion and erosion. It is the highest that the water gets under normal conditions and remains sufficiently long enough to prevent the growth of vegetation. It does not include flood plain areas adjacent to the river. Flood plain areas are usually vegetated with both aquatic and terrestrial species; however, they also include sand dome areas that may be completely void of any vegetation. Vegetation

on low lying Flood Plain Areas that flood frequently is usually predominantly aquatic with small patches of woody bushes.

The Federal definition of OHWM for a navigable rive is **"a natural physical characteristic placed upon the lands by action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."** (Howard v. Ingersoll; Harrison v. Fite; U.S. v. Clarddge)). *I agree that the Federal definition of OHWM determined title to the State's Sovereign Lands and should be used.*

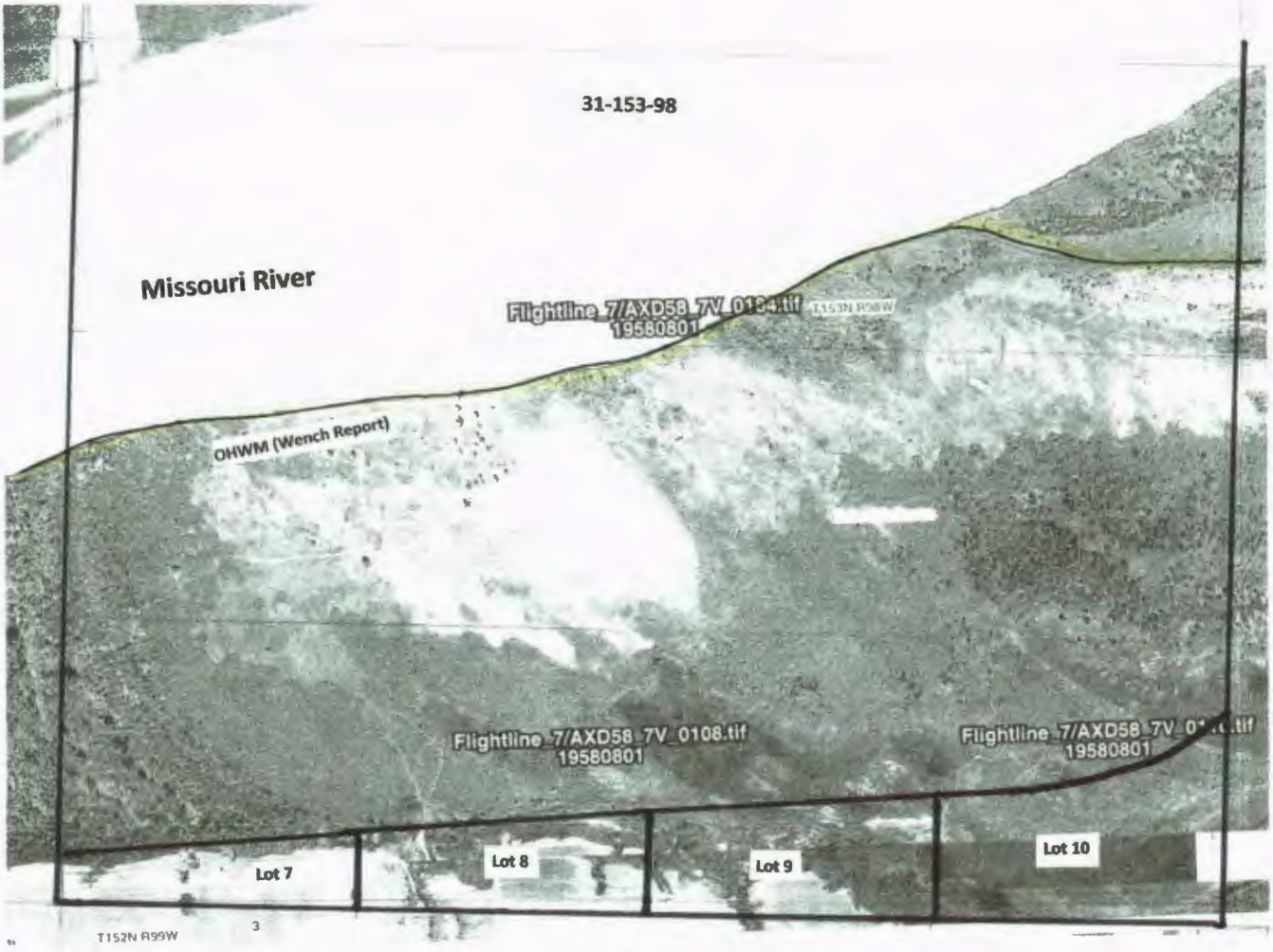
The Wenck Report used Bureau of Land Management (BLM) surveys. It appears that the BLM surveys do not correctly identify Land Plats in those areas that were on the Williams County side of the Missouri River at the time of the original General Land Office (GLO) surveys conducted in the late 1890's. The original land surveys conducted by the GLO identified the Land Plats used to issue Federal Patents under the Homestead Act of 1851. *Ownership deeds filed in the County Recorders' Office reflect the Federal Patent Lands as identified on the original GLO surveys and should have been used in the Wenck Report.*

Section 36-T153N-R99W, NDEA mineral acres include Lot 5, Lot 8, W1/2SE¼ plus accretions. The total acres of original Federal Patent Land are 138.2 acres plus 54.5 acres of accretions less 13.5 acres due to erosion. It appears that the OHWM depicted on the Wenck Report will impact the NDEA mineral rights in Lot 5, and W1/2 SE ¼. (See figure 1) However, I agree with of the location of the OHWM depicted on the Wenck Report adjacent to NDEA mineral acreage. Therefore, I'm not expressing an opinion concerning the location of the OHWM shown on the Wenck Report.



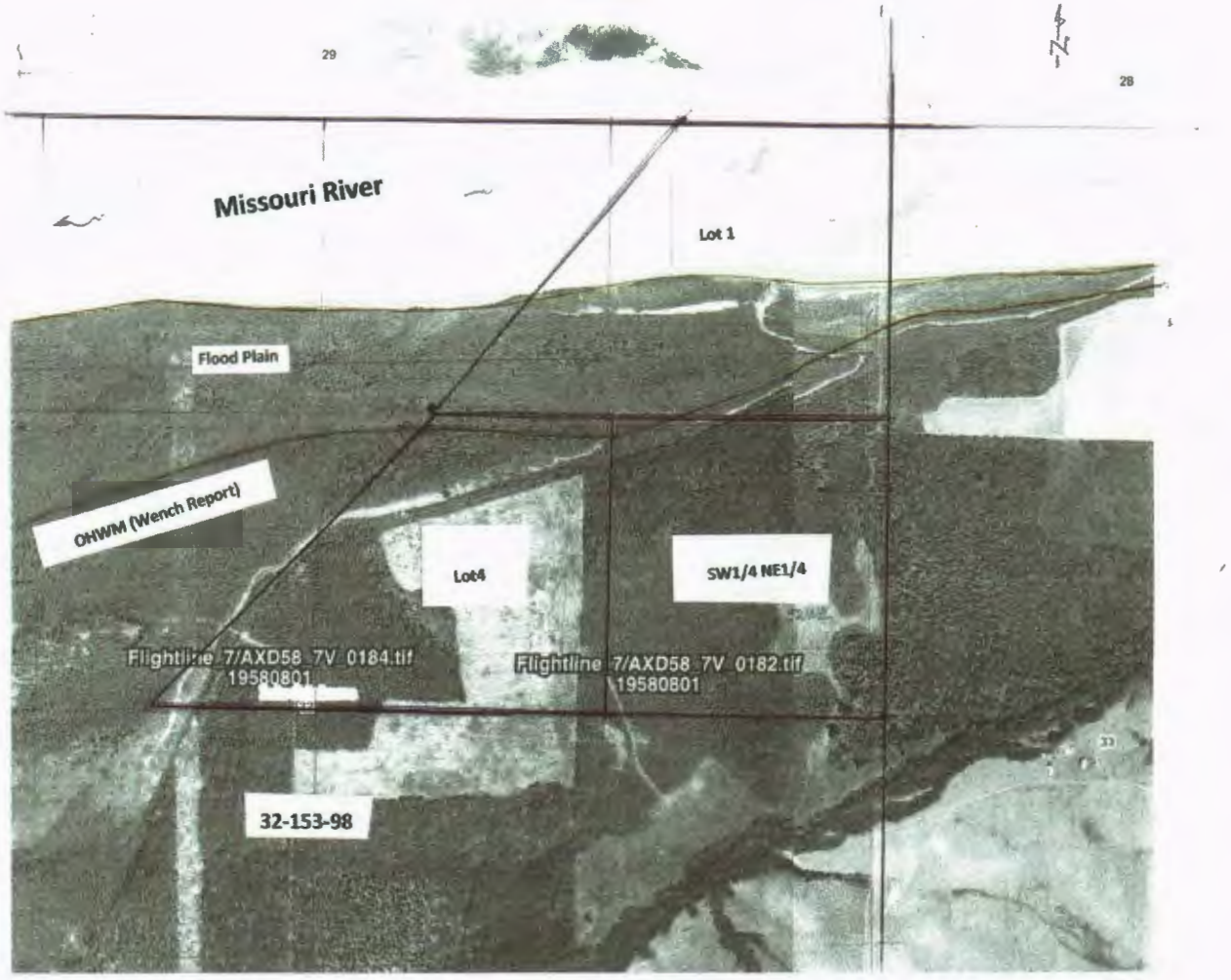
1958 ASCS photo
Figure 1

Section 31-T153N-R98W, NDEA mineral acres include Lot 7, Lot 8, Lot 9, & Lot 10 plus accretions. The total acres of original Federal Patent Land are 60.4 acres plus 55.4 acres of accretions. (See Figure 2) The OHWM shown on the Wenck Report does not appear to impact the NDEA mineral rights. Therefore, I'm not expressing an opinion concerning the location of the OHWM shown on the Wenck Report.



1958 ASCS photo
Figure 2

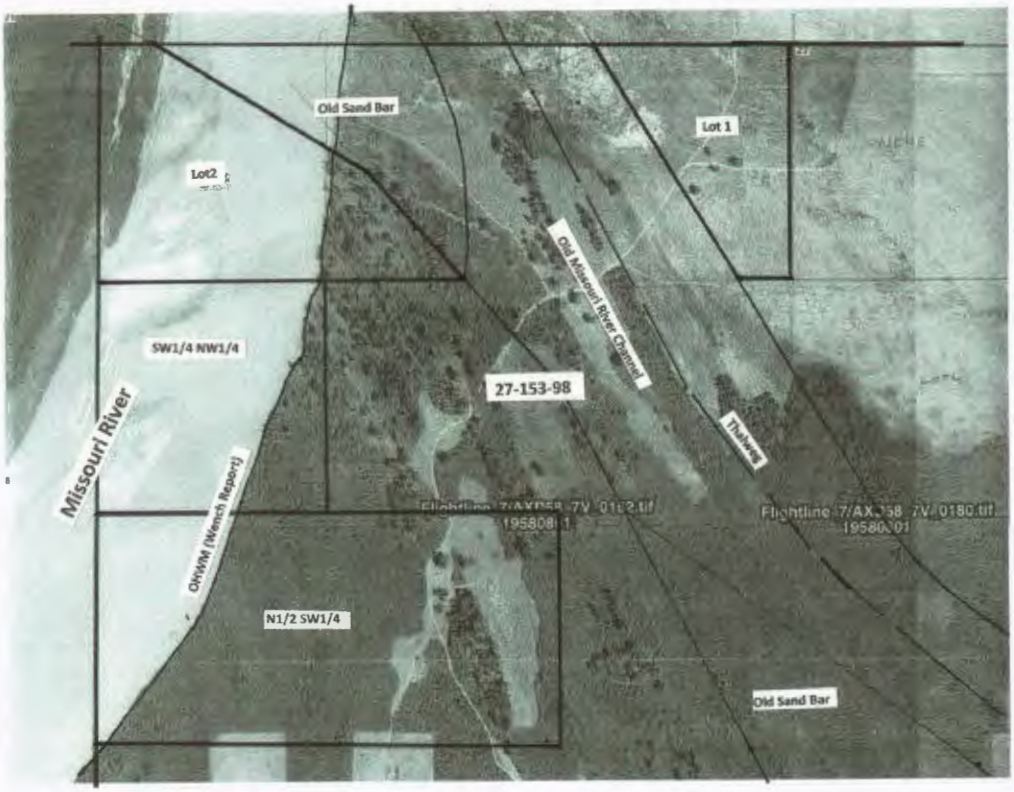
Section 32-T153N-R98W, NDEA mineral acres include Lot 1, Lo t 4, SE¼ NE¼ & SE¼ plus accretions. The total acres of original Federal Patent Land are 291.7 acres plus 36.4 acres of accretions less 31.75 acres due to erosion. It appears that the OHWM depicted on the Wenck Report will impact the NDEA mineral rights in Lot 1, Lot 4 and the SE¼NE¼. (See figure 3) Therefore, I did an analysis of the location of the OHWM depicted on the Wench Report. *I disagree with the location of the OHWM depicted on the Wench Report in the area of NDEA's mineral acreage.* The Wenck Report included Flood Plain Areas within the OHWM.



1958 ASCS photo
Figure 3

Section 27-T153N-R98W, NDEA mineral acres include Lot 1, Lot 2, SW¼NW¼ and N1/2 SW ¼ & Lot 7 plus accretions. The total acres of original Federal Patent Land are 195.2 acres plus 80.9 acres of accretions less 84.9 acres due to erosion. It appears that the OHWM depicted on the Wenck Report will impact the NDEA mineral rights in Lot 1, Lot 2, SW¼NW¼ and N1/2 SW ¼. (See figure 4) However, I agree with of the location of the OHWM depicted on the Wenck Report adjacent to NDEA mineral acreage. Lot 7 is not impacted by the OHWM as depicted on the Wenck Report.

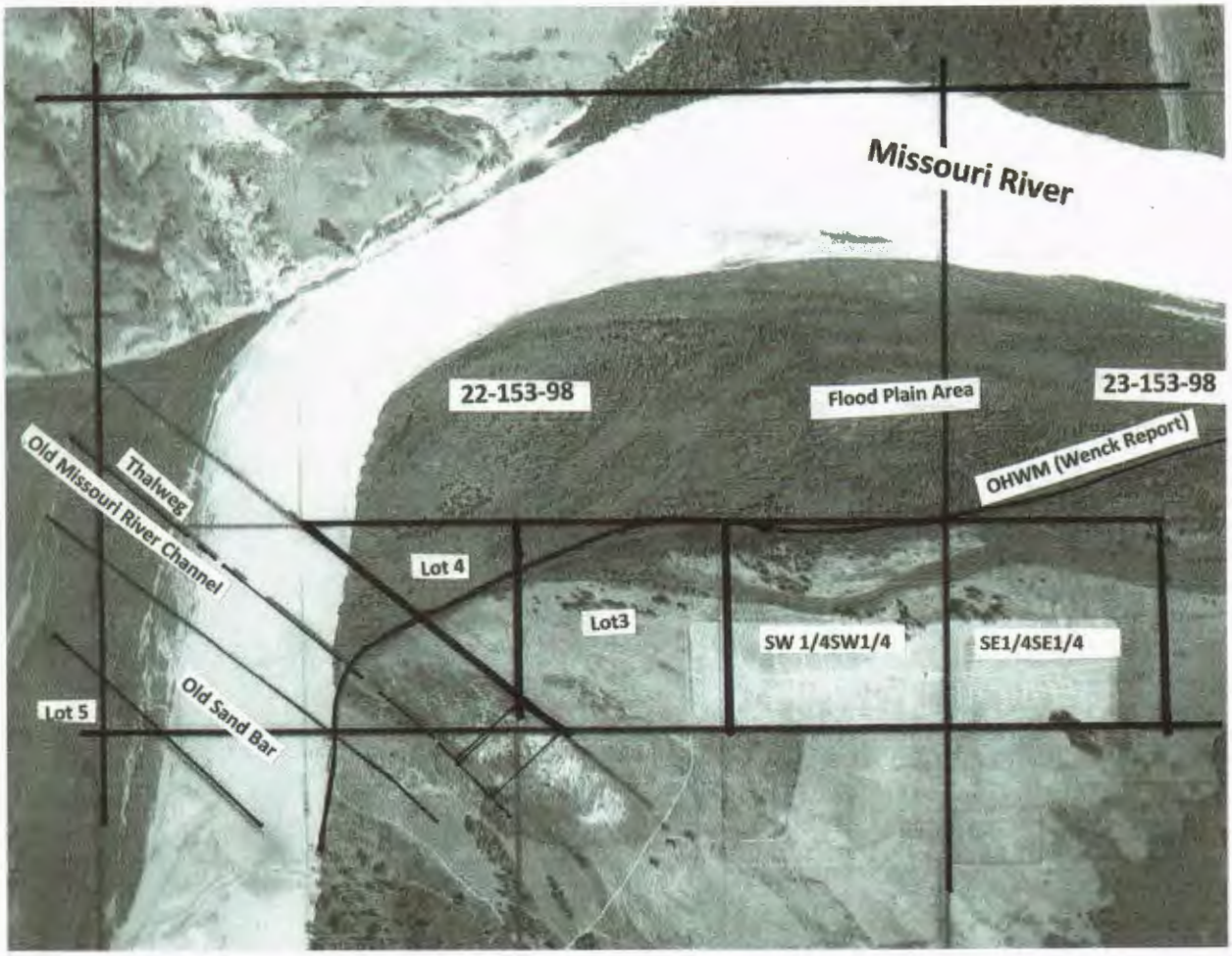
Section 26-T153N-R98W, NDEA mineral acres include W1/2SE¼ which is not impacted by the OHWM.



1958 ASCS photo
Figure 4

Section 22-T153N-R98W, NDEA mineral acres include Lot 3, Lot 4, Lot 5, SE¼SE¼ plus accretions.
Section 23-T153N-R98W, NDEA mineral acres include Lot 8, SW¼SW¼ plus accretions.
Section 24-T153N-R98W, NDEA mineral acres include the SW¼SW¼. The total acres of original Federal Patent Land in Section 22 are 96.6 acres plus 15.2 acres of accretions less 2.6 acres due to erosion. The total acres of original Federal Patent Land in Section 23 are 81.0 acres plus 16.8 acres of accretions to

Lot 8. The total acres of original Federal Patent Land in Section 24 are 40 acres. It appears that the OHWM depicted on the Wenck Report will impact the NDEA mineral rights in Lot 3, Lot 4 and the SE¼SE¼ in Section 22. (See figure 5) Therefore, I did an analysis of the location of the OHWM depicted on the Wench Report. *I disagree with the location of the OHWM depicted on the Wench Report in the area of NDEA mineral acreage.* The Wenck Report included Flood Plain Areas within the OHWM depicted on the Report. NDEA mineral acreage in Section 23 and 24 are not impacted by the OHWM.



1958 ASCS photo
Figure 5

Sincerely Yours

Cary Backstrand
Cary Backstrand PE
Cc: Paul Bosch, State President
Larry Larson, Chair-Elks Land & Mineral Committee

From:	LaRae Thomas
To:	Kadrmas, Bethany R.
Subject:	Case No 26584 - Ordinary High Water Mark - Wenck Survey
Date:	Tuesday, June 19, 2018 10:19:53 PM
Attachments:	High Water Mark Ltr - Donna.pdf High Water Mark Ltr - Ginney.pdf High Water Mark Ltr - Kay.pdf High Water Mark Ltr - Bill.pdf Wenck Map 9.pdf

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TO: ND Department of Mineral Resources

Although the Wenck Survey appears to have utilized more resources that provided better data than the earlier survey, we believe mineral owners are still losing more minerals than necessary.

My cousin visited the Corps office in Riverdale, North Dakota, but was not able to find a “final” appraisal regarding the purchase of land from my family for the Garrison Diversion Project of which my family retained the mineral interests under. Currently, a portion of my family’s minerals interests fall under the mineral dispute due to the ordinary high water mark.

I find it disheartening that due to the oil activity over the past few years, the State decided that it needs to determine the high water mark now, after the river bottoms have been flooded for 50+ years due to the Garrison Diversion Project. The high water mark should have been determined at the time the Corps did its original survey so that any discrepancies could have been visually resolved at that time, along with input from the then landowner. I am of the opinion that the Corps original survey should be considered to be the ordinary high water mark survey.

Attached in PDF format are letters from four of my family members. These letters are firsthand accounts of how my father used the river bottom land for his career of ranching and that there was not flooding issues that disrupted my father’s yearly ranching operation on the bottom lands.

Thank you for allowing written comments, as well as oral testimony, on this matter.

LaRae A. Thomas

(Minerals in dispute located in Truax Township, Williams County, ND.)

mapdate 09-16-1951

- BLM PLSS Section Boundary
- BLM PLSS Qtr Qtr Section Boundary
- River Miles
- USACE Cross Section
- Ordinary High-Water Mark (OHWM)
- Recommend Correction to Account for More Recent Aerial Information
- Recommend Correction to Account for Frequently Flooded Accretion
- Recommend Correction to Account for Active Meandering (Reliction)

Notes:
1. *PLSS Sections and Quarter Sections: BLM National Public Land Survey System, Department of the Interior*
2. *1951 Aerial Photographs (Source: ND Department of Mineral Resources)*

2,000 1,000 0 2,000 Feet

1 inch = 1,000 feet

N

NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES

OHWM Delineation

WENCK

Responsive partner. Exceptional outcomes.

MAR 2018

Map 9 of 18

NENE 22-153-98

DATE: June 18, 2018

TO: Department of Mineral Resources – ND Industrial Commission

FROM: Donna R. Sneva – eye witness testimony

In discussion with my family, I am in disagreement with the Wenck Survey covering lands referred to as The Bottom Land, in Truax Township, Williams County, North Dakota, specifically Map 9 of the Wenck Survey.

My father had an alfalfa field located in Section 23, Township 153 North, Range 98 West. The south end of this field had a cut bank which was adjacent to the river. This bank was approximately ten feet or more and the field did not flood.

My siblings and I walked the trees which consisted of cotton wood trees, willow trees, and brush for the hunters in our family, wherein you would come across several clearings of lush grass throughout.

I have no recollection from my childhood of The Bottom Land ever flooding, except in 1961 due to the Garrison Diversion Project.

Our father utilized The Bottom Land every single year until the flooding for the Garrison Diversion Project for farming, haying, and grazing. The Wenck Survey for The Bottom Land contradicts what actually happened. The Bottom Land was productive every year and was the main source of my father's ranching operation.

I, as well as my family, disagree with the Wenck Survey Table 2a as it pertains to the following:

153N098W14NENE
153N098W22NENE
153N098W23SENW
153N098W23SWNE
153N098W23SWNW

I would ask that the Wenck Survey be reexamined as their survey lists lands as "flooded land", however, that did not occur during my father's use of The Bottom Land prior to the Garrison Diversion Project.

Donna R. Sneva
1202 – 1st Avenue East
Williston, ND 58801

DATE: June 19, 2018

TO: Department of Mineral Resources – ND Industrial Commission

FROM: Virginia D. Rindahl – eye witness testimony

I am in disagreement with the Wenck Survey covering lands referred to as The Bottom Land, in Truax Township, Williams County, North Dakota, specifically Map 9 of the Wenck Survey. I was raised in this area along with my siblings and can attest first hand that The Bottom Land was the main source of my dad's ranching operation. The Bottom Land was productive every single year up until the flooding for the Garrison Diversion Project. My dad, Jay V. Thomas, hayed an alfalfa field located in the Section 22 and 23, Township 153 North, Range 98 West. The field went to the river's edge where there was a ledge of approximately 10 feet or more of a drop down to the river. During my years growing up, this land was always utilized.

My dad had grain fields which were farmed every year. There were hay meadows adjacent to the willows, which were cut every year for cow feed.

After all the crops were in and the hay put up, the cattle grazed all the land out to the river's edge up and down all the accretion land.

The Wenck Survey is suggesting the high water mark represented in blue on Map 9 contains more acreage than the original Corps survey represented by the black line. This difference per the Wenck Survey is 121.5 acres. These acres were useable every year until the Garrison Diversion Project flooding started. What allows this large variation from the original Corps survey?

The Wenck Survey is also suggesting that the high water mark is different from the original Corps survey by 6.2 acres as stated in "Table 2a" as 153N098W22NENE with a net change of 6.8 acres. This is land was where our father's alfalfa field was located and at the south end of the field there was a high bank.

My siblings and I question why this large variation from the original Corps survey? I can personally attest, as well as my sisters, to the fact that this all of this land was useable as my dad utilized it every year of his ranching career up until the Garrison Diversion Project flooding.

Virginia D. Rindahl
24444 Longhorn Trail
Ramah, CO 80832

DATE: June 19, 2018

TO: Department of Mineral Resources – ND Industrial Commission

FROM: Carol Kay Moen – eye witness testimony

I have had some discussions with my family members regarding the recent Wenck High Water Mark Survey. In review of certain items in the Wenck Survey, I do not understand why on Map 9 of the Wenck Survey that the willows bordering the north and east side of the land (herein referred to as The Bottom Land) are listed as flooded lands. My family lived and worked The Bottom Land. I am very familiar with this land as I grew up there. Around 1941 my father began his ranching career utilizing The Bottom Land. My father raised feed grains of barley and oats every year. He cut alfalfa for hay every year, sometimes two cuttings per year. The south end of this alfalfa field went to the edge of a river bank where it was an approximate ten foot drop, if not more. This field was identified by the Corps survey as AA2405 and as AA2411. Per the Wenck Survey Table 2a it is described as follows:

153N098W22NENE
153N098W23SENW
153N098W23SWNE
153N098W23SWNW

Every year our father hayed the grass meadows for feed for his cows.

Once the crops were harvested and the hay removed, my father's cattle were released into The Bottom Land to graze the hay meadows, including in and around the willow trees where a lot of fine grass grew.

During my childhood, my sisters, Virginia D. Rindahl and Donna R. Sneva, and I rode horseback all over The Bottom Land and were never forbidden from any area due to flooding.

Our father was able to use The Bottom Land every single year for farming, haying, and grazing from approximately 1941 up until the Garrison Diversion Project flooding which occurred in 1961. The Bottom Land was productive every year and was the main source of my father's ranching operation. As time and money allowed, my father cleared brush and trees for fields to expand his ranching operation.

I, as well as my siblings, question the Wenck Survey. The Wenck Survey is suggesting that the high water mark is as represented by a blue line on Map 9,

containing more acreage than the original Corps survey represented by the black line pertaining to land identified as Tracts Nos. AA-2410 and AA-2467B. This difference is approximately 121.5 acres. These acres were useable every year until the Garrison Diversion Project flooding.

The Wenck Survey is also suggesting that the high water mark is different from the original Corps survey by 6.2 acres as stated in “Table 2a” as 153N098W22NENE with a net change of 6.8 acres. This is land was where our father’s alfalfa field was located and at the south end of the field there was a high bank where it was approximately a 10 foot drop down to the river.

What allows this large variation from the original Corps survey? I can personally attest to the fact that this all of this land was useable as my father utilized it every year of his ranching career up until the Garrison Diversion Project flooding.

I would ask that the Wenck Survey be reexamed as their survey lists lands as “flooded land” when in fact my father used all these Bottom Lands every year for his ranching operation prior to the Garrison Diversion Project flooding.

Carol Kay Moen
5427 – 134th Avenue NW
Williston, ND 58801

DATE: June 19, 2018

TO: Department of Mineral Resources – ND Industrial Commission

FROM: LETTER OF WILLIAM K. THOMAS CONCERNING THE WENCK STUDY AND THE TAKING OF MINERALS BY THE STATE OF NORTH DAKOTA

1. The Final Order of Decree, Civil Case Number 3157, recorded in Williams County, North Dakota as Document Number 286118 on March 20, 1958 identifies Tracts Nos. AA-2410 and AA-2467B as "unsurveyed accretion in front of Lot 7, Section 11; unsurveyed accretion in front of lots 2, 3, and 7, Section 14; and unsurveyed accretion in front of Lots 2 and 3, Section 23, all in Township 153 North, Range 98 West of the 5th P.M. containing 531.20 acres, more or less".

2. The Wenck report, in Table 2a, identifies 153N098W14NENE, total acres 535.1, USACE Survey below OHWM 3.7 acres – 535.1 minus 3.7 equals 531.40 acres. I contend the land described in paragraphs 1 and 2 are the same lands.

3. According to the Wenck report 2.0 Ordinary High Water Mark Definition, Subsection 2.1 b, "Subsection 3 of section 61-33-01 and section 47-06-05, which provide all accretions are presumed to be above the ordinary high water mark and are not sovereign land."

4. In visiting with my cousins Virginia Rindahl and Carol Kay Moen, who lived and worked in these lands commonly referred to as The Bottoms, no portion of these lands were frequently flooded, certainly not as regularly as the Wenck report suggests. Their father, Jay V. Thomas, had hayfields and small grain fields in the Bottoms and used it as his winter pastureland. He was in the process of clearing more land of brush, trees, and willows to expand his fields and had purchased a tracked crawler tractor {bulldozer} to enhance his efforts.

5. Richard Hanson, whose Grandmother, Laura King, had homesteaded in a portion of sections 11 and 14, told of haying a portion of the bottoms when he was a teenager. The flooding in the Bottoms that Richard said he remembered was caused by excessive rainfall or infrequent ice jams. The Kings lived in the Bottoms for a time, but also had a homestead on Long Creek several miles away and only cut hay there after they moved to their other homestead.

6. The vegetation in the Bottoms, along with hayfields and croplands, also contained many species of trees, some of which were logged by my grandfather O. A. Bjella in the 1930s. My cousins also remembered there were wild grapes growing there,

and I remember the plums that grew wild there; my father and I used to fish off the bank above the river. Richard Hanson recalled rose bushes growing there, too.

7. This accreted land, the Bottoms, was not all crop and hayfields, but given time there would have been much more of it cultivated – it was a process hampered by limited time and resources. The Wenck report suggests taking nearly one-fourth of the mineral acres – 121.5 more than the Corps. Survey – as sovereign lands. Losing this highly productive land to the Garrison project had a very adverse effect on the land owners but at least their minerals were reserved to them, until now. We can't go back and look at the riverbank to see exactly what kind of riverbank and vegetation was there in 1958 so I ask that the presumption mentioned in paragraph 3 above be honored. Based on eyewitness reports of people that lived there and worked there I contend the Wenck report is wrong.

William K. Thomas
1906 – 4th Avenue East
Williston, ND 58801

From: Stan Nice
To: Kadrmas, Bethany R.
Subject: Oil&gas minerals
Date: Tuesday, June 19, 2018 7:21:07 PM

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I have interests in section 16, 17, 20, 21, 28, & 29 in 153 93. I have a copy of the survey map the U S Army Corp. of Engineers had done in the early 1950s. On that map there is a note with a black dot with oil & gas reserved written beside it. Also there is a black dot in front of name of each of the previous owner of each parcel of land. That indicates to me that the US intended that those previous land owners would keep the oil & gas mineral rights. I also have a copy of the OHWM survey map done a few years ago which effects sections 28 & 29 . It seems to be fairly accurate as I remember the landscape. As far as flooding it only flooded for a week or 10 days in June usually, it usually did not harm the pasture and hay production, but improved it like flood irrigation done on purpose.
Sent from my iPad

From:	Stacy Krumwiede
To:	Kadrmas, Bethany R.
Subject:	OHWM Report Review by NDSPLS
Date:	Tuesday, June 19, 2018 3:57:57 PM
Attachments:	OHWM final final 6-18-18 GLJ AH KJL final.pdf ndglo154097a.png appendix.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

ND Oil and Gas Division,

Below and attached are the North Dakota Society of Professional Land Surveyors (NDSPLS) comments and concerns with regard to the North Dakota Industrial Commission Docket for Hearing on Case No. 26584 to consider comments on the review of the delineation of the ordinary high water mark (OHWM).

On April 17th, NDSPLS representatives attended the presentation of the technical report to the NDIC. At this time, concerns arose about the report.

The NDSPLS board of directors met for their quarterly meeting on April 20th and the concerns with the report were brought to the attention of the NDSPLS board. Based on these concerns, an ad hoc committee was formed to review the report and prepare technical testimony pursuant to the NDIC Docket for Hearing. In accordance with the NDIC request for testimony, NDSPLS submits the attached testimony.

Note that NDSPLS has no financial interest in this report and neither gains nor loses financially in any way from the outcome. NDSPLS respectfully submits this statement because, in our professional opinion, the report does not reflect proper survey principles and practices, which has resulted in many inaccuracies. In fact, we feel the consequences of such a report may reflect poorly on our profession as a whole.

Attached are several documents with further information for your review.

NDSPLS
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Bismarck, ND 58507
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NDSPLS ADMINISTRATIVE OFFICE
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Bismarck, ND 58507
Phone: 701-223-3184
E-mail: info@ndspls.org
Website: www.ndspls.org

North Dakota Industrial Commission
Department of Mineral Resources
Lynn Helms, Director
1016 East Calgary Avenue
Bismarck, North Dakota 58503

June 19, 2018

Re: The North Dakota Society of Professional Land Surveyors (NDSPLS) comments and concerns with regard to the North Dakota Industrial Commission Docket for Hearing on Case No. 26584 to consider comments on the review of the delineation of the ordinary high water mark (OHWM).

About the NDSPLS

The NDSPLS is made up of over 300 members, of which some 185 are registered professional land surveyors who live and practice in this state. Overall, approximately 500 registered land surveyors are licensed to practice in North Dakota. We are licensed and regulated by the North Dakota State Board of Registration for Professional Engineers and Professional Land Surveyors. Our mission and objective is to unite all of the professional land surveyors in the state of North Dakota; to elevate the standards of the surveying profession; to establish basic minimum standards and requirements for surveys; to assist in promoting legislative and educational programs to improve the professional status of the land surveyor; to work in cooperation with local, county, state, federal, and tribal governments in our field of endeavor; to uphold a rigid code of ethics; to strive to improve our relations with our clients and the public by doing our work with precision and integrity; and to maintain a good relationship between land surveyors and engineers.

NDSPLS and the OHWM Report

On April 17th, NDSPLS representatives attended the presentation of the technical report to the NDIC. At this time, concerns arose about the report.

The NDSPLS board of directors met for their quarterly meeting on April 20th and the concerns with the report were brought to the attention of the NDSPLS board. Based on these concerns, an ad hoc committee was formed to review the report and prepare technical testimony pursuant to the NDIC Docket for Hearing. In accordance with the NDIC request for testimony, NDSPLS submits the following testimony for your review and consideration.

Note that NDSPLS has no financial interest in this report and neither gains nor loses financially in any way from the outcome. NDSPLS respectfully submits this statement because, in our professional opinion, the report does not reflect proper survey principles and practices, which has resulted in many inaccuracies. In fact, we feel the consequences of such a report may reflect poorly on our profession as a whole.

Concerns about Methodology

NDSPLS urges the NDIC and other stakeholders to respect the critical nature of this report and the need for accurate determinations of land boundaries for the protection of both public and private property rights. Furthermore, NDSPLS urges the NDIC to note that surface boundaries define mineral boundaries, and that monuments set by the original Government Land Office (GLO) surveyors control both the surface and mineral boundaries.

As such, NDSPLS is very concerned with the use of a secondary source for tract boundaries, the methods used to georeference the tract boundaries, and the methodology used for "refinements" to the tract boundaries. This data and methodology have subsequently been used to determine acreages that are in conflict with proper survey procedures, which are defined by federal and state laws. This has resulted in the reporting of inaccurate acreages that will likely lead to incorrect mineral payment determinations.

Availability of Credible Sources

The upland title throughout the extent of this project originates from federal patents at the time of entry. The land description used in these patents are in reference to the Public Land Survey System (PLSS) –e.g. the Northeast Quarter of Section 12, Township 153 North, Range 97 West of the 5th Principal Meridian. Prior to the issuance of these federal patents, the federal government required that the land be surveyed by the GLO and that corners were monumented prior to entry. The monuments set per the original survey control the location of the PLSS lines and are free from error. When these monuments cannot be found, a hierarchy of methods are used to reestablish these points based on the GLO township plats and the corresponding field notes. This is in accordance with the Act of February 11, 1805 (2 Stat. 313; 43 U.S.C. 752).

Our issue with the OHWM report in its current state is that no reference has been made to the GLO records. The GLO township plats and field notes can be found online through the North Dakota State Water Commission website. NDSPLS believes that this data is necessary to formulate an accurate, comprehensive, retraceable, and defensible report. Furthermore, all decisions regarding the development of the cadastral layer must be predicated on GLO records. The need for this will be discussed in more depth throughout this statement. (Examples of GLO records are appended to this statement for review. The examples were obtained from the State Water Commission website.)

In addition to the need for incorporating GLO records into the report, numerous subsequent survey records accurately depict the points and lines of the PLSS represented in this project. The US Army Corps of Engineers (USACE) contracted the survey, marking, and platting of the USACE boundary lines (take-line) surrounding Lake Sakakawea. These plats contain accurate descriptions of the monuments found and set per the USACE survey as well as the dimensions between the monuments. These surveys also contain precise state plane coordinates. Most importantly, these documents bear the seal and signature of the North Dakota professional land surveyor that was in responsible charge of the survey. The USACE surveys are on file in the respective county recorder's office. NDSPLS believes that the USACE take-line plats should be used for the proper development and georeferencing of the PLSS layer. (Several examples of these plats have been appended to this statement for review. The examples were obtained from the McKenzie County Recorder's Office.)

Along with the CORPS plats, a certified well plat corresponding to the permit for each well lateral that now exists under the current lake bed is on file with the NDIC (see the copy of the NDIC map showing the well laterals). Upon review of the NDIC GIS map, nearly every section of land within this project has been surveyed for this purpose and is available to the public through the NDIC website.

Again, these plats contain descriptions of the monuments found and set, the dimensions of the PLSS lines, geographic coordinates on the well location, and certifications by a North Dakota professional land surveyor. (Examples of the well plats are appended to this statement. The examples were obtained from the NDIC.)

In addition, many other survey records could be used to develop a much more accurate PLSS layer. They include, but are not limited to the following: land survey monument records, recorded plats, records kept by other state and federal agencies, and records from utility companies. Also, numerous corner locations exist throughout the extent of the project that are easy to access and could be verified by a field survey.

NDSPLS believes that the above records should serve as the primary sources of information from which to develop an accurate PLSS cadastral GIS layer.

Turning now to the deficiency of the data used for the basis of the report and acreage calculations, Chapter 4.2 of the report states, "The USACE property survey boundaries or tract boundaries were received from the State in GIS format." The report goes on to acknowledge apparent discrepancies between the shapefile and the apparent occupation lines depicted on the 1951 aerial photos. Furthermore, the report discloses that the metadata corresponding to the GIS file is unknown. In review of the tract maps prepared by the USACE, each map bears a note stating, "Boundary lines of this segment were determined by deed descriptions, General Land Office Plats, and aerial photos." From a surveyor's perspective, this statement very likely means that the map is strictly a compilation of record information and not based on an actual field boundary survey. With all of this in mind, it is very likely that the shapefile was generated by simply digitizing the tract maps and somehow georeferencing them by unknown and inaccurate means. This renders the data unreliable for land boundary determination.

To further distort the PLSS cadastral data, the stated methodology per Chapter 4.2 to "shift the boundaries" has only served to introduce more error into the base map. The "rubber-sheeting" spatial adjustment used to tie the cadastral data is not a method that a competent land surveyor would use to accurately determine the location of PLSS lines; furthermore, this method is not defined in any survey text as an acceptable methodology for land boundary determination. In effect, this method forces already vague data to match up by further distorting the distances and directions of the lines embedded in the shapefile, thus further distorting the resulting acreages. The report goes on to state that, "inferences were made in adjusting the field boundaries," and that, "in places where a tree line or roads existed and the boundary discrepancy was less than 100 feet, the boundary was adjusted to the aerial demarcation." This would give the appearance that 100 feet, more or less, is the accuracy achieved by these so-called "refinements." (Keep in mind that the report's stated accuracy of the georeferencing of aerial photography per Chapter 4.1.2 was 48.5 feet.) Besides all of this, the report shows no evidence that a duly registered North Dakota land surveyor was consulted in the decision making process with regards to the recommended tract boundary adjustments. This aspect of the report and associated mapping is completely inaccurate and should not be relied upon, especially for the distribution of mineral payments that, in several cases, are sure to be quite sizable.

NDSPLS recommends that the PLSS layer used to determine acreage for this report be derived from the GLO plats and field notes, the USACE take-line plats, the well location plats, and any available subsequent survey records. The USACE take-line plats and well location plats should be used to determine the geographic locations of the found monuments that are reported on said plats. This

should be field verified at several locations by proper survey methods. From there, the controlling PLSS corners that are either missing or in areas inundated by water should be calculated using proper proportionate methods and the methods for subdivision of sections based on the dimensions per the GLO plats and field notes as set forth per the 2009 BLM Manual of Surveying Instructions. All of this should proceed under the responsible charge of a duly registered North Dakota Professional Land Surveyor. Given the availability of this data and the ease with which it can be assembled, any other methodology is simply unacceptable and unnecessarily leaves the end-user of this report unprotected. (An example of the differences between the existing map and the suggested methodology is appended to this statement.)

Concerns regarding acreage determinations

NDSPLS has a number of concerns about the schedule of acreages. These include incorrect reference to the proper legal descriptions, improper partitioning of accreted land in conflict with established survey procedures and ND case law, and the obvious discrepancies in acreage due to grossly erroneous positions of PLSS lines (as previously discussed).

Legal Descriptions. The legal descriptions of the tracts of land along the OHWM are incorrectly labeled. The report completely ignores the fact that government lots were created per the original plat. Furthermore, the report mistakenly protracts quarter-quarters both in riparian areas and through accreted lands. This is grossly erroneous and does not protect the interests of the upland mineral owners both in terms of their rights to the shoreline and patented area.

Partitioning. In addition to omitting references to government lots, the report makes no consideration for the proper apportionment of accreted lands. The assumption that quarter-quarters are to be protracted across these areas is completely erroneous and represents a complete abandonment of proper surveying procedures and the rules set forth in North Dakota Supreme Court rulings.

Section 8-133 of the Manual of Surveying Instructions 2009 sets forth five different methods for establishing partition lines of accreted lands. These include the proportionate shoreline method, the perpendicular method, the proportionate acreage method, the extension of property line method, and a combination of the proportionate shoreline method and the perpendicular method. The methods set forth in the BLM Manual of Surveying Instructions 2009 are consistent with the rulings of the North Dakota Supreme Court, particularly in Jennings v. Shipp and Gardner v. Green. The primary principle behind these methods is that accreted lands are to be partitioned equitably between intermingled upland owners. It is impossible to properly apportion accreted land without first reviewing GLO data to determine the original distance of the shoreline and the record acreage of the government lots.

Acreage. As discussed above, because acreages have been determined from very course and approximate PLSS lines, it should come of no surprise that the acreages are likely inaccurate.

NDSPLS' primary concern is that the schedule of acreages—which is inaccurate—will lead to inaccurate transactions as well.

Concerns with regards to the ability in which shapefiles can be used to accurately locate land boundaries both on the ground and on a plat or map

Pursuant to NDAC 28-02.1-13 – Documents Used to Convey Real Property Or Any Interest Therein, North Dakota professional land surveyors must prepare surveys that are tied to monumentation either found or set at the time of survey. Furthermore, surveyors are to produce maps in which surveys can be retraced with confidence and precision. An ESRI shapefile does not provide the information needed to accurately establish boundaries on the ground. In essence, the shapefile is a coordinate-based product. Other requirements exist within NDCC regarding the use of state plane coordinates for land boundaries. NDCC 47-20.2-04 states that:

> Whenever coordinates based on the North Dakota coordinate system are used to describe any tract of land which in the same document is also described by reference to any subdivision, line, or corner of the United States public land surveys, the description by coordinates must be construed as supplemental to the basic description of each subdivision, line, or corner contained in the official plats and field notes filed of record, and, in the event of any conflict, the description by reference to the subdivision, line, or corner of the United States public land surveys prevails over the description by coordinates, unless the coordinates are upheld by adjudication, at which time the coordinate description will prevail. This chapter does not require any purchaser or mortgagee to rely on a description, any part of which depends exclusively upon the North Dakota coordinate system, unless the description has been adjudicated as provided in this section.

NDCC 47-20.2-06 goes on to state that:

> The use of the North Dakota coordinate system of 1927 north zone or south zone or the North Dakota coordinate system of 1983 north zone or south zone on any map, report of survey, or other document must be limited to coordinates based on the North Dakota coordinate systems as defined in this chapter. The map, report, or document must include a statement describing the standard of accuracy, as defined by the national ocean survey/national geodetic survey, maintained in developing the coordinates shown therein. The coordinates must be established in conformity with these standards:
>
> > 1. No coordinates based on the North Dakota coordinate system, purporting to define the position of a point on a land boundary, may be presented to be recorded in any public records or deed records unless the point is connected to a triangulation or traverse station established in conformity with the standards prescribed in this chapter.
> >
> > **2. Coordinate values used in land descriptions under this section must be certified by a duly registered land surveyor under the laws of this state.**

Concerns regarding professional practice and licensing requirements

NDSPLS believes that this report is a technical report. Per NDCC 43-19.1-02.11 – Responsible Charge, NDCC 43-19.1-21 – Seals, and multiple NDAC Title 28 rules, the report should be sealed and signed by the individual(s) in responsible charge of this project. This report does not contain such information. Furthermore, the individuals listed as the authors and reviewers of this report are not currently registered in the State of North Dakota as either professional engineers or professional land surveyors.

Finally, NDSPLS believes that much of this report falls under the definition of a land survey per NDCC 43-19.1-02.8 which states the following:

a. Means making land boundary determinations by providing or offering to provide professional services using such sciences as mathematics, geodesy, and photogrammetry and involving the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth; improvements on the earth; and improvements on the space above, on or below the earth and providing, utilizing, or developing the same into land survey products such as graphics, data, maps, plans, reports, descriptions, or projects. As used in this subsection, professional services include acts of consultation, investigation, testimony evaluation, expert technical testimony, planning, mapping, assembling and interpreting gathered measurements and information related to any one or more of the following:

(1) Determining by measurement the configuration or contour of the earth's surface or the position of fixed objects on the earth's surface;
(2) Determining by performing geodetic land surveys the size and shape of the earth or the position of any point on the earth;
(3) Locating, relocating, establishing, re-establishing, or retracing property lines or boundaries of any tract of land, road, right of way, or easement;
(4) Making and land survey for the division, subdivision, or consolidation of any tract of land;
(5) Locating or laying out alignments, positions, or elevations for the construction of fixed works;
(6) Determining by the use of principles of land surveying the position for any survey monument, boundary or non-boundary, or reference point and establishing or replacing any such monument or reference point; and
(7) Creating, preparing, or modifying electronic or computerized or other data for the purpose of making land boundary determinations relative to the performance of the activities in paragraphs 1 through 6.

b. Includes:

(1) Engaging in land surveying;
(2) By verbal claim, sign, advertisement, letterhead, card, or any other way representing to a person to be a professional land surveyor;
(3) Through the use of some other title implying to be a professional land surveyor or that the person is licensed or authorized under this chapter; and
(4) Holding out as able to perform or performing any land surveying service or work or any other service designated by the practitioner which is recognized as land surveying.

Per Chapter 5.6 of the report, no mention appears of any part of this report being developed and reviewed under the responsible charge of a duly registered North Dakota professional land surveyor. The specific issues brought to light by this statement should clearly show the obvious deficiencies, inaccuracies, and the incomplete nature of its content. Many of these issues should have been addressed prior to the initial release of this information.

Summary

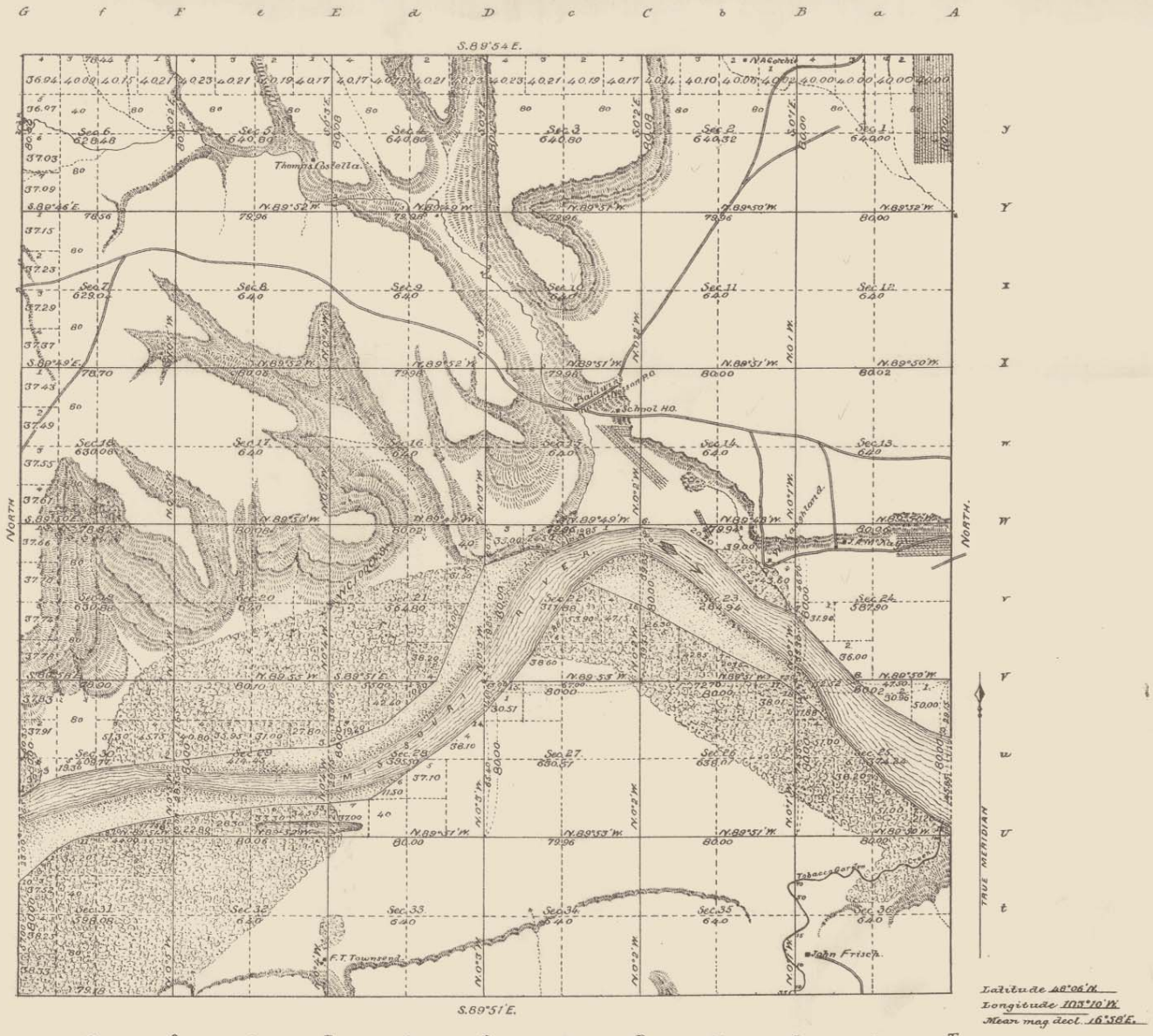
NDSPLS acknowledges that this project requires the expertise of many technical and legal professionals; however, this report in its current state does not provide the assurance and expertise that only a duly registered North Dakota professional land surveyor can provide with respect to land boundaries. The NDSPLS respectfully requests that all those involved with the preparation, review, and acceptance of the OHWM report review this statement and address the issues that we have presented.

Respectfully submitted,

Ed Rintamaki, PLS
President of the North Dakota Society of Professional Land Surveyors

Cc: North Dakota Society of Professional Engineers,
American Council of Engineering Companies of North Dakota, North Dakota,
Board of Registration for Professional Engineers and Professional Land Surveyors

Township No 154 North, Range No 97 West of the 5th Principal Meridian, North Dakota.



Latitude 46°06'N.
Longitude 103°10'W.
Mean mag. decl. 16°38'E.

Area in acres: Public Land, 21171.28 ... Water Surface, 1814.56 ... Total Area 22985.84 Acres { No. 1 River = 16,833.98 / So. Fk River = 6151.86

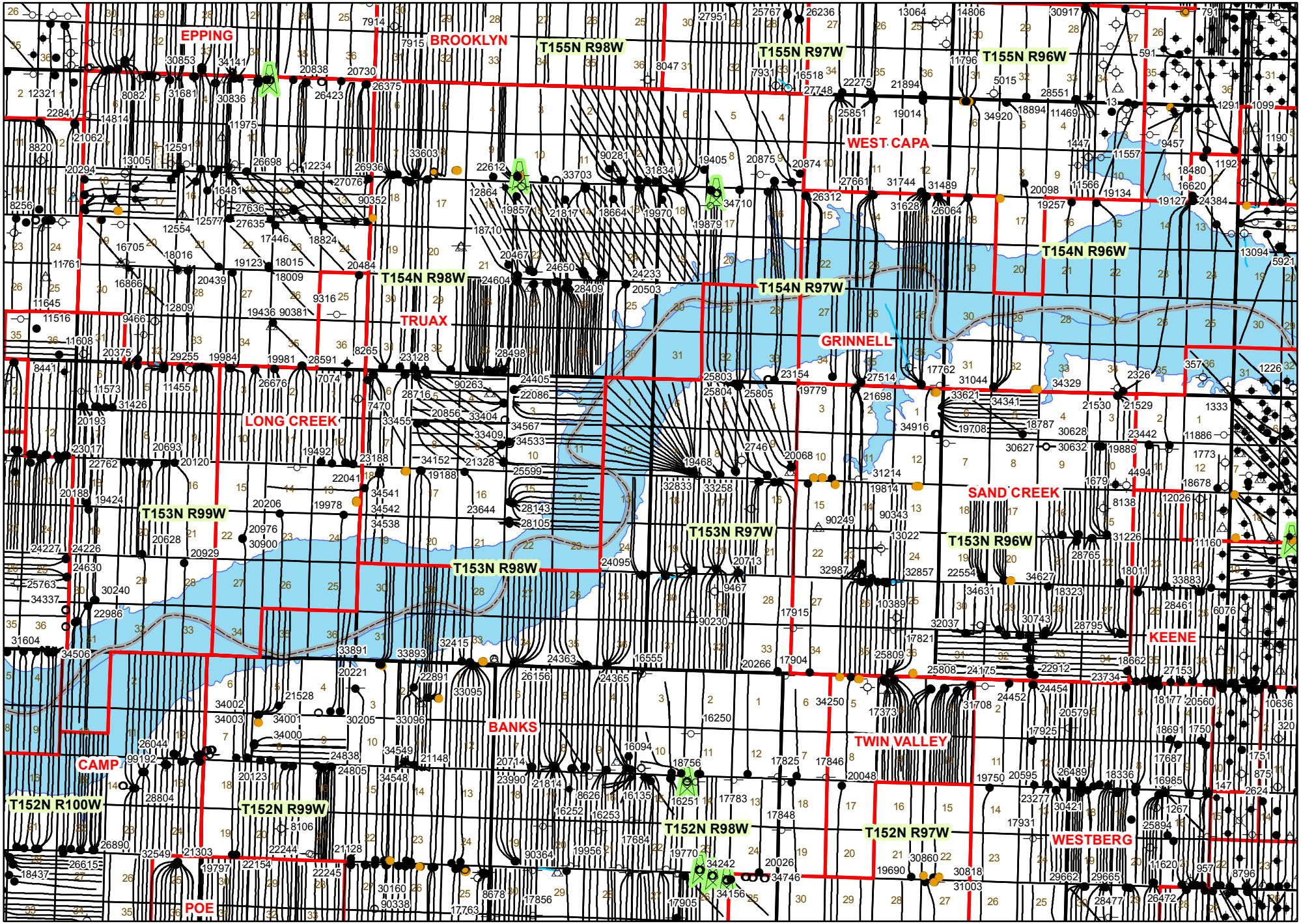
Scale 80 Chains to an Inch

Surveys Designated	By Whom Surveyed	Contract No.	Contract Date	Amount of Surveys Mc	Amount of Surveys Chs	Amount of Surveys Lks	When Surveyed
Subdivisions	George K. Dike	43	March 24th 1896	59	14	48	Sept. 18th Oct. 3rd 1896
Meanders	" " "	"	" " "	16	32	70	" " "
Exteriors	" " "	"	" " "	23	77	62	June "

The above Map of Township No 154 North, of Range No 97 West of the Fifth Principal Meridian, North Dakota, is strictly conformable to the field notes of the survey thereof on file in this Office, which have been examined and approved.

U.S. Surveyor Generals Office
Bismarck N. Dak. August 18 1897

Andrew Blendell
U.S. Surveyor General



Disclaimer: Neither the State of North Dakota, nor any agency, officer, or employee of the State of North Dakota warrants the accuracy or reliability of this product and shall not be held responsible for any losses caused by reliance on this product. Portions of the information may be incorrect or out of date. Any person or entity that relies on any information obtained from this product does so at his or her own risk.

0 2 4 8 Miles

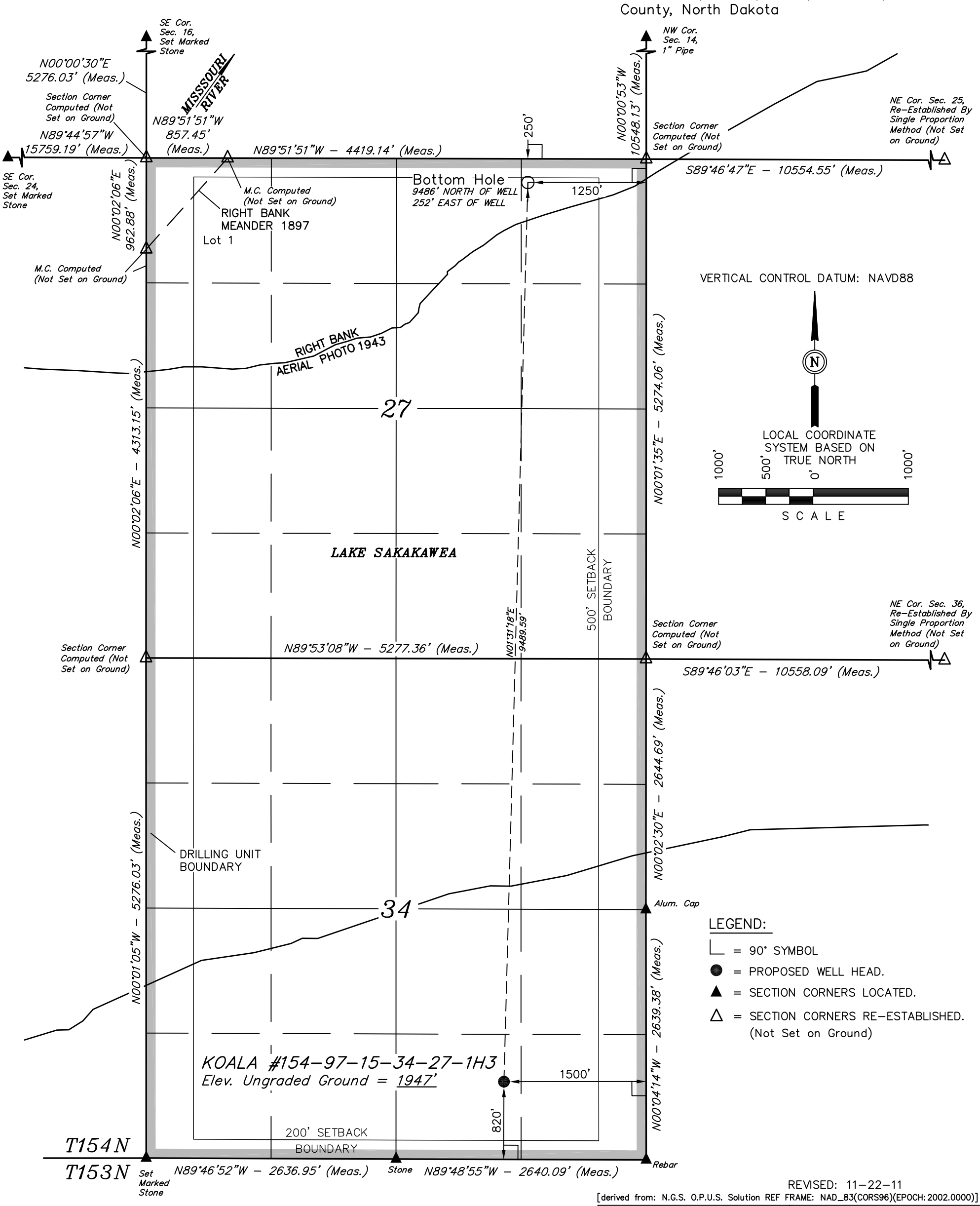
Prepared by N.D.I.C.
Oil and Gas Division

6/15/2018
8:23:25 AM

WELL LOCATION PLAT
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-34-27-1H3, located as shown in the SW 1/4 SE 1/4 of Section 34, T154N, R97W, 5th P.M., McKenzie County, North Dakota



LEGEND:

- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground)

REVISED: 11-22-11

[derived from: N.G.S. O.P.U.S. Solution REF FRAME: NAD_83(CORS96)(EPOCH: 2002.0000)]

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 48°08'20.50" (48.139028) LONGITUDE = 103°08'07.84" (103.135511)	LATITUDE = 48°06'46.89" (48.113025) LONGITUDE = 103°08'11.44" (103.136511)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 48°08'20.42" (48.139006) LONGITUDE = 103°08'06.17" (103.135047)	LATITUDE = 48°06'46.81" (48.113003) LONGITUDE = 103°08'09.77" (103.136047)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	09-23-10	10-19-11
PARTY: D.M. M.C. J.J.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

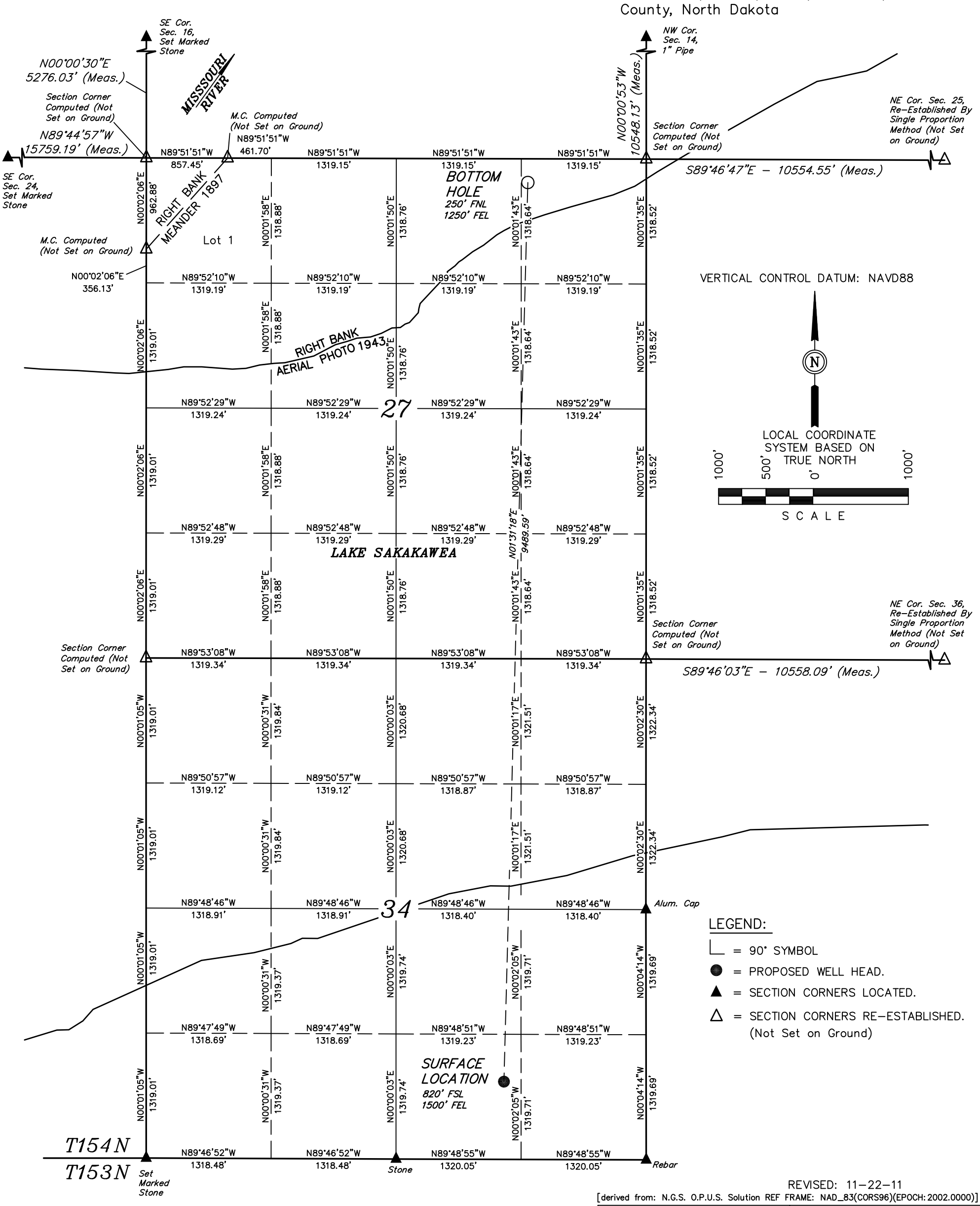
TROY JENSEN
REGISTERED LAND SURVEYOR
L.S. 4654
11-28-11
NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

SECTION BREAKDOWN
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-34-27-1H3, located as shown in the SW 1/4 SE 1/4 of Section 34, T154N, R97W, 5th P.M., McKenzie County, North Dakota



VERTICAL CONTROL DATUM: NAVD88

LOCAL COORDINATE SYSTEM BASED ON TRUE NORTH

1000' 500' 0' 1000'

SCALE

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11-28-11
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STATE OF NORTH DAKOTA

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

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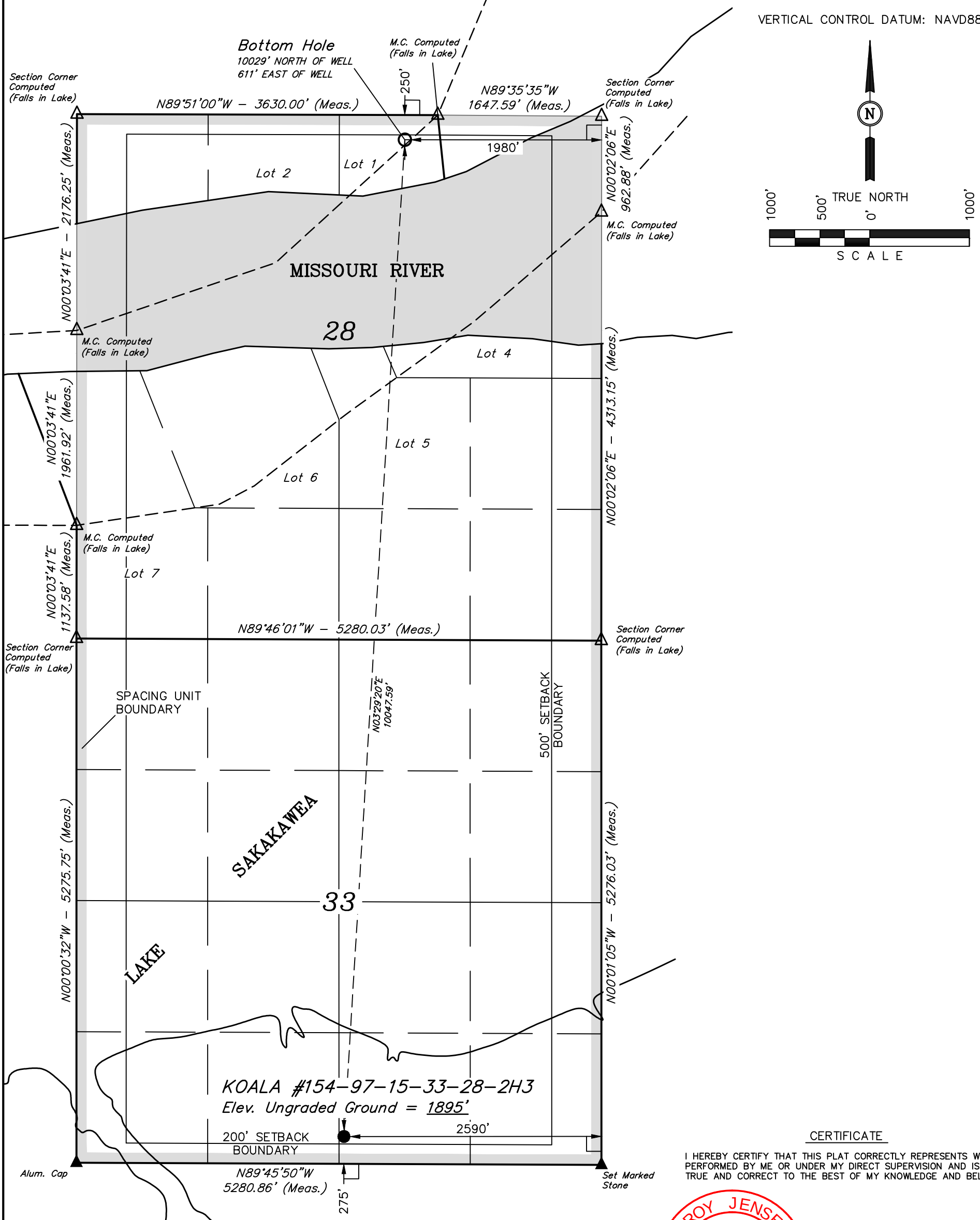
1" = 1000'	09-23-10	10-19-11
PARTY: D.M. M.C. J.J.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

WELL LOCATION PLAT
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-33-28-2H3, located as shown in the SW 1/4 SE 1/4 of Section 33, T154N, R97W, 5th P.M., McKenzie County, North Dakota.

VERTICAL CONTROL DATUM: NAVD88



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TROY JENSEN
REGISTERED LAND SURVEYOR
No. 4654
02-20-12
NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

REVISED: 02-16-12
REVISED: 07-12-11

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 48°08'20.66" (48.139072)	LATITUDE = 48°06'41.69" (48.111581)
LONGITUDE = 103°09'36.39" (103.160108)	LONGITUDE = 103°09'45.23" (103.162564)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 48°08'20.58" (48.139050)	LATITUDE = 48°06'41.61" (48.111558)
LONGITUDE = 103°09'34.72" (103.159644)	LONGITUDE = 103°09'43.56" (103.162100)

[derived from: N.G.S. O.P.U.S. Solution REF FRAME: NAD_83(CORS96)(EPOCH: 2002.0000)]

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

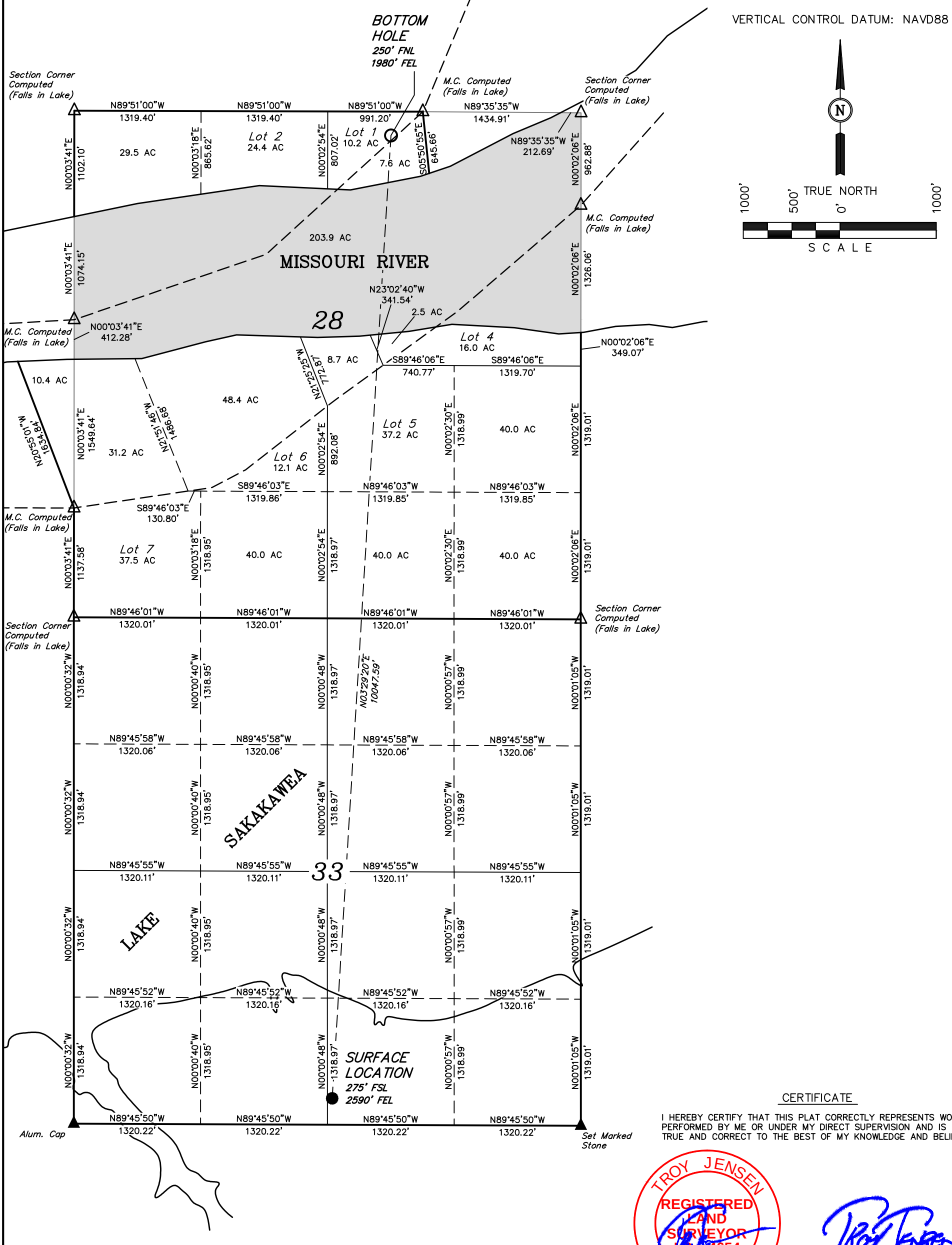
SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	05-18-11	06-01-11
PARTY: T.G. E.R. C.C.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

SECTION BREAKDOWN
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-33-28-2H3, located as shown in the SW 1/4 SE 1/4 of Section 33, T154N, R97W, 5th P.M., McKenzie County, North Dakota.

VERTICAL CONTROL DATUM: NAVD88



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TROY JENSEN REGISTERED LAND SURVEYOR No. 4654 02-20-12 NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

REVISED: 02-16-12
REVISED: 07-12-11

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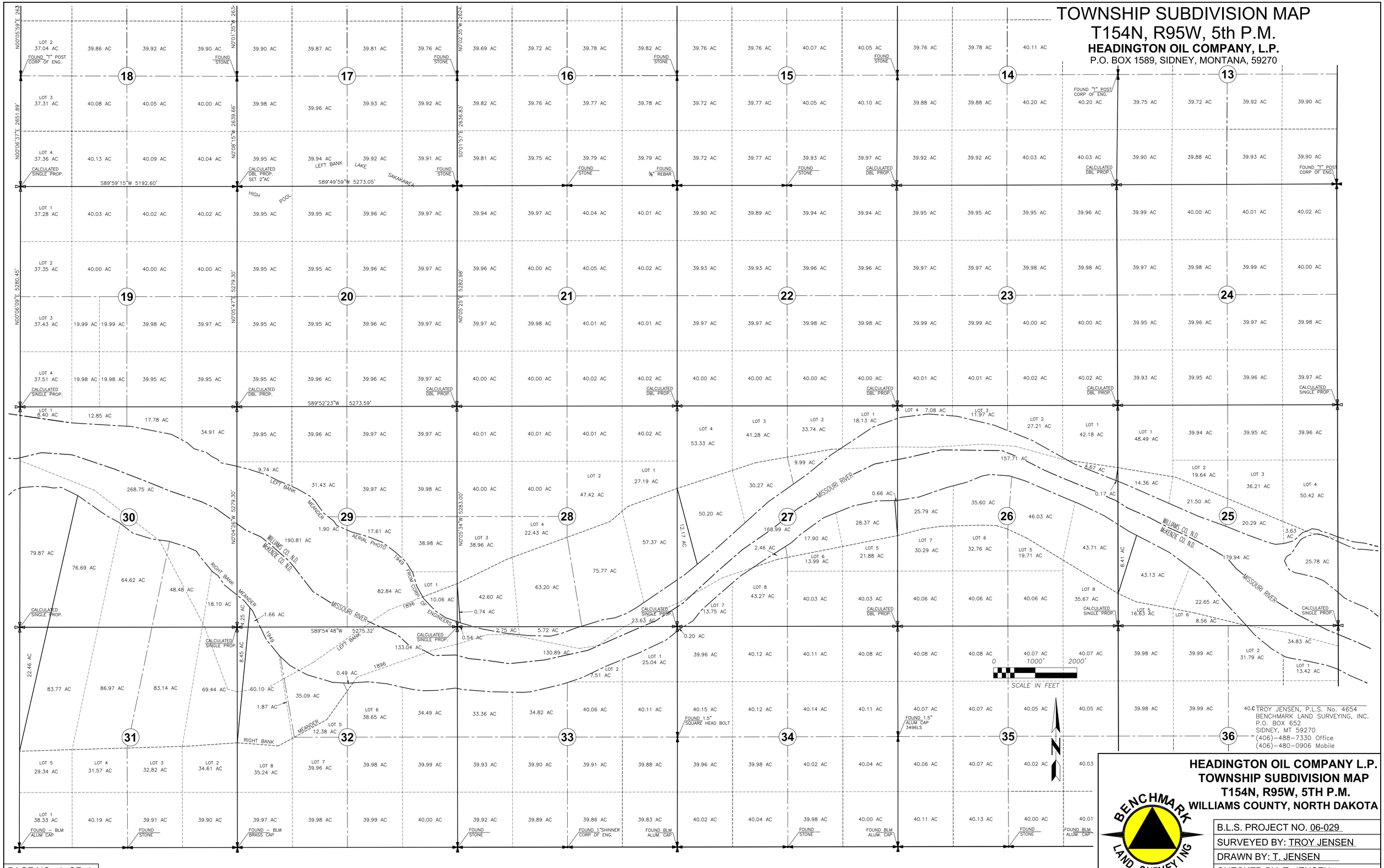
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5th P.M.

HEADINGTON OIL COMPANY, L.P.
P.O. BOX 1589, SIDNEY, MONTANA, 59270



TROY JENSEN, P.L.S. No. 4654
BENCHMARK LAND SURVEYING, INC.
P.O. BOX 652
SIDNEY, MT 59270
(406)-488-7330 Office
(406)-480-0906 Mobile

HEADINGTON OIL COMPANY L.P.
TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5TH P.M.
WILLIAMS COUNTY, NORTH DAKOTA

BENCHMARK LAND SURVEYING

B.L.S. PROJECT NO. 06-029	
SURVEYED BY: TROY JENSEN	
DRAWN BY: T. JENSEN	
CHECKED BY: T. JENSEN	

TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5th P.M.

HEADINGTON OIL COMPANY, L.P.
P.O. BOX 1589, SIDNEY, MONTANA, 59270

TROY JENSEN, P.L.S. No. 4654
BENCHMARK LAND SURVEYING, INC.
P.O. BOX 652
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(406)-488-7330 Office
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HEADINGTON OIL COMPANY L.P.
TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5TH P.M.
WILLIAMS COUNTY, NORTH DAKOTA

BENCHMARK LAND SURVEYING

B.L.S. PROJECT NO. 06-029
SURVEYED BY: TROY JENSEN
DRAWN BY: T. JENSEN
CHECKED BY: T. JENSEN

Test of the Tract Boundaries

1) The PLSS lines per the Koala #154-97-15-33-28-2H3 and the Koala #154-97-15-34-27-1H3 well location plats were drawn.

2) State plane coordinates were generated from the geographic coordinates at the well and target locations.

3) The state plane coordinates were entered into CAD.

4) The section lines were then rotated to the well and target locations then making the section lines referenced to the North Dakota North State Plane system (NAD83, international foot)

5) The well plat were copied on an insertion point of N: 0, E: 0 and pasted into the CAD file generated from the shapefiles posted on the NDIC website corresponding to the OHWM report. (The estimate of positional tolerance of this method is +/-2' – the reason being is due to the precision of the geographic coordinates listed.)

6) Finally, the differences between the PLSS lines could be calculated. The results are as follows:

Layer: BLM_PLSS_Second Division

In the area tested, the difference between the layer and the PLSS line per the well plats is 5-6 north and 18-26 feet east.

Layer: USACE_Adjusted_Survey

The differences in the points sampled:

SW Sec. 33 = 48' north, 17' east
SQ Sec. 33 = 50' north, 29' east
EQ Sec. 34 = 7' north, 14' east
NE Sec. 34 = 2' north, 29' east
NW Sec. 34 = 22' north, -66' east
NW Sec. 33 = 31' north, -51' east

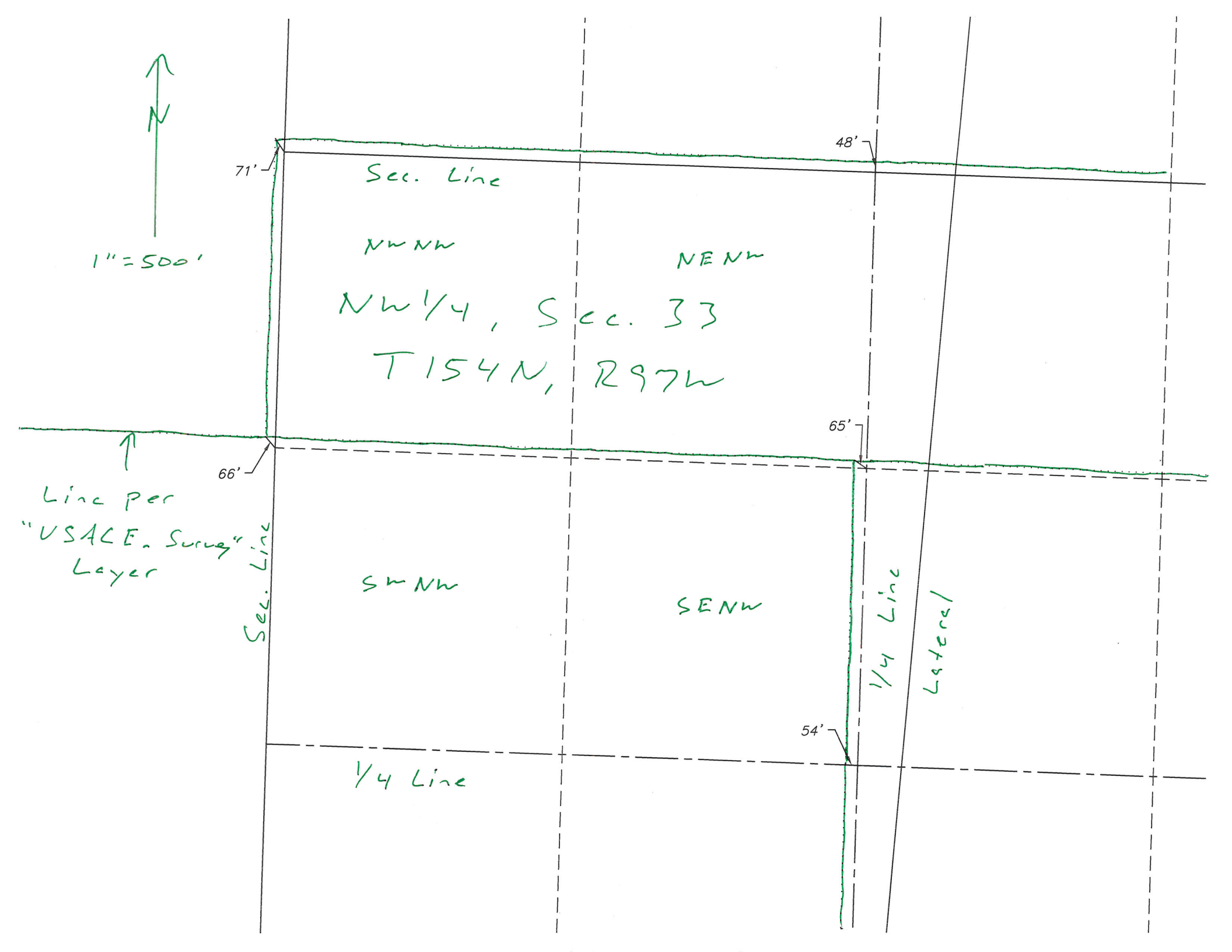
Layer: USACE_Survey

The differences in the points sampled:

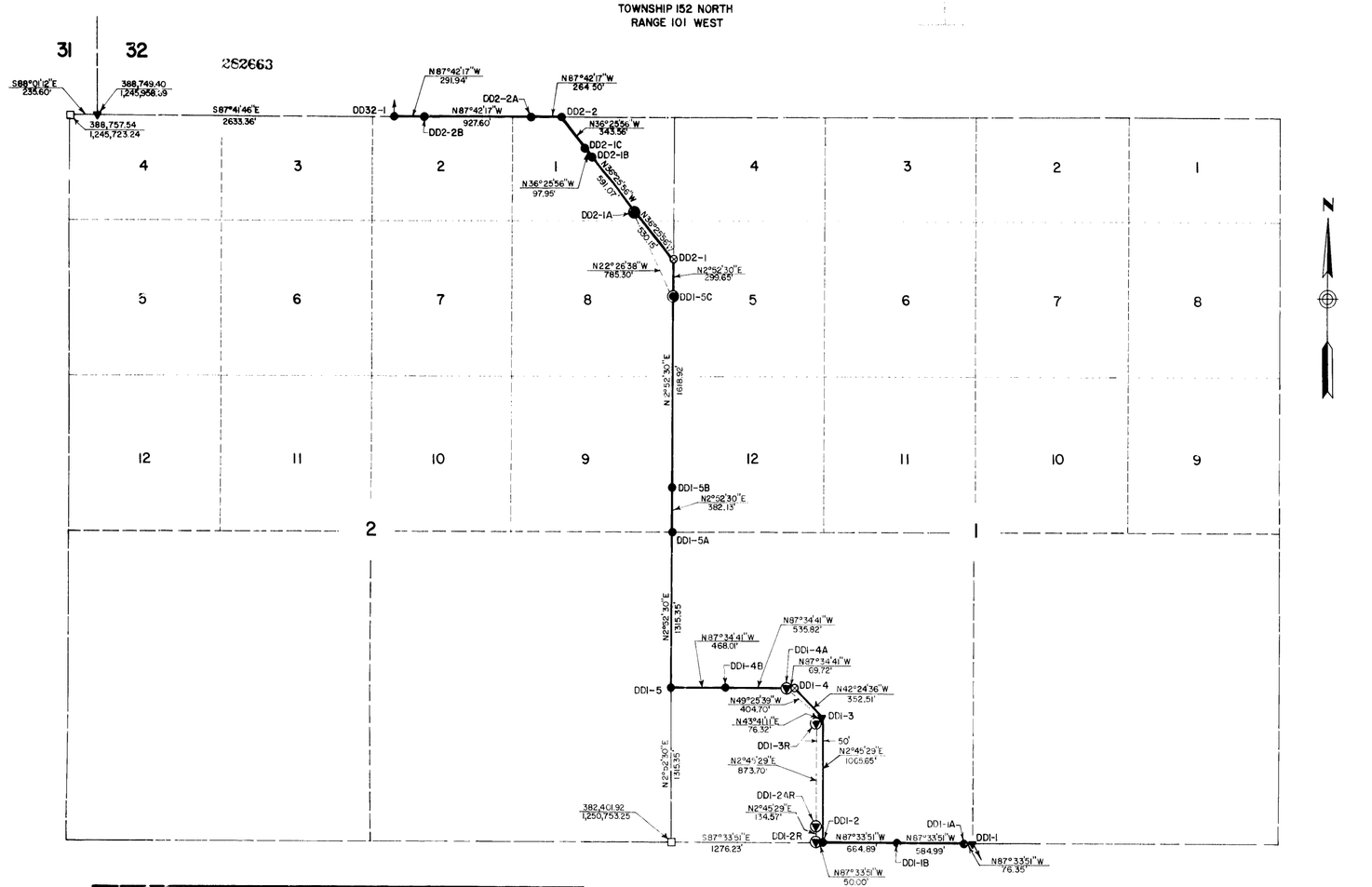
SW Sec. 33 = 82' north, -29' east
SQ Sec. 33 = 64' north, -41' east
C-S1/16 Sec. 34 = 15' north, -66' east
NE Sec. 34 = 17' north, -89' east
NW Sec. 34 = 40' north, -72' east
NW Sec. 33 = 60' north, -39'east

**See the attached maps showing the differences between the PLSS lines per the Koala well plats and the "USACE_Survey" layer in the SW1/4 and NW1/4 of Section 33, T154N, R97W.*

N
1"=500'
1/4 Line
Sec. Line
NWSW
NESW
SW1/4, Sec 33
T154N, R97W
63'
54'
66'
Lateral
SWSW
SESW
1/4 Line
Koala well
Line per "USACE_Survey Layer
87'
Sec. Line


N
1" = 500'
71'
48'
Sec. Line
NW NW
NE NW
NW 1/4, Sec. 33
T 154 N, R 97 W
65'
66'
Line per
"USACE. Survey"
Layer
Sec. Line
SW NW
SE NW
1/4 Line
Lateral
54'
1/4 Line

TOWNSHIP 152 NORTH
RANGE 101 WEST



POINT	X	Y
DD1-1	1,253,423.17	382,289.20
DD1-1A	1,253,326.90	382,292.44
DD1-1B	1,252,742.47	382,317.30
DD1-2	1,252,078.21	382,345.56
DD1-2R	1,252,028.26	382,347.68
DD1-2AR	1,252,034.74	382,482.09
DD1-3	1,252,129.49	383,409.93
DD1-3R	1,252,076.77	383,354.74
DD1-4	1,251,891.75	383,670.19
DD1-4A	1,251,822.10	383,673.13
DD1-4B	1,251,286.78	383,695.78
DD1-5	1,250,819.22	383,715.55
DD1-5A	1,250,885.19	385,029.18
DD1-5B	1,250,904.36	385,410.81
DD1-5C	1,250,985.55	387,027.61
DD2-1	1,251,000.58	387,326.88
DD2-1A	1,250,685.76	387,753.39
DD2-1B	1,250,334.76	388,228.92
DD2-1C	1,250,276.59	388,307.72
DD2-2	1,250,072.57	388,584.12
DD2-2A	1,249,808.29	388,594.71
DD2-2B	1,248,881.48	388,631.86
DD32-1	1,248,589.79	388,643.55

Sept. No 1.25 4ch
282663
[illegible]

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

[signature]

On this ____ Day of _____ 19__, before me personally appeared _____ to me known to be the person named in and who executed the forgoing instrument.

_____
Notary Public
State of North Dakota
My Commission Expires _____

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9999498

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

0 500 1000
scale feet

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

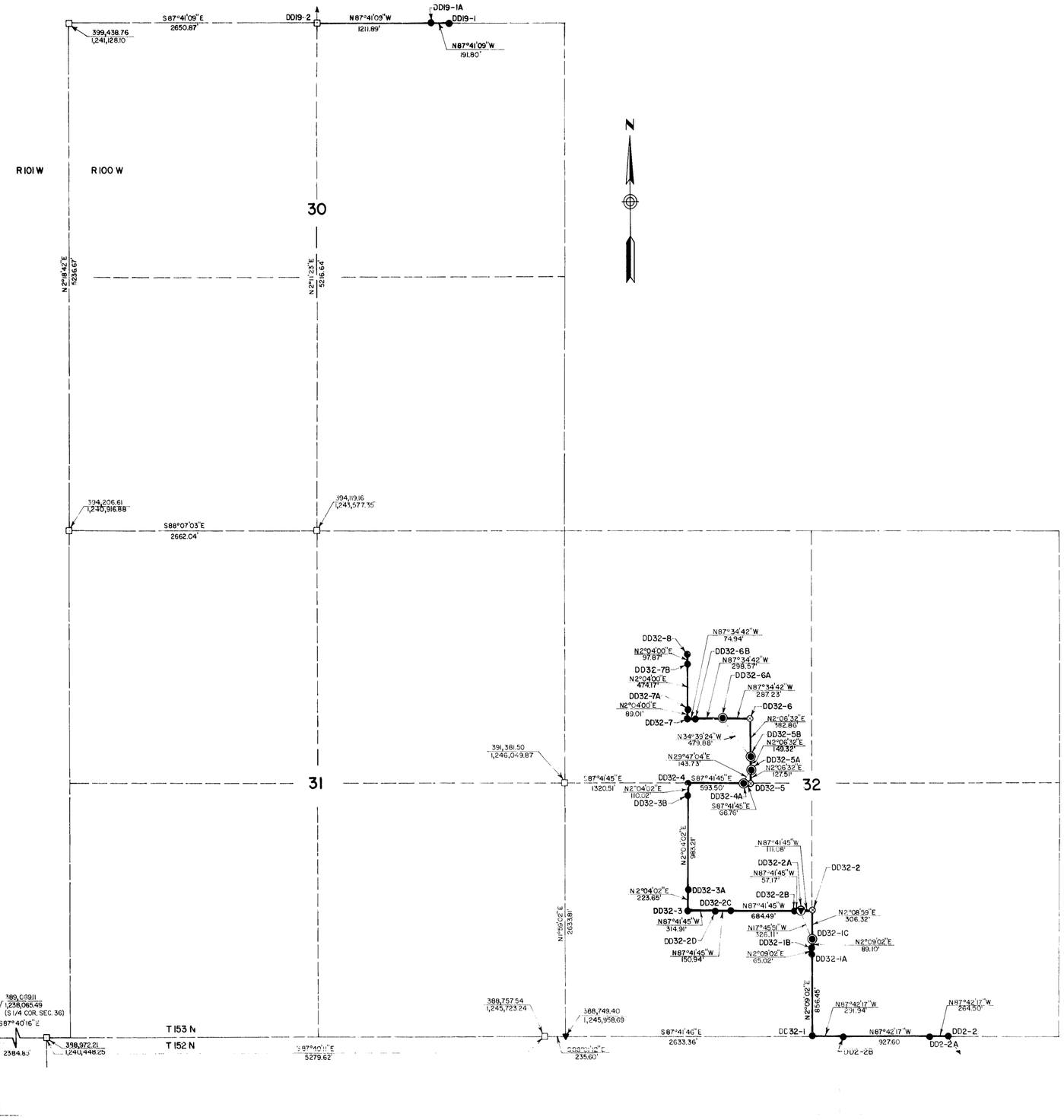
Designed by:
Drawn by: H.T.E.
Checked by: [illegible]
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM - LAKE SAKAKAWEA
SEGMENT DD
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 8/27/86
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

TOWNSHIP 153 NORTH
RANGE 100 WEST

252662



POINT	X	Y
DD2-2	1,250,072.57	388,584.12
DD2-2A	1,249,808.29	388,594.71
DD2-2B	1,248,881.48	388,631.86
DD32-1	1,248,589.79	388,643.55
DD32-1A	1,248,621.93	389,499.35
DD32-1B	1,248,624.37	389,564.33
DD32-1C	1,248,627.71	389,653.35
DD32-2	1,248,639.20	389,959.44
DD32-2A	1,248,528.22	389,963.90
DD32-2B	1,248,471.10	389,966.20
DD32-2C	1,247,787.20	389,993.72
DD32-2D	1,247,636.39	389,999.79
DD32-3	1,247,321.74	390,012.45
DD32-3A	1,247,329.81	390,235.94
DD32-3B	1,247,365.27	391,218.56
DD32-4	1,247,369.24	391,328.41
DD32-4A	1,247,962.23	391,304.55
DD32-5	1,248,028.93	391,301.87
DD32-5A	1,248,033.62	391,429.29
DD32-5B	1,248,039.12	391,578.50
DD32-6	1,248,053.20	391,961.08
DD32-6A	1,247,766.24	391,973.22
DD32-6B	1,247,467.95	391,985.83
DD32-7	1,247,393.09	391,989.00
DD32-7A	1,247,396.30	392,077.95
DD32-7B	1,247,413.40	392,551.78
DD32-8	1,247,416.92	392,649.58
DD19-1	1,245,179.08	399,275.06
DD19-1A	1,244,987.46	399,282.80
DD19-2	1,243,776.67	399,331.73

Sept. Re 1956 4th
P 252662
Cecelia Johnson
sign Lyle

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION, THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

On this ... Day of ..., 19..., before me personally appeared ... to me known to be the person named in and who executed the foregoing instrument.

Notary Public
State of North Dakota
My Commission Expires ...

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9999~~98~~

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.W.K.
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM - LAKE SAKAKAWEA
SEGMENT DD
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 8/27/56
Spec. No.: DACW45
Drawing Code:
Contract No.: DACW45

282670

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LARRY H. BAETZ — REGISTERED LAND SURVEYOR 1177 — NORTH DAKOTA

On this 5th Day of April, 1982, before me personally appeared Larry H. Baetz to me known to be the person named in and who executed the foregoing instrument.

RICHARD M. MOSICK — NOTARY PUBLIC — STATE OF NORTH DAKOTA

Notary Public
State of North Dakota
My Commission Expires 4-3-86

Dept. of the Army
Omaha District, Corps of Engineers
Omaha, Nebraska
Approved for filing
4 April 1982
282670

TOWNSHIP 153 NORTH
RANGE 98 WEST

TOWNSHIP 152 NORTH
RANGE 99 WEST

T153 N

POINTS	X	Y
AA32-1	1,314,503.27	388,043.43
AA32-1A	1,314,489.09	387,571.21
AA32-2	1,314,483.44	387,383.16
AA32-3	1,313,378.35	387,425.00
AA32-3A	1,313,287.91	387,218.25
AA32-4	1,313,206.12	387,031.30
AA32-5	1,313,156.17	387,033.19
AA32-6	1,313,148.18	386,772.76
AA32-7	1,312,072.56	386,813.54
AA32-8	1,312,010.73	386,755.85
AA32-9	1,311,832.77	386,822.63
AA32-9A	1,311,813.98	386,221.89
AA32-10	1,311,812.12	386,162.52
AA32-10A	1,311,356.81	386,179.87
AA2-1	1,311,277.24	386,184.81
AA2-1A	1,311,225.43	386,137.35
AA2-1B	1,311,214.62	385,852.74
AA2-2	1,311,205.90	385,623.25
AA2-3	1,311,305.79	385,618.73
AA2-4	1,311,290.42	385,214.08
AA2-5	1,311,240.48	385,216.33
AA2-6	1,311,259.93	384,675.00
AA2-7	1,311,077.93	384,693.08
AA2-7A	1,311,173.36	384,346.11
AA2-8	1,311,318.96	384,121.87
AA2-8A	1,311,326.65	383,992.21
AA2-9	1,311,331.16	383,916.15
AA2-10	1,310,900.22	384,160.83
AA2-11	1,310,908.23	384,360.64
AA2-11A	1,310,779.75	384,366.45
AA2-12	1,310,448.77	384,381.42
AA2-12A	1,310,473.72	385,003.68
AA2-13	1,310,483.62	385,250.57
AA2-13A	1,310,282.45	385,259.68
AA2-14	1,309,555.11	385,292.58
AA2-15	1,309,569.11	385,602.21
AA2-15A	1,309,148.83	385,621.23
AA2-15B	1,308,864.43	385,634.09
AA2-15C	1,308,728.76	385,640.23
AA3-1	1,308,569.35	385,647.44
AA3-1A	1,308,572.83	385,729.74
AA3-1B	1,308,578.10	385,854.64
AA3-2	1,308,586.15	386,045.39
AA3-2A	1,308,417.20	386,051.85
AA3-3	1,308,316.39	386,055.71
AA3-3A	1,308,242.27	386,095.66
AA3-3B	1,308,062.99	386,192.31
AA3-4	1,307,836.94	386,314.18
AA3-4A	1,307,489.44	386,327.47
AA3-4B	1,306,548.86	386,363.44

LEGEND

- ☐ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ◉ BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- — — — SECTION LINE
- — — — — QUARTER LINE
- - - - - - - SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES, ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.H.B.
Reviewed by:
Submitted by:
Chief: Section

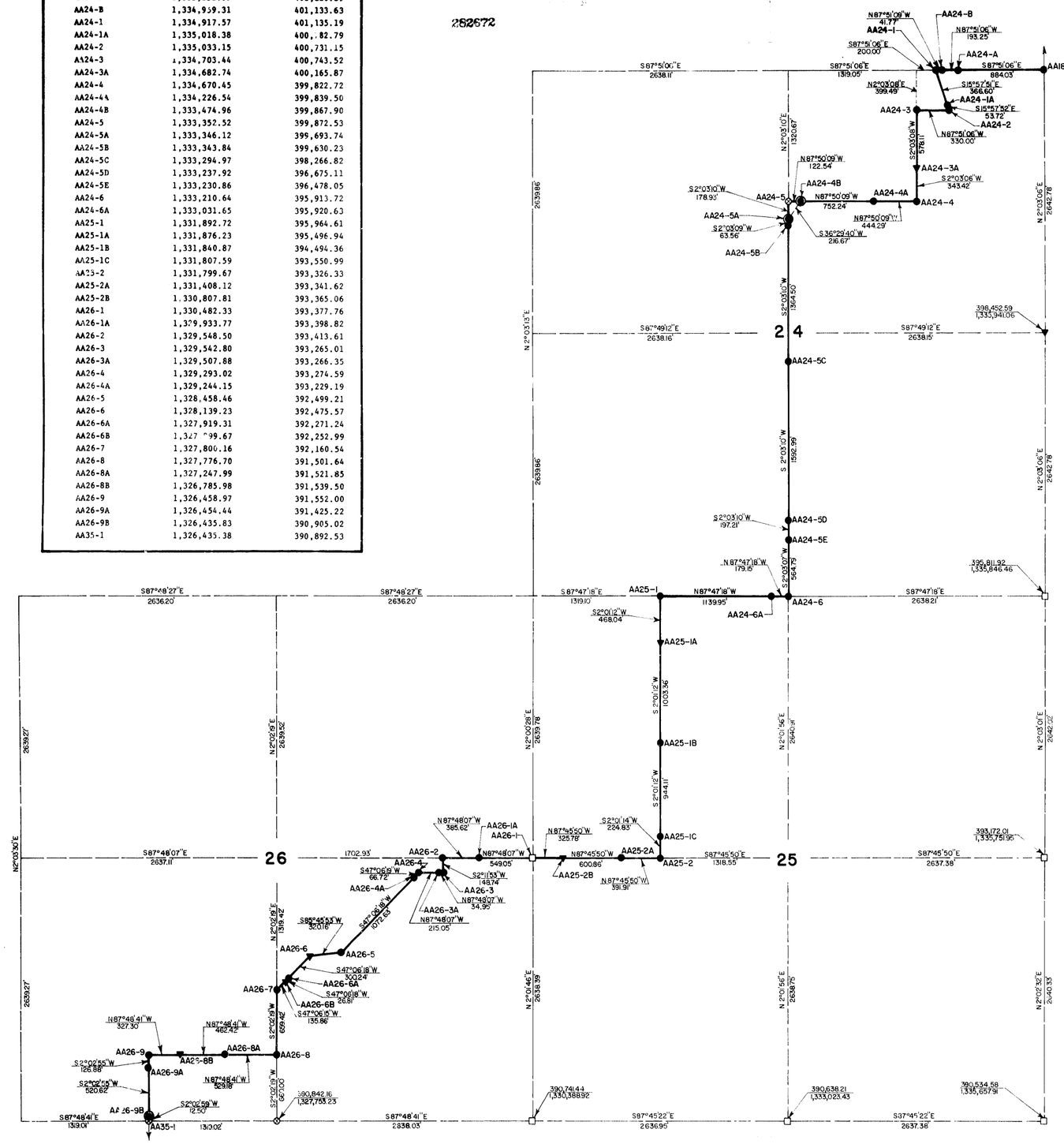
MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 4/2/86
Spec. No.: DACW45
Drawing Code:
Contract No.: DACW45

POINTS	X	Y
AA18-1	1,366,035.66	401,093.25
AA24-A	1,335,152.39	401,126.39
AA24-B	1,334,959.31	401,133.63
AA24-1	1,334,917.57	401,135.19
AA24-1A	1,335,018.38	400,.82.79
AA24-2	1,335,033.15	400,731.15
AA24-3	1,334,703.44	400,743.52
AA24-3A	1,334,682.74	400,165.87
AA24-4	1,334,670.45	399,822.72
AA24-4A	1,334,226.54	399,839.50
AA24-4B	1,333,474.96	399,867.90
AA24-5	1,333,352.52	399,872.53
AA24-5A	1,333,346.12	399,693.74
AA24-5B	1,333,343.84	399,630.23
AA24-5C	1,333,294.97	398,266.82
AA24-5D	1,333,237.92	396,675.11
AA24-5E	1,333,230.86	396,478.05
AA24-6	1,333,210.64	395,913.72
AA24-6A	1,333,031.65	395,920.63
AA25-1	1,331,892.72	395,964.61
AA25-1A	1,331,876.23	395,496.94
AA25-1B	1,331,840.87	394,494.36
AA25-1C	1,331,807.59	393,550.99
AA25-2	1,331,799.67	393,326.33
AA25-2A	1,331,408.12	393,341.62
AA25-2B	1,330,807.81	393,365.06
AA26-1	1,330,482.33	393,377.76
AA26-1A	1,329,933.77	393,398.82
AA26-2	1,329,548.50	393,413.61
AA26-3	1,329,542.80	393,265.01
AA26-3A	1,329,507.88	393,266.35
AA26-4	1,329,293.02	393,274.59
AA26-4A	1,329,244.15	393,229.19
AA26-5	1,328,458.46	392,499.21
AA26-6	1,328,139.23	392,475.57
AA26-6A	1,327,919.31	392,271.24
AA26-6B	1,327 ^99.67	392,252.99
AA26-7	1,327,800.16	392,160.54
AA26-8	1,327,776.70	391,501.64
AA26-8A	1,327,247.99	391,521.85
AA26-8B	1,326,785.98	391,539.50
AA26-9	1,326,458.97	391,552.00
AA26-9A	1,326,454.44	391,425.22
AA26-9B	1,326,435.83	390,905.02
AA35-1	1,326,435.38	390,892.53

TOWNSHIP 153 NORTH
RANGE 98 WEST

282672



Sept 86 1284 4th
P 282672
Cecelia Howard
3rd Jr Ale

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LRoy K. Bass

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On the 2nd Day of April 19 86 before me personally appeared L.K. Bass to me known to be the person named in and who executed the forgoing instrument.

Richard M. Modlock
Notary Public
State of North Dakota
My Commission Expires 4-6-88

RICHARD M. MODLOCK NOTARY PUBLIC STATE OF NORTH DAKOTA

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ◉ BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

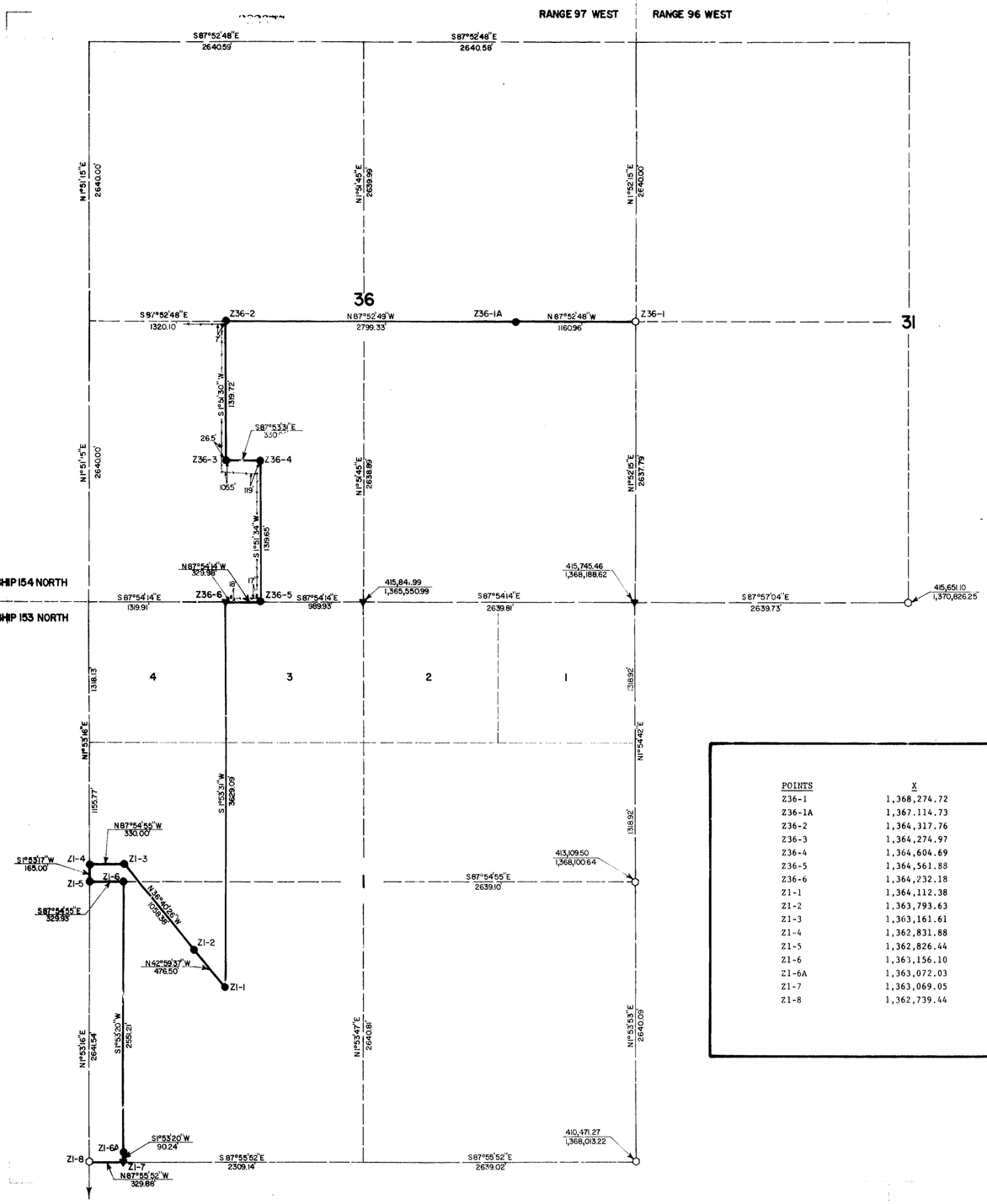
$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM—LAKE SAKAKAWEA
Checked by: L.K.B.	SEGMENT AA
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by:	RESURVEY AND MONUMENTATION
Chief: Section	Scale: As Shown; Date: 4/8/86
	Spec. No.: DACW45; Drawing Code:
	Contract No.: DACW45



POINTS	X	Y
Z36-1	1,368,274.72	413,381.43
Z36-1A	1,367,114.73	418,424.37
Z36-2	1,364,317.76	418,527.90
Z36-3	1,364,274.97	417,209.08
Z36-4	1,364,604.69	417,196.94
Z36-5	1,364,561.88	415,878.19
Z36-6	1,364,232.18	415,890.26
Z1-1	1,364,112.38	412,263.73
Z1-2	1,363,793.63	412,603.62
Z1-3	1,363,161.61	413,454.36
Z1-4	1,362,831.88	413,466.36
Z1-5	1,362,826.44	413,301.47
Z1-6	1,363,156.10	413,289.47
Z1-6A	1,363,072.03	410,740.05
Z1-7	1,363,069.05	410,649.87
Z1-8	1,362,739.44	410,661.78

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LeRoy H. Kautz

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 28th Day of April 19 84, before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires 4-8-85

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

Dept of the Army Corps of Engineers
282677
Cecelia Johnson
3 pd
to file

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

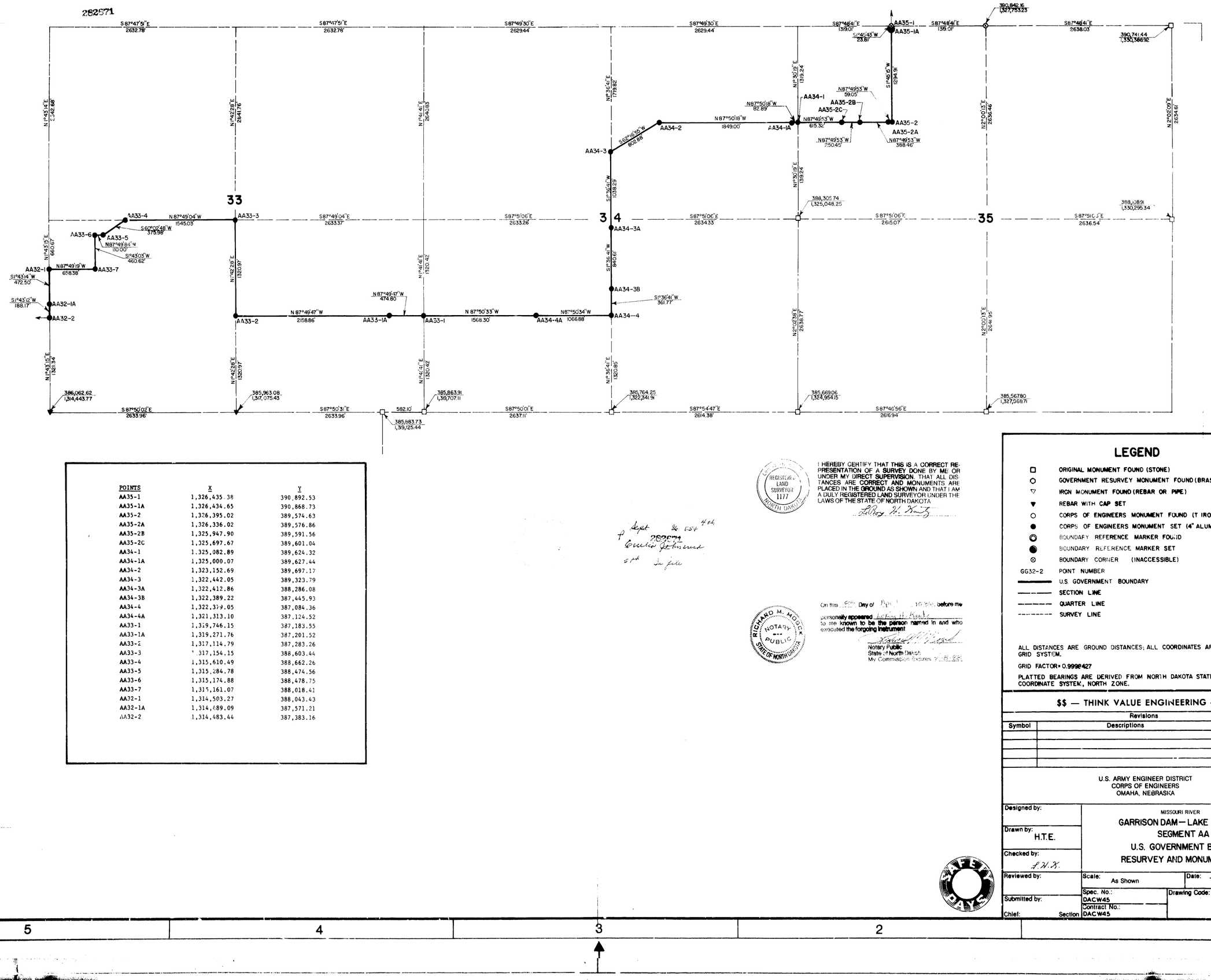
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM — LAKE SAKAKAWEA
Checked by: L.H.K.	SEGMENT Z
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by:	RESURVEY AND MONUMENTATION
Chief: Section	Scale: As Shown; Date: 4/9/84
	Spec. No.: DACW45; Drawing Code:
	Contract No.: DACW45

TOWNSHIP 153 NORTH
RANGE 98 WEST

262571



POINTS	X	Y
AA35-1	1,326,435.38	390,892.53
AA35-1A	1,326,434.65	390,868.73
AA35-2	1,326,395.02	389,574.63
AA35-2A	1,326,336.02	389,576.86
AA35-2B	1,325,947.90	389,591.56
AA35-2C	1,325,697.67	389,601.04
AA34-1	1,325,082.89	389,624.32
AA34-1A	1,325,000.07	389,627.44
AA34-2	1,323,152.69	389,697.17
AA34-3	1,322,442.05	389,323.79
AA34-3A	1,322,412.86	388,286.08
AA34-3B	1,322,389.22	387,445.93
AA34-4	1,322,379.05	387,084.36
AA34-4A	1,321,313.10	387,124.52
AA33-1	1,319,746.15	387,183.55
AA33-1A	1,319,271.76	387,201.52
AA33-2	1,317,114.79	387,283.26
AA33-3	1,317,154.15	388,603.44
AA33-4	1,315,610.49	388,662.26
AA33-5	1,315,284.78	388,474.56
AA33-6	1,315,174.88	388,478.75
AA33-7	1,315,161.07	388,018.41
AA32-1	1,314,503.27	388,043.43
AA32-1A	1,314,689.09	387,571.21
AA32-2	1,314,483.44	387,383.16

Dept 96 1st 4th
Encls Information
5th In file

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

LeRoy H. Kautz

On this 8th Day of April 19 84 before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the foregoing instrument

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

Notary Public
State of North Dakota
My Commission Expires 7-19-86

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

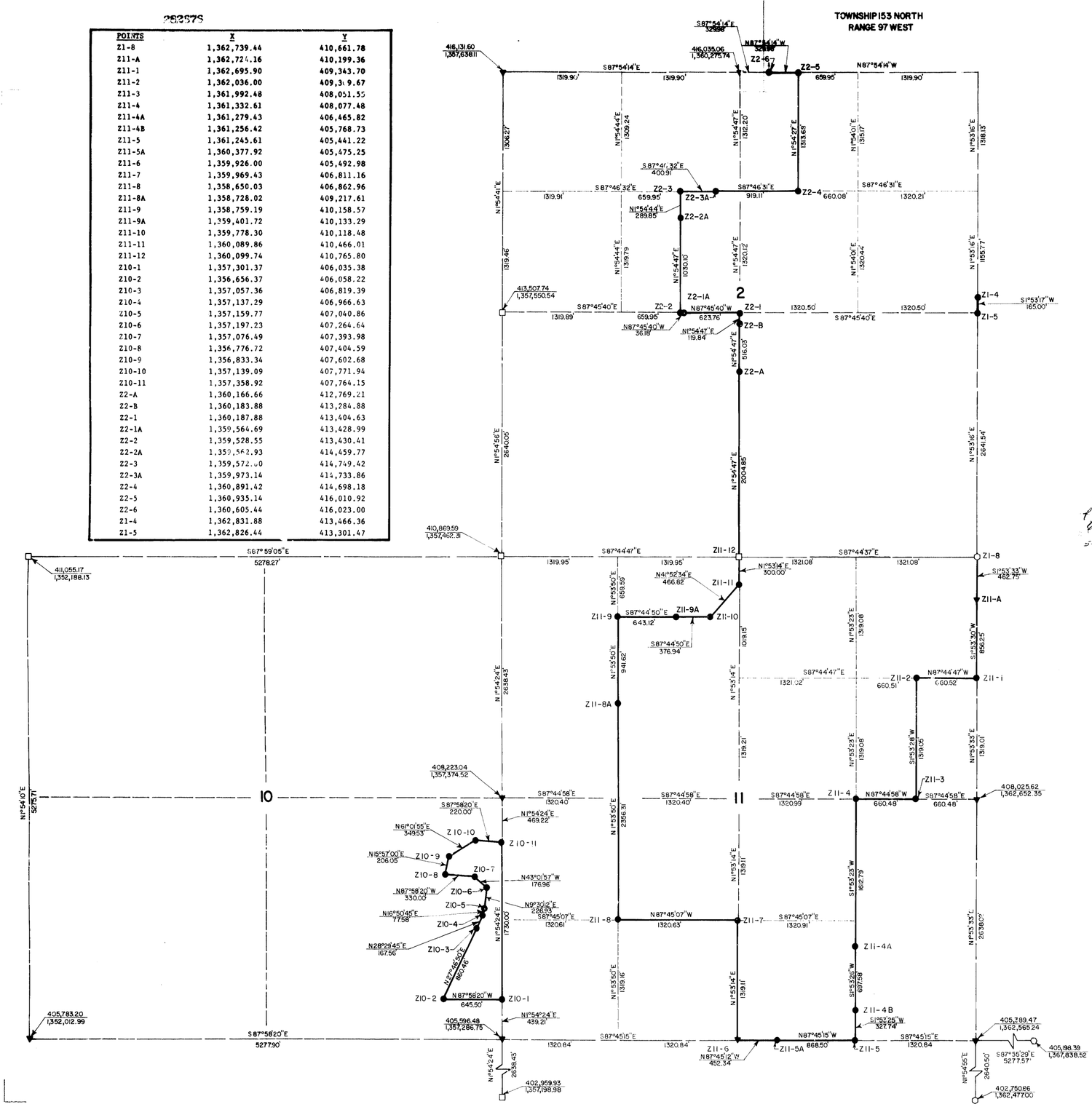
Designed by:
Drawn by: H.T.E.
Checked by: L.H.K.
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 4/8/84
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

282575

POINTS	X	Y
Z1-8	1,362,739.44	410,661.78
Z11-A	1,362,724.16	410,199.36
Z11-1	1,362,695.90	409,343.70
Z11-2	1,362,036.00	409,309.67
Z11-3	1,361,992.48	408,051.55
Z11-4	1,361,332.61	408,077.48
Z11-4A	1,361,279.43	406,465.82
Z11-4B	1,361,256.42	405,768.73
Z11-5	1,361,245.61	405,441.22
Z11-5A	1,360,377.92	405,475.25
Z11-6	1,359,926.00	405,492.98
Z11-7	1,359,969.43	406,811.16
Z11-8	1,358,650.03	406,862.96
Z11-8A	1,358,728.02	409,217.61
Z11-9	1,358,759.19	410,158.57
Z11-9A	1,359,401.72	410,133.29
Z11-10	1,359,778.30	410,118.48
Z11-11	1,360,089.86	410,466.01
Z11-12	1,360,099.74	410,765.80
Z10-1	1,357,301.37	406,035.38
Z10-2	1,356,656.37	406,058.22
Z10-3	1,357,057.36	406,819.39
Z10-4	1,357,137.29	406,966.63
Z10-5	1,357,159.77	407,040.86
Z10-6	1,357,197.23	407,264.64
Z10-7	1,357,076.49	407,393.98
Z10-8	1,356,776.72	407,404.59
Z10-9	1,356,833.34	407,602.68
Z10-10	1,357,139.09	407,771.94
Z10-11	1,357,358.92	407,764.15
Z2-A	1,360,166.66	412,769.21
Z2-B	1,360,183.88	413,284.88
Z2-1	1,360,187.88	413,404.63
Z2-1A	1,359,564.69	413,428.99
Z2-2	1,359,528.55	413,430.41
Z2-2A	1,359,562.93	414,459.77
Z2-3	1,359,572.00	414,749.42
Z2-3A	1,359,973.14	414,733.86
Z2-4	1,360,891.42	414,698.18
Z2-5	1,360,935.14	416,010.92
Z2-6	1,360,605.44	416,023.00
Z1-4	1,362,831.88	413,466.36
Z1-5	1,362,826.44	413,301.47



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LeRoy H. Kautz

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 8th Day of April 19 86 before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the foregoing instrument.

Richard M. Wyckoff
Notary Public
State of North Dakota
My Commission Expires 4-6-88

RICHARD M. WYCKOFF NOTARY PUBLIC STATE OF NORTH DAKOTA

Sept. 86 2 of 4 ch
Cancels Easements
5 pk h. pk

282676

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

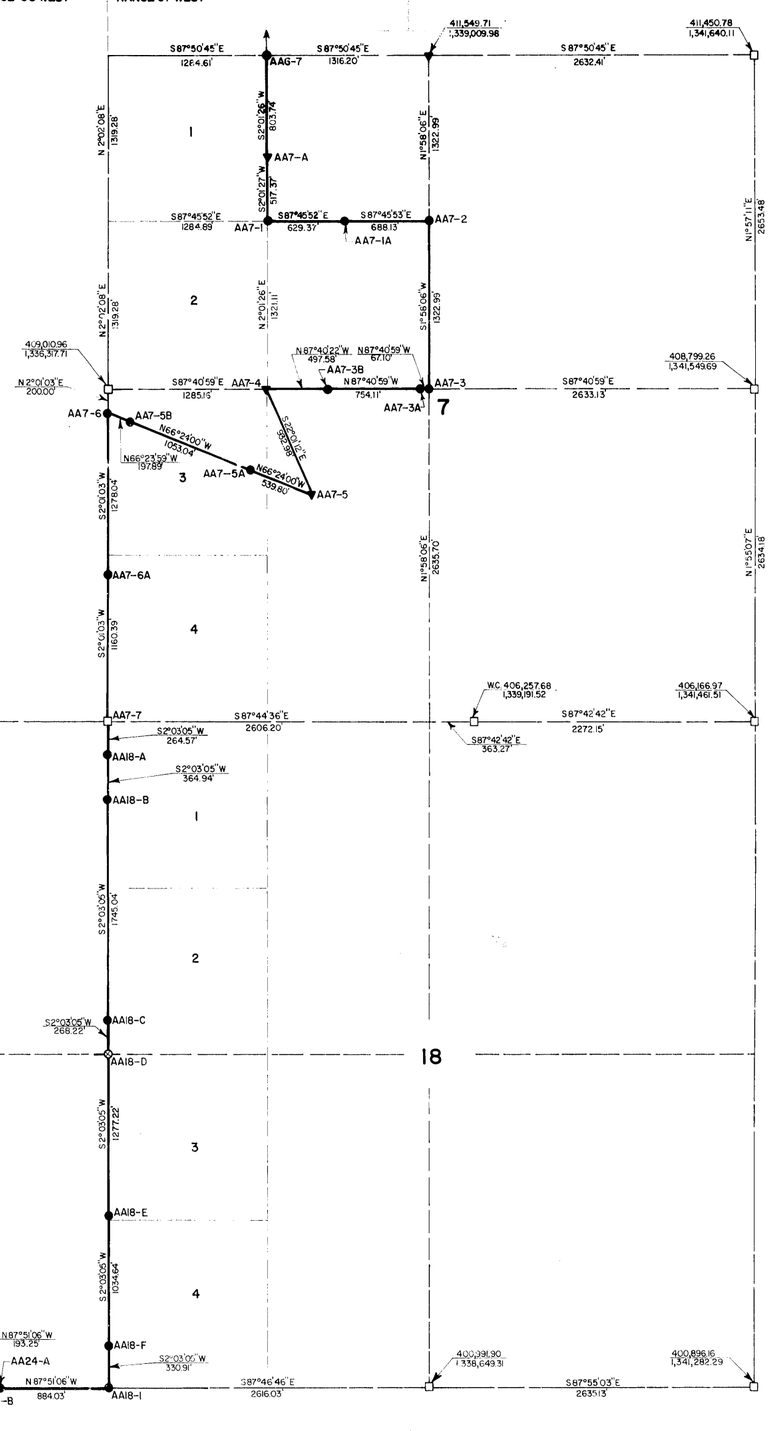
Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM—LAKE SAKAKAWEA
Checked by: L.H.K.	SEGMENT Z
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by: Chief: Section	RESURVEY AND MONUMENTATION
Scale: As Shown	Date: 7/8/86
Spec. No.: DACW45	Drawing Code:
Contract No.: DACW45	

282673

TOWNSHIP 153 NORTH

RANGE 98 WEST | RANGE 97 WEST

POINT	X	Y
AA6-7	1,337,694.92	411,599.17
AA7-A	1,337,666.53	410,796.06
AA7-1	1,337,648.26	410,279.09
AA7-1A	1,338,277.06	410,254.55
AA7-2	1,338,964.55	410,227.71
AA7-3	1,338,919.12	408,905.71
AA7-3A	1,338,852.09	408,908.42
AA7-3B	1,338,098.71	408,938.90
AA7-4	1,337,601.61	408,959.11
AA7-5	1,337,951.36	408,094.31
AA7-5A	1,337,456.79	408,310.39
AA7-5B	1,336,491.97	408,731.91
AA7-6	1,336,310.67	408,811.12
AA7-6A	1,336,265.68	407,534.07
AA7-7	1,336,224.84	406,374.58
AA18-A	1,336,215.37	406,110.22
AA13-B	1,336,202.31	405,745.58
AA18-C	1,336,139.85	404,001.93
AA18-D	1,336,130.25	403,733.92
AA18-E	1,336,084.54	402,457.71
AA18-F	1,336,047.51	401,423.90
AA18-1	1,336,035.66	401,093.25
AA24-A	1,335,152.39	401,126.39
AA24-B	1,334,959.31	401,133.63
AA24-1	1,334,917.57	401,135.19



282673

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REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 8th Day of April 19 86 before me personally appeared Luther H. Kuntz to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires 4-12-89

RICHARD M. MOSICK NOTARY PUBLIC STATE OF NORTH DAKOTA

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ● BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- — — — SECTION LINE
- — — — — QUARTER LINE
- - - - - - - SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

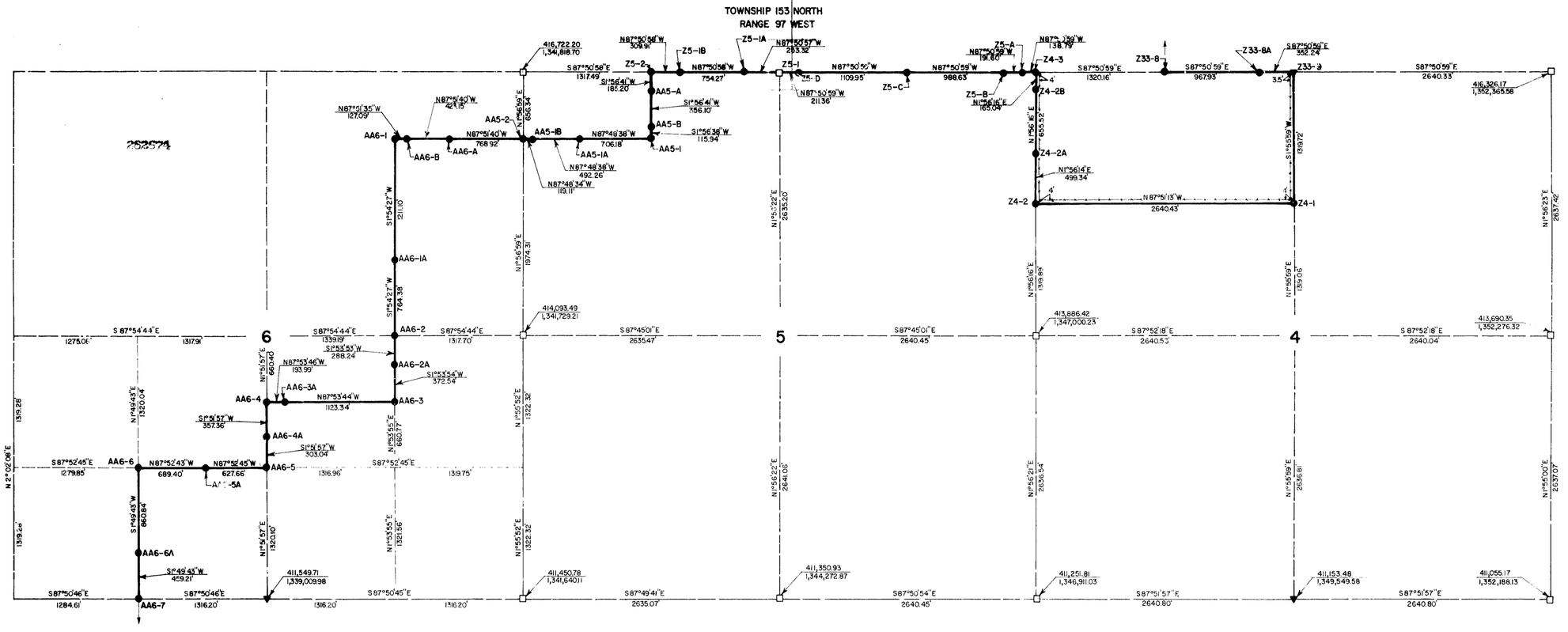
Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER GARRISON DAM—LAKE SAKAKAWEA SEGMENT AA U.S. GOVERNMENT BOUNDARY RESURVEY AND MONUMENTATION
Drawn by: H.T.E.	
Checked by: L.H.K.	
Reviewed by:	Scale: As Shown — Date: 4/8/86
Submitted by:	Spec. No.: DACW45 — Drawing Code:
Chief: Section	Contract No.: DACW45

SAFETY DAYS

TOWNSHIP 153 NORTH
RANGE 97 WEST



POINTS	X	Y
Z33-8	1,348,408.49	416,474.76
Z33-8A	1,349,375.59	416,438.44
Z33-9	1,349,727.53	416,425.23
Z4-1	1,349,683.02	415,106.47
Z4-2	1,347,044.85	415,205.35
Z4-2A	1,347,061.73	415,704 32
Z4-2B	1,347,083.89	416.359.36
Z4-3	1,347,089.47	416,524.28
Z5-A	1,346,950.80	416,529.49
Z5-B	1,346,759.37	416,536.68
Z5-C	1,345,771.59	416,573.76
Z5-D	1,344,662.60	416,615.40
Z5-1	1,344,451.42	416,623.33
Z5-1A	1,344,198.32	416,632.84
Z5-1B	1,343,444.70	416,661.14
Z5-2	1,343,135.06	416,672.76
AA5-A	1,343,120.77	416,487.70
AA5-B	1,343,116.69	416,131.86
AA5-1	1,343,112.76	416,016.01
AA5-1A	1,342,407.21	416,042.98
AA5-1B	1,341,915 .8	416,061.78
AA5-2	1,341,796.37	416,066.34
AA6-A	1,341,028.11	416,095.03
AA6-B	1,340,605.32	416,110.82
AA6-1	1,340,478.34	416,115.56
AA6-1A	1,340,438.03	414,905.33
AA6-2	1,340,412.59	414,141.49
AA6-2A	1,340,403.05	413,853.45
AA6-3	1,340,390.71	413,481.18
AA6-3A	1,339,268.31	413,522.42
AA6-4	1,339,074.48	413,529.54
AA6-4A	1,339,062.84	413,172.43
AA6-5	1,339,052.98	412,869.60
AA6-5A	1,338,425.85	412,892.82
AA6-6	1,337,737.03	412,918.34
AA6-6A	1,337,709.57	412,058.07
AA6-7	1,337,694.92	411,599.17

Sept 9th 200 4th
Executed Documents
5 pd to file

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

LS REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 8th Day of April 19 26, before me personally appeared LeRoy H. Kurtz to me known to be the person named in and who executed the forgoing instrument

RICHARD M. MUSICK NOTARY PUBLIC STATE OF NORTH DAKOTA

Notary Public
State of North Dakota
My Commission Expires 1-6-08

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ● BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- ——— SECTION LINE
- ——— QUARTER LINE
- ——— SURVEY LINE

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GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: R.N.K.
Reviewed by:
Submitted by:
Chief: Section

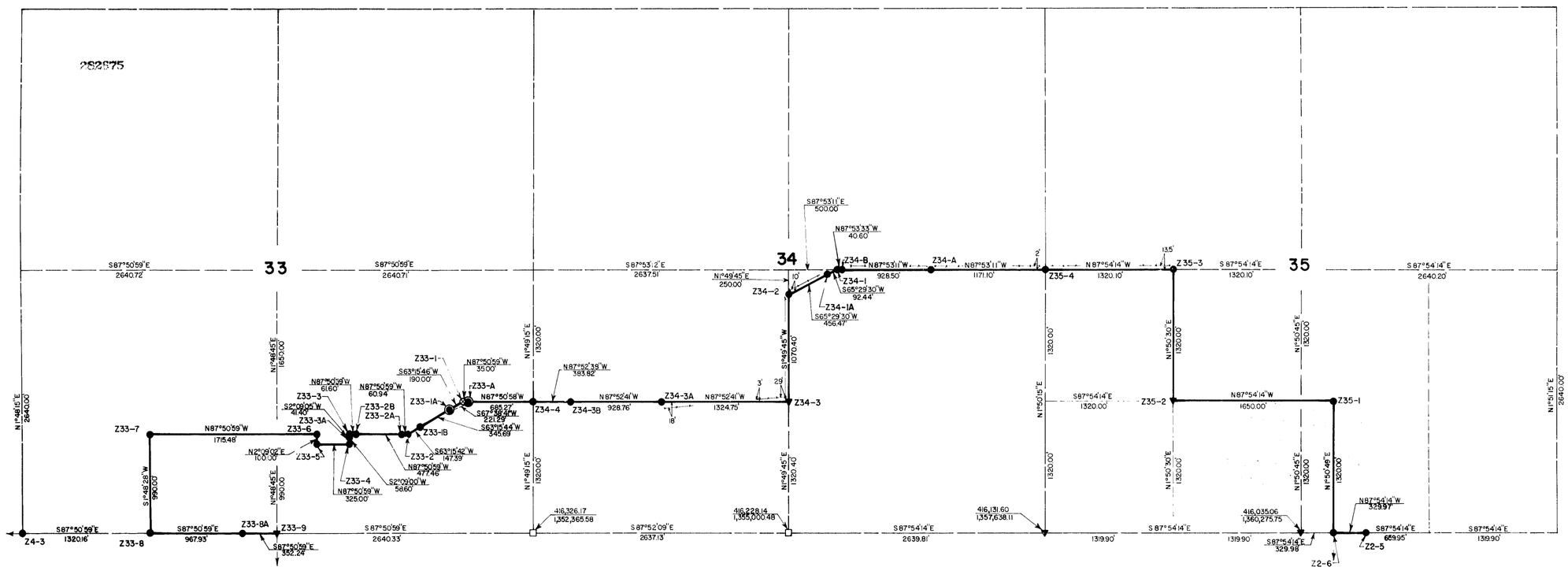
MISSOURI RIVER
GARRISON DAM—LAKE SAKAKAWEA
SEGMENT Z AND AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 7/8/05
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

SAFETY DAYS

TOWNSHIP 154 NORTH
RANGE 97 WEST

282675



POINT	X	Y
Z2-5	1,360,935.14	416,010.92
Z2-6	1,360,605.44	416,023.00
Z35-1	1,360,647.97	417,342.10
Z35-2	1,358,999.34	417,402.44
Z35-3	1,359,041.75	418,721.55
Z35-4	1,357,722.75	418,769.82
Z34-A	1,356,552.63	418,813.01
Z34-B	1,355,624.90	418,847.25
Z34-1	1,355,584.34	418,848.74
Z34-1A	1,355,590.24	418,810.40
Z34-2	1,355,076.78	418,617.34
Z34-3	1,355,042.62	417,547.66
A34-3A	1,353,718.99	417,596.70
Z34-3B	1,352,791.01	417,631.08
Z34-4	1,352,407.51	417,645.30
Z33-A	1,351,722.84	417,671.01
Z33-1	1,351,687.87	417,672.32
Z33-1A	1,351,518.21	417,586.85
ZZ33-1B	1,351,209.53	417,431.35
ZZ33-2	1,351,077.93	417,365.05
Z33-2A	1,351,017.04	417,367.33
Z33-2B	1,350,539.99	417,385.25
Z33-3	1,350,478.44	417,387.56
Z33-3A	1,350,476.89	417,346.19
Z33-4	1,350,474.69	417,287.64
Z33-5	1,350,149.97	417,299.84
Z33-6	1,350,153.72	417,399.75
Z33-7	1,348,439.72	417,464.10
Z33-8	1,348,408.49	416,474.76
Z33-8A	1,349,375.59	416,438.44
Z33-9	1,349,727.53	416,425.23
Z4-3	1,347,089.47	416,524.28

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ● BOUNDARY RLFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- — — — SECTION LINE
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- ------- SURVEY LINE

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GRID FACTOR= 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

Dept St 202 Ph
P 282675
Cecelia Johnson
5 pd In file

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION, THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LB Q. K. Kautz

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 28th Day of April, 19 86, before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires 7-8-88

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.H.K.
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT Z
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 4/8/86
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

SAFETY DAYS

5 4 3 2

115 N.W.2d 12 (1962)

Thomas M. JENNINGS, Plaintiff and Respondent,

v.

George E. SHIPP, Pearl Shipp, and all other persons unknown claiming any estate or interest in, or lien or encumbrance upon the property described in the Complaint, Defendants and Appellants.

No. 7976.

Supreme Court of North Dakota.

May 4, 1962.

13 *13 Jansonius, Fleck, Smith, Mather & Strutz, Bismarck, N. D., for defendants and appellants.

Thompson & Lundberg, Bismarck, N. D., for plaintiff and respondent.

RAY R. FRIEDERICH, District Judge.

This is an action to quiet title. By the original Government Survey in 1874, fractional Section 10, Township 139 North, Range 81 West, was laid out in the form of an isosceles right triangle, the north side being 24.8 chains in length, the east side 25.17 chains, and the hypotenuse of the triangle being the meander line along the east bank of the Missouri River running north 44¾ degrees west, a length of 35.2 chains. This triangular tract contained 36.21 acres, and was designated as Lot 1 in the foregoing section. The United States Government conveyed the property by patent to the plaintiff's predecessor in interest. Prior to the commencement of this action, the plaintiff conveyed to one who is not a party to this action all of the property comprising the original triangle, it being his intention to retain the accretions to the original tract. The Missouri River, which constituted the boundary on one side of this triangular tract, has characteristically been known to undulate in varying degrees, thereby causing either accretion or reliction of property bounded by the river. According to the testimony, over a period of approximately forty years, either by the recession of the stream or by the accumulation of various materials, an accreted area has developed to where the river now is approximately 1536 feet from the original meander line, leaving a substantial tract of land between the meander line and the present water line. From an examination of all the evidence it would appear that the meander line as
14 established *14 by the 1874 original survey was also the approximate shore line or water line on that date. The issues involve the ownership of lands formed as an accretion to the east bank of the Missouri River that formed between the meander line as established by the original survey of 1874 and the present bank of the Missouri River. The plaintiff brought this action to quiet title to a portion of the accreted lands. The defendants counterclaimed and asked that title be quieted in them to a portion of the same lands.

More specifically, it is claimed that the plaintiff having conveyed the upland, of which the accretions became a part, such accretions passed to the grantee of the upland, even though not described in the conveyance. The defendants further contend that the trial court did not apportion the new shore line in proportion to the respective frontage on the old shore line. It is contended by the defendants that they have acquired an interest in the accreted portion by adverse possession and are therefore entitled to it irrespective of the rule applicable to the division of accreted lands. Plaintiff, the respondent herein, maintained in the lower court, and claims here, that the north and east section lines of Section 10 should be extended to the present water line, and that all accreted areas between these extended lines are a part of the original Lot 1.

Certain matters have been so well settled that they may be summarily disposed of at the outset. In Oberly v. Carpenter, 67 N.D. 495, 274 N.W. 509-513, this Court said:

> "The defendants further insist that, in any event, the new land thus added to the plaintiff's land and to which plaintiff claims title under section 5473, cannot extend beyond the section line between section 24 and 25, and section 23 and 26. The first answer to this contention is that at the time of the survey this section line was not run north of the river. The second and conclusive answer is that the law governing riparian rights has no regard for artificial boundary lines, whether between sections or their subdivisions, or between counties, states, or nations. See the illuminating opinion of Mr. Justice Brewer in Nebraska v. Iowa, [143 U.S. 359, 12 S.Ct. 396, 36 L.Ed. 186] supra. See, also, Widdecombe v. Chiles, 173 Mo. 195, 73 S.W. 444, 61 L.R.A. 309, 96 Am.St.Rep. 507; Yearsley v. Gipple, 104 Neb. 88, 175 N.W. 641, 8 A.L.R. 636; Doebbeling v. Hall et al., 310 Mo. 204, 274 S.W. 1049, 41 A.L.R. 382."

From this holding it is quite conclusive that the defendants' contention that the east and north section lines of Section 10 should be extended until they reach the present water line is without foundation.

The trial court found that the defendants' claim of title by adverse possession is not substantiated by the evidence, and we concur in this finding.

As to the claim that a conveyance of the upland presumptively carries with it the accretion attached thereto, we find such a presumption rebuttable. Lynch v. Kupfer, 134 Cal.App. 652, 26 P.2d 33-34. Evidence may show an intent to separate the two. The evidence in this case shows that the last portion of the original tract was conveyed on August 5, 1949. The only person who might claim an interest in this accretion is the grantee of the original tract contiguous to it, and he apparently has laid no claim to it, at least the record does not reflect such a claim. In a Nebraska case, Conkey v. Knudsen, 135 Neb. 890, 284 N.W. 737-739, the Court said:

> "It is clear in the record that after plaintiff sold the south half of the north half of section 13 to Christensen, he retained possession of the accretions thereto. The only person who might establish a record title to any of these accretions is Christensen and he disclaims any interest
15 therein. We *15 think plaintiff has sufficient title to maintain this suit against these defendants under the holding in Ellsworth Corporation v. Stratbucker, supra (134 Neb. 246, 278 N.W. [381], 382)."

Having thus eliminated the claim of adverse possession, and the contention that plaintiff no longer retains an interest in the accreted tract sufficient to substantiate a quiet title action, we now confine our discussion to the real problem, that is, the establishment of the boundary line, or in other words, the division of the accretion that has resulted since the original Government Survey in 1874.

A search of the North Dakota case law does not reveal this precise question has ever been before this Court. In most of our neighboring states where the Missouri River also persists in the privilege of changing its course from time to time, such as South Dakota, Iowa and Nebraska, this question has been litigated. The trial court has correctly stated the rule of law, commonly known as the doctrine of accretion, namely;

> "The fundamental theory underlying the ownership of accretions is that each of the several riparian owners shall have a frontage on the new shore proportionate to his frontage on the old one, connecting their respective points by straight lines. * * *
>
> "The main objects to be kept in view in any division of accretions is that the division shall be equitable and that it shall be proportional so as to give each shore owner a fair share of the land to be divided and his due portion of the new shore line proportionate to his share on the original line of the water." Gardner v. Green, 67 N.D. 268, 271 N.W. 775.

See also: Berry v. Hoogendoorn, 133 Iowa 437, 108 N.W. 923; Hathaway v. City of Milwaukee, 132 Wis. 249, 111 N.W. 570, 9 L.R.A.,N.S., 778, 122 Am.St.Rep. 975, rehearing denied 132 Wis. 249, 112 N.W. 455, 9 L.R.A.,N.S., 778, 122 Am.St. Rep. 975.

It is in the application of this rule of law that difficulty arises. Much emphasis by both counsel for the plaintiff and the defendants has been placed upon the rule of law laid down by this Court in the case of Gardner v. Green, supra. In that case, page 783 of 271 N.W. we said:

> "But the survey line between lots 5 and 7 is not to be projected for the purpose of dividing accretions, that is, land that came into existence after the lots were laid out. Kehr v. Snyder, 114 Ill. 313-317, 2 N.E. 68, 55 Am.Rep. 866. It is to be projected only for the purpose of establishing the boundaries of the tracts as they were laid out, and to divide land then in existence between the meander line, as shown on the plat, and the shore line of the river. Land formed subsequent to the time the lots were laid out *must be apportioned among the owners of lands fronting on the river in accordance with the rules applicable to the apportionment of accretions.*" (Emphasis ours.)

In other words, Gardner v. Green, supra, is not authority in the instant case, because in the Green case the dispute involved a tract of land between the meander line and the shore line of the river as it existed at the time of the official United States Government Survey. In the instant case the meander line and the shore line were substantially the same at the time of the 1874 U. S. Government Survey, and the problem is strictly concerned with the rules applicable to the apportionment of accretions. Having stated the rule of law which governs, we examine its applicability.

The Nebraska court, reviewing this rule of law in Conkey v. Knudsen, 143 Neb. 5, 8 N.W.2d 538, quotes another text writer as follows:

> "`The division of such rights among riparian owners has been a fruitful source of litigation and
16 the courts have *16 promulgated certain rules for the partition thereof, which have been exceedingly useful to the professions. Among such rules we find the following: 1. Measure the ancient bank and compute the number of feet owned by each proprietor. 2. Divide the new bank into as many equal parts as there were feet in the old bank and draw lines from the old points of division to the new ones.' Clark, Surveying and Boundaries, 2d Ed., sec. 251. As early as 1835 the supreme court of Massachusetts applied the foregoing rule in the following language: `The rule is, 1. To measure the whole extent of the ancient bank or line of the river, and compute how many rods, yards or feet, each riparian proprietor owned on the river line. 2. The next step is, supposing the former line, for instance, to amount to 200 rods, to divide the newly formed bank or river line into 200 equal parts, and appropriate to each proprietor as many portions of this new river line, as he owned rods on the old. Then, to complete the division, lines are to be drawn from the points at which the proprietors respectively bounded on the old, to the points thus determined as the points of division on the newly formed shore. The new lines, thus formed, it is obvious, will be either parallel, or divergent, or convergent, according as the new shore line of the river equals, or exceeds or falls short of the old.'"

The application of this rule as outlined in the previous quotation appears to us to be practical and sensible. It is obvious, however, that certain evidentiary facts are absolutely necessary before this rule can be applied properly. In one of the earlier Iowa cases, Berry v. Hoogendoorn, 133 Iowa 437, 108 N.W. 923, the Court was confronted with much the same problem we are in this case. At page 926 of 108 N.W. the Court said:

> "We understand from the authorities on the subject that it would be necessary to ascertain the length of the new shore line between the points of its departure from the old shore line and the length of the corresponding portion of the old shore line, so that the new line might be apportioned in parts corresponding to the parts of the old shore line belonging to the different owners. If this had been done, then the accretions would be divided up by running straight lines from the points on the old line to the corresponding points on the new."

While the trial court has correctly stated the rule of law, it is mathematically impossible to apply this rule of law in the apportionment of the new shore line to that of the old, when the entire length of either the new or the old shore line is not included in the evidence. The Court, in the Hoogendoorn case, supra, said:

> "Without such means of apportionment, we are unable to say how much of the shore line south of the point F on the plat should have been apportioned to plaintiff."

The trial court in the instant case drew a line from the northwest corner of the original triangular plot perpendicular to the river, and then drew another line through the southeast corner of the triangle to the river and parallel to the first line. The accreted area between these two parallel lines, the Court held, was the area accreted to Lot 1 of Section 10. Whether these two lines should be parallel, divergent or convergent could only be determined after ascertaining the length of the old shore line and the length of the new shore line and appropriating to each proprietor along the accreted area a proportionate portion of the new river line. By applying the rule in the proportional division of accreted land among the riparian owners, the lines formulating the boundary would be parallel only if the new shore line were exactly the same length as the old shore line.
17 That this is not true in the instant case is clearly evident from an examination of Exhibit 10, and from *17 the further fact that the hypotenuse of the original triangle of Lot 1, Section 10, ran north 44¾ degrees west, while the hypotenuse of a triangle formed by the extension of the east and north boundaries of Section 10 now runs north 39' 14" west, as shown by Plaintiff's Exhibit 1.

This case is here for trial de novo under Section 28-27-32, NDCC. What we have heretofore said resolves all the issues of title except the establishment of a dividing line between portions of the accreted lands claimed by the contending parties. We have also determined that the trial court stated the correct rule by which the division shall be determined, but the record does not contain and there was not before the trial court sufficient evidence for the proper application of that rule. The old shore line against which the accretions were built has been conceded to be the meander line established by the 1874 survey. The length of that line to the extent that it formed the original boundary of the property in dispute can be calculated from the exhibits showing the original survey but the determination of the length of the part of the present shore line to which these litigants are entitled cannot be determined or calculated from the exhibits or other evidence in the record. That determination will require establishment of the points of departure (which cannot be located from the evidence in the record) of the present shore line from the line of the old shore and the determination of the lengths of both shore lines with respect to the entire body of accreted land. When the lengths of the shore lines between the points of departure have been ascertained it will be possible to determine the proportionate share of the present shore line to which each riparian owner is entitled, including the shares of the litigants.

The trial court attempted to make a determination of the dividing line between the properties of the parties to this action as best he could with the evidence before him. His decision seemingly approaches the result that would be obtained by applying the rule after all the facts necessary to a decision have been established. However, we cannot affirm or reverse a judgment on the basis of conjecture.

The record does not show the value of the land in dispute or afford a basis for estimating the cost of determining the length of the present shore line which may require extensive surveys. It may be that the expense of a new trial of this issue may be disproportionate to the benefits that can be obtained by either party upon a new trial of the issue involved in locating the dividing line.

As stated in McCoy v. Paxton, 156 Iowa 194, 135 N.W. 1091:

> "* * * it is entirely competent for the adjoining owners to agree how the accreted land shall be divided, and this is true regardless of the exact legal right that either may have therein."

The case is remanded for a new trial on the question of the lengths of the shore lines with respect to the accreted properties claimed by the respective parties. After they have been established, the trial court is directed to apportion the new shore line between the parties in parts corresponding to the ownership of the old

shore line, and determine the boundary line between the two tracts by drawing a straight line between a point on one shore line where the segments owned by the respective parties join to a similar point on the other shore line and modify or amend the judgment accordingly.

A new trial conformable to this opinion is ordered.

SATHRE, C. J., and MORRIS, BURKE and TEIGEN, JJ., concur.

STRUTZ, J., deeming himself disqualified did not participate, Honorable RAY R. FRIEDERICH, one of the Judges of the Second Judicial District, sitting in his stead.

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FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION AND MEANDER LINES

OF

TOWNSHIP 154 NORTH

OF

RANGE 97

WEST

Of the FIFTH PRINCIPAL *Meridian,*

NORTH DAKOTA,

AS SURVEYED BY

GEORGE K. DIKE, *United States Deputy Surveyor,*

Under his Contract No. 42, *dated* March 24, 1896

Survey commenced September 18, 1896.

Survey completed October 3, 1896.

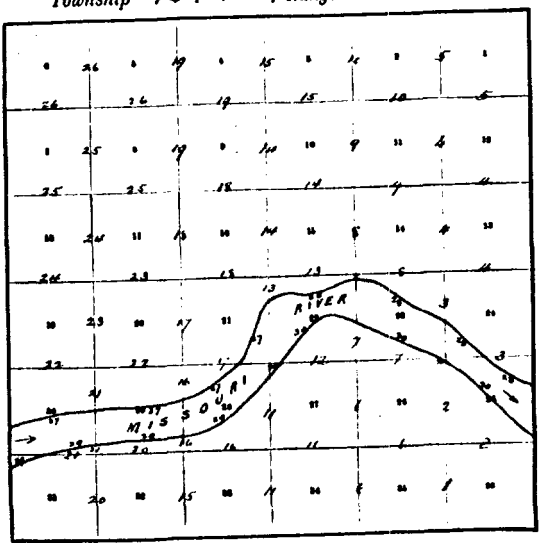
6—688

NAMES AND DUTIES OF ASSISTANTS.

Jacob A Dahl	Chairman.
Sherwin C Beckwith	Chairman.
William Allen	Yeoman.
Henry Russell	Yeoman.
Isaac Adkison	Yeoman.

INDEX DIAGRAM.

Township 154 N . Range 97 W.



Meanders Page 27 to 30

PRELIMINARY OATHS OF ASSISTANTS.

We, Jacob A. Dahl and Sherwin J. Bedwell

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the 1st Standard and meander lines of Township No. 154 N. of Range No. 97 West of the fifth principal Meridian in North Dakota

Jacob A. Dahl, Chainman.

Sherwin J. Bedwell, Chainman.

Subscribed and sworn to before me this 3rd day of July, 1896.

No other Official Seal Known

George K. Dike
U. S. Deputy Surveyor.

We, Henry Russell and Isaac Asleson

do solemnly swear that we will well and truly perform the duties of mounduen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the 1st Standard and meander lines of Township No. 154 N. of Range No. 97 West of the fifth principal Meridian in North Dakota

Henry Russell, Mounduen.

Isaac Asleson, Mounduen.

Subscribed and sworn to before me this 3rd day of July, 1896.

No other Official Seal Known

George K. Dike
U. S. Deputy Surveyor.

We, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

_____, Axman.

_____, Axman.

Subscribed and sworn to before me this _____ day of _____, 189

_____

No Official Seal Known

I, William Allen, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the subdivisional and meander lines of Township No. 154 N. of Range No. 97 West of the fifth principal Meridian in North Dakota

William Allen, Flagman.

Subscribed and sworn to before me this 3rd day of July, 1896.

No other Official Seal Known

George K. Dike
U. S. Deputy Surveyor

6-321

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Survey commenced September 18, 1896, and executed with a Burt's improved solar compass with double Standard telescope attachment, numbered 2215 and a steel chain tape all made by Young and Sons of Philadelphia, Pa.

The instrument was examined, tested on the meridian established by the U. S. Coast and Geodetic survey at the State University of Minnesota, found correct, and with a Chesterman steel tape kept for a Standard measure, was approved by the surveyor general, for North Dakota, May 12, 1896.

At 7h. 30m. a.m. l.m.t., I set off 46°07' on the lat. arc, 1°34'30" W. in the decl. arc, and at the meander cor. of fract. secs. 25 and 36, on the E. bdy. of the Tp., and left bank of Missouri river, heretofore described, determine a true meridian with the solar, which I find at 20.0 chs. W. of cor., falls 2 ins. E. of the true meridian established by Polaris observation at this cor. June 29, as heretofore described.

The magnetic bearing of the true meridian is N. 17° 01'W., which reduced by the table on page 100 in the Manual, gives the mean mag. decl. 16°58'E.

Note; As the survey of the exterior and subdivisional lines of this Tp. are included in the same contract, retracements are omitted.

From the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the Tp., heretofore described,
I run
N.0°1'W. bet. secs. 35 and 36.

1.75 Tobacco Garden Creek, 10 lks. wide, having a gravelly bed, 2 ft. banks, and 3 ins. of running water, course E.
14.00 Recross creek, 10 lks. wide, course N. W.
23.80 John Frisch's house bears N.89°E., 4.50 chs. dist.,
31.60 Recross creek, 15 lks. wide, course N. E.
40.00 Set a limestone 16x10x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x 12 ins., W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
48.00 Recross creek, 80 lks. wide, course W. W.
57.00 Recross creek 70 lks. wide, course E. E.
80.00 Set a granite stone 18x10x[illegible] ins., 12 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked with 1 notch on S. and E. edges, dig pits, 18x18x12 ins. in each sec. ¾ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level bottom, not subject to inundation.
Soil, alluvial, 1st. rate.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	S.89°51'E. on a random line bet. secs. 25 and 36.
40. 0	Set temp. ¼ sec. cor.
80.00	Intersect E. bdy. of Tp. 3 lks. N. of cor. of secs. 25, 30, 31 and 36, heretofore described,
	Thence I run,
	N.89°50'W. on a true line bet. secs. 25 and 36.
	Through timber and dense undergrowth.
4.50	Tobacco Garden Creek, 100 lks. wide, having 6 ft. banks, a sandy bed, and sluggish current, course N.
40.00	Set a cottonwood post, 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on N. face, no trees within limits, dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
	September 18; At this ¼ sec. cor., I set off 1°20' N. on the decl. arc, and at 11h. 54m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'.
42.00	Leave timber and dense undergrowth bearing W.
80.00	The cor. of secs. 25, 26, 35 and 36.
	Land, dry level bottom, subject to 2 ft. to 6 ft. innundation on E. ¼ mile.
	Soil, alluvial, 2nd. rate.
	Timber, cottonwood and ash.
	Timber and dense undergrowth 42.00 chs.

	N.0°1' W. bet. secs. 25 and 26.
19.50	Enter timber and dense undergrowth bearing S. E.
40.00	Set a cottonwood post, 3 ft. long, 3 ins. sq., 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face, from which,
	A cottonwood 6 ins. diam., bears N. 20¼°E., 32 lks. dist., marked,
	¼ S. B. T.
	A cottonwood 4 ins. diam., bears S. 74¼°W., 33 lks. dist., marked,
	¼ S. B. T.
74.55	Right bank of Missouri river and
	Set a cottonwood post 3 ft. long, 4 ins. sq., 24 ins. in the ground for Meander cor. of fract. secs. 25 and 26, marked,
	M. C. on N.
	T. 154 N. on S.
	R. 97 W., S. 25 on E. and
	S. 26 on W. faces, from which,
	A cottonwood 6 ins. diam., bears N. 64¼°W., 193 lks. dist., marked,
	T. 154 N., R. 97 W., S. 26, M. C. B. T.
	A cottonwood 4 ins. diam., bears S. 26°E., 206 lks. dist., marked,
	T. 154 N., R. 97 W., S. 25, M. C. B. T.
80.00	Point for cor. of secs. 23, 24, 25 and 26 on sandbar.
	Land, dry level bottom subject to 4 ft. innundation in places near the river.
	Soil, alluvial, 2nd. and 3rd. rate.
	Timber, cottonwood and ash.
	Timber and dense undergrowth 55.05 chs.

September 18, 1896.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	S.89°50'E. on a random line bet. secs. 24 and 25. From point for cor. of secs. 23, 24, 25 and 26 on sandbar, I measure a base S.44°50'E., 46.00 chs. to a point where a flag on line over river bears N.10'E., distance over river is therefore, departure of base for 45° or 32.53 chs.
32.53	Set temp. Meander cor.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E. bdy. of Tp. at cor. of secs. 19, 24, 25 and 30, heretofore described, Thence I run, N.89°50'W. on a true line bet. secs. 24 and 25.
40.01	Set a granite stone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
47.50	Left bank of Missouri river and set a granite stone 16x6x6 ins. 10 ins. in the ground for Meander cor. of fract. secs. 24 and 25, marked M.C. on W. face, with 2 grooves on S. face, dig a pit 36x36x12 ins. 8 ft. E. of stone and raise a mound of earth 4 ft. base, 2 ft. high E. of cor.
80.02	Point for cor. of secs. 23, 24, 25 and 26 on sandbar.
	Land, dry level bottom not subject to innundation. Soil, alluvial, 1st. rate.

	N.0°1'W. bet. secs. 23 and 24. Over river. From point for cor. of secs. 23, 24, 25 and 26, I offset E. to left bank of river, thence N.0°1'W. on offset line, 34.00 chs. Thence W. to intersection of true line 70 lks. in advance of river bank, therefore distance over river is 33.30 chs. — 70 = 33.30 chs.
33.30	Left bank of Missouri river and set a limestone 15x9x4 ins., 10 ins. in the ground for Meander cor. of fract. secs. 23 and 24, marked M.C. on S. with 1 groove on E. face, from which, A cottonwood 7 ins. diam. bears N.76°E., 63 lks. dist. marked T. 154 N., R. 97 W., S. 24, M. C. B. T. A cottonwood 7 ins. diam. bears N.44°W. 94 lks. dist. marked T. 154 N., R. 97 W., S. 23, M. C. B. T. Thence through timber and dense undergrowth.
35.30	Leave timber and dense undergrowth bearing S.E. at this point J.A.McKay's house bears N.37°E., William Laughland's house N.28°W.
40.00	Set a sandstone 15x8x8 ins. 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
63.65	A wagon road bearing E. J.A.McKay's house bears N.78°E? William Laughland's house bears S.78°W.
65.00	Leave bottom land bearing E. and ascend bluffs.
74.00	Top of bluffs 60 ft. high, bearing E.
80.00	Set a granite stone 15x9x9 ins. 10 ins. in the ground for cor. of secs. 13, 14, 23 and 24, marked with 3 notches on S. and 1 notch on E. edges; dig pits, 18x18x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom not subject to innundation, and prairie, Soil, alluvial and gravelly loam, 1st. and 2nd. rate Timber, cottonwood. Timber and dense undergrowth, 2.00 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 19: At the cor. of secs. 13, 14, 23 and 24 I set off 48°08'30"N. on the lat. arc, 1°09'N. on the decl. arc, and at 9h.a.m., l.m.t., determine a true meridian with the solar.
	Thence I run,
	S.89°50'E. on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect E. bdy. of Tp. 3 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 13 and 24.
	Over side of bluffs sloping S.
31.50	Top of bluffs bearing W.S.W.
40.03	Set a granite stone 24x8x6 ins., 18 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
59.35	A wagon road, bearing N.
80.06	The cor. of secs. 13, 14, 23 and 24.
	Land prairie, generally level.
	Soil, gravelly loam, 2nd. rate.

	N.0°1'W. bet. secs. 13 and 14.
40.00	Set a granite stone 12x8x8 ins., 8 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; dig pits, 18x18x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
46.25	A wagon road, bearing W.
80.00	Set a granite stone 15x9x6 ins., 10 ins. in the ground for cor. of secs. 11, 12, 13 and 14, marked with 4 notches on S. and 1 notch on E. edges; dig pits, 15x 18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie, gently rolling.
	Soil, sandy loam, 2nd. rate.

	S.89°-1'E. on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E. bdy. of Tp. 2 lks. N. of cor. of secs. 7, 12, 13 and 18, heretofore described,
	Thence I run,
	N.89°50'W. on a true line bet. secs. 12 and 13.
40.01	Set a granite stone 15x10x10 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.02	The cor. of secs. 11, 12, 13 and 14.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

	N.0°1'W. bet. secs. 11 and 12.
40.00	Set a granite stone 15x12x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18 x12 ins. N. and S. of stone 3 ft. dist., and raise a moundof earth 3½ ft. base, 1½ ft. high W. of cor.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 19: At this ¼ sec. cor., I set off 1°05'30" W. on the decl. arc, and at 11h. 54m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°10'.
80.00	Set a limestone 18x14x6 ins., 12 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

	S.89°50'E. on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
60.00	Intersect E. bdy. of Tp. 5 lks. S. of cor. of secs. 1, 6, 7 and 12, heretofore described,
	Thence I run,
	N.89°52'W. on a true line bet. secs. 1 and12.
.70	A grassy drain, 15 lks. wide, course S.E.
40.00	Set a granite stone 15x12x9 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00	The cor. of secs. 1, 2, 11 and 12.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

	N.0°1'W. on a random line bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
60.00	Intersect N. bdy. of Tp. at cor. of secs. 1, 2, 35 and 36, heretofore described,
	Thence I run,
	S.0°1'E. on a true line bet. secs. 1 and 2.
6.40	A wagon road bearing E.N.E.
13.90	A grassy drain, 25 lks. wide, course E.
40.00	Set a limestone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
47.15	A wagon road, bearing W.-E.
80.00	The cor. of secs. 1, 2, 11 and 12.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

September 19, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 21: At 7h. a.m., l.m.t., I set off 48°06' on the lat. arc, 00°26'30" N. on the decl. arc, and at the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of the Tp. heretofore described, determine a true meridian with the solar.
	Thence I run,
	N.0°2'W. bet. secs. 34 and 35.
40.00	Set a granite stone 15x9x8 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
49.00	Begin to descend bluffs, bearing E.
52.60	Foot of bluffs 100 ft. high and enter bottom land bearing E.
80.00	Set a granite stone 15x8x8 ins., 10 ins. in the ground for cor. of secs. 26, 27, 34 and 35, marked with 1 notch on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie and bottom land generally level. Soil, sandy loam and alluvial, 1st. rate.

	S.89°51'E. on a random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line at cor. of secs. 25, 26, 35 and 36,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 26 and 35.
40.00	Set a limestone 15x10x4 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00	The cor. of secs. 26, 27, 34 and 35.
	Land, dry level bottom not subject to inundation. Soil, alluvial, 1st. rate.

	N.0°2'W. bet. secs. 26 and 27.
40.00	Set a granite stone 15x9x9 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
75.00	Enter timber and dense undergrowth bearing S.E.
80.00	Set a granite stone 15x8x8 ins., 10 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on S. and E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom, not subject to inundation. Soil, alluvial, 1st. rate.
	Dense undergrowth, 5.00 chs.

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Township 153 North of Range 97 West of the 5th. Principal Meridian.

Chains.

S.89° 1'E., on a true line bet. secs. 25 and 26.

40.00 Set temp. 1 sec. cor.

72.70 Set a temp. "meander corner."

80.00 Intersect W. and E. lines at point for cor. of secs. 23, 24, 25 and 26, on sandbar.

Thence I run,

N.8°01'W., on a true line bet. secs. 25 and 26.

On sandbar in river.

7.30 Right bank of Missouri river, and

Set a cottonwood post 5 ft. long, 4 ins. sq., 24 ins. in the ground for meander cor. of fract. secs. 23 and 26, marked,

T. 153 N. on E.

T. 154 N. on W.

R. 97 W., S. 25 on S. and

S. 23 on W. faces, from which,

A cottonwood 4 ins. diam., bears N. 40°W., 18 lks. dist., marked,

T. 154 N., R. 97 W., S. 23, M. C., B. T.

A cottonwood 4 ins. diam., bears S. 39°E., 70 lks. dist., marked,

T. 154 N., R. 97 W., S. 26, M. C., B. T.

Thence through timber and dense undergrowth.

40.00 Set a cottonwood post 5 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for 1 sec. cor., marked S. on E. face, no trees within limits, dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high over cor.

80.00 The cor. of secs. 22, 23, 26 and 27.

Land, dry level bottom, subject to 4 ft. inundation in places near the river.

Soil, alluvial, sandy and fair water.

Timber, cottonwood and ash.

Timber and dense undergrowth, 72.70 chs.

N.0°2'W. bet. secs. 23 and 26.

Through timber and dense undergrowth.

39.35 Right bank of Missouri river, and

Set a cottonwood post 5 ft. long, 4 ins. sq., with charred stake 24 ins. in the ground for meander cor. of fract. secs. 23 and 26, marked, M. C. on W.

T. 154 N. on E.

R. 97 W., S. 23 on E. and

S. 26 on W. faces, no trees within limits, dig a pit, 18x18x12 ins. E. of post, and

raise a mound of earth 3 ft. base, 2 ft. high S. of cor.

September 21, 1896.

Thence on sandbar, same from a point at 64.00 chs. on true line I set a flag [illegible] over river and a 2nd. flag over river bearing [illegible] N.02°W., from which I run N. 89°E., 15.47 [illegible] intersection of true line 27 lks. in advance of [illegible] park, distance over river is therefore 15.47 chs. [illegible] =15.20 chs., and distance on line 15.20 chs. [illegible] =79.20 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
79.20	Left bank of Missouri river, and Set a granite stone 15x9x9 ins., 10 ins. in the ground for meander cor. of fract. secs. 22 and 23, marked, M. M. on S. face, with 2 grooves on E. face, dig a pit 36x36x12 ins., 8 ft. W. of stone and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
80.00	Set a granite stone 12x10x6 ins., 8 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 4 ft. innundation in places, S. of river.
Soil, alluvial, 2nd. and 3rd. rate.
Timber, cottonwood and ash.
Timber and dense undergrowth 39.36 chs.

September 22; At 7h. 20m. a.m., l.m.t., I set off 48° 08'30" on the lat. arc, 00°02'E. on the decl. arc, and at the cor. of secs. 14, 15, 22 and 23, determine a true meridian with the solar.
Thence I run,

	S.89°51'E. on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
79.94	Intersect N. and S. line 6 lks. N. of cor. of secs. 13, 14, 23 and 24.
	Thence I run,
	N.89°48'W. on a true line bet. secs. 14 and 23.
16.80	A wagon road bearing N.
20.60	Begin to descend bluffs, bearing N.
23.50	Foot of bluff, 100 ft. high, bearing N.
30.20	A brook drain, 8 lks. wide, 2 ft. deep, having a slow current, course S. S. E.
39.97	Set a limestone 15x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
44.80	Enter a plowed field bearing N. N. W.
46.25	Leave field extending 10.00 chs. W. N.W. and 10.00 chs. E. S. E.
79.94	The cor. of secs. 14, 15, 22 and 23.

Land, dry level bottom, not subject to innundation and prairie.
Soil, alluvial and sandy loam, 1st. and 2nd. rate.

N.0°2'W. bet. secs. 14 and 15.

	Over bottom land.
27.00	Leave bottom land, bearing W.
29.00	Enter a cultivated field bearing S. E.
35.00	Leave field bearing S. E.
40.00	Set a granite stone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
	Thence ascend bluffs, bearing E.
44.00	Top of bluff 75 ft. high bearing E.
57.00	A wagon road bearing W.
	A school house bearing W.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.

80.00 Set a granite stone 20x12x12 ins., 15 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
School house bears S. 26°W.

Land, prairie and dry level bottom, not subject to innundation.
Soil, sandy loam and alluvial, 2nd. rate.

40.00 S.89°46'E. on a random line bet. secs. 11 and 14.
80.00 Set temp. ¼ sec. cor.,
Intersect W. and S. line, 7 lks. S. of cor. of secs. 11, 12, 13 and 14,
Thence I run,
N.89°51'W. on a true line bet. secs. 11 and 14.
40.00 Set a granite stone 15x10x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00 The cor. of secs. 10, 11, 14 and 15.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°2'W. bet. secs. 10 and 11.
15.80 A wagon road, bearing S.S°W.
40.00 Set a granite stone 15x8x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

September 22; At this ¼ sec. cor. I set off 00°04'30" S. on the 3rd. arc, and at 11h. 22m. a.m., l.m.t., observe the sun on the meridian, resulting latitude 48°10'.

80.00 Set a limestone 18x14x8 ins., 12 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked with 5 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

S.89°51'E. on a random line bet. secs. 2 and 11.
40.00 Set temp. ¼ sec. cor.
79.96 Intersect N. and S. line 2 lks. N. of cor. of secs. 1, 2, 11 and 12,
Thence I run,
N.89°50'W. on a true line bet. secs. 2 and 11.
38.20 A wagon road, bearing N.E.
39.98 Set a limestone 18x12x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
79.96 The cor. of secs. 2, 3, 10 and 11.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°2'W. on a random line bet. secs. 2 and 3.
40.00 Set temp. ¼ sec. cor.
80.08 Intersect N. bdy. of Tp. at cor. of secs. 2, 3, 34 and 35, heretofore described,
Thence I run,
S.0°2'E. on a true line bet. secs. 2 and 3.
40.08 Set a limestone 18x12x6 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
50.00 Begin to descend bluffs, bearing S.W.
77.00 Foot of bluff, 100 ft. high, bearing S.W.
80.08 The cor. of secs. 2, 3, 10 and 11.

Land prairie, rolling.
Soil, gravelly loam, 2nd. rate.

September 22, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 23; At 7h. 15m. a.m., l.m.t., I set off 48°06' on the lat. arc, 30°21'S. on the decl. arc, and at the cor. of secs. 3, 4, 33 and 34, on S. bdy. of the Tp. heretofore described, determine a true meridian, with the solar.
	Thence I run,
	N.0°3'W. bet. secs. 33 and 34.
25.00	Begin to descend Bluffs bearing E.
29.50	Foot of bluff, 75 ft. high, and enter bottom land, bearing E.
40.00	Set a limestone 18x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x16 x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
80.00	Set a limestone 12x10x8 ins., 8 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked with 1 notch on S. and 3 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie, and dry level bottom.
	not subject to inundation.
	Soil, alluvial and sandy loam, 1st. rate.

	S.89°51'E. on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line 4 lks. S. of cor. of secs. 26, 27, 34 and 35,
	Thence I run,
	N.89°33'W. on a true line bet. secs. 27 and 34.
39.98	Set a limestone 18x12x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
79.96	The cor. of secs. 27, 28, 33 and 34.
	Land, dry level bottom, not subject to inundation.
	Soil, alluvial, 1st. rate.

	N.0°3'W. bet. secs. 27 and 28.
40.00	Set a granite stone 18x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
65.40	Right bank of Missouri river and Set a post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Meander cor. of fracl. secs. 27 and 28, marked,

Chains.

M.C. on N.
T. 154 N., on S.
R. 97 W., S. 27 on E. and
S. 28 on W. faces,
dig a pit 36x36x12 ins. S. ft. S. of post and raise
a mound of earth 4 ft. base, 2 ft. high S. of cor.
80.00 In river.

Land, dry level bottom, not subject to inundation.
Soil, alluvial, 1st. rate.

S.89°53'E. on a random line bet. secs. 22 and 27.
From the meander cor. of fract. secs. 27 and 28,
I run S. 89°53' E. on offset line, 13.00 chs., thence
N. 3' W. 14.60 chs. to bank of river.
13.00 And set temp. meander cor.
Thence S. 89° 53' E. on random line bet. secs. 22
and 27.
40.00 Set temp. ¼ sec. cor.
80.00 Intersect N. and S. line at cor. of secs. 22, 23, 26
and 27.
Thence I run,
N.89°53'W. on a true line bet. secs. 22 and 27.
Through dense undergrowth.
5.00 Leave dense undergrowth, bearing N.W.
40.00 Set a limestone 15x12x8 ins., 10 ins. in the ground
for ¼ sec. cor., marked ¼ on N. face, dig pits,
18x15x12 ins. E. and W. of stone 3 ft. dist., and
raise a mound of earth 3½ ft. base, 1½ ft. high N.
of cor.
57.00 Right bank of Missouri river,
and set a granite stone 18x12x8 ins., 10 ins. in the
ground for Meander cor. of fract. secs. 22 and 27,
marked,
M. C. on W. face,
with 2 grooves on S. face, dig a pit, 36x33x12 ins.
S.ft. E. of stone, and raise a mound of earth 4 ft.
base, 2 ft. high . of cor.
80.00 Point for cor. of secs. 21, 22, 27 and 28, in river.

Land, level bottom not subject to inundation.
Soil, alluvial, 2nd. rate.
Dense undergrowth 5.00 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	N.0°3'W. bet. secs. 21 and 22.
	From a point on sandbar in river where meander cor. of fract. secs. 22 and 27, bears S.89°53'E., I run N.3'W. on offset line 20.00 chs., thence S.89°53'E. to a point where Meander cor. of fract. secs. 27 and 28, bears S.3'E., thence N.3'W. on true line.
40.00	On sandbar.
59.85	Left bank of Missouri river and Set a cottonwood post, 3 ft. long, 4 ins. sq. 24 ins. in the ground for Meander cor. of fract. secs. 27 and 28, marked M.C. on S. T.154 N. on N. R. 97 W., S. 21 on W. and S. 22 on E. faces, from which A boxelder 7 ins. diam, bears N.15°E., 44 lks. dist., marked T. 154 N., R. 97 W., S. 22, M. C. B. T. A boxelder 8 ins. diam., bears N.46°W., 9 lks. dist., marked, T. 154 N., R. 97 W., S. 21. M. C. B. T.
	Thence ascend bluffs.
64.25	Top of bluff 125 ft. high, bearing N.E.
80.00	Set a limestone 18x10x8 ins., 12 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked 154 N. on N.E. 97 W. on S.E. faces, with 3 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling. Soil, sandy loam, 2nd. rate.
	September 23, At this cor. I set off 00°28'S. on the decl. arc, and at 11h. 52m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°08'30".
	S.89°53'E. on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect W. and S. line 9 lks. N. of cor. of secs. 14, 15, 22 and 23.
	Thence I run, N.89°49'W. on a true line bet. secs. 15 and 22.
	Over dry bottom land.
35.00	Enter wet boggy bottom bearing N.E.
39.98	Set a granite stone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
44.50	Leave wet bottom, bearing N.E.
44.75	Leave bottom land, and ascend bluff, bearing N.E.
46.50	Top of bluff, 75 ft. deep, bearing N.E.
79.96	The cor. of secs. 15, 16, 21 and 22.
	Land level bottom, partially wet, but not subject to inundation, and rolling prairie. Soil, alluvial and sandy loam, 2nd. rate.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	N.0°3'W. bet. secs. 15 and 16.
40.00	Set a granite stone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
59.00	A ravine 100 ft. deep, course E.S.E.
80.00	Set a limestone 18x8x7 ins., 12 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked with 4 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	rand, prairie, rolling, generally sloping S.E.
	Soil, gravelly loam, 2nd. rate.
	Have ascended about 150 ft.

	S.89°49'E. on a random line bet. secs. 10 and 15.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect W. and S. line 5 lks. S. of cor. of secs. 10, 11, 14 and 15,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 10 and 15.
7.80	A wagon road, bearing S.
28.50	Begin to descend bluffs, bearing S.
39.99	Set a limestone 20x12x5 ins., 15 ins. in the ground for ¼ sec. cor. marked ¼ on N. face, dig pits 18x18x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor. Nesson Post Office, and
	Baldwin's ranch bears S. 18°E.
52.50	Foot of bluffs 100 ft. high, bearing N. and a creek drain, 3 lks. wide, 6 ins. deep, with rapid current, course S.
	Thence ascend.
70.00	Top of bluffs, 150 ft. high, bearing N.
73.50	Post office and ranch, bears S.65°E.
76.00	A wagon road, bearing N.W.
79.98	The cor. of secs. 9, 10, 15 and 16.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

	N.0°3'W. bet. secs. 9 and 10.
5.15	A wagon road, bearing N.W.
18.00	Begin to d scend bluffs, bearing S.E.
40.00	Set a granite stone 18x8x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
45.80	A creek drain, 3 lks. wide, having a gravelly bed, and 6 ins. of water, current rapid, course S.E., have descended 100 ft.
48.30	Recross creek drain, 4 lks. wide, course S.W.
49.75	Recross creek drain, 3 lks. wide, course S.E.
52.75	Begin to ascend bluffs, bearing S.E.
80.00	Set a slatestone 18x12x7 ins., 10 ins. in the ground for cor. of secs. 3, 4, 9 and 10, marked with 5 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	S.69°51'E. on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line at cor. of secs. 2, 3, 10 and 11.
	Thence I run,
	N.89°51'W. on a true line bet. secs. 3 and 10.
38.00	Begin to ascend bluffs bearing E.S.E. and N.E.
39.98	Set a granite stone 18x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
67.00	Top of bluff or ridge, 125 ft. high, bearing N.
75.50	Begin to descend ridge bearing W.
79.96	The cor. of secs. 3, 4, 9 and 10.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.

	N.0°3'W. on a random line bet. secs. 3 and 4.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. bdy. of Tp. at cor. of secs. 3, 4, 33 and 34, heretofore described,
	Thence I run,
	S.0°3'E. on a true line bet. secs. 3 and 4.
	Over side of ridge 80.00 chs. W.
40.12	Set a granite stone 18x12x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
80.12	The cor. of secs. 3, 4, 9 and 10.
	Land, prairie, very rolling.
	Soil, clay loam, 4th. rate.

September 25, 1896.

	September 24: At 7h.30m.a.m., l.m.t., I set off 48°06' on the lat. arc, 0°3'S. on the last arc, and at the cor. of secs. 2, 3, 32 and 33 on S. bdy. of the Tp. heretofore described, determine a true meridian with the solar.
	Thence I run,
	N.0°3'W. bet. secs. 32 and 33.
	In ravine.
14.75	Bottom of ravine, course N.W.
18.50	Enter bottom land bearing E.
19.50	F.T. Townsend's house, stands 50 lks. W.
23.00	Enter dense undergrowth, bearing E.
40.00	Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face; no trees within limits, dig pits, 18x18 x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor. and leave dense undergrowth, bearing N.E.
71.20	Enter dense willow undergrowth, bearing N.E.
80.00	Set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 28, 29, 32 and 33, marked,
	T. 154 N., S. 28 on N.E.
	S. 29 on N.W.
	S. 32 on S.W. and
	R. 97 W., S. 33 on S.E. faces; with 1 notch on S. and 2 notches on E. edges; no trees within limits, dig pits 18x18x12 ins. in each sec. 4 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom, not subject to inundation, except 10.00 chs. which is subject to 10ft. inundation, ar prairie.
	Soil, alluvial and clay loam, 1st. rate.
	Dense undergrowth 80.00 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	S.89°51'E. on a random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line at cor. of secs. 27, 28, 33 and 34.
	Thence I run,
	N.89°51'W. on a true line bet. secs. 28 and 33.
40.00	Set a granite stone 15x12x6 ins. 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
75.50	Enter dense willow undergrowth, bearing N.E.
80.00	The cor. of secs. 28, 29, 32 and 33.
	Land, dry level bottom not subject to innundation exce: W. 4.50 chs, which is subject to 10 ft. innundation. Soil, alluvial, 2nd. rate. Dense undergrowth, 4.50 chs.

	N.0°4'W. bet. secs. 28 and 29.
	Through dense undergrowth.
2.30	Enter a shallow pond or bayou, bearing E.
6.30	Over pond bearing E., extending 20.00 chs. E. and 37.00 chs. W.
17.25	Right bank of Missouri river and set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for meander cor. of fracl. secs. 28 and 29, marked, M.C. on N. T.154 N. on S, R. 97 W., S. 28 on E. and S. 29 on W. faces; no trees within limits, dig a pit 36x36x12 ins. 8 ft. S. of post, and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.
	Thence on sandbar and from a point at 20.00 chs. on line, I set a flag on line on sandbar over river, and a 2nd. flag over river bearing N.45°04'W, from which I run N.89°56'E. 16.04 chs. to intersection of true line, distance over river is therefore 16.04 chs. and distance on line to said point of intersection is 16.04+20.00 =36.04 chs., thence on true line.
40.00	On sandbar.
47.00	Left bank of river and set a cottonwood post 3 ft. long 4 ins. sq. 24 ins. in the ground for meander cor. of fracl. secs. 28 and 29, marked, M.C. on S. T.154 N. on N, R. 97 W., S. 29 on W. and S. 28 on E. faces; from which, A cottonwood 5 ins. diam. bears N.47½°E., 263 lks. dist. marked, T. 154 N., R. 97 W., S. 28, M. C. B. T. A cottonwood 5 ins. diam. bears S.85½°W., 209 lks. dist. marked, T. 154 N., R. 97 W., S. 29, M. C. B. T.
	September 24; at this meander cor. I set off 00°51'S. on the decl. arc, and at 11h.52m.a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'.
	Thence through timber and dense undergrowth.
80.00	Set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 20, 21 28 and 29, marked T.154 N., S. 21 on N.E. S. 20 on N. W. S. 29 on S.W. and R. 97 W., S. 28 on S.E. faces;

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Chains.

with 2 notches on S. and 4 notches on E. edges, no trees within limits; dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 2 to 10 ft. inundation.
Soil, alluvial, 2nd. and 3rd. rate.
Timber, cottonwood, elm and ash.
Dense undergrowth, 46.25 chs.

S.89°31'E. on a true line bet. secs. 21 and 28.
Through dense willow undergrowth.

40.00 Set an ash post 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor. marked ¼ S., on N. face, no trees within limits; dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

55.00 Right bank of Missouri river and set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground, for meander cor. of fracl. secs. 21 and 28, marked,
M.C. on E.
T. 154 N. on W.
R. 97 W., S. 28 on S. and
S. 21 on N. faces; no trees within limits, dig a pit 36x36 12 ins., 8 ft. W. of post, and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 3 ft. innundation.
Soil, alluvial, 2nd. rate.
Timber, cottonwood, elm and ash.
Timber and dense undergrowth, 55.00 chs.

September 24, 1896.

September 25: At 7h. 30m. a.m., l.m.t., I set off 48° 08' on the lat. arc, 1°08'30"S. on the decl. arc, and at the cor. of secs. 20, 21, 28 and 29, determine a true meridian with the solar.
Thence I run,
N.0°4'W. bet. secs. 20 and 21.
Through timber and dense undergrowth.

39.00 Set a sandstone 20x16x8 ins., 15 ins. in the ground for Witness Cor. to ¼ sec. cor., marked W.C. ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable, and
Leave bottom land, timber and dense undergrowth and ascend bluffs, bearing E.-E.

40.00 Point for ¼ sec. cor. on abrupt side of bluff in loose clay.

74.00 Top of bluff, 300 ft. high, bearing N.W.

80.00 Set a sandstone 15x12x4 ins., 10 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on S. and 4 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 2 ft. inundation.
Soil, alluvial, 2nd. rate, and bluffs, clay loam, 4th. rate.
Timber, cottonwood, elm and ash.
Dense undergrowth, 39.00 chs.

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Chains.	
	S.89°51'E. on a random line bet. secs. 16 and 21.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect N. and S. line 7 lks. N. of cor. of secs. 15, 16, 21 and 22,
	Thence I run,
	N.89°48'W. on a true line bet. secs. 16 and 21.
	Gradually ascending over rolling land.
19.00	Enter a ravine, bearing S., have ascended over 100 ft.
31.60	Bottom of ravine 150 ft. deep, course S.
40.01	Set a sandstone 18x12x3 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x 18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
58.25	Over ravine, bearing S.
80.02	The cor. of secs. 16, 17, 20 and 21.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.
	Some scattering brush, elm and ash in ravines.
	September 25: At this cor. I set off 1°14'30"S. on the decl. arc, and at 11h. 51m. a.m., l.m.t., observ the sun on the meridian, resulting lat. 48°08'30".

	N.0°4'W. bet. secs. 16 and 17.
2.75	Begin to descend bluffs to ravine bearing E. and N.N.W.
40.00	Set a sandstone 15x12x5 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
44.90	Bottom of ravine 200 ft. deep, course E.
63.35	2nd. bottom in ravine, course E. .E.
70.60	3rd. bottom in ravine, course S.S.E.
80.00	Set a sandstone 18x14x4 ins., 12 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked with 4 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, clay loam, 3rd. rate.

	S.89°48'E. on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. and S. line 9 lks. S. of cor. of secs. 9, 10, 15 and 16,
	Thence I run,
	N.89°52'W. on a true line bet. secs. 9 and 16.
6.00	A ravine 100 ft. deep, course S.
19.00	A ravine 100 ft. deep, course S.S.E.
33.00	A ravine 75 ft. deep, course S.S.E.
39.99	Set a granite stone 16x12x10 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
65.00	Enter ravine, bearing S.
79.98	The cor. of secs. 8, 9, 16 and 17.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.

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Chains.	
	N.0°4'W. bet. secs. 8 and 9.
	Ascending side of ravine.
35.00	Over ravine, bearing S.S.E.
40.00	Set a granite stone 15x12x5 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
41.10	A wagon road, bearing N.W.
80.00	Set a limestone 18x12x7 ins., 12 ins. in the ground for cor. of secs. 4, 5, 8 and 9, marked with 5 notches on S. and 4 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. and 3rd. rate.

S.89°52'E. on a random line bet. secs. 4 and 9.

40.00	Set temp. ¼ sec. cor.
79.98	Intersect W. and S. line 6 lks. N. of cor. of secs. 3, 4, 9 and 10.
	Thence I run,
	N.88°49'W. on a true line bet. secs. 4 and 9.
	Descending bluffs.
22.80	Foot of bluff and a creek drain 4 lks. wide, 4 ins. deep, with rapid current, course S.E.
33.40	Recross creek 3 lks. wide, course N.E.
39.99	Set a limestone 18x12x5 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 15x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
40.40	Recross creek, 3 lks. wide, course S.E., thence over bluff sloping N.E.
70.00	Top of bluff, 100 ft. high, bearing W.N.W.
77.75	A grassy drain, 15 lks. wide, course N.
79.98	The cor. of secs. 4, 5, 8 and 9.
	Land, prairie, rolling.
	Soil, gravelly loam, 3rd. rate.

N.0°4'W. on a random line bet. secs. 4 and 5.

40.00	Set temp. ¼ sec. cor.
80.08	Intersect N. bdy. of Tp. 3 lks. W. of cor. of secs. 4, 5, 32 and 33, heretofore described.
	Thence I run,
	S.0°3'E. on a true line bet. secs. 4 and 5.
5.50	A grassy drain, 20 lks. wide, course S.S.E.
36.70	A brushy drain, 15 lks. wide, course S.E.
40.08	Set a limestone 15x10x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
62.00	Enter a ravine, bearing E.S.E.
73.50	A creek drain, 2 lks. wide, 5 ins. deep, current rapid, course E.
77.40	Over ravine and valley 100 ft. deep, bearing E.
80.08	The cor. of secs. 4, 5, 8 and 9.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

September 25. 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

September 26; At 7h. 20m. a.m., l.m.t., I set off 48° 06' on the lat. arc, 1°31'S. on the decl. arc, and at the cor. of secs. 5, 6, 31 and 32 on S. bdy. of the Tp. heretofore described, determine a true meridian with the solar, Thence I run,
N.0°0'W. bet. secs. 31 and 32,

5.00 Begin to descend bluffs, bearing E.N.E.

6.00 Enter timber and dense undergrowth bearing E.N.E.

7.00 Foot of bluff 100 ft. high, and enter dry bottom lan bearing E.N.E.

40.00 Set a cottonwood post, 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face; no trees within limits, dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

80.00 Set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked,
T. 154 N., S. 29 on N.E.
S. 30, on N.W.
S. 31 on S.W. and
R. 97 W., S. 32 on S.E. faces,
with 1 notch on S. and 5 notches on E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 4 to 6 ft. inundation, and prairie.
Soil, alluvial and sandy loam, 2nd. and 4th. rate.
Dense undergrowth and timber 75.00 chs.

S.89°51'E. on a random line bet. secs. 29 and 32.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect N. and S. line 3 lks. S. of cor. of secs. 28, 29, 32 and 33,
Thence I run,
N.89°52'W. on a true line bet. secs. 29 and 32.
Through dense undergrowth.

40.03 Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face; no trees within limits, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.06 The cor. of secs. 29, 30, 31 and 32.

Land dry level bottom subject to from 6 to 10 ft. innundation,
Soil, alluvial, 3rd. rate.
Dense undergrowth 80.06 chs.

September 26, 1896.

September 28; At 7h. 30m. a.m., l.m.t., I set off 48°07' on the lat. arc, 2°16'30"S. on the decl. arc, and at the cor. of secs. 29, 30, 31 and 32, determine a true meridian with the solar.

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Chains.	
	Thence I run, N.89°51'W. on a true line bet. secs. 30 and 31. Through dense undergrowth.
40.00	Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on N. face, no trees within limits, dig pits, 16x16x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
44.00	Right bank of Missouri river, and set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for Meander cor. of fracl. secs. 30 and 31, marked, M.C. on W. T.154 N. on E. R. 97 W., S. 30 on N. and S. 31 on S. faces; no trees within limits; dig a pit 36x36x12 ins. E. of post, and raise a mound of earth 4 ft. base, 2 ft. high E. of cor.
	Land, dry level bottom, subject to 6 ft. inundation. Soil, alluvial, 3rd. rate. Dense undergrowth, 44.00 chs.

	N.0°5'W. bet. secs. 29 and 30. Through dense undergrowth.
10.00	Right bank of Missouri river and set a cottonwood post, 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for meander cor. to fracl. secs. 29 and 30, marked, M.C. on N. T.154 N. on S. R. 97 W., S. 29 on E. and S. 30 on W. faces; no trees within limits, dig a pit 36x36x12 ins., E. of post, and raise a mound of earth 4 ft. base, 2 ft. high E. of cor. Thence on sandbar and from a point at 20.00 chs., I measure a base N.89°5' E., 20.00 chs. to a point where a flag on line over river bears N.47°53'W., distance over river is therefore cotang. 47°28' x base or .917 x 20.00=18.34 chs., and distance on line to flag over river 18.34+20.00=38.34 chs.
38.36	Left bank of Missouri river and set a cottonwood post 3 ft. long, 4 ins. sq. 24 ins. in the ground for meander cor. of fracl. secs. 29 and 30,, marked M.C. on S. T.154 N. on N. R. 97 W., S. 30 on W. and S. 29 on E. faces; from which, A cottonwood 4 ins. diam. bears N.65°E., 24 lks. dist. marked, T. 154 N., R. 97 W., S. 29, M. C. B. T. A cottonwood 4 ins. diam. bears S.85½°W., 60 lks. dist. marked, T. 154 N., R. 97 W., S. 30, M. C. B. T.
	Thence through timber and dense undergrowth.
40.00	Set a cottonwood post 3 ft. long 3 ins. sq. 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face, from which,

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Chains.

A cottonwood 4 ins. diam, bears N.17¼°E., 82 lks. dist. marked,
¼ S. B. T.
A cottonwood, 3 ins.diam., bears S.33¼°W., 74 lks. dist., marked,
¼. S. B. T.

80.00 Set a cottonwood post 3 ft. long 4 ins. sq., with charred stake 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked
T. 154 N., S. 20, on N. E.
S. 19 on N. W.
S. 30, on S. W. and
R. 97 W., S. 29 on S. E. faces;
with 2 notches on S. and 5 notches on E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 4 to 10 ft. inundation,
Soil, alluvial, 3rd. rate.
Timber, cottonwood, ash and elm.
Dense undergrowth 51.65 chs.

September 28: At this sec. cor., I set off 2°25'S. on the decl. arc, and at 11h. 50m. a.m., l.m.t., observe the sun on the meridian., resulting lat. 48°08'.

S.89°52'E. on a random line bet. secs. 20 and 29.
40.00 Set temp. ¼ sec. cor.
80.10 Intersect N. and S. line 8 lks. S. of cor. of secs. 20, 21, 28 and 29,
Thence I run,
N.89°55'W. on a true line bet. secs. 20 and 29.
Through timber and dense undergrowth.
40.05 Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake, 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on E. face; no trees within limits, dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high E. of cor.
80.10 The cor. of secs. 19, 20, 29 and 30.

Land, dry level bottom, subject to from 2 to 6 ft. inundation,
Soil, alluvial, 3rd. rate.
Timber, cottonwood and elm.
Dense undergrowth 80.10 chs.

September 28, 1896.

September 29: At 7h. 30m. a.m., l.m.t., I set off 48°08' on the lat. arc, 2°41'S. on the decl. arc, and at the cor. of secs. 19, 20, 29 and 30, determine a true meridian with the solar.
Thence I run,
N.89°51'W. on a random line bet. secs. 19 and 30.
40.00 Set temp. ¼ sec. cor.
78.90 Intersect W. bdy. of Tp. 16 lks. N. of cor. of secs. 19, 24, 25 and 30, heretofore described,
Thence I run,
S.89°18'E. on a true line bet. secs. 19 and 30.

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Chains.	
17.50	A ravine 50 ft. deep, course S.S.E.
31.50	A ravine 50 ft. deep, course S.S.E.
33.90	Set a cottonwood post, 3 ft. long, 3 ins. sq. with charred stake 2½ ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face; dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
48.50	Begin to descend bluffs, bearing N.E.
53.50	Foot of bluffs, 75 ft. high, bearing N.E. and enter dry bottom land.
61.50	Enter dense undergrowth bearing N.E.
75.90	The cor. of secs. 19, 20, 29 and 30.

Land, prairie, rolling and dry level bottom, not subject to innundation.
Soil, sandy loam, and alluvial, 2nd. rate.
Dense undergrowth, 17.40 chs.

N.0°5'W. bet. secs. 19 and 20.
Through timber and dense undergrowth.

11.50	Leave timber and dense undergrowth, bearing E.N.E.
13.50	Leave bottom land bearing E.N.E. and ascend bluffs, bearing E.N.E.
40.00	Set a granite stone 15x10x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
69.75	Top of bluffs, 250 ft. high, bearing S.E.
80.00	Set a granite stone 15x12x8 ins., 10 ins. in the ground for cor. of secs. 17, 18, 19 and 20, marked with 3 notches on S. and 3 notches on E. edges; dig pits, 18x18x12 ins. in each sec. 3½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, bluffs and dry level bottom, not subject to innundation.
Soil, clay loam, and alluvial, 1st. and 4th. rate.
Dense undergrowth, 11.50 chs.

S.89°55'E. on a random line bet. secs. 17 and 20.

40.00	Set temp. ¼ sec. cor.
80.08	Intersect N. and S. line 12 lks. N. of cor. of secs. 16, 17, 20 and 21,

Thence I run,
N.89°50'W. on a true line bet. secs. 17 and 20.

3.50	Begin to descend bluffs, bearing W.N.W.
9.00	Have descended 100 ft., thence over side of bluff, sloping S.
18.50	Slope changes to N.W. ascent.
26.20	Regain top of bluff bearing E.N.E.
31.00	Enter a ravine, bearing S.
38.50	Bottom of ravine 100 ft. deep, course S.
40.04	Set a granite stone 15x12x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; dig pits, 16x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

September 29: At this ¼ sec. cor. I set off 2°30' S. on the accl. arc, and at 11h. 10m. a.m., I took observe the sun on the meridian, resulting lat. 40°05'30".

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Chains.	
42.00	Over ravine and enter 2nd. ravine bearing S.
44.50	Bottom of ravine, 150 ft. deep, course S.
51.00	Over ravine and enter 3rd. ravine, bearing S.
61.50	Bottom of ravine, 175 ft. deep, course S.
71.00	Over ravine, bearing S.
80.08	The cor. of secs. 17, 18, 19 and 20.
	Land, prairie, broken or bad.
	Soil, clay loam, 4th. rate.

	N.89°58'W. on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
78.82	Intersect W. bdy. of Tp. 19 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described,
	Thence I run,
	S.89°50'E. on a true line bet. secs. 18 and 19.
9.50	Enter a brushy ravine bearing S.
35.75	Bottom of ravine 275 ft. deep, course S.S.E.
38.82	Set a sandstone 32x16x14 ins., 24 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 15 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
55.75	Over ravine, bearing S.S.E.
76.82	The cor. of secs. 17, 18, 19 and 20.
	Land, prairie, broken or bad.
	Soil, clay loam, 2nd. and 4th. rate.

September 29, 1895.

	September 30: At 7h. 25m. a.m., l.m.t., I set off 4° 08'30" on the lat. arc, 3°04'30"S. on the decl. arc, and at the cor. of secs. 17, 18, 19 and 20, determine a true meridian with the solar.
	Thence I run,
	N.0°5'W. bet. secs. 17 and 18.
8.00	Enter a ravine bearing S.E.
14.00	Bottom of ravine 150 ft. deep, course S.E.
23.50	Over ravine, bearing S.E.
40.00	Set a limestone 18x10x6 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 15x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
80.00	Set a granite stone 18x14x7 ins., 12 ins. in the ground for cor. of secs. 7, 8, 17 and 18, marked with 4 notches on S. and 5 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, clay loam, 2nd. rate.

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	S.89°50'E. on a random line bet. secs. 8 and 17.
	Set temp. ¼ sec. cor.
	Intersect W. and S. line 4 lks. S. of cor. of secs. 8, 9, 16 and 17.
	Thence I run, N.89°52'W. on a true line bet. secs. 8 and 17.
	descending side of ravine.
	Bottom of ravine and a gravelly drain 30 lks. wide, course S.
	Over ravine and enter 2nd ravine, bearing E.S.E.
	Bottom of ravine 150 ft. deep, and dry gravelly drain 150 lks. wide, course S.E.
	Set a limestone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; old pits, 16x16x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
	Over ravine bearing E.S.E.
	The cor. of secs. 7, 8, 17 and 18.

Land, prairie, rolling.
Soil, gravelly loam, 2nd. rate.

	W.S9°50'W. on a random line bet. secs. 7 and 18.
	Set temp. ¼ sec. cor.
	Intersect W. bdy. of Tp. 2½ lks. S. of cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run, S.89°49'E. on a true line bet. secs. 7 and 18.
	A brushy ravine 50 ft. deep, course W.N.W.
	A wagon road bearing S.S.W.
	Set a limestone 16x14x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
	A brushy ravine, 50ft. deep, bearing N.E.
	A brushy ravine 50 ft. deep, bearing N.N.E.
	The cor. of secs. 7, 8, 17 and 18.

Land, prairie, rolling.
Soil, gravelly loam, 2nd. rate.
Brush in ravines, poplar.

	W.0°5'W. bet. secs. 7 and 8.
	Enter a ravine, bearing E.
	Bottom of ravine 125 ft. deep, course E.
	Over ravine, bearing E.
	Enter a ravine, bearing S.E.
	Bottom of ravine 100 ft. deep, course S.E.
	Set sandstone 18x14x5 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Over ravine, bearing S.E.
	A wagon road bearing E.S.E.
	Set a limestone 18x14x6 ins., 12 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked with 5 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

Land, prairie, rolling.
Soil, clay and gravelly loam, 2nd. rate.
September 30. At this Sec. cor. I set off 3°1.'30"S. on the decl. arc, and at 11h.50m. a.m., l.m.t. observe the sun on the meridian, resulting lat. 45°10'.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	S.89°52'E. on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S.line at cor. of secs. 4, 5, 8 and 9,
	Thence I run,
	N.89°52'W. on a true line bet. secs. 5 and 8.
	Thomas Costella's house bears N.21°W.
13.90	A grassy drain 15 lks. wide, course N.
39.98	Set a limestone 15x12x8 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ on E. face; dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
54.90	A gravelly drain, 20 lks. wide, course N.
72.00	Thomas Costella's house bears N.67½°E.
79.96	The cor. of secs. 5, 6, 7 and8.
	Land, prairie, very rolling.
	Soil, gravelly loam, 3rd. rate.

	N.89°49'W. on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ sec. cor.
78.56	Intersect W. bdy. of Tp. 6 lks. S. of cor. of secs. 1, 6, 7 and 12, heretofore described,
	Thence I run,
	S.89°46'E. on a true line bet. secs. 6 and 7.
38.56	Set a granite stone 18x12x10 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
50.60	A ravine 60 ft. deep, course N.
78.56	The cor. of secs. 5, 6, 7 and 8.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

	N.0°5'W. on a random line bet. secs. 5 and 6.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. bdy. of Tp. 8 lks. W. of cor. of secs. 5, 6, 31 and 32, heretofore described,
	Thence I run,
	S.0°2'E. on a true line bet. secs. 5 and 6.
11.10	A ravine 60 ft. deep, course S.E.E.
18.15	Recross ravine, 60 ft. deep, course S.W.
23.50	Recross ravine, 60 ft. deep, course S.E.
39.40	A creek drain 2 lks. wide, 4 ins. deep, current rapid, course E.
40.12	Set a limestone 15x12x4 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
55.90	A grassy drain, 30 lks. wide, course N.E.
80.12	The cor. of secs. 5, 6, 7 and 8.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

September 30, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Meanders.

Meanders of left bank of Missouri river, down stream.

I commence at meander cor. of fracl. secs. 25 and 30, on W. bdy. of Tp. heretofore described, Thence I run. with meanders in sec. 3 0.
Through dense undergrowth.
N.65½°E., 13.00 chs. to prairie bearing N.
N.69½°E., 14.00 chs.
N.78 °E., 23.00 chs. To dense undergrowth, bearing N.
N.83½°E., 31.80 chs. To meander cor. of fracl. secs. 29 and 30.

Land, level bottom, subject to from 2 to 4 ft. inundation.
Soil, alluvial, 2nd. rate.
Dense undergrowth 44.80 chs.
October 1, At 9h. a.m., l.m.t., I set off 48°07' on the lat. arc, 3°31'S. on the decl, arc, and at this meander cor. determine a true meridian with the solar.

Thence in sec. 29.
Through dense undergrowth.
N.82½°E., 56.00 chs.
N.86 °E., 24.70 chs. To meander cor. of fracl. secs. 28 and 29.

Land, dry level bottom, subject to from 2 to 4 ft. inundation.
Soil, alluvial, 3rd. rate.
Dense undergrowth 80.70 chs.

Thence in sec. 28.
Through dense undergrowth.
N.71 °E., 32.00 chs.
N.47½°E., 33.45 chs. To meander cor. of fracl. secs. 21 and 28.

Land, dry level bottom, subject to 4 ft. inundation.
Soil, alluvial, 3rd. rate.
Dense undergrowth 65.45 chs.
October 1: At this meander cor. I set off 3°34'30"S. on the decl. arc, and at 11h.49m. a.m., l.m.t., observe the sun on the meridian resulting lat. 48°06'.

Thence in sec. 21.
Through dense undergrowth.
N.22½°E., 64.90 chs. To meander cor. of fracl. secs. 21 and 22.

Land, dry level bottom, subject to 5 ft. inundati n.
Soil, alluvial, 3rd. rate.
Dense undergrowth 64.90 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Thence in sec. 22.
Through dense undergrowth.

N.77¼°E., 11.50 chs.	At end of course leave dense undergrowth bearing W.
N.65½°E., 14.00 chs.	
S.87 °E., 14.00 chs.	At 0.55 chs. enter dense undergrowth bearing E.N.E.
N.57 °E., 6.00 chs.	To mouth of creek drain 25 lks. wide.
N.72 °E., 20.00 chs.	At 10.50 chs. leave dense undergrowth, bearing N.
N.82¼°E., 18.30 chs.	To meander cor. of fracl. secs. 22 and 23.

Land, dry level bottom, not subject to innundation.
Soil, alluvial 1st. rate.
Dense undergrowth, 41.45 chs.

October 1, 1896.

October 3: At this meander cor. I set off 48°08'30" on the lat. arc, 4°14'30"S. on the decl. arc, and at 7h.30m. a.m., l.m.t., determine a true meridian with the solar.

Thence in sec. 23.

S.83°E., 23.00 chs.	
S.58°E., 17.00 chs.	
S.44°E., 35.00 chs.	At .70 chs. enter dense unde growth bearing E.
S.62¼°E., 21.00 chs.	At 17.50 chs. mouth of creek drain 2 lks. wide, to meander cor. of fracl. secs. 23 and 24.

Land, dry level bottom, not subject to innundation.
Soil, alluvial, 1st. rate.
Timber, ash, elm and cottonwood.
Timber and dense undergrowth 55.30 chs.

Thence in sec. 24.
Through timber and dense undergrowth.

S.43¼°E., 37.00 chs.	At 5.00 chs. leave dense undergrowth bearing N.N.W.
S.48 °E., 9.60 chs.	To meander cor. of fracl. secs. 24 and 25.

Land, dry level bottom, not subject to innundation.
Soil, alluvial, 1st. rate.
Timber and dense undergrowth, 5.00 chs.

Thence in sec. 25.

S.47½°E., 19.00 chs.	
S.61 °E., 24.00 chs.	
S.68¼°E., 13.40 chs.	To meander cor. of fracl. secs. 25 and 30.

On E. bdy. of Tp. heretofore described.
Land, dry level bottom, not subject to innundation.
Soil, alluvial, 2nd. rate.

October 3, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	Meanders of right bank of Missouri river, down stream
	October 2, At 7h. 25m. a.m., l.m.t., I set off 48°06' 30" on the lat. arc, 3°58'S. on the decl. arc, and at the meander cor. of fracl. secs. 31 and 36, on W. bdy of the Tp. heretofore described, determine a true meridian with the solar.
	Thence I run with meanders in Sec. 31.
	Through dense undergrowth.
	N.52¼°E., 24.00 chs.
	N.54¼°E., 10.00 chs.
	N.73 °E., 8.30 chs. To meander cor. of fracl. secs. 30 and 31.
	Land, dry level bottom, subject to 6 ft. innundation.
	Soil, alluvial, 4th. rate.
	Dense undergrowth 42.30 chs.
	Thence in Sec. 30.
	Through dense undergrowth.
	N.73 °E., 17.00 chs.
	N.77½°E., 20.00 chs.
	N.85½°E., 8.25 chs. To meander cor. of fracl. secs. 29 and 30.
	Land, dry level bottom, subject to 6 ft. innundation.
	Dense undergrowth, 45.25 chs.
	Thence in sec. 29.
	Through dense undergrowth.
	N.82°E. 21.00 chs.
	East 29.50 chs. To meander cor. of fracl. secs. 28 and 29.
	Land, dry level bottom, subject to 8 ft. innundation.
	Soil, alluvial 3rd. rate.
	Dense undergrowth 80.50 chs.
	Thence in sec. 28.
	Through dense undergrowth.
	N.81½°E., 22.00 chs. At 1.00 ch. leave dense undergrowth bearing S.E.
	N.62½°E., 6.00 chs.
	N.52 °E., 18.00 chs.
	N.54 °E., 24.00 chs.
	N.49½°E., 25.50 chs. To meander cor. of fracl. seds. 27 and 28.
	Land, dry level bottom, W. 22.00 chs. subject to 8 ft. innundation, remainder not subject to innundation.
	Soil, alluvial, 2nd. rate.
	Dense undergrowth, 1.00 ch.
	October 2, At this meander cor., I set off 3°58'S. on the decl. arc, and at 11h. 49m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'30".

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.		
	Thence in sec. 27.	
	N.41¼°E., 19.55 chs.	To meander cor. of fracl. secs. 22 and 27.
	Land, dry level bottom, not subject to innundation.	
	Soil, alluvial, 2nd. rate.	
	Thence in sec. 22.	
	N.35¼°E., 17.00 chs.	To dense undergrowth bearing E.S.E.
	N.30 °E., 19.00 chs.	
	N.35 °E., 12.00 chs.	
	N.42¼°E., 8.60 chs.	
	N.53¾°E., 9.50 chs.	
	S.65¼°E., 28.70 chs.	To meander cor. of fracl. secs. 22 and 23.
	Land, dry level bottom, W. part not subject to innundation, E. part subject to from 2 to 6 ft. innundation.	
	Soil, alluvial, 2nd. and 3rd. rate.	
	Timber, cottonwood.	
	Timber and dense undergrowth, 77.80 chs.	
	Thence in sec. 23.	
	Through dense undergrowth.	
	S.59°E., 62.00 chs.	
	S.66°E., 30.80 chs.	To meander cor. of fracl. secs. 23 and 26.
	Land, dry level bottom, subject to 7 ft. innundation	
	Soil, alluvial, 3rd. rate.	
	Timber, cottonwood.	
	Timber and dense undergrowth, 82.60 chs.	
	October 2, 1896.	
	Thence in sec. 26.	
	Through dense undergrowth.	
	S.53¼°E., 9.10 chs.	To meander cor. of fracl. secs. 26 and 25.
	Land, dry level bottom, subject to 5 ft. innundation.	
	Soil, alluvial, 3rd. rate.	
	Dense undergrowth 9.10 chs.	
	Thence in sec. 25.	
	Through dense undergrowth.	
	S.49 °E., 20.00 chs.	
	S.42¼°E., 42.00 chs.	
	S.55 °E., 34.00 chs.	
	S.60 °E., 9.25 chs.	At 7.00 chs. mouth of Tobacco Garden Creek 100 lks. wide.
		To meander cor. of fracl. secs. 25 and 30 on E. bdy of Tp. heretofore described.
	Land, dry level bottom, subject to 6 ft. innundation.	
	Soil, alluvial 3rd. rate.	
	Timber, cottonwood and elm.	
	Timber and dense undergrowth 107.26 chs.	
	October 3, 1896.	

Township 15 North of Range 97 West of the 5th. Principal Meridian.

General Description.

The land in this Tp. is level prairie in the N.E. Rolling and broken in the W., and dry level bottom generally free from inundation in the S. parts. Soil, sandy loam and alluvial, 2nd. and 3rd. rates. The bottom land is partially covered with small cottonwood timber, and dense willow undergrowth, and except in the timber the Tp. is covered with rich nutritious grasses, affording good pasturage. The Missour river, course E., crosses the S. part of the Tp.

Seven settlements were found, John Frisch on the N.W. ¼ of S.W. ¼ sec. 36, F. T. Townsand on the S.E. ¼ of S.E. ¼ sec. 32; J. A. McKay on the N.E. ¼ of N.W. ¼ sec. 24; William Laughland on the N.E. ¼ of N.E. ¼ of sec. 23; Baldwin on the N.W. ¼ of N.E. ¼ sec. 15, Thomas Costella on the N.E. ¼ of S.E. ¼ sec. 5, and N.A. Gotchie on the N.W. ¼ of N.E. ¼ sec. 2. A school house was also found on the S.E. ¼ of N.E. ¼ Sec. 15, Nesson Post Office is located at Baldwin's ranch on sec. 15.

Good crops have been raised without irrigation. The settlers are principally engaged in stock raising.

George K. Dike,
U. S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by George K. Fike, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivisional and meander lines of Township No. 154 North of Range No. 97 West of the Fifth principal meridian in North Dakota, showing the respective capacities in which they acted:

Jacob A. Dahl, Chainman.
Clarence E. Beckwith, Chainman.
Isaac Nelson, Monumentman.
Henry Russell, Monumentman.
[blank], Axeman.
[blank], Axeman.
William Allen, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted George K. Fike, United States Deputy Surveyor, in surveying all those parts or portions of the subdivisional and meander lines of Township No. 154 North of Range No. 97 West of the Fifth principal meridian, State of North Dakota, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for North Dakota

Jacob A. Dahl, Chainman.
Clarence E. Beckwith, Chainman.
Henry Russell, Monumentman.
Isaac Nelson, Monumentman.
[blank], Axeman.
[blank], Axeman.
William Allen, Flagman.

Subscribed and sworn to before me this 24 day of Nov. 1896

John Tyner
Clerk District Court
Ward County N.D.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, George K. Dike, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Andrew Blunt, United States Surveyor General for North Dakota, bearing date of the 24 day of March, 1896, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for North Dakota, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivisional and meander lines of Township No 154 North of Range No. 97 West of the fifth principal meridian, in the State of North Dak, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for North Dakota, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

George K. Dike
United States Deputy Surveyor.

Subscribed by said George K. Dike, and sworn to before me this 24 day of November, 1896.

John Lynch
Clerk of District Court
Ward County, N.D.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Grand Forks, N.D. August 8, 1897

The foregoing field notes of the survey of the subdivisional and meander lines of Township No. 154 North of Range No. 97 West of the fifth principal meridian - in North Dakota

executed by George K. Dike under his contract No. 42, dated March 24, 1896, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Andrew Blunt
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in North Dakota has been correctly copied from the original notes on file in this office.

Andrew Blunt
United States Surveyor General.

6—600

From:	Gregory Johnson
To:	Kadrmas, Bethany R.
Subject:	NDSPLS Response to the OHWM report to the NDIC
Date:	Tuesday, June 19, 2018 3:07:55 PM
Attachments:	OHWM final final 6-18-18 GLJ AH KJL final.pdf appendix.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

This is the written response from the NDSPLS to the NDIC on the OHWM report. There will be 3 attachments to this response, but the size of the attachments will not allow me to send them all on the same e-mail, so please bear with me on this mailing. There will be one more attachment which shows the NDglo plat to follow this sending to accompany these two attachments. Thank you. If you have questions on this please contact me on the signature address or cell number listed below. Hard copies of this written response have been hand delivered to your office this morning. Thank you for allowing the NDSPLS to report on this issue.

Gregory L. Johnson

Licensed and Registered Professional Land Surveyor
6404 Deerewood Lane
Bismarck, North Dakota 58503
Home phone 701-255-6953 cell 701-220-2494
e-mail duckschief@bis.midco.net
geodetic address Lat 46-52'24.7"N Long 100-52'04.0"W

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Website: www.ndspls.org

North Dakota Industrial Commission
Department of Mineral Resources
Lynn Helms, Director
1016 East Calgary Avenue
Bismarck, North Dakota 58503

June 19, 2018

Re: The North Dakota Society of Professional Land Surveyors (NDSPLS) comments and concerns with regard to the North Dakota Industrial Commission Docket for Hearing on Case No. 26584 to consider comments on the review of the delineation of the ordinary high water mark (OHWM).

About the NDSPLS

The NDSPLS is made up of over 300 members, of which some 185 are registered professional land surveyors who live and practice in this state. Overall, approximately 500 registered land surveyors are licensed to practice in North Dakota. We are licensed and regulated by the North Dakota State Board of Registration for Professional Engineers and Professional Land Surveyors. Our mission and objective is to unite all of the professional land surveyors in the state of North Dakota; to elevate the standards of the surveying profession; to establish basic minimum standards and requirements for surveys; to assist in promoting legislative and educational programs to improve the professional status of the land surveyor; to work in cooperation with local, county, state, federal, and tribal governments in our field of endeavor; to uphold a rigid code of ethics; to strive to improve our relations with our clients and the public by doing our work with precision and integrity; and to maintain a good relationship between land surveyors and engineers.

NDSPLS and the OHWM Report

On April 17th, NDSPLS representatives attended the presentation of the technical report to the NDIC. At this time, concerns arose about the report.

The NDSPLS board of directors met for their quarterly meeting on April 20th and the concerns with the report were brought to the attention of the NDSPLS board. Based on these concerns, an ad hoc committee was formed to review the report and prepare technical testimony pursuant to the NDIC Docket for Hearing. In accordance with the NDIC request for testimony, NDSPLS submits the following testimony for your review and consideration.

Note that NDSPLS has no financial interest in this report and neither gains nor loses financially in any way from the outcome. NDSPLS respectfully submits this statement because, in our professional opinion, the report does not reflect proper survey principles and practices, which has resulted in many inaccuracies. In fact, we feel the consequences of such a report may reflect poorly on our profession as a whole.

Concerns about Methodology

NDSPLS urges the NDIC and other stakeholders to respect the critical nature of this report and the need for accurate determinations of land boundaries for the protection of both public and private property rights. Furthermore, NDSPLS urges the NDIC to note that surface boundaries define mineral boundaries, and that monuments set by the original Government Land Office (GLO) surveyors control both the surface and mineral boundaries.

As such, NDSPLS is very concerned with the use of a secondary source for tract boundaries, the methods used to georeference the tract boundaries, and the methodology used for "refinements" to the tract boundaries. This data and methodology have subsequently been used to determine acreages that are in conflict with proper survey procedures, which are defined by federal and state laws. This has resulted in the reporting of inaccurate acreages that will likely lead to incorrect mineral payment determinations.

Availability of Credible Sources

The upland title throughout the extent of this project originates from federal patents at the time of entry. The land description used in these patents are in reference to the Public Land Survey System (PLSS) –e.g. the Northeast Quarter of Section 12, Township 153 North, Range 97 West of the 5th Principal Meridian. Prior to the issuance of these federal patents, the federal government required that the land be surveyed by the GLO and that corners were monumented prior to entry. The monuments set per the original survey control the location of the PLSS lines and are free from error. When these monuments cannot be found, a hierarchy of methods are used to reestablish these points based on the GLO township plats and the corresponding field notes. This is in accordance with the Act of February 11, 1805 (2 Stat. 313; 43 U.S.C. 752).

Our issue with the OHWM report in its current state is that no reference has been made to the GLO records. The GLO township plats and field notes can be found online through the North Dakota State Water Commission website. NDSPLS believes that this data is necessary to formulate an accurate, comprehensive, retraceable, and defensible report. Furthermore, all decisions regarding the development of the cadastral layer must be predicated on GLO records. The need for this will be discussed in more depth throughout this statement. (Examples of GLO records are appended to this statement for review. The examples were obtained from the State Water Commission website.)

In addition to the need for incorporating GLO records into the report, numerous subsequent survey records accurately depict the points and lines of the PLSS represented in this project. The US Army Corps of Engineers (USACE) contracted the survey, marking, and platting of the USACE boundary lines (take-line) surrounding Lake Sakakawea. These plats contain accurate descriptions of the monuments found and set per the USACE survey as well as the dimensions between the monuments. These surveys also contain precise state plane coordinates. Most importantly, these documents bear the seal and signature of the North Dakota professional land surveyor that was in responsible charge of the survey. The USACE surveys are on file in the respective county recorder's office. NDSPLS believes that the USACE take-line plats should be used for the proper development and georeferencing of the PLSS layer. (Several examples of these plats have been appended to this statement for review. The examples were obtained from the McKenzie County Recorder's Office.)

Along with the CORPS plats, a certified well plat corresponding to the permit for each well lateral that now exists under the current lake bed is on file with the NDIC (see the copy of the NDIC map showing the well laterals). Upon review of the NDIC GIS map, nearly every section of land within this project has been surveyed for this purpose and is available to the public through the NDIC website.

Again, these plats contain descriptions of the monuments found and set, the dimensions of the PLSS lines, geographic coordinates on the well location, and certifications by a North Dakota professional land surveyor. (Examples of the well plats are appended to this statement. The examples were obtained from the NDIC.)

In addition, many other survey records could be used to develop a much more accurate PLSS layer. They include, but are not limited to the following: land survey monument records, recorded plats, records kept by other state and federal agencies, and records from utility companies. Also, numerous corner locations exist throughout the extent of the project that are easy to access and could be verified by a field survey.

NDSPLS believes that the above records should serve as the primary sources of information from which to develop an accurate PLSS cadastral GIS layer.

Turning now to the deficiency of the data used for the basis of the report and acreage calculations, Chapter 4.2 of the report states, "The USACE property survey boundaries or tract boundaries were received from the State in GIS format." The report goes on to acknowledge apparent discrepancies between the shapefile and the apparent occupation lines depicted on the 1951 aerial photos. Furthermore, the report discloses that the metadata corresponding to the GIS file is unknown. In review of the tract maps prepared by the USACE, each map bears a note stating, "Boundary lines of this segment were determined by deed descriptions, General Land Office Plats, and aerial photos." From a surveyor's perspective, this statement very likely means that the map is strictly a compilation of record information and not based on an actual field boundary survey. With all of this in mind, it is very likely that the shapefile was generated by simply digitizing the tract maps and somehow georeferencing them by unknown and inaccurate means. This renders the data unreliable for land boundary determination.

To further distort the PLSS cadastral data, the stated methodology per Chapter 4.2 to "shift the boundaries" has only served to introduce more error into the base map. The "rubber-sheeting" spatial adjustment used to tie the cadastral data is not a method that a competent land surveyor would use to accurately determine the location of PLSS lines; furthermore, this method is not defined in any survey text as an acceptable methodology for land boundary determination. In effect, this method forces already vague data to match up by further distorting the distances and directions of the lines embedded in the shapefile, thus further distorting the resulting acreages. The report goes on to state that, "inferences were made in adjusting the field boundaries," and that, "in places where a tree line or roads existed and the boundary discrepancy was less than 100 feet, the boundary was adjusted to the aerial demarcation." This would give the appearance that 100 feet, more or less, is the accuracy achieved by these so-called "refinements." (Keep in mind that the report's stated accuracy of the georeferencing of aerial photography per Chapter 4.1.2 was 48.5 feet.) Besides all of this, the report shows no evidence that a duly registered North Dakota land surveyor was consulted in the decision making process with regards to the recommended tract boundary adjustments. This aspect of the report and associated mapping is completely inaccurate and should not be relied upon, especially for the distribution of mineral payments that, in several cases, are sure to be quite sizable.

NDSPLS recommends that the PLSS layer used to determine acreage for this report be derived from the GLO plats and field notes, the USACE take-line plats, the well location plats, and any available subsequent survey records. The USACE take-line plats and well location plats should be used to determine the geographic locations of the found monuments that are reported on said plats. This

should be field verified at several locations by proper survey methods. From there, the controlling PLSS corners that are either missing or in areas inundated by water should be calculated using proper proportionate methods and the methods for subdivision of sections based on the dimensions per the GLO plats and field notes as set forth per the 2009 BLM Manual of Surveying Instructions. All of this should proceed under the responsible charge of a duly registered North Dakota Professional Land Surveyor. Given the availability of this data and the ease with which it can be assembled, any other methodology is simply unacceptable and unnecessarily leaves the end-user of this report unprotected. (An example of the differences between the existing map and the suggested methodology is appended to this statement.)

Concerns regarding acreage determinations

NDSPLS has a number of concerns about the schedule of acreages. These include incorrect reference to the proper legal descriptions, improper partitioning of accreted land in conflict with established survey procedures and ND case law, and the obvious discrepancies in acreage due to grossly erroneous positions of PLSS lines (as previously discussed).

Legal Descriptions. The legal descriptions of the tracts of land along the OHWM are incorrectly labeled. The report completely ignores the fact that government lots were created per the original plat. Furthermore, the report mistakenly protracts quarter-quarters both in riparian areas and through accreted lands. This is grossly erroneous and does not protect the interests of the upland mineral owners both in terms of their rights to the shoreline and patented area.

Partitioning. In addition to omitting references to government lots, the report makes no consideration for the proper apportionment of accreted lands. The assumption that quarter-quarters are to be protracted across these areas is completely erroneous and represents a complete abandonment of proper surveying procedures and the rules set forth in North Dakota Supreme Court rulings.

Section 8-133 of the Manual of Surveying Instructions 2009 sets forth five different methods for establishing partition lines of accreted lands. These include the proportionate shoreline method, the perpendicular method, the proportionate acreage method, the extension of property line method, and a combination of the proportionate shoreline method and the perpendicular method. The methods set forth in the BLM Manual of Surveying Instructions 2009 are consistent with the rulings of the North Dakota Supreme Court, particularly in Jennings v. Shipp and Gardner v. Green. The primary principle behind these methods is that accreted lands are to be partitioned equitably between intermingled upland owners. It is impossible to properly apportion accreted land without first reviewing GLO data to determine the original distance of the shoreline and the record acreage of the government lots.

Acreage. As discussed above, because acreages have been determined from very course and approximate PLSS lines, it should come of no surprise that the acreages are likely inaccurate.

NDSPLS' primary concern is that the schedule of acreages—which is inaccurate—will lead to inaccurate transactions as well.

Concerns with regards to the ability in which shapefiles can be used to accurately locate land boundaries both on the ground and on a plat or map

Pursuant to NDAC 28-02.1-13 – Documents Used to Convey Real Property Or Any Interest Therein, North Dakota professional land surveyors must prepare surveys that are tied to monumentation either found or set at the time of survey. Furthermore, surveyors are to produce maps in which surveys can be retraced with confidence and precision. An ESRI shapefile does not provide the information needed to accurately establish boundaries on the ground. In essence, the shapefile is a coordinate-based product. Other requirements exist within NDCC regarding the use of state plane coordinates for land boundaries. NDCC 47-20.2-04 states that:

> Whenever coordinates based on the North Dakota coordinate system are used to describe any tract of land which in the same document is also described by reference to any subdivision, line, or corner of the United States public land surveys, the description by coordinates must be construed as supplemental to the basic description of each subdivision, line, or corner contained in the official plats and field notes filed of record, and, in the event of any conflict, the description by reference to the subdivision, line, or corner of the United States public land surveys prevails over the description by coordinates, unless the coordinates are upheld by adjudication, at which time the coordinate description will prevail. This chapter does not require any purchaser or mortgagee to rely on a description, any part of which depends exclusively upon the North Dakota coordinate system, unless the description has been adjudicated as provided in this section.

NDCC 47-20.2-06 goes on to state that:

> The use of the North Dakota coordinate system of 1927 north zone or south zone or the North Dakota coordinate system of 1983 north zone or south zone on any map, report of survey, or other document must be limited to coordinates based on the North Dakota coordinate systems as defined in this chapter. The map, report, or document must include a statement describing the standard of accuracy, as defined by the national ocean survey/national geodetic survey, maintained in developing the coordinates shown therein. The coordinates must be established in conformity with these standards:
>
> > 1. No coordinates based on the North Dakota coordinate system, purporting to define the position of a point on a land boundary, may be presented to be recorded in any public records or deed records unless the point is connected to a triangulation or traverse station established in conformity with the standards prescribed in this chapter.
> >
> > **2. Coordinate values used in land descriptions under this section must be certified by a duly registered land surveyor under the laws of this state.**

Concerns regarding professional practice and licensing requirements

NDSPLS believes that this report is a technical report. Per NDCC 43-19.1-02.11 – Responsible Charge, NDCC 43-19.1-21 – Seals, and multiple NDAC Title 28 rules, the report should be sealed and signed by the individual(s) in responsible charge of this project. This report does not contain such information. Furthermore, the individuals listed as the authors and reviewers of this report are not currently registered in the State of North Dakota as either professional engineers or professional land surveyors.

Finally, NDSPLS believes that much of this report falls under the definition of a land survey per NDCC 43-19.1-02.8 which states the following:

a. Means making land boundary determinations by providing or offering to provide professional services using such sciences as mathematics, geodesy, and photogrammetry and involving the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth; improvements on the earth; and improvements on the space above, on or below the earth and providing, utilizing, or developing the same into land survey products such as graphics, data, maps, plans, reports, descriptions, or projects. As used in this subsection, professional services include acts of consultation, investigation, testimony evaluation, expert technical testimony, planning, mapping, assembling and interpreting gathered measurements and information related to any one or more of the following:

(1) Determining by measurement the configuration or contour of the earth's surface or the position of fixed objects on the earth's surface;
(2) Determining by performing geodetic land surveys the size and shape of the earth or the position of any point on the earth;
(3) Locating, relocating, establishing, re-establishing, or retracing property lines or boundaries of any tract of land, road, right of way, or easement;
(4) Making and land survey for the division, subdivision, or consolidation of any tract of land;
(5) Locating or laying out alignments, positions, or elevations for the construction of fixed works;
(6) Determining by the use of principles of land surveying the position for any survey monument, boundary or non-boundary, or reference point and establishing or replacing any such monument or reference point; and
(7) Creating, preparing, or modifying electronic or computerized or other data for the purpose of making land boundary determinations relative to the performance of the activities in paragraphs 1 through 6.

b. Includes:

(1) Engaging in land surveying;
(2) By verbal claim, sign, advertisement, letterhead, card, or any other way representing to a person to be a professional land surveyor;
(3) Through the use of some other title implying to be a professional land surveyor or that the person is licensed or authorized under this chapter; and
(4) Holding out as able to perform or performing any land surveying service or work or any other service designated by the practitioner which is recognized as land surveying.

Per Chapter 5.6 of the report, no mention appears of any part of this report being developed and reviewed under the responsible charge of a duly registered North Dakota professional land surveyor. The specific issues brought to light by this statement should clearly show the obvious deficiencies, inaccuracies, and the incomplete nature of its content. Many of these issues should have been addressed prior to the initial release of this information.

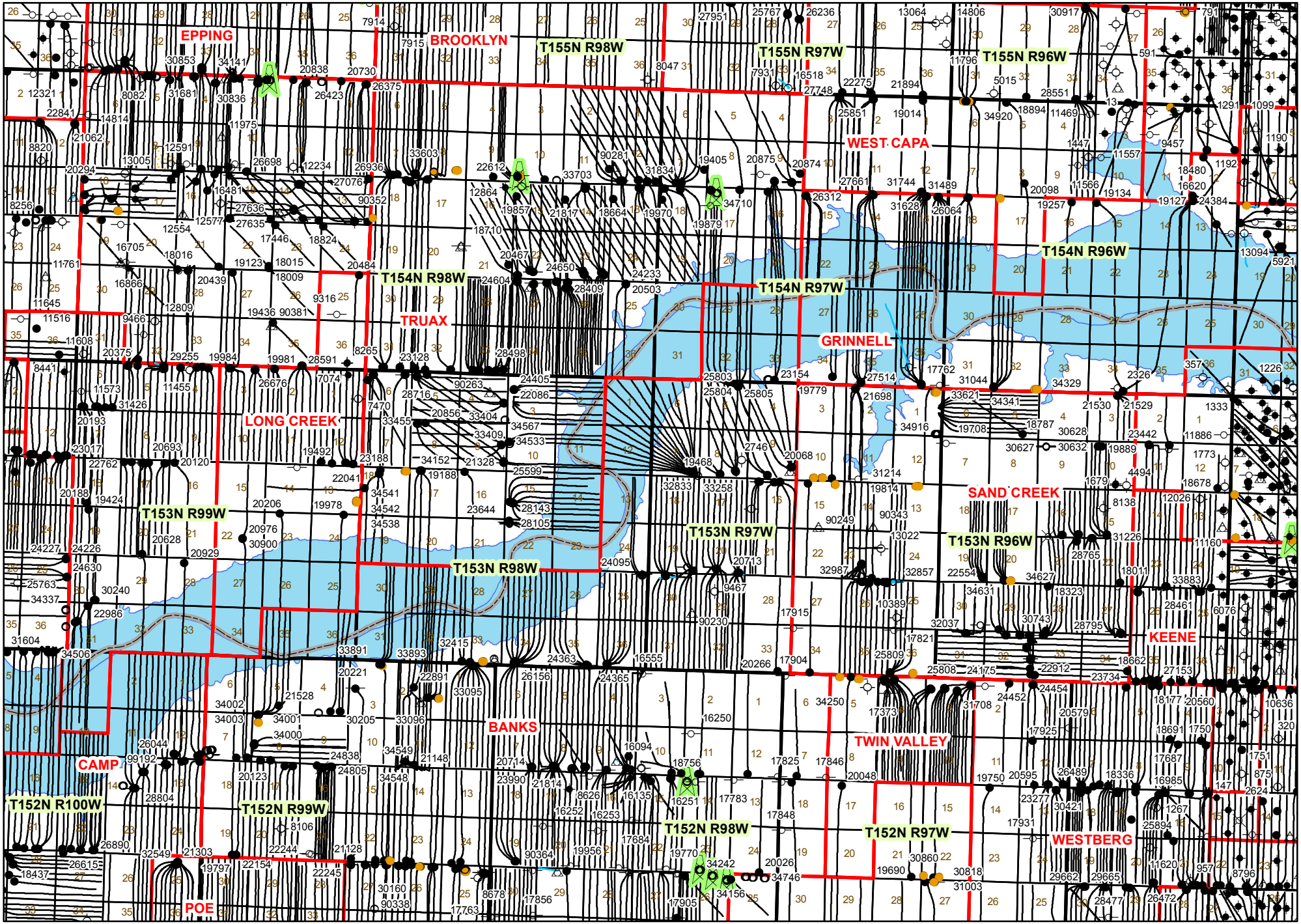
Summary

NDSPLS acknowledges that this project requires the expertise of many technical and legal professionals; however, this report in its current state does not provide the assurance and expertise that only a duly registered North Dakota professional land surveyor can provide with respect to land boundaries. The NDSPLS respectfully requests that all those involved with the preparation, review, and acceptance of the OHWM report review this statement and address the issues that we have presented.

Respectfully submitted,

Ed Rintamaki, PLS
President of the North Dakota Society of Professional Land Surveyors

Cc: North Dakota Society of Professional Engineers,
American Council of Engineering Companies of North Dakota, North Dakota,
Board of Registration for Professional Engineers and Professional Land Surveyors



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0 2 4 8 Miles

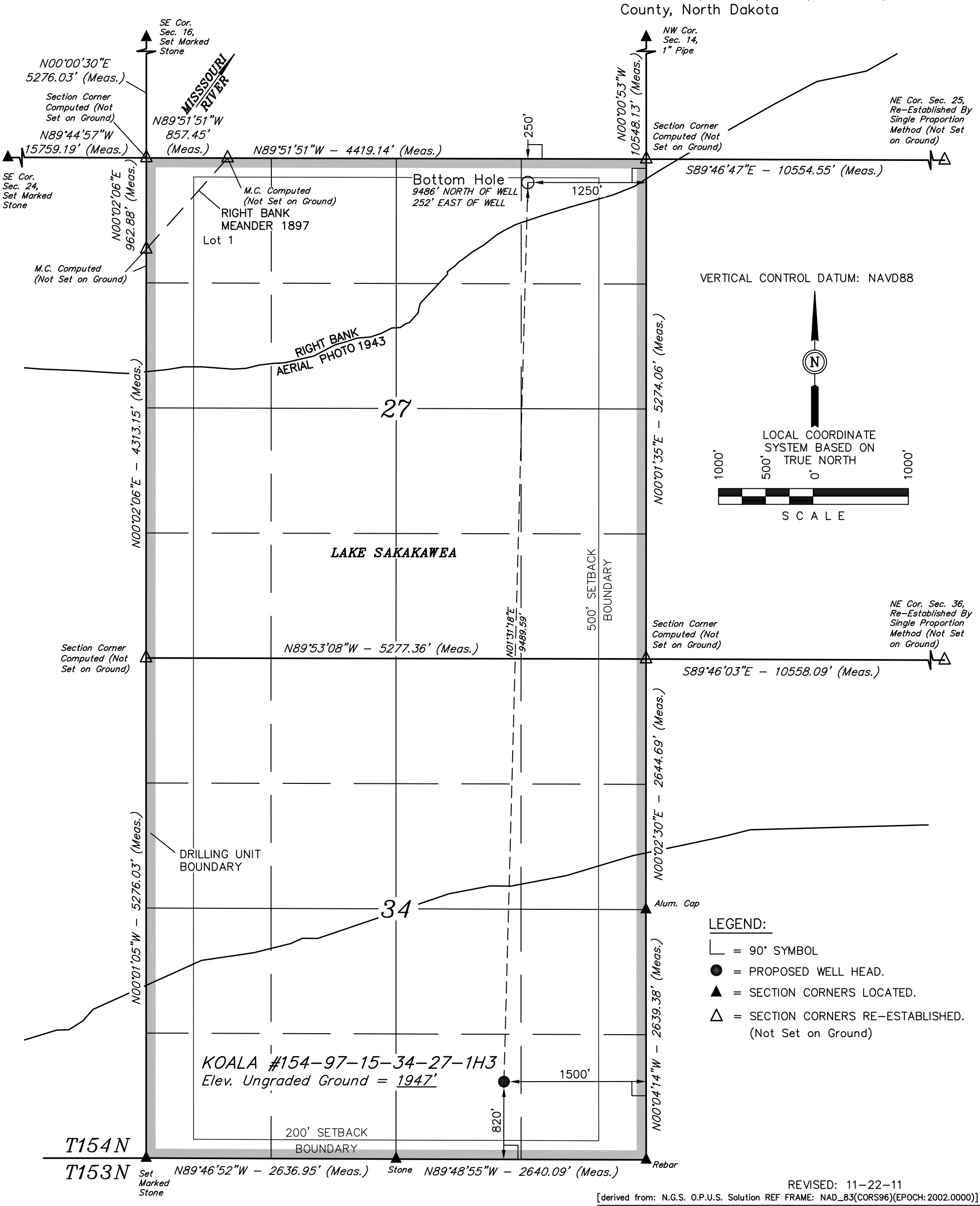
Prepared by N.D.I.C.
Oil and Gas Division

6/15/2018
8:23:25 AM

WELL LOCATION PLAT
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-34-27-1H3, located as shown in the SW 1/4 SE 1/4 of Section 34, T154N, R97W, 5th P.M., McKenzie County, North Dakota



LEGEND:

- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground)

REVISED: 11-22-11

[derived from: N.G.S. O.P.U.S. Solution REF FRAME: NAD_83(CORS96)(EPOCH: 2002.0000)]

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 48°08'20.50" (48.139028) LONGITUDE = 103°08'07.84" (103.135511)	LATITUDE = 48°06'46.89" (48.113025) LONGITUDE = 103°08'11.44" (103.136511)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 48°08'20.42" (48.139006) LONGITUDE = 103°08'06.17" (103.135047)	LATITUDE = 48°06'46.81" (48.113003) LONGITUDE = 103°08'09.77" (103.136047)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	09-23-10	10-19-11
PARTY: D.M. M.C. J.J.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

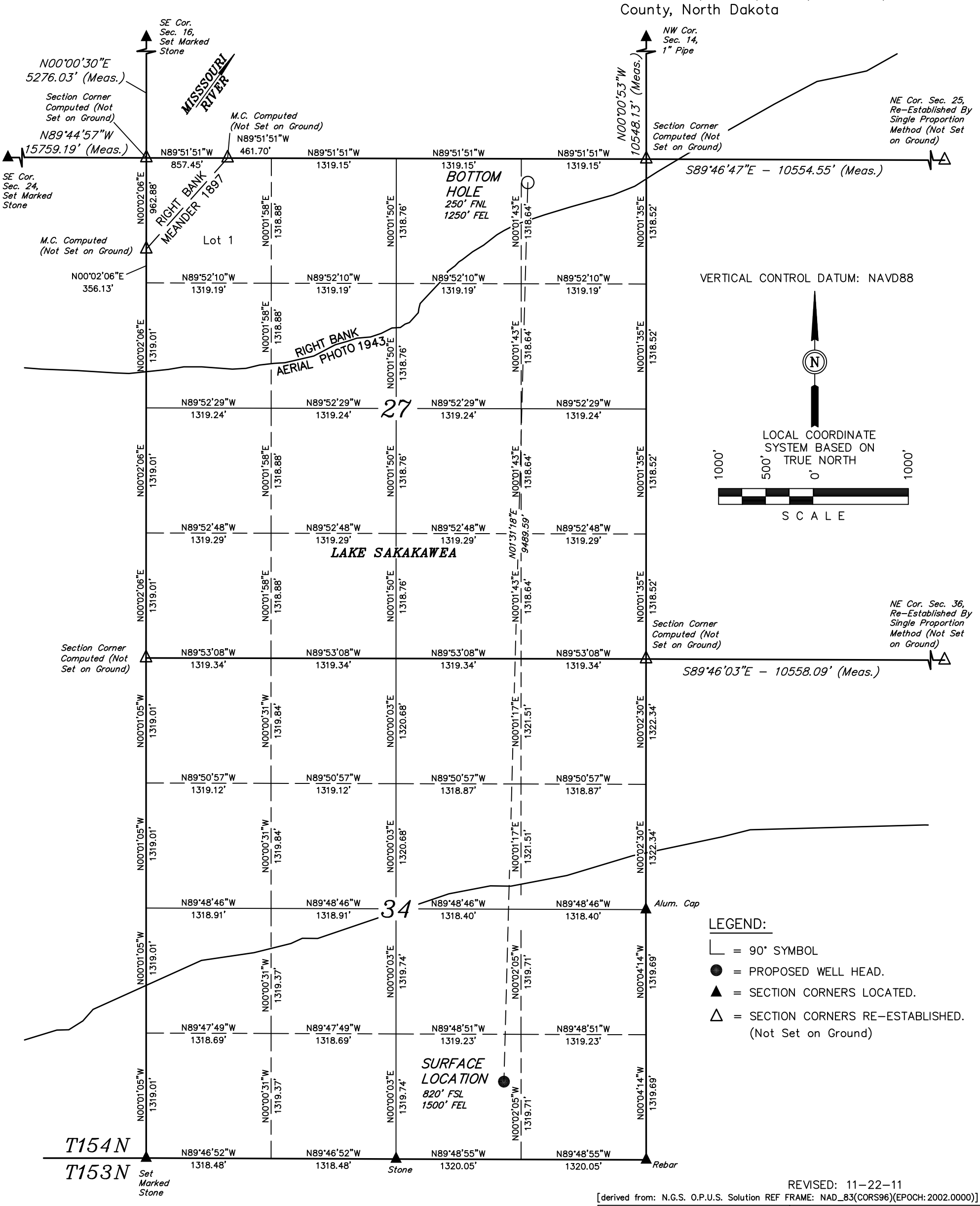
TROY JENSEN
REGISTERED LAND SURVEYOR
L.S. 4654
11-28-11
NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

SECTION BREAKDOWN
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-34-27-1H3, located as shown in the SW 1/4 SE 1/4 of Section 34, T154N, R97W, 5th P.M., McKenzie County, North Dakota



VERTICAL CONTROL DATUM: NAVD88

LOCAL COORDINATE SYSTEM BASED ON TRUE NORTH

1000' 500' 0' 1000'

SCALE

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11-28-11
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REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

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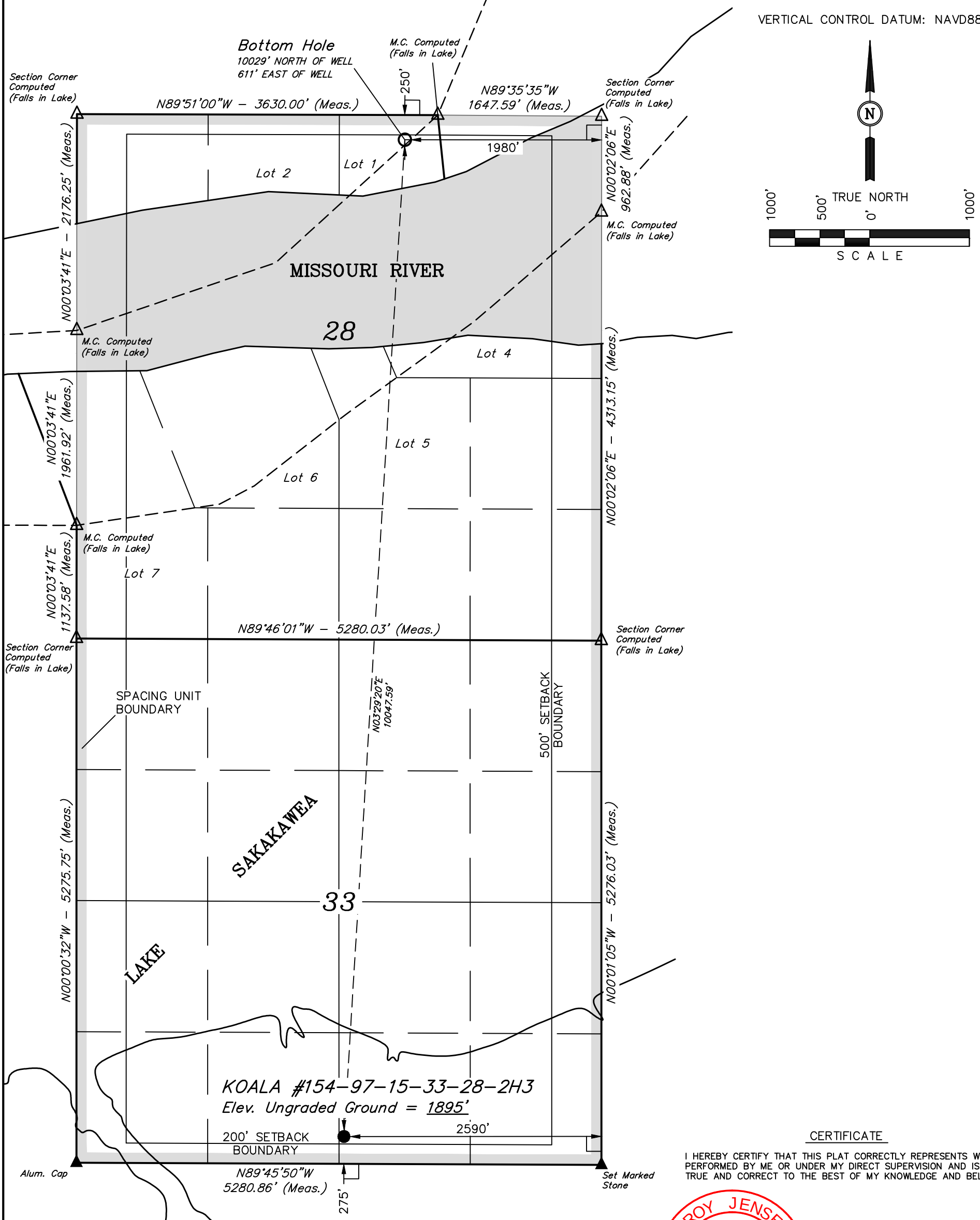
1" = 1000'	09-23-10	10-19-11
PARTY: D.M. M.C. J.J.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

WELL LOCATION PLAT
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-33-28-2H3, located as shown in the SW 1/4 SE 1/4 of Section 33, T154N, R97W, 5th P.M., McKenzie County, North Dakota.

VERTICAL CONTROL DATUM: NAVD88



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TROY JENSEN
REGISTERED LAND SURVEYOR
No. 4654
02-20-12
NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

REVISED: 02-16-12
REVISED: 07-12-11

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 48°08'20.66" (48.139072)	LATITUDE = 48°06'41.69" (48.111581)
LONGITUDE = 103°09'36.39" (103.160108)	LONGITUDE = 103°09'45.23" (103.162564)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 48°08'20.58" (48.139050)	LATITUDE = 48°06'41.61" (48.111558)
LONGITUDE = 103°09'34.72" (103.159644)	LONGITUDE = 103°09'43.56" (103.162100)

[derived from: N.G.S. O.P.U.S. Solution REF FRAME: NAD_83(CORS96)(EPOCH: 2002.0000)]

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85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	05-18-11	06-01-11
PARTY: T.G. E.R. C.C.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

SECTION BREAKDOWN
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

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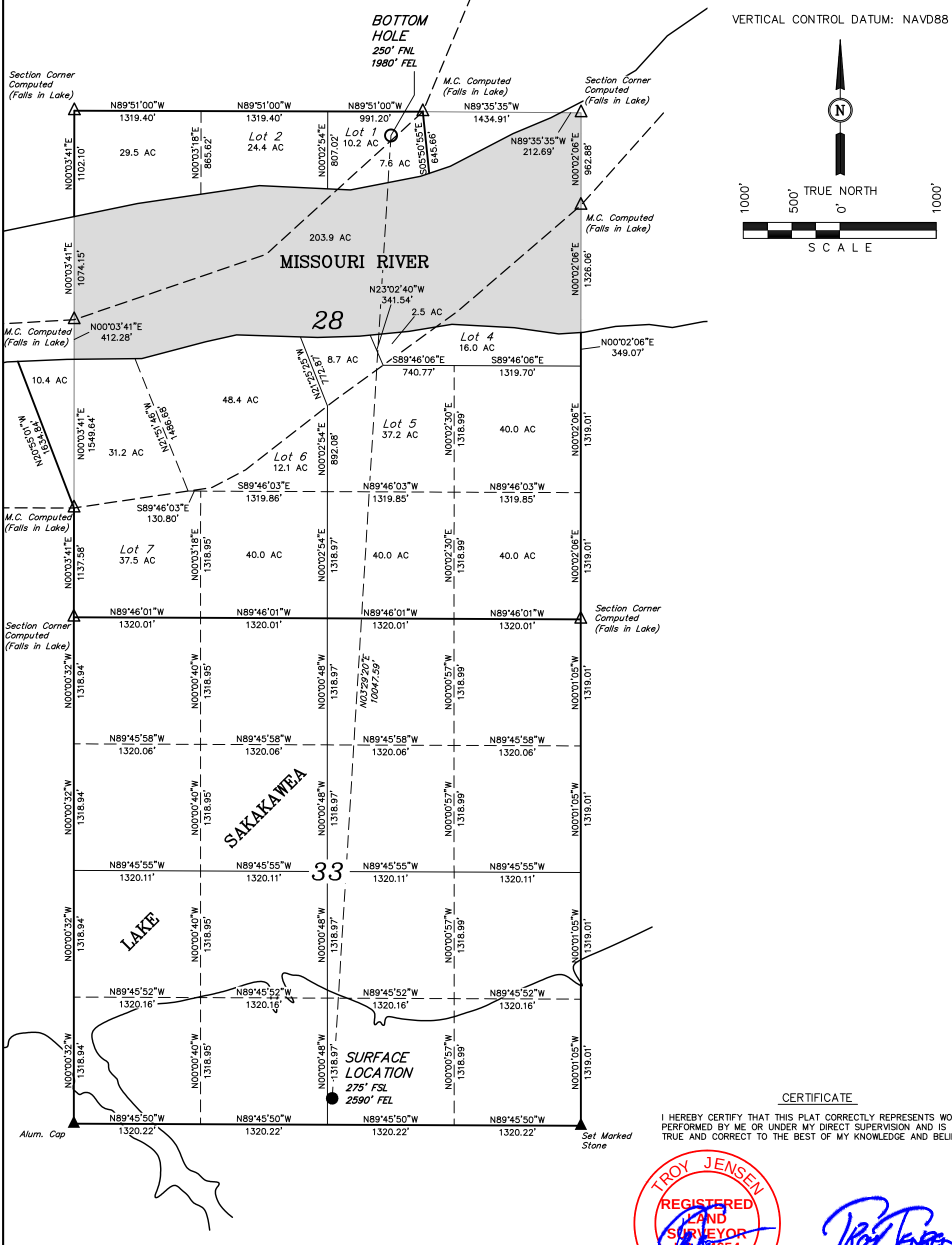
VERTICAL CONTROL DATUM: NAVD88



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TROY JENSEN REGISTERED LAND SURVEYOR No. 4654 02-20-12 NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

REVISED: 02-16-12
REVISED: 07-12-11

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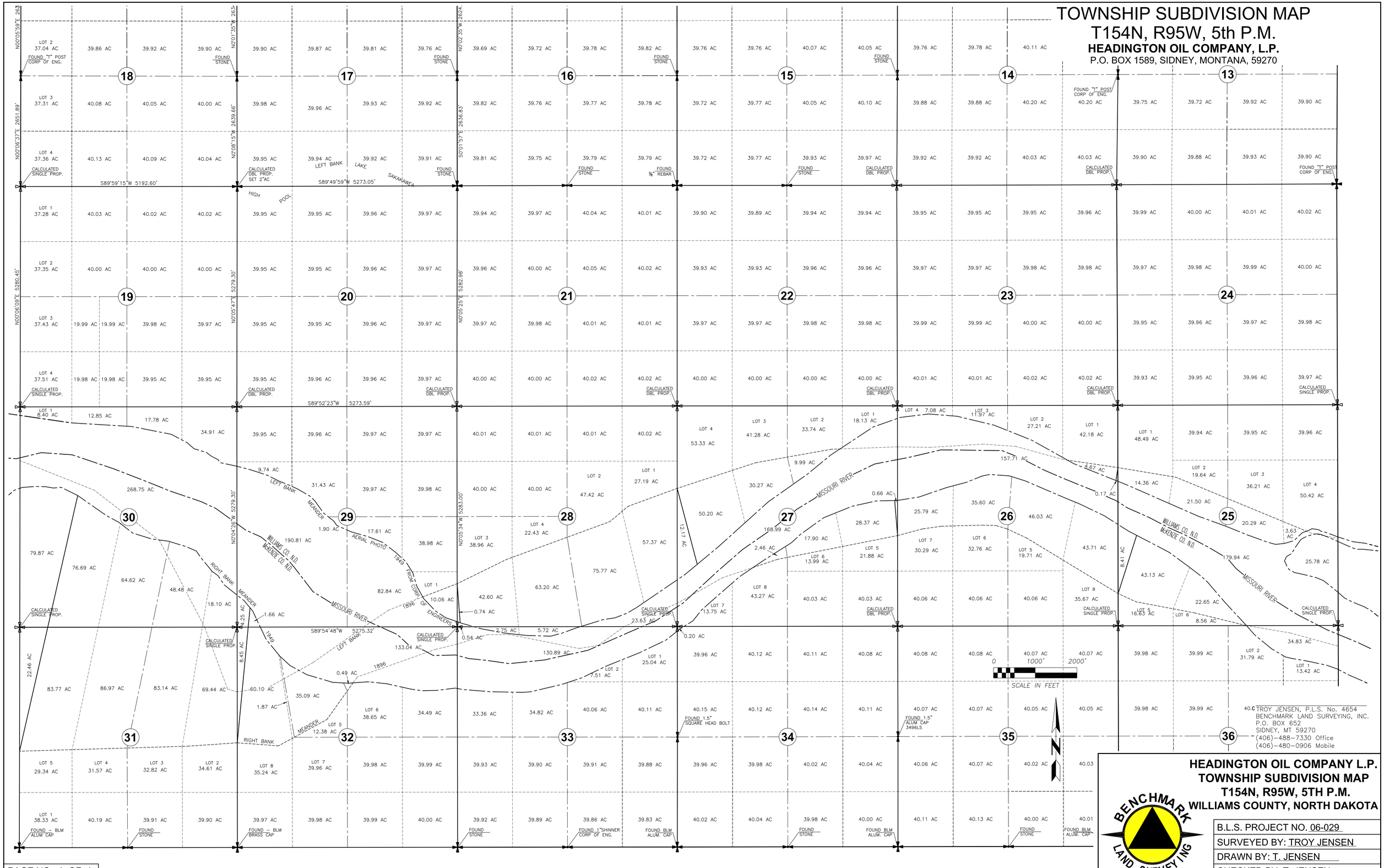
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5th P.M.

HEADINGTON OIL COMPANY, L.P.
P.O. BOX 1589, SIDNEY, MONTANA, 59270



TROY JENSEN, P.L.S. No. 4654
BENCHMARK LAND SURVEYING, INC.
P.O. BOX 652
SIDNEY, MT 59270
(406)-488-7330 Office
(406)-480-0906 Mobile

HEADINGTON OIL COMPANY L.P.
TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5TH P.M.
WILLIAMS COUNTY, NORTH DAKOTA

BENCHMARK LAND SURVEYING

B.L.S. PROJECT NO. 06-029	
SURVEYED BY: TROY JENSEN	
DRAWN BY: T. JENSEN	
CHECKED BY: T. JENSEN	

TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5th P.M.

HEADINGTON OIL COMPANY, L.P.
P.O. BOX 1589, SIDNEY, MONTANA, 59270

TROY JENSEN, P.L.S. No. 4654
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P.O. BOX 652
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(406)-488-7330 Office
(406)-480-0906 Mobile

HEADINGTON OIL COMPANY L.P.
TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5TH P.M.
WILLIAMS COUNTY, NORTH DAKOTA

BENCHMARK LAND SURVEYING

B.L.S. PROJECT NO. 06-029
SURVEYED BY: TROY JENSEN
DRAWN BY: T. JENSEN
CHECKED BY: T. JENSEN

Test of the Tract Boundaries

1) The PLSS lines per the Koala #154-97-15-33-28-2H3 and the Koala #154-97-15-34-27-1H3 well location plats were drawn.

2) State plane coordinates were generated from the geographic coordinates at the well and target locations.

3) The state plane coordinates were entered into CAD.

4) The section lines were then rotated to the well and target locations then making the section lines referenced to the North Dakota North State Plane system (NAD83, international foot)

5) The well plat were copied on an insertion point of N: 0, E: 0 and pasted into the CAD file generated from the shapefiles posted on the NDIC website corresponding to the OHWM report. (The estimate of positional tolerance of this method is +/-2' – the reason being is due to the precision of the geographic coordinates listed.)

6) Finally, the differences between the PLSS lines could be calculated. The results are as follows:

Layer: BLM_PLSS_Second Division

In the area tested, the difference between the layer and the PLSS line per the well plats is 5-6 north and 18-26 feet east.

Layer: USACE_Adjusted_Survey

The differences in the points sampled:

SW Sec. 33 = 48' north, 17' east
SQ Sec. 33 = 50' north, 29' east
EQ Sec. 34 = 7' north, 14' east
NE Sec. 34 = 2' north, 29' east
NW Sec. 34 = 22' north, -66' east
NW Sec. 33 = 31' north, -51' east

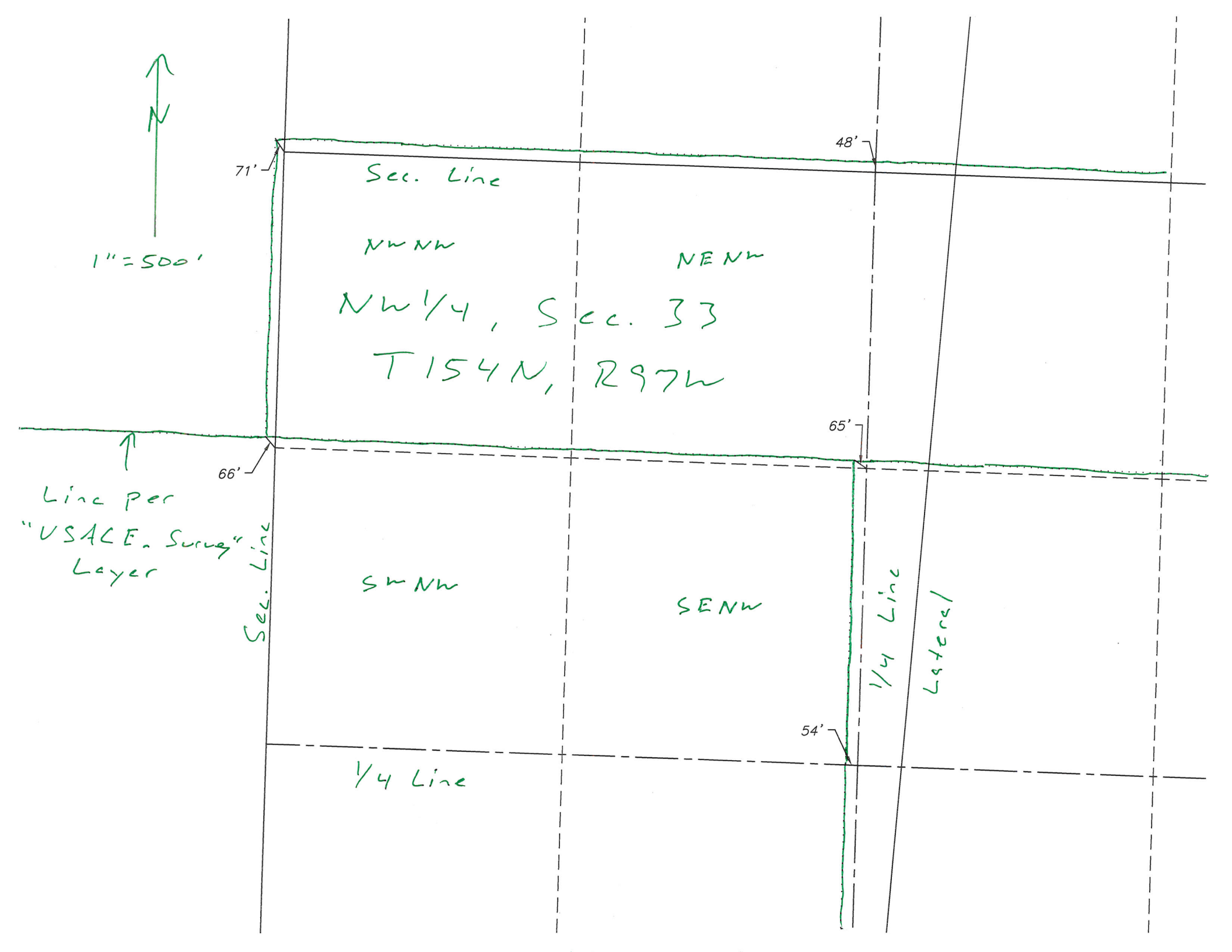
Layer: USACE_Survey

The differences in the points sampled:

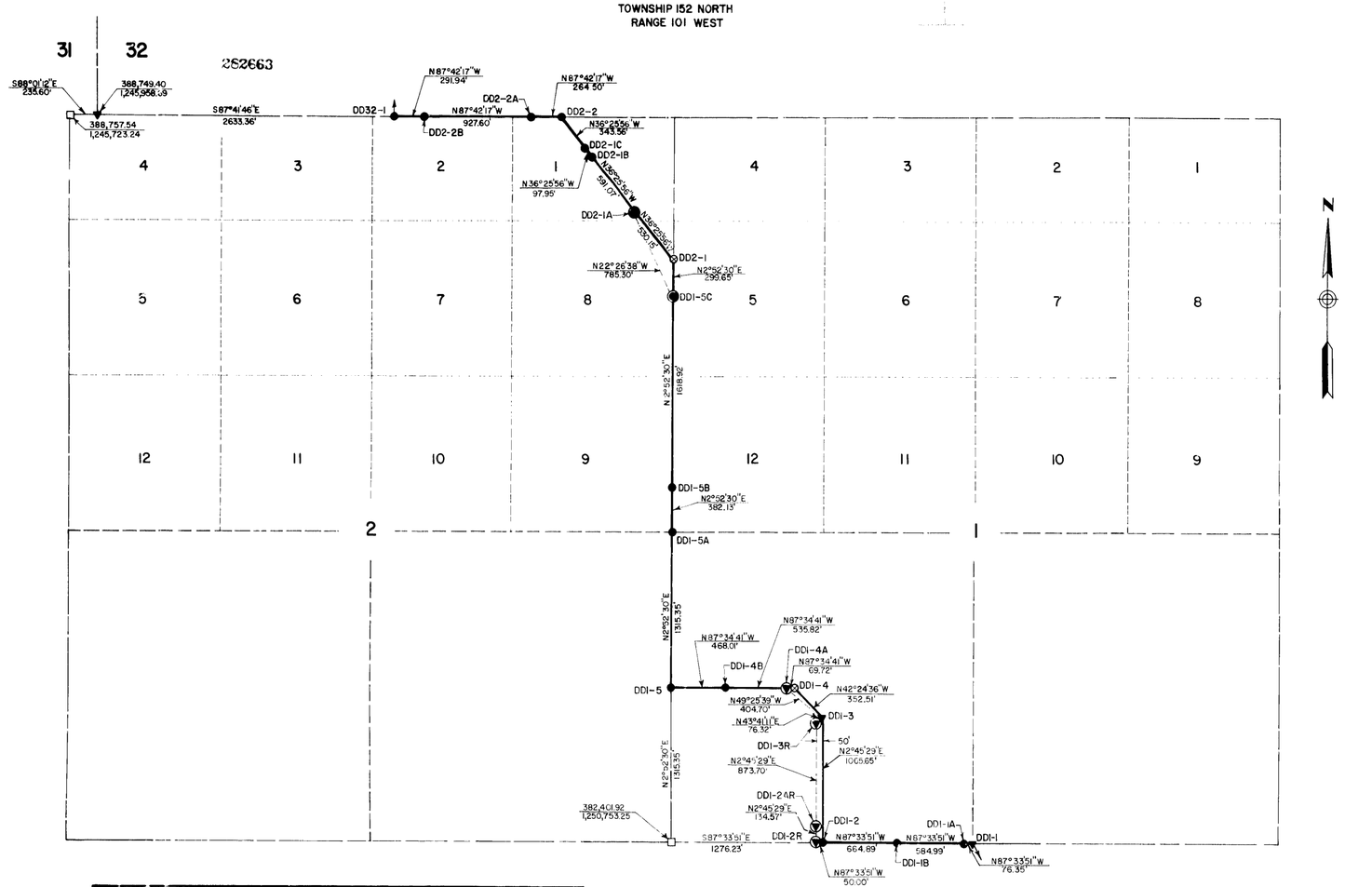
SW Sec. 33 = 82' north, -29' east
SQ Sec. 33 = 64' north, -41' east
C-S1/16 Sec. 34 = 15' north, -66' east
NE Sec. 34 = 17' north, -89' east
NW Sec. 34 = 40' north, -72' east
NW Sec. 33 = 60' north, -39'east

**See the attached maps showing the differences between the PLSS lines per the Koala well plats and the "USACE_Survey" layer in the SW1/4 and NW1/4 of Section 33, T154N, R97W.*

N
1"=500'
1/4 Line
Sec. Line
NWSW
NESW
SW1/4, Sec 33
T154N, R97W
63'
54'
66'
Lateral
SWSW
SESW
1/4 Line
Koala well
Line per "USACE_Survey Layer
87'
Sec. Line


N
1" = 500'
71'
48'
Sec. Line
NW NW
NE NW
NW 1/4, Sec. 33
T 154 N, R 97 W
65'
66'
Line per
"USACE. Survey"
Layer
Sec. Line
SW NW
SE NW
1/4 Line
Lateral
54'
1/4 Line

TOWNSHIP 152 NORTH
RANGE 101 WEST



POINT	X	Y
DD1-1	1,253,423.17	382,289.20
DD1-1A	1,253,326.90	382,292.44
DD1-1B	1,252,742.47	382,317.30
DD1-2	1,252,078.21	382,345.56
DD1-2R	1,252,028.26	382,347.68
DD1-2AR	1,252,034.74	382,482.09
DD1-3	1,252,129.49	383,409.93
DD1-3R	1,252,076.77	383,354.74
DD1-4	1,251,891.75	383,670.19
DD1-4A	1,251,822.10	383,673.13
DD1-4B	1,251,286.78	383,695.78
DD1-5	1,250,819.22	383,715.55
DD1-5A	1,250,885.19	385,029.18
DD1-5B	1,250,904.36	385,410.81
DD1-5C	1,250,985.55	387,027.61
DD2-1	1,251,000.58	387,326.88
DD2-1A	1,250,685.76	387,753.39
DD2-1B	1,250,334.76	388,228.92
DD2-1C	1,250,276.59	388,307.72
DD2-2	1,250,072.57	388,584.12
DD2-2A	1,249,808.29	388,594.71
DD2-2B	1,248,881.48	388,631.86
DD32-1	1,248,589.79	388,643.55

Sept. No 1.25 4ch
282663
[illegible]

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

[signature]

On this ____ Day of _____ 19__, before me personally appeared _____ to me known to be the person named in and who executed the forgoing instrument.

_____
Notary Public
State of North Dakota
My Commission Expires _____

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9999498

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

0 500 1000
scale feet

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

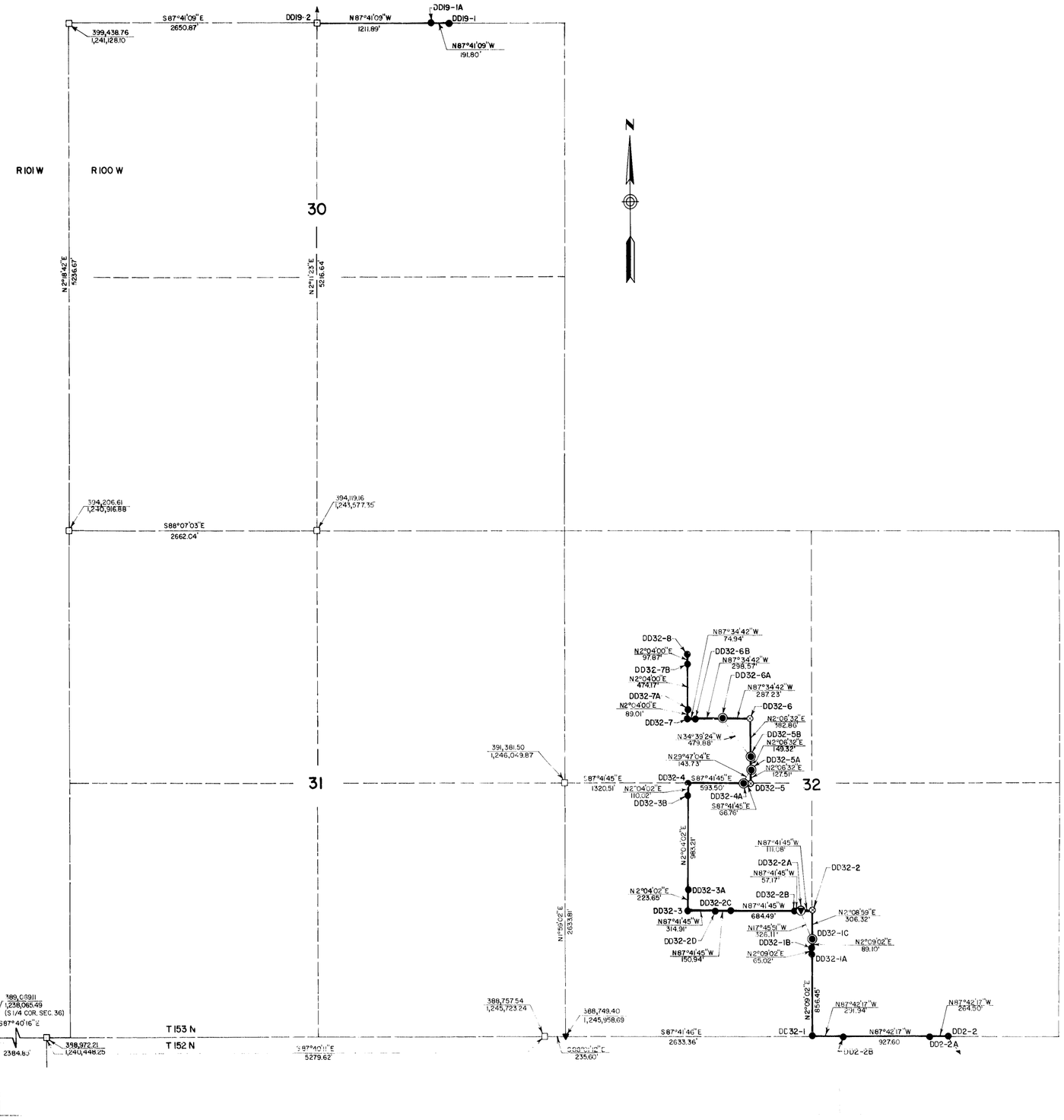
Designed by:
Drawn by: H.T.E.
Checked by: [illegible]
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM - LAKE SAKAKAWEA
SEGMENT DD
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 8/27/86
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

TOWNSHIP 153 NORTH
RANGE 100 WEST

252662



POINT	X	Y
DD2-2	1,250,072.57	388,584.12
DD2-2A	1,249,808.29	388,594.71
DD2-2B	1,248,881.48	388,631.86
DD32-1	1,248,589.79	388,643.55
DD32-1A	1,248,621.93	389,499.35
DD32-1B	1,248,624.37	389,564.33
DD32-1C	1,248,627.71	389,653.35
DD32-2	1,248,639.20	389,959.44
DD32-2A	1,248,528.22	389,963.90
DD32-2B	1,248,471.10	389,966.20
DD32-2C	1,247,787.20	389,993.72
DD32-2D	1,247,636.39	389,999.79
DD32-3	1,247,321.74	390,012.45
DD32-3A	1,247,329.81	390,235.94
DD32-3B	1,247,365.27	391,218.56
DD32-4	1,247,369.24	391,328.41
DD32-4A	1,247,962.23	391,304.55
DD32-5	1,248,028.93	391,301.87
DD32-5A	1,248,033.62	391,429.29
DD32-5B	1,248,039.12	391,578.50
DD32-6	1,248,053.20	391,961.08
DD32-6A	1,247,766.24	391,973.22
DD32-6B	1,247,467.95	391,985.83
DD32-7	1,247,393.09	391,989.00
DD32-7A	1,247,396.30	392,077.95
DD32-7B	1,247,413.40	392,551.78
DD32-8	1,247,416.92	392,649.58
DD19-1	1,245,179.08	399,275.06
DD19-1A	1,244,987.46	399,282.80
DD19-2	1,243,776.67	399,331.73

Sept. Re 1956 4th
P 252662
Cecelia Johnson
sign Lyle

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION, THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

On this ... Day of ..., 19..., before me personally appeared ... to me known to be the person named in and who executed the foregoing instrument.

Notary Public
State of North Dakota
My Commission Expires ...

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9999~~98~~

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.W.K.
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM - LAKE SAKAKAWEA
SEGMENT DD
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 8/27/56
Spec. No.: DACW45
Drawing Code:
Contract No.: DACW45

282670

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LARRY H. BAETZ — REGISTERED LAND SURVEYOR 1177 — NORTH DAKOTA

On this 5th Day of April, 1982, before me personally appeared Larry H. Baetz to me known to be the person named in and who executed the foregoing instrument.

RICHARD M. MOSICK — NOTARY PUBLIC — STATE OF NORTH DAKOTA

Notary Public
State of North Dakota
My Commission Expires 4-3-86

Dept. of the Army
Omaha District, Corps of Engineers
Omaha, Nebraska
Approved for filing
4 April 1982
282670

TOWNSHIP 153 NORTH
RANGE 98 WEST

TOWNSHIP 152 NORTH
RANGE 99 WEST

T153 N

POINTS	X	Y
AA32-1	1,314,503.27	388,043.43
AA32-1A	1,314,489.09	387,571.21
AA32-2	1,314,483.44	387,383.16
AA32-3	1,313,378.35	387,425.00
AA32-3A	1,313,287.91	387,218.25
AA32-4	1,313,206.12	387,031.30
AA32-5	1,313,156.17	387,033.19
AA32-6	1,313,148.18	386,772.76
AA32-7	1,312,072.56	386,813.54
AA32-8	1,312,010.73	386,755.85
AA32-9	1,311,832.77	386,822.63
AA32-9A	1,311,813.98	386,221.89
AA32-10	1,311,812.12	386,162.52
AA32-10A	1,311,356.81	386,179.87
AA2-1	1,311,277.24	386,184.81
AA2-1A	1,311,225.43	386,137.35
AA2-1B	1,311,214.62	385,852.74
AA2-2	1,311,205.90	385,623.25
AA2-3	1,311,305.79	385,618.73
AA2-4	1,311,290.42	385,214.08
AA2-5	1,311,240.48	385,216.33
AA2-6	1,311,259.93	384,675.00
AA2-7	1,311,077.93	384,693.08
AA2-7A	1,311,173.36	384,346.11
AA2-8	1,311,318.96	384,121.87
AA2-8A	1,311,326.65	383,992.21
AA2-9	1,311,331.16	383,916.15
AA2-10	1,310,900.22	384,160.83
AA2-11	1,310,908.23	384,360.64
AA2-11A	1,310,779.75	384,366.45
AA2-12	1,310,448.77	384,381.42
AA2-12A	1,310,473.72	385,003.68
AA2-13	1,310,483.62	385,250.57
AA2-13A	1,310,282.45	385,259.68
AA2-14	1,309,555.11	385,292.58
AA2-15	1,309,569.11	385,602.21
AA2-15A	1,309,148.83	385,621.23
AA2-15B	1,308,864.43	385,634.09
AA2-15C	1,308,728.76	385,640.23
AA3-1	1,308,569.35	385,647.44
AA3-1A	1,308,572.83	385,729.74
AA3-1B	1,308,578.10	385,854.64
AA3-2	1,308,586.15	386,045.39
AA3-2A	1,308,417.20	386,051.85
AA3-3	1,308,316.39	386,055.71
AA3-3A	1,308,242.27	386,095.66
AA3-3B	1,308,062.99	386,192.31
AA3-4	1,307,836.94	386,314.18
AA3-4A	1,307,489.44	386,327.47
AA3-4B	1,306,548.86	386,363.44

LEGEND

- ☐ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ◉ BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- — — — SECTION LINE
- — — — — QUARTER LINE
- - - - - - - SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES, ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.H.B.
Reviewed by:
Submitted by:
Chief: Section

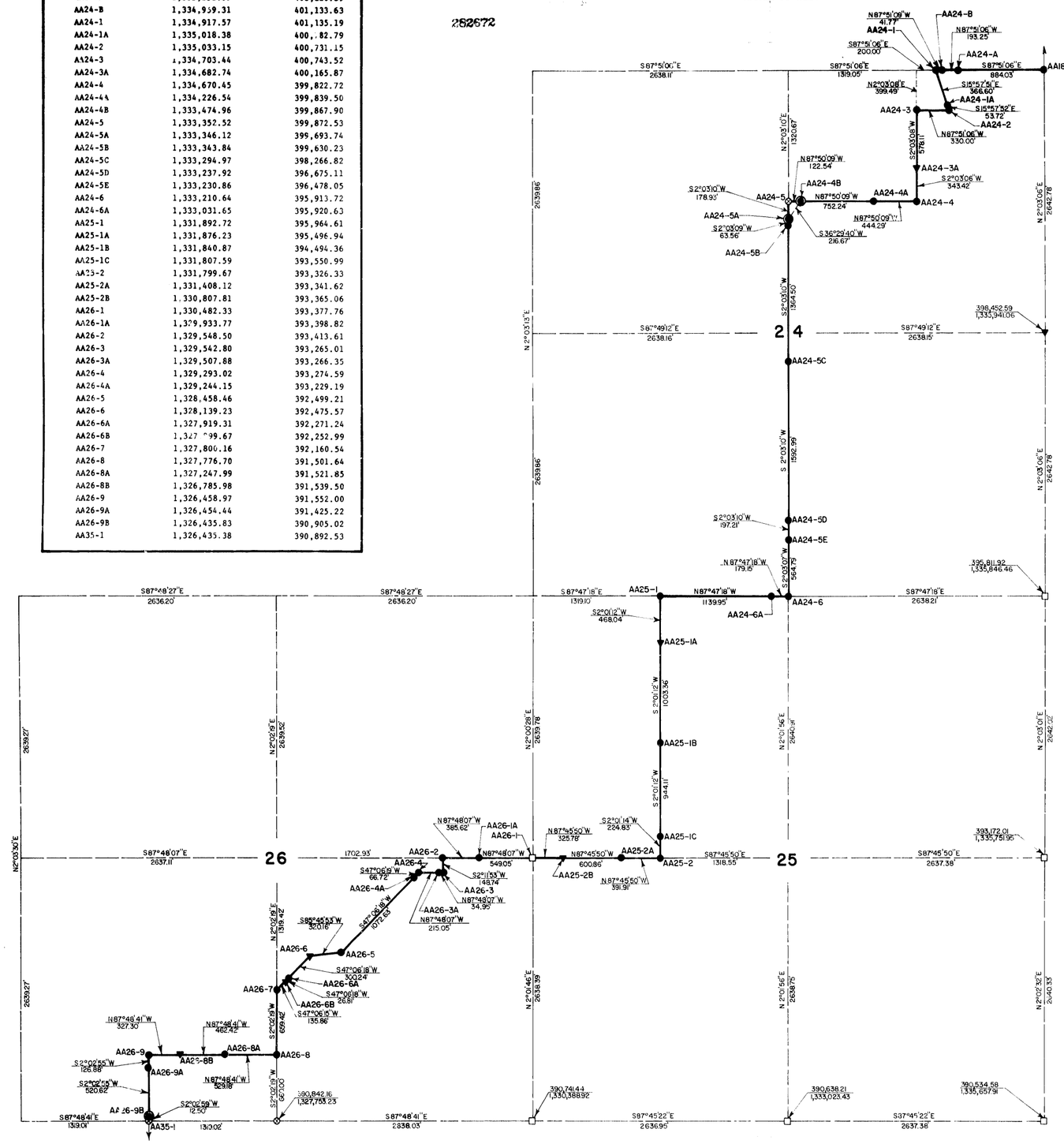
MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 4/2/86
Spec. No.: DACW45
Drawing Code:
Contract No.: DACW45

POINTS	X	Y
AA18-1	1,366,035.66	401,093.25
AA24-A	1,335,152.39	401,126.39
AA24-B	1,334,959.31	401,133.63
AA24-1	1,334,917.57	401,135.19
AA24-1A	1,335,018.38	400,.82.79
AA24-2	1,335,033.15	400,731.15
AA24-3	1,334,703.44	400,743.52
AA24-3A	1,334,682.74	400,165.87
AA24-4	1,334,670.45	399,822.72
AA24-4A	1,334,226.54	399,839.50
AA24-4B	1,333,474.96	399,867.90
AA24-5	1,333,352.52	399,872.53
AA24-5A	1,333,346.12	399,693.74
AA24-5B	1,333,343.84	399,630.23
AA24-5C	1,333,294.97	398,266.82
AA24-5D	1,333,237.92	396,675.11
AA24-5E	1,333,230.86	396,478.05
AA24-6	1,333,210.64	395,913.72
AA24-6A	1,333,031.65	395,920.63
AA25-1	1,331,892.72	395,964.61
AA25-1A	1,331,876.23	395,496.94
AA25-1B	1,331,840.87	394,494.36
AA25-1C	1,331,807.59	393,550.99
AA25-2	1,331,799.67	393,326.33
AA25-2A	1,331,408.12	393,341.62
AA25-2B	1,330,807.81	393,365.06
AA26-1	1,330,482.33	393,377.76
AA26-1A	1,329,933.77	393,398.82
AA26-2	1,329,548.50	393,413.61
AA26-3	1,329,542.80	393,265.01
AA26-3A	1,329,507.88	393,266.35
AA26-4	1,329,293.02	393,274.59
AA26-4A	1,329,244.15	393,229.19
AA26-5	1,328,458.46	392,499.21
AA26-6	1,328,139.23	392,475.57
AA26-6A	1,327,919.31	392,271.24
AA26-6B	1,327 ^99.67	392,252.99
AA26-7	1,327,800.16	392,160.54
AA26-8	1,327,776.70	391,501.64
AA26-8A	1,327,247.99	391,521.85
AA26-8B	1,326,785.98	391,539.50
AA26-9	1,326,458.97	391,552.00
AA26-9A	1,326,454.44	391,425.22
AA26-9B	1,326,435.83	390,905.02
AA35-1	1,326,435.38	390,892.53

TOWNSHIP 153 NORTH
RANGE 98 WEST

282672



Sept 86 1284 4th
P 282672
Cecelia Howard
3rd Jr Ale

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LRoy K. Bass

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On the 2nd Day of April 19 86 before me personally appeared L.K. Bass to me known to be the person named in and who executed the forgoing instrument.

Richard M. Modlock
Notary Public
State of North Dakota
My Commission Expires 4-6-88

RICHARD M. MODLOCK NOTARY PUBLIC STATE OF NORTH DAKOTA

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ◉ BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

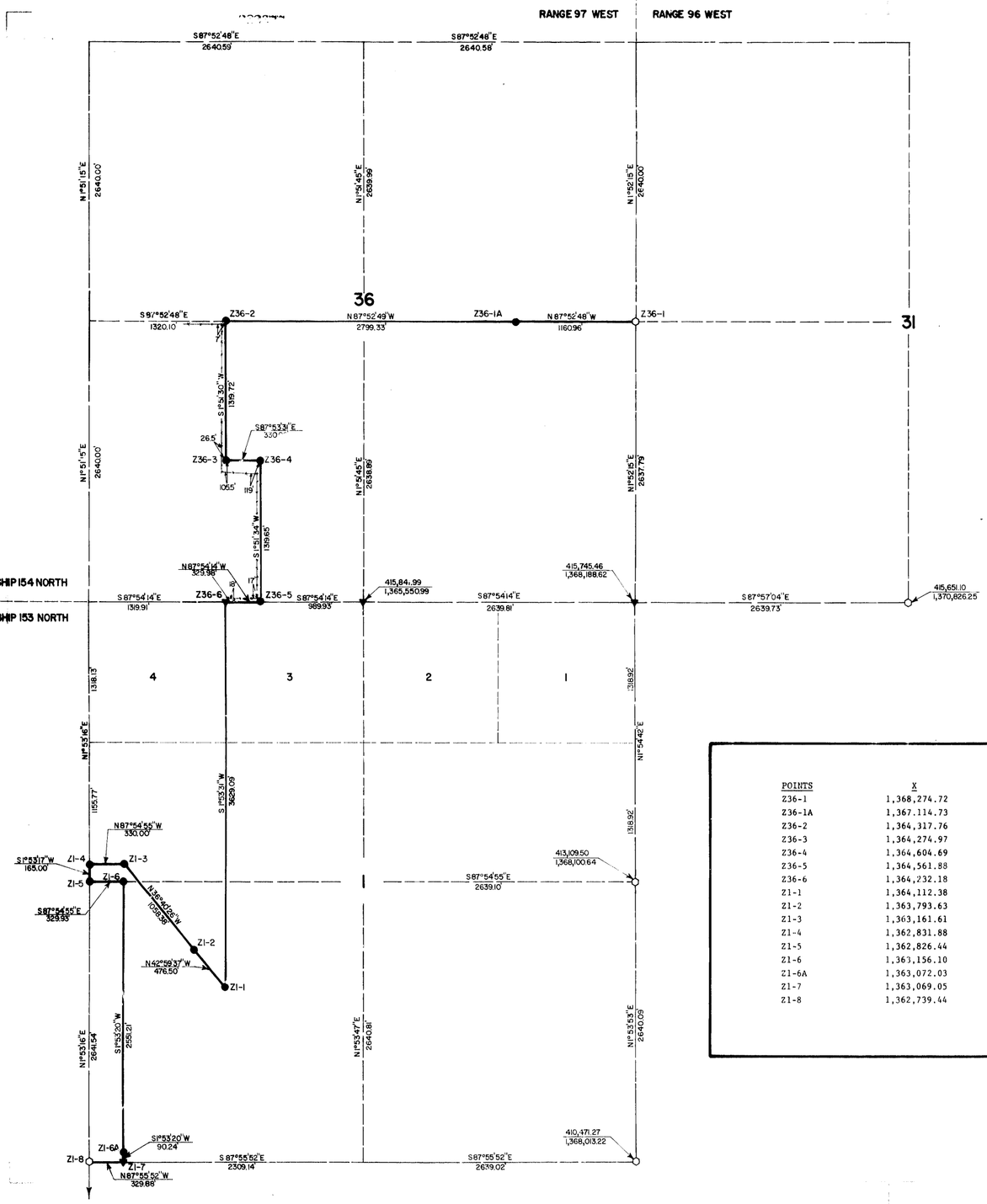
$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM—LAKE SAKAKAWEA
Checked by: L.K.B.	SEGMENT AA
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by:	RESURVEY AND MONUMENTATION
Chief: Section	Scale: As Shown; Date: 4/8/86
	Spec. No.: DACW45; Drawing Code:
	Contract No.: DACW45



POINTS	X	Y
Z36-1	1,368,274.72	413,381.43
Z36-1A	1,367,114.73	418,424.37
Z36-2	1,364,317.76	418,527.90
Z36-3	1,364,274.97	417,209.08
Z36-4	1,364,604.69	417,196.94
Z36-5	1,364,561.88	415,878.19
Z36-6	1,364,232.18	415,890.26
Z1-1	1,364,112.38	412,263.73
Z1-2	1,363,793.63	412,603.62
Z1-3	1,363,161.61	413,454.36
Z1-4	1,362,831.88	413,466.36
Z1-5	1,362,826.44	413,301.47
Z1-6	1,363,156.10	413,289.47
Z1-6A	1,363,072.03	410,740.05
Z1-7	1,363,069.05	410,649.87
Z1-8	1,362,739.44	410,661.78

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LeRoy H. Kautz

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 28th Day of April 19 84, before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires 4-8-85

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

Dept of the Army Corps of Engineers
282677
Cecelia Johnson
3 pd
to file

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

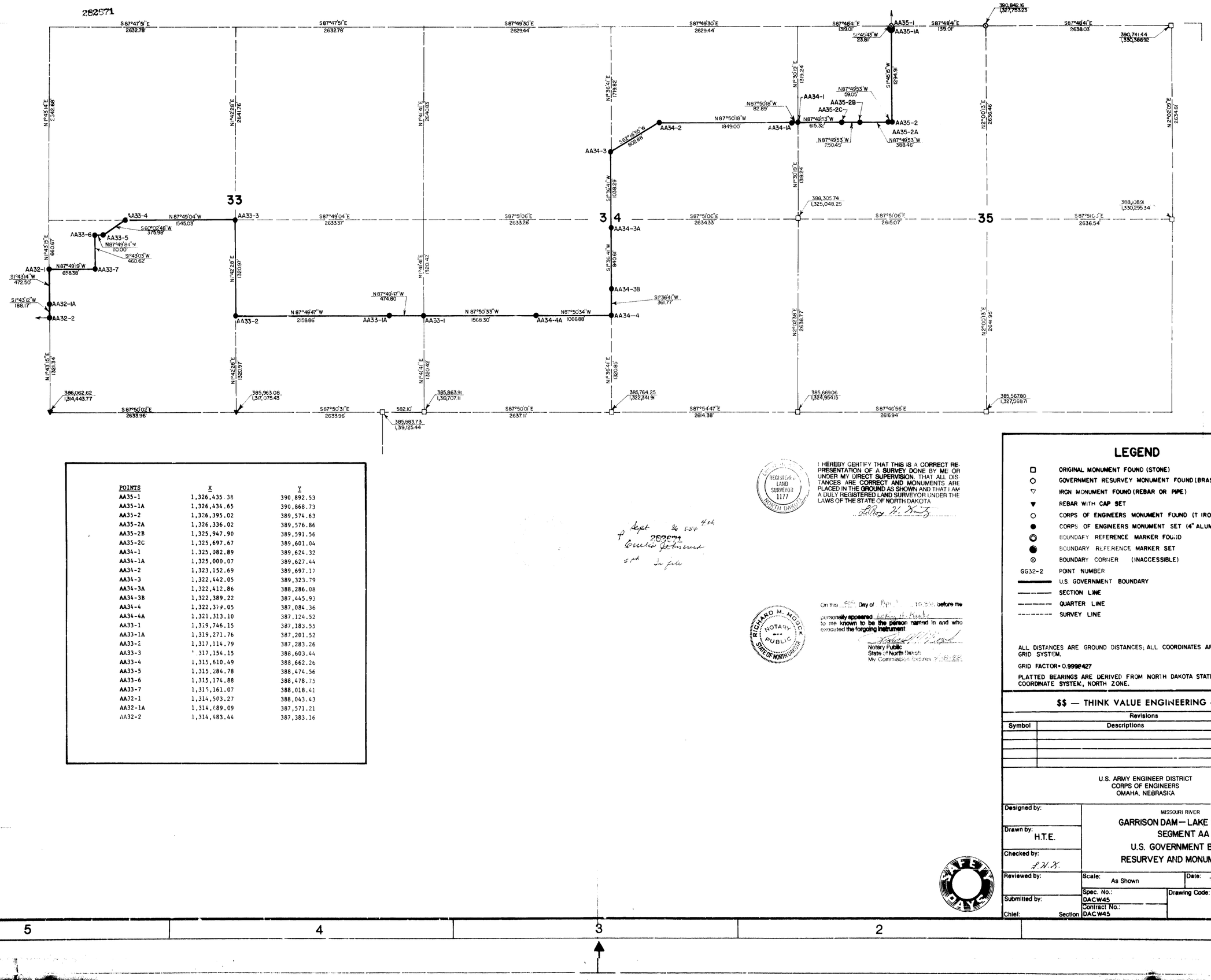
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM — LAKE SAKAKAWEA
Checked by: L.H.K.	SEGMENT Z
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by:	RESURVEY AND MONUMENTATION
Chief: Section	Scale: As Shown; Date: 4/9/84
	Spec. No.: DACW45; Drawing Code:
	Contract No.: DACW45

TOWNSHIP 153 NORTH
RANGE 98 WEST

262571



POINTS	X	Y
AA35-1	1,326,435.38	390,892.53
AA35-1A	1,326,434.65	390,868.73
AA35-2	1,326,395.02	389,574.63
AA35-2A	1,326,336.02	389,576.86
AA35-2B	1,325,947.90	389,591.56
AA35-2C	1,325,697.67	389,601.04
AA34-1	1,325,082.89	389,624.32
AA34-1A	1,325,000.07	389,627.44
AA34-2	1,323,152.69	389,697.17
AA34-3	1,322,442.05	389,323.79
AA34-3A	1,322,412.86	388,286.08
AA34-3B	1,322,389.22	387,445.93
AA34-4	1,322,379.05	387,084.36
AA34-4A	1,321,313.10	387,124.52
AA33-1	1,319,746.15	387,183.55
AA33-1A	1,319,271.76	387,201.52
AA33-2	1,317,114.79	387,283.26
AA33-3	1,317,154.15	388,603.44
AA33-4	1,315,610.49	388,662.26
AA33-5	1,315,284.78	388,474.56
AA33-6	1,315,174.88	388,478.75
AA33-7	1,315,161.07	388,018.41
AA32-1	1,314,503.27	388,043.43
AA32-1A	1,314,689.09	387,571.21
AA32-2	1,314,483.44	387,383.16

Dept 96 1st 4th
Encls Information
5th In file

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

LeRoy H. Kautz

On this 8th Day of April 19 84 before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the foregoing instrument

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

Notary Public
State of North Dakota
My Commission Expires 7-19-86

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

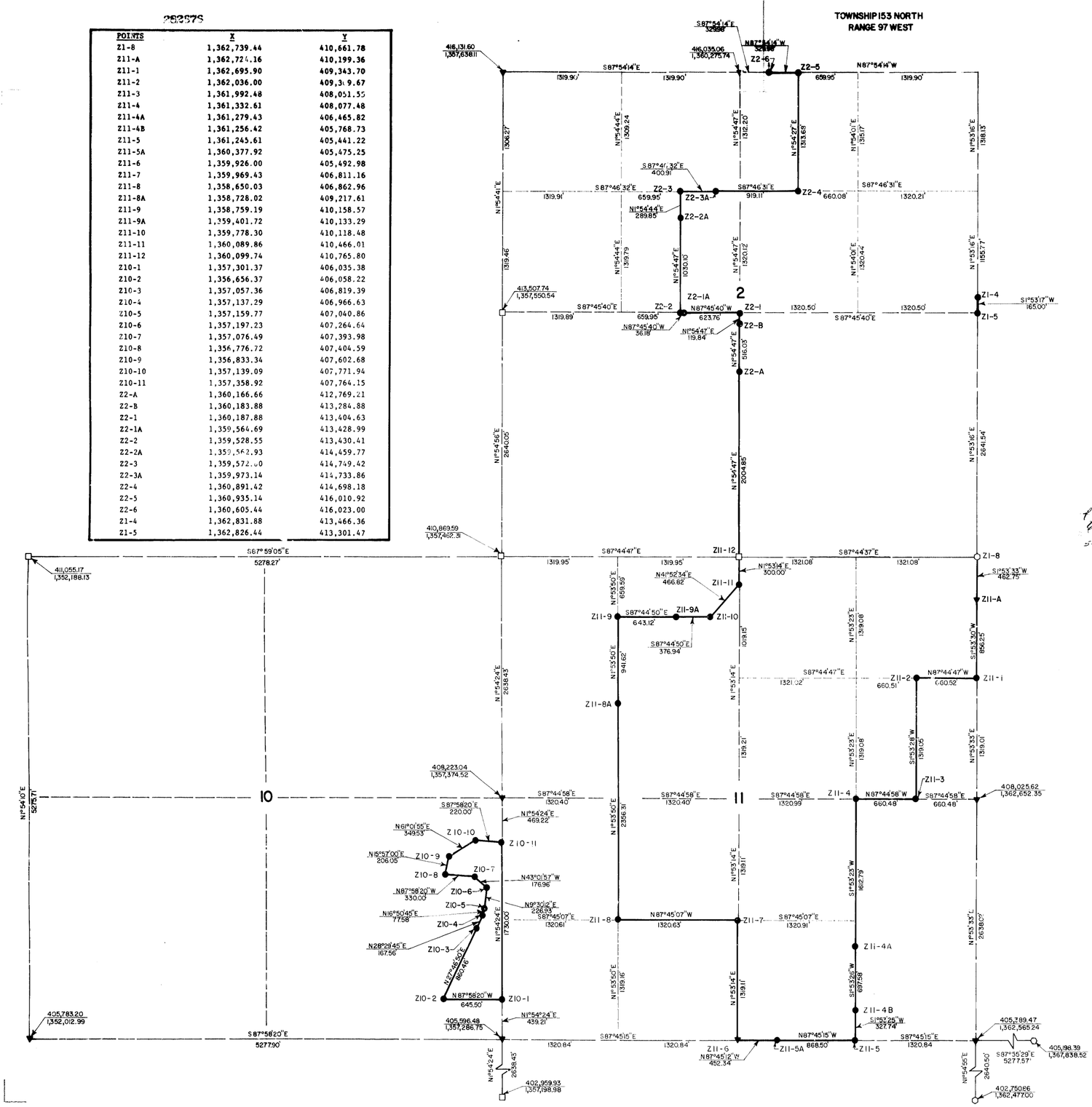
Designed by:
Drawn by: H.T.E.
Checked by: L.H.K.
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 4/8/84
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

282575

POINTS	X	Y
Z1-8	1,362,739.44	410,661.78
Z11-A	1,362,724.16	410,199.36
Z11-1	1,362,695.90	409,343.70
Z11-2	1,362,036.00	409,309.67
Z11-3	1,361,992.48	408,051.55
Z11-4	1,361,332.61	408,077.48
Z11-4A	1,361,279.43	406,465.82
Z11-4B	1,361,256.42	405,768.73
Z11-5	1,361,245.61	405,441.22
Z11-5A	1,360,377.92	405,475.25
Z11-6	1,359,926.00	405,492.98
Z11-7	1,359,969.43	406,811.16
Z11-8	1,358,650.03	406,862.96
Z11-8A	1,358,728.02	409,217.61
Z11-9	1,358,759.19	410,158.57
Z11-9A	1,359,401.72	410,133.29
Z11-10	1,359,778.30	410,118.48
Z11-11	1,360,089.86	410,466.01
Z11-12	1,360,099.74	410,765.80
Z10-1	1,357,301.37	406,035.38
Z10-2	1,356,656.37	406,058.22
Z10-3	1,357,057.36	406,819.39
Z10-4	1,357,137.29	406,966.63
Z10-5	1,357,159.77	407,040.86
Z10-6	1,357,197.23	407,264.64
Z10-7	1,357,076.49	407,393.98
Z10-8	1,356,776.72	407,404.59
Z10-9	1,356,833.34	407,602.68
Z10-10	1,357,139.09	407,771.94
Z10-11	1,357,358.92	407,764.15
Z2-A	1,360,166.66	412,769.21
Z2-B	1,360,183.88	413,284.88
Z2-1	1,360,187.88	413,404.63
Z2-1A	1,359,564.69	413,428.99
Z2-2	1,359,528.55	413,430.41
Z2-2A	1,359,562.93	414,459.77
Z2-3	1,359,572.00	414,749.42
Z2-3A	1,359,973.14	414,733.86
Z2-4	1,360,891.42	414,698.18
Z2-5	1,360,935.14	416,010.92
Z2-6	1,360,605.44	416,023.00
Z1-4	1,362,831.88	413,466.36
Z1-5	1,362,826.44	413,301.47



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LeRoy H. Kautz

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 8th Day of April 19 86 before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the foregoing instrument.

Richard M. Wyckoff
Notary Public
State of North Dakota
My Commission Expires 4-6-88

RICHARD M. WYCKOFF NOTARY PUBLIC STATE OF NORTH DAKOTA

Sept. 86 2 of 4 ch
Cancels Easements
5 pk h. pk

282676

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

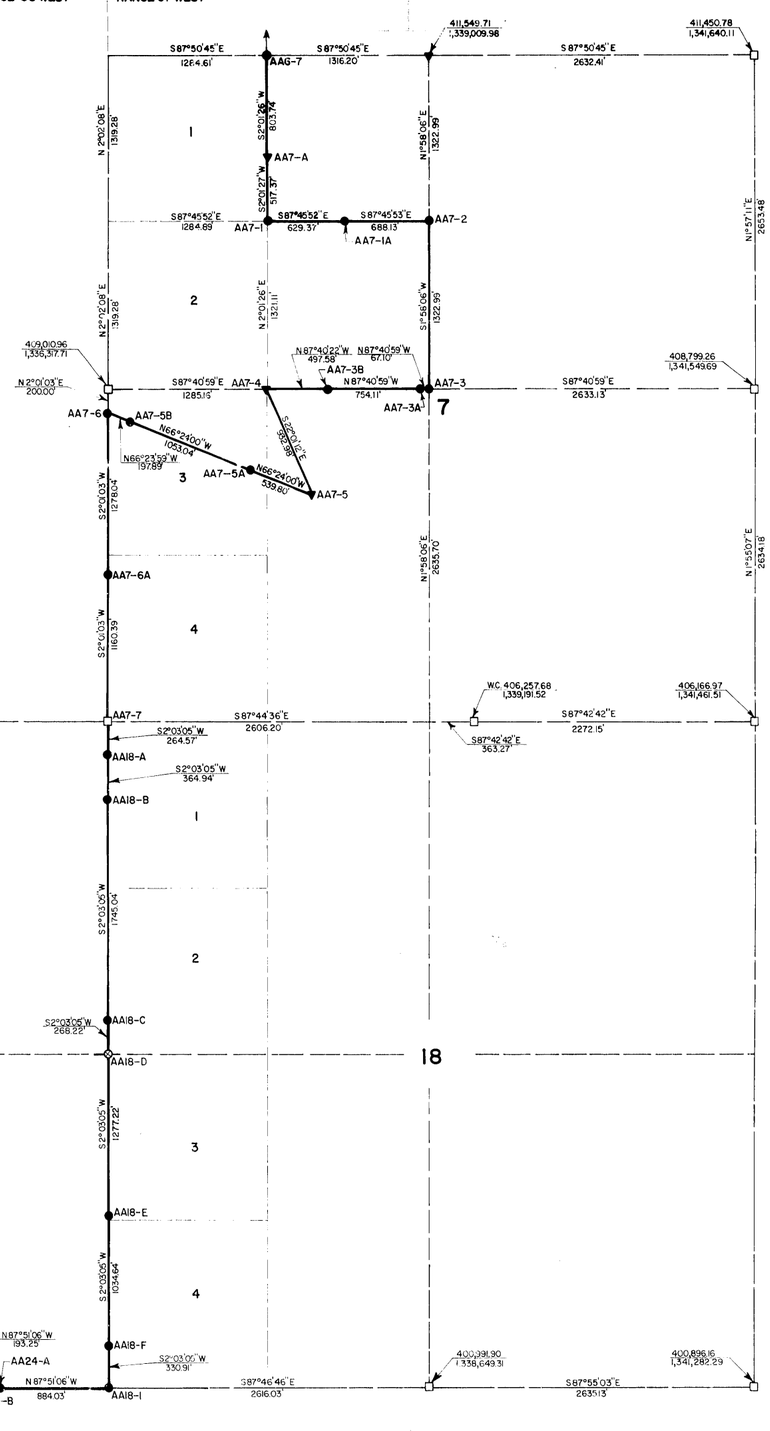
Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM—LAKE SAKAKAWEA
Checked by: L.H.K.	SEGMENT Z
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by: Chief: Section	RESURVEY AND MONUMENTATION
Scale: As Shown	Date: 7/8/86
Spec. No.: DACW45	Drawing Code:
Contract No.: DACW45	

282673

TOWNSHIP 153 NORTH

RANGE 98 WEST | RANGE 97 WEST

POINT	X	Y
AA6-7	1,337,694.92	411,599.17
AA7-A	1,337,666.53	410,796.06
AA7-1	1,337,648.26	410,279.09
AA7-1A	1,338,277.06	410,254.55
AA7-2	1,338,964.55	410,227.71
AA7-3	1,338,919.12	408,905.71
AA7-3A	1,338,852.09	408,908.42
AA7-3B	1,338,098.71	408,938.90
AA7-4	1,337,601.61	408,959.11
AA7-5	1,337,951.36	408,094.31
AA7-5A	1,337,456.79	408,310.39
AA7-5B	1,336,491.97	408,731.91
AA7-6	1,336,310.67	408,811.12
AA7-6A	1,336,265.68	407,534.07
AA7-7	1,336,224.84	406,374.58
AA18-A	1,336,215.37	406,110.22
AA13-B	1,336,202.31	405,745.58
AA18-C	1,336,139.85	404,001.93
AA18-D	1,336,130.25	403,733.92
AA18-E	1,336,084.54	402,457.71
AA18-F	1,336,047.51	401,423.90
AA18-1	1,336,035.66	401,093.25
AA24-A	1,335,152.39	401,126.39
AA24-B	1,334,959.31	401,133.63
AA24-1	1,334,917.57	401,135.19



282673

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REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 8th Day of April 19 86 before me personally appeared Luther H. Kuntz to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires 4-12-89

RICHARD M. MOSICK NOTARY PUBLIC STATE OF NORTH DAKOTA

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ● BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- — — — SECTION LINE
- — — — — QUARTER LINE
- - - - - - - SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

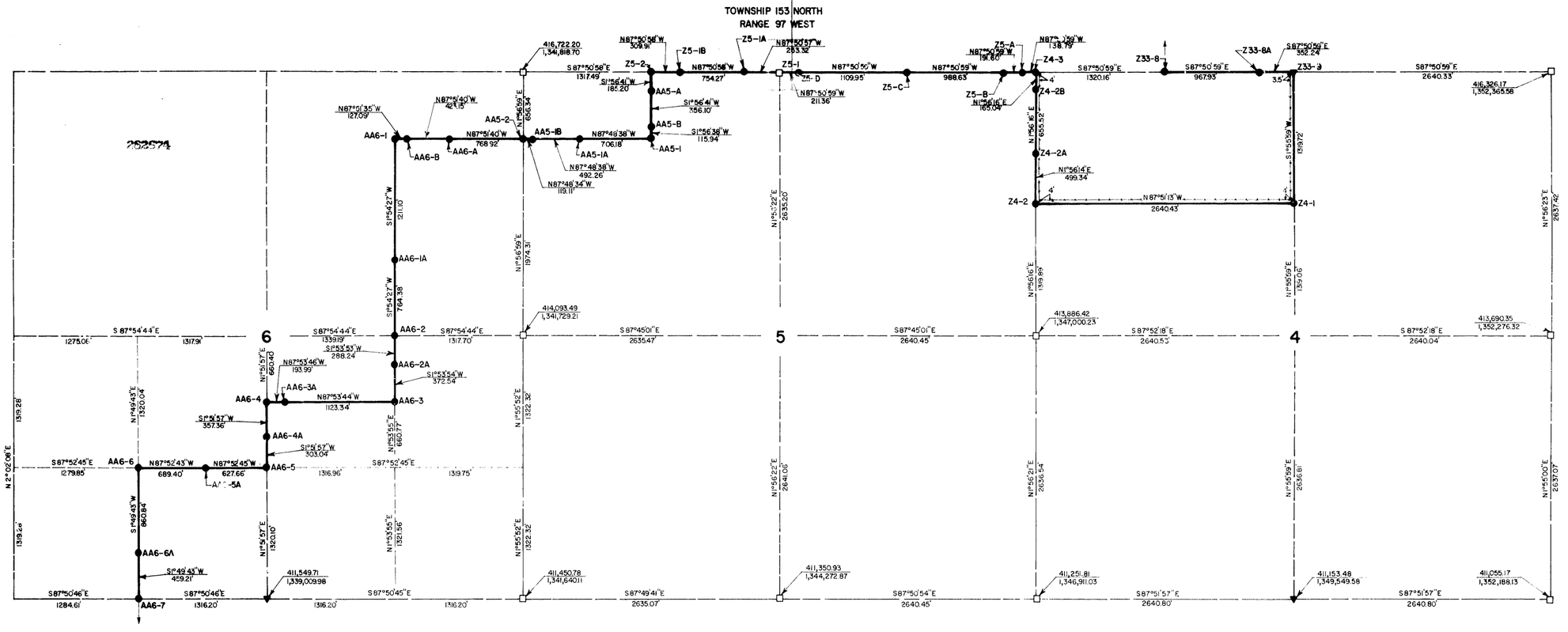
Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER GARRISON DAM—LAKE SAKAKAWEA SEGMENT AA U.S. GOVERNMENT BOUNDARY RESURVEY AND MONUMENTATION
Drawn by: H.T.E.	
Checked by: L.H.K.	
Reviewed by:	Scale: As Shown — Date: 4/8/86
Submitted by:	Spec. No.: DACW45 — Drawing Code:
Chief: Section	Contract No.: DACW45

SAFETY DAYS

TOWNSHIP 153 NORTH
RANGE 97 WEST



POINTS	X	Y
Z33-8	1,348,408.49	416,474.76
Z33-8A	1,349,375.59	416,438.44
Z33-9	1,349,727.53	416,425.23
Z4-1	1,349,683.02	415,106.47
Z4-2	1,347,044.85	415,205.35
Z4-2A	1,347,061.73	415,704 32
Z4-2B	1,347,083.89	416.359.36
Z4-3	1,347,089.47	416,524.28
Z5-A	1,346,950.80	416,529.49
Z5-B	1,346,759.37	416,536.68
Z5-C	1,345,771.59	416,573.76
Z5-D	1,344,662.60	416,615.40
Z5-1	1,344,451.42	416,623.33
Z5-1A	1,344,198.32	416,632.84
Z5-1B	1,343,444.70	416,661.14
Z5-2	1,343,135.06	416,672.76
AA5-A	1,343,120.77	416,487.70
AA5-B	1,343,116.69	416,131.86
AA5-1	1,343,112.76	416,016.01
AA5-1A	1,342,407.21	416,042.98
AA5-1B	1,341,915 .8	416,061.78
AA5-2	1,341,796.37	416,066.34
AA6-A	1,341,028.11	416,095.03
AA6-B	1,340,605.32	416,110.82
AA6-1	1,340,478.34	416,115.56
AA6-1A	1,340,438.03	414,905.33
AA6-2	1,340,412.59	414,141.49
AA6-2A	1,340,403.05	413,853.45
AA6-3	1,340,390.71	413,481.18
AA6-3A	1,339,268.31	413,522.42
AA6-4	1,339,074.48	413,529.54
AA6-4A	1,339,062.84	413,172.43
AA6-5	1,339,052.98	412,869.60
AA6-5A	1,338,425.85	412,892.82
AA6-6	1,337,737.03	412,918.34
AA6-6A	1,337,709.57	412,058.07
AA6-7	1,337,694.92	411,599.17

Sept 9th 200 4th
Executed Documents
5 pd to file

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

LICENSED REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

LeRoy H. Kurtz

On this 8th Day of April 19 96, before me personally appeared LeRoy H. Kurtz to me known to be the person named in and who executed the forgoing instrument

RICHARD M. MUSICK NOTARY PUBLIC STATE OF NORTH DAKOTA

Richard M. Musick
Notary Public
State of North Dakota
My Commission Expires 1-6-98

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ● BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- ——— SECTION LINE
- ——— QUARTER LINE
- ——— SURVEY LINE

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GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.H.K.
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM—LAKE SAKAKAWEA
SEGMENT Z AND AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

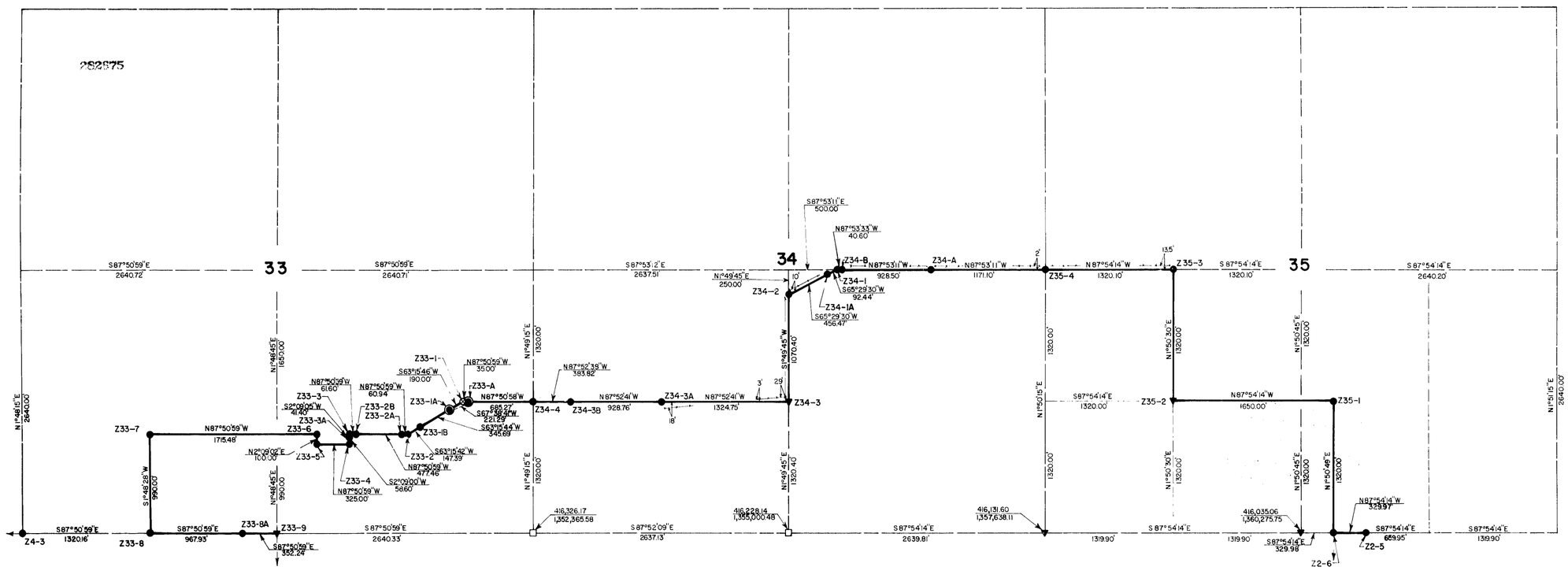
Scale: As Shown
Date: 7/8/96
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

SAFETY DAYS

TOPO 1989

TOWNSHIP 154 NORTH
RANGE 97 WEST

282675



POINT	X	Y
Z2-5	1,360,935.14	416,010.92
Z2-6	1,360,605.44	416,023.00
Z35-1	1,360,647.97	417,342.10
Z35-2	1,358,999.34	417,402.44
Z35-3	1,359,041.75	418,721.55
Z35-4	1,357,722.75	418,769.82
Z34-A	1,356,552.63	418,813.01
Z34-B	1,355,624.90	418,847.25
Z34-1	1,355,584.34	418,848.74
Z34-1A	1,355,590.24	418,810.40
Z34-2	1,355,076.78	418,617.34
Z34-3	1,355,042.62	417,547.66
A34-3A	1,353,718.99	417,596.70
Z34-3B	1,352,791.01	417,631.08
Z34-4	1,352,407.51	417,645.30
Z33-A	1,351,722.84	417,671.01
Z33-1	1,351,687.87	417,672.32
Z33-1A	1,351,518.21	417,586.85
ZZ33-1B	1,351,209.53	417,431.35
ZZ33-2	1,351,077.93	417,365.05
Z33-2A	1,351,017.04	417,367.33
Z33-2B	1,350,539.99	417,385.25
Z33-3	1,350,478.44	417,387.56
Z33-3A	1,350,476.89	417,346.19
Z33-4	1,350,474.69	417,287.64
Z33-5	1,350,149.97	417,299.84
Z33-6	1,350,153.72	417,399.75
Z33-7	1,348,439.72	417,464.10
Z33-8	1,348,408.49	416,474.76
Z33-8A	1,349,375.59	416,438.44
Z33-9	1,349,727.53	416,425.23
Z4-3	1,347,089.47	416,524.28

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ● BOUNDARY RLFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- — — — SECTION LINE
- – – – – QUARTER LINE
- ------- SURVEY LINE

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GRID FACTOR= 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

Dept St 202 Ph
P 282675
Cecelia Johnson
5 pd In file

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION, THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

LB Q. K. Kautz

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 28th Day of April, 19 86, before me personally appeared LeRoy H. Kautz to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires 7-8-88

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.H.K.
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT Z
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 4/8/86
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

SAFETY DAYS

5 4 3 2

115 N.W.2d 12 (1962)

Thomas M. JENNINGS, Plaintiff and Respondent,

v.

George E. SHIPP, Pearl Shipp, and all other persons unknown claiming any estate or interest in, or lien or encumbrance upon the property described in the Complaint, Defendants and Appellants.

No. 7976.

Supreme Court of North Dakota.

May 4, 1962.

13 *13 Jansonius, Fleck, Smith, Mather & Strutz, Bismarck, N. D., for defendants and appellants.

Thompson & Lundberg, Bismarck, N. D., for plaintiff and respondent.

RAY R. FRIEDERICH, District Judge.

This is an action to quiet title. By the original Government Survey in 1874, fractional Section 10, Township 139 North, Range 81 West, was laid out in the form of an isosceles right triangle, the north side being 24.8 chains in length, the east side 25.17 chains, and the hypotenuse of the triangle being the meander line along the east bank of the Missouri River running north 44¾ degrees west, a length of 35.2 chains. This triangular tract contained 36.21 acres, and was designated as Lot 1 in the foregoing section. The United States Government conveyed the property by patent to the plaintiff's predecessor in interest. Prior to the commencement of this action, the plaintiff conveyed to one who is not a party to this action all of the property comprising the original triangle, it being his intention to retain the accretions to the original tract. The Missouri River, which constituted the boundary on one side of this triangular tract, has characteristically been known to undulate in varying degrees, thereby causing either accretion or reliction of property bounded by the river. According to the testimony, over a period of approximately forty years, either by the recession of the stream or by the accumulation of various materials, an accreted area has developed to where the river now is approximately 1536 feet from the original meander line, leaving a substantial tract of land between the meander line and the present water line. From an examination of all the evidence it would appear that the meander line as
14 established *14 by the 1874 original survey was also the approximate shore line or water line on that date. The issues involve the ownership of lands formed as an accretion to the east bank of the Missouri River that formed between the meander line as established by the original survey of 1874 and the present bank of the Missouri River. The plaintiff brought this action to quiet title to a portion of the accreted lands. The defendants counterclaimed and asked that title be quieted in them to a portion of the same lands.

More specifically, it is claimed that the plaintiff having conveyed the upland, of which the accretions became a part, such accretions passed to the grantee of the upland, even though not described in the conveyance. The defendants further contend that the trial court did not apportion the new shore line in proportion to the respective frontage on the old shore line. It is contended by the defendants that they have acquired an interest in the accreted portion by adverse possession and are therefore entitled to it irrespective of the rule applicable to the division of accreted lands. Plaintiff, the respondent herein, maintained in the lower court, and claims here, that the north and east section lines of Section 10 should be extended to the present water line, and that all accreted areas between these extended lines are a part of the original Lot 1.

Certain matters have been so well settled that they may be summarily disposed of at the outset. In Oberly v. Carpenter, 67 N.D. 495, 274 N.W. 509-513, this Court said:

> "The defendants further insist that, in any event, the new land thus added to the plaintiff's land and to which plaintiff claims title under section 5473, cannot extend beyond the section line between section 24 and 25, and section 23 and 26. The first answer to this contention is that at the time of the survey this section line was not run north of the river. The second and conclusive answer is that the law governing riparian rights has no regard for artificial boundary lines, whether between sections or their subdivisions, or between counties, states, or nations. See the illuminating opinion of Mr. Justice Brewer in Nebraska v. Iowa, [143 U.S. 359, 12 S.Ct. 396, 36 L.Ed. 186] supra. See, also, Widdecombe v. Chiles, 173 Mo. 195, 73 S.W. 444, 61 L.R.A. 309, 96 Am.St.Rep. 507; Yearsley v. Gipple, 104 Neb. 88, 175 N.W. 641, 8 A.L.R. 636; Doebbeling v. Hall et al., 310 Mo. 204, 274 S.W. 1049, 41 A.L.R. 382."

From this holding it is quite conclusive that the defendants' contention that the east and north section lines of Section 10 should be extended until they reach the present water line is without foundation.

The trial court found that the defendants' claim of title by adverse possession is not substantiated by the evidence, and we concur in this finding.

As to the claim that a conveyance of the upland presumptively carries with it the accretion attached thereto, we find such a presumption rebuttable. Lynch v. Kupfer, 134 Cal.App. 652, 26 P.2d 33-34. Evidence may show an intent to separate the two. The evidence in this case shows that the last portion of the original tract was conveyed on August 5, 1949. The only person who might claim an interest in this accretion is the grantee of the original tract contiguous to it, and he apparently has laid no claim to it, at least the record does not reflect such a claim. In a Nebraska case, Conkey v. Knudsen, 135 Neb. 890, 284 N.W. 737-739, the Court said:

> "It is clear in the record that after plaintiff sold the south half of the north half of section 13 to Christensen, he retained possession of the accretions thereto. The only person who might establish a record title to any of these accretions is Christensen and he disclaims any interest
15 therein. We *15 think plaintiff has sufficient title to maintain this suit against these defendants under the holding in Ellsworth Corporation v. Stratbucker, supra (134 Neb. 246, 278 N.W. [381], 382)."

Having thus eliminated the claim of adverse possession, and the contention that plaintiff no longer retains an interest in the accreted tract sufficient to substantiate a quiet title action, we now confine our discussion to the real problem, that is, the establishment of the boundary line, or in other words, the division of the accretion that has resulted since the original Government Survey in 1874.

A search of the North Dakota case law does not reveal this precise question has ever been before this Court. In most of our neighboring states where the Missouri River also persists in the privilege of changing its course from time to time, such as South Dakota, Iowa and Nebraska, this question has been litigated. The trial court has correctly stated the rule of law, commonly known as the doctrine of accretion, namely;

> "The fundamental theory underlying the ownership of accretions is that each of the several riparian owners shall have a frontage on the new shore proportionate to his frontage on the old one, connecting their respective points by straight lines. * * *
>
> "The main objects to be kept in view in any division of accretions is that the division shall be equitable and that it shall be proportional so as to give each shore owner a fair share of the land to be divided and his due portion of the new shore line proportionate to his share on the original line of the water." Gardner v. Green, 67 N.D. 268, 271 N.W. 775.

See also: Berry v. Hoogendoorn, 133 Iowa 437, 108 N.W. 923; Hathaway v. City of Milwaukee, 132 Wis. 249, 111 N.W. 570, 9 L.R.A.,N.S., 778, 122 Am.St.Rep. 975, rehearing denied 132 Wis. 249, 112 N.W. 455, 9 L.R.A.,N.S., 778, 122 Am.St. Rep. 975.

It is in the application of this rule of law that difficulty arises. Much emphasis by both counsel for the plaintiff and the defendants has been placed upon the rule of law laid down by this Court in the case of Gardner v. Green, supra. In that case, page 783 of 271 N.W. we said:

> "But the survey line between lots 5 and 7 is not to be projected for the purpose of dividing accretions, that is, land that came into existence after the lots were laid out. Kehr v. Snyder, 114 Ill. 313-317, 2 N.E. 68, 55 Am.Rep. 866. It is to be projected only for the purpose of establishing the boundaries of the tracts as they were laid out, and to divide land then in existence between the meander line, as shown on the plat, and the shore line of the river. Land formed subsequent to the time the lots were laid out *must be apportioned among the owners of lands fronting on the river in accordance with the rules applicable to the apportionment of accretions.*" (Emphasis ours.)

In other words, Gardner v. Green, supra, is not authority in the instant case, because in the Green case the dispute involved a tract of land between the meander line and the shore line of the river as it existed at the time of the official United States Government Survey. In the instant case the meander line and the shore line were substantially the same at the time of the 1874 U. S. Government Survey, and the problem is strictly concerned with the rules applicable to the apportionment of accretions. Having stated the rule of law which governs, we examine its applicability.

The Nebraska court, reviewing this rule of law in Conkey v. Knudsen, 143 Neb. 5, 8 N.W.2d 538, quotes another text writer as follows:

> "`The division of such rights among riparian owners has been a fruitful source of litigation and
16 the courts have *16 promulgated certain rules for the partition thereof, which have been exceedingly useful to the professions. Among such rules we find the following: 1. Measure the ancient bank and compute the number of feet owned by each proprietor. 2. Divide the new bank into as many equal parts as there were feet in the old bank and draw lines from the old points of division to the new ones.' Clark, Surveying and Boundaries, 2d Ed., sec. 251. As early as 1835 the supreme court of Massachusetts applied the foregoing rule in the following language: `The rule is, 1. To measure the whole extent of the ancient bank or line of the river, and compute how many rods, yards or feet, each riparian proprietor owned on the river line. 2. The next step is, supposing the former line, for instance, to amount to 200 rods, to divide the newly formed bank or river line into 200 equal parts, and appropriate to each proprietor as many portions of this new river line, as he owned rods on the old. Then, to complete the division, lines are to be drawn from the points at which the proprietors respectively bounded on the old, to the points thus determined as the points of division on the newly formed shore. The new lines, thus formed, it is obvious, will be either parallel, or divergent, or convergent, according as the new shore line of the river equals, or exceeds or falls short of the old.'"

The application of this rule as outlined in the previous quotation appears to us to be practical and sensible. It is obvious, however, that certain evidentiary facts are absolutely necessary before this rule can be applied properly. In one of the earlier Iowa cases, Berry v. Hoogendoorn, 133 Iowa 437, 108 N.W. 923, the Court was confronted with much the same problem we are in this case. At page 926 of 108 N.W. the Court said:

> "We understand from the authorities on the subject that it would be necessary to ascertain the length of the new shore line between the points of its departure from the old shore line and the length of the corresponding portion of the old shore line, so that the new line might be apportioned in parts corresponding to the parts of the old shore line belonging to the different owners. If this had been done, then the accretions would be divided up by running straight lines from the points on the old line to the corresponding points on the new."

While the trial court has correctly stated the rule of law, it is mathematically impossible to apply this rule of law in the apportionment of the new shore line to that of the old, when the entire length of either the new or the old shore line is not included in the evidence. The Court, in the Hoogendoorn case, supra, said:

> "Without such means of apportionment, we are unable to say how much of the shore line south of the point F on the plat should have been apportioned to plaintiff."

The trial court in the instant case drew a line from the northwest corner of the original triangular plot perpendicular to the river, and then drew another line through the southeast corner of the triangle to the river and parallel to the first line. The accreted area between these two parallel lines, the Court held, was the area accreted to Lot 1 of Section 10. Whether these two lines should be parallel, divergent or convergent could only be determined after ascertaining the length of the old shore line and the length of the new shore line and appropriating to each proprietor along the accreted area a proportionate portion of the new river line. By applying the rule in the proportional division of accreted land among the riparian owners, the lines formulating the boundary would be parallel only if the new shore line were exactly the same length as the old shore line.
17 That this is not true in the instant case is clearly evident from an examination of Exhibit 10, and from *17 the further fact that the hypotenuse of the original triangle of Lot 1, Section 10, ran north 44¾ degrees west, while the hypotenuse of a triangle formed by the extension of the east and north boundaries of Section 10 now runs north 39' 14" west, as shown by Plaintiff's Exhibit 1.

This case is here for trial de novo under Section 28-27-32, NDCC. What we have heretofore said resolves all the issues of title except the establishment of a dividing line between portions of the accreted lands claimed by the contending parties. We have also determined that the trial court stated the correct rule by which the division shall be determined, but the record does not contain and there was not before the trial court sufficient evidence for the proper application of that rule. The old shore line against which the accretions were built has been conceded to be the meander line established by the 1874 survey. The length of that line to the extent that it formed the original boundary of the property in dispute can be calculated from the exhibits showing the original survey but the determination of the length of the part of the present shore line to which these litigants are entitled cannot be determined or calculated from the exhibits or other evidence in the record. That determination will require establishment of the points of departure (which cannot be located from the evidence in the record) of the present shore line from the line of the old shore and the determination of the lengths of both shore lines with respect to the entire body of accreted land. When the lengths of the shore lines between the points of departure have been ascertained it will be possible to determine the proportionate share of the present shore line to which each riparian owner is entitled, including the shares of the litigants.

The trial court attempted to make a determination of the dividing line between the properties of the parties to this action as best he could with the evidence before him. His decision seemingly approaches the result that would be obtained by applying the rule after all the facts necessary to a decision have been established. However, we cannot affirm or reverse a judgment on the basis of conjecture.

The record does not show the value of the land in dispute or afford a basis for estimating the cost of determining the length of the present shore line which may require extensive surveys. It may be that the expense of a new trial of this issue may be disproportionate to the benefits that can be obtained by either party upon a new trial of the issue involved in locating the dividing line.

As stated in McCoy v. Paxton, 156 Iowa 194, 135 N.W. 1091:

> "* * * it is entirely competent for the adjoining owners to agree how the accreted land shall be divided, and this is true regardless of the exact legal right that either may have therein."

The case is remanded for a new trial on the question of the lengths of the shore lines with respect to the accreted properties claimed by the respective parties. After they have been established, the trial court is directed to apportion the new shore line between the parties in parts corresponding to the ownership of the old

shore line, and determine the boundary line between the two tracts by drawing a straight line between a point on one shore line where the segments owned by the respective parties join to a similar point on the other shore line and modify or amend the judgment accordingly.

A new trial conformable to this opinion is ordered.

SATHRE, C. J., and MORRIS, BURKE and TEIGEN, JJ., concur.

STRUTZ, J., deeming himself disqualified did not participate, Honorable RAY R. FRIEDERICH, one of the Judges of the Second Judicial District, sitting in his stead.

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FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION AND MEANDER LINES

OF

TOWNSHIP 154 NORTH

OF

RANGE 97

WEST

Of the FIFTH PRINCIPAL *Meridian,*

NORTH DAKOTA,

AS SURVEYED BY

GEORGE K. DIKE, *United States Deputy Surveyor,*

Under his Contract No. 42, *dated* March 24, 1896

Survey commenced September 18, 1896.

Survey completed October 3, 1896.

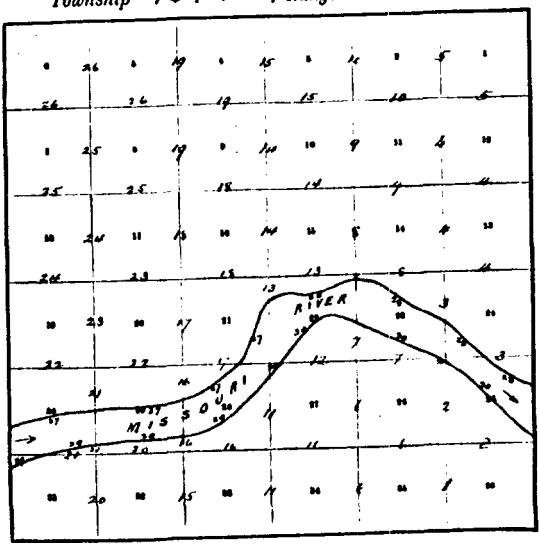
6—688

NAMES AND DUTIES OF ASSISTANTS.

Jacob A Dahl	Chairman.
Sherwin C Beckwith	Chairman.
William Allen	Yeoman.
Henry Russell	Yeoman.
Isaac Adkison	Yeoman.

INDEX DIAGRAM.

Township 154 N . Range 97 W.



Meanders Page 27 to 30

PRELIMINARY OATHS OF ASSISTANTS.

We, Jacob A. Dahl and Sherwin J. Bedwell

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the 1st Standard and meander lines of Township No. 154 N. of Range No. 97 West of the fifth principal Meridian in North Dakota

Jacob A. Dahl, Chainman.

Sherwin J. Bedwell, Chainman.

Subscribed and sworn to before me this 3rd day of July, 1896.

No other Official Seal Known

George K. Dike
U. S. Deputy Surveyor.

We, Henry Russell and Isaac Asleson

do solemnly swear that we will well and truly perform the duties of mounduen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the 1st Standard and meander lines of Township No. 154 N. of Range No. 97 West of the fifth principal Meridian in North Dakota

Henry Russell, Mounduen.

Isaac Asleson, Mounduen.

Subscribed and sworn to before me this 3rd day of July, 1896.

No other Official Seal Known

George K. Dike
U. S. Deputy Surveyor.

We, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

_____, Axman.

_____, Axman.

Subscribed and sworn to before me this _____ day of _____, 189

_____

No Official Seal Known

I, William Allen, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the subdivisional and meander lines of Township No. 154 N. of Range No. 97 West of the fifth principal Meridian in North Dakota

William Allen, Flagman.

Subscribed and sworn to before me this 3rd day of July, 1896.

No other Official Seal Known

George K. Dike
U. S. Deputy Surveyor

6-321

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Survey commenced September 18, 1896, and executed with a Burt's improved solar compass with double Standard telescope attachment, numbered 2215 and a steel chain tape all made by Young and Sons of Philadelphia, Pa.

The instrument was examined, tested on the meridian established by the U. S. Coast and Geodetic survey at the State University of Minnesota, found correct, and with a Chesterman steel tape kept for a Standard measure, was approved by the surveyor general, for North Dakota, May 12, 1896.

At 7h. 30m. a.m. l.m.t., I set off 46°07' on the lat. arc, 1°34'30" W. in the decl. arc, and at the meander cor. of fract. secs. 25 and 36, on the E. bdy. of the Tp., and left bank of Missouri river, heretofore described, determine a true meridian with the solar, which I find at 20.0 chs. W. of cor., falls 2 ins. E. of the true meridian established by Polaris observation at this cor. June 29, as heretofore described.

The magnetic bearing of the true meridian is N. 17° 01'W., which reduced by the table on page 100 in the Manual, gives the mean mag. decl. 16°58'E.

Note; As the survey of the exterior and subdivisional lines of this Tp. are included in the same contract, retracements are omitted.

From the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the Tp., heretofore described,
I run
N.0°1'W. bet. secs. 35 and 36.

1.75 Tobacco Garden Creek, 10 lks. wide, having a gravelly bed, 2 ft. banks, and 3 ins. of running water, course E.
14.00 Recross creek, 10 lks. wide, course N. W.
23.80 John Frisch's house bears N.89°E., 4.50 chs. dist.,
31.60 Recross creek, 15 lks. wide, course N. E.
40.00 Set a limestone 16x10x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x 12 ins., W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
48.00 Recross creek, 80 lks. wide, course W. W.
57.00 Recross creek 70 lks. wide, course E. E.
80.00 Set a granite stone 18x10x[illegible] ins., 12 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked with 1 notch on S. and E. edges, dig pits, 18x18x12 ins. in each sec. ¾ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level bottom, not subject to inundation.
Soil, alluvial, 1st. rate.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	S.89°51'E. on a random line bet. secs. 25 and 36.
40. 0	Set temp. ¼ sec. cor.
80.00	Intersect E. bdy. of Tp. 3 lks. N. of cor. of secs. 25, 30, 31 and 36, heretofore described,
	Thence I run,
	N.89°50'W. on a true line bet. secs. 25 and 36.
	Through timber and dense undergrowth.
4.50	Tobacco Garden Creek, 100 lks. wide, having 6 ft. banks, a sandy bed, and sluggish current, course N.
40.00	Set a cottonwood post, 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on N. face, no trees within limits, dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
	September 18; At this ¼ sec. cor., I set off 1°20' N. on the decl. arc, and at 11h. 54m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'.
42.00	Leave timber and dense undergrowth bearing W.
80.00	The cor. of secs. 25, 26, 35 and 36.
	Land, dry level bottom, subject to 2 ft. to 6 ft. innundation on E. ¼ mile.
	Soil, alluvial, 2nd. rate.
	Timber, cottonwood and ash.
	Timber and dense undergrowth 42.00 chs.

	N.0°1' W. bet. secs. 25 and 26.
19.50	Enter timber and dense undergrowth bearing S. E.
40.00	Set a cottonwood post, 3 ft. long, 3 ins. sq., 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face, from which,
	A cottonwood 6 ins. diam., bears N. 20¼°E., 32 lks. dist., marked,
	¼ S. B. T.
	A cottonwood 4 ins. diam., bears S. 74¼°W., 33 lks. dist., marked,
	¼ S. B. T.
74.55	Right bank of Missouri river and
	Set a cottonwood post 3 ft. long, 4 ins. sq., 24 ins. in the ground for Meander cor. of fract. secs. 25 and 26, marked,
	M. C. on N.
	T. 154 N. on S.
	R. 97 W., S. 25 on E. and
	S. 26 on W. faces, from which,
	A cottonwood 6 ins. diam., bears N. 64¼°W., 193 lks. dist., marked,
	T. 154 N., R. 97 W., S. 26, M. C. B. T.
	A cottonwood 4 ins. diam., bears S. 26°E., 206 lks. dist., marked,
	T. 154 N., R. 97 W., S. 25, M. C. B. T.
80.00	Point for cor. of secs. 23, 24, 25 and 26 on sandbar.
	Land, dry level bottom subject to 4 ft. innundation in places near the river.
	Soil, alluvial, 2nd. and 3rd. rate.
	Timber, cottonwood and ash.
	Timber and dense undergrowth 55.05 chs.

September 18, 1896.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	S.89°50'E. on a random line bet. secs. 24 and 25. From point for cor. of secs. 23, 24, 25 and 26 on sandbar, I measure a base S.44°50'E., 46.00 chs. to a point where a flag on line over river bears N.10'E., distance over river is therefore, departure of base for 45° or 32.53 chs.
32.53	Set temp. Meander cor.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E. bdy. of Tp. at cor. of secs. 19, 24, 25 and 30, heretofore described, Thence I run, N.89°50'W. on a true line bet. secs. 24 and 25.
40.01	Set a granite stone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
47.50	Left bank of Missouri river and set a granite stone 16x6x6 ins. 10 ins. in the ground for Meander cor. of fract. secs. 24 and 25, marked M.C. on W. face, with 2 grooves on S. face, dig a pit 36x36x12 ins. 8 ft. E. of stone and raise a mound of earth 4 ft. base, 2 ft. high E. of cor.
80.02	Point for cor. of secs. 23, 24, 25 and 26 on sandbar.
	Land, dry level bottom not subject to innundation. Soil, alluvial, 1st. rate.

	N.0°1'W. bet. secs. 23 and 24. Over river. From point for cor. of secs. 23, 24, 25 and 26, I offset E. to left bank of river, thence N.0°1'W. on offset line, 34.00 chs. Thence W. to intersection of true line 70 lks. in advance of river bank, therefore distance over river is 33.30 chs. — 70 = 33.30 chs.
33.30	Left bank of Missouri river and set a limestone 15x9x4 ins., 10 ins. in the ground for Meander cor. of fract. secs. 23 and 24, marked M.C. on S. with 1 groove on E. face, from which, A cottonwood 7 ins. diam. bears N.76°E., 63 lks. dist. marked T. 154 N., R. 97 W., S. 24, M. C. B. T. A cottonwood 7 ins. diam. bears N.44°W. 94 lks. dist. marked T. 154 N., R. 97 W., S. 23, M. C. B. T. Thence through timber and dense undergrowth.
35.30	Leave timber and dense undergrowth bearing S.E. at this point J.A.McKay's house bears N.37°E., William Laughland's house N.28°W.
40.00	Set a sandstone 15x8x8 ins. 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
63.65	A wagon road bearing E. J.A.McKay's house bears N.78°E? William Laughland's house bears S.78°W.
65.00	Leave bottom land bearing E. and ascend bluffs.
74.00	Top of bluffs 60 ft. high, bearing E.
80.00	Set a granite stone 15x9x9 ins. 10 ins. in the ground for cor. of secs. 13, 14, 23 and 24, marked with 3 notches on S. and 1 notch on E. edges; dig pits, 18x18x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom not subject to innundation, and prairie, Soil, alluvial and gravelly loam, 1st. and 2nd. rate Timber, cottonwood. Timber and dense undergrowth, 2.00 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 19: At the cor. of secs. 13, 14, 23 and 24 I set off 48°08'30"N. on the lat. arc, 1°09'N. on the decl. arc, and at 9h.a.m., l.m.t., determine a true meridian with the solar.
	Thence I run,
	S.89°50'E. on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect E. bdy. of Tp. 3 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 13 and 24.
	Over side of bluffs sloping S.
31.50	Top of bluffs bearing W.S.W.
40.03	Set a granite stone 24x8x6 ins., 18 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
59.35	A wagon road, bearing N.
80.06	The cor. of secs. 13, 14, 23 and 24.
	Land prairie, generally level.
	Soil, gravelly loam, 2nd. rate.

	N.0°1'W. bet. secs. 13 and 14.
40.00	Set a granite stone 12x8x8 ins., 8 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; dig pits, 18x18x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
46.25	A wagon road, bearing W.
80.00	Set a granite stone 15x9x6 ins., 10 ins. in the ground for cor. of secs. 11, 12, 13 and 14, marked with 4 notches on S. and 1 notch on E. edges; dig pits, 15x 18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie, gently rolling.
	Soil, sandy loam, 2nd. rate.

	S.89°-1'E. on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E. bdy. of Tp. 2 lks. N. of cor. of secs. 7, 12, 13 and 18, heretofore described,
	Thence I run,
	N.89°50'W. on a true line bet. secs. 12 and 13.
40.01	Set a granite stone 15x10x10 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.02	The cor. of secs. 11, 12, 13 and 14.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

	N.0°1'W. bet. secs. 11 and 12.
40.00	Set a granite stone 15x12x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18 x12 ins. N. and S. of stone 3 ft. dist., and raise a moundof earth 3½ ft. base, 1½ ft. high W. of cor.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 19: At this ¼ sec. cor., I set off 1°05'30" W. on the decl. arc, and at 11h. 54m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°10'.
80.00	Set a limestone 18x14x6 ins., 12 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

	S.89°50'E. on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
60.00	Intersect E. bdy. of Tp. 5 lks. S. of cor. of secs. 1, 6, 7 and 12, heretofore described,
	Thence I run,
	N.89°52'W. on a true line bet. secs. 1 and12.
.70	A grassy drain, 15 lks. wide, course S.E.
40.00	Set a granite stone 15x12x9 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00	The cor. of secs. 1, 2, 11 and 12.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

	N.0°1'W. on a random line bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
60.00	Intersect N. bdy. of Tp. at cor. of secs. 1, 2, 35 and 36, heretofore described,
	Thence I run,
	S.0°1'E. on a true line bet. secs. 1 and 2.
6.40	A wagon road bearing E.N.E.
13.90	A grassy drain, 25 lks. wide, course E.
40.00	Set a limestone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
47.15	A wagon road, bearing W.-E.
80.00	The cor. of secs. 1, 2, 11 and 12.
	Land, prairie, level.
	Soil, sandy loam, 1st. rate.

September 19, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 21: At 7h. a.m., l.m.t., I set off 48°06' on the lat. arc, 00°26'30" N. on the decl. arc, and at the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of the Tp. heretofore described, determine a true meridian with the solar.
	Thence I run,
	N.0°2'W. bet. secs. 34 and 35.
40.00	Set a granite stone 15x9x8 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
49.00	Begin to descend bluffs, bearing E.
52.60	Foot of bluffs 100 ft. high and enter bottom land bearing E.
80.00	Set a granite stone 15x8x8 ins., 10 ins. in the ground for cor. of secs. 26, 27, 34 and 35, marked with 1 notch on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie and bottom land generally level. Soil, sandy loam and alluvial, 1st. rate.

	S.89°51'E. on a random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line at cor. of secs. 25, 26, 35 and 36,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 26 and 35.
40.00	Set a limestone 15x10x4 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00	The cor. of secs. 26, 27, 34 and 35.
	Land, dry level bottom not subject to inundation. Soil, alluvial, 1st. rate.

	N.0°2'W. bet. secs. 26 and 27.
40.00	Set a granite stone 15x9x9 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
75.00	Enter timber and dense undergrowth bearing S.E.
80.00	Set a granite stone 15x8x8 ins., 10 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on S. and E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom, not subject to inundation. Soil, alluvial, 1st. rate.
	Dense undergrowth, 5.00 chs.

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Township 153 North of Range 97 West of the 5th. Principal Meridian.

Chains.

S.89° 1'E., on a true line bet. secs. 25 and 26.

40.00 Set temp. 1 sec. cor.

72.70 Set a temp. "meander corner."

80.00 Intersect W. and E. lines at point for cor. of secs. 23, 24, 25 and 26, on sandbar.

Thence I run,

N.8°01'W., on a true line bet. secs. 25 and 26.

On sandbar in river.

7.30 Right bank of Missouri river, and

Set a cottonwood post 5 ft. long, 4 ins. sq., 24 ins. in the ground for meander cor. of fract. secs. 23 and 26, marked,

T. 153 N. on E.

T. 154 N. on W.

R. 97 W., S. 25 on S. and

S. 23 on W. faces, from which,

A cottonwood 4 ins. diam., bears N. 40°W., 18 lks. dist., marked,

T. 154 N., R. 97 W., S. 23, M. C., B. T.

A cottonwood 4 ins. diam., bears S. 39°E., 70 lks. dist., marked,

T. 154 N., R. 97 W., S. 26, M. C., B. T.

Thence through timber and dense undergrowth.

40.00 Set a cottonwood post 5 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for 1 sec. cor., marked S. on E. face, no trees within limits, dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high over cor.

80.00 The cor. of secs. 22, 23, 26 and 27.

Land, dry level bottom, subject to 4 ft. inundation in places near the river.

Soil, alluvial, sandy and fair water.

Timber, cottonwood and ash.

Timber and dense undergrowth, 72.70 chs.

N.0°2'W. bet. secs. 23 and 26.

Through timber and dense undergrowth.

39.35 Right bank of Missouri river, and

Set a cottonwood post 5 ft. long, 4 ins. sq., with charred stake 24 ins. in the ground for meander cor. of fract. secs. 23 and 26, marked, M. C. on W.

T. 154 N. on E.

R. 97 W., S. 23 on E. and

S. 26 on W. faces, no trees within limits, dig a pit, 18x18x12 ins. E. of post, and

raise a mound of earth 3 ft. base, 2 ft. high S. of cor.

September 21, 1896.

Thence on sandbar, same from a point at 64.00 chs. on true line I set a flag [illegible] over river and a 2nd. flag over river bearing [illegible] N.02°W., from which I run N. 89°E., 15.47 [illegible] intersection of true line 27 lks. in advance of [illegible] park, distance over river is therefore 15.47 chs. [illegible] =15.20 chs., and distance on line 15.20 chs. [illegible] =79.20 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
79.20	Left bank of Missouri river, and Set a granite stone 15x9x9 ins., 10 ins. in the ground for meander cor. of fract. secs. 22 and 23, marked, M. M. on S. face, with 2 grooves on E. face, dig a pit 36x36x12 ins., 8 ft. W. of stone and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
80.00	Set a granite stone 12x10x6 ins., 8 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 4 ft. innundation in places, S. of river.
Soil, alluvial, 2nd. and 3rd. rate.
Timber, cottonwood and ash.
Timber and dense undergrowth 39.36 chs.

September 22; At 7h. 20m. a.m., l.m.t., I set off 48° 08'30" on the lat. arc, 00°02'E. on the decl. arc, and at the cor. of secs. 14, 15, 22 and 23, determine a true meridian with the solar.
Thence I run,

	S.89°51'E. on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
79.94	Intersect N. and S. line 6 lks. N. of cor. of secs. 13, 14, 23 and 24.
	Thence I run,
	N.89°48'W. on a true line bet. secs. 14 and 23.
16.80	A wagon road bearing N.
20.60	Begin to descend bluffs, bearing N.
23.50	Foot of bluff, 100 ft. high, bearing N.
30.20	A brook drain, 8 lks. wide, 2 ft. deep, having a slow current, course S. S. E.
39.97	Set a limestone 15x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
44.80	Enter a plowed field bearing N. N. W.
46.25	Leave field extending 10.00 chs. W. N.W. and 10.00 chs. E. S. E.
79.94	The cor. of secs. 14, 15, 22 and 23.

Land, dry level bottom, not subject to innundation and prairie.
Soil, alluvial and sandy loam, 1st. and 2nd. rate.

N.0°2'W. bet. secs. 14 and 15.

	Over bottom land.
27.00	Leave bottom land, bearing W.
29.00	Enter a cultivated field bearing S. E.
35.00	Leave field bearing S. E.
40.00	Set a granite stone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
	Thence ascend bluffs, bearing E.
44.00	Top of bluff 75 ft. high bearing E.
57.00	A wagon road bearing W.
	A school house bearing W.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.

80.00 Set a granite stone 20x12x12 ins., 15 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
School house bears S. 26°W.

Land, prairie and dry level bottom, not subject to innundation.
Soil, sandy loam and alluvial, 2nd. rate.

40.00 S.89°46'E. on a random line bet. secs. 11 and 14.
80.00 Set temp. ¼ sec. cor.,
Intersect W. and S. line, 7 lks. S. of cor. of secs. 11, 12, 13 and 14,
Thence I run,
N.89°51'W. on a true line bet. secs. 11 and 14.
40.00 Set a granite stone 15x10x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00 The cor. of secs. 10, 11, 14 and 15.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°2'W. bet. secs. 10 and 11.
15.80 A wagon road, bearing S.S°W.
40.00 Set a granite stone 15x8x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

September 22; At this ¼ sec. cor. I set off 00°04'30" S. on the 3rd. arc, and at 11h. 22m. a.m., l.m.t., observe the sun on the meridian, resulting latitude 48°10'.

80.00 Set a limestone 18x14x8 ins., 12 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked with 5 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

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Chains.

S.89°51'E. on a random line bet. secs. 2 and 11.
40.00 Set temp. ¼ sec. cor.
79.96 Intersect N. and S. line 2 lks. N. of cor. of secs. 1, 2, 11 and 12,
Thence I run,
N.89°50'W. on a true line bet. secs. 2 and 11.
38.20 A wagon road, bearing N.E.
39.98 Set a limestone 18x12x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
79.96 The cor. of secs. 2, 3, 10 and 11.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°2'W. on a random line bet. secs. 2 and 3.
40.00 Set temp. ¼ sec. cor.
80.08 Intersect N. bdy. of Tp. at cor. of secs. 2, 3, 34 and 35, heretofore described,
Thence I run,
S.0°2'E. on a true line bet. secs. 2 and 3.
40.08 Set a limestone 18x12x6 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
50.00 Begin to descend bluffs, bearing S.W.
77.00 Foot of bluff, 100 ft. high, bearing S.W.
80.08 The cor. of secs. 2, 3, 10 and 11.

Land prairie, rolling.
Soil, gravelly loam, 2nd. rate.

September 22, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	September 23; At 7h. 15m. a.m., l.m.t., I set off 48°06' on the lat. arc, 30°21'S. on the decl. arc, and at the cor. of secs. 3, 4, 33 and 34, on S. bdy. of the Tp. heretofore described, determine a true meridian, with the solar.
	Thence I run,
	N.0°3'W. bet. secs. 33 and 34.
25.00	Begin to descend Bluffs bearing E.
29.50	Foot of bluff, 75 ft. high, and enter bottom land, bearing E.
40.00	Set a limestone 18x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x16 x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
80.00	Set a limestone 12x10x8 ins., 8 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked with 1 notch on S. and 3 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie, and dry level bottom.
	not subject to inundation.
	Soil, alluvial and sandy loam, 1st. rate.

	S.89°51'E. on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line 4 lks. S. of cor. of secs. 26, 27, 34 and 35,
	Thence I run,
	N.89°33'W. on a true line bet. secs. 27 and 34.
39.98	Set a limestone 18x12x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
79.96	The cor. of secs. 27, 28, 33 and 34.
	Land, dry level bottom, not subject to inundation.
	Soil, alluvial, 1st. rate.

	N.0°3'W. bet. secs. 27 and 28.
40.00	Set a granite stone 18x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. W. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
65.40	Right bank of Missouri river and Set a post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Meander cor. of fracl. secs. 27 and 28, marked,

Chains.

M.C. on N.
T. 154 N., on S.
R. 97 W., S. 27 on E. and
S. 28 on W. faces,
dig a pit 36x36x12 ins. S. ft. S. of post and raise
a mound of earth 4 ft. base, 2 ft. high S. of cor.
80.00 In river.

Land, dry level bottom, not subject to inundation.
Soil, alluvial, 1st. rate.

S.89°53'E. on a random line bet. secs. 22 and 27.
From the meander cor. of fract. secs. 27 and 28,
I run S. 89°53' E. on offset line, 13.00 chs., thence
N. 3' W. 14.60 chs. to bank of river.
13.00 And set temp. meander cor.
Thence S. 89° 53' E. on random line bet. secs. 22
and 27.
40.00 Set temp. ¼ sec. cor.
80.00 Intersect N. and S. line at cor. of secs. 22, 23, 26
and 27.
Thence I run,
N.89°53'W. on a true line bet. secs. 22 and 27.
Through dense undergrowth.
5.00 Leave dense undergrowth, bearing N.W.
40.00 Set a limestone 15x12x8 ins., 10 ins. in the ground
for ¼ sec. cor., marked ¼ on N. face, dig pits,
18x15x12 ins. E. and W. of stone 3 ft. dist., and
raise a mound of earth 3½ ft. base, 1½ ft. high N.
of cor.
57.00 Right bank of Missouri river,
and set a granite stone 18x12x8 ins., 10 ins. in the
ground for Meander cor. of fract. secs. 22 and 27,
marked,
M. C. on W. face,
with 2 grooves on S. face, dig a pit, 36x33x12 ins.
S.ft. E. of stone, and raise a mound of earth 4 ft.
base, 2 ft. high . of cor.
80.00 Point for cor. of secs. 21, 22, 27 and 28, in river.

Land, level bottom not subject to inundation.
Soil, alluvial, 2nd. rate.
Dense undergrowth 5.00 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	N.0°3'W. bet. secs. 21 and 22.
	From a point on sandbar in river where meander cor. of fract. secs. 22 and 27, bears S.89°53'E., I run N.3'W. on offset line 20.00 chs., thence S.89°53'E. to a point where Meander cor. of fract. secs. 27 and 28, bears S.3'E., thence N.3'W. on true line.
40.00	On sandbar.
59.85	Left bank of Missouri river and Set a cottonwood post, 3 ft. long, 4 ins. sq. 24 ins. in the ground for Meander cor. of fract. secs. 27 and 28, marked M.C. on S. T.154 N. on N. R. 97 W., S. 21 on W. and S. 22 on E. faces, from which A boxelder 7 ins. diam, bears N.15°E., 44 lks. dist., marked T. 154 N., R. 97 W., S. 22, M. C. B. T. A boxelder 8 ins. diam., bears N.46°W., 9 lks. dist., marked, T. 154 N., R. 97 W., S. 21. M. C. B. T.
	Thence ascend bluffs.
64.25	Top of bluff 125 ft. high, bearing N.E.
80.00	Set a limestone 18x10x8 ins., 12 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked 154 N. on N.E. 97 W. on S.E. faces, with 3 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling. Soil, sandy loam, 2nd. rate.
	September 23, At this cor. I set off 00°28'S. on the decl. arc, and at 11h. 52m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°08'30".
	S.89°53'E. on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect W. and S. line 9 lks. N. of cor. of secs. 14, 15, 22 and 23.
	Thence I run, N.89°49'W. on a true line bet. secs. 15 and 22.
	Over dry bottom land.
35.00	Enter wet boggy bottom bearing N.E.
39.98	Set a granite stone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
44.50	Leave wet bottom, bearing N.E.
44.75	Leave bottom land, and ascend bluff, bearing N.E.
46.50	Top of bluff, 75 ft. deep, bearing N.E.
79.96	The cor. of secs. 15, 16, 21 and 22.
	Land level bottom, partially wet, but not subject to inundation, and rolling prairie. Soil, alluvial and sandy loam, 2nd. rate.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	N.0°3'W. bet. secs. 15 and 16.
40.00	Set a granite stone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
59.00	A ravine 100 ft. deep, course E.S.E.
80.00	Set a limestone 18x8x7 ins., 12 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked with 4 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	rand, prairie, rolling, generally sloping S.E.
	Soil, gravelly loam, 2nd. rate.
	Have ascended about 150 ft.

	S.89°49'E. on a random line bet. secs. 10 and 15.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect W. and S. line 5 lks. S. of cor. of secs. 10, 11, 14 and 15,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 10 and 15.
7.80	A wagon road, bearing S.
28.50	Begin to descend bluffs, bearing S.
39.99	Set a limestone 20x12x5 ins., 15 ins. in the ground for ¼ sec. cor. marked ¼ on N. face, dig pits 18x18x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor. Nesson Post Office, and
	Baldwin's ranch bears S. 18°E.
52.50	Foot of bluffs 100 ft. high, bearing N. and a creek drain, 3 lks. wide, 6 ins. deep, with rapid current, course S.
	Thence ascend.
70.00	Top of bluffs, 150 ft. high, bearing N.
73.50	Post office and ranch, bears S.65°E.
76.00	A wagon road, bearing N.W.
79.98	The cor. of secs. 9, 10, 15 and 16.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

	N.0°3'W. bet. secs. 9 and 10.
5.15	A wagon road, bearing N.W.
18.00	Begin to d scend bluffs, bearing S.E.
40.00	Set a granite stone 18x8x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
45.80	A creek drain, 3 lks. wide, having a gravelly bed, and 6 ins. of water, current rapid, course S.E., have descended 100 ft.
48.30	Recross creek drain, 4 lks. wide, course S.W.
49.75	Recross creek drain, 3 lks. wide, course S.E.
52.75	Begin to ascend bluffs, bearing S.E.
80.00	Set a slatestone 18x12x7 ins., 10 ins. in the ground for cor. of secs. 3, 4, 9 and 10, marked with 5 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	S.69°51'E. on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line at cor. of secs. 2, 3, 10 and 11.
	Thence I run,
	N.89°51'W. on a true line bet. secs. 3 and 10.
38.00	Begin to ascend bluffs bearing E.S.E. and N.E.
39.98	Set a granite stone 18x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
67.00	Top of bluff or ridge, 125 ft. high, bearing N.
75.50	Begin to descend ridge bearing W.
79.96	The cor. of secs. 3, 4, 9 and 10.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.

	N.0°3'W. on a random line bet. secs. 3 and 4.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. bdy. of Tp. at cor. of secs. 3, 4, 33 and 34, heretofore described,
	Thence I run,
	S.0°3'E. on a true line bet. secs. 3 and 4.
	Over side of ridge 80.00 chs. W.
40.12	Set a granite stone 18x12x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
80.12	The cor. of secs. 3, 4, 9 and 10.
	Land, prairie, very rolling.
	Soil, clay loam, 4th. rate.

September 25, 1896.

	September 24: At 7h.30m.a.m., l.m.t., I set off 48°06' on the lat. arc, 0°3'S. on the last arc, and at the cor. of secs. 2, 3, 32 and 33 on S. bdy. of the Tp. heretofore described, determine a true meridian with the solar.
	Thence I run,
	N.0°3'W. bet. secs. 32 and 33.
	In ravine.
14.75	Bottom of ravine, course N.W.
18.50	Enter bottom land bearing E.
19.50	F.T. Townsend's house, stands 50 lks. W.
23.00	Enter dense undergrowth, bearing E.
40.00	Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face; no trees within limits, dig pits, 18x18 x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor. and leave dense undergrowth, bearing N.E.
71.20	Enter dense willow undergrowth, bearing N.E.
80.00	Set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 28, 29, 32 and 33, marked,
	T. 154 N., S. 28 on N.E.
	S. 29 on N.W.
	S. 32 on S.W. and
	R. 97 W., S. 33 on S.E. faces; with 1 notch on S. and 2 notches on E. edges; no trees within limits, dig pits 18x18x12 ins. in each sec. 4 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom, not subject to inundation, except 10.00 chs. which is subject to 10ft. inundation, ar prairie.
	Soil, alluvial and clay loam, 1st. rate.
	Dense undergrowth 80.00 chs.

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Chains.	
	S.89°51'E. on a random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line at cor. of secs. 27, 28, 33 and 34.
	Thence I run,
	N.89°51'W. on a true line bet. secs. 28 and 33.
40.00	Set a granite stone 15x12x6 ins. 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
75.50	Enter dense willow undergrowth, bearing N.E.
80.00	The cor. of secs. 28, 29, 32 and 33.
	Land, dry level bottom not subject to innundation exce: W. 4.50 chs, which is subject to 10 ft. innundation. Soil, alluvial, 2nd. rate. Dense undergrowth, 4.50 chs.

	N.0°4'W. bet. secs. 28 and 29.
	Through dense undergrowth.
2.30	Enter a shallow pond or bayou, bearing E.
6.30	Over pond bearing E., extending 20.00 chs. E. and 37.00 chs. W.
17.25	Right bank of Missouri river and set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for meander cor. of fracl. secs. 28 and 29, marked, M.C. on N. T.154 N. on S, R. 97 W., S. 28 on E. and S. 29 on W. faces; no trees within limits, dig a pit 36x36x12 ins. 8 ft. S. of post, and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.
	Thence on sandbar and from a point at 20.00 chs. on line, I set a flag on line on sandbar over river, and a 2nd. flag over river bearing N.45°04'W, from which I run N.89°56'E. 16.04 chs. to intersection of true line, distance over river is therefore 16.04 chs. and distance on line to said point of intersection is 16.04+20.00 =36.04 chs., thence on true line.
40.00	On sandbar.
47.00	Left bank of river and set a cottonwood post 3 ft. long 4 ins. sq. 24 ins. in the ground for meander cor. of fracl. secs. 28 and 29, marked, M.C. on S. T.154 N. on N, R. 97 W., S. 29 on W. and S. 28 on E. faces; from which, A cottonwood 5 ins. diam. bears N.47½°E., 263 lks. dist. marked, T. 154 N., R. 97 W., S. 28, M. C. B. T. A cottonwood 5 ins. diam. bears S.85½°W., 209 lks. dist. marked, T. 154 N., R. 97 W., S. 29, M. C. B. T.
	September 24; at this meander cor. I set off 00°51'S. on the decl. arc, and at 11h.52m.a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'.
	Thence through timber and dense undergrowth.
80.00	Set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 20, 21 28 and 29, marked T.154 N., S. 21 on N.E. S. 20 on N. W. S. 29 on S.W. and R. 97 W., S. 28 on S.E. faces;

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Chains.

with 2 notches on S. and 4 notches on E. edges, no trees within limits; dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 2 to 10 ft. inundation.
Soil, alluvial, 2nd. and 3rd. rate.
Timber, cottonwood, elm and ash.
Dense undergrowth, 46.25 chs.

S.89°31'E. on a true line bet. secs. 21 and 28.
Through dense willow undergrowth.

40.00 Set an ash post 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor. marked ¼ S., on N. face, no trees within limits; dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

55.00 Right bank of Missouri river and set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground, for meander cor. of fracl. secs. 21 and 28, marked,
M.C. on E.
T. 154 N. on W.
R. 97 W., S. 28 on S. and
S. 21 on N. faces; no trees within limits, dig a pit 36x36 12 ins., 8 ft. W. of post, and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 3 ft. innundation.
Soil, alluvial, 2nd. rate.
Timber, cottonwood, elm and ash.
Timber and dense undergrowth, 55.00 chs.

September 24, 1896.

September 25: At 7h. 30m. a.m., l.m.t., I set off 48° 08' on the lat. arc, 1°08'30"S. on the decl. arc, and at the cor. of secs. 20, 21, 28 and 29, determine a true meridian with the solar.
Thence I run,
N.0°4'W. bet. secs. 20 and 21.
Through timber and dense undergrowth.

39.00 Set a sandstone 20x16x8 ins., 15 ins. in the ground for Witness Cor. to ¼ sec. cor., marked W.C. ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable, and
Leave bottom land, timber and dense undergrowth and ascend bluffs, bearing E.-E.

40.00 Point for ¼ sec. cor. on abrupt side of bluff in loose clay.

74.00 Top of bluff, 300 ft. high, bearing N.W.

80.00 Set a sandstone 15x12x4 ins., 10 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on S. and 4 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 2 ft. inundation.
Soil, alluvial, 2nd. rate, and bluffs, clay loam, 4th. rate.
Timber, cottonwood, elm and ash.
Dense undergrowth, 39.00 chs.

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Chains.	
	S.89°51'E. on a random line bet. secs. 16 and 21.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect N. and S. line 7 lks. N. of cor. of secs. 15, 16, 21 and 22,
	Thence I run,
	N.89°48'W. on a true line bet. secs. 16 and 21.
	Gradually ascending over rolling land.
19.00	Enter a ravine, bearing S., have ascended over 100 ft.
31.60	Bottom of ravine 150 ft. deep, course S.
40.01	Set a sandstone 18x12x3 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x 18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
58.25	Over ravine, bearing S.
80.02	The cor. of secs. 16, 17, 20 and 21.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.
	Some scattering brush, elm and ash in ravines.
	September 25: At this cor. I set off 1°14'30"S. on the decl. arc, and at 11h. 51m. a.m., l.m.t., observ the sun on the meridian, resulting lat. 48°08'30".

	N.0°4'W. bet. secs. 16 and 17.
2.75	Begin to descend bluffs to ravine bearing E. and N.N.W.
40.00	Set a sandstone 15x12x5 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
44.90	Bottom of ravine 200 ft. deep, course E.
63.35	2nd. bottom in ravine, course E. .E.
70.60	3rd. bottom in ravine, course S.S.E.
80.00	Set a sandstone 18x14x4 ins., 12 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked with 4 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, clay loam, 3rd. rate.

	S.89°48'E. on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. and S. line 9 lks. S. of cor. of secs. 9, 10, 15 and 16,
	Thence I run,
	N.89°52'W. on a true line bet. secs. 9 and 16.
6.00	A ravine 100 ft. deep, course S.
19.00	A ravine 100 ft. deep, course S.S.E.
33.00	A ravine 75 ft. deep, course S.S.E.
39.99	Set a granite stone 16x12x10 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
65.00	Enter ravine, bearing S.
79.98	The cor. of secs. 8, 9, 16 and 17.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.

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Chains.	
	N.0°4'W. bet. secs. 8 and 9.
	Ascending side of ravine.
35.00	Over ravine, bearing S.S.E.
40.00	Set a granite stone 15x12x5 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
41.10	A wagon road, bearing N.W.
80.00	Set a limestone 18x12x7 ins., 12 ins. in the ground for cor. of secs. 4, 5, 8 and 9, marked with 5 notches on S. and 4 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. and 3rd. rate.

S.89°52'E. on a random line bet. secs. 4 and 9.

40.00	Set temp. ¼ sec. cor.
79.98	Intersect W. and S. line 6 lks. N. of cor. of secs. 3, 4, 9 and 10.
	Thence I run,
	N.88°49'W. on a true line bet. secs. 4 and 9.
	Descending bluffs.
22.80	Foot of bluff and a creek drain 4 lks. wide, 4 ins. deep, with rapid current, course S.E.
33.40	Recross creek 3 lks. wide, course N.E.
39.99	Set a limestone 18x12x5 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 15x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
40.40	Recross creek, 3 lks. wide, course S.E., thence over bluff sloping N.E.
70.00	Top of bluff, 100 ft. high, bearing W.N.W.
77.75	A grassy drain, 15 lks. wide, course N.
79.98	The cor. of secs. 4, 5, 8 and 9.
	Land, prairie, rolling.
	Soil, gravelly loam, 3rd. rate.

N.0°4'W. on a random line bet. secs. 4 and 5.

40.00	Set temp. ¼ sec. cor.
80.08	Intersect N. bdy. of Tp. 3 lks. W. of cor. of secs. 4, 5, 32 and 33, heretofore described.
	Thence I run,
	S.0°3'E. on a true line bet. secs. 4 and 5.
5.50	A grassy drain, 20 lks. wide, course S.S.E.
36.70	A brushy drain, 15 lks. wide, course S.E.
40.08	Set a limestone 15x10x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
62.00	Enter a ravine, bearing E.S.E.
73.50	A creek drain, 2 lks. wide, 5 ins. deep, current rapid, course E.
77.40	Over ravine and valley 100 ft. deep, bearing E.
80.08	The cor. of secs. 4, 5, 8 and 9.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

September 25. 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

September 26; At 7h. 20m. a.m., l.m.t., I set off 48° 06' on the lat. arc, 1°31'S. on the decl. arc, and at the cor. of secs. 5, 6, 31 and 32 on S. bdy. of the Tp. heretofore described, determine a true meridian with the solar, Thence I run,
N.0°0'W. bet. secs. 31 and 32,

5.00 Begin to descend bluffs, bearing E.N.E.

6.00 Enter timber and dense undergrowth bearing E.N.E.

7.00 Foot of bluff 100 ft. high, and enter dry bottom lan bearing E.N.E.

40.00 Set a cottonwood post, 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face; no trees within limits, dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

80.00 Set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked,
T. 154 N., S. 29 on N.E.
S. 30, on N.W.
S. 31 on S.W. and
R. 97 W., S. 32 on S.E. faces,
with 1 notch on S. and 5 notches on E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 4 to 6 ft. inundation, and prairie.
Soil, alluvial and sandy loam, 2nd. and 4th. rate.
Dense undergrowth and timber 75.00 chs.

S.89°51'E. on a random line bet. secs. 29 and 32.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect N. and S. line 3 lks. S. of cor. of secs. 28, 29, 32 and 33,
Thence I run,
N.89°52'W. on a true line bet. secs. 29 and 32.
Through dense undergrowth.

40.03 Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face; no trees within limits, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.06 The cor. of secs. 29, 30, 31 and 32.

Land dry level bottom subject to from 6 to 10 ft. innundation,
Soil, alluvial, 3rd. rate.
Dense undergrowth 80.06 chs.

September 26, 1896.

September 28; At 7h. 30m. a.m., l.m.t., I set off 48°07' on the lat. arc, 2°16'30"S. on the decl. arc, and at the cor. of secs. 29, 30, 31 and 32, determine a true meridian with the solar.

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Chains.	
	Thence I run, N.89°51'W. on a true line bet. secs. 30 and 31. Through dense undergrowth.
40.00	Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on N. face, no trees within limits, dig pits, 16x16x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
44.00	Right bank of Missouri river, and set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for Meander cor. of fracl. secs. 30 and 31, marked, M.C. on W. T.154 N. on E. R. 97 W., S. 30 on N. and S. 31 on S. faces; no trees within limits; dig a pit 36x36x12 ins. E. of post, and raise a mound of earth 4 ft. base, 2 ft. high E. of cor.
	Land, dry level bottom, subject to 6 ft. inundation. Soil, alluvial, 3rd. rate. Dense undergrowth, 44.00 chs.

	N.0°5'W. bet. secs. 29 and 30. Through dense undergrowth.
10.00	Right bank of Missouri river and set a cottonwood post, 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for meander cor. to fracl. secs. 29 and 30, marked, M.C. on N. T.154 N. on S. R. 97 W., S. 29 on E. and S. 30 on W. faces; no trees within limits, dig a pit 36x36x12 ins., E. of post, and raise a mound of earth 4 ft. base, 2 ft. high E. of cor. Thence on sandbar and from a point at 20.00 chs., I measure a base N.89°5' E., 20.00 chs. to a point where a flag on line over river bears N.47°53'W., distance over river is therefore cotang. 47°28' x base or .917 x 20.00=18.34 chs., and distance on line to flag over river 18.34+20.00=38.34 chs.
38.36	Left bank of Missouri river and set a cottonwood post 3 ft. long, 4 ins. sq. 24 ins. in the ground for meander cor. of fracl. secs. 29 and 30,, marked M.C. on S. T.154 N. on N. R. 97 W., S. 30 on W. and S. 29 on E. faces; from which, A cottonwood 4 ins. diam. bears N.65°E., 24 lks. dist. marked, T. 154 N., R. 97 W., S. 29, M. C. B. T. A cottonwood 4 ins. diam. bears S.85½°W., 60 lks. dist. marked, T. 154 N., R. 97 W., S. 30, M. C. B. T.
	Thence through timber and dense undergrowth.
40.00	Set a cottonwood post 3 ft. long 3 ins. sq. 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face, from which,

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

A cottonwood 4 ins. diam, bears N.17¼°E., 82 lks. dist. marked,
¼ S. B. T.
A cottonwood, 3 ins.diam., bears S.33¼°W., 74 lks. dist., marked,
¼. S. B. T.

80.00 Set a cottonwood post 3 ft. long 4 ins. sq., with charred stake 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked
T. 154 N., S. 20, on N. E.
S. 19 on N. W.
S. 30, on S. W. and
R. 97 W., S. 29 on S. E. faces;
with 2 notches on S. and 5 notches on E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 4 to 10 ft. inundation,
Soil, alluvial, 3rd. rate.
Timber, cottonwood, ash and elm.
Dense undergrowth 51.65 chs.

September 28: At this sec. cor., I set off 2°25'S. on the decl. arc, and at 11h. 50m. a.m., l.m.t., observe the sun on the meridian., resulting lat. 48°08'.

S.89°52'E. on a random line bet. secs. 20 and 29.
40.00 Set temp. ¼ sec. cor.
80.10 Intersect N. and S. line 8 lks. S. of cor. of secs. 20, 21, 28 and 29,
Thence I run,
N.89°55'W. on a true line bet. secs. 20 and 29.
Through timber and dense undergrowth.
40.05 Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake, 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on E. face; no trees within limits, dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high E. of cor.
80.10 The cor. of secs. 19, 20, 29 and 30.

Land, dry level bottom, subject to from 2 to 6 ft. inundation,
Soil, alluvial, 3rd. rate.
Timber, cottonwood and elm.
Dense undergrowth 80.10 chs.

September 28, 1896.

September 29: At 7h. 30m. a.m., l.m.t., I set off 48°08' on the lat. arc, 2°41'S. on the decl. arc, and at the cor. of secs. 19, 20, 29 and 30, determine a true meridian with the solar.
Thence I run,
N.89°51'W. on a random line bet. secs. 19 and 30.
40.00 Set temp. ¼ sec. cor.
78.90 Intersect W. bdy. of Tp. 16 lks. N. of cor. of secs. 19, 24, 25 and 30, heretofore described,
Thence I run,
S.89°18'E. on a true line bet. secs. 19 and 30.

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Chains.	
17.50	A ravine 50 ft. deep, course S.S.E.
31.50	A ravine 50 ft. deep, course S.S.E.
33.90	Set a cottonwood post, 3 ft. long, 3 ins. sq. with charred stake 2½ ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face; dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
48.50	Begin to descend bluffs, bearing N.E.
53.50	Foot of bluffs, 75 ft. high, bearing N.E. and enter dry bottom land.
61.50	Enter dense undergrowth bearing N.E.
75.90	The cor. of secs. 19, 20, 29 and 30.

Land, prairie, rolling and dry level bottom, not subject to innundation.
Soil, sandy loam, and alluvial, 2nd. rate.
Dense undergrowth, 17.40 chs.

N.0°5'W. bet. secs. 19 and 20.
Through timber and dense undergrowth.

11.50	Leave timber and dense undergrowth, bearing E.N.E.
13.50	Leave bottom land bearing E.N.E. and ascend bluffs, bearing E.N.E.
40.00	Set a granite stone 15x10x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
69.75	Top of bluffs, 250 ft. high, bearing S.E.
80.00	Set a granite stone 15x12x8 ins., 10 ins. in the ground for cor. of secs. 17, 18, 19 and 20, marked with 3 notches on S. and 3 notches on E. edges; dig pits, 18x18x12 ins. in each sec. 3½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, bluffs and dry level bottom, not subject to innundation.
Soil, clay loam, and alluvial, 1st. and 4th. rate.
Dense undergrowth, 11.50 chs.

S.89°55'E. on a random line bet. secs. 17 and 20.

40.00	Set temp. ¼ sec. cor.
80.08	Intersect N. and S. line 12 lks. N. of cor. of secs. 16, 17, 20 and 21,

Thence I run,
N.89°50'W. on a true line bet. secs. 17 and 20.

3.50	Begin to descend bluffs, bearing W.N.W.
9.00	Have descended 100 ft., thence over side of bluff, sloping S.
18.50	Slope changes to N.W. ascent.
26.20	Regain top of bluff bearing E.N.E.
31.00	Enter a ravine, bearing S.
38.50	Bottom of ravine 100 ft. deep, course S.
40.04	Set a granite stone 15x12x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; dig pits, 16x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

September 29: At this ¼ sec. cor. I set off 2°30' S. on the accl. arc, and at 11h. 10m. a.m., I took observe the sun on the meridian, resulting lat. 40°05'30".

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Chains.	
42.00	Over ravine and enter 2nd. ravine bearing S.
44.50	Bottom of ravine, 150 ft. deep, course S.
51.00	Over ravine and enter 3rd. ravine, bearing S.
61.50	Bottom of ravine, 175 ft. deep, course S.
71.00	Over ravine, bearing S.
80.08	The cor. of secs. 17, 18, 19 and 20.
	Land, prairie, broken or bad.
	Soil, clay loam, 4th. rate.

	N.89°58'W. on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
78.82	Intersect W. bdy. of Tp. 19 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described,
	Thence I run,
	S.89°50'E. on a true line bet. secs. 18 and 19.
9.50	Enter a brushy ravine bearing S.
35.75	Bottom of ravine 275 ft. deep, course S.S.E.
38.82	Set a sandstone 32x16x14 ins., 24 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 15 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
55.75	Over ravine, bearing S.S.E.
76.82	The cor. of secs. 17, 18, 19 and 20.
	Land, prairie, broken or bad.
	Soil, clay loam, 2nd. and 4th. rate.

September 29, 1895.

	September 30: At 7h. 25m. a.m., l.m.t., I set off 4° 08'30" on the lat. arc, 3°04'30"S. on the decl. arc, and at the cor. of secs. 17, 18, 19 and 20, determine a true meridian with the solar.
	Thence I run,
	N.0°5'W. bet. secs. 17 and 18.
8.00	Enter a ravine bearing S.E.
14.00	Bottom of ravine 150 ft. deep, course S.E.
23.50	Over ravine, bearing S.E.
40.00	Set a limestone 18x10x6 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 15x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
80.00	Set a granite stone 18x14x7 ins., 12 ins. in the ground for cor. of secs. 7, 8, 17 and 18, marked with 4 notches on S. and 5 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, clay loam, 2nd. rate.

Township 104 North of range 97 West of the 5th. Principal Meridian.

	S.89°50'E. on a random line bet. secs. 8 and 17.
	Set temp. ¼ sec. cor.
	Intersect W. and S. line 4 lks. S. of cor. of secs. 8, 9, 16 and 17.
	Thence I run, N.89°52'W. on a true line bet. secs. 8 and 17.
	descending side of ravine.
	Bottom of ravine and a gravelly drain 30 lks. wide, course S.
	Over ravine and enter 2nd ravine, bearing E.S.E.
	Bottom of ravine 150 ft. deep, and dry gravelly drain 150 lks. wide, course S.E.
	Set a limestone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; old pits, 16x16x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
	Over ravine bearing E.S.E.
	The cor. of secs. 7, 8, 17 and 18.

Land, prairie, rolling.
Soil, gravelly loam, 2nd. rate.

	W.S9°50'W. on a random line bet. secs. 7 and 18.
	Set temp. ¼ sec. cor.
	Intersect W. bdy. of Tp. 2½ lks. S. of cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run, S.89°49'E. on a true line bet. secs. 7 and 18.
	A brushy ravine 50 ft. deep, course W.N.W.
	A wagon road bearing S.S.W.
	Set a limestone 16x14x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
	A brushy ravine, 50ft. deep, bearing N.E.
	A brushy ravine 50 ft. deep, bearing N.N.E.
	The cor. of secs. 7, 8, 17 and 18.

Land, prairie, rolling.
Soil, gravelly loam, 2nd. rate.
Brush in ravines, poplar.

	W.0°5'W. bet. secs. 7 and 8.
	Enter a ravine, bearing E.
	Bottom of ravine 125 ft. deep, course E.
	Over ravine, bearing E.
	Enter a ravine, bearing S.E.
	Bottom of ravine 100 ft. deep, course S.E.
	Set sandstone 18x14x5 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Over ravine, bearing S.E.
	A wagon road bearing E.S.E.
	Set a limestone 18x14x6 ins., 12 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked with 5 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

Land, prairie, rolling.
Soil, clay and gravelly loam, 2nd. rate.
September 30. At this Sec. cor. I set off 3°1.'30"S. on the decl. arc, and at 11h.50m. a.m., l.m.t. observe the sun on the meridian, resulting lat. 45°10'.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	S.89°52'E. on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S.line at cor. of secs. 4, 5, 8 and 9,
	Thence I run,
	N.89°52'W. on a true line bet. secs. 5 and 8.
	Thomas Costella's house bears N.21°W.
13.90	A grassy drain 15 lks. wide, course N.
39.98	Set a limestone 15x12x8 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ on E. face; dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
54.90	A gravelly drain, 20 lks. wide, course N.
72.00	Thomas Costella's house bears N.67½°E.
79.96	The cor. of secs. 5, 6, 7 and8.
	Land, prairie, very rolling.
	Soil, gravelly loam, 3rd. rate.

	N.89°49'W. on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ sec. cor.
78.56	Intersect W. bdy. of Tp. 6 lks. S. of cor. of secs. 1, 6, 7 and 12, heretofore described,
	Thence I run,
	S.89°46'E. on a true line bet. secs. 6 and 7.
38.56	Set a granite stone 18x12x10 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
50.60	A ravine 60 ft. deep, course N.
78.56	The cor. of secs. 5, 6, 7 and 8.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

	N.0°5'W. on a random line bet. secs. 5 and 6.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. bdy. of Tp. 8 lks. W. of cor. of secs. 5, 6, 31 and 32, heretofore described,
	Thence I run,
	S.0°2'E. on a true line bet. secs. 5 and 6.
11.10	A ravine 60 ft. deep, course S.E.E.
18.15	Recross ravine, 60 ft. deep, course S.W.
23.50	Recross ravine, 60 ft. deep, course S.E.
39.40	A creek drain 2 lks. wide, 4 ins. deep, current rapid, course E.
40.12	Set a limestone 15x12x4 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
55.90	A grassy drain, 30 lks. wide, course N.E.
80.12	The cor. of secs. 5, 6, 7 and 8.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

September 30, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Meanders.

Meanders of left bank of Missouri river, down stream.

I commence at meander cor. of fracl. secs. 25 and 30, on W. bdy. of Tp. heretofore described, Thence I run. with meanders in sec. 3 0.
Through dense undergrowth.
N.65½°E., 13.00 chs. to prairie bearing N.
N.69½°E., 14.00 chs.
N.78 °E., 23.00 chs. To dense undergrowth, bearing N.
N.83½°E., 31.80 chs. To meander cor. of fracl. secs. 29 and 30.

Land, level bottom, subject to from 2 to 4 ft. inundation.
Soil, alluvial, 2nd. rate.
Dense undergrowth 44.80 chs.
October 1, At 9h. a.m., l.m.t., I set off 48°07' on the lat. arc, 3°31'S. on the decl, arc, and at this meander cor. determine a true meridian with the solar.

Thence in sec. 29.
Through dense undergrowth.
N.82½°E., 56.00 chs.
N.86 °E., 24.70 chs. To meander cor. of fracl. secs. 28 and 29.

Land, dry level bottom, subject to from 2 to 4 ft. inundation.
Soil, alluvial, 3rd. rate.
Dense undergrowth 80.70 chs.

Thence in sec. 28.
Through dense undergrowth.
N.71 °E., 32.00 chs.
N.47½°E., 33.45 chs. To meander cor. of fracl. secs. 21 and 28.

Land, dry level bottom, subject to 4 ft. inundation.
Soil, alluvial, 3rd. rate.
Dense undergrowth 65.45 chs.
October 1: At this meander cor. I set off 3°34'30"S. on the decl. arc, and at 11h.49m. a.m., l.m.t., observe the sun on the meridian resulting lat. 48°06'.

Thence in sec. 21.
Through dense undergrowth.
N.22½°E., 64.90 chs. To meander cor. of fracl. secs. 21 and 22.

Land, dry level bottom, subject to 5 ft. inundati n.
Soil, alluvial, 3rd. rate.
Dense undergrowth 64.90 chs.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Thence in sec. 22.
Through dense undergrowth.

N.77¼°E., 11.50 chs.	At end of course leave dense undergrowth bearing W.
N.65½°E., 14.00 chs.	
S.87 °E., 14.00 chs.	At 0.55 chs. enter dense undergrowth bearing E.N.E.
N.57 °E., 6.00 chs.	To mouth of creek drain 25 lks. wide.
N.72 °E., 20.00 chs.	At 10.50 chs. leave dense undergrowth, bearing N.
N.82¼°E., 18.30 chs.	To meander cor. of fracl. secs. 22 and 23.

Land, dry level bottom, not subject to innundation.
Soil, alluvial 1st. rate.
Dense undergrowth, 41.45 chs.

October 1, 1896.

October 3: At this meander cor. I set off 48°08'30" on the lat. arc, 4°14'30"S. on the decl. arc, and at 7h.30m. a.m., l.m.t., determine a true meridian with the solar.

Thence in sec. 23.

S.83°E., 23.00 chs.	
S.58°E., 17.00 chs.	
S.44°E., 35.00 chs.	At .70 chs. enter dense unde growth bearing E.
S.62¼°E., 21.00 chs.	At 17.50 chs. mouth of creek drain 2 lks. wide, to meander cor. of fracl. secs. 23 and 24.

Land, dry level bottom, not subject to innundation.
Soil, alluvial, 1st. rate.
Timber, ash, elm and cottonwood.
Timber and dense undergrowth 55.30 chs.

Thence in sec. 24.
Through timber and dense undergrowth.

S.43¼°E., 37.00 chs.	At 5.00 chs. leave dense undergrowth bearing N.N.W.
S.48 °E., 9.60 chs.	To meander cor. of fracl. secs. 24 and 25.

Land, dry level bottom, not subject to innundation.
Soil, alluvial, 1st. rate.
Timber and dense undergrowth, 5.00 chs.

Thence in sec. 25.

S.47½°E., 19.00 chs.	
S.61 °E., 24.00 chs.	
S.68¼°E., 13.40 chs.	To meander cor. of fracl. secs. 25 and 30.

On E. bdy. of Tp. heretofore described.
Land, dry level bottom, not subject to innundation.
Soil, alluvial, 2nd. rate.

October 3, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	Meanders of right bank of Missouri river, down stream
	October 2, At 7h. 25m. a.m., l.m.t., I set off 48°06' 30" on the lat. arc, 3°58'S. on the decl. arc, and at the meander cor. of fracl. secs. 31 and 36, on W. bdy of the Tp. heretofore described, determine a true meridian with the solar.
	Thence I run with meanders in Sec. 31.
	Through dense undergrowth.
	N.52¼°E., 24.00 chs.
	N.54¼°E., 10.00 chs.
	N.73 °E., 8.30 chs. To meander cor. of fracl. secs. 30 and 31.
	Land, dry level bottom, subject to 6 ft. innundation.
	Soil, alluvial, 4th. rate.
	Dense undergrowth 42.30 chs.
	Thence in Sec. 30.
	Through dense undergrowth.
	N.73 °E., 17.00 chs.
	N.77½°E., 20.00 chs.
	N.85½°E., 8.25 chs. To meander cor. of fracl. secs. 29 and 30.
	Land, dry level bottom, subject to 6 ft. innundation.
	Dense undergrowth, 45.25 chs.
	Thence in sec. 29.
	Through dense undergrowth.
	N.82°E. 21.00 chs.
	East 29.50 chs. To meander cor. of fracl. secs. 28 and 29.
	Land, dry level bottom, subject to 8 ft. innundation.
	Soil, alluvial 3rd. rate.
	Dense undergrowth 80.50 chs.
	Thence in sec. 28.
	Through dense undergrowth.
	N.81½°E., 22.00 chs. At 1.00 ch. leave dense undergrowth bearing S.E.
	N.62½°E., 6.00 chs.
	N.52 °E., 18.00 chs.
	N.54 °E., 24.00 chs.
	N.49½°E., 25.50 chs. To meander cor. of fracl. seds. 27 and 28.
	Land, dry level bottom, W. 22.00 chs. subject to 8 ft. innundation, remainder not subject to innundation.
	Soil, alluvial, 2nd. rate.
	Dense undergrowth, 1.00 ch.
	October 2, At this meander cor., I set off 3°58'S. on the decl. arc, and at 11h. 49m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'30".

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.		
	Thence in sec. 27.	
	N.41¼°E., 19.55 chs.	To meander cor. of fracl. secs. 22 and 27.
	Land, dry level bottom, not subject to innundation.	
	Soil, alluvial, 2nd. rate.	
	Thence in sec. 22.	
	N.35¼°E., 17.00 chs.	To dense undergrowth bearing E.S.E.
	N.30 °E., 19.00 chs.	
	N.35 °E., 12.00 chs.	
	N.42¼°E., 8.60 chs.	
	N.53¾°E., 9.50 chs.	
	S.65¼°E., 28.70 chs.	To meander cor. of fracl. secs. 22 and 23.
	Land, dry level bottom, W. part not subject to innundation, E. part subject to from 2 to 6 ft. innundation.	
	Soil, alluvial, 2nd. and 3rd. rate.	
	Timber, cottonwood.	
	Timber and dense undergrowth, 77.80 chs.	
	Thence in sec. 23.	
	Through dense undergrowth.	
	S.59°E., 62.00 chs.	
	S.66°E., 30.80 chs.	To meander cor. of fracl. secs. 23 and 26.
	Land, dry level bottom, subject to 7 ft. innundation	
	Soil, alluvial, 3rd. rate.	
	Timber, cottonwood.	
	Timber and dense undergrowth, 82.60 chs.	
	October 2, 1896.	
	Thence in sec. 26.	
	Through dense undergrowth.	
	S.53¼°E., 9.10 chs.	To meander cor. of fracl. secs. 26 and 25.
	Land, dry level bottom, subject to 5 ft. innundation.	
	Soil, alluvial, 3rd. rate.	
	Dense undergrowth 9.10 chs.	
	Thence in sec. 25.	
	Through dense undergrowth.	
	S.49 °E., 20.00 chs.	
	S.42¼°E., 42.00 chs.	
	S.55 °E., 34.00 chs.	
	S.60 °E., 9.25 chs.	At 7.00 chs. mouth of Tobacco Garden Creek 100 lks. wide.
		To meander cor. of fracl. secs. 25 and 30 on E. bdy of Tp. heretofore described.
	Land, dry level bottom, subject to 6 ft. innundation.	
	Soil, alluvial 3rd. rate.	
	Timber, cottonwood and elm.	
	Timber and dense undergrowth 107.26 chs.	
	October 3, 1896.	

Township 15 North of Range 97 West of the 5th. Principal Meridian.

General Description.

The land in this Tp. is level prairie in the N.E. Rolling and broken in the W., and dry level bottom generally free from inundation in the S. parts. Soil, sandy loam and alluvial, 2nd. and 3rd. rates. The bottom land is partially covered with small cottonwood timber, and dense willow undergrowth, and except in the timber the Tp. is covered with rich nutritious grasses, affording good pasturage. The Missour river, course E., crosses the S. part of the Tp.

Seven settlements were found, John Frisch on the N.W. ¼ of S.W. ¼ sec. 36, F. T. Townsand on the S.E. ¼ of S.E. ¼ sec. 32; J. A. McKay on the N.E. ¼ of N.W. ¼ sec. 24; William Laughland on the N.E. ¼ of N.E. ¼ of sec. 23; Baldwin on the N.W. ¼ of N.E. ¼ sec. 15, Thomas Costella on the N.E. ¼ of S.E. ¼ sec. 5, and N.A. Gotchie on the N.W. ¼ of N.E. ¼ sec. 2. A school house was also found on the S.E. ¼ of N.E. ¼ Sec. 15, Nesson Post Office is located at Baldwin's ranch on sec. 15.

Good crops have been raised without irrigation. The settlers are principally engaged in stock raising.

George K. Dike,
U. S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by George K. Fike, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivisional and meander lines of Township No. 154 North of Range No. 97 West of the Fifth principal meridian in North Dakota, showing the respective capacities in which they acted:

Jacob A. Dahl, Chainman.
Clarence E. Beckwith, Chainman.
Isaac Nelson, Monumentman.
Henry Russell, Monumentman.
[blank], Axeman.
[blank], Axeman.
William Allen, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted George K. Fike, United States Deputy Surveyor, in surveying all those parts or portions of the subdivisional and meander lines of Township No. 154 North of Range No. 97 West of the Fifth principal meridian, State of North Dakota, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for North Dakota

Jacob A. Dahl, Chainman.
Clarence E. Beckwith, Chainman.
Henry Russell, Monumentman.
Isaac Nelson, Monumentman.
[blank], Axeman.
[blank], Axeman.
William Allen, Flagman.

Subscribed and sworn to before me this 24 day of Nov. 1896

John Tyner
Clerk District Court
Ward County N.D.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, George K. Dike, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Andrew Blunt, United States Surveyor General for North Dakota, bearing date of the 24 day of March, 1896, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for North Dakota, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivisional and meander lines of Township No 154 North of Range No. 97 West of the fifth principal meridian, in the State of North Dak, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for North Dakota, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

George K. Dike
United States Deputy Surveyor.

Subscribed by said George K. Dike, and sworn to before me this 24 day of November, 1896.

John Lynch
Clerk of District Court
Ward County, N.D.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Grand Forks, N.D. August 8, 1897

The foregoing field notes of the survey of the subdivisional and meander lines of Township No. 154 North of Range No. 97 West of the fifth principal meridian - in North Dakota

executed by George K. Dike under his contract No. 42, dated March 24, 1896, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Andrew Blunt
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in North Dakota has been correctly copied from the original notes on file in this office.

Andrew Blunt
United States Surveyor General.

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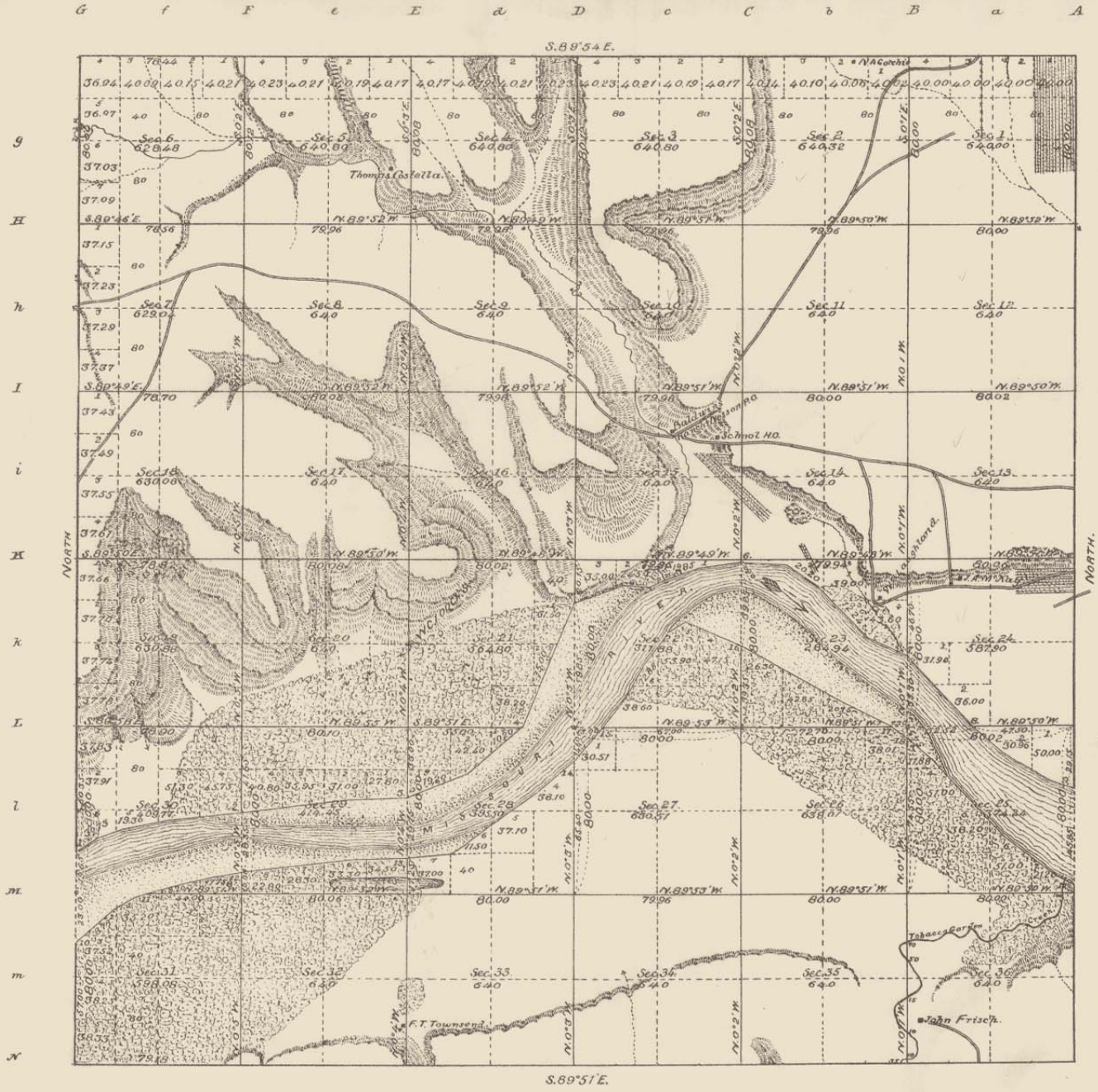
Township No 154 North, Range No 97 West of the 5th Principal Meridian, North Dakota.



Latitude 46°06'N.
Longitude 103°10'W.
Mean mag. decl. 16°58'E.

Scale 80 Chains to an Inch

Area in acres: Public Land, 21171.28 ... Water Surface, 1814.56 ... Total Area 22985.84 ... Acres { No. 1 River = 16833.98 / So. 1 River = 6151.86

Surveys Designated	By Whom Surveyed	Contract No.	Contract Date.	Amount of Surveys Mc.	Chs.	Lks.	When Surveyed
Subdivisions	George K. Nice	42	March 24th 1896	59	14	48	Sept. 18th Oct. 3rd 1896
Meanders	" " "	"	" " "	14	32	70	" " "
Exteriors	" " "	"	" " "	23	77	62	June "

The above Map of Township No. 154 North, of Range No. 97 West of the Fifth Principal Meridian, North Dakota, is strictly conformable to the field notes of the survey thereof on file in this Office, which have been examined and approved.

U.S. Surveyor Generals Office
Bismarck, N. Dak. August 18. 1897

Andrew Bleeker
U.S. Surveyor General

NDSPLS ADMINISTRATIVE OFFICE
PO Box 7370
Bismarck, ND 58507
Phone: 701-223-3184
E-mail: info@ndspls.org
Website: www.ndspls.org

North Dakota Industrial Commission
Department of Mineral Resources
Lynn Helms, Director
1016 East Calgary Avenue
Bismarck, North Dakota 58503

Received
JUN 19 2018
ND Oil & Gas Division

June 19, 2018

Re: The North Dakota Society of Professional Land Surveyors (NDSPLS) comments and concerns with regard to the North Dakota Industrial Commission Docket for Hearing on Case No. 26584 to consider comments on the review of the delineation of the ordinary high water mark (OHWM).

About the NDSPLS

The NDSPLS is made up of over 300 members, of which some 185 are registered professional land surveyors who live and practice in this state. Overall, approximately 500 registered land surveyors are licensed to practice in North Dakota. We are licensed and regulated by the North Dakota State Board of Registration for Professional Engineers and Professional Land Surveyors. Our mission and objective is to unite all of the professional land surveyors in the state of North Dakota; to elevate the standards of the surveying profession; to establish basic minimum standards and requirements for surveys; to assist in promoting legislative and educational programs to improve the professional status of the land surveyor; to work in cooperation with local, county, state, federal, and tribal governments in our field of endeavor; to uphold a rigid code of ethics; to strive to improve our relations with our clients and the public by doing our work with precision and integrity; and to maintain a good relationship between land surveyors and engineers.

NDSPLS and the OHWM Report

On April 17th, NDSPLS representatives attended the presentation of the technical report to the NDIC. At this time, concerns arose about the report.

The NDSPLS board of directors met for their quarterly meeting on April 20th and the concerns with the report were brought to the attention of the NDSPLS board. Based on these concerns, an ad hoc committee was formed to review the report and prepare technical testimony pursuant to the NDIC Docket for Hearing. In accordance with the NDIC request for testimony, NDSPLS submits the following testimony for your review and consideration.

Note that NDSPLS has no financial interest in this report and neither gains nor loses financially in any way from the outcome. NDSPLS respectfully submits this statement because, in our professional opinion, the report does not reflect proper survey principles and practices, which has resulted in many inaccuracies. In fact, we feel the consequences of such a report may reflect poorly on our profession as a whole.

Concerns about Methodology

NDSPLS urges the NDIC and other stakeholders to respect the critical nature of this report and the need for accurate determinations of land boundaries for the protection of both public and private property rights. Furthermore, NDSPLS urges the NDIC to note that surface boundaries define mineral boundaries, and that monuments set by the original Government Land Office (GLO) surveyors control both the surface and mineral boundaries.

As such, NDSPLS is very concerned with the use of a secondary source for tract boundaries, the methods used to georeference the tract boundaries, and the methodology used for "refinements" to the tract boundaries. This data and methodology have subsequently been used to determine acreages that are in conflict with proper survey procedures, which are defined by federal and state laws. This has resulted in the reporting of inaccurate acreages that will likely lead to incorrect mineral payment determinations.

Availability of Credible Sources

The upland title throughout the extent of this project originates from federal patents at the time of entry. The land description used in these patents are in reference to the Public Land Survey System (PLSS) –e.g. the Northeast Quarter of Section 12, Township 153 North, Range 97 West of the 5th Principal Meridian. Prior to the issuance of these federal patents, the federal government required that the land be surveyed by the GLO and that corners were monumented prior to entry. The monuments set per the original survey control the location of the PLSS lines and are free from error. When these monuments cannot be found, a hierarchy of methods are used to reestablish these points based on the GLO township plats and the corresponding field notes. This is in accordance with the Act of February 11, 1805 (2 Stat. 313; 43 U.S.C. 752).

Our issue with the OHWM report in its current state is that no reference has been made to the GLO records. The GLO township plats and field notes can be found online through the North Dakota State Water Commission website. NDSPLS believes that this data is necessary to formulate an accurate, comprehensive, retraceable, and defensible report. Furthermore, all decisions regarding the development of the cadastral layer must be predicated on GLO records. The need for this will be discussed in more depth throughout this statement. (Examples of GLO records are appended to this statement for review. The examples were obtained from the State Water Commission website.)

In addition to the need for incorporating GLO records into the report, numerous subsequent survey records accurately depict the points and lines of the PLSS represented in this project. The US Army Corps of Engineers (USACE) contracted the survey, marking, and platting of the USACE boundary lines (take-line) surrounding Lake Sakakawea. These plats contain accurate descriptions of the monuments found and set per the USACE survey as well as the dimensions between the monuments. These surveys also contain precise state plane coordinates. Most importantly, these documents bear the seal and signature of the North Dakota professional land surveyor that was in responsible charge of the survey. The USACE surveys are on file in the respective county recorder's office. NDSPLS believes that the USACE take-line plats should be used for the proper development and georeferencing of the PLSS layer. (Several examples of these plats have been appended to this statement for review. The examples were obtained from the McKenzie County Recorder's Office.)

Along with the CORPS plats, a certified well plat corresponding to the permit for each well lateral that now exists under the current lake bed is on file with the NDIC (see the copy of the NDIC map showing the well laterals). Upon review of the NDIC GIS map, nearly every section of land within this project has been surveyed for this purpose and is available to the public through the NDIC website.

Again, these plats contain descriptions of the monuments found and set, the dimensions of the PLSS lines, geographic coordinates on the well location, and certifications by a North Dakota professional land surveyor. (Examples of the well plats are appended to this statement. The examples were obtained from the NDIC.)

In addition, many other survey records could be used to develop a much more accurate PLSS layer. They include, but are not limited to the following: land survey monument records, recorded plats, records kept by other state and federal agencies, and records from utility companies. Also, numerous corner locations exist throughout the extent of the project that are easy to access and could be verified by a field survey.

NDSPLS believes that the above records should serve as the primary sources of information from which to develop an accurate PLSS cadastral GIS layer.

Turning now to the deficiency of the data used for the basis of the report and acreage calculations, Chapter 4.2 of the report states, "The USACE property survey boundaries or tract boundaries were received from the State in GIS format." The report goes on to acknowledge apparent discrepancies between the shapefile and the apparent occupation lines depicted on the 1951 aerial photos. Furthermore, the report discloses that the metadata corresponding to the GIS file is unknown. In review of the tract maps prepared by the USACE, each map bears a note stating, "Boundary lines of this segment were determined by deed descriptions, General Land Office Plats, and aerial photos." From a surveyor's perspective, this statement very likely means that the map is strictly a compilation of record information and not based on an actual field boundary survey. With all of this in mind, it is very likely that the shapefile was generated by simply digitizing the tract maps and somehow georeferencing them by unknown and inaccurate means. This renders the data unreliable for land boundary determination.

To further distort the PLSS cadastral data, the stated methodology per Chapter 4.2 to "shift the boundaries" has only served to introduce more error into the base map. The "rubber-sheeting" spatial adjustment used to tie the cadastral data is not a method that a competent land surveyor would use to accurately determine the location of PLSS lines; furthermore, this method is not defined in any survey text as an acceptable methodology for land boundary determination. In effect, this method forces already vague data to match up by further distorting the distances and directions of the lines embedded in the shapefile, thus further distorting the resulting acreages. The report goes on to state that, "inferences were made in adjusting the field boundaries," and that, "in places where a tree line or roads existed and the boundary discrepancy was less than 100 feet, the boundary was adjusted to the aerial demarcation." This would give the appearance that 100 feet, more or less, is the accuracy achieved by these so-called "refinements." (Keep in mind that the report's stated accuracy of the georeferencing of aerial photography per Chapter 4.1.2 was 48.5 feet.) Besides all of this, the report shows no evidence that a duly registered North Dakota land surveyor was consulted in the decision making process with regards to the recommended tract boundary adjustments. This aspect of the report and associated mapping is completely inaccurate and should not be relied upon, especially for the distribution of mineral payments that, in several cases, are sure to be quite sizable.

NDSPLS recommends that the PLSS layer used to determine acreage for this report be derived from the GLO plats and field notes, the USACE take-line plats, the well location plats, and any available subsequent survey records. The USACE take-line plats and well location plats should be used to determine the geographic locations of the found monuments that are reported on said plats. This

should be field verified at several locations by proper survey methods. From there, the controlling PLSS corners that are either missing or in areas inundated by water should be calculated using proper proportionate methods and the methods for subdivision of sections based on the dimensions per the GLO plats and field notes as set forth per the 2009 BLM Manual of Surveying Instructions. All of this should proceed under the responsible charge of a duly registered North Dakota Professional Land Surveyor. Given the availability of this data and the ease with which it can be assembled, any other methodology is simply unacceptable and unnecessarily leaves the end-user of this report unprotected. (An example of the differences between the existing map and the suggested methodology is appended to this statement.)

Concerns regarding acreage determinations

NDSPLS has a number of concerns about the schedule of acreages. These include incorrect reference to the proper legal descriptions, improper partitioning of accreted land in conflict with established survey procedures and ND case law, and the obvious discrepancies in acreage due to grossly erroneous positions of PLSS lines (as previously discussed).

Legal Descriptions. The legal descriptions of the tracts of land along the OHWM are incorrectly labeled. The report completely ignores the fact that government lots were created per the original plat. Furthermore, the report mistakenly protracts quarter-quarters both in riparian areas and through accreted lands. This is grossly erroneous and does not protect the interests of the upland mineral owners both in terms of their rights to the shoreline and patented area.

Partitioning. In addition to omitting references to government lots, the report makes no consideration for the proper apportionment of accreted lands. The assumption that quarter-quarters are to be protracted across these areas is completely erroneous and represents a complete abandonment of proper surveying procedures and the rules set forth in North Dakota Supreme Court rulings.

Section 8-133 of the Manual of Surveying Instructions 2009 sets forth five different methods for establishing partition lines of accreted lands. These include the proportionate shoreline method, the perpendicular method, the proportionate acreage method, the extension of property line method, and a combination of the proportionate shoreline method and the perpendicular method. The methods set forth in the BLM Manual of Surveying Instructions 2009 are consistent with the rulings of the North Dakota Supreme Court, particularly in Jennings v. Shipp and Gardner v. Green. The primary principle behind these methods is that accreted lands are to be partitioned equitably between intermingled upland owners. It is impossible to properly apportion accreted land without first reviewing GLO data to determine the original distance of the shoreline and the record acreage of the government lots.

Acreage. As discussed above, because acreages have been determined from very course and approximate PLSS lines, it should come of no surprise that the acreages are likely inaccurate.

NDSPLS' primary concern is that the schedule of acreages—which is inaccurate—will lead to inaccurate transactions as well.

Concerns with regards to the ability in which shapefiles can be used to accurately locate land boundaries both on the ground and on a plat or map

Pursuant to NDAC 28-02.1-13 – Documents Used to Convey Real Property Or Any Interest Therein, North Dakota professional land surveyors must prepare surveys that are tied to monumentation either found or set at the time of survey. Furthermore, surveyors are to produce maps in which surveys can be retraced with confidence and precision. An ESRI shapefile does not provide the information needed to accurately establish boundaries on the ground. In essence, the shapefile is a coordinate-based product. Other requirements exist within NDCC regarding the use of state plane coordinates for land boundaries. NDCC 47-20.2-04 states that:

> Whenever coordinates based on the North Dakota coordinate system are used to describe any tract of land which in the same document is also described by reference to any subdivision, line, or corner of the United States public land surveys, the description by coordinates must be construed as supplemental to the basic description of each subdivision, line, or corner contained in the official plats and field notes filed of record, and, in the event of any conflict, the description by reference to the subdivision, line, or corner of the United States public land surveys prevails over the description by coordinates, unless the coordinates are upheld by adjudication, at which time the coordinate description will prevail. This chapter does not require any purchaser or mortgagee to rely on a description, any part of which depends exclusively upon the North Dakota coordinate system, unless the description has been adjudicated as provided in this section.

NDCC 47-20.2-06 goes on to state that:

> The use of the North Dakota coordinate system of 1927 north zone or south zone or the North Dakota coordinate system of 1983 north zone or south zone on any map, report of survey, or other document must be limited to coordinates based on the North Dakota coordinate systems as defined in this chapter. The map, report, or document must include a statement describing the standard of accuracy, as defined by the national ocean survey/national geodetic survey, maintained in developing the coordinates shown therein. The coordinates must be established in conformity with these standards:
>
> > 1. No coordinates based on the North Dakota coordinate system, purporting to define the position of a point on a land boundary, may be presented to be recorded in any public records or deed records unless the point is connected to a triangulation or traverse station established in conformity with the standards prescribed in this chapter.
> >
> > **2. Coordinate values used in land descriptions under this section must be certified by a duly registered land surveyor under the laws of this state.**

Concerns regarding professional practice and licensing requirements

NDSPLS believes that this report is a technical report. Per NDCC 43-19.1-02.11 – Responsible Charge, NDCC 43-19.1-21 – Seals, and multiple NDAC Title 28 rules, the report should be sealed and signed by the individual(s) in responsible charge of this project. This report does not contain such information. Furthermore, the individuals listed as the authors and reviewers of this report are not currently registered in the State of North Dakota as either professional engineers or professional land surveyors.

Finally, NDSPLS believes that much of this report falls under the definition of a land survey per NDCC 43-19.1-02.8 which states the following:

a. Means making land boundary determinations by providing or offering to provide professional services using such sciences as mathematics, geodesy, and photogrammetry and involving the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth; improvements on the earth; and improvements on the space above, on or below the earth and providing, utilizing, or developing the same into land survey products such as graphics, data, maps, plans, reports, descriptions, or projects. As used in this subsection, professional services include acts of consultation, investigation, testimony evaluation, expert technical testimony, planning, mapping, assembling and interpreting gathered measurements and information related to any one or more of the following:

(1) Determining by measurement the configuration or contour of the earth's surface or the position of fixed objects on the earth's surface;
(2) Determining by performing geodetic land surveys the size and shape of the earth or the position of any point on the earth;
(3) Locating, relocating, establishing, re-establishing, or retracing property lines or boundaries of any tract of land, road, right of way, or easement;
(4) Making and land survey for the division, subdivision, or consolidation of any tract of land;
(5) Locating or laying out alignments, positions, or elevations for the construction of fixed works;
(6) Determining by the use of principles of land surveying the position for any survey monument, boundary or non-boundary, or reference point and establishing or replacing any such monument or reference point; and
(7) Creating, preparing, or modifying electronic or computerized or other data for the purpose of making land boundary determinations relative to the performance of the activities in paragraphs 1 through 6.

b. Includes:

(1) Engaging in land surveying;
(2) By verbal claim, sign, advertisement, letterhead, card, or any other way representing to a person to be a professional land surveyor;
(3) Through the use of some other title implying to be a professional land surveyor or that the person is licensed or authorized under this chapter; and
(4) Holding out as able to perform or performing any land surveying service or work or any other service designated by the practitioner which is recognized as land surveying.

Per Chapter 5.6 of the report, no mention appears of any part of this report being developed and reviewed under the responsible charge of a duly registered North Dakota professional land surveyor. The specific issues brought to light by this statement should clearly show the obvious deficiencies, inaccuracies, and the incomplete nature of its content. Many of these issues should have been addressed prior to the initial release of this information.

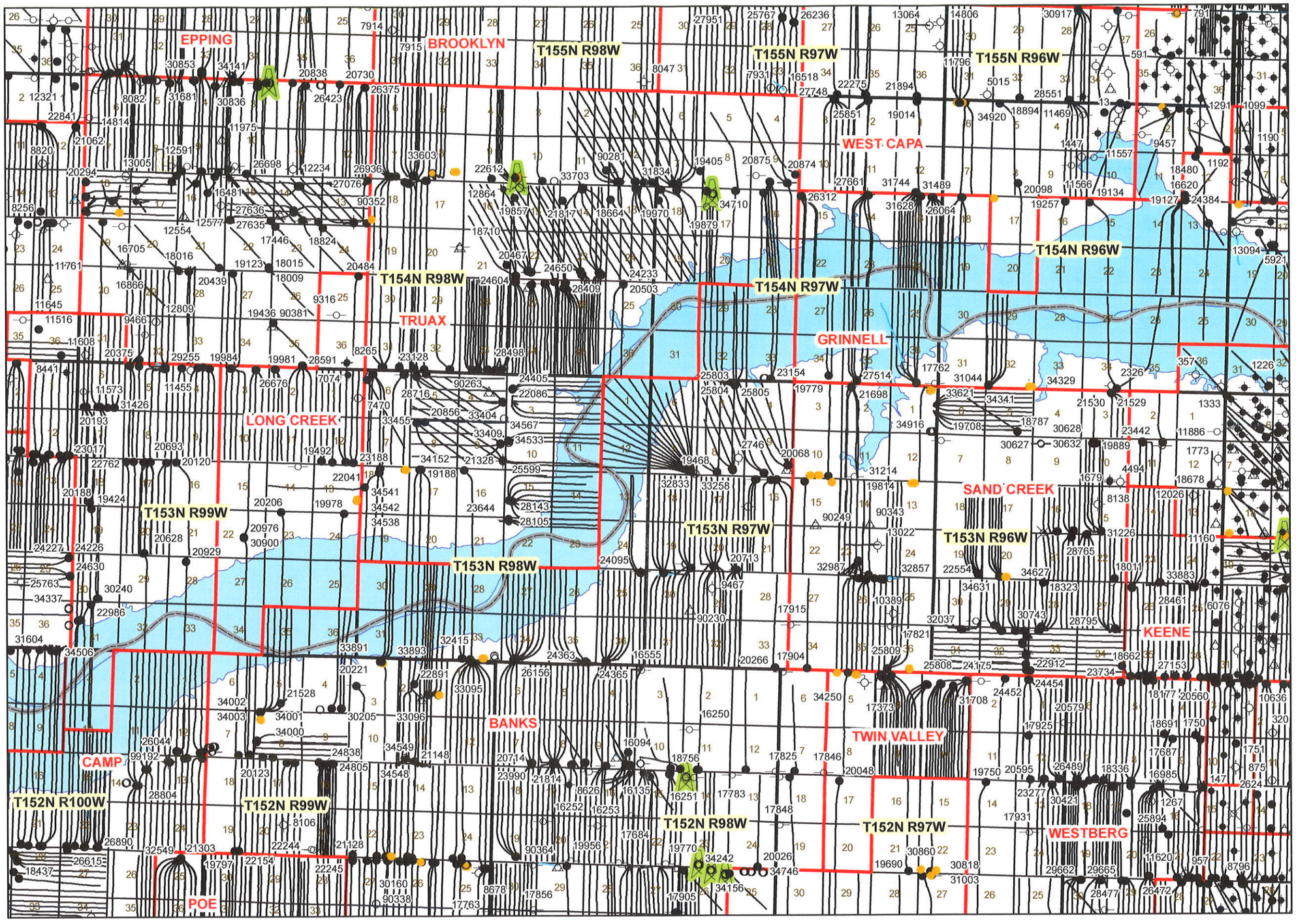
Summary

NDSPLS acknowledges that this project requires the expertise of many technical and legal professionals; however, this report in its current state does not provide the assurance and expertise that only a duly registered North Dakota professional land surveyor can provide with respect to land boundaries. The NDSPLS respectfully requests that all those involved with the preparation, review, and acceptance of the OHWM report review this statement and address the issues that we have presented.

Respectfully submitted,

Ed Rintamaki, PLS
President of the North Dakota Society of Professional Land Surveyors

Cc: North Dakota Society of Professional Engineers,
American Council of Engineering Companies of North Dakota, North Dakota,
Board of Registration for Professional Engineers and Professional Land Surveyors



Disclaimer: Neither the State of North Dakota, nor any agency, officer, or employee of the State of North Dakota warrants the accuracy or reliability of this product and shall not be held responsible for any losses caused by reliance on this product. Portions of the information may be incorrect or out of date. Any person or entity that relies on any information obtained from this product does so at his or her own risk.

0 2 4 8 Miles

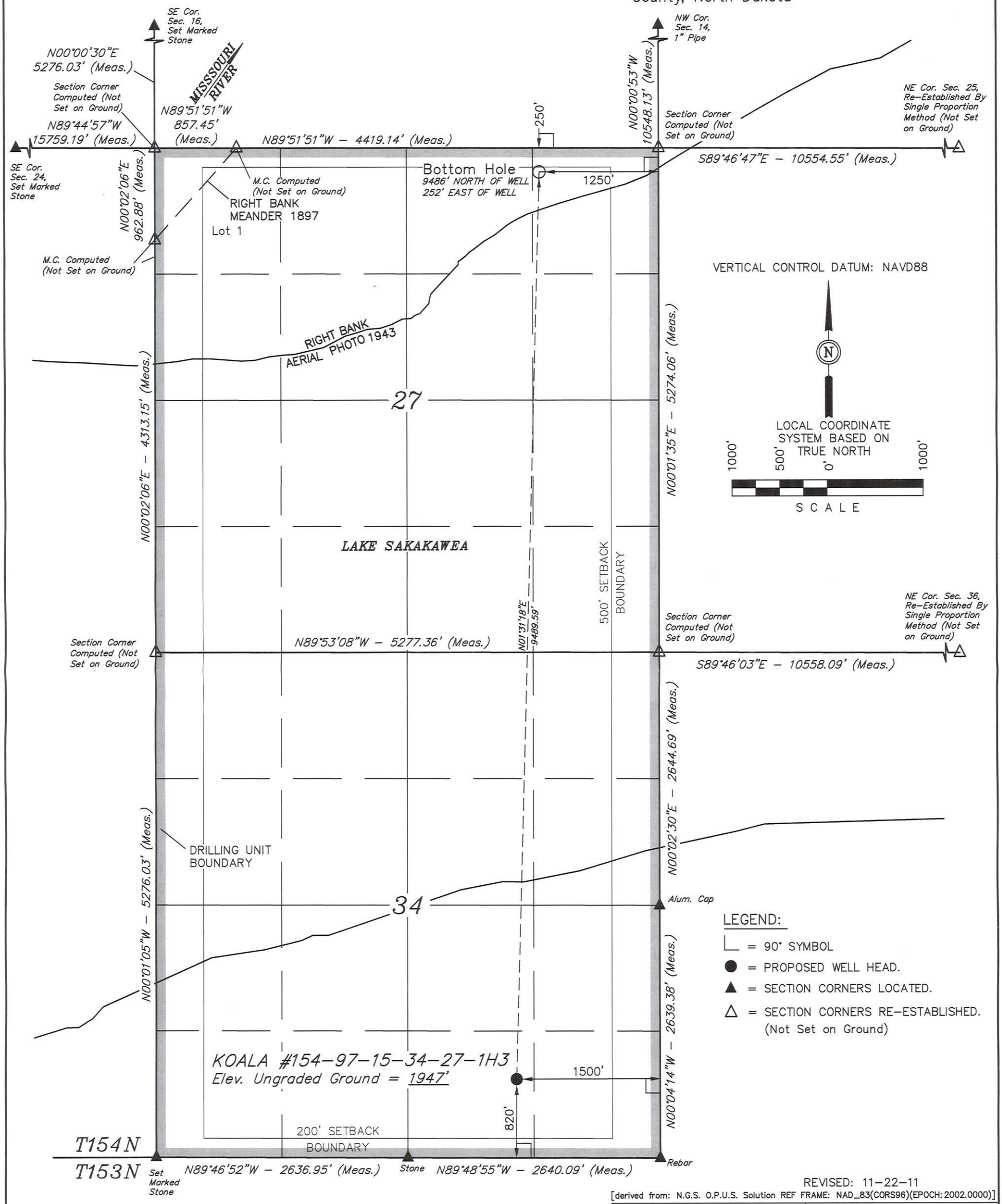
Prepared by N.D.I.C.
Oil and Gas Division

6/15/2018
8:23:25 AM

WELL LOCATION PLAT
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-34-27-1H3, located as shown in the SW 1/4 SE 1/4 of Section 34, T154N, R97W, 5th P.M., McKenzie County, North Dakota



LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground)

REVISED: 11-22-11

[derived from: N.G.S. O.P.U.S. Solution REF FRAME: NAD_83(CORS96)(EPOCH: 2002.0000)]

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 48°08'20.50" (48.139028) LONGITUDE = 103°08'07.84" (103.135511)	LATITUDE = 48°06'46.89" (48.113025) LONGITUDE = 103°08'11.44" (103.136511)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 48°08'20.42" (48.139006) LONGITUDE = 103°08'06.17" (103.135047)	LATITUDE = 48°06'46.81" (48.113003) LONGITUDE = 103°08'09.77" (103.136047)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	09-23-10	10-19-11
PARTY: D.M. M.C. J.J.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

TROY JENSEN REGISTERED LAND SURVEYOR LS. 4654 11-28-11 NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

SECTION BREAKDOWN
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

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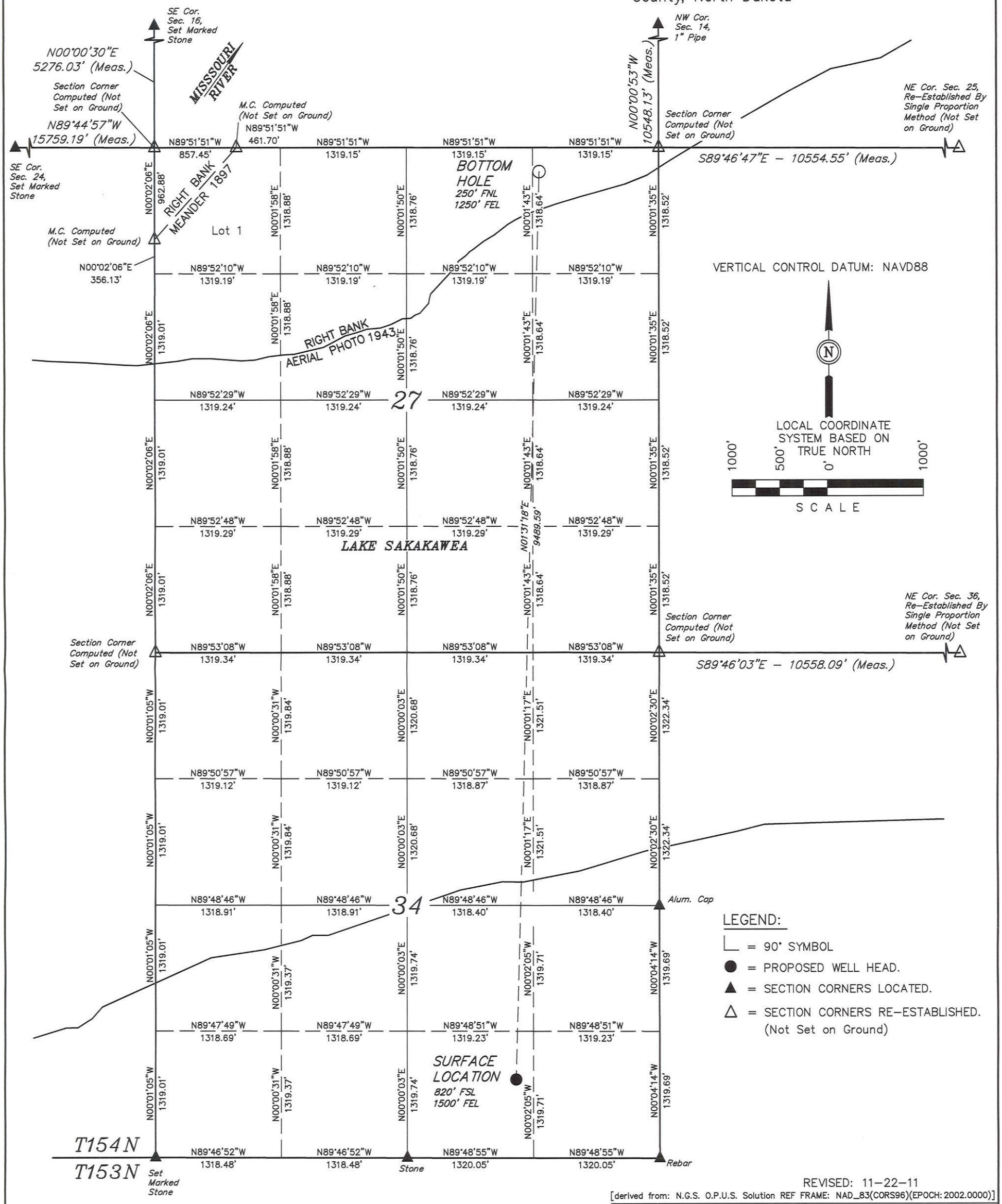

VERTICAL CONTROL DATUM: NAVD88

LOCAL COORDINATE SYSTEM BASED ON TRUE NORTH

1000' 500' 0' 1000'

SCALE

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TROY JENSEN REGISTERED LAND SURVEYOR REG. NO. 4654 11-28-11 NORTH DAKOTA

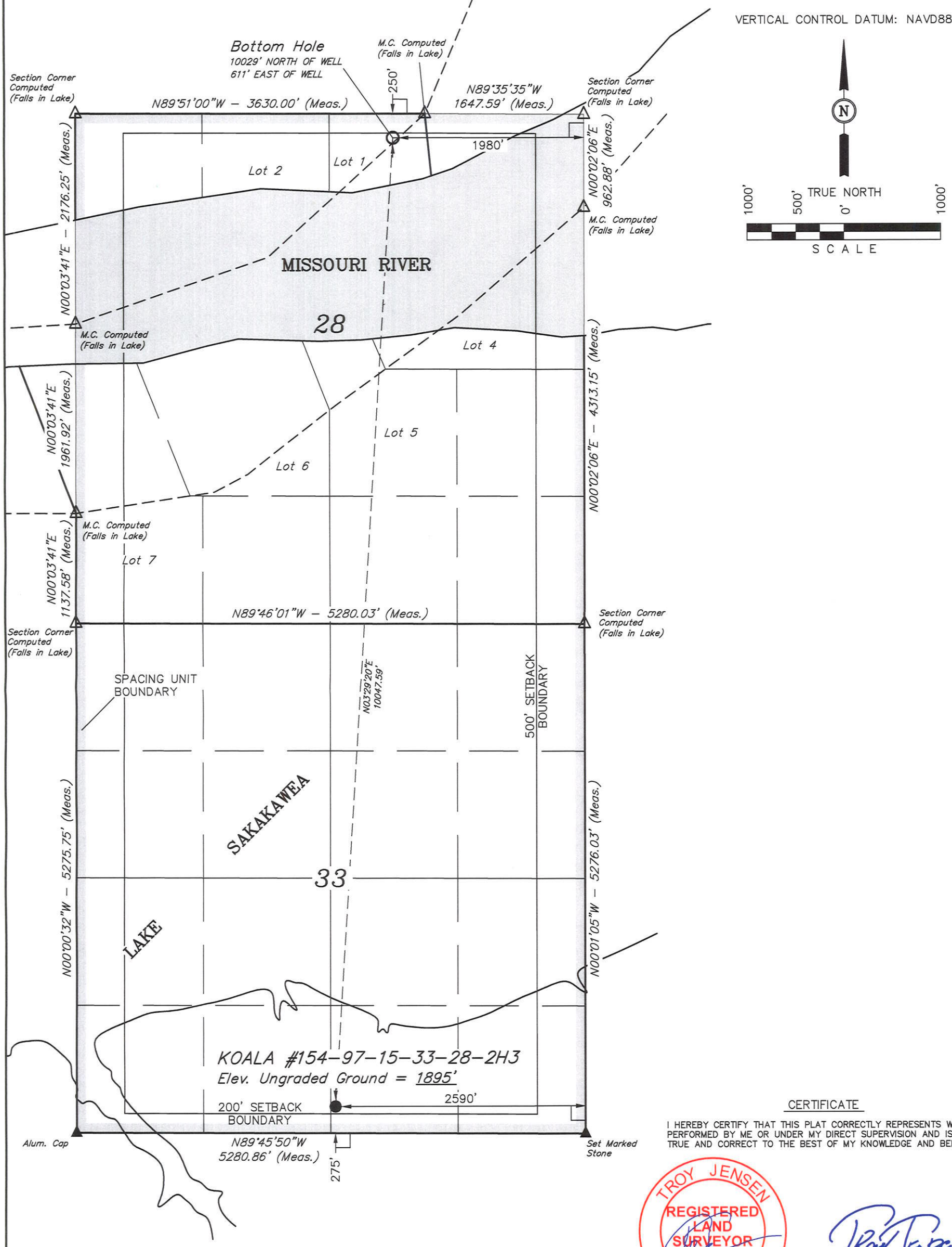
REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

WELL LOCATION PLAT
T154N, R97W, 5th P.M.

KODIAK OIL & GAS (USA), INC.

Well location, KOALA #154-97-15-33-28-2H3, located as shown in the SW 1/4 SE 1/4 of Section 33, T154N, R97W, 5th P.M., McKenzie County, North Dakota.

VERTICAL CONTROL DATUM: NAVD88



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TROY JENSEN
REGISTERED
LAND
SURVEYOR
REG. NO. 4654
02-20-12
NORTH DAKOTA

REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

REVISED: 02-16-12
REVISED: 07-12-11

LEGEND:

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NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 48°08'20.66" (48.139072)	LATITUDE = 48°06'41.69" (48.111581)
LONGITUDE = 103°09'36.39" (103.160108)	LONGITUDE = 103°09'45.23" (103.162564)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 48°08'20.58" (48.139050)	LATITUDE = 48°06'41.61" (48.111558)
LONGITUDE = 103°09'34.72" (103.159644)	LONGITUDE = 103°09'43.56" (103.162100)
[derived from: N.G.S. O.P.U.S. Solution REF FRAME: NAD_83(CORS96)(EPOCH: 2002.0000)]	

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(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	05-18-11	06-01-11
PARTY: T.G. E.R. C.C.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

SECTION BREAKDOWN
T154N, R97W, 5th P.M.

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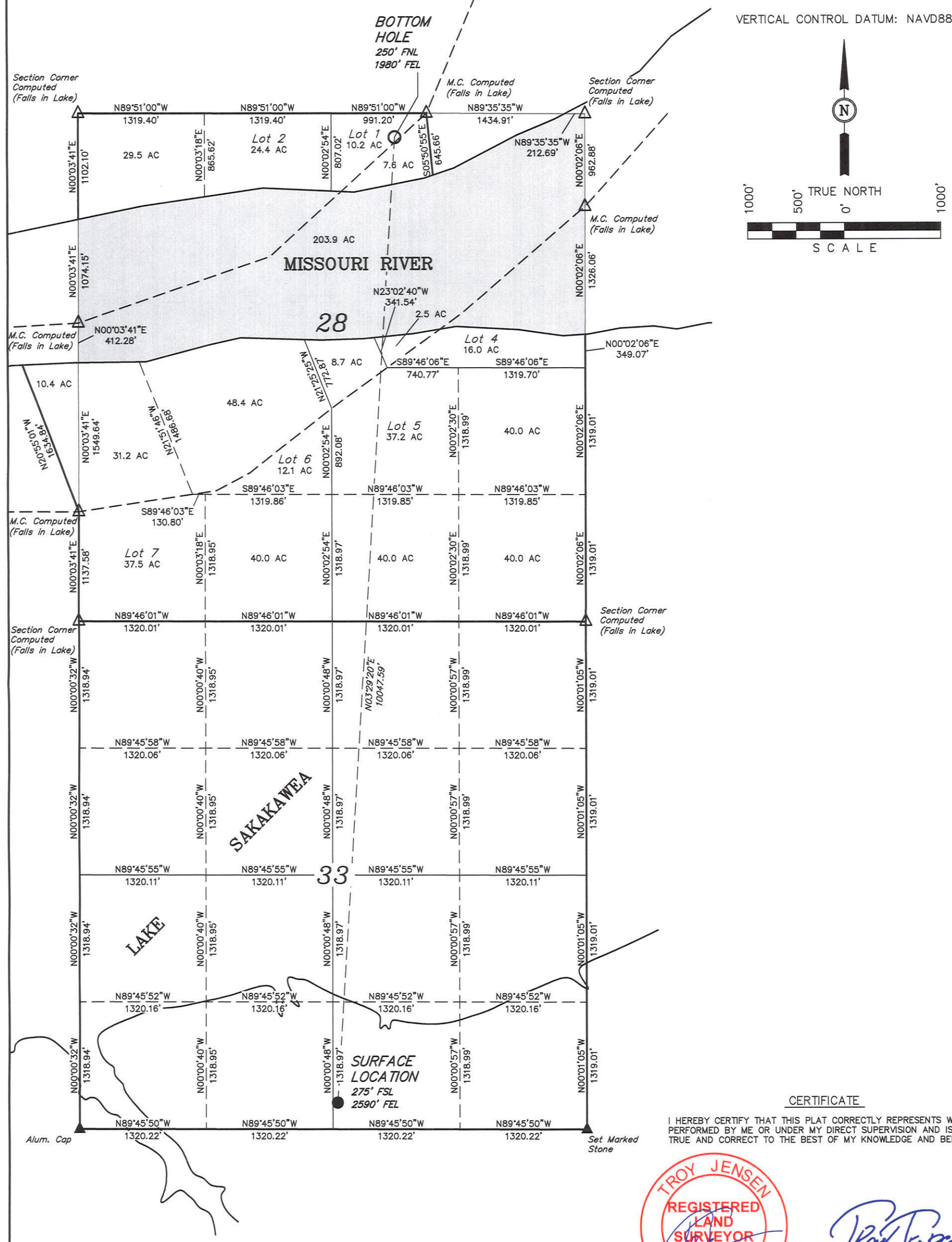
VERTICAL CONTROL DATUM: NAVD88



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REGISTERED LAND SURVEYOR
REGISTRATION NO. 4654
STATE OF NORTH DAKOTA

REVISED: 02-16-12
REVISED: 07-12-11

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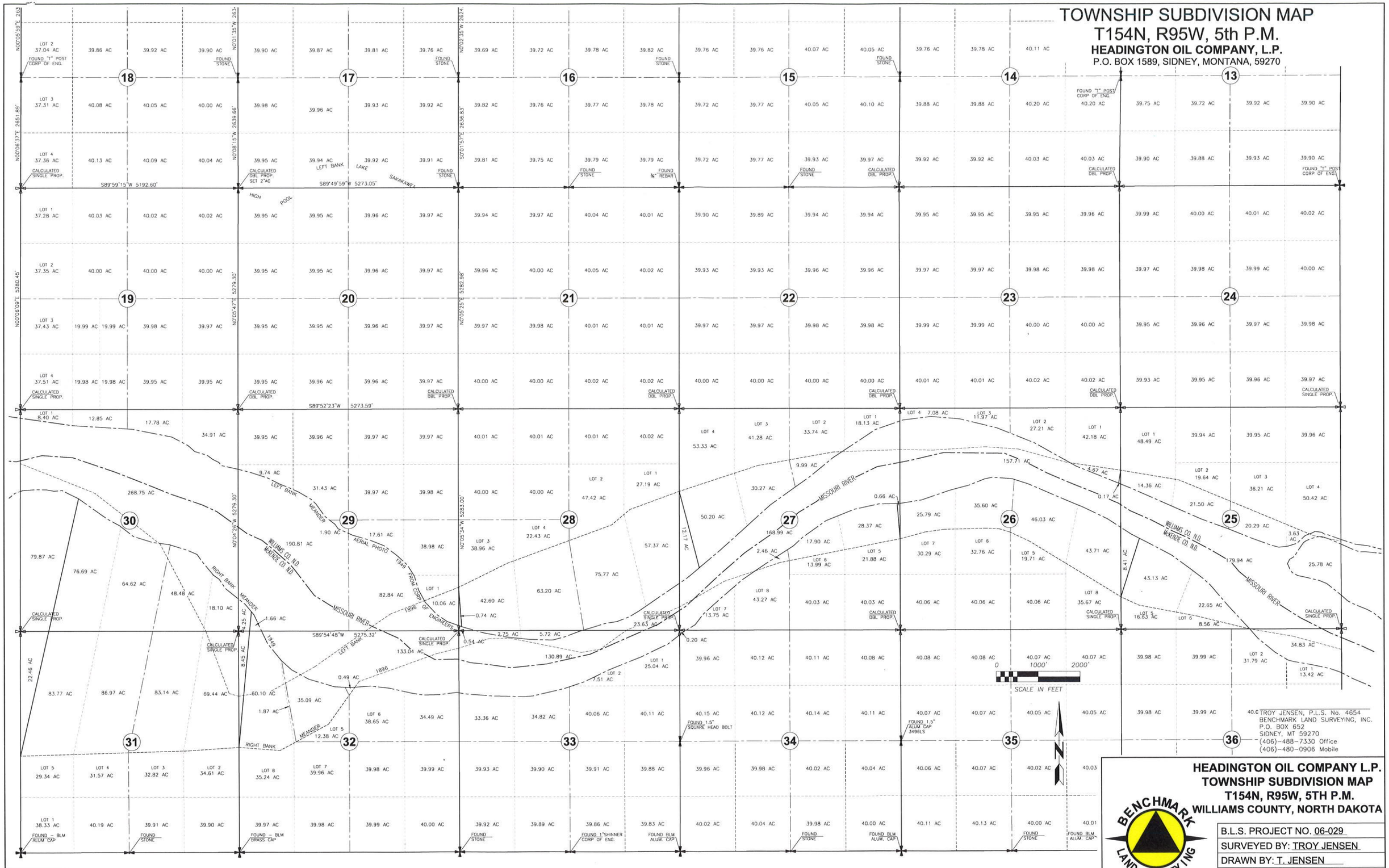
WEATHER: WARM	FILE: KODIAK OIL & GAS (USA), INC.	

TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5th P.M.

HEADINGTON OIL COMPANY, L.P.
P.O. BOX 1589, SIDNEY, MONTANA, 59270



TROY JENSEN, P.L.S. No. 4654
BENCHMARK LAND SURVEYING, INC.
P.O. BOX 652
SIDNEY, MT 59270
(406)-488-7330 Office
(406)-480-0906 Mobile

HEADINGTON OIL COMPANY L.P.
TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5TH P.M.
WILLIAMS COUNTY, NORTH DAKOTA

BENCHMARK LAND SURVEYING

B.L.S. PROJECT NO.	06-029
SURVEYED BY:	TROY JENSEN
DRAWN BY:	T. JENSEN
CHECKED BY:	T. JENSEN

TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5th P.M.

HEADINGTON OIL COMPANY, L.P.
P.O. BOX 1589, SIDNEY, MONTANA, 59270

T 154 N.
R. 95 W.

T 154 N.
R. 96 W.

R 96 W
R 95 W

MISSOURI RIVER

WILLIAMS CO. N.D.
MCKENZIE CO. N.D.

MOUNTRAIL CO.

SCALE IN FEET
0 1000' 2000'

TROY JENSEN, P.L.S. No. 4654
BENCHMARK LAND SURVEYING, INC.
P.O. BOX 652
SIDNEY, MT 59270
(406)-488-7330 Office
(406)-480-0906 Mobile

HEADINGTON OIL COMPANY L.P.
TOWNSHIP SUBDIVISION MAP
T154N, R95W, 5TH P.M.
WILLIAMS COUNTY, NORTH DAKOTA

BENCHMARK LAND SURVEYING

B.L.S. PROJECT NO. 06-029
SURVEYED BY: TROY JENSEN
DRAWN BY: T. JENSEN
CHECKED BY: T. JENSEN

Test of the Tract Boundaries

1) The PLSS lines per the Koala #154-97-15-33-28-2H3 and the Koala #154-97-15-34-27-1H3 well location plats were drawn.

2) State plane coordinates were generated from the geographic coordinates at the well and target locations.

3) The state plane coordinates were entered into CAD.

4) The section lines were then rotated to the well and target locations then making the section lines referenced to the North Dakota North State Plane system (NAD83, international foot)

5) The well plat were copied on an insertion point of N: 0, E: 0 and pasted into the CAD file generated from the shapefiles posted on the NDIC website corresponding to the OHWM report. (The estimate of positional tolerance of this method is +/-2' – the reason being is due to the precision of the geographic coordinates listed.)

6) Finally, the differences between the PLSS lines could be calculated. The results are as follows:

Layer: BLM_PLSS_Second Division

In the area tested, the difference between the layer and the PLSS line per the well plats is 5-6 north and 18-26 feet east.

Layer: USACE_Adjusted_Survey

The differences in the points sampled:

SW Sec. 33 = 48' north, 17' east
SQ Sec. 33 = 50' north, 29' east
EQ Sec. 34 = 7' north, 14' east
NE Sec. 34 = 2' north, 29' east
NW Sec. 34 = 22' north, -66' east
NW Sec. 33 = 31' north, -51' east

Layer: USACE_Survey

The differences in the points sampled:

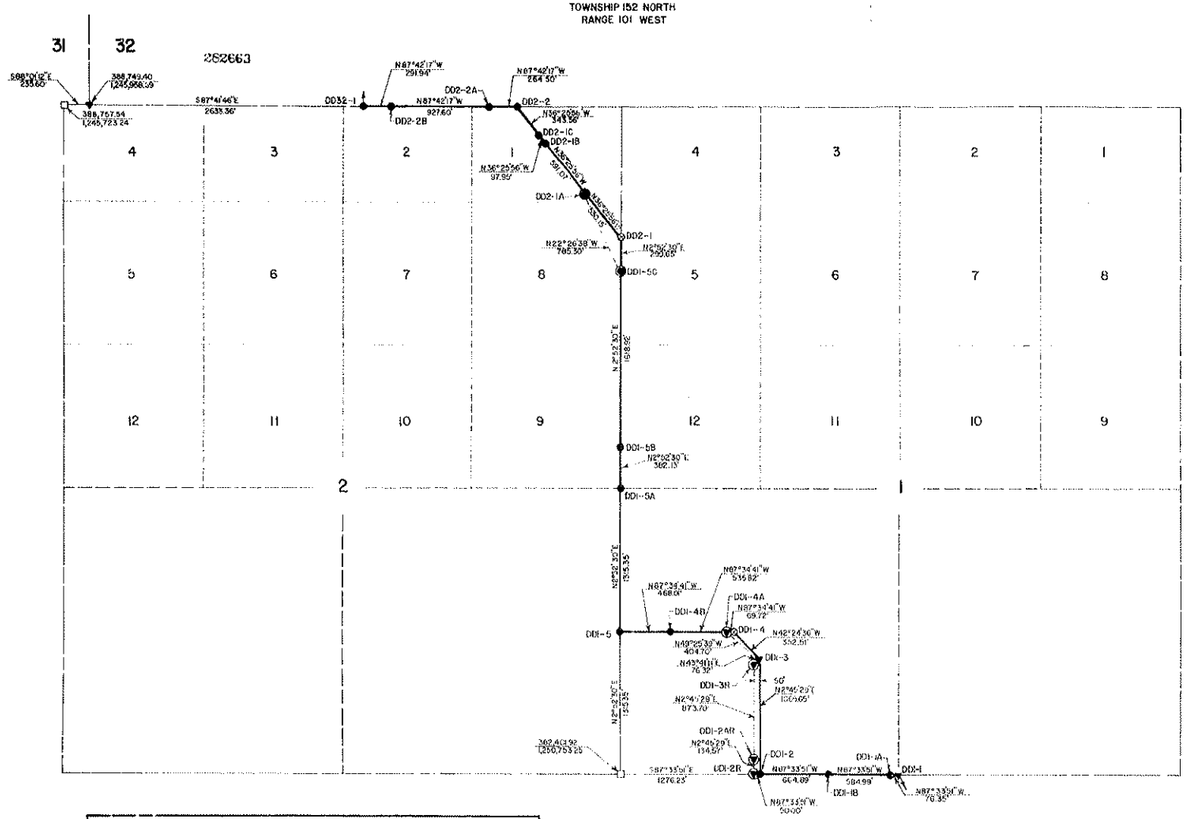
SW Sec. 33 = 82' north, -29' east
SQ Sec. 33 = 64' north, -41' east
C-S1/16 Sec. 34 = 15' north, -66' east
NE Sec. 34 = 17' north, -89' east
NW Sec. 34 = 40' north, -72' east
NW Sec. 33 = 60' north, -39'east

**See the attached maps showing the differences between the PLSS lines per the Koala well plats and the "USACE_Survey" layer in the SW1/4 and NW1/4 of Section 33, T154N, R97W.*

N
1" = 500'
1/4 Line
Sec. Line
NWSW
NESW
SW1/4, Sec 33
T154N, R97W
63'
54'
66'
Lateral
SWSE
SESW
1/4 Line
Koala well
Line per "USACE_Survey Layer
87'
Sec. Line

N
1" = 500'
71'
Sec. Line
48'
NW NW
NE NW
NW 1/4, Sec. 33
T 154 N, R 97 W
65'
66'
Line per
"USACE. Survey"
Layer
Sec. Line
SW NW
SE NW
1/4 Line
Lateral
54'
1/4 Line

TOWNSHIP 152 NORTH
RANGE 101 WEST



POINT	X	Y
DD1-1	1,253,473.17	382,289.20
DD1-1A	1,253,326.00	382,292.64
DD1-1B	1,252,742.47	382,317.30
DD1-2	1,252,678.21	382,345.56
DD1-2R	1,252,678.26	382,347.66
DD1-2AR	1,252,634.24	382,482.89
DD1-3	1,252,129.49	383,409.53
DD1-3R	1,252,126.37	383,356.24
DD1-4	1,251,891.75	383,660.29
DD1-4A	1,251,822.32	383,623.73
DD1-4B	1,251,286.58	383,695.28
DD1-5	1,250,834.22	383,715.55
DD1-5A	1,250,845.19	385,029.18
DD1-5B	1,250,894.36	385,410.81
DD1-5C	1,250,985.55	387,027.61
DD2-1	1,251,000.58	387,326.88
DD2-1A	1,250,685.74	387,253.39
DD2-1B	1,250,334.76	386,728.92
DD2-1C	1,250,276.59	388,307.72
DD2-2	1,250,022.57	388,584.12
DD2-2A	1,249,808.29	388,594.71
DD2-2B	1,248,881.48	388,631.86
DD32-1	1,248,589.79	388,643.55

N

500 0 500 1000
scale feet

282663

I HEREBY CERTIFY THAT THIS IS A CORRECT RE-PRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION THAT ALL DIS-TANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

Dated this ____ Day of _____ 19__ before me personally appeared _____ to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires _____

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- US GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES, ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9999488

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

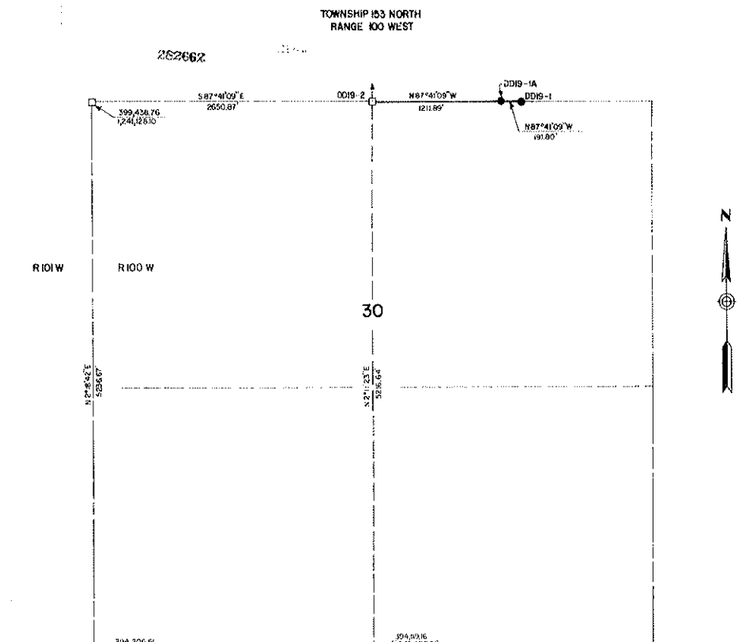
Designed by:
Drawn by: HTE.
Checked by:
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM - LAKE SAKAKAWEA
SEGMENT DD
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 8/21/96
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

TOWNSHIP 153 NORTH
RANGE 100 WEST

262662


DD19-2
DD19-1A
DD19-1
S87°41'09"E
2650.89'
N87°41'09"W
1211.89'
N87°41'09"W
661.85'
399,436.76
1,241,928.10
R101W
R100W
30
31
32
T153N
T152N
394,806.66
1,240,966.86
394,803.16
1,243,577.55
S88°07'05"E
2662.04'
S87°40'16"E
2364.83'
388,872.21
1,241,448.28
S87°41'40"E
2633.36'
388,757.24
1,245,723.24
388,740.40
1,245,950.09
DD32-8
DD32-6B
DD32-7B
DD32-6A
DD32-7A
DD32-6
DD32-7
DD32-5B
DD32-5A
DD32-4
DD32-5
DD32-4A
DD32-3B
DD32-2A
DD32-2
DD32-3
DD32-3A
DD32-2B
DD32-2C
DD32-1C
DD32-2D
DD32-1B
DD32-1A
DD32-1
DD32-2A
DD32-2B
N87°41'40"W
7494'
N87°41'40"W
258.39'
N87°41'40"W
287.83'
N87°41'40"W
118.08'
N87°41'40"W
57.19'
N87°41'40"W
694.49'
N87°41'40"W
264.50'
N87°42'17"W
927.60'
N87°42'17"W
264.50'
N2°06'00"E
97.88'
N23°04'00"E
479.17'
N2°06'00"E
89.01'
N2°06'00"E
382.69'
N34°39'26"W
479.88'
N2°06'00"E
145.39'
N2°06'00"E
127.51'
N29°04'00"E
143.33'
N87°41'45"E
1320.57'
N2°04'00"E
1603.28'
N87°41'45"E
593.59'
N87°41'45"E
66.76'
N2°04'00"E
223.69'
N2°04'00"E
1603.28'
N87°41'45"W
844.91'
N87°41'45"W
150.94'
N87°41'45"W
626.11'
N2°06'00"E
65.02'
N2°06'00"E
306.39'
N2°06'00"E
89.10'
N2°04'00"E
1603.28'
N87°41'40"E
5279.62'
N87°41'40"E
235.07'
N87°42'17"W
264.50'
N87°42'17"W
927.60'
DD2-2A
DD2-2B
DD2-2
500 0 500 1000
Scale feet

POINT	X	Y
DD2-2	1,250,072.57	388,584.12
DD2-2A	1,249,808.29	388,594.71
DD2-2B	1,248,881.48	388,631.86
DD32-1	1,248,589.79	388,643.55
DD32-1A	1,248,621.93	389,499.35
DD32-1B	1,248,624.37	389,564.33
DD32-1C	1,248,627.71	389,653.35
DD32-2	1,248,639.20	389,959.44
DD32-2A	1,248,528.22	389,963.90
DD32-2B	1,248,472.10	389,966.20
DD32-2C	1,247,787.20	389,993.77
DD32-2D	1,247,636.39	389,999.79
DD32-3	1,247,321.74	390,012.65
DD32-3A	1,247,329.81	390,235.94
DD32-3B	1,247,365.27	391,218.16
DD32-4	1,247,369.74	391,328.41
DD32-4A	1,247,962.23	391,306.55
DD32-5	1,248,028.93	391,301.87
DD32-5A	1,248,033.62	391,429.79
DD32-5B	1,248,039.12	391,578.50
DD32-6	1,248,053.20	391,961.08
DD32-6A	1,247,766.74	391,973.22
DD32-6B	1,247,467.95	391,985.83
DD32-7	1,247,393.09	391,989.00
DD32-7A	1,247,396.30	392,077.95
DD32-7B	1,247,413.40	392,551.78
DD32-8	1,247,416.92	392,649.58
DD19-1	1,245,179.08	399,275.06
DD19-1A	1,244,987.46	399,282.80
DD19-2	1,243,776.67	399,331.73

Sept. 14 '94
262662
Grassia Surveying

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION; THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED ON THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

On this ... Day of ... 19... before me personally appeared ... to me known to be the person named in and who executed the foregoing instrument.

Notary Public
State of North Dakota
My Commission Expires .....

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ⊙ BOUNDARY REFERENCE MARKER FOUND
- ◉ BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9999498

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ --- THINK VALUE ENGINEERING --- $$

Revisions

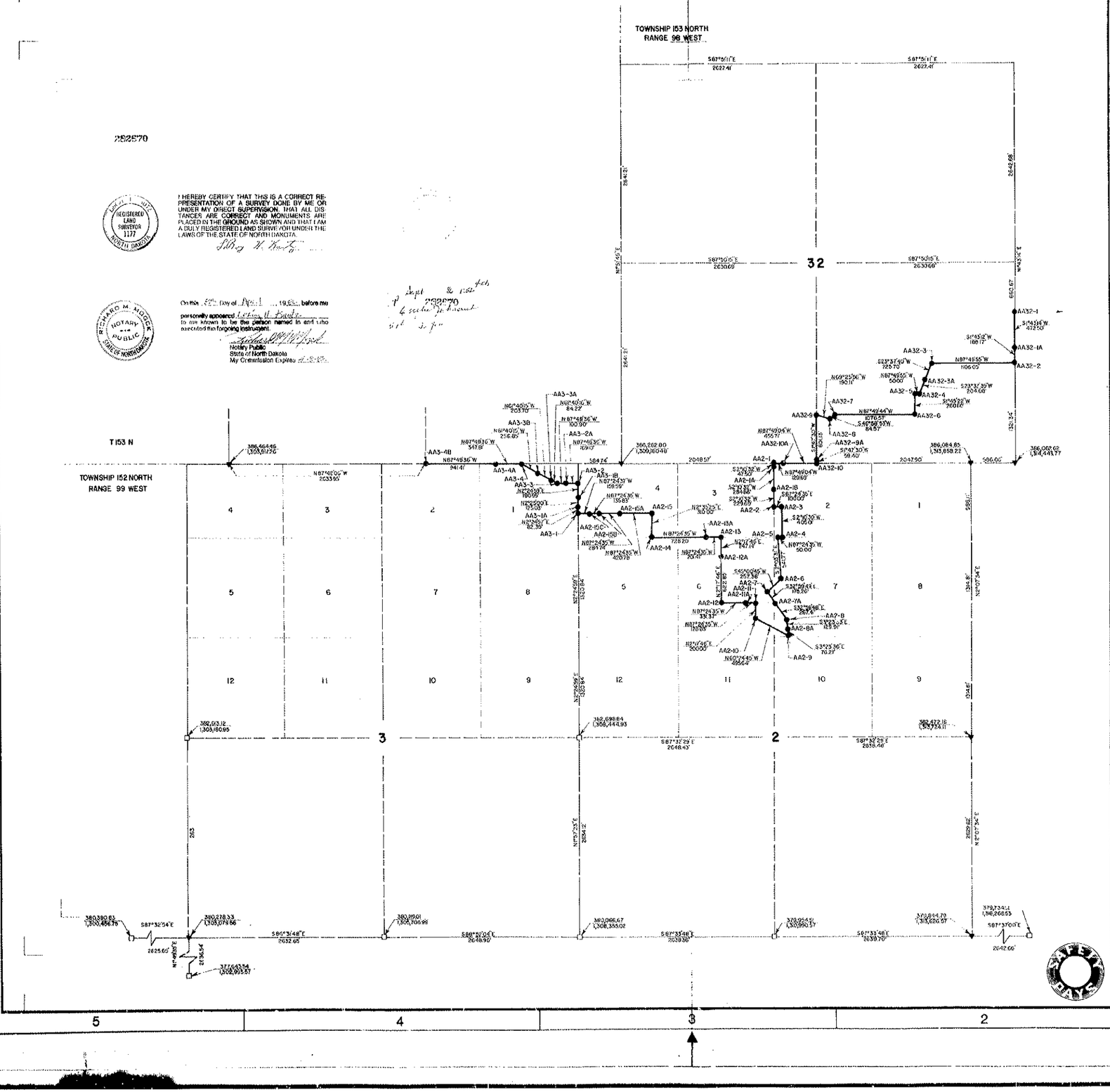
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: L.H.K
Reviewed by:
Submitted by:
Chief, Section

MISSOURI RIVER
GARRISON DAM - LAKE SAKAKAWEA
SEGMENT DD
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

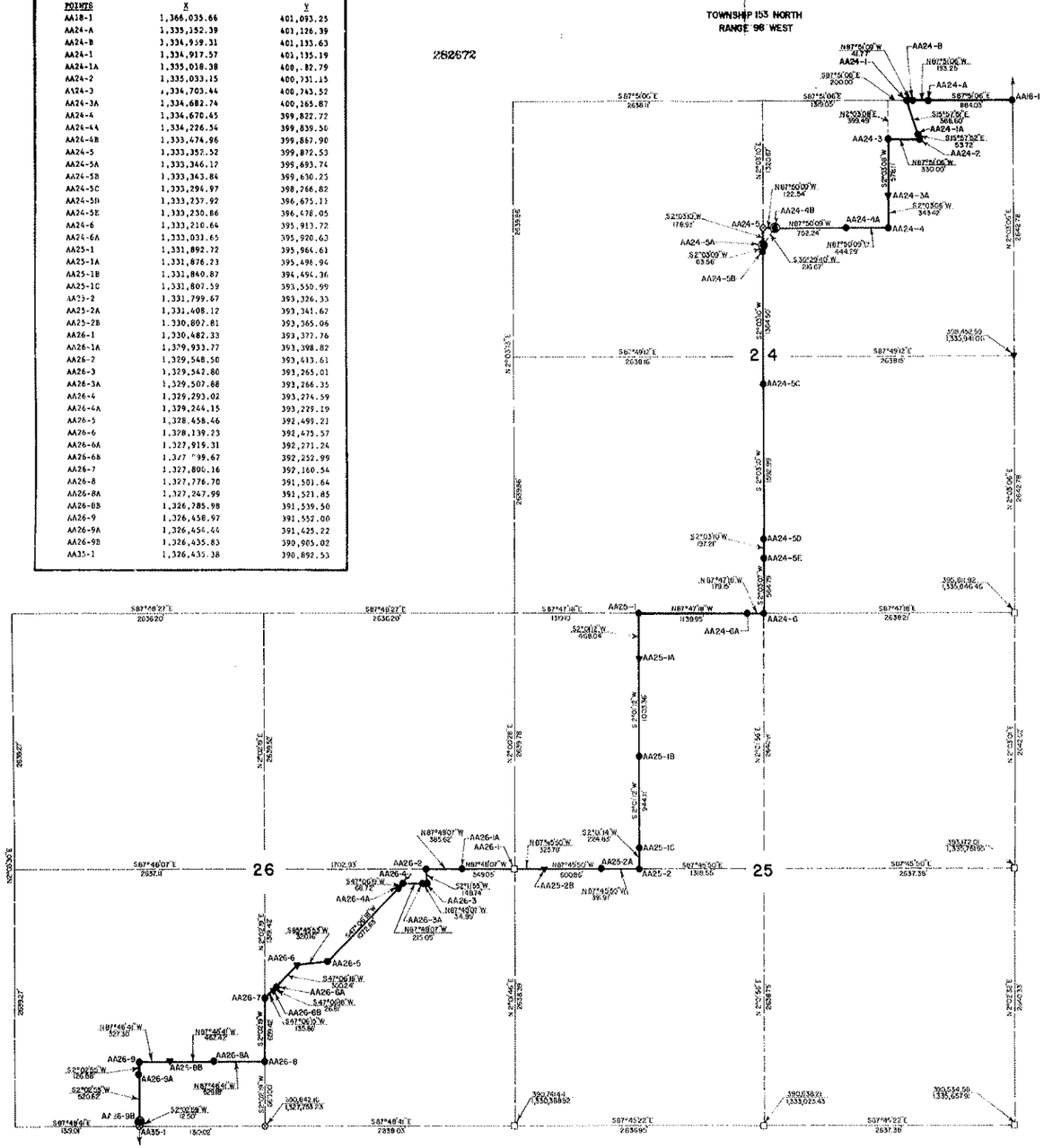
Scale: As Shown
Date: 9/27/96
Spec. No.: DACW45
Drawing Code:
Contract No.: DACW45


TOWNSHIP 153 NORTH
RANGE 98 WEST
S87°50'15"E
2627.41'
S87°50'15"E
2627.41'
N0°45'57"E
2642.68'
S87°50'15"E
2630.69'
32
S87°50'15"E
2630.69'
N0°45'57"E
2642.68'
550.67'
330.34'
T153 N
TOWNSHIP 152 NORTH
RANGE 99 WEST
N87°48'05"W
2633.95'
N87°32'54"W
2625.60'
S87°32'54"E
2625.60'
S89°31'48"E
2632.65'
S89°31'48"E
2632.65'
S87°32'29"E
2648.43'
S87°32'29"E
2638.68'
N1°27'31"E
2634.12'
N1°27'31"E
2634.12'
N2°07'34"E
2629.82'
N2°07'34"E
2629.82'
N87°49'44"W
676.53'
S87°49'44"E
676.53'
N87°49'44"W
676.53'
S87°49'44"E
676.53'
N87°49'44"W
676.53'
S87°49'44"E
676.53

POINTS	X	Y
AA18-1	1,366,033.66	401,093.25
AA24-A	1,335,352.39	401,126.39
AA24-B	1,334,939.31	401,133.63
AA24-1	1,334,917.57	401,135.19
AA24-1A	1,335,018.38	400,182.79
AA24-2	1,335,033.15	400,731.15
AA24-3	1,334,703.44	400,743.52
AA24-3A	1,334,682.74	400,165.87
AA24-4	1,334,670.45	399,822.72
AA24-4A	1,334,226.54	399,839.50
AA24-4B	1,333,474.96	399,867.90
AA24-5	1,333,352.52	399,872.53
AA24-5A	1,333,346.12	399,693.74
AA24-5B	1,333,343.84	399,630.25
AA24-5C	1,333,294.97	398,266.82
AA24-5D	1,333,237.92	396,675.11
AA24-5E	1,333,230.86	396,478.05
AA24-6	1,333,210.64	395,913.72
AA24-6A	1,333,031.65	395,920.63
AA25-1	1,331,892.72	395,966.61
AA25-1A	1,331,876.23	395,496.94
AA25-1B	1,331,840.87	394,494.36
AA25-1C	1,331,807.59	393,550.99
AA25-2	1,331,799.67	393,326.33
AA25-2A	1,331,408.12	393,341.62
AA25-2B	1,330,807.81	393,365.06
AA26-1	1,330,482.33	393,377.76
AA26-1A	1,329,933.77	393,398.82
AA26-2	1,329,548.50	393,413.61
AA26-3	1,329,542.80	393,265.01
AA26-3A	1,329,507.88	393,266.35
AA26-4	1,329,293.02	393,274.59
AA26-4A	1,329,244.15	393,229.19
AA26-5	1,328,458.46	392,499.21
AA26-6	1,328,139.23	392,475.57
AA26-6A	1,327,919.31	392,271.24
AA26-6B	1,327,[illegible]99.67	392,252.99
AA26-7	1,327,800.16	392,160.54
AA26-8	1,327,776.70	391,501.64
AA26-8A	1,327,247.99	391,521.85
AA26-8B	1,326,785.98	391,539.50
AA26-9	1,326,458.97	391,552.00
AA26-9A	1,326,456.44	391,425.22
AA26-9B	1,326,435.83	390,905.02
AA35-1	1,326,435.38	390,892.53

TOWNSHIP 153 NORTH
RANGE 96 WEST

262672



Sept 26 1996
262672
Easement for Easements
Sept 26 96

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION; THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On the 27th Day of Sept. 19 96 before me personally appeared [illegible] to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires [illegible]

RICHARD M. MODEK NOTARY PUBLIC STATE OF NORTH DAKOTA

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ◉ BOUNDARY REFERENCE MARKER SET
- ⊗ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISYANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.9998427

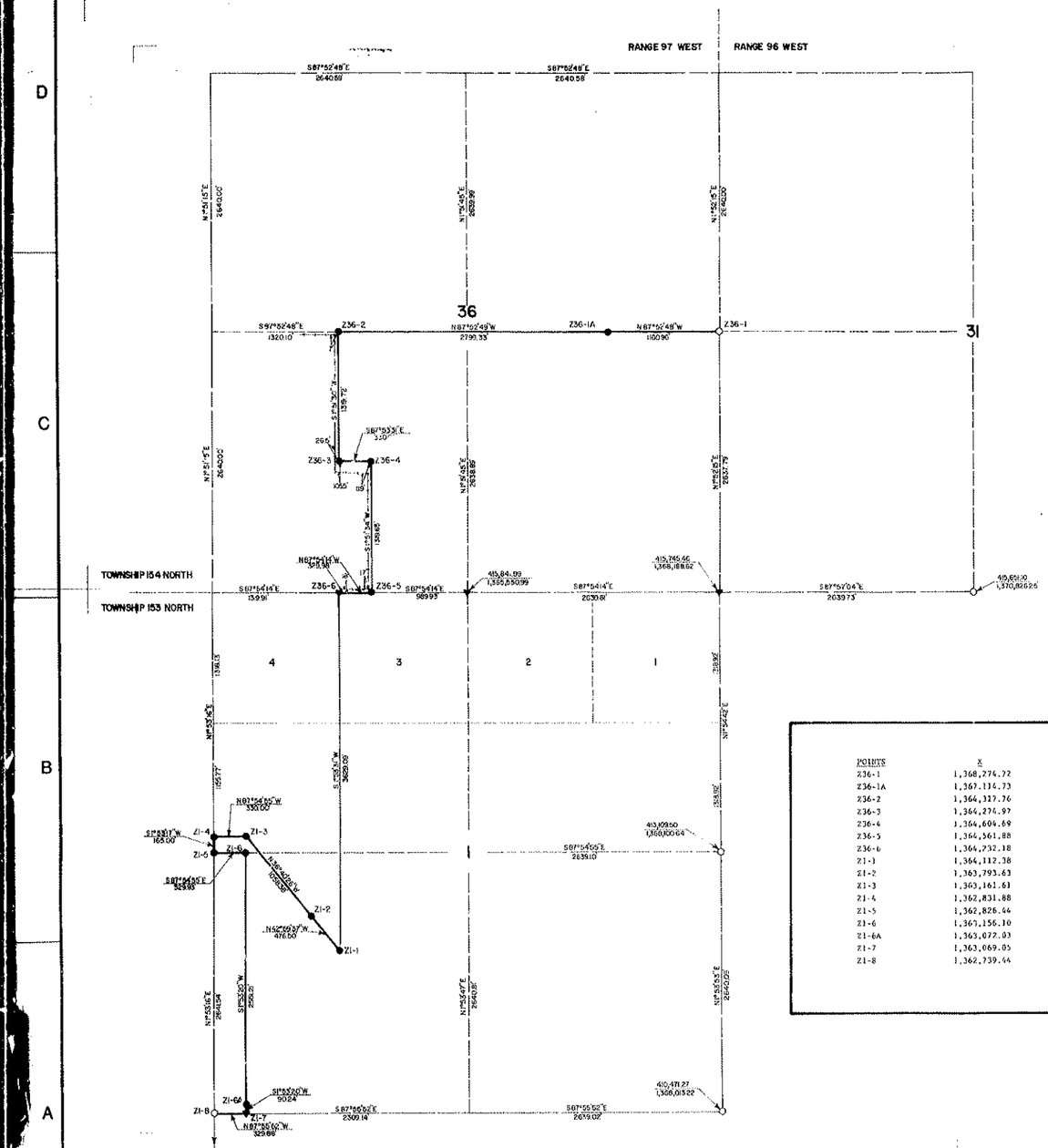
PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM—LAKE SAKAKAWEA
Checked by:	SEGMENT AA
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by:	RESURVEY AND MONUMENTATION
Chief: Section	Scale: As Shown; Date: 9/6/96
	Spec. No.: DACW45; Drawing Code:
	Contract No.: DACW45



POINTS	X	Y
Z36-1	1,368,274.72	413,381.43
Z36-1A	1,367,114.73	418,424.37
Z36-2	1,364,317.76	418,527.90
Z36-3	1,364,274.97	417,209.08
Z36-4	1,364,604.69	417,196.94
Z36-5	1,364,561.88	415,878.19
Z36-6	1,364,232.18	415,890.26
Z1-1	1,364,112.38	412,263.73
Z1-2	1,363,793.63	412,603.62
Z1-3	1,363,161.61	413,454.38
Z1-4	1,362,831.88	413,466.36
Z1-5	1,362,826.44	413,301.47
Z1-6	1,363,156.10	413,289.47
Z1-6A	1,363,072.03	410,740.05
Z1-7	1,363,069.05	410,649.87
Z1-8	1,362,739.44	410,661.78

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION, THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

Thos. N. Harris

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 12th Day of April 1984 before me personally appeared Thos. N. Harris to me known to be the person named in and who executed the foregoing instrument

Notary Public
State of North Dakota
My Commission Expires 4-6-88

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

4 Dept 16 Dec Feb
2S2677
Cecelia Johnson
3 pd
4 pcs

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S. GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES, ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.999E427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

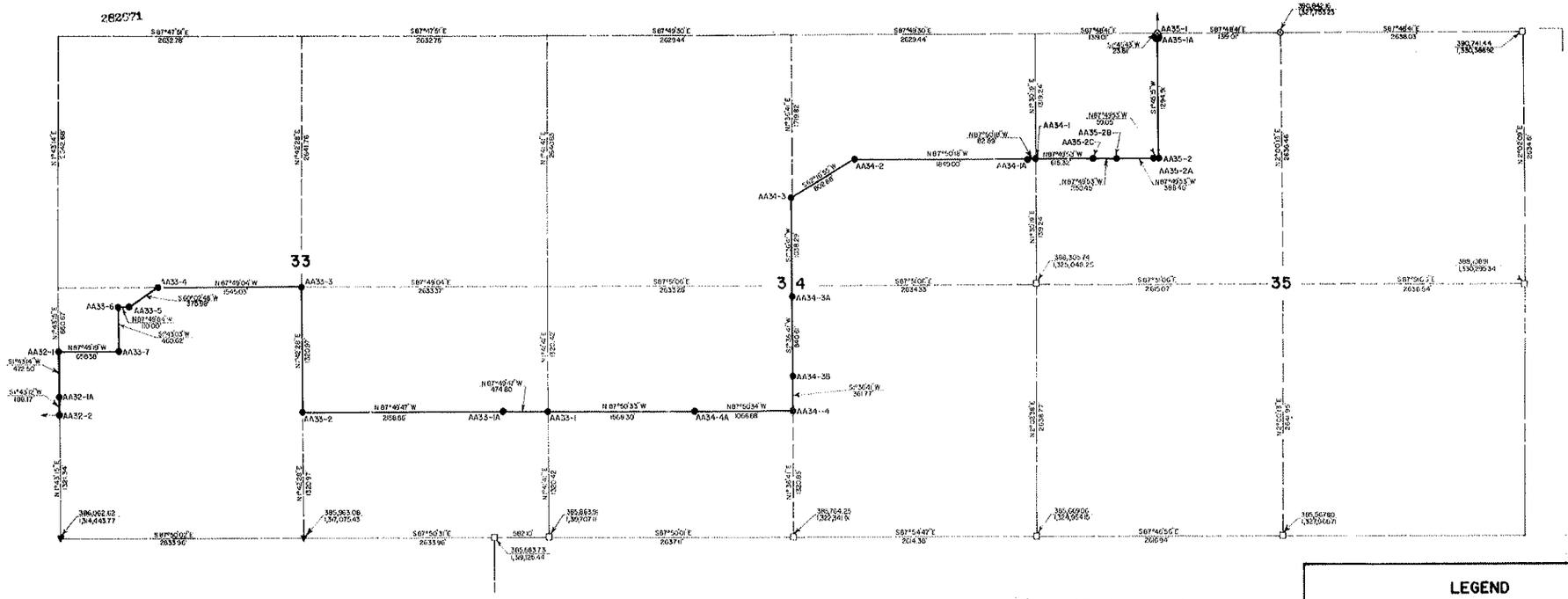
Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM — LAKE SAKAKAWEA
Checked by:	SEGMENT 2
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by:	RESURVEY AND MONUMENTATION
Chief: Section	Scale: As Shown — Date: 4/2/84
	Spec. No.: DACW45 — Drawing Code:
	Contract No.: DACW45

TOWNSHIP 153 NORTH
RANGE 98 WEST



POINTS	X	Y
AA35-1	1,326,435.38	390,892.53
AA35-1A	1,326,434.65	390,868.73
AA35-2	1,326,395.02	389,574.63
AA35-2A	1,326,336.02	389,576.86
AA35-2B	1,325,947.90	389,591.56
AA35-2C	1,325,697.67	389,601.04
AA34-1	1,325,082.89	389,624.37
AA34-1A	1,325,000.07	389,627.44
AA34-2	1,323,152.69	389,697.17
AA34-3	1,322,442.05	389,323.79
AA34-3A	1,322,412.86	388,286.08
AA34-3B	1,322,389.22	387,445.93
AA34-4	1,322,379.05	387,084.36
AA34-4A	1,321,313.10	387,124.52
AA33-1	1,319,746.15	387,183.55
AA33-1A	1,319,271.76	387,201.52
AA33-2	1,317,114.79	387,283.26
AA33-3	1,317,156.15	388,603.44
AA33-4	1,315,610.49	388,662.26
AA33-5	1,315,286.78	388,474.56
AA33-6	1,315,174.88	388,478.75
AA33-7	1,315,161.07	388,018.41
AA32-1	1,314,503.27	388,043.43
AA32-1A	1,314,489.09	387,571.21
AA32-2	1,314,483.44	387,383.16

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

REGISTERED LAND SURVEYOR 1117 NORTH DAKOTA

Subscribed and sworn to before me this 6th day of April 1994

RICHARD H. MOCK NOTARY PUBLIC STATE OF NORTH DAKOTA

personally appeared Richard H. Mock known to be the person named in and who executed the foregoing instrument

Notary Public
State of North Dakota
My Commission Expires [illegible]

LEGEND

- □ ORIGINAL MONUMENT FOUND (STONE)
- ○ GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- ▽ IRON MONUMENT FOUND (REBAR OR PIPE)
- ▼ REBAR WITH CAP SET
- ○ CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- ● CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- ◎ BOUNDARY REFERENCE MARKER FOUND
- ◉ BOUNDARY REFERENCE MARKER SET
- ⊘ BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- ——— U.S. GOVERNMENT BOUNDARY
- ——— SECTION LINE
- ——— QUARTER LINE
- ——— SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: R.H.S.
Reviewed by:
Submitted by:
Chief: Section:

MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 4/6/94
Spec. No.: DACW45
Contract No.: DACW45
Drawing Code:

282678

POINTS	X	Y
Z1-8	1,362,739.44	410,661.78
Z11-A	1,362,724.16	410,199.36
Z11-1	1,362,695.90	409,343.70
Z11-2	1,362,036.00	409,319.67
Z11-3	1,361,992.48	408,051.55
Z11-4	1,361,332.61	408,077.48
Z11-4A	1,361,279.43	406,465.82
Z11-4B	1,361,256.42	405,768.73
Z11-5	1,361,245.61	405,441.22
Z11-5A	1,360,377.92	405,475.25
Z11-6	1,359,926.00	405,492.98
Z11-7	1,359,969.43	406,811.16
Z11-8	1,358,650.03	406,862.96
Z11-8A	1,358,728.02	409,217.61
Z11-9	1,358,759.19	410,158.57
Z11-9A	1,359,401.72	410,133.29
Z11-10	1,359,778.30	410,118.48
Z11-11	1,360,089.86	410,466.01
Z11-12	1,360,099.74	410,765.80
Z10-1	1,357,301.37	406,035.38
Z10-2	1,356,656.37	406,058.22
Z10-3	1,357,057.36	406,819.39
Z10-4	1,357,137.29	406,966.63
Z10-5	1,357,159.77	407,060.86
Z10-6	1,357,197.23	407,264.64
Z10-7	1,357,076.49	407,393.98
Z10-8	1,356,776.72	407,406.59
Z10-9	1,356,833.36	407,602.68
Z10-10	1,357,139.09	407,771.94
Z10-11	1,357,358.92	407,764.15
Z2-A	1,360,166.66	412,769.21
Z2-B	1,360,183.88	413,284.88
Z2-1	1,360,187.88	413,404.63
Z2-1A	1,359,564.69	413,428.99
Z2-2	1,359,528.55	413,430.41
Z2-2A	1,359,562.93	414,459.77
Z2-3	1,359,572.40	414,749.42
Z2-3A	1,359,973.14	414,733.86
Z2-4	1,360,891.42	414,698.18
Z2-5	1,360,935.14	416,010.92
Z2-6	1,360,605.44	416,023.00
Z1-4	1,362,831.88	413,466.36
Z1-5	1,362,826.44	413,301.47

TOWNSHIP 153 NORTH
RANGE 97 WEST

282678

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 8th Day of April 19 96 before me personally appeared Lee H. Kantz to me known to be the person named in and who executed the foregoing instrument.

Notary Public
State of North Dakota
My Commission Expires 4-8-96

RICHARD M. MOSER NOTARY PUBLIC STATE OF NORTH DAKOTA

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

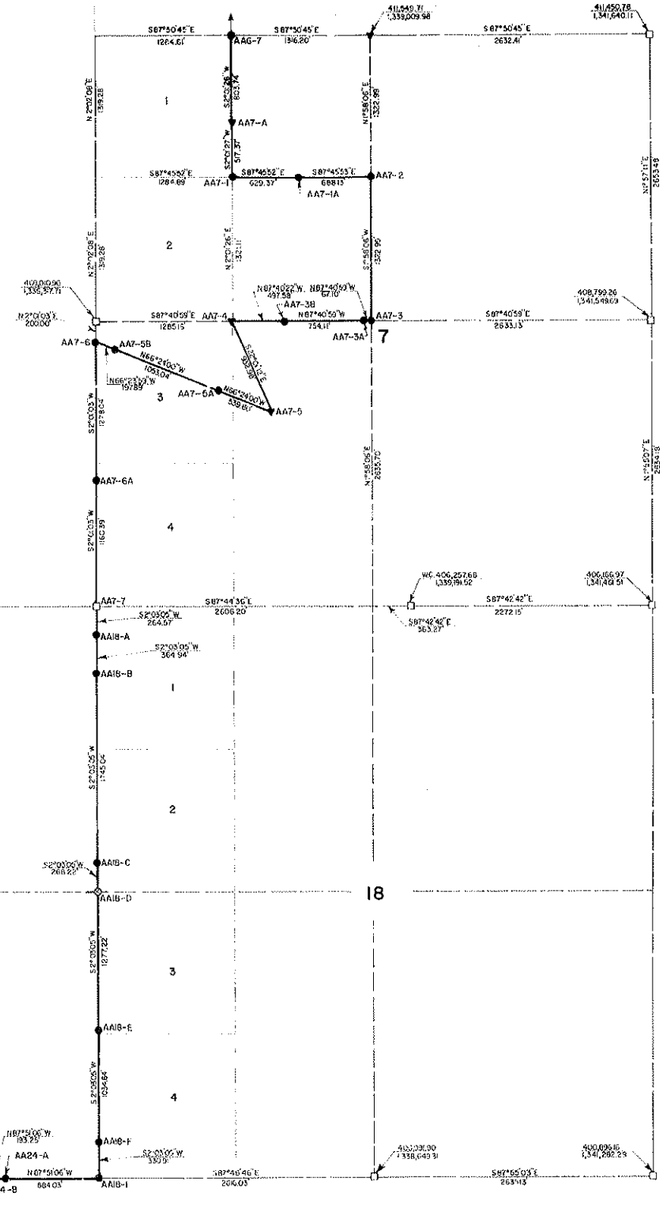
Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM—LAKE SAKAKAWEA
Checked by:	SEGMENT Z
Reviewed by:	U.S. GOVERNMENT BOUNDARY
Submitted by:	RESURVEY AND MONUMENTATION
Chief, Section	Scale: As Shown — Date: 4/4/96
	Spec. No.: DACW45 — Drawing Code:
	Contract No.: DACW45

282573

TOWNSHIP 153 NORTH

RANGE 98 WEST | RANGE 97 WEST

POINT	X	Y
AA6-7	1,337,694.92	411,599.17
AA7-A	1,337,666.53	410,796.06
AA7-1	1,337,648.26	410,279.09
AA7-1A	1,338,277.06	410,254.55
AA7-2	1,338,964.55	410,227.71
AA7-3	1,338,919.12	408,905.71
AA7-3A	1,338,852.09	408,908.47
AA7-3B	1,338,098.71	408,938.90
AA7-4	1,337,601.61	408,959.11
AA7-5	1,337,952.36	408,094.31
AA7-5A	1,337,456.79	408,310.39
AA7-5B	1,336,491.97	408,731.91
AA7-6	1,336,310.67	408,811.12
AA7-6A	1,336,265.68	407,534.07
AA7-7	1,336,224.84	406,374.58
AA18-A	1,336,215.37	406,110.22
AA18-B	1,336,202.31	405,745.58
AA18-C	1,336,139.85	404,001.93
AA18-D	1,336,130.25	403,733.92
AA18-E	1,336,084.54	402,457.71
AA18-F	1,336,047.51	401,423.90
AA18-1	1,336,035.66	401,093.25
AA24-A	1,335,152.39	401,126.39
AA24-B	1,334,959.31	401,133.63
AA24-1	1,334,917.57	401,135.19



282573

Lot 1 in Sec 13 Hill
Grantee Deed
of Book

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION. THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA.

REGISTERED LAND SURVEYOR 3880 RICHARD M. MOSER NORTH DAKOTA

On this 29th Day of March 19 96 before me personally appeared Richard M. Moser to me known to be the person named in and who executed the foregoing instrument

Notary Public
State of North Dakota
My Commission Expires 4-12-97

NOTARY PUBLIC STATE OF NORTH DAKOTA

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.9998427

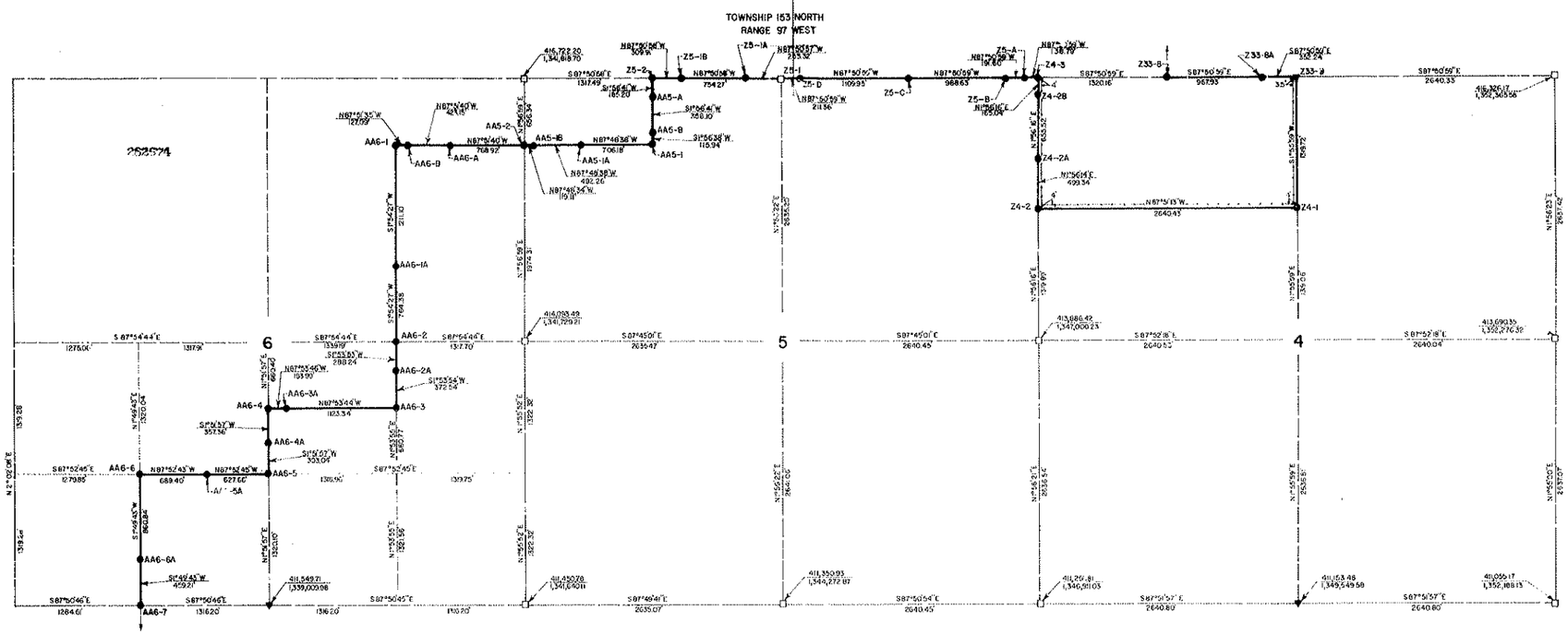
PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	MISSOURI RIVER
Drawn by: H.T.E.	GARRISON DAM—LAKE SAKAKAWEA SEGMENT AA U.S. GOVERNMENT BOUNDARY RESURVEY AND MONUMENTATION
Checked by: R.M.M.	
Reviewed by:	Scale: As Shown — Date: 4/8/96
Submitted by:	Spec. No.: DACW45 — Drawing Code:
Chief: Section	Contract No.: DACW45



POINTS	X	Y
Z33-8	1,348,408.49	416,474.76
Z33-8A	1,349,375.59	416,438.44
Z33-9	1,349,727.53	416,425.23
Z4-1	1,349,683.82	415,106.47
Z4-2	1,347,044.85	415,205.35
Z4-2A	1,347,061.73	415,704.32
Z4-2B	1,347,083.89	416,359.36
Z4-3	1,347,089.47	416,526.28
Z5-A	1,346,950.80	416,529.49
Z5-B	1,346,759.37	416,536.68
Z5-C	1,345,771.59	416,573.76
Z5-D	1,344,662.80	416,615.40
Z5-1	1,344,451.42	416,623.33
Z5-1A	1,344,198.32	416,632.84
Z5-1B	1,343,444.70	416,661.14
Z5-2	1,343,135.06	416,672.76
AA5-A	1,343,120.77	416,487.70
AA5-B	1,343,116.69	416,331.86
AA5-1	1,343,112.76	416,016.01
AA5-1A	1,342,407.21	416,042.98
AA5-1B	1,341,915 .8	416,061.78
AA5-2	1,341,796.37	416,066.34
AA6-A	1,341,028.11	416,095.03
AA6-B	1,340,605.32	416,110.82
AA6-1	1,340,478.34	416,115.56
AA6-1A	1,340,438.03	414,905.33
AA6-2	1,340,412.59	414,141.49
AA6-2A	1,340,403.05	413,853.45
AA6-3	1,340,390.71	413,481.18
AA6-3A	1,339,268.31	413,522.42
AA6-4	1,339,074.48	413,529.54
AA6-4A	1,339,062.84	413,172.43
AA6-5	1,339,052.98	412,869.60
AA6-5A	1,338,425.85	412,892.82
AA6-6	1,337,737.03	412,918.34
AA6-6A	1,337,709.57	412,058.97
AA6-7	1,337,694.92	411,599.17

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION; THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

Sept 26 2000
262574
Executed for record
5 PM
1 pgs

RICHARD M. MUSTY NOTARY PUBLIC STATE OF NORTH DAKOTA

On this 26th Day of Sept 19 00, before me personally appeared Richard M. Musty to me known to be the person named in and who executed the forgoing instrument

Notary Public
State of North Dakota
My Commission Expires 4-8-03

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY REFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)

GG32-2 POINT NUMBER

U.S. GOVERNMENT BOUNDARY

SECTION LINE

QUARTER LINE

SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR = 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

$$ — THINK VALUE ENGINEERING — $$

Revisions

Symbol	Descriptions	Date	Approved

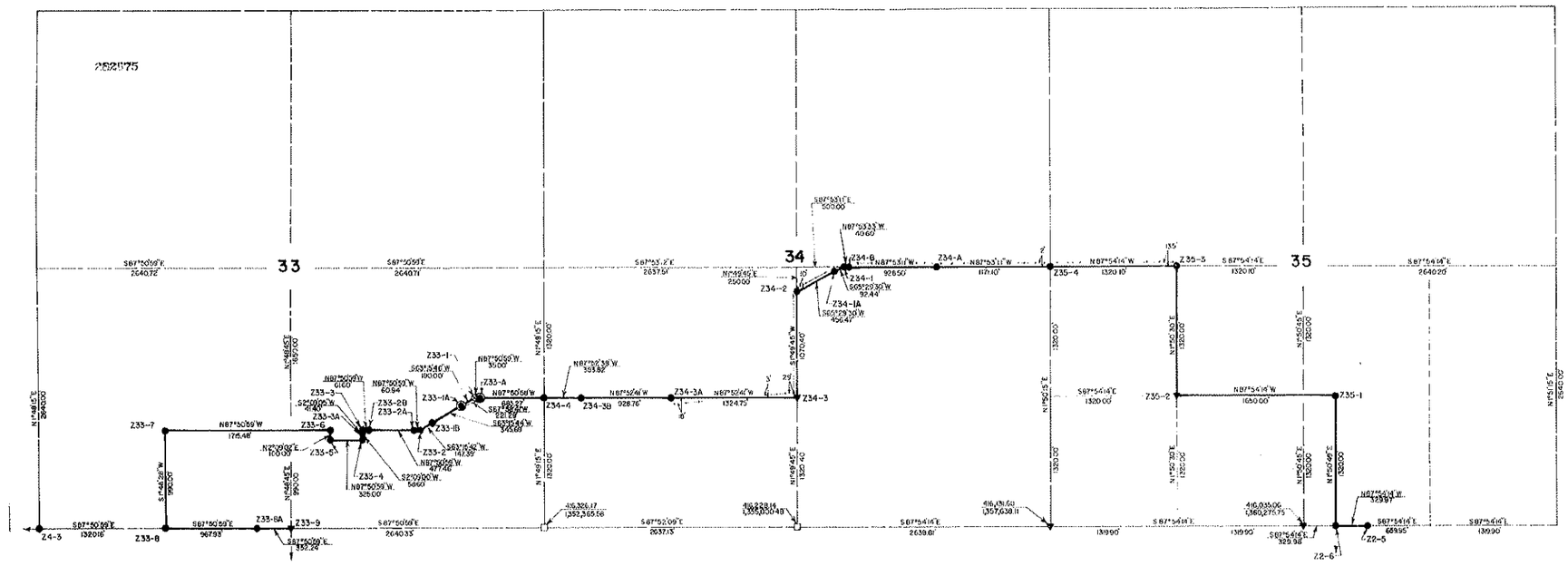
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
Drawn by: H.T.E.
Checked by: PNX
Reviewed by:
Submitted by:
Chief: Section

MISSOURI RIVER
GARRISON DAM—LAKE SAKAKAWEA
SEGMENT Z AND AA
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Scale: As Shown
Date: 9/6/00
Spec. No.: DACW45
Drawing Code:
Contract No.: DACW45

TOWNSHIP 154 NORTH
RANGE 97 WEST



POINT	X	Y
22-5	1,360,935.14	416,010.99
22-6	1,360,605.44	416,023.00
Z35-1	1,360,647.97	417,342.10
Z35-2	1,358,999.34	417,402.44
Z35-3	1,359,041.75	418,721.55
Z35-4	1,357,722.25	418,769.82
Z34-A	1,356,552.63	418,813.01
Z34-B	1,355,624.90	418,847.25
Z34-1	1,355,584.34	418,848.74
Z34-1A	1,355,590.24	418,810.40
Z34-2	1,355,076.78	418,617.34
Z34-3	1,355,042.62	417,547.66
A34-3A	1,353,718.99	417,596.70
Z34-3B	1,352,791.01	417,631.08
Z34-4	1,352,407.51	417,645.30
Z33-A	1,351,722.84	417,671.01
Z33-1	1,351,687.87	417,672.32
Z33-1A	1,351,518.21	417,586.85
ZZ33-1B	1,351,209.53	417,431.35
ZZ33-2	1,351,077.93	417,365.05
Z33-2A	1,351,017.04	417,367.33
Z33-2B	1,350,539.99	417,385.25
Z33-3	1,350,478.44	417,387.56
Z33-3A	1,350,476.89	417,346.19
Z33-4	1,350,474.69	417,287.64
Z33-5	1,350,140.97	417,299.84
Z33-6	1,350,153.72	417,399.75
Z33-7	1,348,439.72	417,464.10
Z33-8	1,348,408.49	416,474.76
Z33-8A	1,349,375.59	416,438.44
Z33-9	1,349,727.53	416,425.23
Z4-3	1,347,089.47	416,524.28

LEGEND

- ORIGINAL MONUMENT FOUND (STONE)
- GOVERNMENT RESURVEY MONUMENT FOUND (BRASS CAP)
- IRON MONUMENT FOUND (REBAR OR PIPE)
- REBAR WITH CAP SET
- CORPS OF ENGINEERS MONUMENT FOUND (T IRON)
- CORPS OF ENGINEERS MONUMENT SET (4" ALUMINUM CAP)
- BOUNDARY REFERENCE MARKER FOUND
- BOUNDARY RLFERENCE MARKER SET
- BOUNDARY CORNER (INACCESSIBLE)
- GG32-2 POINT NUMBER
- U.S GOVERNMENT BOUNDARY
- SECTION LINE
- QUARTER LINE
- SURVEY LINE

ALL DISTANCES ARE GROUND DISTANCES; ALL COORDINATES ARE ON GRID SYSTEM.

GRID FACTOR= 0.9998427

PLATTED BEARINGS ARE DERIVED FROM NORTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

Papers 16 and 17 of 282675 Excess Quantities 5 pp. 2a yds.

I HEREBY CERTIFY THAT THIS IS A CORRECT REPRESENTATION OF A SURVEY DONE BY ME OR UNDER MY DIRECT SUPERVISION, THAT ALL DISTANCES ARE CORRECT AND MONUMENTS ARE PLACED IN THE GROUND AS SHOWN AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NORTH DAKOTA

Richard N. Kuntz

REGISTERED LAND SURVEYOR 1177 NORTH DAKOTA

On this 28th Day of April, 19 82, before me personally appeared Richard N. Kuntz to me known to be the person named in and who executed the forgoing instrument.

Notary Public
State of North Dakota
My Commission Expires 7-1-88

RICHARD N. MOELLER NOTARY PUBLIC STATE OF NORTH DAKOTA

$$ — THINK VALUE ENGINEERING — $$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

MISSOURI RIVER
GARRISON DAM — LAKE SAKAKAWEA
SEGMENT Z
U.S. GOVERNMENT BOUNDARY
RESURVEY AND MONUMENTATION

Designed by:	Scale: As Shown	Date: 4/6/82
Drawn by: H.T.E.	Spec. No.: DACW45	Drawing Code:
Checked by: R.N.K.	Contract No.: DACW45	
Reviewed by:		
Submitted by: Chief, Section		

AS-BUILT DATA

115 N.W.2d 12 (1962)

Thomas M. JENNINGS, Plaintiff and Respondent,

v.

George E. SHIPP, Pearl Shipp, and all other persons unknown claiming any estate or interest in, or lien or encumbrance upon the property described in the Complaint, Defendants and Appellants.

No. 7976.

Supreme Court of North Dakota.

May 4, 1962.

13 *13 Jansonius, Fleck, Smith, Mather & Strutz, Bismarck, N. D., for defendants and appellants.

Thompson & Lundberg, Bismarck, N. D., for plaintiff and respondent.

RAY R. FRIEDERICH, District Judge.

This is an action to quiet title. By the original Government Survey in 1874, fractional Section 10, Township 139 North, Range 81 West, was laid out in the form of an isosceles right triangle, the north side being 24.8 chains in length, the east side 25.17 chains, and the hypotenuse of the triangle being the meander line along the east bank of the Missouri River running north 44¾ degrees west, a length of 35.2 chains. This triangular tract contained 36.21 acres, and was designated as Lot 1 in the foregoing section. The United States Government conveyed the property by patent to the plaintiff's predecessor in interest. Prior to the commencement of this action, the plaintiff conveyed to one who is not a party to this action all of the property comprising the original triangle, it being his intention to retain the accretions to the original tract. The Missouri River, which constituted the boundary on one side of this triangular tract, has characteristically been known to undulate in varying degrees, thereby causing either accretion or reliction of property bounded by the river. According to the testimony, over a period of approximately forty years, either by the recession of the stream or by the accumulation of various materials, an accreted area has developed to where the river now is approximately 1536 feet from the original meander line, leaving a substantial tract of land between the meander line and the present water line. From an examination of all the evidence it would appear that the meander line as
14 established *14 by the 1874 original survey was also the approximate shore line or water line on that date. The issues involve the ownership of lands formed as an accretion to the east bank of the Missouri River that formed between the meander line as established by the original survey of 1874 and the present bank of the Missouri River. The plaintiff brought this action to quiet title to a portion of the accreted lands. The defendants counterclaimed and asked that title be quieted in them to a portion of the same lands.

More specifically, it is claimed that the plaintiff having conveyed the upland, of which the accretions became a part, such accretions passed to the grantee of the upland, even though not described in the conveyance. The defendants further contend that the trial court did not apportion the new shore line in proportion to the respective frontage on the old shore line. It is contended by the defendants that they have acquired an interest in the accreted portion by adverse possession and are therefore entitled to it irrespective of the rule applicable to the division of accreted lands. Plaintiff, the respondent herein, maintained in the lower court, and claims here, that the north and east section lines of Section 10 should be extended to the present water line, and that all accreted areas between these extended lines are a part of the original Lot 1.

Certain matters have been so well settled that they may be summarily disposed of at the outset. In Oberly v. Carpenter, 67 N.D. 495, 274 N.W. 509-513, this Court said:

> "The defendants further insist that, in any event, the new land thus added to the plaintiff's land and to which plaintiff claims title under section 5473, cannot extend beyond the section line between section 24 and 25, and section 23 and 26. The first answer to this contention is that at the time of the survey this section line was not run north of the river. The second and conclusive answer is that the law governing riparian rights has no regard for artificial boundary lines, whether between sections or their subdivisions, or between counties, states, or nations. See the illuminating opinion of Mr. Justice Brewer in Nebraska v. Iowa, [143 U.S. 359, 12 S.Ct. 396, 36 L.Ed. 186] supra. See, also, Widdecombe v. Chiles, 173 Mo. 195, 73 S.W. 444, 61 L.R.A. 309, 96 Am.St.Rep. 507; Yearsley v. Gipple, 104 Neb. 88, 175 N.W. 641, 8 A.L.R. 636; Doebbeling v. Hall et al., 310 Mo. 204, 274 S.W. 1049, 41 A.L.R. 382."

From this holding it is quite conclusive that the defendants' contention that the east and north section lines of Section 10 should be extended until they reach the present water line is without foundation.

The trial court found that the defendants' claim of title by adverse possession is not substantiated by the evidence, and we concur in this finding.

As to the claim that a conveyance of the upland presumptively carries with it the accretion attached thereto, we find such a presumption rebuttable. Lynch v. Kupfer, 134 Cal.App. 652, 26 P.2d 33-34. Evidence may show an intent to separate the two. The evidence in this case shows that the last portion of the original tract was conveyed on August 5, 1949. The only person who might claim an interest in this accretion is the grantee of the original tract contiguous to it, and he apparently has laid no claim to it, at least the record does not reflect such a claim. In a Nebraska case, Conkey v. Knudsen, 135 Neb. 890, 284 N.W. 737-739, the Court said:

> "It is clear in the record that after plaintiff sold the south half of the north half of section 13 to Christensen, he retained possession of the accretions thereto. The only person who might establish a record title to any of these accretions is Christensen and he disclaims any interest
15 therein. We *15 think plaintiff has sufficient title to maintain this suit against these defendants under the holding in Ellsworth Corporation v. Stratbucker, supra (134 Neb. 246, 278 N.W. [381], 382)."

Having thus eliminated the claim of adverse possession, and the contention that plaintiff no longer retains an interest in the accreted tract sufficient to substantiate a quiet title action, we now confine our discussion to the real problem, that is, the establishment of the boundary line, or in other words, the division of the accretion that has resulted since the original Government Survey in 1874.

A search of the North Dakota case law does not reveal this precise question has ever been before this Court. In most of our neighboring states where the Missouri River also persists in the privilege of changing its course from time to time, such as South Dakota, Iowa and Nebraska, this question has been litigated. The trial court has correctly stated the rule of law, commonly known as the doctrine of accretion, namely;

> "The fundamental theory underlying the ownership of accretions is that each of the several riparian owners shall have a frontage on the new shore proportionate to his frontage on the old one, connecting their respective points by straight lines. * * *
>
> "The main objects to be kept in view in any division of accretions is that the division shall be equitable and that it shall be proportional so as to give each shore owner a fair share of the land to be divided and his due portion of the new shore line proportionate to his share on the original line of the water." Gardner v. Green, 67 N.D. 268, 271 N.W. 775.

See also: Berry v. Hoogendoorn, 133 Iowa 437, 108 N.W. 923; Hathaway v. City of Milwaukee, 132 Wis. 249, 111 N.W. 570, 9 L.R.A.,N.S., 778, 122 Am.St.Rep. 975, rehearing denied 132 Wis. 249, 112 N.W. 455, 9 L.R.A.,N.S., 778, 122 Am.St. Rep. 975.

It is in the application of this rule of law that difficulty arises. Much emphasis by both counsel for the plaintiff and the defendants has been placed upon the rule of law laid down by this Court in the case of Gardner v. Green, supra. In that case, page 783 of 271 N.W. we said:

> "But the survey line between lots 5 and 7 is not to be projected for the purpose of dividing accretions, that is, land that came into existence after the lots were laid out. Kehr v. Snyder, 114 Ill. 313-317, 2 N.E. 68, 55 Am.Rep. 866. It is to be projected only for the purpose of establishing the boundaries of the tracts as they were laid out, and to divide land then in existence between the meander line, as shown on the plat, and the shore line of the river. Land formed subsequent to the time the lots were laid out *must be apportioned among the owners of lands fronting on the river in accordance with the rules applicable to the apportionment of accretions.*" (Emphasis ours.)

In other words, Gardner v. Green, supra, is not authority in the instant case, because in the Green case the dispute involved a tract of land between the meander line and the shore line of the river as it existed at the time of the official United States Government Survey. In the instant case the meander line and the shore line were substantially the same at the time of the 1874 U. S. Government Survey, and the problem is strictly concerned with the rules applicable to the apportionment of accretions. Having stated the rule of law which governs, we examine its applicability.

The Nebraska court, reviewing this rule of law in Conkey v. Knudsen, 143 Neb. 5, 8 N.W.2d 538, quotes another text writer as follows:

> "'The division of such rights among riparian owners has been a fruitful source of litigation and
16 the courts have *16 promulgated certain rules for the partition thereof, which have been exceedingly useful to the professions. Among such rules we find the following: 1. Measure the ancient bank and compute the number of feet owned by each proprietor. 2. Divide the new bank into as many equal parts as there were feet in the old bank and draw lines from the old points of division to the new ones.' Clark, Surveying and Boundaries, 2d Ed., sec. 251. As early as 1835 the supreme court of Massachusetts applied the foregoing rule in the following language: `The rule is, 1. To measure the whole extent of the ancient bank or line of the river, and compute how many rods, yards or feet, each riparian proprietor owned on the river line. 2. The next step is, supposing the former line, for instance, to amount to 200 rods, to divide the newly formed bank or river line into 200 equal parts, and appropriate to each proprietor as many portions of this new river line, as he owned rods on the old. Then, to complete the division, lines are to be drawn from the points at which the proprietors respectively bounded on the old, to the points thus determined as the points of division on the newly formed shore. The new lines, thus formed, it is obvious, will be either parallel, or divergent, or convergent, according as the new shore line of the river equals, or exceeds or falls short of the old.'"

The application of this rule as outlined in the previous quotation appears to us to be practical and sensible. It is obvious, however, that certain evidentiary facts are absolutely necessary before this rule can be applied properly. In one of the earlier Iowa cases, Berry v. Hoogendoorn, 133 Iowa 437, 108 N.W. 923, the Court was confronted with much the same problem we are in this case. At page 926 of 108 N.W. the Court said:

> "We understand from the authorities on the subject that it would be necessary to ascertain the length of the new shore line between the points of its departure from the old shore line and the length of the corresponding portion of the old shore line, so that the new line might be apportioned in parts corresponding to the parts of the old shore line belonging to the different owners. If this had been done, then the accretions would be divided up by running straight lines from the points on the old line to the corresponding points on the new."

While the trial court has correctly stated the rule of law, it is mathematically impossible to apply this rule of law in the apportionment of the new shore line to that of the old, when the entire length of either the new or the old shore line is not included in the evidence. The Court, in the Hoogendoorn case, supra, said:

> "Without such means of apportionment, we are unable to say how much of the shore line south of the point F on the plat should have been apportioned to plaintiff."

The trial court in the instant case drew a line from the northwest corner of the original triangular plot perpendicular to the river, and then drew another line through the southeast corner of the triangle to the river and parallel to the first line. The accreted area between these two parallel lines, the Court held, was the area accreted to Lot 1 of Section 10. Whether these two lines should be parallel, divergent or convergent could only be determined after ascertaining the length of the old shore line and the length of the new shore line and appropriating to each proprietor along the accreted area a proportionate portion of the new river line. By applying the rule in the proportional division of accreted land among the riparian owners, the lines formulating the boundary would be parallel only if the new shore line were exactly the same length as the old shore line.
17 That this is not true in the instant case is clearly evident from an examination of Exhibit 10, and from *17 the further fact that the hypotenuse of the original triangle of Lot 1, Section 10, ran north 44¾ degrees west, while the hypotenuse of a triangle formed by the extension of the east and north boundaries of Section 10 now runs north 39' 14" west, as shown by Plaintiff's Exhibit 1.

This case is here for trial de novo under Section 28-27-32, NDCC. What we have heretofore said resolves all the issues of title except the establishment of a dividing line between portions of the accreted lands claimed by the contending parties. We have also determined that the trial court stated the correct rule by which the division shall be determined, but the record does not contain and there was not before the trial court sufficient evidence for the proper application of that rule. The old shore line against which the accretions were built has been conceded to be the meander line established by the 1874 survey. The length of that line to the extent that it formed the original boundary of the property in dispute can be calculated from the exhibits showing the original survey but the determination of the length of the part of the present shore line to which these litigants are entitled cannot be determined or calculated from the exhibits or other evidence in the record. That determination will require establishment of the points of departure (which cannot be located from the evidence in the record) of the present shore line from the line of the old shore and the determination of the lengths of both shore lines with respect to the entire body of accreted land. When the lengths of the shore lines between the points of departure have been ascertained it will be possible to determine the proportionate share of the present shore line to which each riparian owner is entitled, including the shares of the litigants.

The trial court attempted to make a determination of the dividing line between the properties of the parties to this action as best he could with the evidence before him. His decision seemingly approaches the result that would be obtained by applying the rule after all the facts necessary to a decision have been established. However, we cannot affirm or reverse a judgment on the basis of conjecture.

The record does not show the value of the land in dispute or afford a basis for estimating the cost of determining the length of the present shore line which may require extensive surveys. It may be that the expense of a new trial of this issue may be disproportionate to the benefits that can be obtained by either party upon a new trial of the issue involved in locating the dividing line.

As stated in McCoy v. Paxton, 156 Iowa 194, 135 N.W. 1091:

> "* * * it is entirely competent for the adjoining owners to agree how the accreted land shall be divided, and this is true regardless of the exact legal right that either may have therein."

The case is remanded for a new trial on the question of the lengths of the shore lines with respect to the accreted properties claimed by the respective parties. After they have been established, the trial court is directed to apportion the new shore line between the parties in parts corresponding to the ownership of the old

shore line, and determine the boundary line between the two tracts by drawing a straight line between a point on one shore line where the segments owned by the respective parties join to a similar point on the other shore line and modify or amend the judgment accordingly.

A new trial conformable to this opinion is ordered.

SATHRE, C. J., and MORRIS, BURKE and TEIGEN, JJ., concur.

STRUTZ, J., deeming himself disqualified did not participate, Honorable RAY R. FRIEDERICH, one of the Judges of the Second Judicial District, sitting in his stead.

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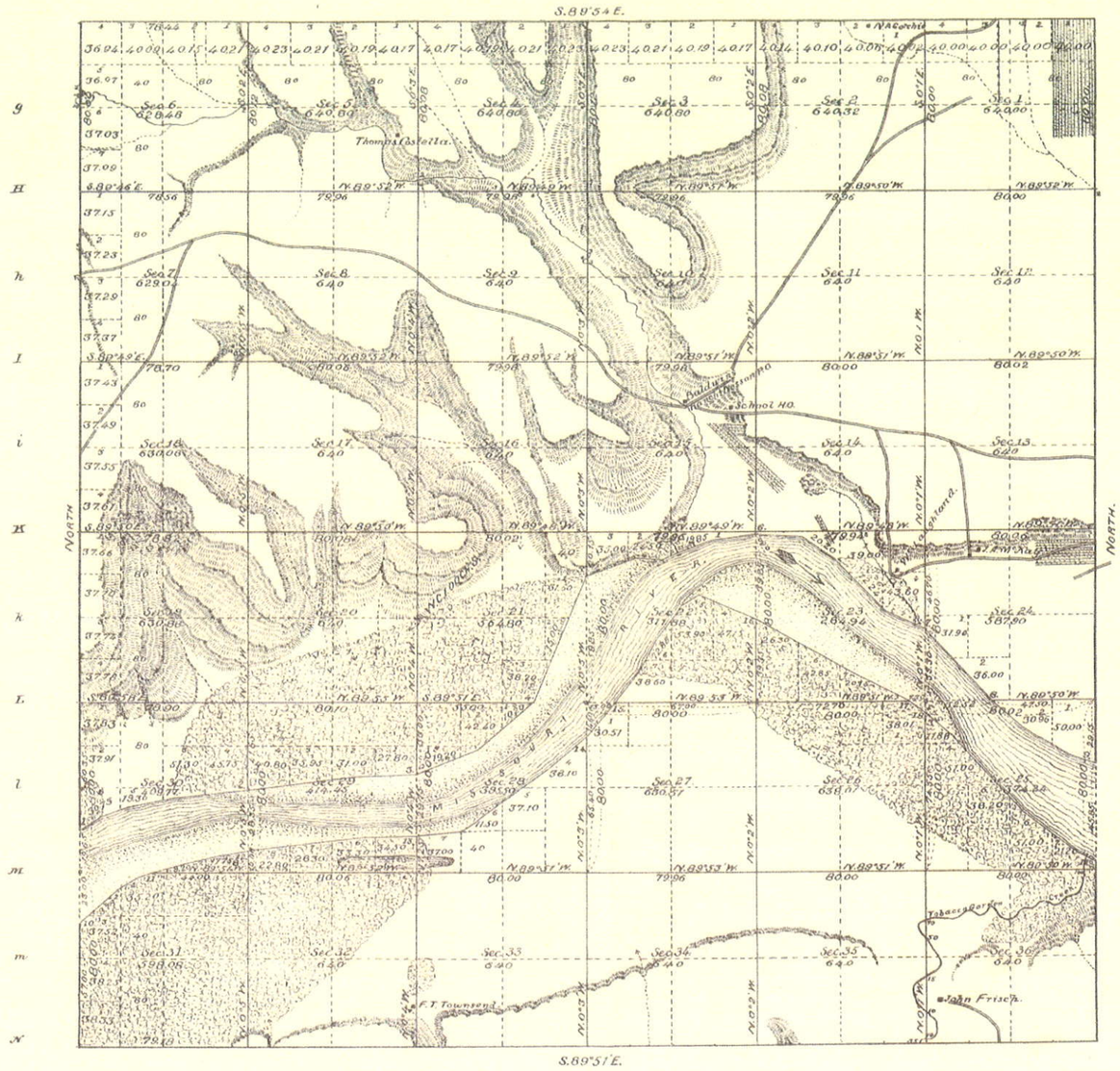
Township No 154 North, Range No 97 West of the 5th Principal Meridian, North Dakota.



Latitude 46°06'N.
Longitude 103°10'W.
Mean mag decl. 16°58'E.

Area in acres: Public Land, 21171.28 ... Water Surface, 1814.56 ... Total Area 22985.84 Acres { No. of River = 16,733.98 / So. of River = 6151.86

Scale 80 Chains to an Inch.

Surveys Designated.	By Whom Surveyed.	Contract No.	Contract Date.	Amount of Surveys. Ms	Chs	Lks	When Surveyed.
Subdivisions	George K. Hire	42	March 24th 1896	59	14	48	Sept. 18th Oct 3rd 1896
Meanders	" " "	"	" " "	16	32	70	" " "
Exteriors	" " "	"	" " "	23	27	62	June "

The above Map of Township No 154 North, of Range No 97 West of the Fifth Principal Meridian, North Dakota, is strictly conformable to the field notes of the survey thereof on file in this Office, which have been examined and approved.

U.S. Surveyor Generals Office
Bismarck N. Dak. August 18. 1897

Andrew Blesdeto
U.S. Surveyor General.

237

6—679.

RECEIVED WITH
LETTER.
OCT 5 1937

IX

Refs. rec. Feb. 15, 1898

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION AND MEANDER LINES

OF

TOWNSHIP 154 NORTH

OF

RANGE 97

WEST

Of the FIFTH PRINCIPAL *Meridian,*

NORTH DAKOTA,

AS SURVEYED BY

GEORGE K. DIKE, *United States Deputy Surveyor,*

Under his Contract No. 42, *dated* March 24, *1896*

Survey commenced September 18, *1896.*

Survey completed October 3, *1896.*

6—688

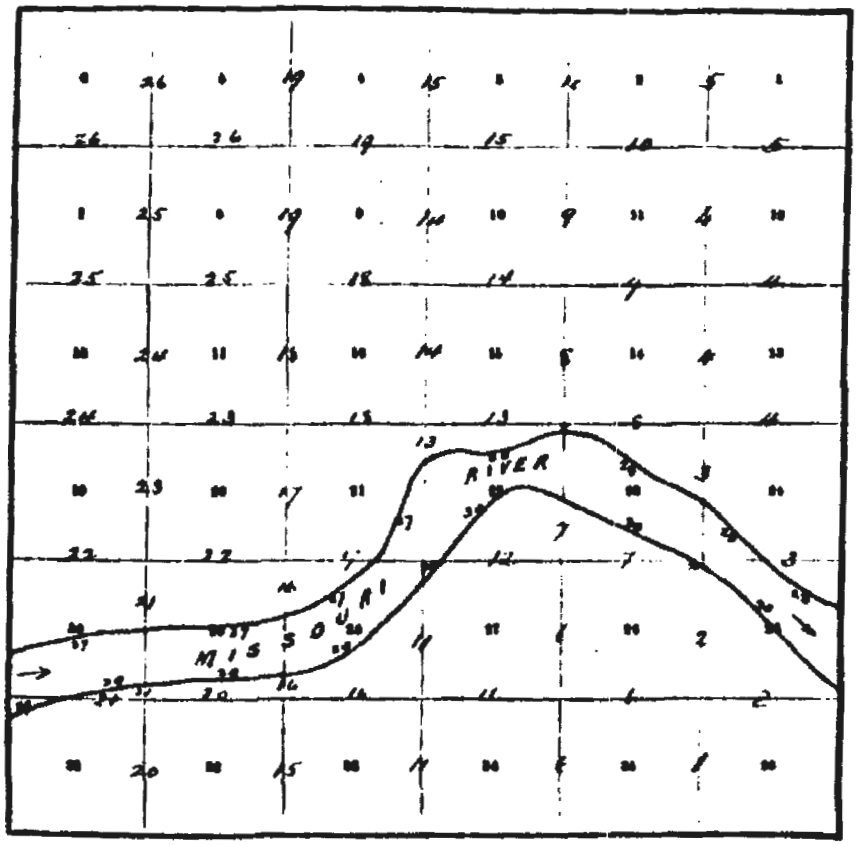
NAMES AND DUTIES OF ASSISTANTS.

Jacob A Dahl	Chairman
Sherwin C Beckwith	Chairman
William Allen	Fireman
Henry Russell	Councilman
Isaac Aldrich	Councilman

359

INDEX DIAGRAM.

Township 154 N . Range 97 W.



Meanders Page 27 to 30

PRELIMINARY OATHS OF ASSISTANTS.

We, Jacob A. Dahl and Clarence E. Beckwith

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the 1st Correction and meander lines of Township 162 N. of Range 76 W. of the fifth principal Meridian in North Dakota

Jacob A. Dahl, Chainman.

Clarence E. Beckwith, Chainman.

Subscribed and sworn to before me this 3rd day of July, 1896

No other officer being convenient.

George E. Dike, U.S. Deputy Surveyor

We, Henry Russell and Isaac Nelson

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the 1st Correction and meander lines of Township No 154 N. of Range 76 W. of the fifth principal Meridian in North Dakota

Henry Russell, Mounduman.

Isaac Nelson, Mounduman.

Subscribed and sworn to before me this 3rd day of July, 1896

No other officer being convenient

George E. Dike, U.S. Deputy Surveyor.

We, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

_____

_____, Axman.

_____, Axman.

Subscribed and sworn to before me this _____ day of _____, 189

_____

I, William Allen, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the 1st Correction and meander lines of Township No 154 N. of Range 76 W. of the fifth principal Meridian in North Dakota

William Allen, Flagman.

Subscribed and sworn to before me this 3rd day of July, 1896

No other Officer being convenient.

George E. Dike, U.S. Deputy Surveyor

6—82

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Survey commenced September 18, 1896, and executed with a Burt's improved solar compass with double Standard telescopic attachment, numbered 5415 and a steel chain tape all made by Young and Sons of Philadelphia, Pa.

The instrument was examined, tested on the meridian established by the U. S. Coast and Geodetic survey at the State University of Minnesota, found correct, and with a Chesterman steel tape kept for a Standard measure, was approved by the surveyor general, for North Dakota, May 12, 1896.

At 7h. 30m. a.m., l.m.t., I set off 46°07' on the lat. arc, 1°34'30" W. on the decl. arc, and at the meander cor. of fract. secs. 25 and 30, on the E. bdy. of the Tp., and left bank of Missouri river, heretofore described, determine a true meridian with the solar, which I find at 20.00 chs. W. of cor., falls 2 ins. E. of the true meridian established by Polaris observation at this cor. June 29, as heretofore described.

The magnetic bearing of the true meridian is N. 17° 01'W., which reduced by the table on page 100 in the Manual, gives the mean mag. decl. 16°58'E.

Note; As the survey of the exterior and subdivisional lines of this Tp. are included in the same contract, retracements are omitted.

From the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the Tp., heretofore described,
I run
N.0°1'W. bet. secs. 35 and 36.

1.75 Tobacco Garden Creek, 10 lks. wide, having a gravelly bed, 2 ft. banks, and 3 ins. of running water, course E.
14.00 Recross creek, 10 lks. wide, course N. W.
23.80 John Frisch's house bears N.69°W., 4.50 chs. dist.,
31.60 Recross creek, 15 lks. wide, course N. E.
40.00 Set a limestone 16x10x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
48.00 Recross creek, 50 lks. wide, course N. W.
57.00 Recross creek 70 lks. wide, course E. to E.
80.00 Set a granite stone 18x10x7 ins., 12 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked with 1 notch on S. and E. edges, dig pits, 18x18x12 ins. in each sec. 3½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level bottom, not subject to inundation.
Soil, alluvial, 1st. rate.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

S.89°51'E. on a random line bet. secs. 25 and 36.
40.00 Set temp. ¼ sec. cor.
80.00 Intersect E. bdy. of Tp. 3 lks. N. of cor. of secs. 25, 30, 31 and 36, heretofore described,
Thence I run,
N.89°50'W. on a true line bet. secs. 25 and 36.
Through timber and dense undergrowth.
4.50 Tobacco Garden Creek, 100 lks. wide, having 6 ft. banks, a sandy bed, and sluggish current, course N.
40.00 Set a cottonwood post, 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on N. face, no trees within limits, dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
September 18; At this ¼ sec. cor., I set off 1°29'N. on the decl. arc, and at 11h. 54m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'.
42.00 Leave timber and dense undergrowth bearing N. W.
80.00 The cor. of secs. 25, 26, 35 and 36.

Land, dry level bottom, subject to 2 ft. to 6 ft. innundation on E. ½ mile.
Soil, alluvial, 2nd. rate.
Timber, cottonwood and ash.
Timber and dense undergrowth 42.00 chs.

N.0°1'W., bet. secs. 25 and 26.
19.50 Enter timber and dense undergrowth bearing S. E.
40.00 Set a cottonwood post, 3 ft. long, 3 ins. sq. 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face, from which,
A cottonwood 6 ins. diam., bears N. 20½°E., 32 lks. dist., marked,
¼ S. B. T.
A cottonwood 4 ins. diam., bears S. 74½°W., 33 lks. dist., marked,
¼ S. B. T.
74.55 Right bank of Missouri river and
Set a cottonwood post 3 ft. long, 4 ins. sq., 24 ins. in the ground for Meander cor. of fracl. secs. 25 and 26, marked,
M. C. on N.
T. 154 N. on S.
R. 97 W., S. 25 on E. and
S. 26 on W. faces, from which,
A cottonwood 6 ins. diam., bears N. 64½°W., 193 lks. dist., marked,
T. 154 N., R. 97 W., S. 26, M. C. B. T.
A cottonwood 4 ins. diam., bears S. 26°E., 206 lks. dist., marked,
T. 154 N., R. 97 W., S. 25, M. C. B. T.
80.00 Point for cor. of secs. 23, 24, 25 and 26 on sandbar.

Land, dry level bottom subject to 4 ft. innundation in places near the river.
Soil, alluvial, 2nd. and 3rd. rate.
Timber, cottonwood and ash.
Timber and dense undergrowth 55.05 chs.

September 18, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.	
	S.89°50'E. on a random line bet. secs. 24 and 25. From point for cor. of secs. 23, 24, 25 and 26 on sandbar, I measure a base S.44°50'E., 46.00 chs. to a point where a flag on line over river bears N.10'E., distance over river is therefore, departure of base for 45° or 32.53 chs.
32.53	Set temp. Meander cor.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E. bdy. of Tp. at cor. of secs. 19, 24, 25 and 30, heretofore described. Thence I run, N.89°50'W. on a true line bet. secs. 24 and 25.
40.01	Set a granite stone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
47.50	Left bank of Missouri river and set a granite stone 16x6x6 ins. 10 ins. in the ground for Meander cor. of fracl. secs. 24 and 25, marked M.C. on W. face, with 2 grooves on S. face, dig a pit 36x36x12 ins. 8 ft. E. of stone and raised mound of earth 4 ft. base, 2 ft. high E. of cor.
80.02	Point for cor. of secs. 23, 24, 25 and 26 on sandbar.
	Land, dry level bottom not subject to innundation. Soil, alluvial, 1st. rate.

N.0°1'W. bet. secs. 23 and 24.
Over river.
From point for cor. of secs. 23, 24, 25 and 26, I offset E. to left bank of river, thence N.0°1'W. on offset line, 34.00 chs. Thence W. to intersection of true line 70 lks. in advance of river bank, therefore distance over river is 34.00 chs. — .70 = 33.30 chs.

33.30	Left bank of Missouri river and set a limestone 15x9x4 ins., 10 ins. in the ground for Meander cor. of fracl. secs. 23 and 24, marked M.C. on S. with 1 groove on E. face, from which, A cottonwood 7 ins. diam. bears N.76°E., 63 lks. dist. marked, T. 154 N., R. 97 W., S. 24, M. C. B. T. A cottonwood 7 ins. diam. bears N.44°W. 94 lks. dist. marked T. 154 N., R. 97 W., S. 23, M. C. B. T. Thence through timber and dense undergrowth.
35.30	Leave timber and dense undergrowth bearing S.E. at this point J.A. McKay's house bears N.37°E., William Laughland's house N.28°W.
40.00	Set a sandstone 15x8x8 ins. 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
63.65	A wagon road bearing E. J.A. McKay's house bears N.78°E? William Laughland's house bears S.78°W.
65.00	Leave bottom land bearing E. and ascend bluffs.
74.00	Top of bluffs 60 ft. high, bearing E.
80.00	Set a granite stone 15x9x9 ins. 10 ins. in the ground for cor. of secs. 13, 14, 23 and 24, marked with 3 notches on S. and 1 notch on E. edges; dig pits, 18x18x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom not subject to innundation, and prairie. Soil, alluvial and gravelly loam, 1st. and 2nd. rate Timber, cottonwood. Timber and dense undergrowth, 2.00 chs.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.

September 19: At the cor. of secs. 13, 14, 23 and 24 I set off 48°08'30"E. on the lat. arc, 1°09'N. on the decl. arc, and at 9h.a.m., l.m.t., determine a true meridian with the solar.
Thence I run,
S.89°50'E. on a random line bet. secs. 13 and 24.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect E. bdy. of Tp. 3 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described,
Thence I run,
N.89°51'W. on a true line bet. secs. 13 and 24.
Over side of bluffs sloping S.

31.50 Top of bluffs bearing W.S.W.

40.03 Set a granite stone 24x8x6 ins., 18 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

59.35 A wagon road, bearing N.

80.06 The cor. of secs. 13, 14, 23 and 24.

Land prairie, generally level.
Soil, gravelly loam, 2nd. rate.

N.0°1'W. bet. secs. 13 and 14.

40.00 Set a granite stone 12x8x8 ins., 8 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; dig pits, 18x18x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

46.25 A wagon road, bearing W.

80.00 Set a granite stone 15x9x6 ins., 10 ins. in the ground for cor. of secs. 11, 12, 13 and 14, marked with 4 notches on S. and 1 notch on E. edges; dig pits, 15x 18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, prairie, gently rolling.
Soil, sandy loam, 2nd. rate.

S.89°51'E. on a random line bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

80.02 Intersect E. bdy. of Tp. 2 lks. N. of cor. of secs. 7, 12, 13 and 18, heretofore described,
Thence I run,
N.89°50'W. on a true line bet. secs. 12 and 13.

40.01 Set a granite stone 15x10x10 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins.E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.02 The cor. of secs. 11, 12, 13 and 14.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°1'W. bet. secs. 11 and 12.

40.00 Set a granite stone 15x12x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18 x12 ins. N. and S. of stone 3 ft. dist., and raise a moundof earth 3½ ft. base, 1½ ft. high W. of cor.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.

September 19: At this ¼ sec. cor., I set off 1°05'30" W. on the decl. arc, and at 11h. 54m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°10'.

80.00 Set a limestone 18x14x6 ins., 12 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

S.89°50'E. on a random line bet. secs. 1 and 12.

40.00 Set temp. ¼ sec. cor.

60.00 Intersect E. bdy. of Tp. 5 lks. S. of cor. of secs. 1, 6, 7 and 12, heretofore described,

Thence I run,

N.89°52'W. on a true line bet. secs. 1 and12.

.70 A grassy drain, 15 lks. wide, course S.E.

40.00 Set a granite stone 15x12x9 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.00 The cor. of secs. 1, 2, 11 and 12.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°1'W. on a random line bet. secs. 1 and 2.

40.00 Set temp. ¼ sec. cor.

60.00 Intersect N. bdy. of Tp. at cor. of secs. 1, 2, 35 and 36, heretofore described,

Thence I run,

S.0°1'E. on a true line bet. secs. 1 and 2.

6.40 A wagon road bearing E.N.E.

13.90 A grassy drain, 25 lks. wide, course E.

40.00 Set a limestone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

47.15 A wagon road, bearing W.,W.

80.00 The cor. of secs. 1, 2, 11 and 12.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

September 19, 1896.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	September 21: At 7h. a.m., l.m.t., I set off 46°06' on the lat. arc, 00°26'30" N. on the decl. arc, and at the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of the Tp. heretofore described, determine a true meridian with the solar.
	Thence I run,
	N.0°2'W. bet. secs. 34 and 35.
40.00	Set a granite stone 15x9x5 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
49.00	Begin to descend bluffs, bearing E.
52.60	Foot of bluffs 100 ft. high and enter bottom land bearing E.
80.00	Set a granite stone 15x8x8 ins., 10 ins. in the ground for cor. of secs. 26, 27, 34 and 35, marked with 1 notch on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, prairie and bottom land generally level.
	Soil, sandy loam and alluvial, 1st. rate.

	S.89°51'E. on a random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line at cor. of secs. 25, 26, 35 and 36.
	Thence I run,
	N.89°51'W. on a true line bet. secs. 26 and 35.
40.00	Set a limestone 15x10x4 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00	The cor. of secs. 26, 27, 34 and 35.
	Land, dry level bottom not subject to inundation.
	Soil, alluvial, 1st. rate.

	N.0°2'W. bet. secs. 26 and 27.
40.00	Set a granite stone 15x9x9 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
75.00	Enter timber and dense undergrowth bearing S.E.
80.00	Set a granite stone 15x8x8 ins., 10 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on S. and E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom, not subject to inundation.
	Soil, alluvial, 1st. rate.
	Dense undergrowth, 5.00 chs.

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Township 153 North of Range 97 West of the 5th. Principal Meridian.

Chains.

S.89° 1'E. on a true line bet. secs. 23 and 26.
40.00 Set temp. 1 sec. cor.
72.70 Set a temp. Meander cor.
80.00 Intersect W. and E. lines at point for cor. of secs. 23, 24, 25 and 26, on sandbar.
Thence I run,
N.89°51'W., on a true line bet. secs. 23 and 26.
On sandbar in river.
7.30 Right bank of Missouri river, and
Set a cottonwood post, 5 ft. long, 4 ins. sq., 24 ins. in the ground for meander cor. of fracl. secs. 23 and 26, marked,
M. C. on E.
T. 154 N. on N.
R. 97 W., S. 23 on S. and
S. 26 on W. faces, from which,
A cottonwood 4 ins. diam., bears N. 40°W., 18 lks. dist., marked,
T. 154 N., R. 97 W., S. 23, M. C. B. T.
A cottonwood 4 ins. diam., bears S. 39°E., 70 lks. dist., marked,
T. 154 N., R. 97 W., S. 26, M. C. B. T.
Thence through timber and dense undergrowth.
40.00 Set a cottonwood post 5 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for 1/4 sec. cor., marked 1/4 S. on W. face, no trees within limits, dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
80.00 The cor. of secs. 22, 23, 26 and 27.

Land, dry level bottom, subject to 4 ft. inundation in places near the river.
Soil, alluvial, 2nd. and 3rd. rate.
Timber, cottonwood and ash.
Timber and dense undergrowth, 72.70 chs.

N.0°2'E. bet. secs. 23 and 26.
Through timber and dense undergrowth.
39.35 Right bank of Missouri river, and
Set a cottonwood post 5 ft. long, 4 ins. sq., with charred stake 24 ins. in the ground for meander cor. of fracl. secs. 23 and 26, marked. M. C. on W.
T. 154 N. on S.
R. 97 W., S. 23 on E. and
S. 26 on W. faces, no trees within limits, dig a pit, 18x18x12 ins. 8 ft. S. of post, and raise a mound of earth 3 ft. base, 2 ft. high S. of cor.
September, 21, 1896.
Thence on sandbar, same from a point at 64.00 chs. on line I set a flag on the over river and a 2nd. flag over river bearing N. 0°02'W., from which I run N. 89°58'E., 15.47 chs. to intersection of true line 27 lks. in advance of meander mark, distance over river is therefore 15.47 chs. − .27 = 15.20 chs., and distance on line 15.20 chs. + 64.00 = 79.20 chs.

Township 164 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
79.20	Left bank of Missouri river, and Set a granite stone 15x9x9 ins., 10 ins. in the ground for meander cor. of fracl. secs. 22 and 23, marked, M. C. on S. face, with 2 grooves on E. face, dig a pit 36x36x12 ins., 8 ft. N. of stone and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.
80.00	Set a granite stone 12x10x6 ins., 8 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, dry level bottom, subject to 4 ft. innundation in places. S. of river.
	Soil, alluvial, 2nd. and 3rd. rate.
	Timber, cottonwood and ash.
	Timber and dense undergrowth 39.35 chs.

September 22; At 7h. 20m. a.m., l.m.t., I set off 4d° 08'30" on the lat. arc, 00°02'E. on the decl. arc, and at the cor. of secs. 14, 15, 22 and 23, determine a true meridian with the solar.
Thence I run,
S.89°51'E. on a random line bet. secs. 14 and 23.

40.00	Set temp. ¼ sec. cor.
79.94	Intersect N. and S. line 6 lks. N. of cor. of secs. 13, 14, 23 and 24,
	Thence I run,
	N.89°48'W. on a true line bet. secs. 14 and 23.
16.80	A wagon road bearing N.
20.60	Begin to descend bluffs, bearing N.
23.50	Foot of bluff, 100 ft. high, bearing N.
30.20	A brook drain, 8 lks. wide, 2 ft. deep, having a slow current, course S. S. E.
39.97	Set a limestone 15x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
44.80	Enter a plowed field bearing W. N. W.
46.25	Leave field extending 10.00 chs. W. N.W. and 10.00 chs. E. S. E.
79.94	The cor. of secs. 14, 15, 22 and 23.
	Land, dry level bottom, not subject to innundation and prairie.
	Soil, alluvial and sandy loam, 1st. and 2nd. rate.

N.0°2'W. bet. secs. 14 and 15.
Over bottom land.

27.00	Leave bottom land, bearing W.
29.00	Enter a cultivated field bearing S. E.
35.00	Leave field bearing S. E.
40.00	Set a granite stone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
	Thence ascend bluffs, bearing E.
44.00	Top of bluff 75 ft. high bearing E.
57.00	A wagon road bearing W.
	A school house bearing W.

dian. | Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.

80.00 Set a granite stone 20x12x12 ins., 15 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
School house bears S. 26°W.

Land, prairie and dry level bottom, not subject to innundation.
Soil, sandy loam and alluvial, 2nd. rate.

S.89°48'E. on a random line bet. secs. 11 and 14.
40.00 Set temp. ¼ sec. cor.
80.00 Intersect N. and S. line, 7 lks. S. of cor. of secs. 11, 12, 13 and 14.
Thence I run,
N.89°51'W. on a true line bet. secs. 11 and 14.
40.00 Set a granite stone 15x10x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
80.00 The cor. of secs. 10, 11, 14 and 15.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°2'W. bet. secs. 10 and 11.
15.80 A wagon road, bearing S.E.-N.W.
40.00 Set a granite stone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

September 22; At this ¼ sec. cor., I set off 00°04'30" S. on the decl. arc, and at 11h. 52m. a.m., l.m.t., observe the sun on the meridian, resulting latitude 48°10'.

80.00 Set a limestone 18x14x8 ins., 12 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked with 5 notches on S. and 2 notches on E.edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.

S.89°51'E. on a random line bet. secs. 2 and 11.
40.00 Set temp. ¼ sec. cor.
79.96 Intersect N. and S. line 2 lks. N. of cor. of secs. 1, 2, 11 and 12,
Thence I run,
N.89°50'W. on a true line bet. secs. 2 and 11.
38.20 A wagon road, bearing N.E.
39.98 Set a limestone 15x12x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
79.96 The cor. of secs. 2, 3, 10 and 11.

Land, prairie, level.
Soil, sandy loam, 1st. rate.

N.0°2'W. on a random line bet. secs. 2 and 3.
40.00 Set temp. ¼ sec. cor.
80.08 Intersect N. bdy. of Tp. at cor. of secs. 2, 3, 34 and 35, heretofore described,
Thence I run,
S.0°2'E. on a true line bet. secs. 2 and 3.
40.08 Set a limestone 18x12x6 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. E. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
50.00 Begin to descend bluffs, bearing S.W.
77.00 Foot of bluff, 100 ft. high, bearing S.W.
80.08 The cor. of secs. 2, 3, 10 and 11.

Land prairie, rolling.
Soil, gravelly loam, 2nd. rate.

September 22, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

September 23; At 7h. 15m. a.m., l.m.t., I set off 48°06' on the lat. arc, 30°21' S. on the decl. arc, and at the cor. of secs. 3, 4, 33 and 34, on S. bdy. of the Tp. heretofore described, determine a true meridian, with the solar.
Thence I run,
N.0°3'W. bet. secs. 33 and 34.

25.00 Begin to descend bluffs bearing E.

29.50 Foot of bluff, 75 ft. high, and enter bottom land, bearing E.

40.00 Set a limestone 15x10x5 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

80.00 Set a limestone 12x10x8 ins., 8 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked with 1 notch on S. and 3 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, prairie, and dry level bottom.
not subject to inundation.
Soil, alluvial and sandy loam, 1st. rate.

S.89°51'E. on a random line bet. secs. 27 and 34.

40.00 Set temp. ¼ sec. cor.

79.96 Intersect N. and S. line 4 lks. S. of cor. of secs. 26, 27, 34 and 35,
Thence I run,
N.89°53'W. on a true line bet. secs. 27 and 34.

39.98 Set a limestone 15x12x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

79.96 The cor. of secs. 27, 28, 33 and 34.

Land, dry level bottom, not subject to inundation.
Soil, alluvial, 1st. rate.

N.0°3'W. bet. secs. 27 and 28.

40.00 Set a granite stone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

65.40 Right bank of Missouri river and
Set a post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for Meander cor. of fracl. secs. 27 and 28, marked.

Chains.

M.C. on N.
T. 154 N. on S.
R. 97 W., S. 27 on E. and
S. 28 on W. faces.
dig a pit 36x36x12 ins. S. ft. S. f rost and raise
a mound of earth 4 ft. base, 2 ft. high S. of cor.
80.00 In river.

Land, dry level bottom, not subject to inundation.
Soil, alluvial, 1st. rate.

S.89°53'E. on a random line bet. secs. 22 and 27.
From the meander cor. of fract. secs. 27 and 28,
I run S. 89°53' E. on offset line, 13.00 chs., thence
N. 3' W. 14.60 chs. to bank of river.
13.00 And set temp. meander cor.
Thence S. 89° 53' E. on random line bet. secs. 22
and 27.
40.00 Set temp. ¼ sec. cor.
80.00 Intersect N. and S. line at cor. of secs. 22, 23, 26
and 27.
Thence I run,
N.89°53'W. on a true line bet. secs. 22 and 27.
Through dense undergrowth.
5.00 Leave dense undergrowth, bearing N.W.
40.00 Set a limestone 15x12x8 ins., 10 ins. in the ground
for ¼ sec. cor., marked ¼ on N. face, dig pits,
18x18x12 ins. E. and W. of stone 3 ft. dist., and
raise a mound of earth 3½ ft. base, 1½ ft. high N.
of cor.
57.00 Right bank of Missouri river,
and set a granite stone 16x12x8 ins., 10 ins. in the
ground for Meander cor. of fract. secs. 22 and 27,
marked,
M. C. on W. face,
with 2 grooves on S. face, dig a pit, 36x36x12 ins.
8.ft. E. of stone, and raise a mound of earth 4 ft.
base, 2 ft. high . of cor.
80.00 Point for cor. of secs. 21, 22, 27 and 28, in river..

Land, level bottom not subject to inundation.
Soil, alluvial, 2nd. rate.
Dense undergrowth 5.00 chs.

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Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

N.0°3'W. bet. secs. 21 and 22.
From a point on sandbar in river where meander cor. of fracl. secs. 22 and 27, bears S.89°53'E., I run N.3'W. on offset line 20.00 chs., thence S.89°53'E. to a point where Meander cor. of fracl. secs. 27 and 28, bears S.3'E., thence N.3'W. on true line.

40.00 On sandbar.

59.85 Left bank of Missouri river and Set a cottonwood post, 3 ft. long, 4 ins. sq. 24 ins. in the ground for Meander cor. of fracl. secs. 27 and 28, marked
M.C. on S.
T.154 N. on N.
R. 97 W., S. 21 on W. and
S. 22 on E. faces, from which
A boxelder 7 ins. diam, bears N.15°E., 44 lks. dist., marked
T. 154 N., R. 97 W., S. 22, M. C. B. T.
A boxelder 8 ins. diam., bears N.46°W., 9 lks. dist., marked,
T. 154 N., R. 97 W., S. 21. M. C. B. T.
Thence ascend bluffs.

64.25 Top of bluff 125 ft. high, bearing N.E.

80.00 Set a limestone 18x10x8 ins., 12 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked
154 N. on N.E.
97 W. on S.E. faces,
with 3 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.

Land, prairie, rolling.
Soil, sandy loam, 2nd. rate.

September 23, At this cor. I set off 00°28'S. on the decl. arc, and at 11h. 52m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 46°08'30".

S.89°53'E. on a random line bet. secs. 15 and 22.

40.00 Set temp. ¼ sec. cor.

79.96 Intersect N. and S. line 9 lks. N. of cor. of secs. 14, 15, 22 and 23.
Thence I run,
N.89°49'W. on a true line bet. secs. 15 and 22.
Over dry bottom land.

35.00 Enter wet boggy bottom bearing N.E.

39.98 Set a granite stone 15x8x3 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

44.50 Leave wet bottom, bearing N.E.

44.75 Leave bottom land, and ascend bluff, bearing N.E.

46.50 Top of bluff, 75 ft. deep, bearing N.E.

79.96 The cor. of secs. 15, 16, 21 and 22.

Land level bottom, partially wet, but not subject to inundation, and rolling prairie.
Soil, alluvial and sandy loam, 2nd. rate.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	N.0°3'W. bet. secs. 15 and 16.
40.00	Set a granite stone 18x12x7 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
59.00	A ravine 100 ft. deep, course E.S.E.
80.00	Set a limestone 18x8x7 ins., 12 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked with 4 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling, generally sloping S.E.
	Soil, gravelly loam, 2nd. rate.
	Have ascended about 150 ft.

	S.89°49'E. on a random line bet. secs. 10 and 15.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. and S. line 6 lks. S. of cor. of secs. 10, 11, 14 and 15,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 10 and 15.
7.80	A wagon road, bearing S.
28.50	Begin to descend bluffs, bearing S.
39.99	Set a limestone 20x12x5 ins., 15 ins. in the ground for ¼ sec. cor. marked ¼ on N. face, dig pits 18x18x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor. Nesson Post Office, and Baldwin's ranch bears S. 18°E.
52.50	Foot of bluffs 100 ft. high, bearing N. and a creek drain, 3 lks. wide, 6 ins. deep, with rapid current, course S.
	Thence ascend.
70.00	Top of bluffs, 150 ft. high, bearing N.
73.50	Post office and ranch, bears S.65°E.
76.00	A wagon road, bearing N.W.
79.98	The cor. of secs. 9, 10, 15 and 16.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

	N.0°3'W. bet. secs. 9 and 10.
5.15	A wagon road, bearing N.W.
18.00	Begin to d scend bluffs, bearing S.E.
40.00	Set a granite stone 18x8x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
45.80	A creek drain, 3 lks. wide, having a gravelly bed, and 6 ins. of water, current rapid, course S.E., have descended 100 ft.
48.30	Recross creek drain, 4 lks. wide, course S.W.
49.75	Recross creek drain, 3 lks. wide, course S.E.
52.75	Begin to ascend bluffs, bearing S.E.
80.00	Set a slatestone 18x12x7 ins., 10 ins. in the ground for cor. of secs. 3, 4, 9 and 10, marked with 5 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

Township 154 North of Range 97 West of the 6th. Principal Meridian.

Chains.	
	S.89°51'E. on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line at cor. of secs. 2, 3, 10 and 11,
	Thence I run,
	N.89°51'W. on a true line bet. secs. 3 and 10.
38.00	Begin to ascend bluffs bearing E.S.E. and N.E.
39.98	Set a granite stone 18x10x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
67.00	Top of bluff or ridge, 125 ft. high, bearing N.
73.50	Begin to descend ridge bearing W.
79.96	The cor. of secs. 3, 4, 9 and 10.

Land, prairie, rolling.
Soil, sandy loam, 2nd. rate.

N.0°3'W. on a random line bet. secs. 3 and 4.

40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. bdy. of Tp. at cor. of secs. 3, 4, 33 and 34, heretofore described,
	Thence I run,
	S.0°3'E. on a true line bet. secs. 3 and 4.
	Over side of ridge sloping W.
40.12	Set a granite stone 18x12x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
80.12	The cor. of secs. 3, 4, 9 and 10.

Land, prairie, very rolling.
Soil, clay loam, 4th. rate.

September 23, 1896.

September 24: At 7h.30m.a.m., l.m.t., I set off 48°06' on the lat. arc. 0°48'S. on the incl. arc, and at the cor. of secs. 4, 5, 32 and 33 on S. Bdy. of the Tp. heretofore described, determine a true meridian with the solar.
Thence I run,
N.0°4'W. bet. secs. 32 and 33.
In ravine.

14.75	Bottom of ravine, course N.W.
18.50	Enter bottom land bearing E.
19.50	F.T.Townsend's house, stands 50 lks. W.
23.00	Enter dense undergrowth, bearing E.
40.00	Set a cottonwood post 3 ft. long 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face; no trees within limits, dig pits, 18x18 x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor. and leave dense undergrowth bearing N.E.
71.20	Enter dense willow undergrowth, bearing N.E.
80.00	Set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 28, 29, 32 and 33, marked,
	T. 154 N., S. 28 on N.E.
	S. 29 on N.W.
	S. 32 on S.E. and
	R. 97 W., S. 33 on S.E. faces; with 1 notch on S. and 4 notches on E. edges; no trees within limits, dig pits 18x18x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, not subject to inundation, except N.10.00 chs. which is subject to 10ft. inundation, ar prairie.
Soil, alluvial and clay loam, 1st. rate.
Dense undergrowth 50 lks.

Township 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	S.89°51'E. on a random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line at cor.of secs. 27,28,33 and 34.
	Thence I run,
	N.89°51'W. on a true line bet. secs. 28 and 33.
40.00	Set a granite stone 18x18x6 ins. 10 ins. in the ground for ¼ sec. cor., marked ¼ on N.face,dig pits,18x18x12 ins.E. and W. of stone 3 ft.dist.and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
75.50	Enter dense willow undergrowth, bearing N.E.
80.00	The cor. of secs. 28, 29, 32 and 33.
	Land, dry level bottom not subject to innundation exce: W. 4.50 chs. which is subject to 10 ft. innundation. Soil, alluvial, 2nd. rate. Dense undergrowth, 4.50 chs.

	N.0°4'W. bet. secs. 28 and 29.
	Through dense undergrowth.
2.30	Enter a shallow pond or bayou, bearing E.
6.30	Over pond bearing E., extending 20.00 chs. E. and 37.00 chs. W.
17.25	Right bank of Missouri river and set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for meander cor. of fracl. secs 28 and 29,marked. M.C. on N. T.154 N. on S, R. 97 W., S. 28 on E. and S. 29 on W. faces; no trees within limits, dig a pit 36x36x12 ins. 8 ft. S. of post, and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.
	Thence on sandbar and from a point at 20.00 chs. on line, I set a flag on line on sandbar over river, and a 2nd. flag over river bearing N.45°04'W. from which I run N.89°56'E. 16.04 chs. to intersection of true line, distance over river is therefore 16.04 chs. and distance on line to said point of intersection is 16.04+20.00 =36.04 chs., thence on true line.
40.00	On sandbar.
47.00	Left bank of river and set a cottonwood post 3 ft. long 4 ins.sq.24 ins.in the ground for meander cor. of fracl. secs. 28 and 29, marked, M.C. on S. T.154 N. on N, R. 97 W., S. 29 on W. and S. 28 on E. faces; from which,
	A cottonwood 5 ins.diam.bears N.47½°E.,263 lks.dist. marked, T. 154 N., R. 97 W., S. 28, M. C. B. T.
	A cottonwood 5 ins. diam. bears S.85½°W.,209 lks. dist. marked, T. 154 N., R. 97 W., S. 29, M. C. B. T.
	September 24;at this meander cor. I set off 00°51'S. on the decl. arc, and at 11h.52m.a.m.,l.m.t.,observe the sun on the meridian, resulting lat.48°07'.
	Thence through timber and dense undergrowth.
80.00	Set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 20, 21 28 and 29, marked T.154 N., S. 21 on N.E. S. 20 on N. W. S. 29 on S.W. and R. 97 W., S. 28 on S.E. faces;

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with 2 notches on S. and 4 notches on E. edges, no trees within limits; dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 2 to 10 ft. inundation,
Soil, alluvial, 2nd. and 3rd. rate.
Timber, cottonwood, elm and ash.
Dense undergrowth, 46.25 chs.

S.89°01'E. on a true line bet. secs. 21 and 28.
Through dense willow undergrowth.

40.00 Set an ash post 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face, no trees within limits; dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

55.00 Right bank of Missouri river and set a cottonwood post 3 ft. long 4 ins. sq. with charred stake 24 ins. in the ground, for meander cor. of fracl. secs. 21 and 28, marked,
M.C. on E.
T. 154 N. on W.
R. 97 W., S. 28 on S. and
S. 21 on N. faces; no trees within limits, dig a pit 36x36 12 ins., 8 ft. W. of post, and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 3 ft. innundation.
Soil, alluvial, 2nd. rate.
Timber, cottonwood, elm and ash.
Timber and dense undergrowth, 55.00 chs.

September 24, 1896.

September 25: At 7h. 30m. a.m., l.m.t., I set off 48° 08' on the lat. arc, 1°08'30"S. on the decl. arc, and at the cor. of secs. 20, 21, 28 and 29, determine a true meridian with the solar.
Thence I run,
N.0°4'W. bet. secs. 20 and 21.
Through timber and dense undergrowth.

39.00 Set a sandstone 20x18x8 ins., 15 ins. in the ground for Witness Cor. to ¼ sec. cor., marked W.C. ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable, and
Leave bottom land, timber and dense undergrowth and ascend bluffs, bearing E.N.E.

40.00 Point for ¼ sec. cor. on abrupt side of bluff in loose clay.

74.00 Top of bluff, 300 ft. high, bearing N.W.

80.00 Set a sandstone 15x12x4 ins., 10 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on S. and 4 notches on E. edges, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, dry level bottom, subject to 2 ft. inundation.
Soil, alluvial, 2nd. rate, and bluffs, clay loam, 4th. rate.
Timber, cottonwood, elm and ash.
Dense undergrowth, 39.00 chs.

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Chains.	
	S.89°51'E. on a random line bet. secs. 16 and 21.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect N. and S. line 7 lks. N. of cor. of secs. 15, 16, 21 and 22,
	Thence I run,
	N.89°48'E. on a true line bet. secs. 16 and 21.
	Gradually ascending over rolling land.
19.00	Enter a ravine, bearing S., have ascended over 100 ft.
31.60	Bottom of ravine 150 ft. deep, course S.
40.01	Set a sandstone 18x12x3 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x 18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high E. of cor.
58.25	Over ravine, bearing S.
80.02	The cor. of secs. 16, 17, 20 and 21.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.
	Some scattering brush, elm and ash in ravines.
	September 25: At this cor. I set off 1°14'30"S. on the decl. arc, and at 11h. 51m. a.m., l.m.t., observ the sun on the meridian, resulting lat. 48°08'30".

	N.0°4'W. bet. secs. 16 and 17.
2.75	Begin to descend bluffs to ravine bearing E. and N.N.W.
40.00	Set a sandstone 15x12x5 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
44.90	Bottom of ravine 200 ft. deep, course E.
63.35	2nd. bottom in ravine, course E. .E.
70.60	3rd. bottom in ravine, course S.S.E.
80.00	Set a sandstone 18x14x4 ins., 12 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked with 4 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, prairie, rolling.
	Soil, clay loam, 3rd. rate.

	S.89°48'E. on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. and S. line 9 lks. S. of cor. of secs. 9, 10, 15 and 16,
	Thence I run,
	N.89°52'E. on a true line bet. secs. 9 and 16.
6.00	A ravine 100 ft. deep, course S.
19.00	A ravine 100 ft. deep, course S.S.E.
33.00	A ravine 75 ft. deep, course S.S.E.
39.99	Set a granite stone 16x12x10 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
65.00	Enter ravine, bearing S.
79.98	The cor. of secs. 8, 9, 16 and 17.
	Land, prairie, rolling.
	Soil, sandy loam, 2nd. rate.

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N.0°4'W. bet. secs. 8 and 9.
Ascending side of ravine.
35.00 Over ravine, bearing S.S.E.
40.00 Set a granite stone 15x12x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.
41.10 A wagon road, bearing N.W.
80.00 Set a limestone 18x12x7 ins., 12 ins. in the ground for cor. of secs. 4, 5, 8 and 9, marked with 5 notches on S. and 4 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.

Land, prairie, rolling.
Soil, sandy loam, 2nd. and 3rd. rate.

S.89°52'E. on a random line bet. secs. 4 and 9.
40.00 Set temp. ¼ sec. cor.
79.98 Intersect N. and S. line 6 lks. W. of cor. of secs. 3, 4, 9 and 10.
Thence I run,
N.89°49'E. on a true line bet. secs. 4 and 9.
Descending bluffs.
22.80 Foot of bluff and a creek drain 4 lks. wide, 4 ins. deep, with rapid current, course S.E.
33.40 Recross creek 3 lks. wide, course N.E.
39.99 Set a limestone 18x12x5 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 18x 18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
40.40 Recross creek, 3 lks. wide, course S.E., thence over bluff sloping N.E.
70.00 Top of bluff, 100 ft. high, bearing W.N.W.
77.75 A grassy drain, 15 lks. wide, course N.
79.98 The cor. of secs. 4, 5, 8 and 9.

Land, prairie, rolling.
Soil, gravelly loam, 3rd. rate.

N.0°4'W. on a random line bet. secs. 4 and 5.
40.00 Set temp. ¼ sec. cor.
80.08 Intersect N. bdy. of Tp. 3 lks. W. of cor. of secs. 4, 5, 32 and 33, heretofore described.
Thence I run,
S.0°3'E. on a true line bet. secs. 4 and 5.
5.50 A grassy drain, 20 lks. wide, course S.S.E.
36.70 A brushy drain, 15 lks. wide, course S.E.
40.08 Set a limestone 15x10x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.
62.00 Enter a ravine, bearing E.S.E.
73.50 A creek drain, 2 lks. wide, 5 ins. deep, current rapid, course E.
77.40 Over ravine and valley 100 ft. deep, bearing E.
80.08 The cor. of secs. 4, 5, 8 and 9.

Land, prairie, rolling.
Soil, gravelly loam, 2nd. rate.

September 25, 1896.

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Chains.

September 26; At 7h. 20m. a.m., l.m.t., I set off 48° 06' on the lat.arc,1°31'S. on the decl.arc, and at the cor. of secs. 5, 6, 31 and 32 on S. bdy. of the Tp, heretofore described,determine a true meridian with the solar. Thence I run,
N.0°0'W. bet. secs. 31 and 32,
5.00 Begin to descend bluffs, bearing E.N.E.
6.00 Enter timber and dense undergrowth bearing E.N.E.
7.00 Foot of bluff 100 ft. high, and enter dry bottom lan bearing E.N.E.
40.00 Set a cottonwood post, 3 ft. long, 3 ins. sq., with charred stake 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face; no trees within limits, dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
80.00 Set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked,
T. 154 N., S. 29 on N.E.
S. 30, on N.W.
S. 31 on S.W. and
R. 97 W., S. 32 on S.E. faces,
with 1 notch on S. and 5 notches on E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist.,and raise a mound of earth 4 ft.base, 2 ft. high W. of cor.

Land, dry level bottom, subject to from 4 to 6 ft. inundation, and prairie.
Soil, alluvial and sandy loam, 2nd. and 4th. rate.
Dense undergrowth and timber 75.00 chs.

S.89°51'E. on a random line bet. secs. 29 and 32.
40.00 Set temp. ¼ sec. cor.
80.06 Intersect N. and S. line 3 lks. S.of cor. of secs. 28, 29, 32 and 33,
Thence I run,
N.89°52'W. on a true line bet. secs. 29 and 32.
Through dense undergrowth.
40.03 Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face; no trees within limits, dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N.of cor.
80.06 The cor. of secs. 29, 30, 31 and 32.

Land dry level bottom subject to from 6 to 10 ft. inundation,
Soil, alluvial, 3rd, rate.
Dense undergrowth 80.06 chs.

September 26, 1896.

September 28; At 7h. 30m. a.m., l.m.t., I set off 48°07' on the lat. arc, 2°16'30"S. on the decl. arc, and at the cor. of secs. 29, 30, 31 and 32, determine a true meridian with the solar.

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Chains.

Thence I run,
N.89°51'W. on a true line bet. secs. 30 and 31.
Through dense undergrowth.

40.00 Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on N. face, no trees within limits, dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

44.00 Right bank of Missouri river, and set a cottonwood post 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for Meander cor. of fracl. secs. 30 and 31, marked,
M.C. on W.
T.154 N. on N.
R. 97 W., S. 30 on N. and
S. 31 on S. faces; no trees within limits; dig a pit 36x36x12 ins. 8 ft. E. of post, and raise a mound of earth 4 ft. base, 2 ft. high E. of cor.

Land, dry level bottom, subject to 6 ft. inundation.
Soil, alluvial, 3rd. rate.
Dense undergrowth, 44.00 chs.

N.0°5'W. bet. secs. 29 and 30.
Through dense undergrowth.

10.00 Right bank of Missouri river and se' a cottonwood post, 3 ft. long, 4 ins. sq. with charred stake 24 ins. in the ground for meander cor. to fracl. secs. 29 and 30, marked,
M.C. on N.
T.154 N. on S.
R. 97 W., S. 29 on E. and
S. 30 on W. faces; no trees within limits, dig a pit 36x36x12 ins., 8 ft. S. of post, and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.
Thence on sandbar and from a point at 20.00 chs., I measure a base N.89°56'E., 20.00 chs. to a point where a flag on line over river bears N.47°33'W., distance over river is therefore cotang. 47°26' x base or .917 x 20.00 = 18.34 chs., and distance on line to flag over river 18.34 + 20.00 = 38.34 chs.

38.35 Left bank of Missouri river and set a cottonwood post 3 ft. long, 4 ins. sq. 24 ins. in the ground for meander cor. of fracl. secs. 29 and 30,, marked
M.C. on S.
T.154 N. on N.
R. 97 W., S. 30 on W. and
S. 29 on E. faces; from which,
A cottonwood 4 ins. diam. bears N.65°E., 24 lks. dist. marked,
T. 154 N., R. 97 W., S. 29, M. C. B. T.
A cottonwood 4 ins. diam. bears S.85½°W., 50 lks. dist. marked,
T. 154 N., R. 97 W., S. 30, M. C. B. T.
Thence through timber and dense undergrowth.

40.00 Set a cottonwood post 3 ft. long 3 ins. sq. 24 ins. in the ground for ¼ sec. cor., marked ¼ S. on W. face, from which,

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A cottonwood 4 ins. diam, bears N.17½°E., 82 lks. dist. marked,
¼ S. B. T.
A cottonwood, 3 ins.diam., bears S.33½°W., 74 lks. dist., marked,
¼. S. B. T.

80.00 Set a cottonwood post 3 ft. long 4 ins. sq., with charred stake 24 ins.in the ground for cor. of secs. 19, 24, 25 and 30, marked
T. 154 N., S. 20, on N. E.
S. 19 on N. W.
S. 30, on S. W. and
R. 97 W., S. 29 on S. E. faces;
with 2 notches on S. and 5 notches on E. edges, no trees within limits, dig pits, 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W.of cor.

Land, dry level bottom, subject to from 4 to 10 ft. inundation,
Soil, alluvial, 3rd. rate.
Timber, cottonwood, ash and elm.
Dense undergrowth 51.65 chs.

September 28: At this sec. cor., I set off 2°25'S. on the decl. arc, and at 11h. 50m. a.m., l.m.t., observe the sun on the meridian., resulting lat. 48°08'.

S.89°52'E. on a random line bet. secs. 20 and 29.

40.00 Set temp. ¼ sec. cor.

80.10 Intersect N. and S. line 8 lks. S. of cor. of secs. 20, 21, 28 and 29,
Thence I run,
N.89°55'W. on a true line bet. secs. 20 and 29.
Through timber and dense undergrowth.

40.05 Set a cottonwood post 3 ft. long, 3 ins. sq. with charred stake, 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face; no trees within limits, dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.10 The cor. of secs. 19, 20, 29 and 30.

Land, dry level bottom, subject to from 2 to 6 ft. inundation,
Soil, alluvial, 3rd. rate.
Timber, cottonwood and elm.
Dense undergrowth 80.10 chs.

September 28, 1896.

September 29: At 7h. 30m. a.m., l.m.t., I set off 48°08' on the lat. arc, 2°41'S. on the decl. arc, and at the cor. of secs. 19, 20, 29 and 30, determine a true meridian with the solar.
Thence I run,
N.89°51'W. on a random line bet. secs. 19 and 30.

40.00 Set temp. ¼ sec. cor.

78.90 Intersect W. bdy. of Tp. 16 lks. N. of cor. of secs. 19, 24, 25 and 30, heretofore described,
Thence I run,
S.89°58'E. on a true line bet. secs. 19 and 30.

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17.50 A ravine 50 ft. deep, course S.S.E.
31.50 A ravine 50 ft. deep, course S.S.E.
38.90 Set a cottonwood post, 3 ft. long, 3 ins. sq. with charred stake 2½ ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face; dig pits, 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
48.50 Begin to descend bluffs, bearing N.E.
53.50 Foot of bluffs, 75 ft. high, bearing N.E. and enter dry bottom land.
61.50 Enter dense undergrowth bearing N.E.
75.90 The cor. of secs. 19, 20, 29 and 30.

Land, prairie, rolling and dry level bottom, not subject to inundation.
Soil, sandy loam, and alluvial, 2nd. rate.
Dense undergrowth, 17.40 chs.

N.0°5'W. bet. secs. 19 and 20.
Through timber and dense undergrowth.
11.50 Leave timber and dense undergrowth, bearing E.N.E.
13.50 Leave bottom land bearing E.N.E. and ascend bluffs, bearing E.N.E.
40.00 Set a granite stone 15x10x6 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
69.75 Top of bluffs, 250 ft. high, bearing S.E.
80.00 Set a granite stone 15x12x5 ins., 10 ins. in the ground for cor. of secs. 17, 18, 19 and 20, marked with 3 notches on S. and 3 notches on E. edges; dig pits, 15x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, bluffs and dry level bottom, not subject to innundation.
Soil, clay loam, and alluvial, 1st. and 4th. rate.
Dense undergrowth, 11.50 chs.

S.89°58'E. on a random line bet. secs. 17 and 20.
40.00 Set temp. ¼ sec. cor.
80.08 Intersect N. and S. line 12 lks. N. of cor. of secs. 16, 17, 20 and 21.
Thence I run,
N.89°50'W. on a true line bet. secs. 17 and 20.
3.50 Begin to descend bluffs, bearing W.N.W.
9.00 Have descended 100 ft., thence over side of bluff, sloping S.
18.50 Slope changes to N.W. ascent.
26.20 Regain top of bluff bearing E.N.E.
31.00 Enter a ravine, bearing S.
38.50 Bottom of ravine 150 ft. deep, course S.
40.04 Set a granite stone 18x9x5 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
September 29: At this ¼ sec. cor. I set off 2°30' S. on the accl arc, and at 11h. 10m. a.m., l.m.t. observe the sun on the meridian, resulting lat. 46°05'30".

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42.00 Over ravine and enter 2nd. ravine bearing S.
44.50 Bottom of ravine, 150 ft. deep, course S.
51.00 Over ravine and enter 3rd. ravine, bearing S.
61.50 Bottom of ravine, 175 ft. deep, course S.
71.00 Over ravine, bearing S.
80.08 The cor. of secs. 17, 18, 19 and 20.

Land, prairie, broken or bad.
Soil, clay loam, 4th. rate.

N.89°58'W. on a random line bet. secs. 18 and 19.
40.00 Set temp. ¼ sec. cor.
78.82 Intersect W. bdy. of Tp. 19 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described,
Thence I run,
S.89°50'E. on a true line bet. secs. 18 and 19.
9.50 Enter a brushy ravine bearing S.
35.75 Bottom of ravine 275 ft. deep, course S.S.E.
38.82 Set a sandstone 32x16x14 ins., 24 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits, 15x15x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
55.75 Over ravine, bearing S.S.E.
76.82 The cor. of secs. 17, 18, 19 and 20.

Land, prairie, broken or bad.
Soil, clay loam, 2nd. and 4th. rate.

September 29, 1895.

September 30: At 7h. 26m. a.m., l.m.t., I set off 48° 08'30" on the lat. arc, 3°04'30"S. on the decl. arc, and at the cor. of secs. 17, 18, 19 and 20, determine a true meridian with the solar.
Thence I run,
N.0°5'W. bet. secs. 17 and 18.
8.00 Enter a ravine bearing S.E.
14.00 Bottom of ravine 150 ft. deep, course S.E.
23.50 Over ravine, bearing S.E.
40.00 Set a limestone 18x10x6 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, dig pits, 15x15x12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
80.00 Set a granite stone 18x14x7 ins., 12 ins. in the ground for cor. of secs. 7, 8, 17 and 18, marked with 4 notches on S. and 5 notches on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.

Land, prairie, rolling.
Soil, clay loam, 2nd. rate.

[redacted] North of Range 97 West of the 5th.Principal Meridian.

Thence.

S.89°50'E. on a random line bet. secs. 8 and 17.
Set temp. ¼ sec. cor.
Intersect N. and S. line 4 lks. S. of cor. of secs. 8, 9, 16 and 17.
Thence I run,
N.89°52'W. on a true line bet. secs. 8 and 17.
Descending side of ravine.
Bottom of ravine and a gravelly drain 30 lks. wide, course S.
Over ravine and enter 2nd ravine, bearing E.S.E.
Bottom of ravine 150 ft. deep, and dry gravelly drain 150 lks. wide, course S.W.
Set a limestone 15x8x8 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; dig pits, 18x18x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
Over ravine bearing E.S.E.
The cor. of secs. 7, 8, 17 and 18.

Land, prairie, rolling.
Soil, gravelly loam, 2nd. rate.

N.89°50'W. on a random line bet. secs. 7 and 18.
Set temp. ¼ sec. cor.
Intersect W. bdy. of Tp. 2½ lks. S. of cor. of secs. 7, 12, 13 and 18, heretofore described.
Thence I run,
S.89°49'E. on a true line bet. secs. 7 and 18.
A brushy ravine 80 ft. deep, course W.N.W.
A wagon road bearing S.S.W.
Set a limestone 15x14x7 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
Pits impracticable.
A brushy ravine, 80ft. deep, bearing N.E.
A brushy ravine 80 ft. deep, bearing N.N.E.
The cor. of secs. 7, 8, 17 and 18.

Land, prairie, rolling.
Soil, gravelly loam, 2nd. rate.
Brush in ravines, poplar.

N.0°5'W. bet. secs. 7 and 8.
Enter a ravine, bearing E.
Bottom of ravine 125 ft. deep, course E.
Over ravine, bearing E.
Enter a ravine, bearing S.E.
Bottom of ravine 100 ft. deep, course S.E.
Set a sandstone 18x14x5 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.
Over ravine, bearing S.E.
A wagon road bearing E.S.E.
Set a limestone 18x14x6 ins., 12 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked with 5 notches on S. and E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.

Land, prairie, rolling.
Soil, clay and gravelly loam, 2nd. rate.
September 30. At this Sec. cor. I set off 3°1[illegible]'30"S. on the decl. arc, and at 11h.50m. a.m., l.m.t. observe the sun on the meridian, resulting lat. 45°10'.

Township 164 North of Range 97 West of the 5th.Principal Meridian.

Chains.	
	S.89°52'E. on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S.line at cor. of secs. 4, 5, 8 and 9.
	Thence I run,
	N.89°52'W. on a true line bet. secs. 5 and 8.
	Thomas Costella's house bears N.21°W.
13.90	A grassy drain 15 lks. wide, course N.
39.98	Set a limestone 16x12x8 ins., 10 ins. in the ground for ¼ sec. cor. marked ¼ on E. face; dig pits, 18x18 x12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
54.90	A gravelly drain, 20 lks. wide, course N.
72.00	Thomas Costella's house bears N.67½°E.
79.96	The cor. of secs. 5, 6, 7 and8.
	Land, prairie, very rolling.
	Soil, gravelly loam, 3rd. rate.

	N.89°49'W. on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ sec. cor.
78.56	Intersect W. bdy. of Tp. 6 lks. S. of cor. of secs. 1, 6, 7 and 12, heretofore described,
	Thence I run,
	S.89°46'E. on a true line bet. secs. 6 and 7.
38.56	Set a granite stone 18x12x10 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
50.60	A ravine 60 ft. deep, course N.
78.56	The cor. of secs. 5, 6, 7 and 8.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

	N.0°5'W. on a random line bet. secs. 5 and 6.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. bdy. of Tp. 8 lks. W. of cor. of secs. 5, 6, 31 and 32, heretofore described,
	Thence I run,
	S.0°2'E. on a true line bet. secs. 5 and 6.
11.10	A ravine 60 ft. deep, course S.E.
18.15	Recross ravine, 60 ft. deep, course S.W.
23.60	Recross ravine, 60 ft. deep, course S.E.
39.40	A creek drain 2 lks. wide, 4 ins. deep, current rapid, course E.
40.12	Set a limestone 16x12x4 ins., 10 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
55.90	A grassy drain, 30 lks. wide, course N.E.
80.12	The cor. of secs. 5, 6, 7 and 8.
	Land, prairie, rolling.
	Soil, gravelly loam, 2nd. rate.

September 30, 1896.

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.

Meanders.

Meanders of left bank of Missouri river, down stream.

I commence at meander cor. of fracl. secs. 25 and 30, on W. bdy. of Tp. heretofore described, Thence I run. with meanders in sec. 30.
Through dense undergrowth.
N.65½°E., 13.00 chs. — to prairie bearing N.
N.69½°E., 14.00 chs.
N.78 °E., 23.00 chs. — To dense undergrowth, bearing N.
N.83½°E., 31.80 chs. — To meander cor. of fracl. secs. 29 and 30.

Land, level bottom, subject to from 2 to 4 ft. inundation.
Soil, alluvial, 2nd. rate.
Dense undergrowth 44.80 chs.
October 1, At 9h. a.m., l.m.t., I set off 48°07' on the lat. arc, 3°31'S. on the decl. arc, and at this meander cor. determine a true meridian with the solar.

Thence in sec. 29.
Through dense undergrowth.
N.82½°E., 56.00 chs.
N.86 °E., 24.70 chs. — To meander cor. of fracl. secs. 28 and 29.

Land, dry level bottom, subject to from 2 to 4 ft. inundation.
Soil, alluvial, 3rd. rate.
Dense undergrowth 80.70 chs.

Thence in sec. 28.
Through dense undergrowth.
N.71 °E., 32.00 chs.
N.47½°E., 33.45 chs. — To meander cor. of fracl. secs. 21 and 28.

Land, dry level bottom, subject to 4 ft. inundation.
Soil, alluvial, 3rd. rate.
Dense undergrowth 65.45 chs.
October 1: At this meander cor. I set off 3°34'30"S. on the decl. arc, and at 11h.49m. a.m., l.m.t., observe the sun on the meridian resulting lat. 48°08'.

Thence in sec. 21.
Through dense undergrowth.
N.22½°E., 64.90 chs. — To meander cor. of fracl. secs. 21 and 22.

Land, dry level bottom, subject to 5 ft. inundati n.
Soil, alluvial, 3rd. rate.
Dense undergrowth 64.90 chs.

Townahip 154 North of Range 97 West of the 5th.Principal Meridian.

Chains.

Thence in sec. 22.
Through dense undergrowth.

N.77½°E., 11.50 chs.	At end of course leave dense undergrowth bearing W.
N.65½°E., 14.00 chs.	
S.87 °E., 14.00 chs.	At 0.55 chs. enter dense undergrowth bearing E.N.E.
N.57 °E., 6.00 chs.	To mouth of creek drain 25 lks. wide.
N.72 °E., 20.00 chs.	At 10.50 chs. leave dense undergrowth, bearing N.
N.82½°E., 18.30 chs.	To meander cor. of fracl. secs. 22 and 23.

Land, dry level bottom, not subject to innundation.
Soil, alluvial 1st. rate.
Dense undergrowth, 41.45 chs.

October 1, 1896.

October 3: At this meander cor. I set off 48°08'30" on the lat. arc, 4°14'30"S. on the decl. arc, and at 7h.30m. a.m., l.m.t., determine a true meridian with the solar.
Thence in sec. 23.

S.83°E., 23.00 chs.	
S.58°E., 17.00 chs.	
S.44°E., 35.00 chs.	At .70 chs. enter dense unde growth bearing E.
S.62½°E., 21.00 chs.	At 17.50 chs. mouth of creek drain 2 lks. wide, to meander cor. of fracl. secs. 23 and 24.

Land, dry level bottom, not subject to innundation.
Soil, alluvial, 1st, rate.
Timber, ash, elm and cottonwood.
Timber and dense undergrowth 55.30 chs.

Thence in sec. 24.
Through timber and dense undergrowth.

S.43½°E., 37.00 chs.	At 5.00 chs. leave dense undergrowth bearing N.W.
S.48 °E., 9.60 chs.	To meander cor. of fracl. secs. 24 and 25.

Land, dry level bottom, not subject to innundation.
Soil, alluvial, 1st. rate.
Timber and dense undergrowth, 5.00 chs.

Thence in sec. 25.

S.47½°E., 19.00 chs.	
S.61 °E., 24.00 chs.	
S.68½°E., 13.40 chs.	To meander cor. of fracl. secs. 25 and 30.

On E. bdy. of Tp. heretofore described.
Land, dry level bottom, not subject to innundation.
Soil, alluvial, 2nd. rate.

October 3, 1896.

Township 15½ North of Range 97 West of the 5th.Principal Meridian.

Chains.

Meanders of right bank of Missouri river, down stream

October 2, At 7h. 25m. a.m., l.m.t., I set off 48°06' 30" on the lat. arc, 3°51'S. on the decl. arc, and at the meander cor. of fracl. secs. 31 and 36, on W. bdy of the Tp. heretofore described, determine a true meridian with the solar.
Thence I run with meanders in Sec. 31.
Through dense undergrowth.
N.52½°E., 24.00 chs.
N.54½°E., 10.00 chs.
N.73 °E., 8.30 chs. — To meander cor. of fracl. secs. 30 and 31.

Land, dry level bottom, subject to 6 ft. innundation.
Soil, alluvial, 4th. rate.
Dense undergrowth 42.30 chs.

Thence in Sec. 30.
Through dense undergrowth.
N.73 °E., 17.00 chs.
N.77½°E., 20.00 chs.
N.85½°E., 8.25 chs. — To meander cor. of fracl. secs. 29 and 30.

Land, dry level bottom, subject to 6 ft. innundation.
Dense undergrowth, 45.25 chs.

Thence in sec. 29.
Through dense undergrowth.
N.82°E. 21.00 chs.
East 29.50 chs. — To meander cor. of fracl. secs. 28 and 29.

Land, dry level bottom, subject to 8 ft. innundation.
Soil, alluvial 3rd. rate.
Dense undergrowth 80.50 chs.

Thence in sec. 28.
Through dense undergrowth.
N.81½°E., 22.00 chs. — At 1.00 ch. leave dense undergrowth bearing S.E.

N.62½°E., 6.00 chs.
N.52 °E., 18.00 chs.
N.54 °E., 24.00 chs.
N.49½°E., 25.50 chs. — To meander cor. of fracl. secs. 27 and 28.

Land, dry level bottom, W. 22.00 chs. subject to 8 ft.innundation, remainder not subject to innundation.
Soil, alluvial, 2nd. rate.
Dense undergrowth, 1.00 ch.
October 2, At this meander cor., I set off 3°58'S. on the decl. arc, and at 11h. 49m. a.m., l.m.t., observe the sun on the meridian, resulting lat. 48°07'30".

Township 154 North of Range 97 West of the 5th. Principal Meridian.

Chains.		
	Thence in sec. 27.	
	N.41¼°E., 19.55 chs.	To meander cor. of fracl. secs. 22 and 27.
	Land, dry level bottom, not subject to innundation.	
	Soil, alluvial, 2nd. rate.	
	Thence in sec. 22.	
	N.35¼°E., 17.00 chs.	To dense undergrowth bearing E.S.E.
	N.30 °E., 19.00 chs.	
	N.35 °E., 12.00 chs.	
	N.42½°E., 8.60 chs.	
	N.53½°E., 9.50 chs.	
	S.65¼°E., 28.70 chs.	To meander cor. of fracl. secs. 22 and 23.
	Land, dry level bottom, W. part not subject to innundation, E. part subject to from 2 to 6 ft. innundation.	
	Soil, alluvial, 2nd. and 3rd. rate.	
	Timber, cottonwood.	
	Timber and dense undergrowth, 77.80 chs.	
	Thence in sec. 23.	
	Through dense undergrowth.	
	S.59°E., 62.00 chs.	
	S.65°E., 30.80 chs.	To meander cor. of fracl. secs. 23 and 26.
	Land, dry level bottom, subject to 7 ft. innundation	
	Soil, alluvial, 3rd. rate.	
	Timber, cottonwood.	
	Timber and dense undergrowth, 82.80 chs.	
	October 2, 1896.	
	Thence in sec. 26.	
	Through dense undergrowth.	
	S.53¼°E., 9.10 chs.	To meander cor. of fracl. secs. 26 and 25.
	Land, dry level bottom, subject to 5 ft. innundation.	
	Soil, alluvial, 3rd. rate.	
	Dense undergrowth 9.10 chs.	
	Thence in sec. 25.	
	Through dense undergrowth.	
	S.49 °E., 20.00 chs.	
	S.42½°E., 44.00 chs.	
	S.55 °E., 34.00 chs.	
	S.60 °E., 9.25 chs.	At 7.00 chs. mouth of Tobacco Garden Creek 100 lks. wide. To meander cor. of fracl. secs. 25 and 30 on E. bdy
	of Tp. heretofore described.	
	Land, dry level bottom, subject to 6 ft. innundation.	
	Soil, alluvial 3rd. rate.	
	Timber, cottonwood and elm.	
	Timber and dense undergrowth 107.25 chs.	
	October 3, 1896.	

Township 154 North of Range 97 West of the 5th. Principal Meridian.

General Description.

The land in this Tp. is level prairie in the N.E. Rolling and broken in the W., and dry level bottom generally free from inundation in the S. parts. Soil, sandy loam and alluvial, 2nd. and 3rd. rates. The bottom land is partially covered with small cottonwood timber, and dense willow undergrowth, and except in the timber the Tp. is covered with rich nutritious grasses, affording good pasturage. The Missour river, course E., crosses the S. part of the Tp.

seven settlements were found, John Frisch on the N.W. ¼ of S.W. ¼ sec. 36, F. T. Townsand on the S.E. ¼ of S.E. ¼ sec. 32; J. A. McKay on the N.E. ¼ of N.W. ¼ sec. 24; William Laughland on the N.E. ¼ of N.E. ¼ of sec. 23; Baldwin on the N.W. ¼ of N.E. ¼ sec. 15, Thomas Costella on the N.E. ¼ of S.E. ¼ sec. 5, and N.A. Gotchie on the N.W. ¼ of N.E. ¼ sec. 2. A school house was also found on the S.E. ¼ of N.E. ¼ Sec. 15, Nesson Post Office is located at Baldwin's ranch on sec. 15.

Good crops have been raised without irrigation. The settlers are principally engaged in stock raising.

George K. Dike,
U. S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by ... George K. Dale ...
... United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivisional meander lines of Township No. 154 N. of Range No. 97 W. of the fifth principal meridian in North Dakota,
showing the respective capacities in which they acted:

Jacob A. Dahl ... Chainman.
Clarence E. Beckwith ... Chainman.
Isaac Nelson ... Woodsman.
Henry Mizell ... Woodsman.
... Axman.
... Axman.
William Allen ... Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted George K. Dale ...
... United States Deputy Surveyor, in surveying all those parts or portions of the subdivisional and meander lines of Township No. 154 North of Range No. 97 West ... of the fifth principal meridian, State of North Dak., which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for North Dakota

Jacob A Dale ... Chainman.
Clarence E. Beckwith ... Chainman.
Henry Mizell ... Woodsman.
Isaac Nelson ... Woodsman.
... Axman.
... Axman.
William Allen ... Flagman.

Subscribed and sworn to before me this 24 day of Nov. 1896

(Seal)

John Fugate
Clerk of Dist Court
Ward County N. D.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, George K. Dike, a United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Andrew Blewett, United States Surveyor General for North Dakota, bearing date of the 24 day of March, 1896, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for North Dakota, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivisional and meander lines of township No. 154 North of Range No. 97 West of the fifth principal meridian, in the State of North Dakota, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for North Dakota, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

George K. Dike
United States Deputy Surveyor.

Subscribed by said George K. Dike, and sworn to before me this 24 day of November, 1896

John Lynch
Clerk of District Court
Ward County, N.D.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Grand Forks, N.D. August 8, 1897

The foregoing field notes of the survey of the subdivisional and meander lines of township No. 154 North of Range No. 97 West of the fifth principal meridian in North Dakota

executed by George K. Dike under his contract No. 42, dated March 24, 1897, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Andrew Blewett
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in North Dakota has been correctly copied from the original notes on file in this office.

Andrew Blewett
United States Surveyor General.

8-98

From:	Karen M. Haugen
To:	Kadrmas, Bethany R.
Cc:	Joshua A. Swanson
Subject:	Greenstar Resources Operating, LLC
Date:	Tuesday, June 19, 2018 9:53:46 AM
Attachments:	VOGEL-#3300328-v1-Exhibit_C_-_Aden_L__Seidlitz_ltr_to_Lance_Gaebe_and_Todd_Sando.PDF VOGEL-#3300323-v1-Exhibit_B_-_Corps_of_Engineers_Project_Map.PDF VOGEL-#3300316-v1-Exhibit_A_-_Complaint.PDF VOGEL-#3300310-v1-JAS_ltr_to_Bethany_Kadrmas_-_NDIC.PDF ATT00001.txt ATT00002.htm

Please find attached regarding the above-referenced matter the following:

1) Correspondence from Joshua A. Swanson;
2) Exhibit A;
3) Exhibit B; and,
4) Exhibit C.

Karen M. Haugen | Senior Legal Administrative Assistant

VOGEL Law Firm

218 NP Avenue
P.O. Box 1389 | Fargo, ND 58107-1389
Tel: 701.237.6983 | Dir: 701.356.6374 | Fax: 701.476.7676

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Joshua A. Swanson

jswanson@vogellaw.com

June 19, 2018

North Dakota Industrial Commission
Department of Mineral Resources, Oil & Gas Division
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

e-mail only to: brkadrmas@nd.gov

Re: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03
Case No. 26584
Our File No.: 052301.18000
Greenstar Resources Operating, L.L.C.

Dear Department of Mineral Resources:

I represent Greenstar Resources Operating, L.L.C. ("Greenstar"). They are the undivided owners of certain oil, gas, and other minerals in, on, or underlying the following property in McKenzie County and Mountrail County:

Township 153 North, Range 94 West
Section 1
Section 2

Township 154 North, Range 94 West
Section 23
Section 25
Section 26
Section 35

(the "Property"). The majority of the Property is located in Mountrail County, specifically, Township 153 North, Range 94 West, Section 1, and Township 154 North, Range 94 West, Sections 23, 25, and 26 are entirely in Mountrail County. A portion of the Property is also located in both Mountrail County and McKenzie County, specifically, Township 153 North, Range 94 West, Section 2, and Township 154 North, Range 94 West, Section 35. Greenstar acquired its interest in the Property from the Estate of Edward Necarsulmer, Jr., and the testamentary trust created by the will of Edward Necarsulmer, Jr. A detailed description of the conveyances by which Greenstar acquired its interest in the Property is contained at ¶¶ 7 – 19 of the attached

Complaint in *Greenstar Resources Operating, LLC v. Hess Bakken Investments II et al.*, Case No. 27-2018-cv-00311. See Exhibit A.

1. The surface of the Property is subject to inundation by Lake Sakakawea, and is above the OHWM of the historic Missouri River as was determined by the United States Army Corps of Engineers when they acquired land for the Garrison project

The surface of the Property was acquired by the United States Army Corps of Engineers ("Corps"), under the authority of the Flood Control Act of 1944, Public Law 534, 78th Congress, 2nd session. The Corps acquired fee title to all land that would be inundated when Lake Sakakawea reached full pool at 1,854 feet msl. The Property is within the 1,854 msl elevation. The United States acquired title to the surface of the Property because it was within the operational pool of Lake Sakakawea, and as such, the lake would inundate the Property. A copy of the Corps' Segment Map showing the Property acquired by the United States for the Garrison Project is enclosed as Exhibit B (Segment Map W). As Exhibit B shows, the entirety of Township 154 North, Range 94 West, Sections 23, 25, and 26, and Township 153 North, Range 94 West, Section 1, are above the OHWM of the historic Missouri River and were acquired by the Corps for the Garrison Project. The majority of the surface acres in Township 154 North, Range 94 West, Section 35, and Township 153 North, Range 94 West, Section 2 are above the OHWM of the historic Missouri River and were likewise acquired by the Corps for the Garrison Project.

In a March 2016 decision rejecting the State's previous position regarding the location of the OHWM of the historic Missouri River riverbed, the United States Department of Interior described these Segment Maps as the "most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea," stating:

> "The [Corps] Segment Maps were the basis for land title acquisition by the [Corps] for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea."

See March 23, 2016 decision by the United States Department of Interior, Bureau of Land Management ("2016 United States Report"). The 2016 United States Report is attached as Exhibit C. The 2016 United States Report concluded that the Segment Maps, like Exhibit B, were the basis of appropriating millions of dollars by the United States Congress to acquire land, like the Property, for Garrison Dam and Lake Sakakawea.

> "The [Corps] Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial

> rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM [Bureau of Land Management], and involvement from the BLM, and ND SLD [North Dakota Land Board], and have gone uncontested for over 60 years."

See Exhibit C at p. 9.

The beneficiaries of Necarsulmer Jr. (Greenstar's predecessor in interest), Edward Necarsulmer III and Mary Ellen Walsh, attempted to enter leases for the Property with Hess Bakken Investments II ("Hess") in March 2010 as detailed in the Complaint filed by Greenstar. See Exhibit A at ¶¶ 20 – 25. As explained in the Complaint, Greenstar is challenging the validity of the leases between Hess, Edward III, and Walsh on separate grounds unrelated to the OHWM of the historic Missouri River. Notwithstanding, the attempt by Hess to lease the Property, in addition to the Corps' Segment Map (Exhibit B), is indicative of the fact that the Property is privately owned – first by the Estate of Edward Necarsulmer, Jr., then by Greenstar, who acquired it from the Estate of Edward Necarsulmer, Jr., to the exclusion of all others – and the State is a stranger to title with no right or interest in the Property.

2. The State has no interest in the Greenstar's Property, and any attempt by the State to claim an interest is an unconstitutional taking according to the Supreme Court's decision in *Wilkinson v. Board of University and School Lands*

The government cannot flood a private citizen's land and then claim it owns the valuable, yet inundated, mineral interests reserved by the private landowner. The State has no right, title, or interest in Greenstar's Property. As explained by the United States Court of Claims, such a claim by the State epitomizes the very definition of an impermissible and unlawful taking by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). In 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. [1]

[1] Any attempt by the State to "take" the Property via eminent domain would still fail as such a taking cannot withstand the scrutiny of the public use requirement under the Constitution's

In Wilkinson, the Supreme Court held that any outcome resulting in the State having title to the mineral interests of private landowners, whose surface was acquired by the Corps for the Garrison Project, would be an unconstitutional taking.

> Mineral interests in Williams County, in the oil-producing Bakken formation, have value. *See Jacobs-Raak v. Raak*, 2016 ND 240, ¶ 12, 888 N.W.2d 770 (stating it would be disingenuous to believe mineral interests in a county in the Bakken formation have little or no value). There is undisputed evidence the plaintiffs have leased the minerals numerous times since they conveyed the surface property to the United States. **If the district court determines the State owns the minerals, the plaintiffs will be deprived of the mineral interests. The federal government compensated the plaintiffs for the surface property, but the plaintiffs have not been compensated for the mineral interests. The plaintiffs are entitled to compensation if the government's actions result in a "taking" of the mineral interests.** *See Arkansas Game & Fish Comm'n v. United States*, 568 U.S. 23, 31-34, 133 S.Ct. 511, 184 L.Ed.2d 417 (2012) (stating permanent physical occupation of property authorized by government is a taking, and government-induced flooding can constitute a taking); *Tarrant Reg'l Water Dist. v. Gragg*, 43 S.W.3d 609, 620-21 (Tex. Ct. App. 2001) (holding flooding of property will be considered a taking if the flooding after the construction of a reservoir was greater than it previously had been).

Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, ¶ 24, 903 N.W.2d 51, 58–59 (emphasis added). [2]

As many legislators noted during the committee hearings on SB 2134 and HB 1199 during the 2017 legislative session, many mineral owners like Greenstar and their predecessors had previously leased or otherwise used the mineral interests subject only to the United States' right to inundate the land with Lake Sakakawea. Rep. George Keiser – who championed the cause of the private landowners during the legislative session – appropriately summarized the impetus for SB

Fifth Amendment. See Kelo v. City of New London, Conn., 545 U.S. 469, 477, 125 S.Ct. 2655 (2005) (stating, "As for the first proposition, the City would no doubt be forbidden from taking petitioners' land for the purpose of conferring a private benefit on a particular private party. A purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.") (internal quotations omitted).

[2] After the decision in Wilkinson, the State concedes that owners like Greenstar, the Wilkinsons, Ed Lynch, and Suzanne Vohs are the rightful owners of the minerals that were reserved when the United States acquired the surface for Lake Sakakawea in the 1950s. As such, it appears the State has relinquished any claim or interest in the Property. See Sorum et al. v. Bd. of Univ. & Sch. Lands et al., case no. 09-2018-cv-00089, State Defendants Response to Plaintiffs' Motion for Preliminary Injunction (Doc. ID #120).

2134 when describing the legislative efforts that culminated in the codification of Chpt. 61-33.1, N.D.C.C. During his testimony, Rep. Keiser noted that the State's attempt to claim these valuable mineral interests in the Wilkinson case was the greatest taking of property that North Dakota has ever seen. Counsel for the Wilkinsons, who is the signatory to this comment letter and counsel for Greenstar, testified before the Legislature on SB 2134 and HB 1199, providing a background on the Wilkinson case and related litigation, and testified as to the reasons why the State could not claim the mineral rights of private property owners like Greenstar, the Wilkinsons, and others. Copies of that testimony have been provided to the Industrial Commission as part of the Wilkinsons' comment letter and are incorporated herein by reference to avoid duplicity of exhibits (see Wilkinsons comment letter at Exhibits J-1, J-2, and J-3).

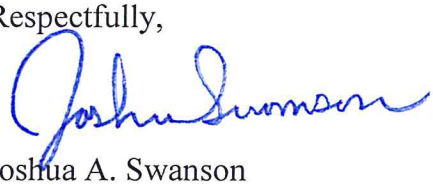
Fortunately, Chpt. 61-33.1, N.D.C.C., recognizes that owners like Greenstar were, and are, the rightful owners of the mineral interests that were reserved decades ago when the surface of these lands, including the Property, were acquired by the United States for the Garrison Project. So too, in Sorum, see supra at n. 2, the State now recognizes that mineral owners like Greenstar and the Wilkinsons are the rightful owners, and that the State does not have any claim to minerals laying outside the historic Missouri River riverbed. Any result under Chpt. 61-33.1, N.D.C.C., that ends up with Greenstar not being recognized as the owners of the Property would be an unconstitutional taking pursuant to Wilkinson and will result in a legal challenge.

3. **Wenck Associates Survey concludes that the Property is above the historical OHWM of the Missouri River**

The survey completed by Wenck Associates as provided for by Chpt. 61-33.1, N.D.C.C., concluded the Property is above the OHWM of the historic Missouri River riverbed, and largely tracks the Corps' Segment Map W (Exhibit B). The only exception appears to be some additional acreage that Greenstar may have acquired by reliction in Township 154 North, Range 94 West, Section 35. The Property is shown on Map 3, at page 50, of the Wenck Associates' Report. Greenstar supports any conclusion by the Department of Mineral Resources that results in the State immediately disclaiming and releasing any and all claims to their Property, and Greenstar being recognized as the rightful owner. Likewise, the "Phase II survey" previously commissioned by the State, and completed by Bartlett and West, determined the Property was above the OHWM of the historic Missouri River riverbed. Chpt. 61-33.1, N.D.C.C., requires that within six months after the Industrial Commission's action, any royalty proceeds held by the Land Board that are attributable to oil and gas mineral tracts above the OHWM under both the Corps survey and the Phase II delineation – being the non-contested acreage – must be distributed by the Board to the owners of such tracts. Considering that the Property is above the historic OHWM as determined by both the Wenck Associates Survey and Phase II survey, Greenstar asks that any proceeds attributable to the Property be released in accordance with Chpt. 61-33.1, N.D.C.C.

We appreciate your attention to this. If you have any questions, I would be glad to visit. I can be reached via phone at 701.237.6983 or e-mail at jswanson@vogellaw.com. I will be in Bismarck on June 26 to testify at the public hearing in this matter.

Respectfully,



Joshua A. Swanson

enc:

Exhibit List

Exhibit A	Complaint, *Greenstar Resources Operating, LLC v. Hess Bakken Investments II et al.*, Case No. 27-2018-cv-00311
Exhibit B	Army Corps of Engineers Segment Map for Property (Segment Map W)
Exhibit C	2016 United States Report

3295006.1

Date/Time Accepted 5/25/2018 11:15 AM CST

STATE OF NORTH DAKOTA
COUNTY OF MCKENZIE

IN DISTRICT COURT
NORTHWEST JUDICIAL DISTRICT

Greenstar Resources Operating, L.L.C., Plaintiff, v. Hess Bakken Investments II, LLC, and Continental Resources, Inc. Defendants.	Case No. 27-2018-CV-00311 **COMPLAINT**

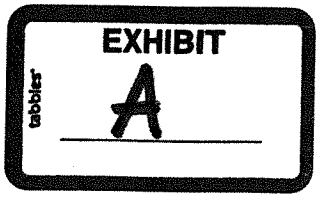
COMES NOW, Plaintiff, Greenstar Operating, L.L.C., for its cause of action against Defendants, Hess Bakken Investments II, LLC, and Continental Resources, Inc., alleges and states as follows:

PARTIES, JURISDICTION, AND VENUE

[¶1] Plaintiff, Greenstar Operating, L.L.C. ("Greenstar"), is an Oklahoma company doing business as a foreign limited liability company in North Dakota, in good standing, with its principal office at 770 W. Rock Creek Rd. #119, PO Box 721930, Norman, Oklahoma 73070-8372.

[¶2] Defendant, Hess Bakken Investments II, LLC ("Hess"), is a Texas company doing business as a foreign limited liability company in North Dakota, in good standing, with its principal office at 1501 McKinney St., Houston, Texas 77010-4010.

[¶3] Defendant, Continental Resources, Inc. ("Continental"), is an Oklahoma company doing business as a foreign business corporation in North Dakota, in good standing, with its



principal office at 20 N. Broadway, PO Box 269097, Oklahoma City, Oklahoma 73126-9097.

[¶4] Venue is proper in McKenzie County because this action affects real property situated in McKenzie County, and business transacted by the Parties in McKenzie County.

[¶5] The Parties are subject to the personal jurisdiction of this Court.

FACTS

[¶6] Greenstar is the owner of the oil, gas, and other minerals in, on, or underlying certain real property in McKenzie County and Mountrail County, specifically, to-wit:

Township 153 North, Range 94 West
Section 1
Section 2

Township 154 North, Range 94 West
Section 23
Section 25
Section 26
Section 35

(the "Property"). The majority of the Property is located in Mountrail County, specifically, Township 153 North, Range 94 West, Section 1, and Township 154 North, Range 94 West, Sections 23, 25, and 26 are entirely in Mountrail County. Notwithstanding, a portion of the Property is located in both Mountrail County and McKenzie County, specifically, Township 153 North, Range 94 West, Section 2, and Township 154 North, Range 94 West, Section 35.

[¶7] Greenstar acquired its interest in the Property from the Estate of Edward Necarsulmer, Jr. ("Necarsulmer Estate") and the testamentary trusted created by the will of Edward Necarsulmer, Jr., as described herein.

[¶8] On or about October 1990, Edward Necarsulmer Jr. ("Necarsulmer"), a resident of New York County, New York, died. The Last Will and Testament of Edward Necarsulmer

Jr. (the "1990 Will") was admitted to probate in the Surrogate's Court for the County of New York, on October 4, 1990, in the matter of Probate Proceedings, Will of Edward Necarsulmer, Jr., case number 1990-4310.

[¶9] Pursuant to the terms of the 1990 Will, Necarsulmer's son, Edward Necarsulmer III ("Edward III") and Jack R. Meyer ("Meyer"), were appointed by the New York probate court as co-Executors of the Necarsulmer Estate. Edward III and Meyer were serving as the co-Executors of the Necarsulmer Estate on all relevant dates referenced herein, and remain serving as co-Executors.

[¶10] In addition to serving as Co-Executors of the Necarsulmer Estate, Edward III and Meyer were appointed by the New York probate court as the Trustees of the testamentary trust created by the 1990 Will ("Necarsulmer Trust"). Edward III and Meyer were serving as the co-Trustees on all relevant dates referenced herein, and remain serving as the Trustees.

[¶11] The New York estate proceeding for the Necarsulmer Estate remains active and open as of this date.

[¶12] In September 2012, Edward III, individually, and Edward III and Meyer as co-Trustees of the Necarsulmer Trust, and Mary Ellen Walsh ("Walsh"), individually, conveyed to Greenstar an Option to Purchase ("September 2012 Option") the interests owned by Necarsulmer on the date of his death in Township 153 North, Range 94 West: Sections 1 and 2; and Township 154 North, Range 94 West: Sections 23 and 25. The September 2012 Option was recorded in McKenzie County on June 18, 2013, at document no. 452744, and a copy is attached hereto as Exhibit A.

[¶13] In October 2012, Edward III, individually, and Edward III and Meyer as co-Trustees of the Necarsulmer Trust, and Walsh, individually, conveyed to Greenstar an Option to

Purchase ("October 2012 Option") the interests owned by Necarsulmer on the date of his death in Township 154 North, Range 94 West: Sections 23, 25, 26 and 35, and Township 153 North, Range 94 West, Sections 1 and 2. The October 2012 Option was recorded in Mountrail County on June 17, 2013, at document no. 401097, and a copy is attached hereto as Exhibit B.

[¶14] On December 23, 2012, an ancillary probate of the Necarsulmer Estate was filed in the District Court for Mountrail County, Probate No. 31-2012-pr-265, and the 1990 Will was admitted to probate. On the same date, Edward III and Meyer were appointed co-Personal Representatives of the Necarsulmer Estate pursuant to the 1990 Will, which also named them co-Trustees of the Necarsulmer Trust under the terms of the 1990 Will. Copies of the relevant probate documents are attached hereto collectively as Exhibit C.

[¶15] On July 23, 2014, pursuant to the authority granted in the 1990 Will, the co-Personal Representatives of the Necarsulmer Estate conveyed to Greenstar via a Personal Representative's Mineral Deed all of the undivided interest in the minerals owned of record by Necarsulmer on the date of his death, and all of the undivided mineral interests of the grantors, located in McKenzie County, to-wit, Township 154 North, Range 94 West: Section 35. This Personal Representative's Mineral Deed ("North Dakota PR Deed #1") was recorded in McKenzie County on August 18, 2014, at document no. 471076, and also recorded in Mountrail County on March 7, 2018, at document no. 434465. Copies of the North Dakota PR Deed #1 are attached hereto as Exhibit D.

[¶16] On July 23, 2014, pursuant to the authority granted in the 1990 Will, the co-Personal Representatives of the Necarsulmer Estate conveyed to Greenstar via a Personal Representative's Mineral Deed all of the undivided interest in the minerals owned of record

by Necarsulmer on the date of his death, and all of the undivided mineral interests of the grantors, located in Mountrail County, to-wit, Township 153 North, Range 94 West: Sections 1 and 2; and Township 154 North, Range 94 West: Sections 23, 25, and 26. This Personal Representative's Mineral Deed ("North Dakota PR Deed #2") was recorded in Mountrail County on August 18, 2014 at document no. 412496, and also recorded in McKenzie County on March 6, 2018 at document no. 506568. Copies of the North Dakota PR Deed #2 are attached hereto as Exhibit E.

[¶17] On August 25, 2015, pursuant to authority granted in the 1990 Will, the co-Trustees of the Necarsulmer Trust conveyed to Greenstar via a Trustee's Mineral Deed the entirety of the undivided mineral interest in the Property owned of record by the grantors and all of the undivided mineral interest owned of record by the Necarsulmer Trust. This Trustee's Mineral Deed ("Trustee's Mineral Deed") was recorded in McKenzie County on September 4, 2015 at document no. 484768, and recorded in Mountrail County on September 4, 2015 at document no. 420559, and re-recorded as document no. 434466. The Trustee's Mineral Deed provides that:

> "It is the intent of the grantor to convey all of the trust's right, title and interest, including accretion and riparian rights, in and to the captioned sections located in McKenzie and Mountrail County, North Dakota, whether improperly described or omitted entirely .... Grantor warrants that this property is currently in its possession and has not sold or transferred."

Copies of the Trustee's Mineral Deed are attached hereto as Exhibit F.

[¶18] On or about May 3, 2018, Edward III, individually, Edward III and Meyer as co-Personal Representatives for the Estate of Necarsulmer, and Edward III and Meyer as co-Trustees of the Necarsulmer Trust, and Greenstar, executed a Stipulated Disclaimer and Conveyance ("Stipulation"), who, by and through the Stipulation, wished to affirm the

above-described conveyances to Greenstar, attached as Exhibit A – F, and affirm that Greenstar owned the Property acquired by virtue of Exhibits A – F. The Stipulation was recorded in Mountrail County on May 10, 2018 at document no. 435471, and recorded in McKenzie County on May 14, 2018 at document no. 508015. A copy of the Stipulation is attached hereto as Exhibit G.

[¶19] By and through the conveyances described above in ¶¶ 7 – 18, and attached hereto as Exhibits A – G, it was the intent of Edward III, individually, Edward III and Meyer as co-Personal Representatives for the Estate of Necarsulmer, and Edward III and Meyer as co-Trustees of the Necarsulmer Trust, to grant, sell, and convey to Greenstar, and for Greenstar to purchase and receive, all of the right, title, and interest, in fee simple, to the oil, gas and other minerals in, to, and underlying the Property, such interest unencumbered by any other claims, interests, liens or encumbrances.

[¶20] While Walsh is a beneficiary of the Necarsulmer Trust, Walsh never owned, and does not currently own, any interest in the Property in her individual capacity.

[¶21] On or about April 20, 2018, Walsh executed a Disclaimer of Interest ("Walsh Disclaimer") attesting that she "[i]s a beneficiary of the [Necarsulmer Trust], but has never owned and does not currently own or claim any interest in the Property in her individual capacity," and, further, that she:

> "[d]oes hereby stipulate and agree that Mary Ellen Walsh, individually, has never owned, does not currently own, and does not claim or assert an ownership interest in the Property, or any portion thereof. The intent of this document is to affirm of record that no ownership interest is claimed or asserted by Mary Ellen Walsh, in her individual capacity, in the Property."

The Walsh Disclaimer was recorded in Mountrail County on May 3, 2018 at document no. 435321, and recorded in McKenzie County on May 14, 2018 at document no. 508016. A copy of the Walsh Disclaimer is attached hereto as Exhibit H.

[¶22] Hess claims an interest in the Property adverse to Greenstar by virtue of several oil and gas leases. The leases are between Hess Corporation and Mary Ellen Walsh, dealing in her sole and separate property, dated March 30, 2010, recorded in Mountrail County at document no. 367048 ("Walsh Lease"), and a separate lease between Hess Corporation and Edward Necarsulmer III, a married man dealing in his sole and separate property, dated March 30, 2010, recorded in Mountrail County at document no. 366840 ("Edward III Lease"). The Edward III Lease was also recorded in McKenzie County at document no. 399645. The Walsh Lease and Edward III Lease are for that portion of the Property consisting of Township 153 North, Range 94 West, Sections 1 and 2. The Walsh Lease is attached hereto as Exhibit I, and the Edward III Lease is attached hereto as Exhibit J

[¶23] Hess acquired additional leases from Walsh in Township 154 North, Range 94 West: Sections 23, 25, 26, and 35, as evidenced by those Memorandum of Oil and Gas Leases recorded in Mountrail County at document nos. 375764, 382840, 401235, 375782, 403545, 375760, and 377198. The Memorandum of Leases referencing the leases between Hess and Walsh for portions of the Property are attached hereto as Exhibit K.

[¶24] Hess acquired additional leases from Edward III in Township 154 North, Range 94 West: Sections 23, 25, 26, and 35, as evidenced by those Memorandum of Oil and Gas Leases recorded in Mountrail County at document nos. 375763, 382836, 401232, 376256, 403546, 375762, and 375761. The Memorandum of Leases referencing the leases between Hess and Edward III for portions of the Property are attached hereto as Exhibit K.

[¶25] At the time Hess acquired its leases from Walsh and Edward III, Hess knew that Necarsulmer had died in 1990. At the time Hess acquired its leases from Walsh and Edward III, Hess also knew of the New York probate proceeding for the Estate of Necarsulmer in case number 1990-4310, and knew that the 1990 Will specifically granted the Personal Representatives of the Necarsulmer Estate the sole authority and discretion to deal with the Property, including the sole authority to sell, lease, or otherwise encumber the Property.

[¶26] Hess has wrongfully withheld revenue from the Property due and owing to Greenstar, claiming Greenstar's interests are subject to the leases Hess acquired from Walsh and Edward III, despite the fact that Hess knew of the New York probate proceeding for the Estate of Necarsulmer before it entered these leases, and knew of the limitations placed on the ability of Walsh and Edward III to encumber any of the Estate's assets, including but not limited to the Property.

[¶27] Continental claims an interest in the Property, which traces back to Hess's leases with Walsh and Edward III.

[¶28] Continental, who operates several oil and gas wells in spacing units consisting of parts of the Property, has recognized Greenstar's unencumbered fee simple interest in the Property by sending Greenstar AFEs (authorizations for expenditures) and invitations to participate in its wells on the Property as required by N.D.C.C. § 38-08-08 and N.D.A.C. § 43-02-03-16.3. A copy of an AFE and invitation Continental sent to Greenstar for the Jersey 23-6H1 well, spaced in a 2,560-acre unit that includes Sections 1 and 12 in Township 153 North, Range 94 West, is attached as Exhibit L. Greenstar elected to participate in the Continental wells, and has timely paid its costs in the Continental wells pursuant to the Joint Interest Billings (JIBs) sent to Greenstar by Continental.

– Count I –
Quiet Title

[¶29] Greenstar realleges each and every preceding paragraph.

[¶30] Chapter 32-17, N.D.C.C., provides an action may be maintained by any person having an estate or interest in real property against any other person claiming an estate or interest in the same property, for the purpose of determining such adverse estate or interest.

[¶31] Greenstar has an estate or interest in the Property, and Hess, and Continental, claim certain estates or interests in, or liens or encumbrances upon the Property, as the case may be, adverse to the Greenstar.

[¶32] Greenstar is entitled to an order from the Court quieting title in the Property in their favor and declaring that Hess's interests in the Property, by virtue of its leases with Walsh and Edward III, are terminated and void.

[¶33] Greenstar is entitled to an order from the Court quieting title in the Property in their favor and declaring that any interests claimed by Continental in the Property, by virtue of Hess's leases with Walsh and Edward III, are terminated and void.

– Count II –
Declaratory Judgment

[¶34] Greenstar realleges each and every preceding paragraph.

[¶35] An actual controversy has arisen and exists between the parties as a result of Hess and Continental claiming an interest in the Property by virtue of Hess's leases with Walsh and Edward III, and Hess and Continental refusing to properly account for and credit Greenstar for its interest in the Property.

[¶36] Pursuant to N.D.C.C. § 32-23 *et seq.*, Greenstar requests a declaration by the Court that its interests in the Property are not subject to Hess's leases with Walsh and Edward III.

[¶37] Pursuant to N.D.C.C. § 32-23 *et seq.*, Greenstar requests a declaration by the Court that they own and are entitled to be credited with their full and proper working interests for any and all wells on the Property by and through the conveyances described above in ¶¶ 7 – 18, and attached hereto as Exhibits A – G, from Edward III and Meyer as co-Personal Representatives for the Necarsulmer Estate, and Edward III and Meyer as co-Trustees of the Necarsulmer Trust.

PRAYER FOR RELIEF

WHEREFORE, Greenstar respectfully pray this Court:

1. That Hess and Continental be required to set forth all their adverse claims to the Property, and that the validity, superiority, and priority thereof be determined;

2. That the interests of Hess and Continental be adjudged null and void, and Hess and Continental be decreed to have no estate, or interest in, or lien or encumbrance upon, said Property by virtue of Hess's leases with Walsh and Edward III;

3. That the title to Greenstar be quieted as to such claims, and that Hess and Continental be forever barred and enjoined from further asserting the same;

4. Order Hess to make an accounting of all payments it has received, including but not limited to bonus payments, royalty payments, delinquency penalties, and other fees and costs, received for leases issued, or in the process of being issued, for the exploration, extraction, or production of minerals from the Property as defined herein to the detriment of Greenstar;

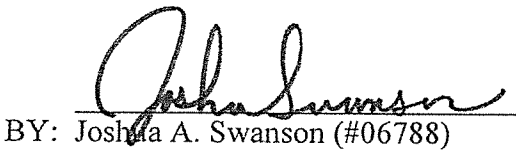
5. For Greenstar to recover their costs and attorneys' fees as allowed by law; and

6. For such additional relief as may be just.

PLAINTIFF DEMANDS A TRIAL BY JURY OF SIX PERSONS

Dated this 24th day of May, 2018.

VOGEL LAW FIRM



BY: Joshua A. Swanson (#06788)

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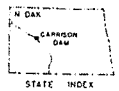
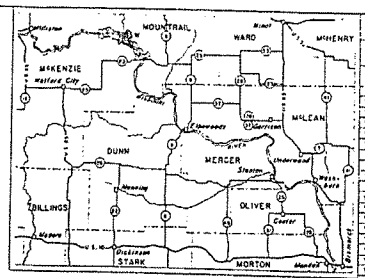
PO Box 1389
Fargo, ND 58107-1389
Telephone: 701.237.6983

Email: jswanson@vogellaw.com
ATTORNEYS FOR PLAINTIFF

CORPS OF ENGINEERS

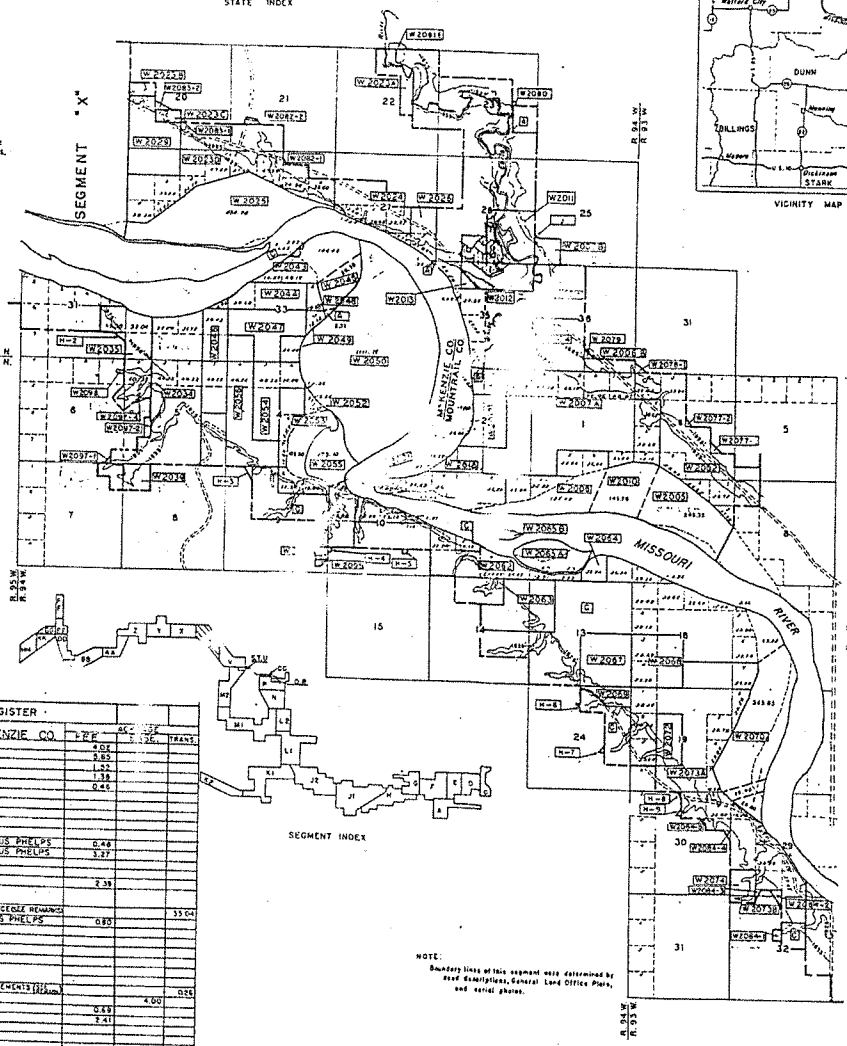
TRACT NO	REMARKS
W2086	Perpetl flowage easement from Y-18-78





VICINITY MAP WITH SEGMENT INDEX

48.30 Acres, fee, White Earth Cottage Site Area, conveyed as individual Lots. For details, see White Earth Cottage Site Area map



AREA IN FEE
AREA IN EASEMENT
PORTION TO BE RELEASED

NOTE:
Boundary lines of this segment were determined by deed descriptions, General Land Office Plats, and aerial photos.

ACQUISITION TRACT REGISTER

TRACT NO	LANDOWNER	FEE	EASEMENT	TRANSFER
	McKENZIE CO.			
W2084-1	ARNE O. HARMS, ET UX	4.02		
W2084-2	ARNE O. HARMS, ET UX	5.85		
W2084-3	ARNE O. HARMS, ET UX	1.03		
W2084-4	ARNE O. HARMS, ET UX	1.32		
W2084-5	ARNE O. HARMS, ET UX	0.46		
W2086-1	DELETED			
W2086-2	DELETED			
W2091	DELETED			
W2092	DELETED			
W2095	DELETED			
W2097-1	JOHN A. PHELPS A/K/A JOHN ANGUS PHELPS			
W2097-2	JOHN A. PHELPS A/K/A JOHN ANGUS PHELPS	0.48		
		3.27		
W2097-3	DELETED			
W2098	JOHN A. PHELPS	2.39		
	DEPT OF AGRICULTURE, FOREST SERVICEGEE REMAINDER			33.04
W2097-4	JOHN A. PHELPS A/K/A JOHN ANGUS PHELPS	0.83		
	MOUNTRAIL CO.			
	DEPT OF INTERIOR, BUREAU OF LAND MANAGEMENT (See Rem.)			
W2081E	AVERY L. HELLING			0.26
W2083-1	ORVILLE T. THORNSON, ET AL		4.00	
W2083-2	ORVILLE T. THORNSON, ET AL	0.69		
		2.41		

ACQUISITION TRACT REGISTER

TRACT NO	LAND OWNER	ACREAGE FEE SIMPLE	ACREAGE EASEMENT	TRANSFER
	MOUNTRAIL CO.			
W 2001	DELETED			
W 2002	ANDREW GUNDERSON	454.67		
W 2003	DELETED			
W 2004	JOHN N. GUNDERSON	160.00		
W 2005	ANDREW GUNDERSON	240.32		
W 2006	STATE OF N. DAK. "A" 160.00 "B" 40.00	200.00		
W 2007	CHARLES E. STEWART PARCEL "A" 2104.32 "B" 40.00	2144.32		
W 2008	MARIE CHANNER	298.42		
A	U.S.A. DEPT. OF INTERIOR	SEE REMARKS		
W 2010	CHARLES E. STEWART	143.78		
W 2011	JOHN LARMER	160.00		
W 2012	KENNETH AUVERSON	149.85		
W 2013	ALFRED COLTON	10.15		
W 2077-1	NEIL BARTELSON, ET UX	3.44		
W 2077-2	NEIL BARTELSON, ET UX	0.46		
W 2078-1	V.F.B.R. COOPERATIVE GRAZING ASSOCIATION	0.80		
W 2017	SINA B. ROGERS	122.73		
W 2018	ANDREW GUNDERSON	58.89		
W 2019	ARTHUR AUVERSON	198.07		
W 2078-2	DELETED			
W 2021	ANDREW GUNDERSON	34.07		
W 2022	DELETED			
W 2023	E.H. OGAIN ET UX PARCEL "A" 42.80 "B" 20.00 "C" 20.00 "D" 360.84	664.85		
W 2024	ALFRED THOMPSON	165.14		
W 2025	E.H. OGAIN ET UX	484.74		
W 2026	ANNE M. THOMPSON	79.85		
W 2078-3	DELETED			
W 2079	STATE OF NORTH DAKOTA	1.84		
W 2029	FRANK LABAR ET UX	200.00		
W 2080	ARVIN E. OLSON, ET UX	0.32		
W 2081	DELETED			
W 2082-1	GEORGE VACHAL, ESTATE	0.46		
W 2082-2	GEORGE VACHAL, ESTATE	4.92		
	McKENZIE CO.			
W 2033	DELETED			
W 2034	SARAH B. PHELPS ET AL	527.87		
W 2035	SARAH B. PHELPS ET AL	186.86		
W 2036	DELETED			
W 2037	DELETED			
W 2038	AL N. NELSON	40.00		
W 2041	DELETED			
W 2042	DELETED			
W 2043	MRS. MARY ORTLOFF ET AL	163.23		
W 2044	RUBY L. QUALE	116.86		
W 2045	RALPH O. VANGEN ET UX	86.39		
W 2046	ROBERT AMOS BOWYER JR. ET AL	159.85		
W 2047	JOHN A. ANDERSON	160.00		
W 2048	RALPH O. VANGEN ET UX	16.90		
W 2049	CLARENCE VANGEN ET UX	51.96		
W 2050	STATE OF NORTH DAKOTA	1111.15		
W 2051	DELETED			
W 2052	FLORENCE POOLE HITLAND ET AL	17.95		
W 2053	MILDRED BANCROFT ET AL	239.90		
W 2054	HELGE SNOEVEN	156.84		
W 2055	MILDRED BANCROFT ET AL	109.10		
W 2056	EDWIN HENDRICKSON	320.32		
W 2057	DELETED			
W 2058	DELETED			
W 2059	RUBY L. QUALE	10.00		
W 2061	DELETED			
W 2062	BERTHA C. BENN	398.92		
W 2063	SIDNEY BENN	200.00		
W 2064	AGNES G. SKARET	32.84		
W 2065	STATE OF N.D. PARCEL "A" 107.30 "B" 14.00	121.30		
W 2066	DELETED			
W 2067	MYRON N. RULAND	160.00		
W 2068	DELLA M. RULAND	156.68		
W 2069	MARION S. RULAND ET AL	43.00		
W 2070	BLAINE OSBURN ET UX	396.65		
W 2071	DELETED			
W 2072	HENRY AASTERUD ET AL	80.00		
W 2073	BLAINE OSBURN ET AL PARCEL A 1036.32 "B" 10.81	1047.10		
W 2074	OLE BREVIG ET UX	40.00		
W 2076	DELETED			
A	U.S.A. DEPT OF INTERIOR	SEE REMARKS		
C	U.S.A. DEPT OF AGR. (See remarks)			3204.59

TRACT	REMARKS
A	Sanctioned 25 Feb 1935, Dunn Land Order No. 1078, acreage included in most recent of segment A.
C	Transferred 10 March 1934, Executive Order No. 10520, acreage includes the parcels in Segments W, X, Y and Z.
H	Within or later containing 64.5-28-3 acreage includes Portion in Segment X 6.81 acres in SE¼ SE¼ Sec 12 T.154 N., R.94 W. 5th P.M. Portion in Segment Y 6.54 ac. Por. in E½ NE¼ Sec 13 T.154 N., R.94 W. 5th P.M.
W 2010	Formerly part of Tract No. W 2005
J	R.O.W. Reservation #4-1123-378

NOTE: Oil and gas reserved in all tracts except W 2006

MICROFILMED	DATE	BY	REVISIONS	DATE AUDIT APPROVED
	11-17-88	D.A.	AUDIT REVISIONS	
	5-11-84	R.C.	ADDED TR. W2087-E REVISED TR W2086	
	2-28-80	M.K.P.	Name of Project added together.	
	9-29-70	R.E.P.	Project Status	
	3-17-70	R.S.S.	Revised Tracts W2082, W2083, W2084-1, W2084-2, W2084-3, W2084-4, W2084-5	
	10-1-69	R.E.P.	Revised Owner's name for Tr. W2081-E to E	
	1-23-79	P.L.H.	REVISED TR. W2081-E TO EASEMENT (SOME)	
	3-3-76	A.S.C.	DELETED TR. W2077-E, ENDED TR. W2078	
	2-27-76	A.S.C.	ADDED TRACT E	
	12-23-75	R.A.L.	DELETED TR. H, REDESIGNATED 43 TR.	

ACQUISITION AUTHORIZATION

Public Law No. 534, 22 Dec. 1944
6th Ind. O.C.E. to M.R.D., dated 4 May 1950
10th Ind. O.C.E. to M.R.D., dated 4 Nov. 1971

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED
INSTALLATION OR PROJECT NO. C2-2-1895

U.S. ARMY

FINAL
PROJECT MAP

STATE NORTH DAKOTA
COUNTY MOUNTRAIL & McKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
TO OMAHA DISTRICT 18 APRIL 1900
LOCATION OF DAM SEC 5, T.146 N., R.84 W. OF 5TH P.M.
10 MILES S OF GARRISON
15 MILES N OF STANTON

SEGMENT W
— LAND AREA —

TOTAL ACRES IN SEGMENT 15,395.55
ACRES FEE
ACRES EASEMENT
ACRES TRANSFERRED TO W.D.
ACRES PERMITS OR LICENSES

— DISPOSALS —

TOTAL ACRES DISPOSED OF 48.30
ACRES TRANSFERRED
ACRES LEASED FROM W.D.
ACRES OTHERWISE

— LEGEND —

BOUNDARY MARKER (BRASS CAP)
TAKING LINE FOR RESERVOIR
PERTINENT CONTOUR LINES
CEMETERY
STATE OR PROVINCE LINES
COUNTY LINE
TOWNSHIP LINE
SECTION LINE
PROPERTY LINE
STREAMS
RAILROADS
POWER LINES
TELEPHONE LINES
IMPROVED ROADS
UNIMPROVED ROADS

— SCALE — 2" = 1 MILE
5280' 2640' 1320' 0 1/4 1/2 1 MILE

DEPARTMENT OF THE ARMY
OFFICE OF THE DISTRICT ENGINEER
GARRISON DISTRICT
MISSOURI RIVER DIVISION
REAL ESTATE

GARRISON DAM - LAKE SAKAKAWEA, NO. DAK.

SEGMENT W

RECOMMENDED: DATE: 14 Feb 1980
APPROVED: LT. COL. CORPS OF ENGINEERS DATE: 20 Feb 1980

COMPILED: TRACED: CHECKED:

DATE	BY	REVISIONS	APPROVED
10-19-81	W.B.	Correct to date	
3-10-82	W.B.	Correct in ink	
5-8-82	M.C.	Taking line change W 2073, 1057.10 ac to 1047.10 ac	
10-1-86	W.B.	Taking line changes W2034, 527.87 ac to 527.87 ac, W2035, 186.86 ac to 186.86 ac	
3-25-92	M.A.J.	Out to Final Audit	

SHEET 24 OF 36 DRAWING NO.

EXHIBIT
tabbies B

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive
Billings, Montana 59101-4669
www.blm.gov/mt

In Reply Refer To:
9661 (MT926)

March 23, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Lance D. Gaebe
Commissioner of University and School Lands
North Dakota Department of Trust Lands
P.O. Box 5523
Bismarck, ND 58506-5523

Mr. Todd Sando
State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505-0850

Dear Messrs. Gaebe and Sando:

We are in receipt of your statement of reasons received on December 10, 2014, supporting the two letters of intent to protest the official filing of Supplemental Plats by the Branch of Cadastral Survey. The letters of intent to protest were received on August 6, 2014, from the North Dakota Department of Trust Lands and August 7, 2014, from the Office of the State Engineer (OSE).

In your statement of reasons, you assert two reasons why the Bureau of Land Management (BLM) should not officially file the Supplemental Plats, approved April 9, 2014, and May 8, 2014, representing the geographic limits of the Public Domain interests. Your reasons are:

1) The BLM's Supplemental Plats should utilize the Ordinary High Water Mark (OHWM) survey initiated by North Dakota in 2009 that follows the OSE's 2007 guidelines; and
2) The Army Corp of Engineer's (COE) Acquisition Segment Maps (Segment Maps), upon which the Supplemental Plats are based, are not an accurate reflection of the OHWM.

The State of North Dakota's (State) OHWM delineation, as depicted on Enclosure 1, claims approximately 1,140 acres of Public Domain[1] subsurface estate and 896 acres of Public Domain surface estate on the Supplemental Plats to be State sovereign land. In addition, the State also claims approximately 2,637 acres of fee subsurface estate and 2,881 acres of COE-acquired surface estate as State sovereign land, which are not addressed on the Supplemental Plats.

[1] For clarification, Public Domain interests in the State of North Dakota refer to land interests (surface and subsurface) where title has never left the Federal Government.

EXHIBIT
tabbies
C

Your protest points are focused on the location of the OHWM line, depicted on the Supplemental Plats, which is the boundary between upland ownership and State riverbed title under the Equal Footing Doctrine.

Riverbed Title Under the Equal Footing Doctrine

Your protest concerns riverbed title and not public trust issues. This distinction is important because it controls the source of law to be applied in defining the OHWM. A recent United States Supreme Court decision distinguishes the two in *PPL Montana, LLC v. Montana* 132 S. Ct. 1215, 1235 (2012):

> *"Under accepted rules of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine."*

Thus, federal law determines riverbed title under the equal footing doctrine. The following leading federal court cases provide the controlling definitions of the OHWM.

In *Howard v. Ingersoll*, 54 U.S. 381, ___ (1851), the United States Supreme Court's ruling focused on a line impressed upon the bank by the action of water as the primary indicator of the OHWM and marking the permanent bed of the river. The court also found that the bed of a river does not encompass lands outside of the banks that are subject to periodic overflow nor does it include those lands that are viable for agriculture or grazing:

> *"It neither takes in overflowed land beyond the bank, nor includes swamps or low grounds liable to be overflowed, but reclaimable for meadows or agriculture, or which, being to low for reclamation, though not always covered with water, may be used for cattle to range upon, as natural or uninclosed pasture. 54 U.S. at 415-16."*

The concurring opinions provide more clarification and established the importance of an examination of vegetation that separates the riverbed from upland, and help provide basis for subsequent federal court case definitions.

Approximately 50 years later, the Eighth Circuit reiterated *Howard v. Ingersoll* in slightly different wording:

> *"The bed of the river is that soil so usually covered by water that it is wrested from vegetation . . . and does not extend to or include that upon which grasses, shrubs, and trees grow, though covered by the great annual rises."*

Harrison v. Fite, 148 F. 781, 783 (8th Cir.1906).

A more recent federal district court case addressed the OHWM of a lake but lends guidance that transitional marshlands are not enough evidence for inclusion within the OHWM:

> *"At most the evidence shows that the dike stands on property that has historically served as marshland for Lake Harney periodically absorbing the lake's high waters*

and periodically serving as productive agricultural land for its owners. This is not enough to infer that the dike stands below the ordinary high water mark the point at which the bed of the lake ends and the fast lands begin."

United States v. Cameron, 466 F. Supp. 1099, 1114 (M.D. Fla. 1978)

And, finally, *United States v. Claridge*, 416 F. 2d 933, 934 (9th Cir.1969) references the definition in *Howard v. Ingersoll* and calls for a natural feature and further explains that the OHWM does not include the floodplain from bluff to bluff due to spring floods:

"The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."

The BLM's Manual of Surveying Instructions, 2009 (Manual) has interpreted these leading cases on OHWM and summarized them into a contemporary definition of the OHWM for the surveyor in section 3-164:

"For inland waters, the OHWM normally used is the line below which the water impresses on the soil by covering it for sufficient periods to deprive it of terrestrial vegetation, and the soil loses its value for agriculture, including the grazing of livestock."

The Manual provides guidance in section 3-167 on locating the OHWM by utilizing the vegetation examination:

"A small packet of an aquatic type plant growing in low places not in the riverbed is also not an indicator of the OHWM and does not indicate that the OHWM should be moved toward upland to include that pocket of aquatics. It is the most water-ward location of the terrestrial species that is determinative."

Rivers and OHWMs have been moving on the earth's surface for thousands of years and remnants of those movements are evidenced on virtually every aerial photo. However, we concern ourselves with the date on which rights were established, such as date of statehood and subsequent river movements for riverbed title under the Equal Footing Doctrine and entry dates for patents. The original surveys by the General Land Office classified upland of the Public Domain for patenting and created survey plats; generating the first representation of all of the rights within a township in relationship to one another. Since you are not challenging the validity of the original surveys, in this case we concern ourselves with the location of the OHWM prior to the artificial rising of the Missouri River to form Lake Sakakawea.[2]

[2] Serving as background timeline information, the construction of Garrison Dam was authorized by the Flood Waters Control Act of 1946 and caused the artificial rising of the Missouri River to form Lake Sakakawea. Construction began in 1946 with reservoir filling initiated in December of 1953 and reaching minimum operating pool on August 7, 1955. http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487634/garrison-project-statistics.aspx

To resolve your protest, we will address locating the line of ordinary high water, both legally and factually. It must be accepted that the OHWM along a river is an ambulatory boundary that migrates through the normal actions of accretion and erosion and has moved since rights were bounded by it. While we agree there will be some differences in location based on dates of aerial photography and dates of field work due to accretion and erosion, it appears that your OHWM guidelines do not comport with federal law and cannot be used to determine riverbed title under the Equal Footing Doctrine.

Discussion of State Reason No. 1

A) OSE's OHWM Delineation Guidelines of 2007

The BLM's Branch of Cadastral Survey has reviewed the OSE's OHWM Delineation Guidelines of 2007 and finds it mostly in conformity with the federal definition except for defining grazing of livestock and certain agriculture as being below the OHWM, as outlined in the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea which states:

> *"Areas below the OHWM may have vegetation suitable for grazing but wetland vegetation capable of being grazed is not an "ordinary agricultural crop."*
>
> *Another complicated area included the low lying hayfields. For this study, the term "field" refers to hayed or mowed areas, and does not imply that the area has been cultivated or seeded. Farming practices along the river during drier, low water periods often extended into the lower floodplain areas, closer to the water's edge. These "fields" may be cut for hay, or cultivated for a short time, but rapid colonization of wetland species on these hay fields likely occurred when the wetter period and subsequent higher water levels returned."*

The grazing statement is in direct contradiction to the *Howard v. Ingersoll* reference of *natural or uninclosed* pasture and the Manual definition of OHWM. *United States v. Cameron* references marshland that periodically absorbs the high waters and periodically serves as productive agriculture which was directly tied to the grazing of livestock and was found not enough to infer the lands were below the OHWM.

The hay field statement is in direct contradiction to the *Howard v. Ingersoll* reference to lands liable to overflow but reclaimable for meadows or agriculture. It also contradicts *Harrison v. Fite* in that the bed does not extend to land which grasses grow although covered by rises in the water. The implication is that the land can ordinarily be utilized for agriculture, even though the remnants of water in low areas of the floodplain caused by rises in the river allow for pockets of aquatic vegetation to grow periodically, which is also addressed in the aforementioned cases.

The BLM's Branch of Cadastral Survey has reviewed the State's OHWM survey Task Order No. 2 and finds the intent to locate the OHWM of the Missouri River prior to the artificial rising of the Missouri River to form Lake Sakakawea to be correct and does not believe the State is attempting to claim the pooled lakebed of Lake Sakakawea as a navigable waterway under the Equal Footing Doctrine.

Cultivation and seeding are not prerequisites for *productive agriculture*[3] which would thereby exclude *natural or uninclosed*[4] pasture suitable for grazing or natural grass haying. Specifically the upland extends towards the river to the lowest extent of upland vegetation and not the landward extent of aquatic vegetation.

These deviations from the Federal definition of OHWM allow the State's delineation of OHWM, which is visually represented on Enclosure 2 hatched in blue and overlaid on the 1958 aerial photo, to impermissibly encompass upland with terrestrial vegetation, hay fields, and cultivated fields.

Likewise, the State's OHWM delineation, depicted on Enclosure 3 hatched in blue and overlaid onto the 1952 aerial photo, spans from *bluff to bluff*[5] taking in uplands temporarily overflowed by *freshets*[6] which is in direct contradiction to all Federal case law and moreover, the State's delineation, which does not reference utilizing the 1952 aerial photo follows the extent of water on the 1952 photo very closely. But, this photo is a representation of one of the highest recorded flows, which is not characterized as "ordinary." The date of the aerial photo, April 5, 1952, has been correlated to United States Geological Survey (USGS) flow data obtained at: http://waterdata.usgs.gov/usa/nwis/inventory/?site_no=06330000&agency_cd=USGS. Thirty-seven years of flow data from 1928-1965 shows that only 21 days had higher flows than the aerial photo date (April 5, 1952), of which 4 days were also in 1952. Enclosure 4a is the mean daily discharges for 1952; 4b is the highest daily means from 1928-1965; 4c is a graph of the 37 year discharges.

Therefore, BLM believes the State's OHWM delineation is skewed due to the aforementioned deviations from the Federal definition of OHWM and residual flood waters from an extraordinary event onto the floodplain. The State's OHWM delineation depicts the riverbed to be three times the width of the General Land Office's originally surveyed meanders. Originally surveyed meanders are typically landward of the actual OHWM, and while it is acknowledged that OHWMs move laterally, no evidence shows why the riverbed has widened, up to triple in size, to encompass lands classified as upland in the original survey.

The sheer width of the State's OHWM delineation, as depicted on Enclosure 1, clearly shows that it ignores the *natural physical characteristic*[7] of the OHWM which is a *natural object*[8] and extends *beyond the banks*[6] to encompass significant portions of the floodplain. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

B) Chain of Title

At the meeting on July 22, 2014, in Bismarck, ND, Josh Alexander, BLM's Acting Chief Cadastral Surveyor for public lands in North Dakota, specifically asked if the State's OHWM delineation was to determine surface rights, subsurface rights, or both. The verbal response was

[3] *United States v. Cameron*, 466 F. Supp. 1099 (M.D. Fla. 1978)
[4] *Howard v. Ingersoll*, 54 U.S. 381 (1851)
[5] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[6] *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991)
[7] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[8] *Howard v. Ingersoll*, 54 U.S. 381 (1851)

that it determined the boundary of State Sovereign land encompassing both surface and subsurface rights.

But, the State's delineation did not consider previous conveyances, as evidenced by chain of title research. Enclosures 5a, 5b, and 5c are the State's OHWM delineation, which is hatched in blue and overlaid onto the COE Segment maps, in which the State's delineation encompasses:

1) 188.66 acre island, Y2250 (Enclosure 5a)
2) 228 acres within Y2289 (Enclosure 5b)
3) 71.07 acres within Z2382 (Enclosure 5c)

These parcels were conveyed to the United States by the State as upland (see Enclosure 6 for conveyance documents). The magnitude of acquisitions by the COE clearly shows the intent was to purchase displaced uplands. The chain of title clearly shows that the State agreeably conveyed upland and islands, which is now being depicted and claimed as riverbed. An island must exist above the OHWM to be considered an island; otherwise it is a part of the bed (sandbar). At the time of the conveyance, an OHWM determination was made to facilitate the conveyance of the island and the upland. These conveyances were for upland surface only. The State's new OHWM delineation must omit these areas as they have previously been classified as upland, not below the OHWM, and are not part of surface Sovereign Lands of the State. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

C) Sovereign Lands

In its protest, the State is utilizing its delineation as a basis for claim to sovereign land and to require mineral lease and royalty payments from oil and gas operators. However, prior to viewing the delineations at https://land.nd.gov/minerals/mineralapps/OHWM2/OHWM2Disclaimer.aspx, there is a caveat:

> *"The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land.""*

Thus, it is unclear how much weight to give to the State's OHWM delineation even though the State's Statement of Reasons infers that we should honor it wholly. Instead, BLM's Supplemental Plats are without limitation and provide the better evidence of riverbed title.

For the foregoing reasons, the State's first protest point is denied.

Discussion of State Reason No. 2

A) BLM Field Investigations Prior to Flooding

The COE Segment Maps were the basis for land title acquisition by the COE for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most

comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea.

To determine what lands were classified as public lands, the COE engaged BLM's Branch of Cadastral Engineering (now Branch of Cadastral Survey) to execute field investigations prior to flooding. BLM surveyors were guided by Special Instructions dated October 24, 1952 (Enclosure 7). Importantly, there is no evidence that the State of North Dakota raised concerns about the Special Instructions or subsequent acquisitions.

The Special Instructions stated the following regarding the lot or legal subdivision listed:

> *"Ascertain whether any or all of it is above mean high water at the present time*
>
> *If it is found to be above water at present, determine whether any or all of it has been in existence above mean high water continuously since the original survey was made*
>
> *Show what part of the tract has been in existence since the date of the original survey*
>
> *If the land has been entirely washed away and has re-appeared, determine the date it was submerged and when it re-appeared*
>
> *If accretion to a tract of public domain land has formed, show the extent of such accretion*
>
> *If substantial accretion appears to have formed in front of riparian privately-owned lands prior to the date of entry, show the extent of such accretion and the date a substantial amount had formed in front of the original tract*
>
> *Where changes have taken place in the river channel, determine whether the change was due to avulsive action, or to the slow and imperceptible process of reliction and accretion*
>
> *To determine the above facts, you will study all plats, charts, maps, aerial photographs and records found that may have a bearing on the case at hand. You will determine the age of timber growing on the land and obtain such other information as is available including the interviewing of old settlers who may be familiar with the river changes at those places."*

BLM officers were operating under the BLM's Manual of Surveying Instructions, 1947 (1947 Manual), and the term "mean high water" for inland waters carries the same determination principles and conformance to law as the OHWM, as evidenced by guidelines in the 1947 Manual.

The BLM conducted extensive field investigations to determine what lands existed above the OHWM, made a determination on river movement, its effect on land title, and compiled this information in an investigative report. These reports were utilized to determine public lands above the OHWM, addressing both accretion and erosion to public lands. Those determinations

were depicted on the Segment Maps. In other words, the COE Segment maps are based on BLM field work, analysis, and standard practices. See Enclosures 8, 9, and 10 for the progression from BLM field investigation report map (8) to Segment Map (9) to Supplemental Plat (10), all of which depict the same findings from the field investigations.

B) North Dakota State Lands Department (SLD)'s Previous OHWM Delineation

1) Land acquisition documents show that SLD participated in the COE survey process.

A conveyance document in Enclosure 6 infers that the SLD performed an OHWM determination prior to the conveyance. The last page of Enclosure 6 states:

"The above is based on Survey Report furnished by the State School Land Department."

The SLD Survey Report was requested by the BLM's Branch of Cadastral Survey. However, its whereabouts are unknown and remains unfurnished. But, based on the subsequent conveyance, the referenced SLD Survey Report likely made a determination that Y2250 was an island existing above the OHWM, thereby necessitating the need for purchase by the COE as uplands that would be displaced by the artificial rising of the Missouri River to create Lake Sakakawea.

Although the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea states that the SLD was unaware of any previous OHWM determinations, we believe that the land acquisition documents establish that the SLD participated in the OHWM determinations upon which the COE segment maps are based.

2) Documents show that SLD participated in the condemnation process for uplands.

To further outline the SLD's involvement and conclude that the State was aware of upland acquisitions, we obtained correspondence documents (Enclosure 11) showing that SLD and COE deliberations led to a formal and friendly condemnation process, which was followed by the SLD and the COE.

Despite legislation being passed to convey State lands without mineral reservation, the condemnation process was instituted due to the reluctance of then SLD Commissioner, John O. Lyngstad. Mr. Lyngstad was reluctant to sell State lands and supported the condemnation process for fear of political repercussions of selling State land. Mr. Lyngstad relays his reluctance by predicting accusations from farmers that they would be willing to pay the State more money than was being offered by the Federal Government. It is certain that farmers would not be willing to pay for these uplands if they were not productive for agriculture indicating the lands existed as upland above the OHWM. The State's OHWM delineation incorrectly classifies these same uplands as riverbed.

Revisit Enclosure 6 showing the execution of this process whereby the COE sent appraisals for displaced state uplands asking for consideration by the Board of University and School Lands, execution by the Land Commissioner, and condemnation.

C) Appraisals

Full appraisals were conducted for acquisition of displaced uplands to justify and provide basis for the expenditure of appropriated funds. These appraisals quantify upland area and quantify the uses of the upland, including agricultural production, timber, brush, etc. While utilized for appraisal values, these quantifications provide significant documentation with regard to the acquired displaced uplands, depicted on the COE Segment maps, existing above the OHWM. See Enclosure 12, which is the same area as Enclosure 2 showing the State's OHWM delineation encompassing brush and productive agriculture as identified by the land appraisal. The State's delineation does not follow Federal case law or OHWM definitions with the inclusion of these uplands.

For the reasons outlined above, we reject the State's assertion that the COE Segment Maps are not an accurate reflection of the OHWM. The OHWM was established by BLM-led field investigations using Special Instructions that were not disputed by the State. In fact, there is ample evidence showing that the SLD participated in the establishment of the OHWM determination. The second protest point is denied.

Conclusion

The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM, and involvement from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines.

Based on the aforementioned analysis, the BLM finds the State's OHWM delineation:

1) does not comply with the federal definition of the OHWM
2) does not honor chain of title or previous involvement with the COE
3) is an overreaching delineation that impairs:
   a) the mineral rights of private owners as vested from original patents from the Federal Government
   b) the Federal Government's acquired rights in land, and
   c) the rights of all in the Public Domain interests in land.

Your protest to the official filing of plats of survey posted in the *Federal Register* on July 8, 2014, is hereby dismissed. The Supplemental Plats shall be officially filed in this office.

You have the right to appeal this decision to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of the Interior, Board of Land Appeals (Board), in accordance with the regulations contained in 43 CFR Part 4 and the enclosed Form 1842-1 (Enclosure 13). In taking an appeal, there must be strict compliance with the regulations. If you choose to appeal, a notice of appeal must be filed in this office within thirty (30) days of receipt of this letter for transmittal to the Board. If your notice of appeal does not include a statement of reasons, one must be filed with the Board within thirty (30) days after the notice of appeal was filed. A copy of your notice of appeal and any statement of reasons, written arguments, or briefs, must also be served upon the Office of the Solicitor, Rocky Mountain Region, 2021 Fourth Avenue N., Suite 112, Billings MT 59101. Service must be accomplished within fifteen (15) days after filing in order to be in compliance with appeal regulations.

As provided by 43 CFR Part 4, you have the right to petition the Office of Hearings and Appeals to stay implementation of the decision; however, you must show standing and present reasons for requesting a stay of the decision that address your interests and the manner by which they would be harmed. A petition for stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) The relative harm to the parties if the stay is granted or denied; (2) The likelihood of the appellant's success on the merits; (3) The likelihood of immediate and irreparable harm if the stay is not granted; and (4) Whether the public interest favors granting the stay. Should you choose to file one, your stay request must accompany your notice of appeal. A notice of appeal with petition for stay must be served upon the Board, Regional Solicitor, and adverse parties at the same time such documents are served on the deciding official at this office. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR 1.3.

Sincerely,

Aden L. Seidlitz

Aden L. Seidlitz
Acting State Director

13 Enclosures
1- Overall comparison of OHWM delineations in protested area
2- OHWM comparison overlaid onto 1958 aerial photography
3- OHWM comparison overlaid onto 1952 flood aerial photography
4- USGS flow data
5- State OHWM delineation overlaid onto Segment Maps
6- State land conveyance correspondence and execution documents
7- BLM Special Instructions
8- BLM field investigation report map
9- Portion of Segment Map

10- Portion of BLM Supplemental Plat
11- COE and SLD correspondence
12- Land appraisal map
13- Form 1842-1

cc: Karan Dunnigan
Office of the Solicitor
Billings, MT

Received
JUN 18 2018
ND Oil & Gas Division

Kenneth W Viall & Linda A. Viall
4074 E Donato Dr
Gilbert, Arizona 85298
(480-290-8272) Ken
(480-221-0412) Linda

RE: Minerals located at: 154N 97W Sec 24 E1/2N W1/4 and W1/2NE1/4
Lying North Of the Missouri River

Bethany Kadrmas
Legal Assistant
Oil and Gas Division
Department of Mineral Resources
North Dakota Industrial Commission
600 E. Boulevard Avenue
Dept. 405
Bismarck, ND 58505-0840

Dear Ms Kadrmas:

Please accept this letter as our public comment on the status of our mineral Interest, as noted above, as a result of the recent survey.

The above lands belonged to my grandmother and was her original homestead. Prior to the building of Garrison Dam the land was used a lumbering operation (in the river bottoms full of timber) with a saw mill being located there. They cut out the cottonwoods to be used for fence posts, barns, outbuildings, and homes. This occurred from the 1930's until the dam was built. The sawmill operation was always down to the river itself. In addition, there was a meadow on the property used for haying.

This is a matter of record and we believe we should be granted our minerals to the black line as depicted on your map, My grandmother spent many

a freezing winter on this property and I can assure you she would not want our minerals going back to the state.

Thank you and respectfully submitted,

Kenneth Viall & Linda Viall

Kenneth and Linda Viall

From:	Edward Lynch
To:	Kadrmas, Bethany R.
Subject:	Public comment re; Wenck Associate survey NDCC 61-33.1
Date:	Monday, June 18, 2018 4:18:21 AM
Attachments:	Public comments for Wenck Survey re NDCC 61-33.1 final-signed reduced size.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Please find attached my public comments for the record.

Edward P. Lynch

June 15th, 2018

Edward P. Lynch
694 Hamlet Circle
Goose Creek, SC 29445
alarmtech@att.net
(843)241-3576

e-mail to: brkadrmas@nd.gov

North Dakota Industrial Commission
Department of Mineral Resources, Oil & Gas Division
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

RE: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03

Dear North Dakota Industrial Commission and Department of Mineral Resources Oil & Gas Div.

I am Edward P. Lynch and owner of (EEE Minerals, LLC), undivided owner of the oil, gas, and other minerals in, on, or underlying the following property in McKenzie County:

Township 153 North, Range 101 West
Section 6: Lot 10
Section 7: Portions of Lots 1, 4, and 5, described on a deed recorded in Book 87, page 505, in the office of the McKenzie County Register of Deeds.

EEE Minerals is a limited liability company registered with the North Dakota Secretary of State. I was born and raised in Williston, N.D., I am currently resident of South Carolina.

The private property which has been illegally taken by the State of North Dakota and whom are claiming the mineral rights. Have ignored the fact that the surface of that same private property was acquired by the United States Army Corps of Engineers ("Corps"), under the authority of the Flood Control Act of 1944, Public Law 534, 78th Congress, 2nd session.

The USACE [Corps] aquired fee and title to all land that would be inundated when Lake Sakakawea reached full pool at 1,854 feet msl. The Property is within the 1,854 msl elevation. The United States acquired title to the surface of the Property because it was within the operational pool of Lake Sakakawea, and as such, the lake would inundate the Property as stated in the deed whereby the United States acquired its interest. A copy of the Wenck Survey Segment Map showing the Property currently claimed and unconstitutionally taken by the State of North Dakota and Department of Trust Lands is included with the Wenck Survey located on pages 63 and 64.

A copy of the Corps' Segment Map showing the Property acquired by the United States for the Garrison Project is also included with in the Wenck Survey Report on page 175 enclosed The Property is Tract KK 3371.

"The [Corps] Segment Maps were the basis for land title acquisition by the [Corps] for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea."

The Corps' Segment Map indicates the United States acquired 276.80 acres from Henry Vohs, Lynch and Vohs' predecessor in interest, for the Garrison Project.

The numerous aerial photographs which are attached were taken by the US Department of Agriculture and show the property was used for agricultural purposes over many years and decades and is above the historical OHWM of the Missouri River before the closure of the Garrison Dam.

Lynch and Vohs' predecessor reserved the mineral rights in the Property when the surface was acquired by the United States for the Garrison Project as evidenced by the Warranty Deed dated July 24, 1957, recorded at McKenzie County document no. 155142 (book 87, page 505).

The State of North Dakota has no interest in Lynch and Vohs' Property, and any attempt by the State to claim an interest is an unconstitutional taking according to the Supreme Court's decision in Wilkinson v. Board of University and School Lands.

The North Dakota Supreme Court with regards to the Wilkinson v. Board of University and School Lands gave the North Dakota Land Board and the State of North Dakota a second chance to correct an egregious unconstitutional violation of the United States Constitution but also the North Dakota State Constitution with regards to private property. Therefore the "Unconstitutional Taking" has already taken place and continues to this day.

The State of North Dakota by and through the School Trust Land Board and the Attorney Generals Office has caused and inflicted immense financial and emotional damage and pain upon myself and family. As a direct cause and effect of the egregious unconstitutional private property land grab I was forced to put forth a very expensive legal defense and expend countless hours of work and resources in order to fight for my rights and private property which is and always has been constitutionally protected under federal and ND state law.

The ND Attorney General's Office is elected and delegated to represent the State of North Dakota and its people and is sworn by and through the Oath of Office for the Attorney General. The Attorney General is sworn to protect and defend the Constitution for the State of North Dakota. The State Constitution was written to protect its people from over reaching Government. For five long years I have battled the ND Land Board and the Attorney General's Office in hope and prayer that I could recover the valuable property that was illegally and unconstitutionally seized and taken.

By and through the legal proceedings against the State of ND, I was also denied my constitutional right to due process because of clever and underhanded legal maneuvering of the ND Attorney General's Office using the law for its own illicit advantage instead of arguing the merits of their case, they argued that the USA was a required party on one hand and yet then on the other refused to add them to the litigation knowing full well the judge had no choice but to dismiss the case.

Very determined and unwavering in my quest to regain my constitutionally protected property took part in a process with the ND Legislature to statutorily have my property returned which resulted in the successful passage and signage of NDCC 61-33.1-3.

Much to my amazement, even after this victory, the ND Land Board and the Attorney General's Office still refused to recognize their wrong and continued their egregious usurpation of the State of North Dakota's Legislative and Executive branches of Government.

Then a short while later, another major victory and success. The Highest Judicial Court in the State of North Dakota

Wilkinson v. North Dakota Board of School Trust Lands.

"The North Dakota Supreme Court" in a unanimous decision ruled in favor of the plaintiffs.

But still, to no avail, the ND Attorney General's Office and the ND Land Board refuse to concede that they had lost, and they must return the constitutionally protected private property or compensate the owners for their property as did the United States of America when the surface rights were acquired for construction of Garrison Dam. Even after the ND Supreme Court ruling still the Attorney General's Office and the ND Land Board still continue to argue and litigate.

Finally, 2018 Marvin Nelson et al. lawsuit forces the State of ND to admit in responsive briefs that they were wrong in their original claim and that the States interest are only that property which is defined as the Historic Missouri river bed up to the OHWM of that historic channel as per the original USACE survey and the Wenck Survey.

The State of North Dakota and its leadership should be held accountable for these actions in the form of damages and attorney fees to those of us which were forced to fight the State of North Dakota at a very high cost financially and emotionally and physically.

I personally call upon the State of North Dakota and the State Legislature 66th assembly to correct this violation of my constitutional and civil rights.

Sincerley,

Edward Lynch

Edward P. Lynch

CC: Senator Brad Bekkedahl ND Legislature District 1
Senator Jessica Unruh ND Legislature District 33
Senator Kelly Armstrong District 36
Rep. Al Carlson District 41
Rep. Patrick Hatlestad District 1
Rep. George Keiser District 47
Rep. Gary Sukut District 1

8-3 -39
BUL - AXD-213-3

8-3 -39
BUL-AXD-213-5

8-3 -39
BUL - AXD-213-3

8-3 -39
BUL-AXD-213-5

8-28-49
AXD-13F- 17

AXD-9V
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8-8-82

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NAPP-8634
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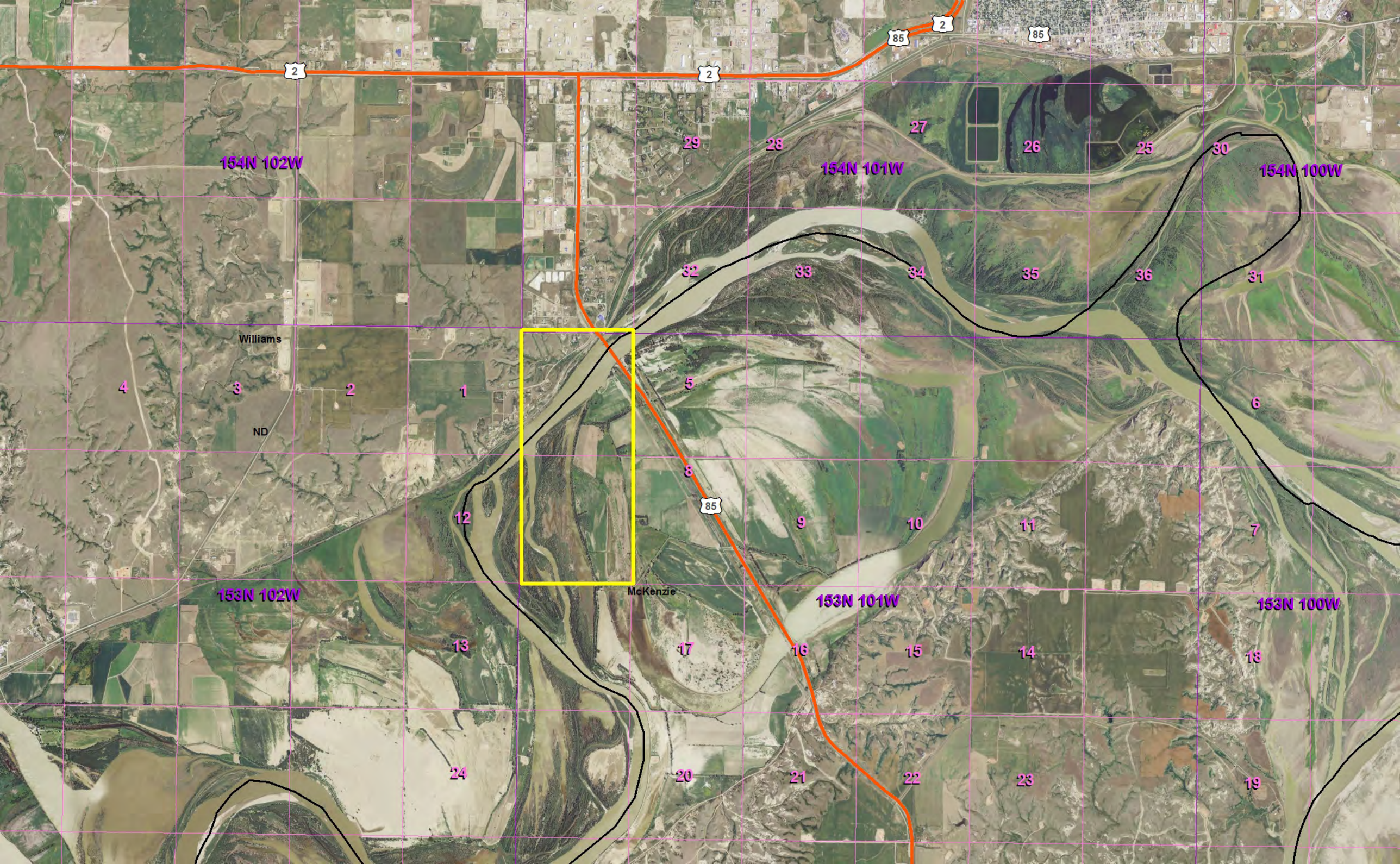
154N 102W
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FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA

Scale:	Drawn By:	Checked By:	Project No.	Date:
AS SHOWN	MJF	CMO	7799-001	6/10/2013

Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300

Path: T:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 3 - 1958 Aerial Imagery.mxd

[Public Land Order 1808]

[Montana 021926 (ND)]

NORTH DAKOTA

Withdrawing Public Lands for Use of Department of the Army in Connection With Garrison Dam and Reservoir Project

By virtue of the authority vested in the President, and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

Subject to valid existing rights, the following-described public lands in North Dakota are hereby withdrawn from all forms of appropriation under the public land laws, including the mining but not the mineral leasing laws except as hereinafter indicated, nor disposals of materials under the Act of July 31, 1947 (61 Stat. 681; 30 U.S.C. 601–604) as amended, and reserved for use in connection with the Garrison Dam and Reservoir Project, North Dakota, under the supervision of the Department of the Army as authorized by the Flood Control Act of December 22, 1944 (58 Stat. 887, 897):

FIFTH PRINCIPAL MERIDIAN

T. 152 N., R. 103 W.,
Sec. 3, lots 13 and 14;
Sec. 9, lot 5;
Sec. 10, lots 1, 3, and 5;
Sec. 14, lot 2.
T. 153 N., R. 100 W.,
Sec. 6, lot 4 and unsurveyed accretion thereto.
T. 153 N., R. 101 W.,
Sec. 3, lot 9, that portion lying southerly of the Great Northern Railway right-of-way;
Sec. 7, lot 2;
Sec. 10, lots 4, 5, 8, and unsurveyed accretions thereto.
T. 153 N., R. 102 W.,
Sec. 20, lot 2, lot 3, less Great Northern Railway right-of-way;
Sec. 22, lots 2 and 3.
T. 153 N., R. 103 W.,
Sec. 25, lot 7, lot 8 and unsurveyed accretion thereto;
Sec. 26, lots 7 and 8;
Sec. 30, lot 3;
Sec. 34, lot 7.
T. 154 N., R. 100 W.,
Sec. 31, lots 2 and 3, lot 4 and unsurveyed accretion thereto.
T. 154 N., R. 101 W.,
Sec. 25, lots 5 and 8;
Sec. 29, SW¼SE¼, that portion lying southerly of the Great Northern Railway right-of-way;
Sec. 33, lots 1, 2, 3, and 4;
Sec. 34, lots 1, 2, and 3;
Sec. 35, lots 3, 4, and 6.

The areas described aggregate 930.96 acres.

The lands shall be subject to leasing under the mineral leasing laws for their oil and gas deposits, but any lease shall include the following conditions:

1. That all rights granted under the lease are subordinate to the rights of the United States to flood and submerge such lands, permanently or intermittently, in connection with the operation and maintenance of the Garrison Dam and Reservoir Project.

2. That the United States shall not be responsible for damages to property or injuries to persons which may arise from or be incident to the use and occupation of the said premises, or for damages to the property of the lessee, or for injuries to the person of the lessee (if an individual), or for damages to the property or injuries to the person of the lessee's officers, agents, servants, or employees, or others who may be on said premises at their invitation or the invitation of any one of them, arising from or incident to the flooding of the said premises by the Government activities; or flooding from any other cause or arising from or incident to any other Governmental activities; and that the lessee shall hold the United States harmless from any and all such claims.

3. That all operations under the lease shall be subject to the approval of the District Engineer, Corps of Engineers, in direct charge of the project, and subject to such conditions and regulations as may be prescribed by him, and the plans and location for all structures and appurtenances thereto, and work on said lands shall be submitted to said District Engineer for approval in advance of commencement of any work on said lands; and that the District Engineer shall have the right to enter on the premises at any time to inspect both the installation and operational activities of the lessee.

4. That no structure or appurtenances thereto shall be of a material or construction apt to create floatable debris.

5. That the construction and operation of said structures and appurtenances thereto shall be of such a nature as not to cause pollution of the soils and the waters of the Garrison Dam and Reservoir Project.

6. That the United States reserves the right to use the said lands jointly with the lessee in connection with the construction, operation and maintenance of the Garrison Dam and Reservoir Project and to place improvements thereon or to remove materials therefrom, including sand and gravel and other construction material, as may be necessary in connection with such work, and that the lessee shall not interfere in any manner with such work or do any act which may increase the cost of performing such work. That if the cost of work performed by the Government at and in connection with the Garrison Dam and Reservoir Project, including work performed on lands outside the property included in the lease, is increased by reason of improvements constructed on the leased property by the lessee, the lessee shall pay to the United States money in an amount, as estimated by the Chief of Engineers, sufficient to compensate for the additional expense involved.

ROGER ERNST,
Assistant Secretary of the Interior.

FEBRUARY 27, 1959.

[F.R. Doc. 59-1893; Filed, Mar. 4, 1959; 8:47 a.m.]

Montana
021926

Public Land Order 1808
Withdrawal for Reservation
Garrison Dam
Reservoir
Project
3-5-59
Fort Berthold
Reservation
Pick-Sloan
Missouri Basin
Program
31-16-52

Verified
M. Fackler
4-24-59

From: Leroy Greenshields
To: Kadrmas, Bethany R.
Subject: sb 2134
Date: Monday, June 18, 2018 1:53:12 PM

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Sirs:

I understand this survey is to determine the rightful mineral owners of lands along the river from New Town past Williston.

What about the lands on the south side of the little Missouri river that were taken by the state. Why were these not included
in the survey and the minerals returned to the rightful owners?

Sincerely,

LeRoy Greenshields

From: John Reep
To: Kadrmas, Bethany R.
Subject: Public Comment on Wenck Report
Date: Sunday, June 17, 2018 10:38:44 PM
Attachments: Public Comment to Wenck Report Stan Reep.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Attached please find a public comment from Stanford Reep regarding the Wenck Report.

John Reep

Public Comment Regarding
Wenck Review of Ordinary High Water Mark of the Missouri River

A. Introduction:

This comment relates to mineral interests which had the misfortune of being inundated at the time of the 1951 "corps survey". The Wenck report wrongfully awards all of these mineral interests to the State, in violation of the enabling statute and other State Law. The Wenck report fails take into consideration the impact of Fort Peck dam and other Pick-Sloan projects in the 1930's and 40's which clearly influenced the historic channel of the river long before 1951. At fails to review the earlier historic river channel prior to those modifications also fails to take into consideration the present condition of the property.

B. The Property and its History:

1. The subject property is located in either Williams or McKenzie County (depending on your source)

   Township 154 North Range 100 West
   Section 31: E1/2NW1/4, Lot 1

2. It was part of the original Survey of North Dakota in 1891-1892 (see attached Exhibit 1) and was successfully homesteaded. It changed hands several times over the years. The last surface purchaser was Fred Frye, who purchased the land on December 13, 1944. (Exhibit 2). Fred and his wife were required to mortgage the property pursuant to North Dakota Old Age Assistance Act in 1955 for funds expended by the Public Welfare Board of North Dakota. (Exhibit 3).

3. In 1979, my wife, Amy Reep, purchased the mineral interest from the estate of Fred Frye (Exhibit 4). In doing so the mortgage was satisfied (Exhibit 5) and North Dakota Estate tax plus past due interest was paid in full, with the approval of the State Tax Commissioner. (Exhibit 6)

4. The original survey and field notes reflect that this property was somewhat marginal even at the time it was homesteaded, perhaps even arguably below the OHWM by the standards the State is using today. Yet it was homesteaded and title was granted.

5. Aerial photos from the earliest time to the present show that for most of the time, including the present time, the property was above water except for occasional flooding. In the late 1940's the river channel appeared gradually encroach on the property. In 1951 the property was indeed completely covered by the river. But the river

continued to move and a few years later it was no longer passing through the property. Indeed, the main channel of the river is now more than a mile away and this property remains dry except for occasional spring flooding or a record high pool on Lake Sakakawea. It might be described as a flood plain. The Army Corps of Engineers refers to this area as a delta, which will continue to rise as additional sediment is deposited. I've not all of the photos but they are readily available.

6. The property is located very close to the confluence of the Little Muddy River (a non-navigable river) with the Missouri River and could also be considered a delta of the Little Muddy.

7. I've attached a map prepared by an engineer, which shows the location of my property, superimposed over the original survey from 1891-1892 and a 2010 image . You can see the main channel of the river far to the south. (Exhibit 7)

C. Argument:

1. The Wenck report is flawed in that it does not account for the changes to the river channel that occurred many years before the closing of the Garrison dam.

Chapter 61-33.1 defines "Historical Missouri riverbed channel" as "*the Missouri riverbed channel as it existed upon the closure of the **Pick –Sloan Missouri basin project dams**...*" (my emphasis) NDCC 61-33.1-01 Subd. 2. The statute repeatedly uses and favors the broader term "Pick-Sloan"

Among other things the study was directed to use "*Aerial photography of the historical Missouri riverbed channel existing prior to the closure date of the **Pick- Sloan project dams;***" (my emphasis). NDCC61-331.03 Subd. 3a.

The manipulation of the river, and accordingly the changing location of the channel, started long before the closure of the Garrison Dam. Construction on Fort Peck Dam (the first Pick-Sloan project dam) began in 1933 and closed in 1937-1938. In addition to Fort Peck, there have been numerous projects up-stream from Williston to improve navigation and control flooding on the Missouri river; including levees, dredging channels, and cutting through oxbows. All of these projects unquestionably impacted the flow of the river and shape of the channel, the historic Missouri Riverbed channel, at Williston long before the closing of Garrison Dam. It may be impossible to point to a single factor as to why the channel moved but it would be nonsensical to deny the impact of Fort Peck dam and other upstream projects.

It is manifestly unfair to use the 1951 date for this property. If you want a true historic channel you've got to go back further, before it was modified. Because of its location, this parcel influenced more by the river because the lake only reaches it at its very highest pool.

2. The enabling statute (and the report) contradicts established State law by attempting to freeze title as of a certain date. The statute states that

> *"Corps survey" means the last known survey conducted by the army corps of engineers in connection with the corps' determination of the amount of land acquired by the corps for the impoundment of Lake Sakakawea and Lake Oahe, as supplemented by supplemental plats created by the branch cadastral survey of the United States bureau of land management. NDCC 61-33.1-01, Subd 1.*

The statute also states:

> *The corps survey must be considered the presumptive determination of the ordinary high water mark of the historical Missouri riverbed Channel, subject only to the review process under this section and judicial review provided in this chapter.*

Historically, the State has said that sovereign ownership is ambulatory, and moves with the channel of the river. The statute attempts to rewrite state law by freezing ownership on a fixed date (the 1951), thus ignoring where the river was prior to that date and ignoring where the river might be now and in the future.

Clearly the statute attempts to address the nightmare and administrative impossibility of recalculating mineral interests every time the river moves. And the statute also attempts to remedy the unfair and unequitable ability of the state to take private mineral interests by building a dam or modifying the river channel. This is also a good thing. The problem in this case is that they selected a date the favors themselves and doesn't take into account the true historical channel.

Since the river channel is now over mile away from the property, this land could be considered an accretion and thus presumptively above the OHWM. NDCC 61-33.1-03.

Additionally, this land could be considered and area of low lying and flat land where "... *the ordinary high water mark may be impractical to determine due to inconclusive aerial photography or inconclusive vegetation analysis must be* ***presumed to be above the ordinary high water*** *mark and owned by the riparian landowner.*" NDCC 61-33.1-03

D. Conclusion

The department of mineral resources should modify the findings and recommend that my mineral interests, and any properties similarly situated, be found to be above the OHWM because:

1. They historically **were** above the OHWM for over fifty years after statehood, prior to the manipulation of the river channel by Pick-Sloan project dams. They were homesteaded, farmed, taxed, bought and sold.

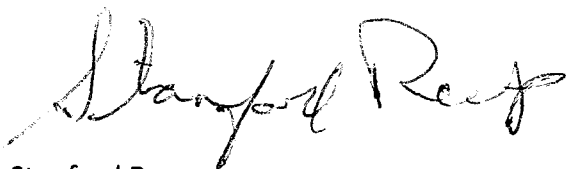
2. They could be considered accretions and thus presumptively above the OHWM.

3. They are arguably above the OHWM at the present time or may be considered to be in an area of *"low-lying and flat lands where the ordinary high water mark may be impractical to determine due to inconclusive aerial photography or inconclusive vegetation analysis and must be presumed to be above the ordinary high water mark and owned by the riparian owner."*

4. The State recognized private ownership of the property in 1955, when they required an Old Age Assistance Mortgage for funds expended by the State Welfare board .

5. The State recognized private ownership of the mineral interest by approving the purchase of the mineral interest in 1979, releasing the welfare mortgage, and by accepting payment of State estate tax and interest with approval of state tax commissioner.

Respectfully Submitted,



Stanford Reep
911 3rd Ave. E
Williston, ND 58801
Phone 701-572-2838

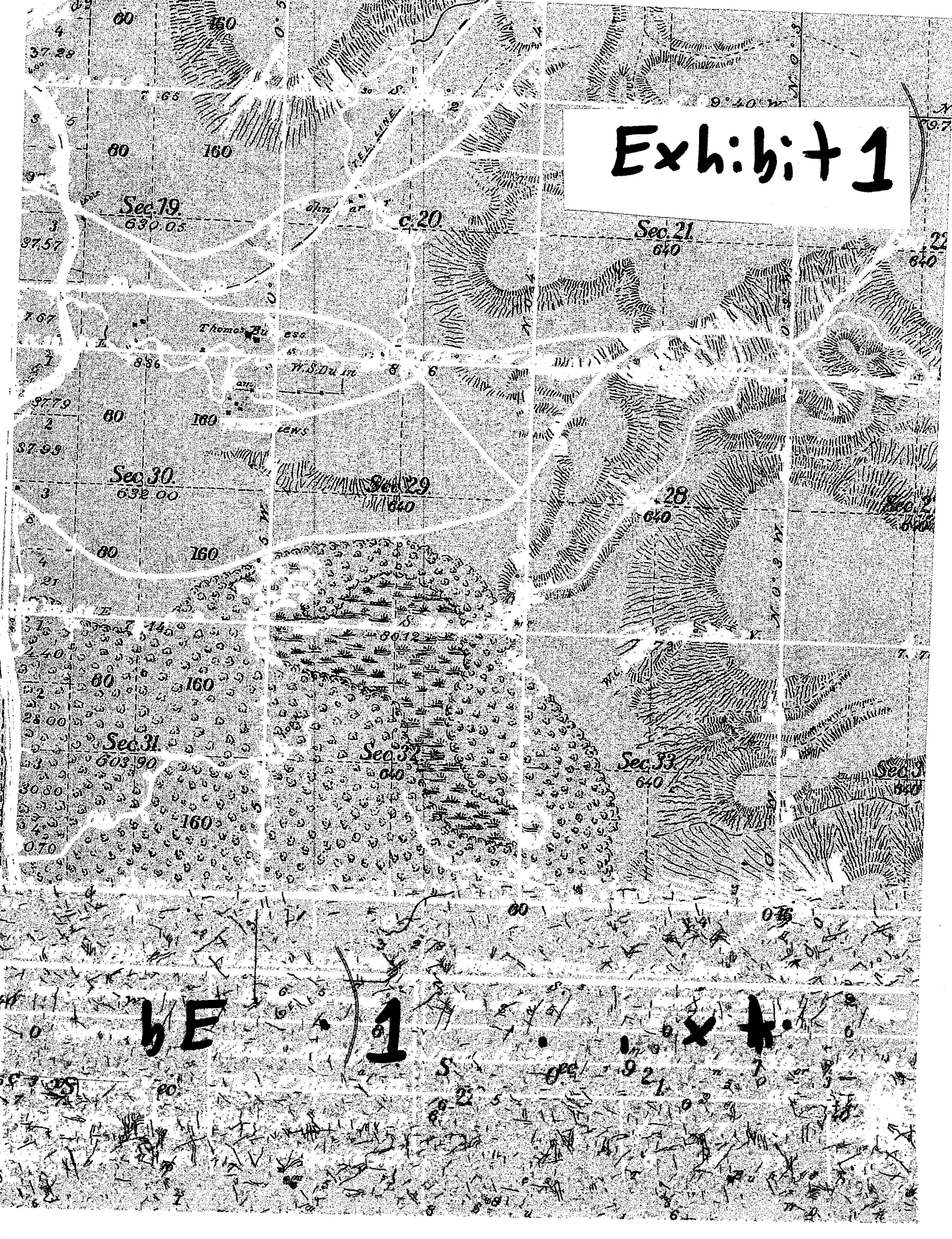


Exhibit 1
Sec. 19.
630.05
Sec. 20.
Sec. 21.
640
Thomas Bu
W.S. Du
Sec. 30.
632.00
Sec. 29.
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Sec. 28.
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Sec. 31.
603.90
Sec. 32.
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Sec. 33.
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445

(4—676.)

RECEIVED WITH
SUR. GEN'L'S. LETTER.
DEC 8 1892

FIELD NOTES #58 e10 ✓

OF THE SURVEY OF

THE SUBDIVISIONAL LINES

OF

TOWNSHIP NO. 154 NORTH,

OF

RANGE NO. 100 WEST,

Of the Fifth Principal Meridian,

AS SURVEYED BY

THOMAS F. MARSHALL, U. S. Deputy Surveyor,

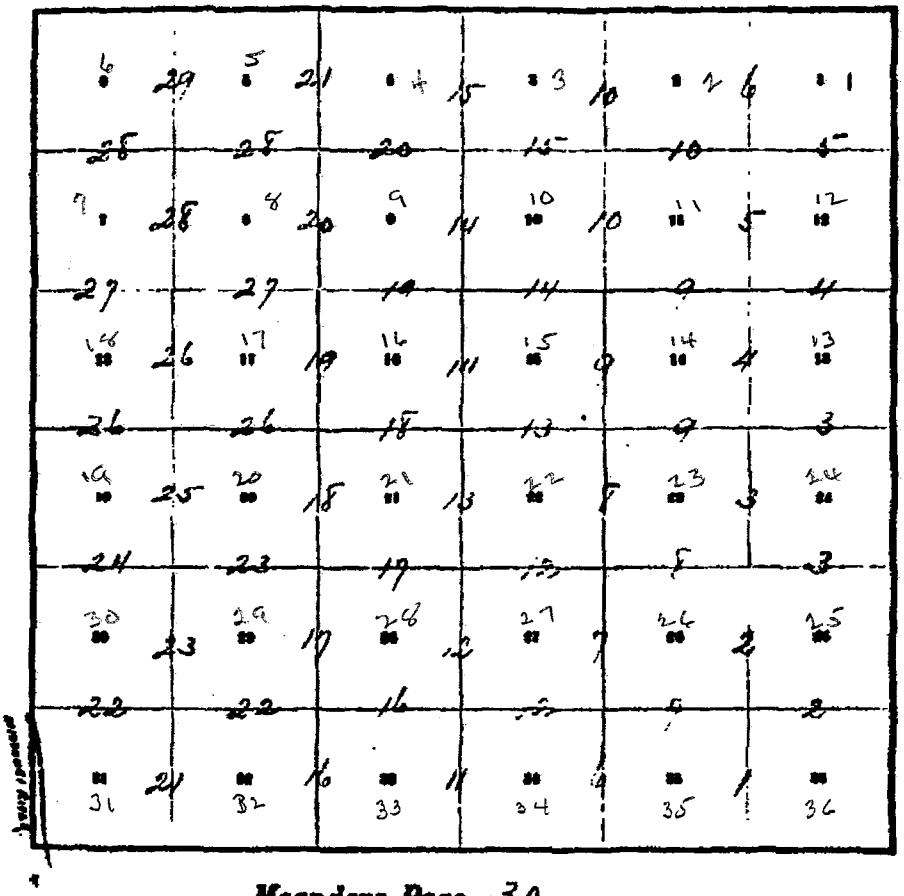
Under his Contract No. 8, dated June 6th. 1891.

Survey commenced July 30th., 1892.

Survey completed Sept. 7th., 1892.

INDEX DIAGRAM.

Township 154 N. , Range 100 W.



Meanders Page 30

Township 154 North, Range 100 West of the Fifth Principal Meridian.

Chains.

N.0°04' W. on a random line bet.secs. 4 and 5,
Va.17°18' E.

40.00 Set temporary ¼ sec.cor.

80.34 Intersect N.boundary of township at a point 5 lks. W. of cor.to secs.4,5,32 and 33,
Thence I run,
S.0°02' E.on a true line bet.secs. 4 and 5,
Va.17°12' E.

29.00 Top of hill,bears E.and W.

33.00 Foot of hill,bears E.and W. and ascend.

39.00 Top of hill bears E.and W.

40.34 Set a granite stone 10x10x6ins.7ins.in the ground for ¼ sec.cor.marked ¼ on W.face; dug pits 18x18x12ins N. and S.of stone 5½ft.dist.and raised a mound of earth 1½ft.high 3½ft.base alongside.

80.34 The cor.to secs.4,5,8 and 9 .

Land rolling .
Soil 3rd.rate .

August 4th.,1892.

From the cor.to secs.5,6,31 and 32 on S.boundary of Township,
I run,
N.0°05'W.on a true line bet.secs.31 and,32.

At 7 A.M.Aug.5,1892,Mag.Decl.Obs. Va.17°16' E.
Reduction to mean, 06'
Mean declination, Va.17°09' E.

Commence in timber,mostly dead and dense under brush.

15.84 A cottonwood tree 18 ins.in diam.

21.54 A dead cottonwood tree 18 ins.in diam.

28.72 A cottonwood tree 24 ins.in diam.

30.49 At W. edge of a cottonwood tree 18 ins.diam.

32.93 At W. edge of a dead cottonwood tree 18 ins.in diam.

36.00 Edge of Creek,course E.

40.00 True point for ¼ sec.cor. in center of Creek. Impossible to establish corner. Therefore at

41.00 Set a cottonwood post 3 ft.long,3 ins. square with marked stone 12 ins.in the ground 1.00 ch. N for witness cor. to ¼ sec.cor. marked W.C.¼ S. on W.face . Dug pits 18x18x12ins. N.and S. of post 5½ft.dist.and raised a mound of earth 1½ft.high 3½ft.base around post.

44.61 Cottonwood tree 24ins.in diam.

52.10 A cottonwood tree 16 ins.in diam.

70.00 Leave dense brush bears E.and W. and enter marsh.
Cottonwood brush bears S.

80.00 Set an ash post 4 ft.long 4 ins.square 24 ins.in the ground for cor.to secs. 29,30,31 and 32,marked,
T.154 N. S.29 on N.E.
R.100 W. S.32 on S.E.
S.31 on S.W. and
S.30 on N.W.faces with 5 notches on E. and 1 notch on S. edges;

Township 154 North, Range 100 West of the Fifth Principal Meridian.

Chains.

Dug pits 18x18x12ins. in each sec. 5½ft. dist. and raised a mound of earth 2 ft. high 4½ft. base around post.

Land level and rolling.
Soil 1st. rate.
Timber cottonwood, elm, ash and box elder.
70.00 chains dense brush.

E. on a random line bet. secs. 29 and 32,
Va. 17°18' E.

40.00 Set temporary ¼ sec. cor.
80.12 Intersect N. and S. line at a point 23 lks. S. of cor. to secs. 28, 29, 32 and 33,
Thence I run,
S. 89°50' W. on a true line bet. secs. 29 and 32,
Va. 17°18' E.
3.00 Edge of mouth of ravine, extends N.E. 10.00 chs. Descend.
4.50 Leave ravine and ascend.
5.00 Top of River bank and descend 50ft. to river bottom. Bears N.W. and S.E. Bank perpendicular and enter timber and dense brush.
19.00 Leave timber and dense brush and enter marsh and scattering brush and timber. Meadow has narrow fringe of timber, along W. edge of same.
40.06 Set a cottonwood post 3ft. long, 3ins. square with marked stone 12 ins. in the ground for ¼ sec. cor. marked ¼ S. on N. face; dug pits 18x18x12ins. E. and W. of stone 5½ft. dist. and raised a mound of earth 1½ft. high 3½ft. base around post.
80.12 The cor. to secs. 29, 30, 31 and 32.

Land nearly all level.
Soil 2nd. rate.

August 5th, 1892.

W. on a random line bet. secs. 30 and 31,
Va. 17°12' E.

40.00 Set temporary ¼ sec. cor.
79.14 Intersect W. boundary of township at a point 9 lks. S. of cor. to secs. 25, 30, 31 and 36,
Thence I run,
S. 89°56' E. on a true line bet. secs. 30 and 31,
Va. 17°12' E.
4.15 Trail bears N. and S. to mouth of Little Muddy River.
16.00 Leave scattering timber and dense brush, bears N.W. and S.E.
39.14 Set a cottonwood post 3 ft. long, 3ins. square, 24 ins. in the ground for ¼ sec. cor. marked ¼ S. on W. face, from which,
A cottonwood tree 5 ins. in diam. bears N 58°15' W. 58 lks. dist. marked ¼ S. B.T.

Township 154 North, Range 100 West of the Fifth Principal Meridian

Chains.	
	A cottonwood tree 8 ins.diam. bears N.77°40' E. 130 lks. dist. marked ¼ S.B.T.
53.00	Enter scattering timber and dense brush, bears N E.and W.
73.00	Leave scattering timber and dense brush and enter marsh bears N.and S.
79.14	The cor.to secs.29,30,31 and 32 .
	Land level.
	Soil 1st.rate .
	Timber cottonwood.

N.0°05' W.on a true line bet.secs.29 and 30,
Va.17°18' E.

4.00	Leave meadow, bears E.and W. and enter dense brush .
13.50	Leave brush, bears N.E.and S.W. and enter meadow. Connects with other meadow.
16.00	Leave meadow, bears N.E.and S.W and enter dense brush.
21.00	Leave dense brush bears E.N.E. and W.S.W.
22.50	Trail bears E.N E.and W.S.W.
40.00	Set a limestone 18x8x5ins. 12ins.in the ground for ¼ sec.cor. marked ¼ on W.face; dug pits 18x18x12ins.N. and S.of stone 5½ft.dist.and raised a mound of earth 1½ft.high 3½ft.base alongside.
43.00	Foot of bench bears N.W. and S.E. and ascend.
51.00	Top of bench .
59.20	Trail bears E.and W.
64.50	Trail bears E.and W.
68.35	Rail fence bears W. to Stony Creek, and E. about 20 chains. Thence N. to Stony Creek.
78.75	Edge of Stony Creek, course W.
79.50	Across Stony Creek.
80.00	Set a granite stone 14x10x10ins. 10 ins.in the ground for cor.to secs.19,20,29 and 30 marked with 5 notches on E. and 2 notches on S. edges; dug pits 18x18x12ins. in each sec.5½ft.dist.and raised a mound of earth 2 ft. high 4½ft.base alongside.
	Land level .
	Soil 1st. rate .

N.89°50' E. on a random line bet.secs.20 and 29,
Va.17°12' E.

17.76	House on line 7 lks.ahead. I previously set a flag on a long pole on E. side of house and offset N. 50 lks., E. 97 lks., and S.50 lks. back to line at 18.73 chs. Point 48 lks. in advance of house.
40.00	Set temporary ¼ sec.cor.
80.06	Intersect N.and S. line at a point 8 lks.S.of cor.to secs.20,21,28 and 29,
	Thence I run,
	S.89°47' W.on a true line bet.secs.20 and 29,
Va.17°18' E.
21.00	Foot of hill bears N.W.and S.E.

388—ADMINISTRATOR'S OR EXECUTOR'S DEED. (Wills—Rev. Form)

268022

THIS INDENTURE, Made this 13th day of December 1944,
by and between George B. McMillan
the duly appointed, qualified and acting Administrator of the Estate of Sever K.
Sather, deceased, late of the Township of
Stony Creek in the County of Williams and State of North Dakota
of the first part, and Fred Frye, Postoffice Address: Williston, N. Dak.
~~of the~~ of in the County of Williams
and State of North Dakota, of the second part, Witnesseth:

THAT, WHEREAS, On the 9th day of October 1944, the County Court within and for said County of Williams, and State of North Dakota, made an order of sale authorizing the said party of the first part to sell at private sale certain real estate of the said Sever K. Sather deceased, situate and being in the Township of Stony Creek in the County of Williams and State of North Dakota, specified and particularly described in said order of sale, and which said order of sale is now on file and of record in said County Court, reference to which is hereby made;

AND WHEREAS, Under and by virtue of said Order of Sale, due and legal notice thereof was given by publication in the Williams County Farmers Press, a newspaper published in the City of Williston, in the County of Williams and State of North Dakota, being the county in which the land ordered to be sold is situated, one each week for two successive weeks before the day of sale, to-wit: on the 12th day of October, 1944 and on the 19th day of October, 1944; and the said party of the first part, pursuant to said notice, having, on the 30th day of October, 1944 offered for sale in one parcel, judging it most beneficial to said estate, at private sale,

subject to confirmation by said County Court, the said real estate situate and being in said county of Williams, as specifically described in said Order and Notice of Sale as aforesaid,

AND WHEREAS, at such sale the said party of the second part became the purchaser of the said real estate, which is hereinafter more particularly described, for the sum of Fifty and no/100ths - - Dollars, he being then and there the highest and best bidder, and that being the highest and best sum bid therefor.

AND WHEREAS, The said County Court, upon the due and legal return of his proceedings under the said order of sale, made by the said party of the first part, on the 16th day of November 1944, after making the said sale,

Exhibit 2

George B. McMillen, Administrator of the Estate of Sever K. Sather, deceased,

did on the 27th day of November 19 44, make an order confirming said sale, and directing conveyances to be executed to the said party of the second part; a certified copy of which order of confirmation was recorded in the records of the Register of Deeds of the said County of Williams State of North Dakota, within which the said land was sold is situated, on the 11th day of December 19 44, at 11:45 o'clock A. M., in Book 2 of Misc. on page 213 and which said order of confirmation, now on file and of record in said County Court, together with the record thereof in said Register of Deeds' office, are hereby referred to and made a part of this Indenture.

NOW, THEREFORE, The said George B. McMillen as Administrator of the Estate of Sever K. Sather, deceased, as aforesaid, the party of the first part, pursuant to the order last aforesaid, of the said County Court, for and in consideration of the said sum of Fifty and no/100ths - - - - - - Dollars, to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents do grant, bargain, sell and convey, unto the said party of the second part his heirs and assigns, forever, all the right, title, interest and estate of the said Sever K. Sather, deceased, at the time of his death, and also all the right, title and interest that the said estate, by operation of law or otherwise, may have acquired other than or in addition to, that of said deceased; at the time of his death, in and to all the certain lot, piece, or parcel of land, situated and being in said County of Williams and State of North Dakota, particularly described as follows, to-wit:

East one-half of the Northwest Quarter (E½NW¼); Lot one in Section Thirty-one (31), Township One hundred Fifty-four (154) Range One Hundred (100)

together with the hereditaments and appurtenances to the same belonging, or in anywise appertaining, to have and to hold, all and singular, the above mentioned and described premises, together with the appurtenances unto the said party of the second part, his heirs and assigns, forever.

500

IN WITNESS WHEREOF The said party of the first part, George B. McMillen, Administrator of the Estate of Sever K. Sather, deceased,

as aforesaid, ha* hereunto set his hand and seal the day and year first above written.

Signed, Sealed and Delivered in Presence of

M. J. Compton

Geo. B. McMillen

Administrator of the Estate of Sever K. Sather, Deceased.

STATE OF NORTH DAKOTA, } ss.
County of Williams

On this 13th day of December A. D. 1944, personally appeared before me, [illegible] Notary Public in and for said County and State, George B. McMillen

to me well known to be the person who is described in and whose name is subscribed to the within instrument as the Administrator of the Estate of Sever K. Sather, deceased, and acknowledged to me that he executed as such Administrator of the Estate of Sever K. Sather deceased, executed the same.

Geo. B. McMillen

Notary Public, North Dakota

My commission expires: [illegible]

NOTARY PUBLIC
GEO. B. McMILLEN
Notary Public, Williams County N. D.
My Commission Expires Nov. 8, 1945

65

FW FORM 23 (Rev. 8-1-49) Buy "Dakota Maid" Flour ORIGINAL

TRUST MORTGAGE

53-4115-A

(To be made in duplicate)

THIS INDENTURE, Made this 29th day of July A. D. 19 55

by and between Fred W. Frye and Amanda Frye, his wife

whose present address is: Williston, North Dakota

of the County of Williams, State of North Dakota, parties of the first part, and the County of Williams, a Municipal Corporation as Trustees, whose present address is Williston, State of North Dakota, party of the second part.

WITNESSETH:

In consideration of the granting of Old Age Assistance to the parties of the first part under the provisions of Chapter 50-07, North Dakota Revised Code of 1943, being the North Dakota Old Age Assistance Act, and of the money to be hereinafter paid to the parties of the first part for such Old Age Assistance, or which may have been paid heretofore, the said parties of the first part sells and convey to the County of Williams, State of North Dakota, party of the second part, as Trustee, all of the following described lands and premises situated in the of County of Williams, State of North Dakota, and described as follows:

Lot 1, and Northeast quarter of the Northwest quarter, and Southeast quarter of the Northwest quarter of Section 31, in township 154 N., of Range 100 W. 5th P.M.

in trust for the purposes and subject to the conditions set forth in Section 50-0705 of the North Dakota Revised Code of 1943.

Provided, further, that these presents shall constitute a lien in favor of the party of the second part to secure all monies advanced as Old Age Assistance with interest at the legal rate, beginning six months after the death of the parties of the first part, or, if husband and wife are joint parties, beginning six months after the death of either of such parties if such party was a recipient of Old Age Assistance.

NOW, THEREFORE, in case of nonpayment of any sums which may be expended by the Public Welfare Board of North Dakota, the Federal Government and the party of the second part in providing Old Age Assistance to the parties of the first part, (or either of them), then and in such case it shall be lawful at any time after the death of the parties of the first part for the said County of Williams, party of the second part, as Trustee, to grant, bargain, sell and convey the said premises and property with appurtenances at public auction or vendue, and on such sale to make and execute to the purchaser, his heirs or assigns, forever, good, ample and sufficient deeds or conveyances in law, pursuant to the statute in such case made or provided, and out of the proceeds of such sale to retain for the benefit of the Federal Government, and the State and the party of the second part, the principal and interest of all sums then due, the costs or charges of such vendue or sale, in addition to other legal costs, rendering the surplus monies (if any there should be) to the legal heirs of the last surviving party of the first part, if there be more than one.

PROVIDED, NEVERTHELESS, that any time upon reimbursement to the party of the second part, as Trustee, of all sums expended by the Federal Government, the State and the party of the second part as Old Age Assistance to the parties of the first part, with interest at the legal rate per annum from the date of grant to the date of payment, then this conveyance shall be void, otherwise it shall remain in full force and effect.

Exhibit 3

66

IN WITNESS WHEREOF, the part ~~ies~~ of the first part ha~~ve~~ hereunto set their hand~~s~~ and seal~~s~~ the day and year first above written.

Fred W. Frye (L. S.)

Amanda Frye (L. S.)

Signed, Sealed and Delivered in Presence of:

Dorothy L. Burch

STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 29th day of July, in the year one thousand nine hundred and fifty-five, before me personally appeared Fred W. Frye and Amanda Frye, ~~his wife~~

known to me (~~are~~), to be the person~~s~~ who are described in and who executed the within instrument, and acknowledged to me that ~~he~~ they executed the same.

My Commission Expires: 2-9-57

Notary Public, Williams County
North Dakota

2746679

DOC. NO. 2746679
COPIED
GRANTOR
GRANTEE
CHECKED
TRACT
MICROFILMED

TRUST MORTGAGE

Recording Fee $1.00

Mortgagor

TO

County, N. D.,
(a Municipal Corporation,) as Trustee,
Mortgagee

STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Mortgage was filed in this office for record on the 3 day of Aug. A. D. 1955 at 3:45 o'clock P. M., and was duly recorded therein in Book 262 of Mortgages on page 65

Register of Deeds.

By Deputy.

HUGHES & MOULE

MINERAL DEED OF PERSONAL REPRESENTATIVE

403810

THIS INDENTURE, Made this 27th day of June 1979, by and between Wilbur E. Johnson, personal representative of the estate of Fred Frye, deceased, hereinafter referred to as Grantor, and Amy Reep, hereinafter referred to as Grantee, whether one or more, whose postoffice address is Williston, North Dakota,

WITNESSETH:

WHEREAS, Grantor is the duly appointed and acting Personal Representative of the Estate of Fred Frye, deceased, and

WHEREAS, Grantee desires to purchase decedent's mineral interest in certain real property hereinafter described;

NOW, THEREFORE, Grantor, in consideration of the sum of Ten and no/100 ($10.00) Dollars and other good and valuable considerations, does hereby grant, bargain, sell, convey, transfer, assign and deliver unto said Grantee all of the right, title and interest of said decedent and said estate in and to all of the oil, gas and associated hydrocarbons, together with all other minerals of whatsoever kind, including, but not limited to sulphur, potash, uranium, thorium, lithium, and ferrous and non ferrous metals and similar minerals, and gold and silver, in and under and that may be produced from the following described lands situated in Williams County, State of North Dakota, to-wit:

TOWNSHIP 154 NORTH RANGE 100 WEST
Section 31: E½NW¼, Lot 1

containing 120 acres, more or less, together with the right of ingress and egress at all times for the purpose of mining, drilling, exploring, operating and developing said lands for oil, gas, and associated hydrocarbons, together with all other minerals of whatsoever kind, including, but not limited to sulphur, potash, uranium, thorium, lithium, and ferrous and nonferrous metals and similar minerals, and gold and silver, and, the storing, handling, transporting and marketing the same therefrom with the right to remove from said land all of Grantee's property and improvements.

ANSETH & RUSTAD

This sale is made subject to any rights now existing to any lessee or assigns under any valid and subsisting oil and gas lease of record heretofore executed; it being understood and agreed that said Grantee shall have, receive, and enjoy the herein granted undivided interest in and to all bonuses, rents, royalties and other benefits which may accrue under the terms of said lease insofar as it covers the above described land from and after the date hereof, precisely as if the Grantee herein had been at the date of the making of said lease the owner of a similar undivided interest in and to the lands described and Grantee one of the lessors therein.

Grantor agrees to execute such further assurances as may be requisite for the full and complete enjoyment of the rights herein granted and likewise agrees that Grantee herein shall have the right at any time to redeem for said Grantor by payment, any mortgage, taxes, or other liens on the above described land, upon default in payment by Grantor, and be subrogated to the rights of the holder thereof.

TO HAVE AND TO HOLD, the above-described property and easement with all and singular the rights, privileges, and appurtenances thereunto or in any wise belonging to the said Grantee herein, her heirs, successors, personal representatives, administrators, executors, and assigns forever, and Grantor does hereby warrant said title to Granteee, her heirs, executors, administrators, personal representatives, successors and assigns forever and does hereby agree to defend all and singular the said property unto the said Grantee herein, her heirs, successors, personal representatives, administrators, executors, and assigns forever against every person whomsoever claiming or to claim the same or any part thereof.

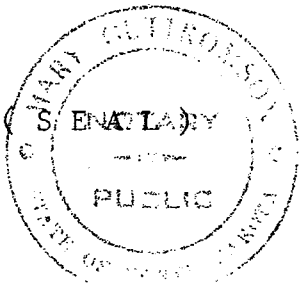
ANSETH & RUSTAD
LAWYERS
WILLISTON, N. D.

WITNESS, The hand of the Grantor:

Wilbur E. Johnson, Personal Representative of the Estate of Fred Frye, Deceased.

STATE OF NORTH DAKOTA)
:ss
COUNTY OF WILLIAMS)

On this 27th day of June, 1979, before me personally appeared Wilbur E. Johnson, known to me to be the personal representative of the Estate of Fred Frye, deceased, and known to me to be the person described in and who executed the within and foregoing instrument and acknowledged to me that he executed the same as such personal representative.



Mary Guttormson
NOTARY PUBLIC

My Commission Expires:

403810

OFFICE OF REGISTER OF DEEDS } ss.
County of Williams, N. D.
I hereby certify that the within instrument
was filed in this state for record the JUN 28 1979
day of A. D. 19 at 2:20 o'clock
P. M., and was duly entered in book
page
Register of Deeds

Recording Fee $9.00

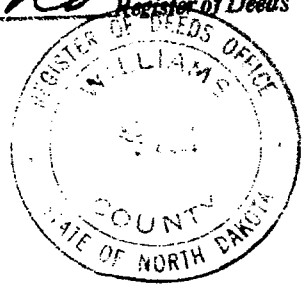


Exhibit 4

Form 472

This certifies that a certain [illegible] dated [illegible] 19[illegible] executed by [illegible] to [illegible] of Williston, North Dakota, a municipal corporation, as trustee, mortgagee, dated [illegible] 19[illegible] and recorded in the office of the Register of Deeds in and for the County of Williams, State of North Dakota, on the [illegible] day of [illegible] 19[illegible] at [illegible] o'clock [illegible] M., in Book [illegible] of Mortgages, on page [illegible] conveying the following described real property situated in Williams County, North Dakota, to-wit:

Lot 1, and Northeast quarter of the Northeast quarter and the Southeast quarter of the Northwest quarter [illegible] of Section 10[illegible] N., Range 100 W., 5th P. M.

REGISTER OF DEEDS OFFICE WILLIAMS COUNTY STATE OF NORTH DAKOTA

Filed for Record
DEC 18 1979
at [illegible] o'clock [illegible] M.
and Recorded in Book [illegible]
Register of Deeds, Williams County, N.D.

CERTIFICATE OF
CANCELLED
DISCHARGED
TRACT
MARGINAL

and recorded in the office of the Register of Deeds in and for the County of Williams, and state of North Dakota, in Book 262 of Mortgages, on page 65 is entitled to be discharged and satisfied by reason of payment (or for other good cause) and the Social Service Board, upon the request of the County Welfare Board of Williams County, North Dakota, having on the 20th day of November, 19 79, by a written instrument, authorized and requested Williams County to satisfy said mortgage; now therefore Williams County, a municipal corporation, as trustee, mortgagee, hereby authorizes and requests said Register of Deeds to discharge the same of record in his office.

DEC - 4 19[illegible]

Williams County, North Dakota
A Municipal Corporation, As Trustee, Mortgagee
By Lloyd Johnson
Chairman of the Board of County Commissioners

(Seal)

ATTEST:
Margaret Brandner
County Auditor

STATE OF NORTH DAKOTA
County of Williams } ss.

On this 5th day of December, 1979, before me, a Notary Public in and for Williams County, North Dakota, personally appeared Lloyd Johnson, known to me to be the Chairman of the Board of County Commissioners of Williams County, and Margaret Brandner, known to me to be the County Auditor of Williams County, the municipal corporation that is described in and that executed the within instrument, and acknowledged to me that such corporation executed the same.

ALDA THORP, Notary Public
Williams County, North Dakota
My Commission Expires Sept. 1, 1985
STATE OF NORTH DAKOTA
NOTARY PUBLIC SEAL

Alda Thorp
Notary Public
Williams County, North Dakota

393-61

117

Exhibit 5

FORM 111—TAX COMMISSIONER FORM
NORTH DAKOTA ESTATE TAX RETURN
GLOBE-GAZETTE, WAHPETON, N. D.

"BUY NORTH DAKOTA PRODUCTS"
404411

ORDER OF COUNTY COURT DETERMINING ESTATE TAX

STATE OF NORTH DAKOTA,
County of WILLIAMS

In the matter of "Fred Fryo", Deceased, who died on the 18th day of April, 19 57.

The matter of determining the amount and the value of the estate of said decedent and the amount of estate tax due thereon coming on to be heard, and the Court having duly considered the estate tax return and all other files and records of this Court and evidence pertinent thereto, and having heard all parties desiring a hearing thereon, does hereby find and determine that in addition to any real estate affected by recording a decree of distribution as provided in Section 30-21-11 NDCC the gross estate includes other interests in real estate described as follows (for example, joint interests or life estates described in Section 47-19-06 NDCC, together with the legal description of the real estate affected and, in the case of joint interests, the name of any surviving joint tenant, may be set out as part of this order):

Williams County, North Dakota
TOWNSHIP 154 NORTH RANGE 100 WEST
Section 31: E½NW¼, Lot 1
The decedent owns the mineral interest only in 120 acres.

TRANSFER WILLIAMS COUNTY
AUDITOR
STATE OF NORTH DAKOTA

this 15th day of June, 1979.
Margaret Engelhaupt
Auditor of Williams Co., N. D.
Deputy

And that, subject to the approval of the State Tax Commissioner except as otherwise provided by law, the Court – (complete 1 or 2, below, whichever applies)

1. [ ] hereby issues its order pursuant to Section 57-37-18 NDCC exempting said estate from payment of estate tax.

(or)

2. [X] hereby assesses estate tax pursuant to Section 57-37-14 NDCC in the amount of $ 19.20 on said estate and the Court orders and directs that the representative of said estate shall, as soon as conveniently may be, pay said amount to the treasurer of said county from the assets of said estate, together with interest thereon at the rate of 6% per annum computed from the expiration of fifteen months after death of the above named decedent until the amount is paid.

Dated this 22 day of May, 1979

Robert A. Merideth
County Judge

APPROVAL BY THE STATE TAX COMMISSIONER

The foregoing order of the Court is hereby approved:

Dated: June 15, 1979

[illegible] DOGAN
North Dakota State Tax Commissioner

By [illegible]
[illegible] Estate Tax Examiner

RECEIPT OF COUNTY TREASURER

I hereby certify that tax in the amount of $ 19.20 and interest in the amount of $ 24.15 were paid to Williams County on July 10, 1979, as estate taxes assessed and interest thereon against the estate of the above named deceased.

Dated July 10, 19 79

at Williston, North Dakota

Treasurer of Williams County, North Dakota

Exhibit 6

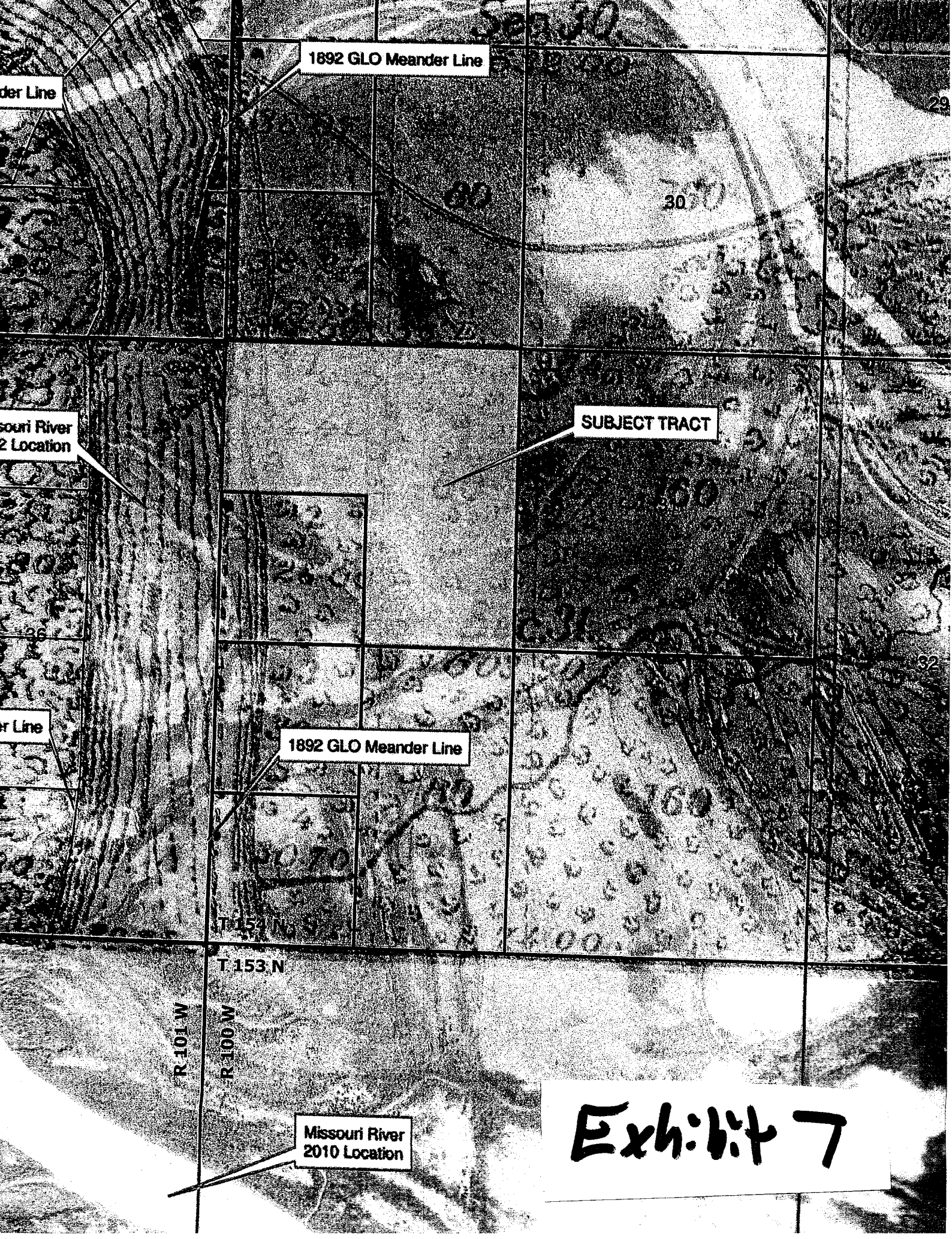

1892 GLO Meander Line
SUBJECT TRACT
1892 GLO Meander Line
T 154 N
T 153 N
R 101 W
R 100 W
Missouri River
2010 Location

Exhibit 7

From: Julia Johnson
To: Kadrmas, Bethany R.
Subject: AgriBank Comment Letter - Case #26584 Wenck OHWM Review
Date: Friday, June 08, 2018 9:29:57 AM
Attachments: image003.png
AgriBank Comments For Case #26584 Wenck OHWM Review.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Bethany,

Attached are AgriBank's written comments regarding Case #26584 as it pertains to the Wenck OHWM Review.

Due to the file size, can you please let me know you received this.

Thank you,

Julia

Julia Johnson |*Director, Minerals Management*
voice (651) 282-8419 | **email** julia.johnson@agribank.com
AgriBank, FCB |30 E. 7th Street, Suite 1600 | St. Paul, MN 55101

WE SUPPORT the people WHO FEED the WORLD

AgriBank FARM CREDIT BANK

This communication is intended for the exclusive use of the addressee(s). It may contain information that is privileged, confidential and/or protected from disclosure, and that may be subject to the Electronic Communications Privacy Act of 1986, as amended. If you are not the intended recipient, any review, dissemination, distribution or copying of the communication is strictly prohibited. Please notify me immediately by telephone and/or reply e-mail and destroy this message and attachments.

AgriBank

June 8, 2018

Bethany Kadrmas
North Dakota Department of Mineral Resources - Oil and Gas Division
1016 E Calgary Ave.
Bismarck, ND 58503-5512

RE: Case No. 26584 – Comments for the review of the delineation of the Ordinary High Water Mark (OHWM) received by the North Dakota Industrial Commission from Wenck Associates, Inc.

To the North Dakota Department of Mineral Resources:

AgriBank, FCB is a 50% mineral owner of certain tracts described below that are affected by the delineation of the OHWM by the Wenck Associations, Inc. review ("Wenck"). I am submitting these written comments to address concerns AgriBank has regarding the Wenck review as it relates to these 2 AgriBank tracts:

Township 154, Range 94 – Mountrail County, North Dakota

Section 28: Lots 1, 2, 3 & 4, including all accretions and riparian rights

Section 29: Lots 1 & 3, and all riparian and accreted lands bordering said tracts within Section 29.

Based on a review of the information available and as explained below, the Wenck review does not reflect any acreage in Section 29, however, the OHWM extends into Section 29. It appears the Wenck review combines all of the accreted lands for both Sections 28 & 29 and attributes all of that acreage only to the SW4NW4 of Section 28 and none to 29. See below excerpt from Table 2a. OHWM Delineation Results from the Wenck review showing the SW4NW4 of Section 28 as having 515.8 acres and no acreage for Section 29.

154N094W27NESW	30.4	0.0	1.0	29.4	1.0
154N094W27NWSE	39.9	0.0	0.1	39.8	0.1
154N094W27NWSW	13.9	0.0	0.7	13.2	0.7
154N094W27SESE	31.3	0.0	0.8	30.5	0.8
154N094W27SWSE	9.0	0.0	1.2	7.8	1.2
154N094W28SWNW	515.8	0.2	130.7	385.1	130.4
154N094W28SWSE	3.8	1.4	1.3	2.5	-0.1
154N094W30NWSE	34.3	0.0	0.1	34.3	0.1
154N094W31NESE	39.9	0.0	3.9	36.0	3.9

Attached is a map showing the Government Lots (displayed in red) overlaid onto the Wenck review map #4 (Exhibit A). The property I have highlighted in yellow is accreted lands in both Sections 28 & 29 which should attach to the respective Government Lots in Sections 28 & 29. I have also attached a copy of a plat from the BLM GLO records showing the Government Lots and acreages (Exhibit B), and the Wenck Review Map #4 (Exhibit C) for additional reference.

I have also attached a copy of the appraisal map prepared by the USACE for the construction of the Garrison Dam as it relates to Tract W-2025 (Exhibit D), which shows this same tract as I have highlighted on the Exhibit A map and it describes the lands as: Unsurveyed accretion in front of Lots 1, 2, 3, and 4, Section 28, and in front of Lots 1, 2, 3, 4 and 5, Section 29 in Township 154 North, Range 94 West of the 5th P.M., containing 484.74 acres, more or less in Mountrail County, North Dakota. It is clear from this map that the accreted lands are parts of both Sections 28 & 29.

Another concern is that we were unable to determine how Wenck came up with 515.8 acres for the area of land described as SW4NW4 of Section 28 (the accreted land). As you can see from Exhibit B & D, the original acreage for this accreted land was 484.74 acres. This difference should be addressed and corrected if necessary.

On a separate note, we noticed the acreage calculations do not calculate correctly in the spreadsheet. For example in the row shown below, the net change is 130.4 acres, but the math would be a 130.5 net acre change. I am sure this is a rounding issue in the spreadsheet, but suggest that the report be expanded to at least 2 decimals to assist with the rounding issue and be consistent with Government Lot acreages.

Table 2a. OHWM Delineation Results (Downstream of River Mile 1553.5)

Quarter Quarter Section ID	Total Area (acres)	USACE Survey Below OHWM (acres)	Project Area Below OHWM (acres)	Project Area Above OHWM (acres)	Net Change (acres)
154N094W28SWNW	515.8	0.2	130.7	385.1	130.4

AgriBank is requesting that the above items be reviewed and corrected so that operators can utilize the Wenck review to assist them in determining acreage above and below the OHWM and pay out suspended royalties. AgriBank only reviewed the acreage we have an interest in, but these issues may affect other Government Lot tracts and accretions and may need to be reviewed.

Thank you for your consideration. If you have any questions, please feel free to contact me at 651-282-8419.

Sincerely,

Julia Johnson
Director, Minerals Management

AgriBank

Exhibit A

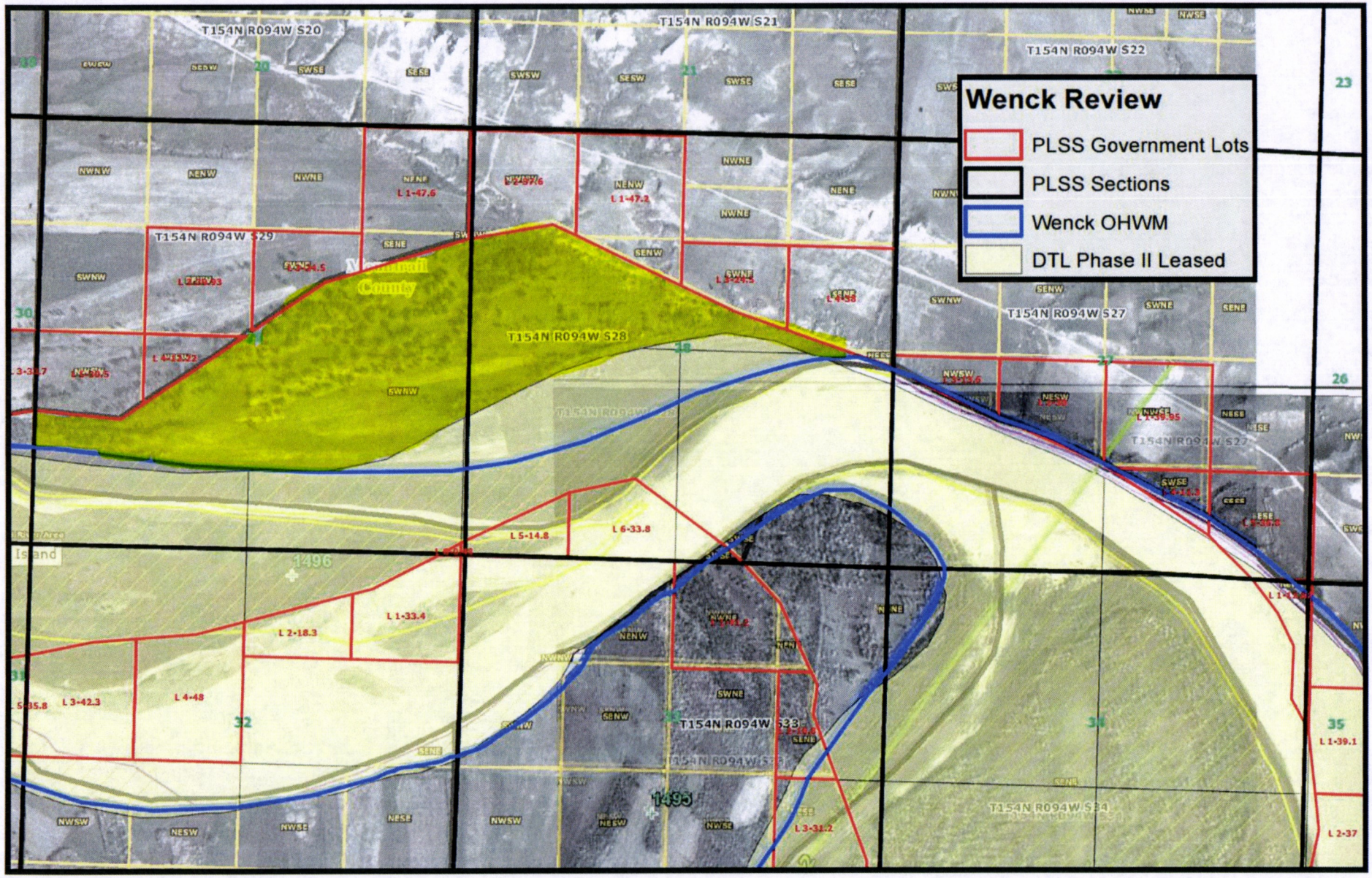
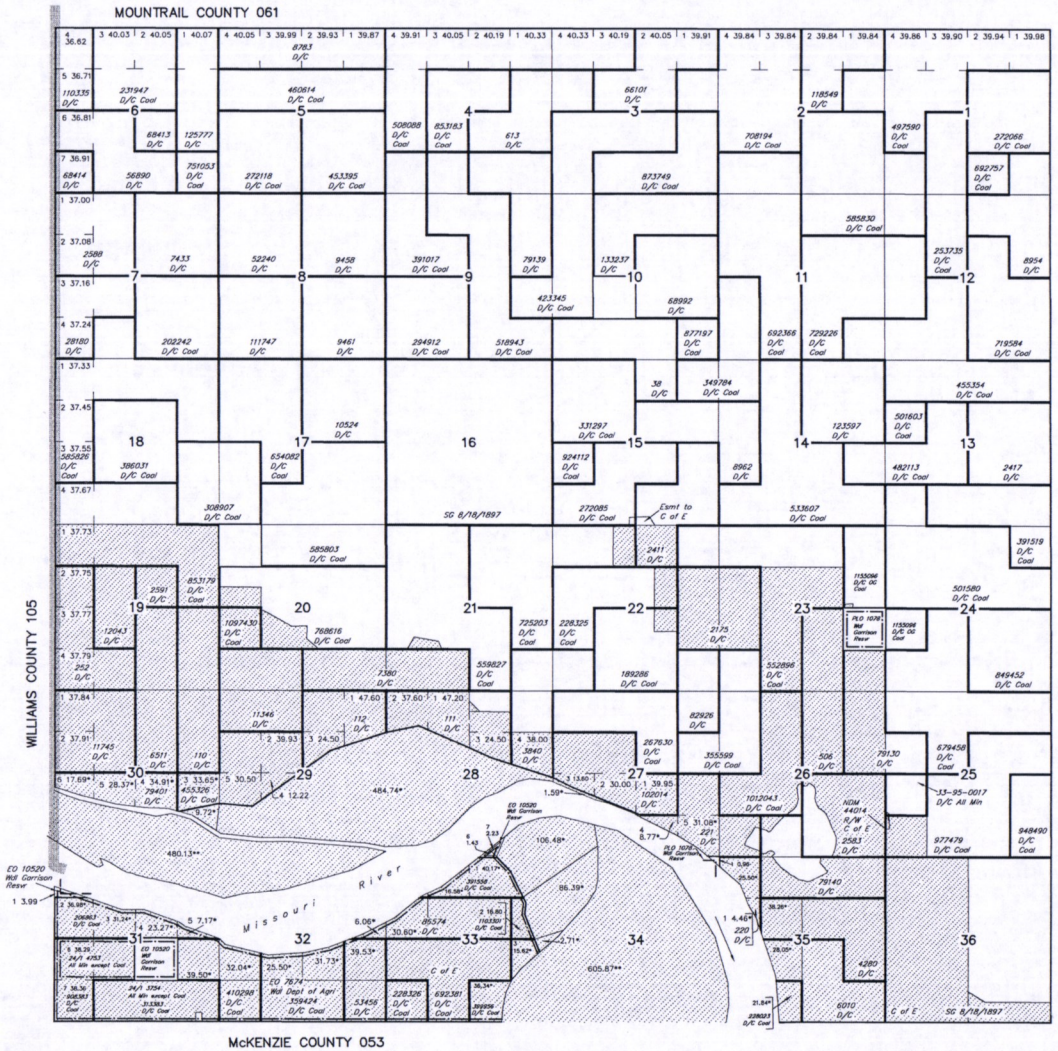

Wenck Review
PLSS Government Lots
PLSS Sections
Wenck OHWM
DTL Phase II Leased
T154N R094W S20
T154N R094W S21
T154N R094W S22
T154N R094W S29
T154N R094W S28
T154N R094W S27
T154N R094W S33
T154N R094W S34
McLeod County
1496
1495
L 1-47.6
L 1-47.2
L 5-14.8
L 6-33.8
L 2-18.3
L 1-33.4
L 3-42.3
L 4-48
L 3-31.2
L 1-39.1
L 2-37

Exhibit B

TOWNSHIP 154 NORTH RANGE 94 WEST OF THE 5th PRINCIPAL MERIDIAN, NORTH DAKOTA

STATUS OF PUBLIC DOMAIN
LAND AND MINERAL TITLES
AND ACQUIRED LANDS



SCALE in chains
10 5 0 10 20 30 60

MT PLAT

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

County Bdy – middle of Missouri River

All Bankhead Jones Acq surface in Tp under Adm Juris of Dept of Agri, USFS except EO 10520 3/10/1954

PLO 1078 Wdl Garrison Resvr includes unsurveyed accretion in front of lots in:
Sec 28: Lots 1 thru 4, 6
Sec 29: Lots 1 thru 5
Sec 30: Lot 3
Sec 33: Lots 2, 3

PLO 1078 Wdl Garrison Resvr includes:
Sec 34: Lot 1ze

NDM 48445 (99.0) C of E Acquisition Info

Pot 33-95-0017 Not open to Min Loc; open to OG & Geothermal leasing 5/16/1988

NDM 15324 (7500)
Sec 31: Riverbed Acreage
Sec 32: SMA Juris Lot 2

*Indicates acreage taken from the C of E acquisition project map

**Indicates calculated acreage

WARNING STATEMENT
This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records hereon do not reflect title changes which may have been effected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

CURRENT TO			
1-27-2015	PDS–GR*	MM	T 154 N
		OG	R 94 W

Exhibit C

NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES	WENCK Responsive partner. Exceptional outcomes.	MAR 2018
OHWM Delineation		Map 4 of 18

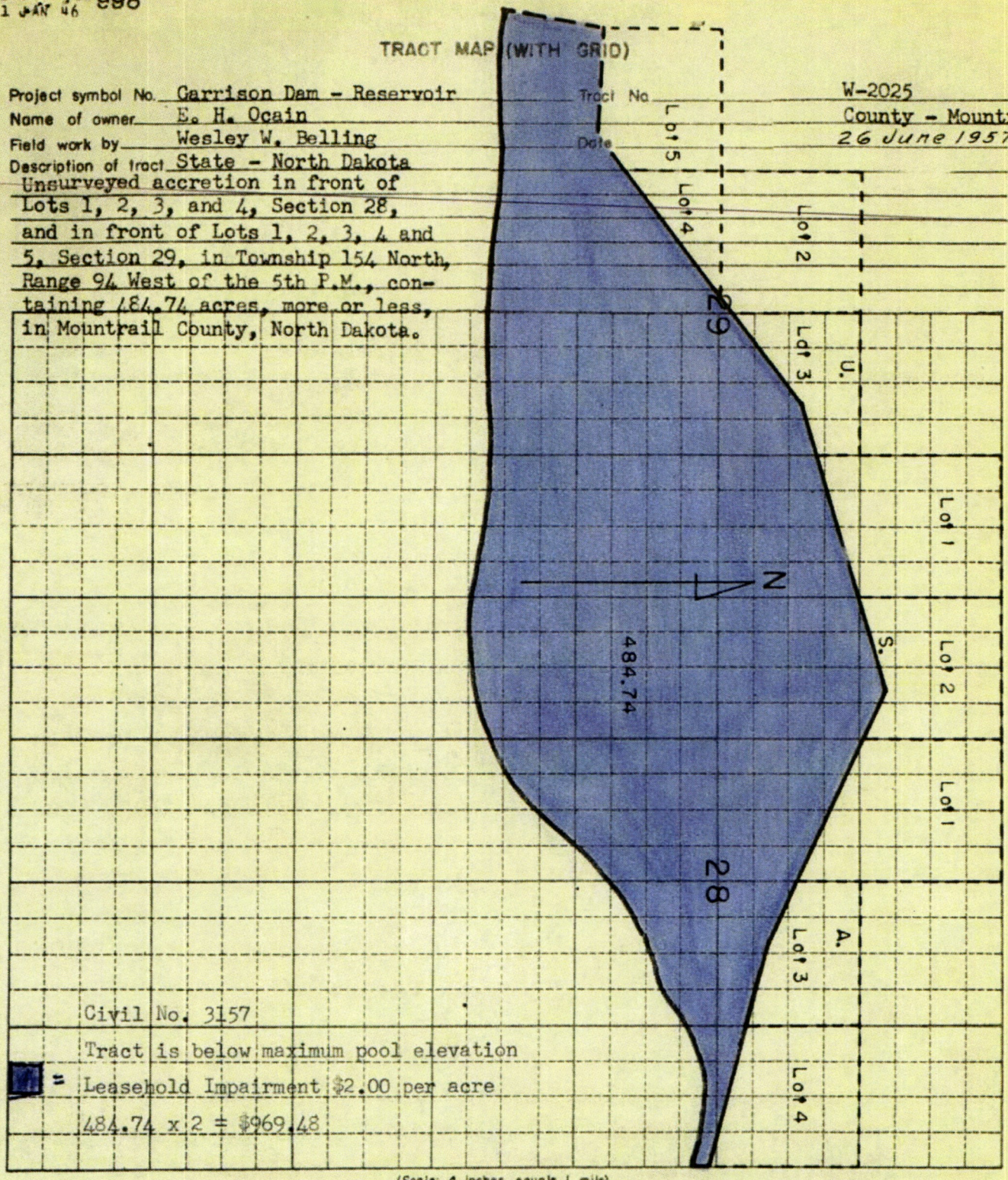
Exhibit D

ENG FORM 998
1 JAN 46

TRACT MAP (WITH GRID)

Project symbol No. Garrison Dam - Reservoir
Name of owner E. H. Ocain
Field work by Wesley W. Belling
Description of tract State - North Dakota
Unsurveyed accretion in front of Lots 1, 2, 3, and 4, Section 28, and in front of Lots 1, 2, 3, 4 and 5, Section 29, in Township 154 North, Range 94 West of the 5th P.M., containing 484.74 acres, more or less, in Mountrail County, North Dakota.

Tract No. W-2025
Date 26 June 1957
County - Mountrail



Civil No. 3157
Tract is below maximum pool elevation
= Leasehold Impairment $2.00 per acre
484.74 x 2 = $969.48

(Scale: 4 inches equals 1 mile)

CLASSES OF LAND

Crop land
Pasture land
Forest land
*

Grades of each class of land must be shown on the map proper.
* Name of any other class of land involved.

I certify that this is an accurate map of Tract W-2025 based on G.L.O.Rcds., Survey and Deed Desc., which shows this tract to contain 484.74 acres, more or less.
Name Wesley W. Belling
Title Civil Engineer
Date 26 June 1957
Indicate whether map is based on General Land Office records, aerial survey, deed description or actual survey.

T. 154. N.

Joshua A. Swanson

jswanson@vogellaw.com

Received

JUN 15 2018

ND Oil & Gas Division

June 7, 2018

North Dakota Industrial Commission
Department of Mineral Resources, Oil & Gas Division
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

e-mail also to: brkadrmas@nd.gov

Re: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03
Case No. 26584
Our File No.: 047086.14000
Wilkinson Family / Plaintiffs in *Wilkinson v. Bd. of Univ. & Sch. Lands*

Dear Department of Mineral Resources:

I represent the Wilkinson family, which includes those parties named as Plaintiffs in Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, 903 N.W.2d 51 (hereafter, the "Wilkinsons"). They are the undivided owners of the oil, gas, and other minerals in, on, or underlying the following property in Williams County:

Township 153 North, Range 102 West
Section 12: SW/4
Section 12: S/2NW/4, excepting that portion which constitutes the right-of way of the BNSF Railway Company
Section 13: Farm Unit 312 in the Buford-Trenton Project

(the "Property").

1. The Wilkinsons' predecessors reserved the minerals under the Property when the surface was acquired by the United States for Lake Sakakawea

The surface of the Property was acquired by the United States Army Corps of Engineers ("Corps"), under the authority of the Flood Control Act of 1944, Public Law 534, 78th Congress, 2nd session. The Corps acquired fee title to all land that would be inundated when Lake Sakakawea reached full pool at 1,854 feet msl. The Property is within the 1,854 msl elevation. The United States acquired title to the surface of the Property because it was within the operational pool of Lake Sakakawea, and as such, the lake would inundate the Property as stated in the deed whereby the United States acquired its interest. A copy of the Corps' Segment Map showing the Property acquired by the

United States for the Garrison Project is enclosed as Exhibit A. The Property is Tract HH 3190. Documents from the Corps, including: (1) an abstract entry for Tract HH 3190; (2) the Abstracter's Certificate; (3) a May 12, 1959 letter to the Secretary of the Army, Wilbur M. Brucker, from the United States Attorney General, William P. Rogers, specifically stating that the Wilkinsons' predecessors, and their successors, owed "all oil and gas rights therein, under the terms contained in the deed to the United States," and (4) Payment and Closing Sheet for Tract HH 3190, are attached as Exhibit B.

In a March 2016 decision rejecting the State's previous position regarding the location of the OHWM of the historic Missouri River riverbed, the United States Department of Interior described the Segment Maps as the "most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea," stating:

> "The [Corps] Segment Maps were the basis for land title acquisition by the [Corps] for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea."

See March 23, 2016 decision by the United States Department of Interior, Bureau of Land Management ("2016 United States Report"). The 2016 United States Report is provided at Exhibit 5 to the February 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee, infra, attached as Exhibit J-2. The 2016 United States Report concluded that the Segment Maps, like Exhibit A, were the basis of appropriating millions of dollars by the United States Congress to acquire land, like the Property, for Garrison Dam and Lake Sakakawea.

> "The [Corps] Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. **These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea.** The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM [Bureau of Land Management], and involvement from the BLM, and ND SLD [North Dakota Land Board], and have gone uncontested for over 60 years."

See Exhibit J-2 at p 66. The final sentence of the preceding paragraph from the 2016 United States Report is significant – the Segments Maps were uncontested for over 60 years after Garrison Dam was closed and Lake Sakakawea inundated hundreds of thousands of acres in North Dakota. The Corps' Segment Map indicates the United States acquired 286.04 acres from J.T. and Evelyn Wilkinson, husband and wife, the Wilkinsons' predecessor in interest, for the Garrison Project. This included 228.95 acres in Section 12 and 57.09 acres in Section 13.

An aerial photograph taken in 1958 shows the Property was used for agricultural purposes and was above the historical OHWM of the Missouri River before the closure of Garrison Dam. See Exhibit C. The green box shown in Exhibit C, which includes parts of Sections 12 and 13, is the Property the Corps acquired from the Wilkinsons subject only to the Wilkinsons' reservation of the oil and gas interests. Jon Patch is one of the plaintiffs in the Wilkinson case and a successor in interest to J.T. and Evelyn Wilkinson. According to testimony Patch provided to the Legislature's Senate Energy and Natural Resources Committee on SB 2134 in January 2017, his grandparents and mother, along with her siblings, farmed the property for decades prior to the closure of Garrison Dam. A copy of Patch's testimony is attached as Exhibit D. An Affidavit from Patch's mother, Lois Jean Patch, who was the daughter of J.T. and Evelyn Wilkinson, makes clear that the family farmed the Property up until her father, J.T. Wilkinson, "[s]old that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday." Lois Jean Patch, who was a plaintiff in the Wilkinson case before she passed away in April 2018, identified the field visible in Sections 12 and 13 of Exhibit C as the "big field", indicating:

> "During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the 'big field.' I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these 'grubs' and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the 'big field' in sections 12 and 13."

See Exhibit E, Affidavit of Lois Jean Patch, at ¶ 2. Likewise, William S. Wilkinson, her brother, testified in his affidavit, "That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land." See Exhibit F, Affidavit of William S. Wilkinson, at ¶ 4. William S. Wilkinson is one of the plaintiffs in the Wilkinson case. William and Lois Jean's sister, Vanessa E. Blaine, also a plaintiff in the Wilkinson case, explained that while her brothers were fighting World War II, she obtained her driver's license at age 12 in order to help farm the Property.

> "During the WW II years my two older brother enlisted in the AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a 3/4 ton truck hauling grain from the harvested fields to the local grain elevator.

> During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. ...[a]nd the most easterly [field] was known to me as the Big Field. It is my belief that the Big Field was in the SW1/4, S1/2NW/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota."

See Exhibit G, Affidavit of Vanessa E. Blaine, at ¶¶ 2 – 4. Given the 1958 aerial photograph showing the Property being farmed, and the testimony of Lois Jean Patch, William S. Wilkinson, and Vanessa E. Blaine, it is unequivocally established that the Property was farmed and used for agricultural purposes prior to the United States acquiring it for the Garrison Project in 1958.

The Wilkinsons' predecessors, J.T. and Evelyn Wilkinson, reserved the mineral rights in the Property when the surface was acquired by the United States for the Garrison Project as evidenced by the Warranty Deed dated June 9, 1958, recorded at McKenzie County document no. 288165 (book 131, page 411). A copy of the Warranty Deed is enclosed as Exhibit H. The Warranty Deed reserved all the oil, gas, and other mineral rights therein, on, or under the Property. The Warranty Deed states, in relevant part:

> Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir.

The Wilkinsons leased the Property many times in the decades since the United States acquired the surface for Lake Sakakawea. The North Dakota Supreme Court held that, "There is undisputed evidence the plaintiffs [Wilkinsons] have leased the minerals numerous times since they conveyed the surface property to the United States." Wilkinson at ¶ 24. This "undisputed evidence" of leasing relied on by the Supreme Court was provided as part of the Wilkinsons' brief to the Supreme Court at Appendix 103 – 131, and is attached hereto as Exhibit I.

2. The State has no interest in the Wilkinsons' Property, and any attempt by the State to claim an interest is an unconstitutional taking according to the Supreme Court's decision in *Wilkinson v. Board of University and School Lands*

The government cannot flood a private citizen's land and then claim it owns the valuable, yet inundated, mineral interests reserved by the private landowner. That is the textbook definition of

an unconstitutional taking by the government. The State has no right, title, or interest in the Wilkinsons' Property. As explained by the United States Court of Claims, such a claim by the State epitomizes the very definition of an impermissible and unlawful taking by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). In 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. [1]

In Wilkinson, the Supreme Court held that any outcome resulting in the State having title to the Wilkinsons' mineral interests would be an unconstitutional taking.

> Mineral interests in Williams County, in the oil-producing Bakken formation, have value. *See Jacobs-Raak v. Raak*, 2016 ND 240, ¶ 12, 888 N.W.2d 770 (stating it would be disingenuous to believe mineral interests in a county in the Bakken formation have little or no value). There is undisputed evidence the plaintiffs have leased the minerals numerous times since they conveyed the surface property to the United States. **If the district court determines the State owns the minerals, the plaintiffs will be deprived of the mineral interests. The federal government compensated the plaintiffs for the surface property, but the plaintiffs have not been compensated for the mineral interests. The plaintiffs are entitled to compensation if the government's actions result in a "taking" of the mineral interests.** *See Arkansas Game & Fish Comm'n v. United States*, 568 U.S. 23, 31-34, 133 S.Ct. 511, 184 L.Ed.2d 417 (2012) (stating permanent physical occupation of property authorized by government is a taking, and government-induced flooding can constitute a taking); *Tarrant Reg'l Water Dist. v. Gragg*, 43 S.W.3d 609, 620-21 (Tex. Ct. App. 2001) (holding flooding of property will be considered a taking if the flooding after the construction of a reservoir was greater than it previously had been).

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[1] Any attempt by the State to "take" the Property via eminent domain would still fail as such a taking cannot withstand the scrutiny of the public use requirement under the Constitution's Fifth Amendment. See Kelo v. City of New London, Conn., 545 U.S. 469, 477, 125 S.Ct. 2655 (2005) (stating, "As for the first proposition, the City would no doubt be forbidden from taking petitioners' land for the purpose of conferring a private benefit on a particular private party. A purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.") (internal quotations omitted).

Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, ¶ 24, 903 N.W.2d 51, 58–59 (emphasis added). [2] As many legislators noted during the committee hearings on SB 2134 and HB 1199 during the 2017 legislative session, landowners like the Wilkinsons specifically reserved the minerals interests when the United States acquired their property for Lake Sakakawea. Rep. George Keiser – who championed the Wilkinsons' cause, and the rights of other private property owners during the legislative session – appropriately summarized the impetus for SB 2134 when describing the legislative efforts that culminated in the codification of Chpt. 61-33.1, N.D.C.C. Rep. Keiser noted that the State's attempt to claim these valuable mineral interests was the greatest taking of property that North Dakota had ever seen. Counsel for the Wilkinsons testified before the Legislature, providing background on the Wilkinson case and related litigation, and as to why the State cannot claim the mineral rights of private property owners like the Wilkinsons by virtue of the United States acquiring such land for Garrison Dam and Lake Sakakawea. Copies of that testimony are attached as Exhibits J-1, J-2, and J-3. ("Swanson testimony"). [3]

Fortunately, Chpt. 61-33.1, N.D.C.C., recognizes that private landowners like the Wilkinsons were, and are, the rightful owners of the mineral interests that their predecessors reserved decades ago when their land was acquired by the United States for the Garrison Project and flooded by Lake Sakakawea. So too, in Sorum, see supra at n. 2, the State now recognizes that landowners like the Wilkinsons, Lynch, and Vohs are the rightful mineral owners of their respective mineral interests, and that the State does not have any claim to minerals laying outside the historic Missouri River riverbed. Any result under Chpt. 61-33.1, N.D.C.C., that ends up with the Wilkinsons not being recognized as the owners of the Property would be an unconstitutional taking pursuant to Wilkinson, and will result in a legal challenge where the Wilkinsons will prevail.

3. **Wenck Associates Survey concludes that the Property is above the historical OHWM of the Missouri River**

The survey completed by Wenck Associates as provided for by Chpt. 61-33.1, N.D.C.C., concluded that the Property is above the OHWM of the historical Missouri River riverbed. The

---

[2] After the decision in Wilkinson, the State concedes that landowners like the Wilkinsons, Ed Lynch, and Suzanne Vohs are the rightful owners of the minerals they reserved when the United States acquired their surface lands for Lake Sakakawea in the 1950s. As such, it appears the State has relinquished any claim or interest in the Property. See Sorum et al. v. Bd. of Univ. & Sch. Lands et al., case no. 09-2018-cv-00089, State Defendants Response to Plaintiffs' Motion for Preliminary Injunction (Doc. ID #120).

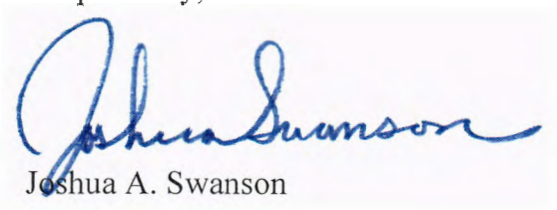
[3] Swanson testified at the Legislature on at least three occasions: (1) Senate Energy and Natural Resources Committee on January 12, 2017, see Exhibit J-1; (2) House Energy and Natural Resources Committee on February 2, 2017, see Exhibit J-2; and (3) House Energy and Natural Resources Committee on March 10, 2017, see Exhibit J-3.

Property is shown on Maps 16 and 17, at page 63 and 64, of the Wenck Associates' Report. The Wilkinsons support any conclusion by the Department of Mineral Resources that results in the State immediately disclaiming and releasing any and all claims to their Property, and the Wilkinsons being recognized as the rightful owners. Likewise, the "Phase II survey" previously commissioned by the State, and completed by Bartlett and West, determined the Property was above the OHWM of the historic Missouri River riverbed. Chpt. 61-33.1, N.D.C.C., requires that within six months after the Industrial Commission's action, any royalty proceeds held by the Land Board that are attributable to oil and gas mineral tracts above the OHWM under both the Corps survey and the Phase II delineation – being the non-contested acreage – must be distributed by the Board to the owners of such tracts.

Given the fact that the Wilkinsons have been forced to fight this battle to keep the State from taking their Property, which has been rightfully theirs' all along, and have expended hundreds of thousands of dollars in doing so, we respectfully ask the State see that the proceeds related to their interests are released as soon as possible in order to partially offset the losses they have incurred as a result of being deprived of their Property for the better part of a decade. Unfortunately, several of the Plaintiffs in the Wilkinson case have died during this litigation and were never able to enjoy the fruits of their predecessors – J.T. and Evelyn Wilkinson – reserving the oil and gas rights that should have accompanied the most recent and lucrative oil boom. The injustice this family, and thousands of other North Dakotans, have suffered by virtue of the State's taking is further compounded with each day that passes and they do not have what is rightfully theirs. With many of the Wilkinsons advancing in age, it is absolutely critical that the State take immediate action so they can enjoy the Property during their lifetime.

We appreciate your attention to this, and my clients particularly are looking forward to resolution and the State releasing and disclaiming its claim to their Property. If you have any questions, I would be glad to visit. I can be reached via phone at 701.237.6983 or e-mail at jswanson@vogellaw.com. I, along with a representative from the Wilkinsons, Jon Patch, will be in Bismarck on June 26 to testify at the public hearing in this matter.

Respectfully,



Joshua A. Swanson
enc:

Exhibit List

Exhibit A	United States Army Corps of Engineers Segment Map for Property (HH 3190)
Exhibit B	United States Army Corps of Engineers documents related to the Property
Exhibit C	1958 aerial image of the Property
Exhibit D	Patch January 12, 2017 testimony to North Dakota Legislature
Exhibit E	Affidavit of Lois Jean Patch
Exhibit F	Affidavit of William S. Wilkinson
Exhibit G	Affidavit of Vanessa E. Blaine
Exhibit H	Warranty Deed whereby United States acquired Property subject only to the Wilkinsons' predecessor's reservation of mineral interests
Exhibit I	Wilkinsons' Oil and Gas Leases
Exhibit J-1	Swanson January 12, 2017 testimony to North Dakota Legislature
Exhibit J-2	Swanson February 2, 2017 testimony to North Dakota Legislature
Exhibit J-3	Swanson March 10, 2017 testimony to North Dakota Legislature

Respectfully,

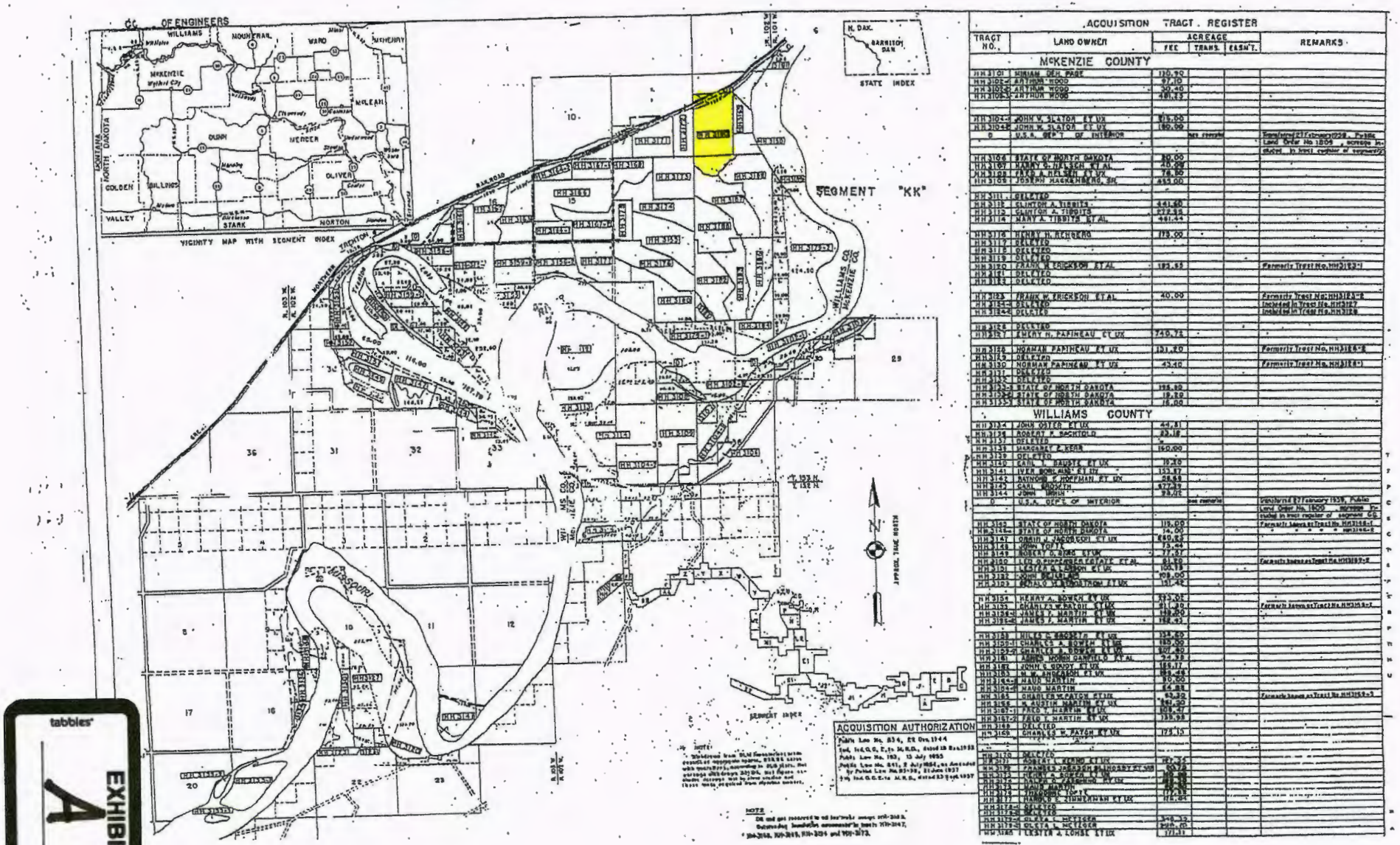
Joshua A. Swanson

3253162.1

EXHIBIT

A

Exhibit A - United States Army Corps of Engineers Segment Map for the Wilkinsons' Property



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS.	ACREAGE EASM'T.	REMARKS
	McKENZIE COUNTY				
HH 3101	MIRIAM DEH. PAGE	130.90			
HH 3102-1	ARTHUR WOOD	97.10			
HH 3102-2	ARTHUR WOOD	30.40			
HH 3102-3	ARTHUR WOOD	481.23			
HH 3104-1	JOHN W. SLATOR ET UX	815.00			
HH 3104-2	JOHN W. SLATOR ET UX	160.00			
D	U.S.A. DEP'T. OF INTERIOR		see remarks		Transferred 27 February 1939, Public Land Order No. 1809, acreage included in tract register of segment GG
HH 3106	STATE OF NORTH DAKOTA	80.00			
HH 3107	HENRY O. NELSEN ET AL	40.28			
HH 3108	FRED A. NELSEN ET UX	76.90			
HH 3109	JOSEPH MACKENBERG, SR.	655.00			
HH 3111	DELETED				
HH 3112	CLINTON A. TIBBITS	441.60			
HH 3113	CLINTON A. TIBBITS	237.52			
HH 3114	MARY A. TIBBITS ET AL	481.44			
HH 3116	HENRY H. RICHKRO	179.00			
HH 3117	DELETED				
HH 3118	DELETED				
HH 3119	DELETED				
HH 3120	FRANK W. ERICKSON ET AL	185.65			Formerly Tract No. HH 3183-1
HH 3121	DELETED				
HH 3122	DELETED				
HH 3123	FRANK W. ERICKSON ET AL	40.00			Formerly Tract No. HH 3183-2
HH 3124-1	DELETED				Included in Tract No. HH 3127
HH 3124-2	DELETED				Included in Tract No. HH 3128
HH 3126	DELETED				
HH 3127	EMERY N. PAPINEAU ET UX	740.72			
HH 3128	NORMAN PAPINEAU ET UX	181.20			Formerly Tract No. HH 3184-2
HH 3129	DELETED				
HH 3130	NORMAN PAPINEAU ET UX	43.40			Formerly Tract No. HH 3184-1
HH 3131	DELETED				
HH 3132	DELETED				
HH 3133-1	STATE OF NORTH DAKOTA	158.80			
HH 3133-2	STATE OF NORTH DAKOTA	19.20			
HH 3133-3	STATE OF NORTH DAKOTA	18.00			
	WILLIAMS COUNTY				
HH 3134	JOHN OSTER ET UX	44.81			
HH 3136	ROBERT P. SACKFIELD	83.18			
HH 3137	DELETED				
HH 3138	MARGARET E. KERR	160.00			
HH 3139	DELETED				
HH 3140	CARL T. BAUSTE ET UX	19.20			
HH 3141	IVER BOWLAND ET UX	153.87			
HH 3142	RATHBONE F. HOFFMAN ET UX	28.60			
HH 3143	CARL MORGAN	677.89			
HH 3144	JOHN IRWIN	98.02			
D	U.S.A. DEPT. OF INTERIOR		see remarks		Transferred 27 February 1939, Public Land Order No. 1809, acreage included in tract register of segment GG
HH 3145	STATE OF NORTH DAKOTA	119.00			Formerly known as Tract No. HH 3146-1
HH 3146-2	STATE OF NORTH DAKOTA	14.50			Formerly known as Tract No. HH 3146-2
HH 3147	ORVILLE J. JACOBSON ET UX	620.82			
HH 3148	JOHN YOTTS	73.44			
HH 3149	ROBERT O. BERG ET UX	77.87			
HH 3150	ELLA O. POPPENHEIMER ESTATE ET AL	81.30			Formerly known as Tract No. HH 3189-2
HH 3151	CLIFFORD A. LARSON ET UX	100.19			
HH 3152	JOHN BEHLAND	108.00			
HH 3153	RONALD H. ERICKSON ET UX	151.42			
HH 3154	HENRY A. BOWEN ET UX	593.02			
HH 3155	CHARLES W. PATCH ET UX	211.80			Formerly known as Tract No. HH 3156-1
HH 3156-2	JAMES F. MARTIN ET UX	122.20			
HH 3156-3	JAMES F. MARTIN ET UX	198.43			
HH 3158	MIKE C. BROSIG ET UX	158.60			
HH 3160-1	CHARLES A. BOWEN ET UX	160.00			
HH 3160-2	CHARLES A. BOWEN ET UX	207.80			
HH 3161	ARNO MORRIS GARFIELD ET AL	24.38			
HH 3162	JOHN C. GIDDY ET UX	156.72			
HH 3163	H. W. PATCH ET UX	149.48			
HH 3164-1	MAUD MARTIN	80.00			
HH 3164-2	MAUD MARTIN	64.88			
HH 3165	CHARLES W. PATCH ET UX	43.38			Formerly known as Tract No. HH 3158-2
HH 3166	H. AUSTIN MARTIN ET UX	161.20			
HH 3167-1	FRED T. MARTIN ET UX	109.47			
HH 3167-2	FRED T. MARTIN ET UX	159.93			
HH 3168	DELETED				
HH 3169	CHARLES W. PATCH ET UX	179.10			
HH 3170	DELETED				
HH 3171	ADELAIDE L. REYNO ET UX	80.24			
HH 3172	FARMERS & MERCHANTS MORTGAGE ET UX	80.00			
HH 3173	CHARLES A. BOWEN	160.00			
HH 3174	DALLAS D. FARNSWORTH ET UX	80.00			
HH 3175	DAVID P. MARVIN	80.00			
HH 3176	STRAUSSER TOFTE	179.00			
HH 3177	HARRIET E. ZIMMERMAN ET UX	116.64			
HH 3178-1	DELETED				
HH 3178-2	DELETED				
HH 3179	OLETA L. MCTIGER	349.33			
HH 3179-2	OLETA L. MCTIGER	approx. 10			
HH 3180	LESTER A. LOWE ET UX	171.31			

EXHIBIT

B

Exhibit B - United States Army Corps of Engineers documents related to the Wilkinsons' Property

19

J. T. Wilkinson and Evelyn M. [redacted] is wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00, Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit:
Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easments for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.
Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that t he y executed the same.

Telmar E. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958

EXHIBIT "3"

ABSTRACTER'S CERTIFICATE

Project Garrison Dam & Reservoir, N.D. Tract No. NH-3190

Williams County, State of North Dakota

containing 228.95 acres, more or less.

I hereby certify that for the use and benefit of the United States of America and its assigns I have made a complete examination of all public records pertaining to the title to the captioned land since Sept. 20, 1957, 5 P.M. the date of the previous certificate and that nothing affecting or relating to the title in any manner whatsoever has been filed or recorded in such records since the date of the previous certificate except as shown at page(s) Entries 10a to 12, inclusive, of the abstract.

I further certify that no taxes or special assessments now appear upon the records as unpaid and no tax sales now appear upon the records as unredeemed except as follows:

none

Made this 24th day of July A. D., 19 58 at 5 P.M.

Williston (City), North Dakota (State)

58058

AO-0110

Nellie J. Hydle
Abstracter

(This form of certificate is to be attached to CONTINUATIONS OF ABSTRACTS)

Office of the Attorney General
Washington, D. C.

May 12, 1959

Honorable Wilber M. Brucker
Secretary of the Army
Washington, D. C.

My dear Mr. Secretary:

A re-examination has been made of the title data relating to 286.04 acres of land, more or less, Tract No. HH-3190, Garrison Dam and Reservoir Project in Williams County, North Dakota. This land was conveyed to the United States of America under the provisions of existing legislation by J. T. Wilkinson and Evelyn M. Wilkinson, his wife, under deed dated June 9, 1958, filed for record on June 10, 1958, and recorded among the land records of the county in Book 131 of Deeds at page 411. Your reference is No. MRGRO 601.1 and the file number of this Department is 33-35-242-1238.

The land is described in the aforesaid deed, which recites a consideration of $43,327.00.

The abstract, consisting of volume No. 33315, containing 17 items, volume No. 33008, containing 34 items, volume No. 33009, containing 32 items and continuation abstract No. 56628, containing 12 items, was last satisfactorily certified on July 24, 1958, by the Williams County Abstract Company. All references to abstract numbers made herein refer to numbers appearing on the back cover of the abstract volume.

The abstract, recorded deed, and accompanying data disclose valid title to be vested in the United States of America subject to:

1. Easements for roads, highways, public utilities, railroads and pipe lines, if any, not shown of record.

2. Reservations contained in the patents from the United States shown at item 1 of abstract No. 33315, item 27 of abstract No. 56628.

GARRISON DAM AND RESERVOIR

HH-3190

N. D.

3. Reservation by grantors and owners of any interest therein including third party lessees, their heirs, successors and assigns of all oil and gas rights therein, under the terms contained in the deed to the United States.

Your Department has advised that objections 1, 2 and 3 will not interfere with the contemplated use of the land.

Abstract volume No. 33315, continuation abstract volume No. 56628, deed and related papers are enclosed. Abstract volumes 33008 and 33009 are enclosed with the final opinion for Tract No. HH-3187, this Department's file No. 33-35-242-1232.

Sincerely yours,

William P. Rogers

Attorney General

ENG FORM 1566
1 Jan 46

Project Garrison Dam and Reservoir, N. Dak.
Tract HH-3190
County Williams
State North Dakota

PAYMENT AND CLOSING SHEET

Vendors J. T. Wilkinson and Evelyn M. Wilkinson, his wife

New Address Trenton, North Dakota

Acreage 286.04 Consideration $ 43,327.00 Date 10 June 1959

	Action Taken (✓)	Cash Payments by Vendor	Amount Paid From Treas. Check
Curative Material Obtained			
Approved by Spec. Atty. (abst.) or Title Co. (C. of T.)			
Notary Fees (Vendor's Expense)			
Recording Fees (Vendor's Expense)			
Physical Inspection of Property	X		
Disclaimers (CR Form 20)			
Statement of Consent of Commanding Officer			
Report on Vacation of Property (CR Form 106)			
Certificate of Crop Inspection (CR Form 77)			
Refund for Crops Harvested by Vendor			
Fee for Issuing Cashier's Check or Money Order			
Certificate of Inspection and Possession (CR Form 39)	X		
Deed to United States	X		
Notary Fee (Vendor's Expense)			
Federal Revenue Stamps - 55¢ for $500 (Vendor's Expense)	X	$47.85	
State Revenue Stamps (Vendor's Expense)			
Recording Fee by Vendor or United States (see option)			
Search of Records Since Last Continuation	X		
Mortgages, Judgments, F.S.A. Loans and Other Liens			
1. Payment to _____; Principal			
Interest from _____ to _____			
2. Payment to _____; Principal			
Interest from _____ to _____			
Release Fees (Vendor's Expense)			
Certificates Re: Blocked Nations (CR Form 98 or 99)			
Taxes: Delinquent (19__ to 19__)			
Current (19__)			
Withheld for Taxes Which are a Lien but not Payable			
Fee for Issuing Cashier's Check or Money Order			
Total Cash Payments by Vendor			
Total Amount Paid From Treasurer's Check			- - -
Option Price			$43,327.00
Total Amount Paid From Treasurer's Check			
(Are all requirements of Attorney General's opinion satisfied?)			
Balance Due Vendor			
Receipt for U. S. Treasurer's Check (CR Form 19)	X		
Certificates Re: Blocked Nationals (CR Form 98 or 99)			

The above is a complete, true and correct account of funds received and disbursed by me and a report of the action taken in conducting payment and closing of the instant transaction.

John H. Burgum
Closing Attorney

I/We have examined the above statement and find it correct. This acknowledges that $ 43,327.00 has been disbursed as above with my/our approval and for my/our account and benefit, which said sum is the sale price set forth in my/our Option Agreement with the United States of America, and I/We acknowledge receipt of the balance due me/us as shown above.

J. T. Wilkinson
J. T. Wilkinson

Evelyn M. Wilkinson
Evelyn M. Wilkinson, his wife

EXHIBIT

C

Exhibit C - 1958 aerial image of the Property showing its use for agricultural purposes prior to Garrison Dam and Lake Sakakawea

EXHIBIT
tabbies
C

EXHIBIT

D

Exhibit D - January 12, 2017 testimony of Jon Patch to Senate Energy and Natural Resources Committee

Testimony of Jon Patch

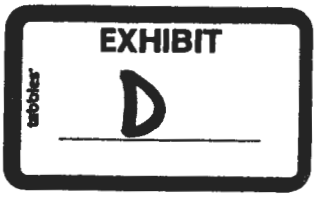
Concerning SB 2134

Senate Energy and Natural Resources Committee

January 12, 2017, 9:00 AM

Madam Chair, my name is Jon Patch. I'm a lifelong resident of North Dakota. I am here representing the family of my Grandparents, JT and Evelyn Wilkinson who homesteaded and farmed in the Trenton Valley of Williams County (figures 1 and 2). My mother, who is 92 years old, and is a resident of the MSLCC, often recalls the time growing up there and working in my grandfather's wheat fields. Deep under those wheat fields is the Bakken formation, which my grandfather knew absolutely nothing about, but had the providential wisdom to write "reserving the minerals" when he signed the title over to the U.S. government in the 1950s under the threat of condemnation (see Warranty Deed and letter from the US Attorney General). Why did he sign title of that land he owned in fee to the government? Because he was told that it was needed for the newly created Garrison Dam and man-made reservoir (Lake Sakakawea, figures 3, 4, & 5) that will occasionally flood that property. Well, that forced Grandpa out of the farming business but at least he still had some attachment to the property by leasing the mineral rights. He and his children who inherited those mineral rights have been actively leasing those minerals since the 1950s. The land we are talking about is 286 acres in the Trenton valley **west** of the highway 85 bridge.

I lay that groundwork because back in February 2010, the family was delighted to find out that our mineral acres were included in a 1280 acre spacing unit. In May, 2010 there was a special hearing held by the Oil and Gas division on a drilling permit request. Brigham oil spudded the well on 6/20/2010 and completed drilling on 7/13/2010. The well was fracked in November, 2010 and has been producing ever since. But, that is where our delight ends and our disheartenment begins. After many months of wondering why the royalty payments weren't forthcoming, I discovered by happenstance that our mineral acres had been nominated into the State Land Department mineral database after department employees shared draft information of an OHWM study that the Land Board commissioned at the behest of the oil companies. The State claimed our mineral acres as their own and auctioned them to the highest bidder at the August, 2010 state mineral auction. By the way, the OHWM study was not finalized, accepted, and made public by the land board until November, 2010, six months after the draft results were slipped into the hands of the oil company operatives. No notice was given, nor any opportunity to object to what the state did in their taking scheme. Many meetings with Department staff and attorneys and presentations to the Land Board met with deaf ears. Land Commissioner Gaebe told me at one point "nothing is going to change with their policies and practices unless told to do so by the legislature or a guy in a black robe." The family explored both options and decided for the sake of time we would take the court route. We hired an attorney and in January of 2012 we sued the state to get our minerals back. Now, some $300,000 in attorney and expert fees later, our case is in the hands of the Supreme Court. The sad fact is, we never got to have our day in court. Days before our scheduled trial last May, the judge signed verbatim a summary judgement order that was nothing more than the proposed order written by the state attorneys. The order states that "the Missouri River is not distinguishable from Lake Sakakawea." And that artificial changes such as dams and dam operations can influence the OHWM boundaries and the course of rivers and lakes. Therefore, the state argument is essentially saying the Lake does not



exist, its merely a widening of the Missouri River, thereby laying claim to hundreds of thousands of riverbed and mineral acres purchased by the corps for reservoir operations.

Land surface elevation of our mineral land, that the state has laid claim to, is in the 1850-1851 foot range above mean sea level. The Garrison Dam spillway is at 1854'. The corps acquired property upstream of the Dam based on that top of spillway elevation, which represents the maximum operating pool. All of the USGS National Hydrography Dataset maps use the 1854' contour as the limit of Lake Sakakawea (figure 3). The ND Industrial Commission use the 1854' contour in their "Special Places" rule for the extent and limit of Lake Sakakawea.

I would like to note that my mother and her siblings with first-hand knowledge have said under oath that the land in question never flooded prior to the dam being built. (See attached affidavits, Appendix 1)

But, since the dams were built, the land has flooded regularly, most recently in 2011 when the reservoir was operated at maximum capacity (figure 5).

Now, having said all that, where does our family stand with regards to this bill? That depends. The bill would need to be amended to remove unnecessary language that essentially limits the upstream extent of Lake Sakakawea as the Highway 85 bridge.

Keeping that language would validate the current practice of the Department of Trustlands of using one sovereign land determination east of the Highway 85 bridge and a different one west of the bridge. That determination was described in our expert's report as an arbitrary and capricious line/boundary for the western edge of Lake Sakakawea (report prepared by Houston Engineering Inc, *available for download at:*
https://www.dropbox.com/s/u996e0yiubikliq/houston%20report-final%28all%29.pdf?dl=0 .)

Statements by state officials and experts taken during our lawsuit depositions prove that there is no sound scientific or valid legal reasoning for it to be used as a boundary for sovereign land determination (see attached quotes). The Highway 85 bridge was used simply as a recognizable landmark when doing there OHWM studies. Hardcoding it in statute as legal boundary for sovereign land determination, as this bill would currently do, would be a big mistake.

We wholeheartedly and in the strongest way oppose the bill if this language remains.

By the same token, if the bill would be amended to include the entire reach of Lake Sakakawea up to the 1854' contour, we would wholeheartedly support it. This could easily be accomplished by striking the language that specifies the extent of the reservoir as ending at mile marker 1552.4. There is broad support from state officials and experts on the use of the "historic channel" within Lake Sakakawea as the state limit to it's sovereign ownership (see attached quotes).

I respectfully ask for your fair and just treatment of Mineral Owners west of the Highway 85 bridge, essentially, to do the right thing!

Sincerely,

Jon Patch, P.E.

17

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

United States of America
Address: Washington, D. C.

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

In consideration of $ 43,327.00, Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit:
Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easments for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that t he y executed the same.

Telmar E. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958

EXHIBIT "3"

ABSTRACTER'S CERTIFICATE

Project Garrison Dam & Reservoir, N.D. Tract No. HH-3190

Williams County, State of North Dakota

containing 228.95 acres, more or less.

I hereby certify that for the use and benefit of the United States of America and its assigns I have made a complete examination of all public records pertaining to the title to the captioned land since Sept. 20, 1957, 5 P.M. the date of the previous certificate and that nothing affecting or relating to the title in any manner whatsoever has been filed or recorded in such records since the date of the previous certificate except as shown at page(s) Entries 10a to 12, inclusive, of the abstract.

I further certify that no taxes or special assessments now appear upon the records as unpaid and no tax sales now appear upon the records as unredeemed except as follows:

none

Made this 24th day of July A. D., 19 58 at 5 P.M.

Williston, North Dakota
(City) (State)

38058
AC-0110

Nellie J. Hydle
Abstracter

(This form of certificate is to be attached to CONTINUATIONS OF ABSTRACTS)

Office of the Attorney General
Washington, D. C.

May 12, 1959

GARRISON DAM AND RESERVOIR

HH-3190

N. D.

Honorable Wilber M. Brucker
Secretary of the Army
Washington, D. C.

My dear Mr. Secretary:

A re-examination has been made of the title data relating to 286.04 acres of land, more or less, Tract No. HH-3190, Garrison Dam and Reservoir Project in Williams County, North Dakota. This land was conveyed to the United States of America under the provisions of existing legislation by J. T. Wilkinson and Evelyn M. Wilkinson, his wife, under deed dated June 9, 1958, filed for record on June 10, 1958, and recorded among the land records of the county in Book 131 of Deeds at page 411. Your reference is No. MRGRO 601.1 and the file number of this Department is 33-35-242-1238.

The land is described in the aforesaid deed, which recites a consideration of $43,327.00.

The abstract, consisting of volume No. 33315, containing 17 items, volume No. 33008, containing 34 items, volume No. 33009, containing 32 items and continuation abstract No. 56628, containing 12 items, was last satisfactorily certified on July 24, 1958, by the Williams County Abstract Company. All references to abstract numbers made herein refer to numbers appearing on the back cover of the abstract volume.

The abstract, recorded deed, and accompanying data disclose valid title to be vested in the United States of America subject to:

1. Easements for roads, highways, public utilities, railroads and pipe lines, if any, not shown of record.

2. Reservations contained in the patents from the United States shown at item 1 of abstract No. 33315, item 27 of abstract No. 56628.

3. Reservation by grantors and owners of any interest therein including third party lessees, their heirs, successors and assigns of all oil and gas rights therein, under the terms contained in the deed to the United States.

Your Department has advised that objections 1, 2 and 3 will not interfere with the contemplated use of the land.

Abstract volume No. 33315, continuation abstract volume No. 56628, deed and related papers are enclosed. Abstract volumes 33008 and 33009 are enclosed with the final opinion for Tract No. HH-3187, this Department's file No. 33-35-242-1232.

Sincerely yours,

William P. Rogers

Attorney General

ENG FORM 1566
1 Jan 46

Project: Garrison Dam and Reservoir, N. Dak.
Tract: HH-3190
County: Williams
State: North Dakota

PAYMENT AND CLOSING SHEET

Vendors: J. T. Wilkinson and Evelyn M. Wilkinson, his wife

New Address: Trenton, North Dakota

Acreage: 286.04 Consideration $: 43,327.00 Date: 10 June 1957

	Action Taken (✓)	Cash Payments by Vendor	Amount Paid From Treas. Check
Curative Material Obtained			
Approved by Spec. Atty. (abst.) or Title Co. (C. of T.)			
Notary Fees (Vendor's Expense)			
Recording Fees (Vendor's Expense)			
Physical Inspection of Property	X		
Disclaimers (CR Form 20)			
Statement of Consent of Commanding Officer			
Report on Vacation of Property (CR Form 106)			
Certificate of Crop Inspection (CR Form 77)			
Refund for Crops Harvested by Vendor			
Fee for Issuing Cashier's Check or Money Order			
Certificate of Inspection and Possession (CR Form 39)	X		
Deed to United States	X		
Notary Fee (Vendor's Expense)			
Federal Revenue Stamps - 55¢ for $500 (Vendor's Expense)	X	$47.85	
State Revenue Stamps (Vendor's Expense)			
Recording Fee by Vendor or United States (see option)			
Search of Records Since Last Continuation	X		
Mortgages, Judgments, F.S.A. Loans and Other Liens			
1. Payment to _____; Principal			
Interest from _____ to _____			
2. Payment to _____; Principal			
Interest from _____ to _____			
Release Fees (Vendor's Expense)			
Certificates Re: Blocked Nations (CR Form 98 or 99)			
Taxes: Delinquent (19__ to 19__)			
Current (19__)			
Withheld for Taxes Which are a Lien but not Payable			
Fee for Issuing Cashier's Check or Money Order			
Total Cash Payments by Vendor			
Total Amount Paid From Treasurer's Check			- - -
Option Price			$43,327.00
Total Amount Paid From Treasurer's Check (Are all requirements of Attorney General's opinion satisfied?)			
Balance Due Vendor			
Receipt for U. S. Treasurer's Check (CR Form 19)	X		
Certificates Re: Blocked Nationals (CR Form 98 or 99)			

The above is a complete, true and correct account of funds received and disbursed by me and a report of the action taken in conducting payment and closing of the instant transaction.

John H. Burgum
Closing Attorney

I/We have examined the above statement and find it correct. This acknowledges that $ 43,327.00 has been disbursed as above with my/our approval and for my/our account and benefit, which said sum is the sale price set forth in my/our Option Agreement with the United States of America, and I/We acknowledge receipt of the balance due me/us as shown above.

J. T. Wilkinson

Evelyn M. Wilkinson

J. T. Wilkinson
Evelyn M. Wilkinson, his wife

Figure 3

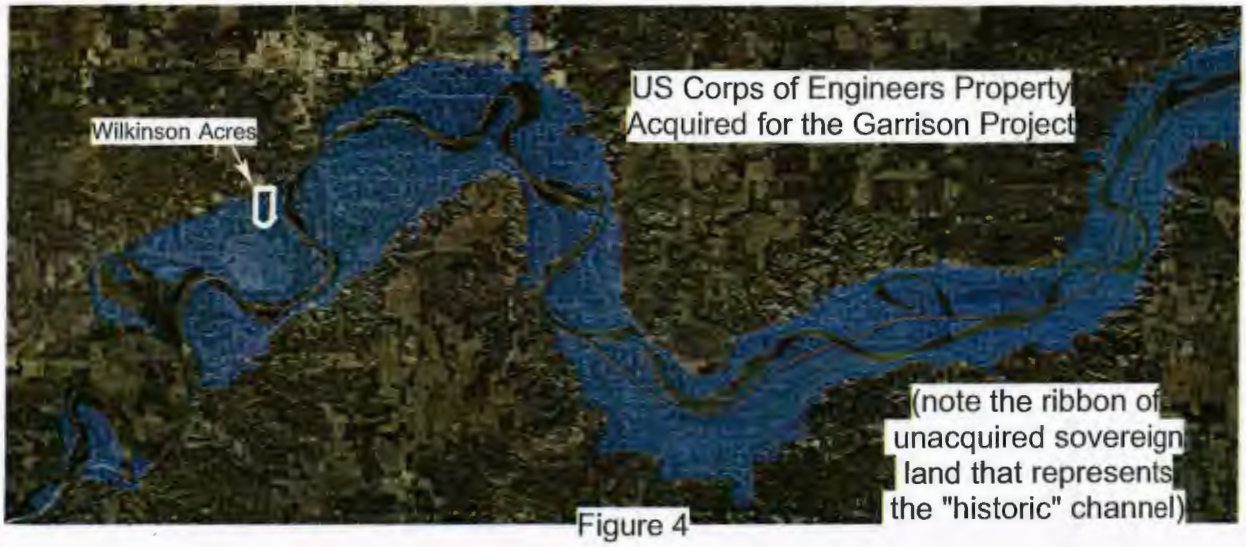


Figure 4

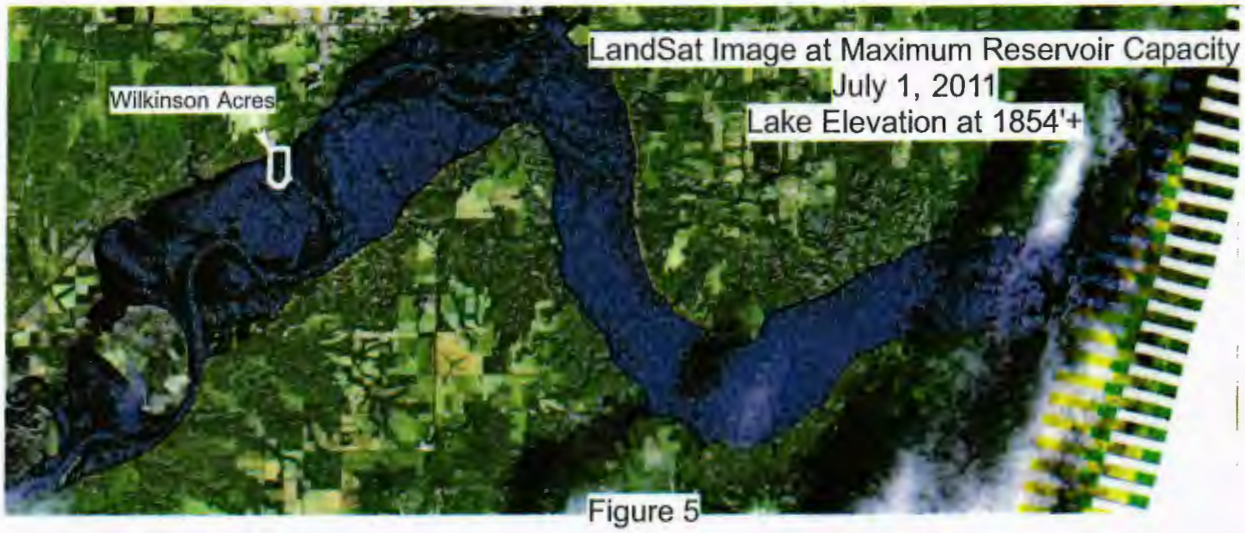


Figure 5

Quotes from state officials concerning the use of the Highway 85 Bridge as a dividing line.

From Depositions taken for the Wilkinson vs. State of ND et.al. Lawsuit

James Landenberger – Bartlett and West

Q. Do you know why the Highway 85 bridge is used as the dividing line between the Phase I and Phase II studies?

A. No.

Q. From an engineering and technical standpoint, is there any reason why the Highway 85 bridge should have been used as the dividing line between the Phase I and Phase II studies?

A. Engineeringwise why the bridge was chosen, I have no idea.

John Paczkowski – Chief of Regulatory, Office of the State Engineer

Q. Are you aware of any scientific basis for using the Highway 85 bridge as a transition for use of the Phase I Study over the Phase II Study?

A. No. Other than Phase II was an estimation -- or was an estimation based on historical photography versus natural delineation.

Q. Right. But I'm talking about specifically the Highway 85 bridge. Are you aware of any scientific basis for using the Highway 85 bridge as a transition --

A. No.

Todd Sando, ND State Engineer

Q. The State of North Dakota used the Highway 85 bridge as the cutoff point for separating the Phase I Study and the Phase II Study. Do you have any knowledge why they used the Highway 85 bridge?

A. No.

Q. Do you know if there's any scientific or technical reason the State would have used the Highway 85 bridge as the point for separating the Phase I Study and Phase II Study?

A. No.

Q. Did you have any discussions with anyone from the Land Board about using the Highway 85 bridge as the transition point between the Phase I and Phase II Study?

A. Don't recall any.

Gerald Heiser, Sovereign Lands Manager, Office of the State Engineer

Q. Are you aware of any scientific reason for the Land Department to use the Highway 85 bridge as a cutoff for leasing Phase I acreage west of that bridge?

A. I am not, no.

Q. And I understand you didn't have any input in using Highway 85 bridge as a cutoff for the mineral leasing acreage.

A. That's correct.

Q. Has there been any work done by the State Water Commission with respect to a definitive line where the Lake Sakakawea is on one side and the river is on the other side of that line?

A. No, I don't believe anything definitive.

Q. Has there been some preliminary work done in that regard?

A. No, I don't believe so.

Q. Do you agree that the western boundary of Lake Sakakawea is the land upstream of the Garrison Dam to the 1854 contour level?

MS. VERLEGER: Objection to the extent it calls for a legal conclusion.

THE WITNESS: I believe that was the elevation the Corps used to purchase lands for the reservoir, but --

Q. (MR. STOCK CONTINUING) And all those lands up to the 1854 level certainly would be subject to inundation by the dam?

A. I assume. Otherwise, I believe they wouldn't have purchased it.

Lance Gaebe, ND Land Commissioner

Q. And what is the basis of using the Highway 85 bridge to lease minerals up to the ordinary high water mark to the river as it existed that day instead of the historic Missouri River in that area?

A. It was a decision that was reached before my time. I don't know the basis of that. Before my time at the department.

Q. Okay. So to summarize here, the State used Phase I in the Wilkinson property because it was west of the Highway 85 bridge?

A. The State used Phase I because it identified the river condition as the river exists in its present state.

Q. And you used the condition as the river exists in its present state for the ordinary high water mark -- the cutoff for that decision is the Highway 85 bridge; yes?

A. Approximated, yes. I think in nearly all cases, that's correct.

Q. Is there any scientific reason to use Highway 85 bridge to determine ordinary high water mark *as the river exists* that day instead of using the historic Missouri River west of Highway 85 bridge?

A. I don't know.

Q. Are you aware of any scientific reason to use Highway 85 bridge for that distinction?

A. I am not.

Mike Brand, former Director of Surface Management, Department of Trustlands

Q. Is there any basis -- are you aware of any scientific basis for using the Highway 85 bridge as that distinction for leasing purposes?

A. That would be speculation on my part. I'm not involved in that decision or in studying that decision.

Q. Well, based on your expertise and your training and your experience as the director of the Surface Management Division, can you tell me any scientific reason why Highway 85 bridge should be used as the dividing point for using Phase I compared to Phase II?

A. That would be a question to ask the State Water Commission.

Q. You've been designated as an expert witness in this case, Dr. Brand. Do you have any opinion on the use of Highway 85 bridge as the dividing point between Phase I and Phase II with respect to the State's leasing practices?

A. I haven't -- I haven't studied that delineation point -- I mean, that division. All I can say is that we did stop essentially at Highway 85 because beyond there it was almost impossible to delineate the ordinary high water mark on the south side of the river.

Q. Did you -- did Bartlett & West delineate the ordinary high water mark on both sides of the river or just the south side?

A. Both sides.

Q. Why do you say it was impossible to delineate the ordinary high water mark on the south side of the river west of Highway 85?

A. Impossible is probably incorrect because nothing is impossible in this life, of course, but it would have been more difficult and beyond the scope of the project because of the wetlands that were there and the meandering that occurred there.

Bruce Zelmer, Surveyor, Bartlett and West

Q. Do you know why the State chose the Highway 85 bridge as the transition point between the Phase I and Phase II surveys?

A. I can't tell you exactly why. Our original contract and scope and RFP was to go to river mile 1549, I believe. We attempted to do that. As we came into the Williston area from upstream, we were very confident in what we did. And as we got to the bridge and then the left bank and there was some

major concerns that the delineators had on that right bank and how that swirled back around, and there was discussions on where to stop that, so, again, between the -- I think it was the Water Commission people that were involved in that, the Land Department, and ourselves, of course, but we did not make that decision.

Q. When you say how it -- was it how the water swirled around by there?

A. Yeah. Some is water, some is the high water mark, there's agricultural plots in there if you look on the imagery too.

Q. My understanding is that James Landenberger dealt with the State as far as comments they may have had with regards to the Phase I and Phase II Studies; is that correct?

A. Correct. James was our point of contact with all those projects.

Q. Are you aware of any scientific basis to support using the Highway 85 bridge as the point where the Phase II survey stops and the Phase I Study begins?

A. No.

Q. … With regards to the Highway 85 bridge, do you know if there was any scientific basis to use the Highway 85 bridge as a separation between the Phase I and Phase II Studies?

A. ….. Again, it's my opinion, but maybe because it's a physical feature.

Gary Preszler, former ND Land Commissioner

Q. I'll just tell you, I believe Mr. Gaebe stated that the State's use of the Highway 85 bridge for transition leasing purposes of using Phase II compared to Phase I came from you and conversations with others that came before him in the office. Is that not true?

A. Well, I'll tell you what the bridge represents. It does not represent any type of a man-made structure that we felt had an influence whatsoever. It just represented a recognizable landmark that we all knew and we used that as a basis, so when we talked about Phase I, Phase II, we would talk about miles east or west of the bridge. Tom certainly had the maps and he was more familiar with the actual river miles that were there. But as far as that we used Phase I up until the bridge, no. Well, we used the information that I had on Phase I up until my retirement. I did not have anything with Phase II, so I can't answer that as far as what the department did after my retirement.

Q. You'd agree that there's no scientific reason to use the Highway 85 bridge as the transition between Phase I and Phase II as far as leasing purposes?

A. No. It represented no scientific analysis or basis whatsoever. But I think if you look at the report that was given, on the north shore Bartlett & West delineated all the way east of Williston a number of miles. On the south shore they ended about where the bridge was. So that's, if anything, where it looked at the differences to what we were leasing, and stuff like that, that would have impacted it, because we didn't have complete data then east of the bridge on Phase I, if I'm correct in my understanding. You have the data.

Tom Feeney, Director of Mineral Management, Department of Trustlands

Q. Well, was the decision to use the Highway 85 bridge as the transition point between using Phase I and Phase II acreages?

A. Not to my knowledge. That Highway 85 bridge, I don't know where that term even came from or who initiated it or where -- what it represents. To me that was just a landmark, an easy point of reference. When somebody asks you, How far did you get on this project? Well, Highway 85 bridge approximately, you know. The bridge has nothing to do with what phase is used to determine what acreage is made available for nomination.

Q. Right. So you'd agree there's no scientific basis to use Highway 85 bridge as a transition point between Phase I and Phase II acreages; correct?

A. This is the wash area that we knew needed more study, and so we commissioned a phase 3 also. And Phase III -- I don't know if we called it Phase III. I think it was Task Order 3. But, anyway, the purpose of 3 was to take a closer examination of these problem areas, controversial areas, areas difficult to determine if it's river or lake, and there were maybe half a dozen of them that were studied in Phase -- or Task Order 3.

Quotes from state officials concerning the use of the "historic channel" as the limit to the state's claim to sovereign land ownership.

Gary Preszler – State Land Commissioner from 1995-2010 – from Deposition in Wilkinson vs. State Lawsuit

Q. (MR. STOCK CONTINUING) And, therefore, the State -- in your opinion, the State cannot claim as sovereign lands land underlying Lake Sakakawea; is that a fair statement?

THE WITNESS: No, I don't -- I don't agree with that. And the State has always maintained rights to the original riverbed under Lake Sakakawea.

Q. (MR. STOCK CONTINUING) That's a good point. So even though inundated by Lake Sakakawea, the State would claim, and has the right to claim, ownership of the original historic Missouri riverbed?

THE WITNESS: That's been the basis of our management at the Land Department. Yes, we maintain that the State did not convey the riverbed to the federal government nor did they condemn the riverbed itself.

Q. (MR. STOCK CONTINUING) In fact, the State is not -- well, has a policy of not claiming mineral interests up to the shores of Lake Sakakawea other than underneath the historic Missouri riverbed; correct?

THE WITNESS: I can only respond as to my tenure during -- as commissioner, we never claimed anything outside the riverbed.

Q. The historic Missouri riverbed?

A. The historic riverbed, that's correct.

Todd Sando – State Engineer 2010-2016 – from Deposition in Wilkinson vs. State Lawsuit

Q. But you don't know what sovereign land the State of North Dakota is claiming as part of the Garrison project that was owned by the United States?

A. Yes, I do. We're claiming where it's been delineated below the ordinary high water mark and we're managing the water that was -- I mean, the land that was transferred at the time of statehood, so the historic river channel through Lake Sakakawea.

Q. (MR. SWANSON CONTINUING) Lake Sakakawea did not exist at statehood; correct?

A. Correct.

Q. So Lake Sakakawea could not be navigable at statehood; correct?

A. Correct.

Q. And you do not know whether your office, the State Engineer and the State Water Commission, has determined that the State owns as sovereign lands 30,000 acres which represents the riverbed of the Missouri River lying underneath Lake Sakakawea?

A. You're saying I don't know. I do know, yes.

Q. Well, what do you know?

A. Like I said, the original channel at the time of statehood was transferred to the State of North Dakota, so whatever number of acres that is, the historic channel.

Gerald Heiser – Sovereign Lands Manager, office of the ND State Engineer 2008-present - from Deposition in Wilkinson vs. State Lawsuit

Q. Now, and that -- would that claim to sovereign lands up to the ordinary high water mark also include claim to lands inundated by Lake Sakakawea?

THE WITNESS: The State claims title to the historic bed of the Missouri River under Lake Sakakawea.

Q. (MR. STOCK CONTINUING) Correct. So you can claim -- the State of North Dakota claims title to the historic Missouri River but not necessarily the Garrison Reservoir created by the Garrison Dam?

THE WITNESS: At this time, no, we don't.

Q. (MR. STOCK CONTINUING) As the manager of sovereign lands, do you currently manage any sovereign lands around Lake Sakakawea, bordering Lake Sakakawea?

A. Well, we manage the Missouri River, so, I guess, yeah.

Q. Do you currently -- specifically does your office manage any sovereign lands bordering Lake Sakakawea, is what I'm asking, not bordering the river.

A. We administer sovereign lands on the historic Missouri River channel but not bordering -- I mean, nothing on the external boundaries of the reservoir.

Charles Carvell – Former Director, Natural Resources and Indian Affairs Division, Attorney General's office, - from Minutes of the Administrative Rules Committee Tuesday, March 9, 2010 (attached)

In response to a question from Representative Kasper, Mr. Carvell said with regard to water and lands at Lake Sakakawea, the Army Corps of Engineers owns most shorelands and land underlying the lake, with the exception of state ownership of the original river channel, and the state cannot preempt federal ownership and control.

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

ADMINISTRATIVE RULES COMMITTEE

Tuesday, March 9, 2010
Roughrider Room, State Capitol
Bismarck, North Dakota

Senator Jerry Klein, Chairman, called the meeting to order at 10:00 a.m.

Members present: Senators Jerry Klein, John M. Andrist, Tom Fischer, Joan Heckaman, Tracy Potter; Representatives Randy Boehning, Chuck Damschen, Duane DeKrey, Jim Kasper, Kim Koppelman, George J. Keiser, Joe Kroeber, Jon Nelson, Blair Thoreson, Francis J. Wald, Lonny Winrich, Dwight Wrangham

Members absent: Senator Layton W. Freborg; Representatives Wesley R. Belter, Stacey Dahl, Mary Ekstrom

Others present: See Appendix A

It was moved by Representative DeKrey, seconded by Representative Koppelman, and carried on a voice vote that the minutes of the previous meeting be approved as distributed.

STATE WATER COMMISSION

Chairman Klein called on Mr. Dale Frink, State Engineer, State Water Commission, for comments on State Water Commission rules carried over from the previous committee meeting. Mr. Frink said the rules submitted for Administrative Rules Committee consideration relate to management of sovereign lands but do not make changes in law or rules determining what is included in sovereign lands. He said in 1989 the Legislative Assembly transferred sovereign lands management from the Land Department to the State Engineer. He said a 2005 Attorney General opinion required development of a comprehensive plan for management of sovereign lands. He said the required comprehensive plan has been completed. He said the existence of the comprehensive plan has been beneficial because issues and uses relating to sovereign lands have grown in recent years. He said some rules changes were needed to conform preexisting rules to the comprehensive plan. He said that is the reason the rules were adopted.

Mr. Frink said the rules adopted cover issues relating to uses of sovereign lands, but he understands the concern of the committee is with obtaining information on what is included in sovereign lands and how the phrase "navigable waters" is defined. He said Mr. Charles Carvell, Director, Natural Resources and Indian Affairs Division, Attorney General's office, is the state's most experienced legal adviser on these issues, and he asked Mr. Carvell to provide information to the committee on these issues.

Representative Keiser asked why these changes were made through rules instead of legislation. Mr. Frink said the comprehensive plan as developed and implemented required adjustment of existing rules of the State Water Commission. Representative Keiser asked why sovereign lands are defined in rules instead of legislation. Mr. Frink said the definition of sovereign lands in the rules is identical to a definition in statute. He said the rules do not make any change in what is included within the coverage of the term sovereign lands.

Mr. Carvell provided testimony (Appendix B) based on a written outline distributed to the committee. He traced the history of the sovereign lands doctrine.

In response to a question from Representative Keiser, Mr. Carvell said constitutionally it is probably not possible for the state to change the status of sovereign lands because the waters that were navigable at statehood are the basis of the state's sovereign lands.

Senator Klein asked whether the federal government under Section 404 of the Clean Water Act is looking for ways to expand its jurisdiction by expanding what are considered navigable waters for Clean Water Act purposes. Mr. Carvell said that appears to be true.

In response to a question from Representative Kasper, Mr. Carvell said with regard to water and lands at Lake Sakakawea, the Army Corps of Engineers owns most shorelands and land underlying the lake, with the exception of state ownership of the original river channel, and the state cannot preempt federal ownership and control.

Representative Koppelman said as he understands the policy, navigable waters at statehood are certain defined waters but water level changes can change what land is included in sovereign lands of the state. Mr. Carvell said that is correct.

Senator Heckaman said at Devils Lake agricultural lands have been inundated and former owners are continuing to pay minimal property taxes on the property. Mr. Carvell said he does not see any reason why those owners should pay property taxes. He said the state owns the land under sovereign lands coverage, and those owners will be restored to ownership when the water recedes.

Mr. Frink said it is a local decision on property taxes on inundated lands. He said owners of those

EXHIBIT

E

Exhibit E - Affidavit of Lois Jean Patch

State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

EXHIBIT
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creek banks with my sisters as my dad and brothers worked in the fields.

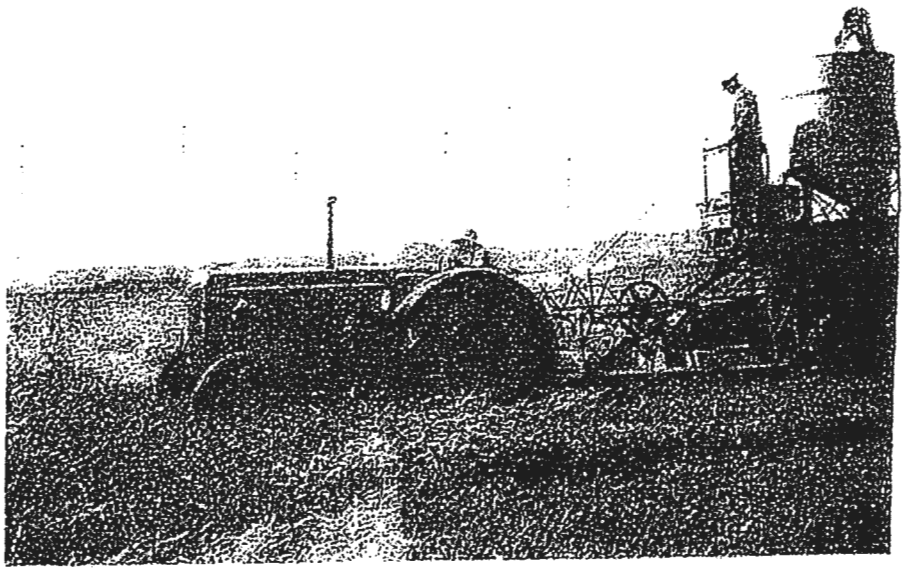
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



EXHIBIT

F

Exhibit F - Affidavit of William S. Wilkinson

AFFIDAVIT

State of Michigan

ss.

County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

EXHIBIT

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F

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

Exhibit G - Affidavit of Vanessa E. Blaine

EXHIBIT

G

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: 2-11-2014

OFFICIAL SEAL
TAMMY WIEMAN
NOTARY PUBLIC-State of New Mexico
My Commission Expires

EXHIBIT
tabbies
G

Hi Jan -
thought you'd find this interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Williamson, farmer on the Missouri bottoms in the county near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 255 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940s41

EXHIBIT

H

Exhibit H - 1958 Warranty Deed from the Wilkinsons to the United States reserving the mineral rights in the Wilkinsons

Tract No. HR-3190

1. WARRANTY DEED — Std-1-61 — To — Red River Legal Blanks, Bismarck, N. D.

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota parties of the first part, and United States of America whose postoffice address is Washington, D. C. party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL and CONVEY unto the said party of the second part, and its heirs and assigns FOREVER, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit:

Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter (SW¼) and the South half of the Northwest quarter (S½NW¼) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter (S½NW¼) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less; subject to existing easements for public roads and highways, [illegible]

[illegible] interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

and they assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances,

and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its heirs and assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Signed and Delivered in Presence of

J. T. Wilkinson

Evelyn M. Wilkinson, His wife

EXHIBIT H

Filed - Clerk of District Court
7/1/2014 2:37:29 PM
Williams County, ND

19

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances,

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58 before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that t he y executed the same.

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958.

STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

THEMAR E. ROLFSTAD
Notary Public for the County of Williams,
State of North Dakota

My commission expires Nov. 19, 1958.

Warranty Deed

GRANTOR
GRANTEE
DATE
MARGINED

TRANSFER FEE $ 25
TO
RECORDING FEE $1.50

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the day of JUN 10 1958 A. D. 19 at 2 o'clock P. M. and was duly recorded in Book 7 of Warranty Deeds on page 1

Register of Deeds

By Deputy

Delinquent taxes, special assessments, interest and costs on real property, if any, have been paid for year 19 as shown by receipt No. dated 19

County Auditor

By Deputy

288165

EXHIBIT

I

Exhibit I - The Wilkinsons' oil and gas leases cited by the

North Dakota Supreme Court

September 17, 1977

Richard M. Patch
1833 Marian Drive
Bismark, North Dakota 58501

OIL & GAS LEASE
Township 153N, Range 102W
Williams County, North Dakota

Dear Mr. and Mrs. Patch:

Enclosed is an Oil and Gas Lease dated this date together with one copy marked "Your Copy" which you should retain for your records. Also, attached is a Draft in the amount of $1,408.75 reflecting your proportionate share of the acreage covered in the Lease. Please do the following:

1) Sign the original and one copy of the Lease on back where your name is typed exactly as it is typed;

2) Have your signatures acknowledge before a Notary Public;

3) Endorse the Draft on the back and place it with your bank for collection as soon as possible;

4) On the first page of the Lease, Please initial the changes made from the original Lease, i.e. "five (5) years"; also initial elimination of "pooling clause" (Paragraph 5)

5) Return the original and one copy of the executed and acknowledged Lease to us in the enclosed, stamped, self-addressed envelope.

Thank you for your cooperation in this matter, and if we can be of further service, or if you have any questions, feel free to call COLLECT at Area Code (701) 572-4603.

Sincerely yours,

Gene Lang

GFL/grt
Enclosures

EXHIBIT
tabbies
I

PlI 0471
103

Description: T153N,R102W,5TH P.M.

Sec. 12: SW¼, S½NW¼ (less and except 5.58 acres Great Northern Railway right of way.);

Sec. 13: Farm Unit No. 312 of Buford-Trenton Project according to the plat thereof recorded in Deed Book 101, page 413 of Williams Co., North Dakota, being a part of Sec. 13, containing 57.09 acres more or less;

Sec. 19: Lot 2 (39.31 acres), Lot 3 (39.37 acres), Lot 6 (39.43 acres), E½NW¼, and the E½SW¼, NW¼NE¼, Lot 1 (27.80 acres), Lot 4 (31.70 acres) lying North of Great Northern Railway right of way, LESS and EXCEPT 3.00 acres between Great Northern Railway and Trenton road, LESS and EXCEPT 1.00 acre of Lot 1, and FURTHER EXCEPT 0.76 acre of NW¼NE¼ to Trenton Township, containing 73.88 acres more or less.

County WILLIAMS
State NORTH DAKOTA
Gross Acres 563.50
Net Acres 563.50

TOWNSHIP 153 NORTH, RANGE 102 WEST, 5TH PRINCIPAL MERIDIAN

Section 12: SW¼, S½NW¼ (less and except 5.58 acres more or less which constitutes the right of way of the Great Northern Railway Company.);

Section 13: Farm Unit No. 312 of the Buford-Trenton Project according to the plat thereof recorded in Deed Book 101, page 413 of Williams County, North Dakota, being a part of Section 13, containing 57.09 acres more or less;

Section 19: Lot 2 (39.31 acres), Lot 3 (39.37 acres), Lot 6 (39.43 acres), E½NW¼, and the E½SW¼, NW¼NE¼, Lot 1 (27.80 acres) and Lot 4 (31.70 acres) lying North of the Great Northern Railway Company right of way, LESS and EXCEPT that portion lying between the Northeastern boundary line of the Great Northern Railway Company right of way and the North boundary line of the Trenton road running alongside of the North boundary line of the Great Northern Railway, containing 3.00 acres more or less, and FURTHER EXCEPTING 1.00 acre of Lot 1, and FURTHER EXCEPT 0.76 acre of NW¼NE¼ to Trenton Township, containing 73.88 acres more or less;

LOIS JEAN PATCH

RICHARD M. PATCH

No. 5722 9-26 1977

Received of Lois Jean Patch and Richard M. Patch

One thousand four hundred eight and 75/100 Dollars

Collection item

$1,408.75

DAKOTA NATIONAL BANK
Bismarck, N. Dak.

By

BISMARCK TRIBUNE 85018

Producers 88-1959

OIL AND GAS LEASE

THIS AGREEMENT, made and entered into this 17th day of September, 19 77 by and between

Lois Jean Patch and Richard M. Patch, wife and husband,

1833 Marian Drive, of Bismark, North Dakota 58501

hereinafter called lessor (whether one or more) and R. K. Puckett, 215 Security Life Building,

Denver, Colorado 80202 hereinafter called lessee:

1. WITNESSETH: That the lessor, for and in consideration of $ 10.00 and more cash in hand paid, receipt of which is hereby acknowledged, and of the covenants and agreements hereinafter contained on the part of the lessee to be paid, kept and performed, has granted, demised, leased and let and by these presents does grant, demise, lease and let exclusively unto said lessee, with the exclusive right of mining, exploring by geophysical and other methods and operating for and producing therefrom oil and all gas of whatsoever nature or kind, and laying pipe lines, telephone and telegraph lines, housing and boarding employees, building tanks, power stations, gasoline plants, ponds, roadways, and structures thereon to produce, save, market and take care of said products and the exclusive surface and subsurface rights and privileges related in any manner to any and all such operations and any and all other rights and privileges necessary, incident to, or convenient for the economical operation alone or conjointly with neighboring land for such purposes, all that certain

tract or tracts of land situated in the County of McLean, State of North Dakota, described as follows, to-wit:

* SEE DESCRIPTION ATTACHED HERETO AND MADE A PART HEREOF AND SIGNED FOR IDENTIFICATION

XX XX XX

of Section ..., Township ..., Range ..., and containing 563.50 acres, more or less.

2. It is agreed that this lease shall remain in force for a term of Five (5) years from date and as long thereafter as oil, or gas of whatsoever nature or kind, or either of them is produced from said land or premises pooled therewith or drilling operations are conducted as hereinafter provided. If prior to discovery of oil or gas on said land, or on acreage pooled therewith, lessee should drill a dry hole or holes thereon, or if after discovery of oil or gas production thereafter should cease for any cause, this lease shall not terminate if lessee commences additional drilling or reworking operations within sixty (60) days thereafter, or (if it be within the primary term) commences or resumes the payment or tender of rental on or before the rental-paying date next ensuing after the expiration of three (3) months from the date of completion of a dry hole or cessation of production. If, at the expiration of the primary term of this lease, oil or gas is not being produced on or from said land or said pooled premises but lessee is then engaged in drilling or reworking operations thereon, then this lease shall continue in force so long thereafter as drilling or reworking operations are being continuously prosecuted on said land or on a drilling or development or operating unit which includes all or a part of said land; and drilling or reworking operations shall be considered to be continuously prosecuted if not more than sixty days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling or reworking of another well. If oil or gas shall be discovered and/or produced from any such well or wells drilled, being drilled or reworked at or after the expiration of the primary term of this lease, this lease shall continue in force so long thereafter as oil or gas is produced from the leased premises or from any such unit which includes all or a part of said lands.

3. In consideration of the premises the said lessee covenants and agrees:

(a) To deliver to the credit of lessor, free of cost in the pipe line to which lessee may connect his wells, the equal one-eighth part of all oil produced and saved from the leased premises, or at the lessee's option, may pay to the lessor for such one-eighth royalty, the market price for oil of like grade and gravity prevailing on the day such oil is run into the pipe line or into storage tanks.

(b) To pay lessor for gas of whatsoever nature or kind produced and sold, or used off the premises, or used in the manufacture of any products therefrom, one-eighth, at the market price at the well for the gas sold, used off the premises, or in the manufacture of products therefrom. Where gas from a well producing gas only is not sold or used, lessee may pay or tender as royalty One Dollar per year per net royalty acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in and thereafter on or before the anniversary date of this lease during the period such well is shut in, to the royalty owners or to the royalty owners' credit in the rental depositary bank herein designated. If such payment or tender is made, it will be considered that gas is being produced within the meaning of this lease.

4. If operations for the drilling of a well for oil or gas are not commenced or if there is no oil or gas being produced on said land or on acreage pooled therewith as hereinafter provided on or before one year from the date hereof, this lease shall terminate as to both parties, unless the lessee on or before

First National Bismark,

that date shall pay or tender to the lessor or to the lessor's credit in the ... Bank at ...

North Dakota 58501, or its successors, which shall continue as the depository for rental regardless of changes in the ownership of said land, the sum of Five Hundred Sixty Three 50/100 ... DOLLARS

563.50

($ ...) which shall operate as a rental and cover the privilege of deferring the commencement of operations for drilling of a well for twelve months from said date. In like manner and upon like payments or tenders the commencement of operations for drilling of a well may be further deferred for like periods of the same number of months successively. All payments or tenders may be made by check or draft of lessee or any assignee thereof, mailed or delivered on or before the rental paying date. If at any time that lessee has complied with the requirements hereof, the down payment, covers not only the privilege granted to the date when said first rental is payable as aforesaid, but also the lessee's right of extending that period as aforesaid, and any and all other rights conferred. Should the depository bank hereafter close without a successor, lessee or its assigns may deposit rental or royalties in any National bank located in the same county with the first named bank, due notice of such deposit to be mailed to lessor at last known address.

5. Lessee, at its option, is hereby given the right and power at any time or from time to time, as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, lessee shall have the right to unitize, pool, or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in each event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to lessor, be regarded as having been produced from (the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to lessor shall be based upon production only as so allocated. Lessor shall formally express lessor's consent to any cooperative or unit plan of development or operation adopted by lessee and approved by any governmental agency by executing the same upon request of lessee.

6. Lessee may, at any time, release this lease as to any stratum or strata and as to part or all of the lands above described, after which all payments and liabilities thereafter to accrue, as to the lands released, shall cease and determine. In the event of a partial release, the annual delay rental above mentioned shall be reduced proportionately.

7. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from ditches, ponds, reservoirs, or wells of lessor.

When requested by the lessor, lessee shall bury its pipe lines on cultivated portions below plow depth.

No well shall be drilled nearer than 200 feet to the house or barn now on said premises, without the written consent of the lessor.

Lessee shall pay for damages caused by its operation to growing crops on said lands.

Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

8. If the estate of either party hereto is assigned, and the privilege of assigning in whole or in part is expressly allowed, although it is agreed that no change or division in ownership of the land, rentals or royalties, however accomplished, shall operate to enlarge the obligations or diminish the rights of the lessee, the covenants hereof shall extend to their heirs, executors, administrators, successors or assigns, but no change in the ownership of the land or assignment of rentals or royalties shall be binding on the lessee until after the lessee has been furnished with certified copies of instruments of title describing title from lessor; and it is hereby agreed in the event this lease shall be assigned as to a part or parts of the above-described lands and the assignee or assignees of such part or parts shall fail or make default in the payment of the proportionate part of the rents due from him or them, such default shall not operate to defeat or affect this lease insofar as it covers a part or parts of said lands as to which the said lessee or any assignee thereof shall make due payment of said rental. In the event of death of any person entitled to rentals hereunder, lessee may pay or tender such rentals to the credit of the deceased or the estate of the deceased until such time as lessee is furnished with proper evidence of the appointment and qualification of an executor or administrator of the estate, or if there be none, then until lessee is furnished with evidence satisfactory to it as to the heirs or devisees of the deceased.

9. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the lessee shall have the right at any time to pay for lessor, any mortgage, taxes or other liens on the above-described lands in the event of default of payment by lessor, and be subrogated to the rights of the holder thereof, and lessor hereby agrees that any such payments made by the lessee for the lessor may be deducted from any amounts of money which may become due the lessor under the terms of this lease.

10. If said lessor owns a less interest in the above-described land than the entire and undivided fee simple estate therein, then the royalties and rentals herein provided shall be paid the lessor only in proportion which his interest bears to the whole and undivided fee. Any interest in the production from the lands herein described to which the interest of lessor may be subject shall be deducted from the royalty herein reserved.

11. Lessee shall comply with all laws and regulations of any Governmental body purporting to exercise taxing authority over the lands covered by this lease or the person of the lessor herein and in so complying lessee shall not be responsible for determining the legality, validity or constitutionality of any such law or regulation enacted or issued by any such Governmental body. In determining the residence of lessor for purposes of complying with such laws or regulations lessee may rely upon the address of lessor herein set forth or upon the last known address of lessee. Neither any error in the determination of the residence or status of lessor nor an error in the payment of any sums of money due or payable to lessor under the terms of this lease which is made during the course of or as a result of lessee's good faith efforts to comply with any such laws or regulations shall terminate this lease or constitute grounds for any cause of action against lessee. All of lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with any thereof is prevented or hindered by or is in conflict with Federal, State, County, or municipal laws, rules, regulations or Executive Orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field, weather, or market conditions, inability to obtain materials in the open market or transportation thereof, war, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by lessee, and this lease shall not be terminated in whole or in part, nor lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the contingencies above stated, shall be added to the primary term of the lease; provided, however, that delay rentals as herein provided shall not be suspended by reason of the suspension of operations and if this lease is extended beyond the primary term above stated by reason of such suspension, lessee shall pay an annual delay rental on the anniversary dates hereof in the manner and in the amount above provided.

12. Should any person, firm or corporation have an interest in the above-described land not leased to lessee, or should any one or more of the parties named above as lessors not execute this lease, it shall nevertheless be binding upon the party or parties executing the same.

13. The undersigned lessors for themselves and their heirs, successors, and assigns, hereby expressly release and waive all rights under and by virtue of the homestead exemption laws of said state, insofar as the same may in any way affect the purposes for which this lease is made as recited herein.

IN WITNESS WHEREOF, the undersigned execute this instrument as of the day and year first above written.

LOIS JEAN PATCH S.S.#: 501-18-9459

RICHARD N. PATCH

ACKNOWLEDGMENTS

STATE OF NORTH DAKOTA } ss.
COUNTY OF ..... }

INDIVIDUAL, North Dakota, South Dakota, Nebraska

On this ..... day of September, 77, 19..., before me, personally appeared LOIS JEAN PATCH and RICHARD N. PATCH, wife and husband, to me known to be the person ... described in and who executed the foregoing instrument, and acknowledged to me that they executed the same as their free act and deed.

My commission expires:

..... Notary Public.

STATE OF ..... } ss.
COUNTY OF ..... }

INDIVIDUAL, North Dakota, South Dakota, Nebraska

On this ..... day of ..... 19..., before me, personally appeared .....

..... to me known to be the person ... described in and who executed the foregoing instrument, and acknowledged to me that ... executed the same as ... free act and deed.

My commission expires:

..... Notary Public.

No. .....

Oil and Gas Lease

FROM .....

TO .....

Dated ....., 19...

No. Acres .....

..... County

Term .....

This instrument was filed for record on the ... day of ....., 19..., at ... o'clock ... M., and duly recorded in Book ..., Page ..., of the records of this office.

Register of Deeds

By ..... Deputy

When recorded return to .....

STATE OF ..... } ss.
COUNTY OF ..... }

CORPORATE, North Dakota, South Dakota, Nebraska

On this ... day of ... in the year ..., before me, a Notary Public, personally appeared .....

known to me to be the ... of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

..... Notary Public.

Producers 88-PAID UP

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 8th day of February, 2006, by and between Lois Jean Patch, a widow

whose post office address is 1833 Marina Drive, Bismarck, North Dakota 58501 hereinafter called Lessor (whether one or more) and

JOHN H. HOLT OIL PROPERTIES, INC. whose post office address is P. O. Box 24, Williston, North Dakota 58802-0024, hereinafter called Lessee:

WITNESSETH, That the Lessor, for and in consideration of Ten Dollars and more ($10.00+) cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas to include coalbed methane gas, of whatsoever nature or kind, together with the right to *construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce,* save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas (including dewatering of coalbed gas wells), and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West
Section 12: SW/4, S/2NW/4 except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Including any and all accretions thereof

and containing 286.64 acres, more or less.

1. It is agreed that this lease shall remain in force for a term of four (4) years from this date and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or re-working operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith, and operations shall be considered to be continuously prosecuted if not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this lease shall not terminate if Lessee commences additional drilling or re-working operations within ninety (90) days from date of cessation of production or from date of completion of dry hole. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the leased premises or on acreage pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost, in the pipe line to which Lessee may connect wells on said land, the equal one -sixth (1/6) part of all oil produced and saved from the leased premises.

2nd. *To pay Lessor one-sixth (1/6) of the gross proceeds each year, payable quarterly,* for the gas from each well where gas only is found, while the same is being used off the premises, and if used in the manufacture of gasoline a royalty of one-sixth (1/6), payable monthly at the prevailing market rate for gas.

3rd. To pay Lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline, or any other product a royalty of one-sixth (1/6) of the proceeds, at the mouth of the well, payable monthly at the prevailing market rate.

4. If, at the expiration of the primary term or at any time or times thereafter there is any well on the leased premises either capable of producing oil or gas or subject to dewatering operations, then this lease shall not terminate so long as such well is shut in or such dewatering operations continue. For each such well, Lessee shall pay or tender to Lessor or Lessor's successor or assigns One Dollar per year per net mineral acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in or dewatering commences and thereafter on or before the anniversary date of this lease during the period such well is shut in or is in a dewatering phase. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

5. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the Lessor only in proportion which Lessor's interest bears to the whole and undivided fee.

6. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for Lessee's operation thereon, except water from the wells of Lessor.

7. When requested by Lessor, Lessee shall bury Lessee's pipeline below plow depth.

8. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of Lessor.

9. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

10. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

11. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest (by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other kind of notice, whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other leasehold owner.

12. Lessee, at its option, is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation *shall be that proportion of the unit production that the total number of surface acres covered by this lease* and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, Lessee shall have the right to unitize, pool or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement, and in such event, the terms, conditions and provisions of this lease be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. *In the event that said above described lands or any part thereof,* shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payment to be made hereunder to Lessor shall be based upon production only as so allocated. Lessor shall formally express Lessor's consent to any cooperative or unit plan of development or operation adopted by Lessee and approved by any governmental agency by executing the same upon request of Lessee.

EXHIBIT 4

PH 0476

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13. All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

14. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

15. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word "Lessor," as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

16. PUGH CLAUSE: Notwithstanding anything to the contrary contained in the lease, at the end of the primary term of the lease, a well capable of production shall hold beyond the primary term only those lands covered by the lease which are located within the spacing unit as set forth from time to time by the State of North Dakota; provided, however, Lessee may maintain the entire lease in full force and effect beyond the primary term, so long as the Lessee conducts continuous drilling operations on the lands covered thereby or on lands pooled therewith, it being understood that Lessee shall have satisfied the continuous operations requirement by allowing not more than 180 days to elapse between the completion of drilling operations on any given well and the commencement of a succeeding well.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

_____

Lois Jean Patch, a widow

STATE OF North Dakota)
) ss.
COUNTY OF Burleigh)

ACKNOWLEDGMENT--INDIVIDUAL

BEFORE ME, the undersigned, a Notary public, in and for said County and State, on this _____ day of February, 2006, personally appeared Lois Jean Patch, a widow, to me known to be the identical person(s) described in and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My commission Expires: _____ _____ Notary Public.

(SEAL)

Address: _____

When recorded return to:
John H. Holt Oil Properties, Inc.
P.O. Box 24
Williston, North Dakota 58802-0024

Producers 88-PAID UP

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 8th day of February, 2006, by and between Dorothy A. Wilkinson, a widow

whose post office address is 417 Trailholt Lane Shelbyville, IN 46176 hereinafter called Lessor (whether one or more) and

JOHN H. HOLT OIL PROPERTIES, INC. whose post office address is P. O. Box 24, Williston, North Dakota 58802-0024, hereinafter called Lessee:

WITNESSETH, That the Lessor, for and in consideration of Ten Dollars and more ($10.00+) cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas to include coalbed methane gas, of whatsoever nature or kind, together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas (including dewatering of coalbed gas wells), and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West
Section 12: SW/4, S/2NW/4 except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Including any and all accretions thereof

and containing 286.04 acres, more or less.

1. It is agreed that this lease shall remain in force for a term of four (4) years from this date and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or re-working operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith, and operations shall be considered to be continuously prosecuted if not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this lease shall not terminate if Lessee commences additional drilling or re-working operations within ninety (90) days from date of cessation of production or from date of completion of dry hole. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the leased premises or on acreage pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost, in the pipe line to which Lessee may connect wells on said land, the equal one-sixth (1/6) part of all oil produced and saved from the leased premises.

2nd. To pay Lessor one-sixth (1/6) of the gross proceeds each year, payable quarterly, for the gas from each well where gas only is found, while the same is being used off the premises, and if used in the manufacture of gasoline a royalty of one-sixth (1/6), payable monthly at the prevailing market rate for gas.

3rd. To pay Lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline, or any other product a royalty of one-sixth (1/6) of the proceeds, at the mouth of the well, payable monthly at the prevailing market rate.

4. If, at the expiration of the primary term or at any time or times thereafter there is any well on the leased premises either capable of producing oil or gas or subject to dewatering operations, then this lease shall not terminate so long as such well is shut in or such dewatering operations continue. For each such well, Lessee shall pay or tender to Lessor or Lessor's successor or assigns One Dollar per year per net mineral acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in or dewatering commences and thereafter on or before the anniversary date of this lease during the period such well is shut in or is in a dewatering phase. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

5. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the Lessor only in proportion which Lessor's interest bears to the whole and undivided fee.

6. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for Lessee's operation thereon, except water from the wells of Lessor.

7. When requested by Lessor, Lessee shall bury Lessee's pipeline below plow depth.

8. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of Lessor.

9. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

10. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

11. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest (by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other kind of notice, whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other leasehold owner.

12. Lessee, at its option, is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, Lessee shall have the right to unitize, pool or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement, and in such event, the terms, conditions and provisions of this lease be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payment to be made hereunder to Lessor shall be based upon production only as so allocated. Lessor shall formally express Lessor's consent to any cooperative or unit plan of development or operation adopted by Lessee and approved by any governmental agency by executing the same upon request of Lessee.

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Page: 1 of 2
02/23/2006 01:56P
WILLIAMS COUNTY, ND OGL 13.00

13. All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

14. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

15. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word "Lessor," as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

16. PUGH CLAUSE: Notwithstanding anything to the contrary contained in the lease, at the end of the primary term of the lease, a well capable of production shall hold beyond the primary term only those lands covered by the lease which are located within the spacing unit as set forth from time to time by the State of North Dakota; provided, however, Lessee may maintain the entire lease in full force and effect beyond the primary term, so long as the Lessee conducts continuous drilling operations on the lands covered thereby or on lands pooled therewith, it being understood that Lessee shall have satisfied the continuous operations requirement by allowing not more than 180 days to elapse between the completion of drilling operations on any given well and the commencement of a succeeding well.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

Dorothy A. Wilkinson

Dorothy A. Wilkinson, a widow

STATE OF Indiana)
) SS.
COUNTY OF Shelby)

ACKNOWLEDGMENT---INDIVIDUAL

BEFORE ME, the undersigned, a Notary public, in and for said County and State, on this 17 day of February, 2006, personally appeared Dorothy A. Wilkinson, a widow, to me known to be the identical person(s) described in and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My commission Expires: Jan 10, 2008

Peggy K. Stivers Jr. Notary Public.

(SEAL)

220 S. Harrison St.
Address: Shelbyville, IN 46176

When recorded return to:
John H. Hoff Oil Properties, Inc.
P.O. Box 24
Williston, North Dakota 58802-0024

TREASURER/RECORDER
WILLIAMS
SEAL
COUNTY
STATE OF NORTH DAKOTA

632614
Page: 2 of 2
02/23/2006 01:58P
WILLIAMS COUNTY, ND OGL 13.00

COUNTY RECORDER, WILLIAMS COUNTY, ND 02/23/2006 01:58PM
I certify that this instrument was filed and recorded
Karl Svanson, County Recorder
by Tracy Hildebrandt Deputy 632814

COUNTY RECORDER, WILLIAMS COUNTY, ND 8/3/2009 8:30 AM
I certify that this instrument was filed and recorded
Kari Evenson, County Recorder
by _____ 671314

671314
Page: 1 of 4
8/3/2009 8:30 AM
OGL $19.00

WILLIAMS COUNTY, ND

Producers 88
Rocky Mountain 1989
(Paid-Up Rev. 1996)

For Lessee's Use Only: Lease #:
Prospect #:

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 15th day of **July, 2009** by and between **Dorothy A. Wilkinson, a widow**, whose post office address is 417 Tallholt lane, Shelbyville, IN 46176, hereinafter called Lessor (whether one or more) and: **Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111** hereinafter called Lessee:

WITNESSETH, That Lessor, for and in consideration of ten and more dollars ($10.00 and more) in hand paid, receipt of which is hereby acknowledged, and of the agreements of Lessee hereinafter set forth, hereby grants, demises, leases and lets exclusively unto Lessee the lands described below for the purpose of investigating, prospecting, exploring (by geophysical and other methods), drilling, mining, operating for and producing oil or gas, or both (as defined below), together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

and containing 286.04 acres more or less.

1. In addition to the land described above, Lessor hereby grants, leases and lets exclusively unto Lessee, to the same extent as if specifically described, lands which are owned or claimed by Lessor by one of the following reasons:
   a. all lands and rights acquired or retained by Lessor by avulsion, accretion, reliction or otherwise as the result of a change in the boundaries or centerline of any river or stream traversing or adjoining the lands described above;
   b. all riparian lands and rights which are or may be incident, appurtenant, related or attributed to Lessor in any lake, stream or river traversing or adjoining the lands described above by virtue of Lessor's ownership of the land described above;
   c. all lands included in any road, easement or right-of-way traversing or adjoining the lands described above which are or may be incident, appurtenant, related or attributed to Lessor by virtue of Lessor's ownership of the land described above; and
   d. all strips or tracts of land adjacent or contiguous to the lands described above owned or acquired by Lessor through adverse possession or other similar statutes of the state in which the lands are located.
2. The term oil as used in this lease shall be interpreted to include any liquid hydrocarbon substances which occur naturally in the earth, including drip gasoline or other natural condensate recovered from gas without resort to manufacturing process. The term gas as used in this lease shall be interpreted to include any substance, either combustible or non-combustible, which is produced in a natural state from the earth and which maintains a gaseous or rarified state at ordinary temperature and pressure conditions, including but not limited to helium, nitrogen, carbon dioxide, hydrogen sulphide, coal bed methane gas, casinghead gas and sulphur.
3. Subject to the other provisions herein contained, this lease shall remain in effect for **three (3) years** from the **8th** day of **February, 2010** (hereinafter called the "primary term" and as long thereafter as oil and gas, or either of them, is produced from the leased premises or drilling operations are continuously prosecuted. For purposes of this lease, a well completed for the production of coalbed methane gas shall be deemed to be producing gas under this lease at all times when dewatering of the coal seams from which the coalbed methane gas will be produced is occurring. For purposes of this

lease, "drilling operations" shall include operations for the drilling of a new well and operations for the reworking, deepening or plugging back of a well or hole or other operations conducted in an effort to establish, resume or re-establish production of oil and gas; drilling operations shall be considered to be "continuously prosecuted" if not more than one hundred twenty (120) days shall elapse between the completion and abandonment of one well or hole and the commencement of drilling operations on another well or hole; drilling operations shall be deemed to be commenced for a new well at such time as Lessee has begun the construction of the wellsite location or the road which provides access to the wellsite location; and drilling operations shall be deemed to be commenced with respect to reworking, deepening, plugging back or other operations conducted in an effort to resume or re-establish production of oil and gas at such time as Lessee has the requisite equipment for such operations at the wellsite.

4. The Lessee shall deliver to the credit of the Lessor as royalty, free of cost, into the tanks or in the pipe line on the leased premises to which Lessee may connect its wells the equal three-sixteenths (3/16ths) part of all oil produced and saved from the leased premises, or Lessee may from time to time at its option purchase any royalty oil in its possession, paying the market price thereof prevailing for oil of like grade and gravity in the field where produced on the date of purchase. The Lessee shall pay Lessor, as royalty, on gas, including casinghead gas or other gaseous substances, produced from the leased premises and sold or used off the premises or used in the manufacture of gasoline or other products, the market value at the well of three-sixteenths (3/16ths) of the gas sold or used, provided that on gas sold the royalty shall be three-sixteenths (3/16ths) of the amount realized from such sale. The amount realized from the sale of gas shall be the price established by the gas sales contract entered into in good faith by Lessee and a gas purchaser for such term and under such conditions as are customary in the industry. Price shall mean the net amount received by Lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders. In the event Lessee compresses, treats, purifies or dehydrates such gas (whether on or off the leased premises) or transports gas off the leased premises, Lessee in computing royalty hereunder may deduct from such price a reasonable charge for each of such functions performed; including associated fuel.
5. This is a paid-up lease and all cash consideration first recited above and annual rentals have been paid to Lessor in advance to keep this lease in full force and effect throughout the primary term. In consideration of the payment of such cash consideration and advance annual rentals, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of the land described above, and as to any strata or stratum, by delivering to Lessor or by filing of record a release or releases, and be relieved of all obligations thereafter accruing to the acreage surrendered.
6. If, at the expiration of the primary term of this lease, oil or gas is not being produced from the leased premises but Lessee is then engaged in drilling operations, this lease shall continue in force so long as drilling operations are continuously prosecuted; and if production of oil or gas results from any such drilling operations, this lease shall continue in force so long as oil or gas shall be produced from the leased premises. If, after the expiration of the primary term of this lease, production on the leased premises should cease for any cause, this lease shall not terminate if Lessee is then engaged in drilling operations, or within one hundred twenty (120) days after each such cessation of production commences or resumes drilling operations, and this lease shall remain in force so long as drilling operations are continuously prosecuted, and if production results therefrom, then as long thereafter as oil or gas is produced from the leased premises.
7. If at any time, either before or after the expiration of the primary term of this lease, there is a well capable of producing oil or gas on lands covered by this lease, or on other lands with which lands covered by this lease are pooled or unitized, but the well is shut-in, whether before or after production therefrom, and this lease is not being maintained otherwise as provided herein, this lease shall not terminate (unless released by Lessee) and it shall nevertheless be considered that oil or gas is being produced from lands covered by this lease during all times while the well is so shut-in. Lessee shall use reasonable diligence to market the oil or gas capable of being produced from such shut-in well, but shall be under no obligation to market the oil or gas under terms, conditions or circumstances which, in Lessee's judgment exercised in good faith, are unsatisfactory. When the lease is continued in force in this manner, Lessee shall pay or tender to the Lessor or Lessor's successors or assigns, an amount equal to $1.00 per year per net mineral acre covered by the lease. Such payments shall be made on or before the shut-in royalty payment date, as defined below, next occurring after the expiration of one hundred twenty (120) days from the date the well was shut-in, unless prior to such date oil or gas from the well is sold or used or the lease is otherwise maintained as provided herein. In like manner, on or before each succeeding shut-in royalty payment date while such well remains shut-in, Lessee shall make payment of shut-in royalty in the same amount and manner. The term "shut-in royalty payment date" shall mean the anniversary date of this lease. Any shut-in royalty payment may be made by cash, draft or check, mailed or tendered on or before the shut-in royalty date. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.
8. If Lessor owns a lesser interest in the above described land than the entire and undivided fee simple estate therein, then the royalties, including shut-in royalty, herein provided shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee. Any interest in production from the lands described herein to which the interest of Lessor may be subject shall be deducted from the royalty herein reserved.
9. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from wells and reservoirs of Lessor. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.
10. Lessee shall pay to Lessor reasonable amounts for damages caused by its operations to growing crops on said land. When requested by Lessor, Lessee shall bury its pipelines which traverse cultivated lands below plow depth. No well shall be drilled nearer than two hundred (200) feet to a house or barn now on said premises, without written consent of Lessor. Lessee shall have the right at any time (but not the obligation), to remove all improvements, machinery, and fixtures placed or erected by Lessee on said premises, including the right to pull and remove casings.
11. Lessee is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described above and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has heretofore been completed or upon which drilling operations have been commenced.

Production, drilling or reworking operations or a well shut-in for any reason anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut-in under this lease. In lieu of the royalties elsewhere herein specified, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit.

12. Lessee shall have the right to unitize, pool, or combine all or any part of the land described above as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that the land described above or any part thereof shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to Lessor shall be based upon production only as so allocated.
13. If the estate of either party hereto is assigned or sublet, and the privilege of assigning or subletting in whole or in part is expressly allowed, the express and implied covenants hereof shall extend to the sublessees, successors and assigns of the parties; and in the event of an assignment or subletting by Lessee, Lessee shall be relieved and discharged as to the leasehold rights so assigned or sublet from any liability to Lessor thereafter accruing upon any of the covenants or conditions of this lease, either express or implied. No change in Ownership of the land, royalties, or other payments, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee or require separate measuring or installation of separate tanks by Lessee. Notwithstanding any actual or constructive knowledge of or notice to Lessee, no change in ownership of said land or of the right to receive royalties or other payments hereunder, or of any interest therein, whether by reason of death, conveyance or any other matter, shall be binding on Lessee (except at Lessee's option in any particular case) until one hundred twenty (120) days after Lessee has been furnished written notice thereof, and the supporting information hereinafter referred to, by the party claiming as a result of such change in ownership or interest. Such notice shall be supported by original and certified copies of all documents and other instruments or proceedings necessary in Lessee's opinion to establish the ownership of the claiming party.
14. In the interest of conservation, the protection of reservoir pressures and recovery of the greatest ultimate yield of oil and/or gas, Lessee shall have the right to combine the leased premises with other premises in the same general area for the purpose of operating and maintaining repressuring and recycling facilities, and for such purpose may locate such facilities, including input wells, upon leased premises, and no royalties shall be payable hereunder upon any gas used for repressuring and recycling operations benefiting the leased premises.
15. Lessee is granted the right and option to extend this oil and gas lease for an additional two (2) years beyond the last day of the primary term hereof by remitting to Lessor on or before said date, an amount equal to the bonus per net mineral acre paid to Lessor as consideration for this Lease. Lessee shall have the option to extend this lease as to any, all, or less than all of the lease lands as Lessee chooses.
16. Should Lessee elect to purchase the lease pursuant to the terms hereof, it shall so notify Lessor in writing by mail, telefax, or telegram prior to expiration of said fifteen (15) day period. Lessee shall promptly thereafter furnish to Lessor the new lease for execution by Lessor along with Lessee's sight draft payable to Lessor in payment of the specified amount as consideration for the new lease, such draft being subject to approval of title according to the terms thereof. Upon receipt thereof, Lessor shall promptly execute said lease and return same along with the draft through Lessor's bank of record for payment.
17. In the event Lessor considers that Lessee has not complied with all its obligations hereunder, either express or implied, Lessor shall notify Lessee in writing, setting out specifically in what respects Lessee has breached this lease. Lessee shall then have sixty (60) days after receipt of said notice within which to meet or commence to meet all or any part of the breaches alleged by Lessor. The service of said notice shall be precedent to the bringing of any action by Lessor on said lease for any cause, and no such action shall be brought until the lapse of sixty (60) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder. This lease shall never be forfeited or cancelled for failure to perform in whole or in part any of its implied covenants, conditions, or stipulations until a judicial determination is made that such failure exists and Lessee fails within a reasonable time to satisfy any such covenants, conditions, or stipulations.
18. **Subject to the continuous drilling provision of Paragraph 3 of this Lease, six months plus one (1) day following the expiration of the Primary Term hereof, this Lease shall terminate as to all lease lands outside of any pooled or spacing unit, as established by applicable law or any governmental authority, upon which there is a well producing or capable of production in paying quantities.**
19. All express and implied covenants of this lease shall be subject to all federal and state, county or municipal laws, executive orders, rules and regulations, and Lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with such obligations and covenants is prevented or hindered by or is in conflict with federal, state, county, or municipal laws, rules, regulations or executive orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field, weather, or market conditions, inability to obtain materials in the open market or transportation thereof, wars, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by Lessee, and this lease shall not be terminated in whole or in part, nor Lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which Lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the contingencies above stated, shall be added to the primary term of the lease.
20. On the date this Top Lease is executed the following described oil and gas lease ("Prior Lease") appears to be in force and effect as to all of the lands and interests covered hereby:

Prior Lease:

Lessor: Dorothy A. Wilkinson
Lessee: John H. Holt Oil Properties, Inc.
Dated: February 8, 2006
Recorded: February 23, 2006

Reception No: 632814
Expires: February 7, 2010

This Top Lease is presently subordinate and subject to the Prior Lease for as long as, and to the extent that, the Prior Lease remains in force and effect according to its present terms. Lessor agrees not to extend, renew, amend or modify the Prior Lease at any time on or before the expiration or termination of the Prior Lease.

The effective date of this Top Lease shall be as stated hereinabove if the Prior Lease or any portion thereof expires at the end of its primary term. In the event the Prior Lease, or any portion thereof, terminates before the end of the primary term for whatever reason, the effective date of this lease shall be the date of such termination. If the Prior Lease terminates after its primary term because of drilling or reworking operations being prosecuted under the terms of the Prior Lease, then the effective date of this Top Lease shall be the date of the expiration of said primary term as extended by drilling or reworking operations, but only as to those lands described herein that are not extended by production under the terms of the Prior Lease. In the event it cannot be determined with reasonable certainty that the Prior Lease has expired or terminated because of dispute or litigation or any act, rule or regulation of any Federal, State, County or Municipal laws, or Executive Orders asserted as official by or under public authority claiming jurisdiction, the Top Lease effective date shall be that which coincides with the expiration or termination date of the Prior Lease as judicially determined.

Lessee agrees to pay Lessor consideration for this Top Lease as set forth in two (2) payments made payable to Lessor, subject to the terms outlined herein and approval of title. The first installment, of fifteen percent (15%) of the negotiated bonus consideration, shall be paid to Lessor, under the terms stated herein, following execution of this Top Lease, the receipt of which is hereby acknowledged by Lessor. Lessee shall have the option to either, (1) pay or tender to Lessor the second installment consisting of the remaining eighty-five percent (85%) of the total bonus amount negotiated, within thirty (30) days following the Effective Date of this lease, and subject to approval of title, or (2) allow this lease to lapse by withholding payment of the second installment. If Lessee elects not to pay the second installment, Lessee shall be relieved of all further obligations hereunder, except the duty to release this lease. The right of Lessee to not honor the second installment shall be exercised in Lessee's sole discretion.

The contingent interest or estate created by this Top Lease must vest within one day less than thirty (30) months from the date of execution hereof, and if it does not so vest within that interval, shall thenceforth be void, and of no effect.

21. Lessor hereby warrants and agrees to defend the title to the lands described above, and agrees that the Lessee, at its option, shall have the right at any time to pay for Lessor, any mortgage, taxes or other liens existing, levied or assessed on or against the above described lands in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and Lessor hereby agrees that any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due the Lessor under the terms of this lease.
22. This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors in interest, in whole or in part, of said Lessor or Lessee. Lessor agrees that in the event it acquires additional interest in the lands subject hereto, Lessor shall immediately notify Lessee in writing of such additional interest and Lessee shall have the option of tendering additional bonus under the terms of this lease and upon Lessor's receipt of additional bonus said additional interest shall be subject to the terms hereof as if such interest was owned by Lessor at the time Lessor executed this lease.
23. With respect to and for the purpose of this lease, Lessor, and each of them if there be more than one, hereby release and waive the right of homestead.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

Dorothy A. Wilkinson

Dorothy A. Wilkinson

STATE OF Indiana)
(§
COUNTY OF Shelby)

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 21 day of July, 2009 personally appeared Dorothy A. Wilkinson, a widow to me known to be the identical person described in that Oil and Gas Lease and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My Commission Expires: 3/15/10

P Elaine Bucker

Notary Public

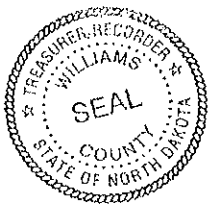
49 Public Sq, Shelbyville IN 46176

Address:

OFFICIAL SEAL
P. ELAINE BUCKER
NOTARY PUBLIC - INDIANA
SHELBY COUNTY
My Comm. Expires Mar. 15, 2010

Return to: Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111

COUNTY RECORDER, WILLIAMS COUNTY, ND 7/28/2009 10:16 A
I certify that this instrument was filed and recorded
Kari Evenson, County Recorder
by 671012



671012
Page: 1 of 4
7/28/2009 10:16 A
WILLIAMS COUNTY, ND OGL $19.00

Producers 88
Rocky Mountain 1949
(Paid-Up Rev. 1996)

For Lessee's Use Only: Lease #:
Prospect #:

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 15th day of July, 2009 by and between Lois Jean Patch, a widow, whose post office address is 1833 Marian Drive, Bismarck, ND 58501, hereinafter called Lessor (whether one or more) and: Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111 hereinafter called Lessee:

WITNESSETH, That Lessor, for and in consideration of ten and more dollars ($10.00 and more) in hand paid, receipt of which is hereby acknowledged, and of the agreements of Lessee hereinafter set forth, hereby grants, demises, leases and lets exclusively unto Lessee the lands described below for the purpose of investigating, prospecting, exploring (by geophysical and other methods), drilling, mining, operating for and producing oil or gas, or both (as defined below), together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air; gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

and containing 286.04 acres more or less.

1. In addition to the land described above, Lessor hereby grants, leases and lets exclusively unto Lessee, to the same extent as if specifically described, lands which are owned or claimed by Lessor by one of the following reasons:
   a. all lands and rights acquired or retained by Lessor by avulsion, accretion, reliction or otherwise as the result of a change in the boundaries or centerline of any river or stream traversing or adjoining the lands described above;
   b. all riparian lands and rights which are or may be incident, appurtenant, related or attributed to Lessor in any lake, stream or river traversing or adjoining the lands described above by virtue of Lessor's ownership of the land described above;
   c. all lands included in any road, easement or right-of-way traversing or adjoining the lands described above which are or may be incident, appurtenant, related or attributed to Lessor by virtue of Lessor's ownership of the land described above; and
   d. all strips or tracts of land adjacent or contiguous to the lands described above owned or acquired by Lessor through adverse possession or other similar statutes of the state in which the lands are located.
2. The term oil as used in this lease shall be interpreted to include any liquid hydrocarbon substances which occur naturally in the earth, including drip gasoline or other natural condensate recovered from gas without resort to manufacturing process. The term gas as used in this lease shall be interpreted to include any substance, either combustible or non-combustible, which is produced in a natural state from the earth and which maintains a gaseous or rarified state at ordinary temperature and pressure conditions, including but not limited to helium, nitrogen, carbon dioxide, hydrogen sulphide, coal bed methane gas, casinghead gas and sulphur.
3. Subject to the other provisions herein contained, this lease shall remain in effect for three (3) years from the 8th day of February, 2010 (hereinafter called the "primary term" and as long thereafter as oil and gas, or either of them, is produced from the leased premises or drilling operations are continuously prosecuted. For purposes of this lease, a well completed for the production of coalbed methane gas shall be deemed to be producing gas under this lease at all times when dewatering of the coal seams from which the coalbed methane gas will be produced is occurring. For purposes of this lease, "drilling operations" shall include operations for the drilling of a new well and operations for the reworking,

deepening or plugging back of a well or hole or other operations conducted in an effort to establish, resume or re-establish production of oil and gas; drilling operations shall be considered to be "continuously prosecuted" if not more than one hundred twenty (120) days shall elapse between the completion and abandonment of one well or hole and the commencement of drilling operations on another well or hole; drilling operations shall be deemed to be commenced for a new well at such time as Lessee has begun the construction of the wellsite location or the road which provides access to the wellsite location; and drilling operations shall be deemed to be commenced with respect to reworking, deepening, plugging back or other operations conducted in an effort to resume or re-establish production of oil and gas at such time as Lessee has the requisite equipment for such operations at the wellsite.

4. The Lessee shall deliver to the credit of the Lessor as royalty, free of cost, into the tanks or in the pipe line on the leased premises to which Lessee may connect its wells the equal three-sixteenths (3/16ths) part of all oil produced and saved from the leased premises, or Lessee may from time to time at its option purchase any royalty oil in its possession, paying the market price thereof prevailing for oil of like grade and gravity in the field where produced on the date of purchase. The Lessee shall pay Lessor, as royalty, on gas, including casinghead gas or other gaseous substances, produced from the leased premises and sold or used off the premises or used in the manufacture of gasoline or other products, the market value at the well of three-sixteenths (3/16ths) of the gas sold or used, provided that on gas sold the royalty shall be three-sixteenths (3/16ths) of the amount realized from such sale. The amount realized from the sale of gas shall be the price established by the gas sales contract entered into in good faith by Lessee and a gas purchaser for such term and under such conditions as are customary in the industry. Price shall mean the net amount received by Lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders. In the event Lessee compresses, treats, purifies or dehydrates such gas (whether on or off the leased premises) or transports gas off the leased premises, Lessee in computing royalty hereunder may deduct from such price a reasonable charge for each of such functions performed; including associated fuel.

5. This is a paid-up lease and all cash consideration first recited above and annual rentals have been paid to Lessor in advance to keep this lease in full force and effect throughout the primary term. In consideration of the payment of such cash consideration and advance annual rentals, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of the land described above, and as to any strata or stratum, by delivering to Lessor or by filing of record a release or releases, and be relieved of all obligations thereafter accruing to the acreage surrendered.

6. If, at the expiration of the primary term of this lease, oil or gas is not being produced from the leased premises but Lessee is then engaged in drilling operations, this lease shall continue in force so long as drilling operations are continuously prosecuted; and if production of oil or gas results from any such drilling operations, this lease shall continue in force so long as oil or gas shall be produced from the leased premises. If, after the expiration of the primary term of this lease, production on the leased premises should cease for any cause, this lease shall not terminate if Lessee is then engaged in drilling operations, or within one hundred twenty (120) days after each such cessation of production commences or resumes drilling operations, and this lease shall remain in force so long as drilling operations are continuously prosecuted, and if production results therefrom, then as long thereafter as oil or gas is produced from the leased premises.

7 If at any time, either before or after the expiration of the primary term of this lease, there is a well capable of producing oil or gas on lands covered by this lease, or on other lands with which lands covered by this lease are pooled or unitized, but the well is shut-in, whether before or after production therefrom, and this lease is not being maintained otherwise as provided herein, this lease shall not terminate (unless released by Lessee) and it shall nevertheless be considered that oil or gas is being produced from lands covered by this lease during all times while the well is so shut-in. Lessee shall use reasonable diligence to market the oil or gas capable of being produced from such shut-in well, but shall be under no obligation to market the oil or gas under terms, conditions or circumstances which, in Lessee's judgment exercised in good faith, are unsatisfactory. When the lease is continued in force in this manner, Lessee shall pay or tender to the Lessor or Lessor's successors or assigns, an amount equal to $1.00 per year per net mineral acre covered by the lease. Such payments shall be made on or before the shut-in royalty payment date, as defined below, next occurring after the expiration of one hundred twenty (120) days from the date the well was shut-in, unless prior to such date oil or gas from the well is sold or used or the lease is otherwise maintained as provided herein. In like manner, on or before each succeeding shut-in royalty payment date while such well remains shut-in, Lessee shall make payment of shut-in royalty in the same amount and manner. The term "shut-in royalty payment date" shall mean the anniversary date of this lease. Any shut-in royalty payment may be made by cash, draft or check, mailed or tendered on or before the shut-in royalty date. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

8. If Lessor owns a lesser interest in the above described land than the entire and undivided fee simple estate therein, then the royalties, including shut-in royalty, herein provided shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee. Any interest in production from the lands described herein to which the interest of Lessor may be subject shall be deducted from the royalty herein reserved.

9. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from wells and reservoirs of Lessor. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

10. Lessee shall pay to Lessor reasonable amounts for damages caused by its operations to growing crops on said land. When requested by Lessor, Lessee shall bury its pipelines which traverse cultivated lands below plow depth. No well shall be drilled nearer than two hundred (200) feet to a house or barn now on said premises, without written consent of Lessor. Lessee shall have the right at any time (but not the obligation), to remove all improvements, machinery, and fixtures placed or erected by Lessee on said premises, including the right to pull and remove casings.

11. Lessee is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described above and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has heretofore been completed or upon which drilling operations have been commenced. Production, drilling or reworking operations or a well shut-in for any reason anywhere on a unit which includes all or a part

of this lease shall be treated as if it were production, drilling or reworking operations or a well shut-in under this lease. In lieu of the royalties elsewhere herein specified, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit.

12. Lessee shall have the right to unitize, pool, or combine all or any part of the land described above as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that the land described above or any part thereof shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to Lessor shall be based upon production only as so allocated.
13. If the estate of either party hereto is assigned or sublet, and the privilege of assigning or subletting in whole or in part is expressly allowed, the express and implied covenants hereof shall extend to the subLessees, successors and assigns of the parties; and in the event of an assignment or subletting by Lessee, Lessee shall be relieved and discharged as to the leasehold rights so assigned or sublet from any liability to Lessor thereafter accruing upon any of the covenants or conditions of this lease, either express or implied. No change in Ownership of the land, royalties, or other payments, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee or require separate measuring or installation of separate tanks by Lessee. Notwithstanding any actual or constructive knowledge of or notice to Lessee, no change in ownership of said land or of the right to receive royalties or other payments hereunder, or of any interest therein, whether by reason of death, conveyance or any other matter, shall be binding on Lessee (except at Lessee's option in any particular case) until one hundred twenty (120) days after Lessee has been furnished written notice thereof, and the supporting information hereinafter referred to, by the party claiming as a result of such change in ownership or interest. Such notice shall be supported by original and certified copies of all documents and other instruments or proceedings necessary in Lessee's opinion to establish the ownership of the claiming party.
14. In the interest of conservation, the protection of reservoir pressures and recovery of the greatest ultimate yield of oil and/or gas, Lessee shall have the right to combine the leased premises with other premises in the same general area for the purpose of operating and maintaining repressuring and recycling facilities, and for such purpose may locate such facilities, including input wells, upon leased premises, and no royalties shall be payable hereunder upon any gas used for repressuring and recycling operations benefiting the leased premises.
15. Lessee is granted the right and option to extend this oil and gas lease for an additional two (2) years beyond the last day of the primary term hereof by remitting to Lessor on or before said date, an amount equal to the bonus per net mineral acre paid to Lessor as consideration for this Lease. Lessee shall have the option to extend this lease as to any, all, or less than all of the lease lands as Lessee chooses.
16. Should Lessee elect to purchase the lease pursuant to the terms hereof, it shall so notify Lessor in writing by mail, telefax, or telegram prior to expiration of said fifteen (15) day period. Lessee shall promptly thereafter furnish to Lessor the new lease for execution by Lessor along with Lessee's sight draft payable to Lessor in payment of the specified amount as consideration for the new lease, such draft being subject to approval of title according to the terms thereof. Upon receipt thereof, Lessor shall promptly execute said lease and return same along with the draft through Lessor's bank of record for payment.
17. In the event Lessor considers that Lessee has not complied with all its obligations hereunder, either express or implied, Lessor shall notify Lessee in writing, setting out specifically in what respects Lessee has breached this lease. Lessee shall then have sixty (60) days after receipt of said notice within which to meet or commence to meet all or any part of the breaches alleged by Lessor. The service of said notice shall be precedent to the bringing of any action by Lessor on said lease for any cause, and no such action shall be brought until the lapse of sixty (60) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder. This lease shall never be forfeited or cancelled for failure to perform in whole or in part any of its implied covenants, conditions, or stipulations until a judicial determination is made that such failure exists and Lessee fails within a reasonable time to satisfy any such covenants, conditions, or stipulations.
18. **Subject to the continuous drilling provision of Paragraph 3 of this Lease, six months plus one (1) day following the expiration of the Primary Term hereof, this Lease shall terminate as to all lease lands outside of any pooled or spacing unit, as established by applicable law or any governmental authority, upon which there is a well producing or capable of production in paying quantities.**
19. All express and implied covenants of this lease shall be subject to all federal and state, county or municipal laws, executive orders, rules and regulations, and Lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with such obligations and covenants is prevented or hindered by or is in conflict with federal, state, county, or municipal laws, rules, regulations or executive orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field weather or road conditions, inability to obtain materials in the open market or transportation thereof, wars, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by Lessee, and this lease shall not be terminated in whole or in part, nor Lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which Lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the provisions hereof, shall be added to the primary term of the lease.
20. On the date this Top Lease is executed the following described oil and gas lease ("Prior Lease") appears to be in force and effect as to all of the lands and interests covered hereby:

Prior Lease:
Lessor: Lois Jean Patch Reception No: 632658

Lessee: John H. Holt Oil Properties, Inc. Expires: February 7, 2010
Dated: February 8, 2006
Recorded: February 17, 2006

This Top Lease is presently subordinate and subject to the Prior Lease for as long as, and to the extent that, the Prior Lease remains in force and effect according to its present terms. Lessor agrees not to extend, renew, amend or modify the Prior Lease at any time on or before the expiration or termination of the Prior Lease.

The effective date of this Top Lease shall be as stated hereinabove if the Prior Lease or any portion thereof expires at the end of its primary term. In the event the Prior Lease, or any portion thereof, terminates before the end of the primary term for whatever reason, the effective date of this lease shall be the date of such termination. If the Prior Lease *terminates after its primary term because of drilling or reworking operations* being prosecuted under the terms of the Prior Lease, then the effective date of this Top Lease shall be the date of the expiration of said primary term as extended by drilling or reworking operations, but only as to those lands described herein that are not extended by production under the terms of the Prior Lease. In the event it cannot be determined with reasonable certainty that the Prior Lease has expired or terminated because of dispute or litigation or any act, rule or regulation of any Federal, State, County or Municipal laws, or Executive Orders asserted as official by or under public authority claiming jurisdiction, the Top Lease *effective date shall be that which coincides with the expiration or termination date* of the Prior Lease as judicially determined.

Lessee agrees to pay Lessor consideration for this Top Lease as set forth in two (2) payments made payable to Lessor, subject to the terms outlined herein and approval of title. The first installment, of fifteen percent (15%) of the negotiated bonus consideration, shall be paid to Lessor, under the terms stated herein, following execution of this Top Lease, the receipt of which is hereby acknowledged by Lessor. Lessee shall have the option to either, (1) pay or tender to Lessor the second installment consisting of the remaining eighty-five percent (85%) *of the total bonus amount negotiated, within* thirty (30) days following the Effective Date of this lease, and subject to approval of title, or (2) allow this lease to lapse by withholding payment of the second installment. If Lessee elects not to pay the second installment, Lessee shall be relieved of all further obligations hereunder, except the duty to release this lease. The right of Lessee to not honor the second installment shall be exercised in Lessee's sole discretion.

The contingent interest or estate created by this Top Lease must vest within one day less than thirty (30) months from the date of execution hereof, and if it does not so vest within that interval, shall thenceforth be void, and of no effect.

21. Lessor hereby warrants and agrees to defend the title to the lands described above, and agrees that the Lessee, at its option, shall have the right at any time to pay for Lessor, any mortgage, taxes or other liens existing, levied or assessed on or against the above described lands in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and Lessor hereby agrees that any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due the Lessor under the terms of this lease.
22. This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors in interest, in whole or in part, of said Lessor or Lessee. Lessor agrees that in the event it acquires additional interest in the lands subject hereto, Lessor shall immediately notify Lessee in writing of such additional interest and Lessee shall have the option of tendering additional bonus under the terms of this lease and upon Lessor's receipt of additional bonus said additional interest shall be subject to the terms hereof as if such interest was owned by Lessor at the time Lessor executed this lease.
23. With respect to and for the purpose of this lease, Lessor, and each of them if there be more than one, hereby release and waive the right of homestead.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

Lois Jean Patch

STATE OF North Dakota)
)§
COUNTY OF Burleigh)

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 21st day of July, 2009 personally appeared Lois Jean Patch, a widow to me known to be the identical person described in that Oil and Gas Lease and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My Commission Expires:

PEGGY KAUK
Notary Public
State of North Dakota
My Commission Expires May 2, 2014

Notary Public

1144 N. 3rd Street Bismarck, ND
Address:

RETURN TO: *Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111*

632656
Page: 1 of 2
WILLIAMS COUNTY, ND OGL 13.00 02/17/2006 01:41P

Producers 88-PAID UP

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 8th day of February, 2006, by and between William S. Wilkinson and Carol A. Wilkinson, husband and wife

whose post office address is 1707 Foxcroft Road East Lansing, MI 48823 hereinafter called Lessor (whether one or more) and

JOHN H. HOLT OIL PROPERTIES, INC. whose post office address is P. O. Box 24, Williston, North Dakota 58802-0024, hereinafter called Lessee:

WITNESSETH, That the Lessor, for and in consideration of Ten Dollars and more ($10.00+) cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas to include coalbed methane gas, of whatsoever nature or kind, together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas (including dewatering of coalbed gas wells), and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West
Section 12: SW/4, S/2NW/4 except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Including any and all accretions thereof

and containing 286.04 acres, more or less.

1. It is agreed that this lease shall remain in force for a term of four (4) years from this date and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or re-working operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith, and operations shall be considered to be continuously prosecuted if not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this lease shall not terminate if Lessee commences additional drilling or re-working operations within ninety (90) days from date of cessation of production or from date of completion of dry hole. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the leased premises or on acreage pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost, in the pipe line to which Lessee may connect wells on said land, the equal one-sixth (1/6) part of all oil produced and saved from the leased premises.

2nd. To pay Lessor one-sixth (1/6) of the gross proceeds each year, payable quarterly, for the gas from each well where gas only is found, while the same is being used off the premises, and if used in the manufacture of gasoline a royalty of one-sixth (1/6), payable monthly at the prevailing market rate for gas.

3rd. To pay Lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline, or any other product a royalty of one-sixth (1/6) of the proceeds, at the mouth of the well, payable monthly at the prevailing market rate.

4. If, at the expiration of the primary term or at any time or times thereafter there is any well on the leased premises either capable of producing oil or gas or subject to dewatering operations, then this lease shall not terminate so long as such well is shut in or such dewatering operations continue. For each such well, Lessee shall pay or tender to Lessor or Lessor's successor or assigns One Dollar per year per net mineral acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in or dewatering commences and thereafter on or before the anniversary date of this lease during the period such well is shut in or is in a dewatering phase. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

5. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the Lessor only in proportion which Lessor's interest bears to the whole and undivided fee.

6. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for Lessee's operation thereon, except water from the wells of Lessor.

7. When requested by Lessor, Lessee shall bury Lessee's pipeline below plow depth.

8. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of Lessor.

9. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

10. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

11. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest (by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other kind of notice, whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other leasehold owner.

12. Lessee, at its option, is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, Lessee shall have the right to unitize, pool or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement, and in such event, the terms, conditions and provisions of this lease be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payment to be made hereunder to Lessor shall be based upon production only as so allocated. Lessor shall formally express Lessor's consent to any cooperative or unit plan of development or operation adopted by Lessee and approved by any governmental agency by executing the same upon request of Lessee.

13. All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

14. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

15. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word 'Lessor,' as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

16. **PUGH CLAUSE:** Notwithstanding anything to the contrary contained in the lease, at the end of the primary term of the lease, a well capable of production shall hold beyond the primary term only those lands covered by the lease which are located within the spacing unit as set forth from time to time by the State of North Dakota; provided, however, Lessee may maintain the entire lease in full force and effect beyond the primary term, so long as the Lessee conducts continuous drilling operations on the lands covered thereby or on lands pooled therewith, it being understood that Lessee shall have satisfied the continuous operations requirement by allowing not more than 180 days to elapse between the completion of drilling operations on any given well and the commencement of a succeeding well.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

William S. Wilkinson

Carol A. Wilkinson

STATE OF Michigan)
) ss.
COUNTY OF Ingham)

ACKNOWLEDGMENT--INDIVIDUAL

BEFORE ME, the undersigned, a Notary public, in and for said County and State, on this 10 day of February, 2006, personally appeared William S. Wilkinson and Carol A. Wilkinson, husband and wife, to me known to be the identical person(s) described in and who executed the within and foregoing instrument of writing and acknowledged to me that he/she duly executed the same as his/her free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My commission Expires: 10-13-06

Notary Public.

(SEAL)

CINDY J. WEBB
Notary Public, Ingham County, MI
My Commission Expires Oct. 13, 2006

Address: 1340 W. Lake Lansing Rd
East Lansing MI 48823

When recorded return to:
John H. Holt Oil Properties, Inc.
P.O. Box 24
Williston, North Dakota 58802-0024

632656
Page: 2 of 2
02/17/2006 01:41P
WILLIAMS COUNTY, ND OGL 13.00

COUNTY RECORDER, WILLIAMS COUNTY, ND 02/17/2006 01:41PM
I certify that this instrument was filed and recorded
Karl Evenson, County Recorder,
by Tracy Gerhardt Deputy
632656

TREASURER/RECORDER WILLIAMS SEAL COUNTY STATE OF NORTH DAKOTA

COUNTY RECORDER, WILLIAMS COUNTY, ND 8/3/2009 8:30 AM
I certify that this instrument was filed and recorded
Kari Evenson, County Recorder
by _____ 671313

671313
Page: 1 of 4
8/3/2009 8:30 AM
WILLIAMS COUNTY, ND OGL $19.00

Producers 88
Rocky Mountain 1989
(Paid-Up Rev. 1996)

For Lessee's Use Only: Lease #: Prospect #:

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 15th day of July, 2009 by and between **William S. Wilkinson and Carol A. Wilkinson**, husband and wife, whose post office address is 1707 Foxcroft Road East, Lansing, MI 48823, hereinafter called Lessor (whether one or more) and: **Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111** hereinafter called Lessee:

WITNESSETH, That Lessor, for and in consideration of ten and more dollars ($10.00 and more) in hand paid, receipt of which is hereby acknowledged, and of the agreements of Lessee hereinafter set forth, hereby grants, demises, leases and lets exclusively unto Lessee the lands described below for the purpose of investigating, prospecting, exploring (by geophysical and other methods), drilling, mining, operating for and producing oil or gas, or both (as defined below), together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

and containing 286.04 acres more or less.

1. In addition to the land described above, Lessor hereby grants, leases and lets exclusively unto Lessee, to the same extent as if specifically described, lands which are owned or claimed by Lessor by one of the following reasons:
   a. all lands and rights acquired or retained by Lessor by avulsion, accretion, reliction or otherwise as the result of a change in the boundaries or centerline of any river or stream traversing or adjoining the lands described above;
   b. all riparian lands and rights which are or may be incident, appurtenant, related or attributed to Lessor in any lake, stream or river traversing or adjoining the lands described above by virtue of Lessor's ownership of the land described above;
   c. all lands included in any road, easement or right-of-way traversing or adjoining the lands described above which are or may be incident, appurtenant, related or attributed to Lessor by virtue of Lessor's ownership of the land described above; and
   d. all strips or tracts of land adjacent or contiguous to the lands described above owned or acquired by Lessor through adverse possession or other similar statutes of the state in which the lands are located.
2. The term oil as used in this lease shall be interpreted to include any liquid hydrocarbon substances which occur naturally in the earth, including drip gasoline or other natural condensate recovered from gas without resort to manufacturing process. The term gas as used in this lease shall be interpreted to include any substance, either combustible or non-combustible, which is produced in a natural state from the earth and which maintains a gaseous or rarified state at ordinary temperature and pressure conditions, including but not limited to helium, nitrogen, carbon dioxide, hydrogen sulphide, coal bed methane gas, casinghead gas and sulphur.
3. Subject to the other provisions herein contained, this lease shall remain in effect for **three (3) years** from the 8th day of **February, 2010** (hereinafter called the "primary term" and as long thereafter as oil and gas, or either of them, is produced from the leased premises or drilling operations are continuously prosecuted. For purposes of this lease, a well completed for the production of coalbed methane gas shall be deemed to be producing gas under this lease at all times when

dewatering of the coal seams from which the coalbed methane gas will be produced is occurring. For purposes of this lease, "drilling operations" shall include operations for the drilling of a new well and operations for the reworking, deepening or plugging back of a well or hole or other operations conducted in an effort to establish, resume or re-establish production of oil and gas; drilling operations shall be considered to be "continuously prosecuted" if not more than one hundred twenty (120) days shall elapse between the completion and abandonment of one well or hole and the commencement of drilling operations on another well or hole; drilling operations shall be deemed to be commenced for a new well at such time as Lessee has begun the construction of the wellsite location or the road which provides access to the wellsite location; and drilling operations shall be deemed to be commenced with respect to reworking, deepening, plugging back or other operations conducted in an effort to resume or re-establish production of oil and gas at such time as Lessee has the requisite equipment for such operations at the wellsite.

4. The Lessee shall deliver to the credit of the Lessor as royalty, free of cost, into the tanks or in the pipe line on the leased premises to which Lessee may connect its wells the equal three-sixteenths (3/16ths) part of all oil produced and saved from the leased premises, or Lessee may from time to time at its option purchase any royalty oil in its possession, paying the market price thereof prevailing for oil of like grade and gravity in the field where produced on the date of purchase. The Lessee shall pay Lessor, as royalty, on gas, including casinghead gas or other gaseous substances, produced from the leased premises and sold or used off the premises or used in the manufacture of gasoline or other products, the market value at the well of three-sixteenths (3/16ths) of the gas sold or used, provided that on gas sold the royalty shall be three-sixteenths (3/16ths) of the amount realized from such sale. The amount realized from the sale of gas shall be the price established by the gas sales contract entered into in good faith by Lessee and a gas purchaser for such term and under such conditions as are customary in the industry. Price shall mean the net amount received by Lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders. In the event Lessee compresses, treats, purifies or dehydrates such gas (whether on or off the leased premises) or transports gas off the leased premises, Lessee in computing royalty hereunder may deduct from such price a reasonable charge for each of such functions performed; including associated fuel.
5. This is a paid-up lease and all cash consideration first recited above and annual rentals have been paid to Lessor in advance to keep this lease in full force and effect throughout the primary term. In consideration of the payment of such cash consideration and advance annual rentals, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of the land described above, and as to any strata or stratum, by delivering to Lessor or by filing of record a release or releases, and be relieved of all obligations thereafter accruing to the acreage surrendered.
6. If, at the expiration of the primary term of this lease, oil or gas is not being produced from the leased premises but Lessee is then engaged in drilling operations, this lease shall continue in force so long as drilling operations are continuously prosecuted; and if production of oil or gas results from any such drilling operations, this lease shall continue in force so long as oil or gas shall be produced from the leased premises. If, after the expiration of the primary term of this lease, production on the leased premises should cease for any cause, this lease shall not terminate if Lessee is then engaged in drilling operations, or within one hundred twenty (120) days after each such cessation of production commences or resumes drilling operations, and this lease shall remain in force so long as drilling operations are continuously prosecuted, and if production results therefrom, then as long thereafter as oil or gas is produced from the leased premises.
7. If at any time, either before or after the expiration of the primary term of this lease, there is a well capable of producing oil or gas on lands covered by this lease, or on other lands with which lands covered by this lease are pooled or unitized, but the well is shut-in, whether before or after production therefrom, and this lease is not being maintained otherwise as provided herein, this lease shall not terminate (unless released by Lessee) and it shall nevertheless be considered that oil or gas is being produced from lands covered by this lease during all times while the well is so shut-in. Lessee shall use reasonable diligence to market the oil or gas capable of being produced from such shut-in well, but shall be under no obligation to market the oil or gas under terms, conditions or circumstances which, in Lessee's judgment exercised in good faith, are unsatisfactory. When the lease is continued in force in this manner, Lessee shall pay or tender to the Lessor or Lessor's successors or assigns, an amount equal to $1.00 per year per net mineral acre covered by the lease. Such payments shall be made on or before the shut-in royalty payment date, as defined below, next occurring after the expiration of one hundred twenty (120) days from the date the well was shut-in, unless prior to such date oil or gas from the well is sold or used or the lease is otherwise maintained as provided herein. In like manner, on or before each succeeding shut-in royalty payment date while such well remains shut-in, Lessee shall make payment of shut-in royalty in the same amount and manner. The term "shut-in royalty payment date" shall mean the anniversary date of this lease. Any shut-in royalty payment may be made by cash, draft or check, mailed or tendered on or before the shut-in royalty date. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.
8. If Lessor owns a lesser interest in the above described land than the entire and undivided fee simple estate therein, then the royalties, including shut-in royalty, herein provided shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee. Any interest in production from the lands described herein to which the interest of Lessor may be subject shall be deducted from the royalty herein reserved.
9. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from wells and reservoirs of Lessor. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.
10. Lessee shall pay to Lessor reasonable amounts for damages caused by its operations to growing crops on said land. When requested by Lessor, Lessee shall bury its pipelines which traverse cultivated lands below plow depth. No well shall be drilled nearer than two hundred (200) feet to a house or barn now on said premises, without written consent of Lessor. Lessee shall have the right at any time (but not the obligation), to remove all improvements, machinery, and fixtures placed or erected by Lessee on said premises, including the right to pull and remove casings.
11. Lessee is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described above and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may

include land upon which a well has heretofore been completed or upon which drilling operations have been commenced. Production, drilling or reworking operations or a well shut-in for any reason anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut-in under this lease. In lieu of the royalties elsewhere herein specified, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit.

12. Lessee shall have the right to unitize, pool, or combine all or any part of the land described above as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that the land described above or any part thereof shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to Lessor shall be based upon production only as so allocated.
13. If the estate of either party hereto is assigned or sublet, and the privilege of assigning or subletting in whole or in part is expressly allowed, the express and implied covenants hereof shall extend to the subLessees, successors and assigns of the parties; and in the event of an assignment or subletting by Lessee, Lessee shall be relieved and discharged as to the leasehold rights so assigned or sublet from any liability to Lessor thereafter accruing upon any of the covenants or conditions of this lease, either express or implied. No change in Ownership of the land, royalties, or other payments, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee or require separate measuring or installation of separate tanks by Lessee. Notwithstanding any actual or constructive knowledge of or notice to Lessee, no change in ownership of said land or of the right to receive royalties or other payments hereunder, or of any interest therein, whether by reason of death, conveyance or any other matter, shall be binding on Lessee (except at Lessee's option in any particular case) until one hundred twenty (120) days after Lessee has been furnished written notice thereof, and the supporting information hereinafter referred to, by the party claiming as a result of such change in ownership or interest. Such notice shall be supported by original and certified copies of all documents and other instruments or proceedings necessary in Lessee's opinion to establish the ownership of the claiming party.
14. In the interest of conservation, the protection of reservoir pressures and recovery of the greatest ultimate yield of oil and/or gas, Lessee shall have the right to combine the leased premises with other premises in the same general area for the purpose of operating and maintaining repressuring and recycling facilities, and for such purpose may locate such facilities, including input wells, upon leased premises, and no royalties shall be payable hereunder upon any gas used for repressuring and recycling operations benefiting the leased premises.
15. Lessee is granted the right and option to extend this oil and gas lease for an additional two (2) years beyond the last day of the primary term hereof by remitting to Lessor on or before said date, an amount equal to the bonus per net mineral acre paid to Lessor as consideration for this Lease. Lessee shall have the option to extend this lease as to any, all, or less than all of the lease lands as Lessee chooses.
16. Should Lessee elect to purchase the lease pursuant to the terms hereof, it shall so notify Lessor in writing by mail, telefax, or telegram prior to expiration of said fifteen (15) day period. Lessee shall promptly thereafter furnish to Lessor the new lease for execution by Lessor along with Lessee's sight draft payable to Lessor in payment of the specified amount as consideration for the new lease, such draft being subject to approval of title according to the terms thereof. Upon receipt thereof, Lessor shall promptly execute said lease and return same along with the draft through Lessor's bank of record for payment.
17. In the event Lessor considers that Lessee has not complied with all its obligations hereunder, either express or implied, Lessor shall notify Lessee in writing, setting out specifically in what respects Lessee has breached this lease. Lessee shall then have sixty (60) days after receipt of said notice within which to meet or commence to meet all or any part of the breaches alleged by Lessor. The service of said notice shall be precedent to the bringing of any action by Lessor on said lease for any cause, and no such action shall be brought until the lapse of sixty (60) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder. This lease shall never be forfeited or cancelled for failure to perform in whole or in part any of its implied covenants, conditions, or stipulations until a judicial determination is made that such failure exists and Lessee fails within a reasonable time to satisfy any such covenants, conditions, or stipulations.
18. **Subject to the continuous drilling provision of Paragraph 3 of this Lease, six months plus one (1) day following the expiration of the Primary Term hereof, this Lease shall terminate as to all lease lands outside of any pooled or spacing unit, as established by applicable law or any governmental authority, upon which there is a well producing or capable of production in paying quantities.**
19. All express and implied covenants of this lease shall be subject to all federal and state, county or municipal laws, executive orders, rules and regulations, and Lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with such obligations and covenants is prevented or hindered by or is in conflict with federal, state, county, or municipal laws, rules, regulations or executive orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field, weather, or market conditions, inability to obtain materials in the open market or transportation thereof, wars, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by Lessee, and this lease shall not be terminated in whole or in part, nor Lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which Lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the contingencies above stated, shall be added to the primary term of the lease.
20. On the date this Top Lease is executed the following described oil and gas lease ("Prior Lease") appears to be in force and effect as to all of the lands and interests covered hereby:

Prior Lease:
Lessor: William S. Wilkinson and Carol A. Wilkinson
Lessee: John H. Holt Oil Properties, Inc.
Dated: February 8, 2006
Recorded: February 17, 2006

Reception No: 632656
Expires: February 7, 2010

This Top Lease is presently subordinate and subject to the Prior Lease for as long as, and to the extent that, the Prior Lease remains in force and effect according to its present terms. Lessor agrees not to extend, renew, amend or modify the Prior Lease at any time on or before the expiration or termination of the Prior Lease.

The effective date of this Top Lease shall be as stated hereinabove if the Prior Lease or any portion thereof expires at the end of its primary term. In the event the Prior Lease, or any portion thereof, terminates before the end of the primary term for whatever reason, the effective date of this lease shall be the date of such termination. If the Prior Lease terminates after its primary term because of drilling or reworking operations being prosecuted under the terms of the Prior Lease, then the effective date of this Top Lease shall be the date of the expiration of said primary term as extended by drilling or reworking operations, but only as to those lands described herein that are not extended by production under the terms of the Prior Lease. In the event it cannot be determined with reasonable certainty that the Prior Lease has expired or terminated because of dispute or litigation or any act, rule or regulation of any Federal, State, County or Municipal laws, or Executive Orders asserted as official by or under public authority claiming jurisdiction, the Top Lease effective date shall be that which coincides with the expiration or termination date of the Prior Lease as judicially determined.

Lessee agrees to pay Lessor consideration for this Top Lease as set forth in two (2) payments made payable to Lessor, subject to the terms outlined herein and approval of title. The first installment, of **fifteen percent (15%)** of the negotiated bonus consideration, shall be paid to Lessor, under the terms stated herein, following execution of this Top Lease, the receipt of which is hereby acknowledged by Lessor. Lessee shall have the option to either, (1) pay or tender to Lessor the second installment consisting of the remaining eighty-five percent (85%) of the total bonus amount negotiated, within thirty (30) days following the Effective Date of this lease, and subject to approval of title, or (2) allow this lease to lapse by withholding payment of the second installment. If Lessee elects not to pay the second installment, Lessee shall be relieved of all further obligations hereunder, except the duty to release this lease. The right of Lessee to not honor the second installment shall be exercised in Lessee's sole discretion.

The contingent interest or estate created by this Top Lease must vest within one day less than thirty (30) months from the date of execution hereof, and if it does not so vest within that interval, shall thenceforth be void, and of no effect.

21. Lessor hereby warrants and agrees to defend the title to the lands described above, and agrees that the Lessee, at its option, shall have the right at any time to pay for Lessor, any mortgage, taxes or other liens existing, levied or assessed on or against the above described lands in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and Lessor hereby agrees that any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due the Lessor under the terms of this lease.
22. This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors in interest, in whole or in part, of said Lessor or Lessee. Lessor agrees that in the event it acquires additional interest in the lands subject hereto, Lessor shall immediately notify Lessee in writing of such additional interest and Lessee shall have the option of tendering additional bonus under the terms of this lease and upon Lessor's receipt of additional bonus said additional interest shall be subject to the terms hereof as if such interest was owned by Lessor at the time Lessor executed this lease.
23. With respect to and for the purpose of this lease, Lessor, and each of them if there be more than one, hereby release and waive the right of homestead.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

William S. Wilkinson

Carol A. Wilkinson

STATE OF Michigan)
(§
COUNTY OF ~~Mason~~ INGHAM)

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 23rd day of July, 2009 personally appeared William S. Wilkinson and Carol A. Wilkinson, husband and wife to me known to be the identical person described in that Oil and Gas Lease and who executed the within and foregoing instrument of writing and acknowledged to me that they duly executed the same as their free and voluntary act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My Commission Expires:

JAMELL DEON WILLIAMS
Notary Public, Ingham County, Michigan
Acting In Ingham County
My Commission Expires May 25, 2011

Notary Public

Address: 1390 W Lake Lansing Rd
East Lansing, MI 48823

RETURN TO: Alison Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111

Alfson Energy
LAND SERVICES

July 17, 2009

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Paid-up Oil and Gas Lease
Williams County, ND
Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

Dear Lois:

Per our recent phone conversation, I have enclosed an oil and gas lease for your consideration. The enclosed lease is top leasing the current lease you have with John H. Holt and will become effective the date the original lease expires. I have also included two payment vouchers totaling $14,302.00 as bonus payment for your signed oil and gas lease. The first payment voucher is in the amount of $2,145.30, and reflects the first installment of the bonus that will be paid within 30 business days of our office receiving the signed oil and gas lease. The second payment voucher in the amount of $12,156.70, which reflects the remaining bonus amount, will be paid within 30 business days after the lease becomes effective. The payment of both vouchers is dependent on the title being researched and verified. The terms of the lease are listed below:

Lease Primary Term: 3 years	Your Net Acres: 47.673333
Royalty: 3/16ths	Bonus per acre: $300.00
Gross Acres: 286.04	Total Bonus: $14,302.00

If you don't have any questions, please do the following:

1. Sign your lease – exactly as your name appears – in front of a notary public.
2. Have the notary complete the notary section of the lease attesting to your signature.
3. Complete the highlighted areas of the enclosed W-9 form.
4. Sign the Payment Voucher.
5. Return your signed notarized lease, W-9 form and Payment Voucher in the enclosed return envelope.

The documents with "COPY" printed on them are for you to keep for your records. If you have any questions, please don't hesitate to call me at 303-638-6315. Thank you for leasing with us.

Sincerely,

Carlisle White

Carlisle White
By: Peggy Anderson

Enclosures

Alfson Energy
LAND SERVICES

August 31, 2009

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Paid-up Oil and Gas Lease
Williams County, ND
Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

Dear Lois:
Enclosed please find check No. 2814 from Alfson Energy Land Services, Inc., drawn on our lease account ALA Energy Resources, Inc., in the amount of $2,145.30 as bonus consideration for your oil and gas lease on the above referenced land.

Please acknowledge receipt of this check by signing and dating this letter below. Return the signed original to us in the enclosed self-addressed envelope and retain the copy for your records. If you have any questions regarding this matter, please contact the undersigned at 303-730-1667 ext 109.

Sincerely,

Peggy Anderson
Landman

Enclosures

Received Check No. 2814 in the amount of $2,145.30 on this 4th day of September, 2009.

Lois Jean Patch

COPY

ALA Energy Resources, L.L.C.

2814

Lois Jean Patch

	8/31/2009	
	Oil and Gas Lease Bonus -- voucher 0106	2,145.30
	Township 153 North, Range 102 West , 5th P.M.	
	Section 12: SW¼, S½NW ¼ except that portion there	
	constitutes the right-of-way of the Great Northern Rail	
	Section 13: Farm Unit 312	
	Williams County ND	
	286.04 gross ac / 47.673333 net ac	

Colorado Business Ba

2,145.30

Pll 0480

Alfson Energy
LAND SERVICES

December 29, 2009

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Assignment of Oil and Gas Lease
Area: Townships 153 – 155 North, Ranges 102 – 104 West
Williams or Williams / McKenzie Counties, North Dakota

Dear Lois Jean:

You recently signed an oil and gas lease with Alfson Energy Land Services, Inc. covering a mineral interest that you own in the captioned area. We are writing to inform you that your oil and gas lease has been assigned, in its entirety, to:

EOG Resources, Inc.
600 17th Street
Suite 1000N
Denver, CO 80202

If you would like to learn about EOG, you can visit their website at www.eogresources.com.

I've enclosed guidelines on what to do if your address or your mineral ownership changes or if you should have questions about your lease. We will also be available to answer questions that you have.

Thank you for leasing with us. On behalf of the team at Alfson Energy Land Services, we appreciate the opportunity to work with you and look forward to being able to do so again the in the future.

Sincerely,

Susan J. Alfson
President

Enclosure

Allison Energy
LAND SERVICES

Information Concerning Oil and Gas Leases

1. Contact Information for EOG if you have questions about your lease:

Theresa Wysocki
EOG Resources, Inc.
P.O. Box 4362
Houston TX 77210-4362

Theresa_Wysocki@eogresources.com
Phone: 713-651-6716

2. Website for information about drilling operations in ND: https://www.dmr.nd.gov/oilgas

3. When EOG will contact you: EOG will send you a division order if a well(s) is drilled on your mineral interest and the well is commercially successful. The division order will confirm your interest in the well and reconfirm that EOG has your correct name spelling, address and social security or tax ID number. Once you have signed and returned your division order, EOG will begin sending royalty payments based on sales of oil and / or gas production from the well(s).

4. Why EOG needs your social security or tax ID number: Under IRS regulations, EOG is required to report any income paid to you but can only do so if it has your proper social security or tax ID number (companies, corporations, trusts). Failure to provide this number to EOG may require them to withhold twenty-eight percent (28%) of your income for tax purposes.

5. **When you should contact EOG:**

   a. When your address changes – EOG will use the address on your oil and gas lease to get in touch with you for information about drilling operations. It's important that you let them know if your address changes.
   b. Name changes –
      i. Individuals: you will need to provide EOG with a copy of your marriage certificate, divorce decree or other document showing legal evidence of your name change.
      ii. Companies and Corporations: you will need to provide EOG a copy of the Certificate of Name Change; or in the case of merger, a copy of the Certificate of Merger.
   c. When your ownership in the minerals you've leased to EOG changes: You will need to provide EOG with reliable evidence of the change of ownership before they will be able to change the interest to another owner(s) name. ***This is for your protection and to prevent fraud by someone illegally trying to change the name on your interest records.*** There are several circumstances under which ownership of a leased interest might legally change:
      i. Sale of your interest – send EOG a copy of the recorded document conveying your minerals to another party or parties.
      ii. Change of ownership due to a divorce – EOG will need a copy of the divorce decree and copies of any recorded conveyances.
      iii. Death of a Mineral Owner – EOG will need certain legal documents showing the proper party or parties that now have the ownership rights in the minerals. At a minimum, you will need to send EOG a death certificate. When a mineral owner dies, an heir should call EOG and ask for instructions on which documents need to be provided to support the

change of ownership to the heirs. EOG will request information about which of the following circumstances apply and then let you know what additional documents they will need copies of:

a. decedent had a Will;
b. decedent didn't have a Will;
c. decedent's estate is being probated;
d. decedent's estate is being probated in a state other than ND;
e. decedent's estate is not being probated at all.

iv. Termination of Joint Tenancy – if the mineral owners held their interests as joint tenants and the joint tenancy is terminated for any reason (i.e., death, divorce, sale of one joint tenant's interest, or any other reason), EOG will need a copy of the document that terminates the joint tenancy. You should contact them to explain the circumstances of the termination and ask which documents need to be provided.

v. Trusts – if the mineral interest is made part of the assets of a Trust after the oil and gas lease is signed; or, if the Trustees signed the original oil and gas lease and the trust assets are distributed to the beneficiaries, EOG will need a copy of the Trust Agreement and the recorded conveyances into or out of the Trust.

vi. Guardianships – if a mineral owner is declared incompetent and placed under the care of a Guardian, EOG will need a copy of the Letters of Guardianship issued by the court creating the guardianship. If a Guardian originally signed the oil and gas lease on behalf of a minor child who has now come of legal age, EOG will need a copy of the child's birth certificate.

vii. Bankruptcy – if the mineral owner's interest becomes subject to bankruptcy proceedings, EOG will need copies of the court order appointing a Trustee in Bankruptcy and any recorded conveyances of the minerals in settlement of the bankruptcy along with a court order confirming the sale.

viii. Creation of an LLC, subchapter "S" corporation or other legal entity – if the mineral owner creates a legal entity and transfers ownership of the minerals into the legal entity, EOG will need a copy of the recorded document conveying title into the legal entity.

THIS COMMUNICATION DOES NOT, AND IS NOT INTENDED TO, CREATE AN ATTORNEY-CLIENT RELATIONSHIP. ANY INFORMATION CONTAINED HEREIN DOES NOT CONSTITUTE LEGAL ADVICE AND SHOULD NOT BE INTERPRETED AS SUCH. Many of the events discussed in this document have legal and possible tax implications. It is always prudent to seek the advice of an attorney or tax professional when any of these events occur.

Alfson Energy
LAND SERVICES

March 3, 2010

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Paid-up Oil and Gas Lease
Williams County, ND
Township 153 North, Range 102 West, 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Dear Lois:

Enclosed please find check No. 3163 from Alfson Energy Land Services, Inc., drawn on our lease account ALA Energy Resources, Inc., in the amount of $12,156.70. This check represents the remainder of your bonus consideration for the top lease you signed on July 15, 2009 on the above referenced land. This lease took effect on February 8, 2010.

Please acknowledge receipt of this check by signing and dating this letter below. Return the signed original to us in the enclosed self-addressed envelope and retain the copy for your records. If you have any questions regarding this matter, please contact me at 303-730-1667 ext 315.

Sincerely,

Peggy Anderson/jc

Peggy Anderson
By: Joanne Conklin

Landman

Enclosures

Received Check No. 3163 in the amount of $12,156.70 on this 6th day of March, 2010.

Lois Jean Patch

EXHIBIT

J-1

Exhibit J-1 – Jan. 12, 2017 testimony of Joshua Swanson to the Senate Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
Senate Energy and Natural Resources Committee
January 12, 2017, 9:00 AM

Chairman Schaible and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. My remarks focus on the problem caused by using river mile 1552.4, the location of the Highway 85 Bridge, as the dividing line in the Bill that arbitrarily distinguishes between lands east of the Bridge versus lands west of the Bridge that were also acquired as part of the Pick-Sloan Missouri basin project – commonly referred to as the Garrison Project – by the United States because such lands would be affected and inundated by Lake Sakakawea.

BACKGROUND

Historically, the State of North Dakota claimed an interest in only the original 30,000 acres of the Missouri River riverbed as it existed before the existence of Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 13, 2007, letter that the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims title to all the oil and gas under Lake Sakakawea. The State made this massive land grab despite the fact this property, including property west of the Highway 85 Bridge, was undisputedly acquired by the United States for the Garrison Project because of the flooding that would be caused by Lake Sakakawea. In the warranty deeds dating back to the 1950s whereby the United States acquired this property from North Dakota citizens like Ed Lynch and Jon Patch's predecessors, the oil and gas rights were unquestionably reserved in the private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in said warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 1 and 2.

This has been the subject of litigation in William S. Wilkinson, et al. v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038, and EEE Minerals, LLC et al. v. The Board of University and School Lands of the State of North Dakota, et al. (the latter case filed this week in McKenzie County). The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that, regardless of how or when land came to lie within the ordinary high water mark ("OHWM") of Lake Sakakawea, the State automatically acquired ownership of that land as soon as it was flooded. This view is legally erroneous. With the exception of using river mile 1554.2, which is the location of the Highway 85 Bridge, as the boundary for the effect of Garrison Dam and western reach of Lake Sakakawea, the Bill addresses the issues raised in this litigation.

The use of the Highway 85 Bridge as the western reach of Lake Sakakawea and delineating the impacts of Garrison Dam, and in distinguishing between what the State owns versus what it does not own as currently provided for in SB 2134, is lacking in any scientific support and makes the Bill problematic. The fact that property located west of the Highway 85 Bridge – like that owned by the Wilkinson and Vohs families – was and remains affected by and subject to flooding from Lake

EXHIBIT
Exhibit J-1

Sakakawea is discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 3. Point #3 to Dr. Woodbury's report explains why using the Highway 85 Bridge as a dividing line is arbitrary. The arbitrary nature of using the Highway 85 Bridge as the dividing line for what the State owns, as Mr. Patch notes in his testimony, was acknowledged by several individuals employed by the State who were deposed in the Wilkinson case. These individuals, including John Paczkowski, Todd Sando, Gerald Heiser, Lance Gaebe, Mike Brand, Gary Preszler, and Tom Feeney, each testified they were unaware of any scientific or technical basis for using the Highway 85 Bridge as the western reach of Lake Sakakawea and its impacts. Mr. Preszler, the former Land Commission for the State, summarized the problematic nature of using the Highway 85 Bridge as the dividing line when he stated, "It [Highway 85 Bridge] just represented a recognizable landmark that we all knew and we used that as a basis, ... ," and it "represented no scientific analysis or basis whatsoever."

The use of the Highway 85 Bridge as the dividing line in SB 2134 also ignores the undisputed fact that the United States acquired property west of the Highway 85 Bridge for the Garrison Project and flooding that would be caused by Lake Sakakawea. This is illustrated by the United States' maps for the Garrison Project showing dozens of tracts and many acres west of the Bridge – like the property belonging to the Wilkinson and Vohs families – that were acquired by the United States because of the flooding that would be caused by Lake Sakakawea. Similarly, the clear and unambiguous language in the warranty deeds whereby the United States acquired property west of the Highway 85 Bridge for the Garrison Project, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the Wilkinsons' reservation of the oil and gas rights were "[s]ubordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, ..."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and their government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017, adding insult to that long-ago injury, this great State seeking to further deprive them of their property by claiming their oil and gas rights – rights they had previously leased to oil companies for nearly sixty years before the State claimed ownership of them.

NORTH DAKOTA'S TITLE TO THE RIVERBED OF THE HISTORIC MISSOURI RIVER

At the time of Statehood, North Dakota took title to the bed of navigable bodies of water as those bodies of water existed at the moment of statehood. (See, e.g., Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co., 429 U.S. 363, 371 (1977)). The legal mechanism that gave North Dakota this title is known as the "Equal Footing Doctrine," which grants each State in our Union title to the bed of all navigable bodies of water, including underlying minerals, as of the moment of Statehood. (Id.) After the moment of Statehood, the Equal Footing Doctrine has run its course and is of no further effect. (Id.) The Equal Footing Doctrine does not grant the State title to the bed of any body of water that later becomes navigable, like Lake Sakakawea, whether by natural or artificial means. (Id.) While the State can also acquire property by purchase, the State cannot arbitrarily claim title to property that it does not own. That is the textbook definition of an unconstitutional taking under this State and our United States constitutions.

The State cannot validly designate the Highway 85 Bridge as the cutoff of the effect of Garrison Dam and western reach of Lake Sakakawea. Garrison Dam's effect and the reaches of Lake Sakakawea go beyond this point. Using an artificial cutoff like the Highway 85 Bridge defeats the purpose of the Bill by effectively granting the State title to private land that the State does not own.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the OHWM of the Missouri River in the Garrison Dam area. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam. The first study shares a common flaw with the proposed Bill – the Highway 85 Bridge is not the end of Lake Sakakawea and its impacts as detailed in Dr. Woodbury's report. As Dr. Woodbury explained, "The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge." (Woodbury Report at p. 21). Dr. Woodbury also noted that property belonging to the Wilkinson family, lying to the west of the Highway 85 Bridge, was suitable for agricultural purposes prior to the construction of Garrison Dam. (Id.) Further, as noted by Dr. Woodbury, the United States purchased property extending well beyond the Highway 85 Bridge for the Garrison Project, which demonstrates that Lake Sakakawea was always anticipated to affect areas beyond the Highway 85 Bridge. Moreover, the pre-dam streambed elevation at the Highway 85 Bridge was approximately 1823.0 feet; any time the reservoir impounds water that exceeds that water surface elevation, as it does 95% of the time, the reservoir is impounding water upstream or beyond the Highway 85 Bridge. (Id.)

COMMENTS ON BILL DRAFT

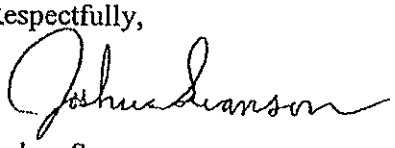
Effectively, SB 2134 recognizes that the State has title to the bed of the historic Missouri River as it existed prior to the Garrison Dam. However, the Bill legislatively mandates that, as a matter of North Dakota law, Garrison Dam's effect and the western reach of Lake Sakakawea ceases at the Highway 85 Bridge. This limitation is arbitrary, unsupported by any scientific or technical grounds, and would lead to unconstitutional results and additional legal challenges.

The State does not need to use an artificial limit on the extent of the effect of Lake Sakakawea. As the Bill notes, the historical Missouri riverbed channel can be determined by prior Army Corps of Engineering surveys, and, if necessary, by studies of historical aerial photos as the State has already done for large parts of Lake Sakakawea. Thus, there is little risk of the State encountering protracted issues with determining the extent of the State's interest absent the artificial cutoff. The artificial cutoff undermines what can be a just and right Bill for people like the Wilkinson and Vohs families that have already been deprived of their property once by the Garrison Project and Lake Sakakawea. The artificial cutoff is a state-sanctioned taking without compensation for all property west of the Highway 85 Bridge that was acquired by the United States for the Garrison Project and, as noted by Dr. Woodbury, clearly affected by Lake Sakakawea.

The artificial cutoff for the effect of Lake Sakakawea is a proverbial line in the sand; on one side of the line, the State recognizes that it has no automatic legal right to artificially flooded property, but on the other side of the line the State claims an automatic legal right regardless of whether it is actually affected by Lake Sakakawea. The State can prevent this unfair and unconstitutional treatment by removing the artificial cutoff from the proposed Bill.

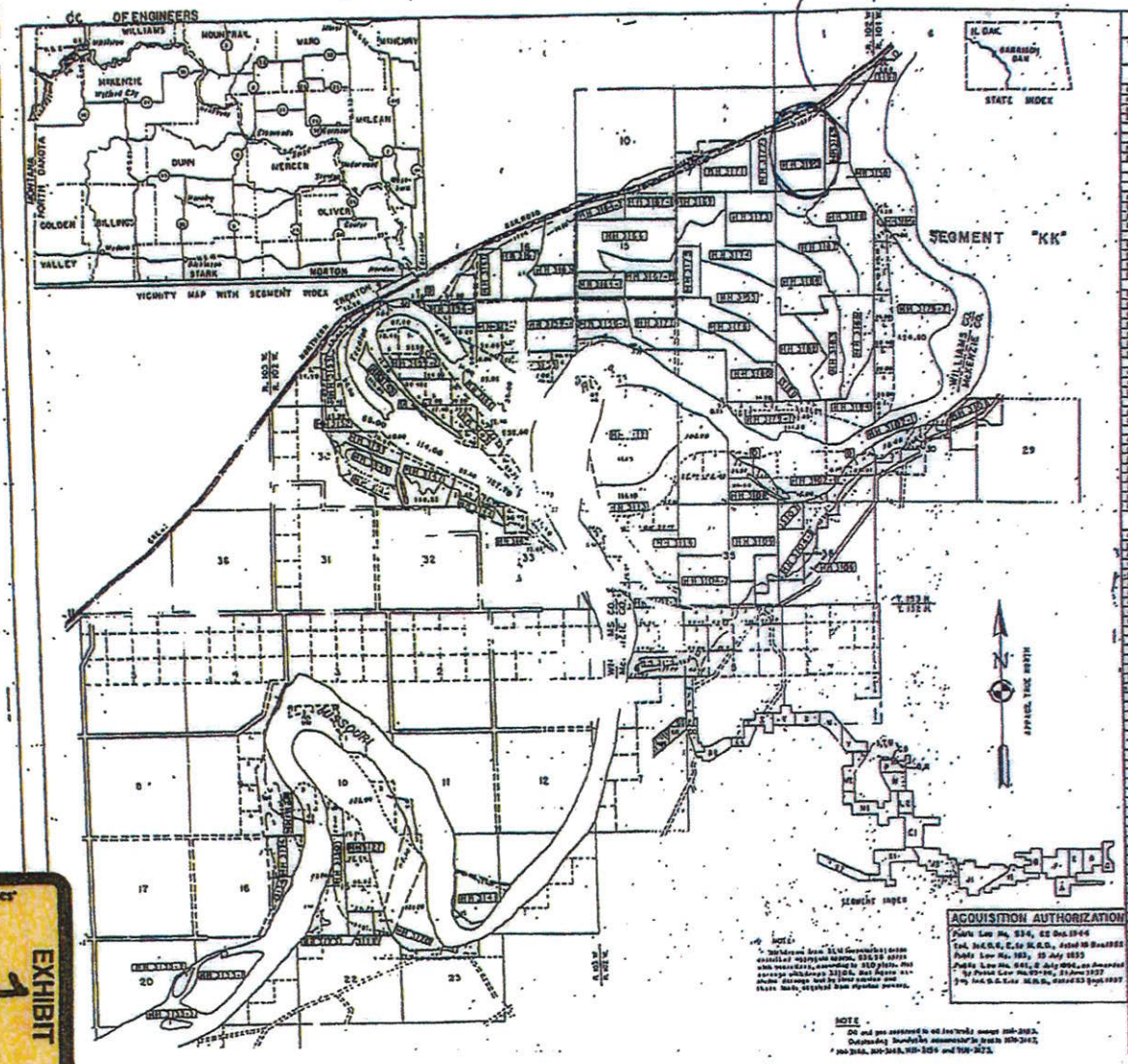
Thank you again for the opportunity to present this testimony. I urge you not to pass the proposed Bill without first removing the artificial cutoff point at river mile 1552.4, which is the location of the Highway 85 Bridge.

Respectfully,



Joshua Swanson

HH 3190 (Wilkinson Family)

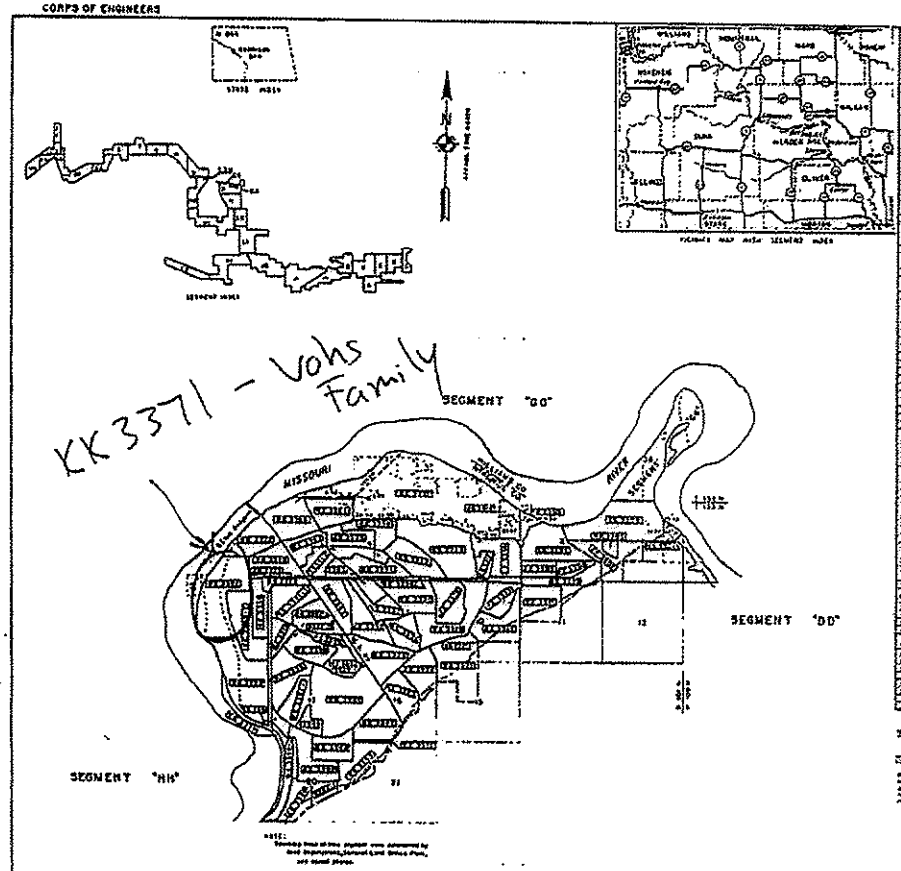


ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE EASM'T.	REMARKS
	McKENZIE COUNTY			
HH 3101	MIRIAM GRIL PAGE	330.40		
HH 3102	ARTHUR WOOD	97.10		
HH 3103	ARTHUR WOOD	30.40		
HH 3104	ARTHUR WOOD	491.23		
HH 3105	JOHN V. SLATER ET UX	116.00		
HH 3106	JOHN V. SLATER ET UX	160.00		
9	U.S.A. DEP'T. OF INTERIOR		See remarks	Transferred 27 February 1958, Public Land Order No. 1809, segregation to extent in tract number of segment
HH 3107	STATE OF NORTH DAKOTA	80.00		
HH 3107	HARRY G. HELSCH ET AL	40.00		
HH 3108	FRED A. NELSON ET UX	76.40		
HH 3109	JOSEPH MACKANBERG SR.	483.00		
HH 3111	DELETED			
HH 3112	CLINTON A. TIBBITS	441.60		
HH 3113	CLINTON A. TIBBITS	272.80		
HH 3114	HENRY A. TIBBITS ET AL	441.44		
HH 3116	HENRY H. RICHERSON	113.80		
HH 3117	DELETED			
HH 3118	DELETED			
HH 3119	DELETED			
HH 3120	FRANK W. ERICKSON ET AL	182.43		Formerly Tract No. HH 3123-1
HH 3121	DELETED			
HH 3122	DELETED			
HH 3123	FRANK W. ERICKSON ET AL	40.00		Formerly Tract No. HH 3123-2 included in Tract No. HH 3120 Included in Tract No. HH 3124
HH 3124	DELETED			
HH 3125	DELETED			
HH 3126	AMOS H. PEPINEAU ET UX	740.78		
HH 3128	MORGAN PAPINEAU ET UX	631.20		Formerly Tract No. HH 3128-E
HH 3129	DELETED			
HH 3130	MORGAN PAPINEAU ET UX	43.40		Formerly Tract No. HH 3128-1
HH 3131	DELETED			
HH 3132	DELETED			
HH 3133	STATE OF NORTH DAKOTA	156.80		
HH 3134	STATE OF NORTH DAKOTA	19.20		
HH 3135	STATE OF NORTH DAKOTA	1.80		
	WILLIAMS COUNTY			
HH 3134	JOHN OTTER ET UX	44.41		
HH 3136	ROBERT F. BACHTOLD	83.10		
HH 3137	DELETED			
HH 3138	MARGARET F. BYER	160.00		
HH 3139	DELETED			
HH 3140	EARL L. KRUSE ET UX	19.20		
HH 3141	IVER ROBLAUER ET UX	151.67		
HH 3142	ARMSTRONG - HOFFMAN ET UX	36.56		
HH 3143	CARL SMOOTH	117.38		
HH 3144	JOHN IRWIN	96.03		
9	U.S. DEP'T. OF INTERIOR		See remarks	Transferred 27 February 1958, Public Land Order No. 1809, segregation to extent in tract number of segment GG
HH 3101	STATE OF NORTH DAKOTA	110.00		Formerly Tract No. HH 3101-E
HH 3146	STATE OF NORTH DAKOTA	40.00		" " " HH 3146-E
HH 3147	HARRY J. JACOBSON ET UX	660.13		
HH 3148	ANNA COPTY	75.40		
HH 3149	ANNA COPTY ET UX	117.60		
HH 3150	LEO O'DONNELL - GREATE ET AL	81.60		Formerly Tract No. HH 3150-E
HH 3151	LESTER A. LARSON ET UX	100.19		
HH 3152	ELMER RICHARD	404.00		
HH 3153	HAROLD SCHWEITZER ET UX	131.42		
HH 3154	HENRY A. BRECHT ET UX	117.04		
HH 3155	CHARLES W. PATCH ET UX	81.10		Formerly Tract No. HH 3155-E
HH 3156	JAMES F. MARSH ET UX	160.00		
HH 3156-E	JAMES F. MARTIN ET UX	109.41		
HH 3156	HILEY C. BROSTEN ET UX	158.60		
HH 3157	CHARLES A. SMITH ET UX	160.00		
HH 3158	CHARLES J. PETSCH ET UX	161.60		
HH 3159	HENRY MORRIS GARFIELD ET AL	317.82		
HH 3160	JOHN C. GOVOT ET UX	164.17		
HH 3161	H. W. ERICKSON ET UX	158.48		
HH 3162	MARION	160.00		
HH 3164-E	MAUD MARTIN	64.88		
HH 3165	CHARLES W. PATCH ET UX	41.30		Formerly Tract No. HH 3165-E
HH 3166	CLINTON MARION ET UX	161.30		
HH 3167-E	PAUL F. MARTIN ET UX	109.47		
HH 3167-E	PAUL F. MARTIN ET UX	139.98		
HH 3168	DELETED			
HH 3169	CHARLES W. PATCH ET UX	173.75		
HH 3170	DELETED			
HH 3171	ADELAIDE HEWES ET UX	321.55		
HH 3172	FRANCIS JACKSON ET UX	80.35		
HH 3173	RALPH A. FAIRCHILD ET UX	160.00		
HH 3174	RAINE MARTIN	80.00		
HH 3175	RAINE MARTIN	80.00		
HH 3176	CHARLES W. PATCH ET UX	158.60		
HH 3177	DELETED			
HH 3178	DELETED			
HH 3179	OLIVER L. METZGER	348.33		
HH 3180	OLIVER L. METZGER	320.00		
HH 3181	LESTER A. LARSON ET UX	161.61		

EXHIBIT 1

CORPS OF ENGINEERS



ACQUISITION TRACT REGISTER

TRACT NO	LAND OWNER	ACRES	REMARKS
	MCKENZIE COUNTY		

ACQUISITION AUTHORIZATION

U.S. ARMY

FINAL PROJECT MAP

STATE NORTH DAKOTA
COUNTY MCKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAM SEC 1, T 150 N, R 91 W OF 5TH P.M.
10 MILES S OF GARRISON
15 MILES N OF STANTON

SEGMENT XX
LAND AREA

TOTAL ACRES IN SEGMENT 8,168.25

DISPOSALS

TOTAL ACRES DISPOSED OF

LEGEND

GARRISON DAM & LAKE SAKAKAWEA

SEGMENT AK

AUDITED

Tract No. HM-3190 ← HM-3190

1. WARRANTY DEED 3-10-61 To Fee Land Title Records, Williams Co., N. D.

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. , party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 - - -

12

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 388165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 37.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

Teinar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958.

STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

THELMAR E. ROLFSTAD
Notary Public for the County of Williams
State of North Dakota

My commission expires Nov. 19, 1958.

288165

Doc. No. 288165
Abstr. Exd.
Grantor
Grantee
Compared
Indexed
Entered
Karoomed
Warranty Deed

TRANSFER FEE $ .25
TO
RECORDING FEE $1.50

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the ___ day of JUN 7 A. D. 19 58 at ___ o'clock ___ M. and was duly recorded in Book ___ of Warranty Deeds on page ___

Register of Deeds
By ___ Deputy

Delinquent taxes, if any, general taxes, special assessments and all subsequent assessments, penalties and costs

County Auditor
By ___ Deputy

KK-3371 ← KK-3371

Document No. 155142

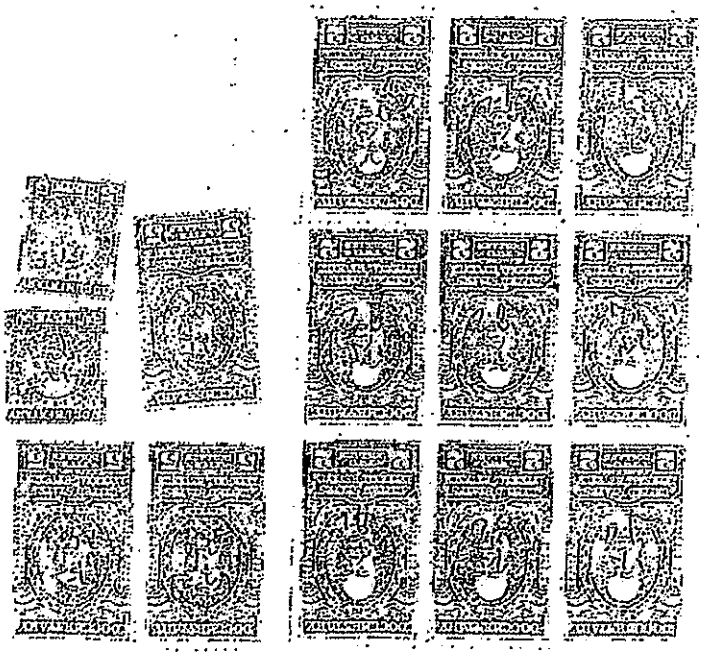
BOOK 87 PAGE 505

WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $365.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for



said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil & gas ownership reserved by Vohs Family subject only to right of United States to flood the property for Lake Sakakawea

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER. And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
WILLIAMS CO., N. DAK.

F. A. Wenstrom

Notary Public for the County of Williams, State of North Dakota

My commission expires June 11, 1959

F. A. WENSTROM,
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JUNE 11, 1959.

Document No. 155142

REGISTER OF DEEDS OFFICE
McKENZIE COUNTY
STATE OF NORTH DAKOTA

COUNTY AUDITOR

Copy of Engineer's
Field Notes

June 19, 2013

HoustonEngineering Inc.

Wilkinson Trust Estate

Ordinary High Water Mark

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E., P.H.
North Dakota Reg. No. 1729

Date: June 20, 2013

REGISTERED PROFESSIONAL ENGINEER
LAWRENCE H. WOODBURY
PE-1729
DATE June 20, 2013
NORTH DAKOTA

HoustonEngineering Inc.

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Point #3	*21*
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The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1564.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

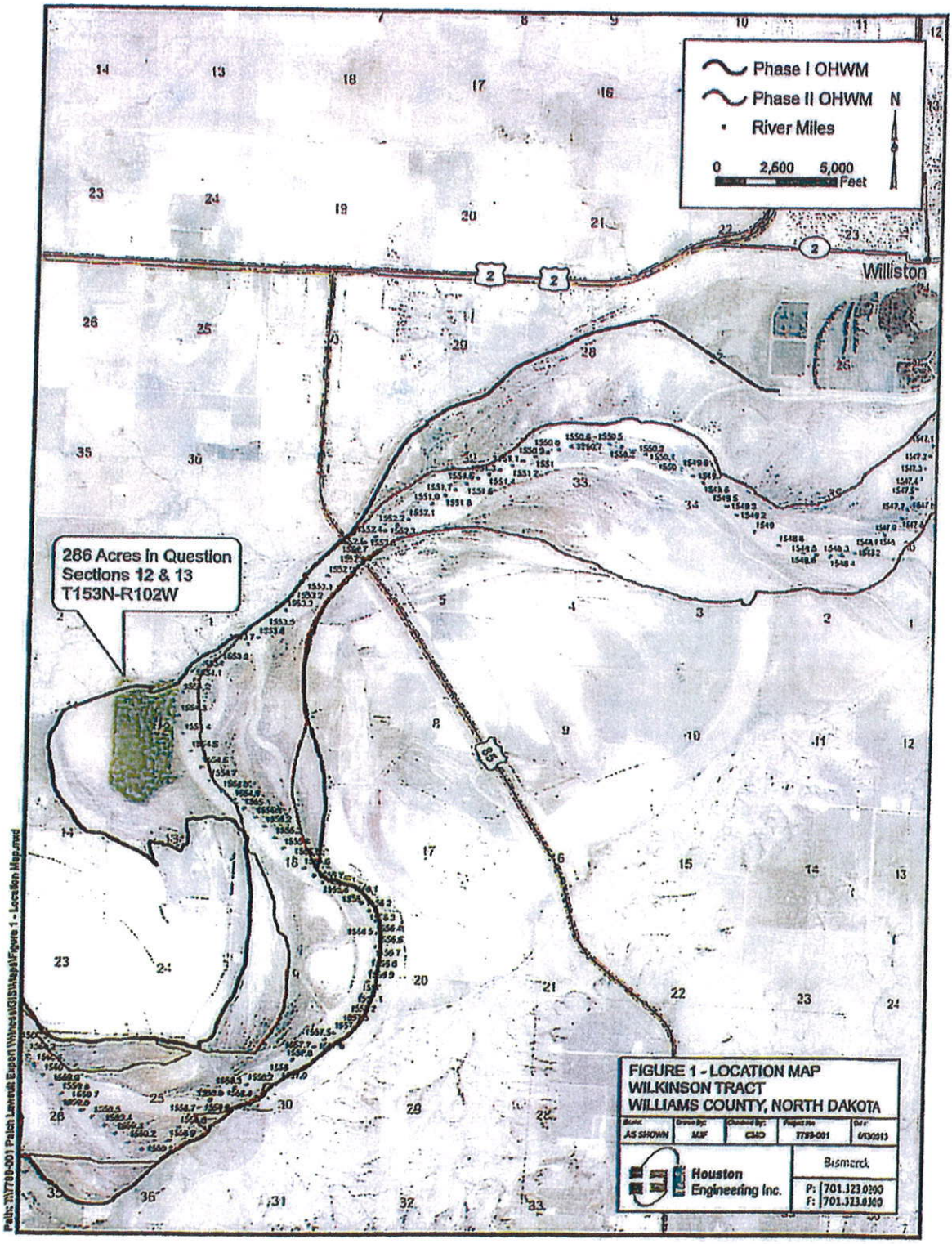
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

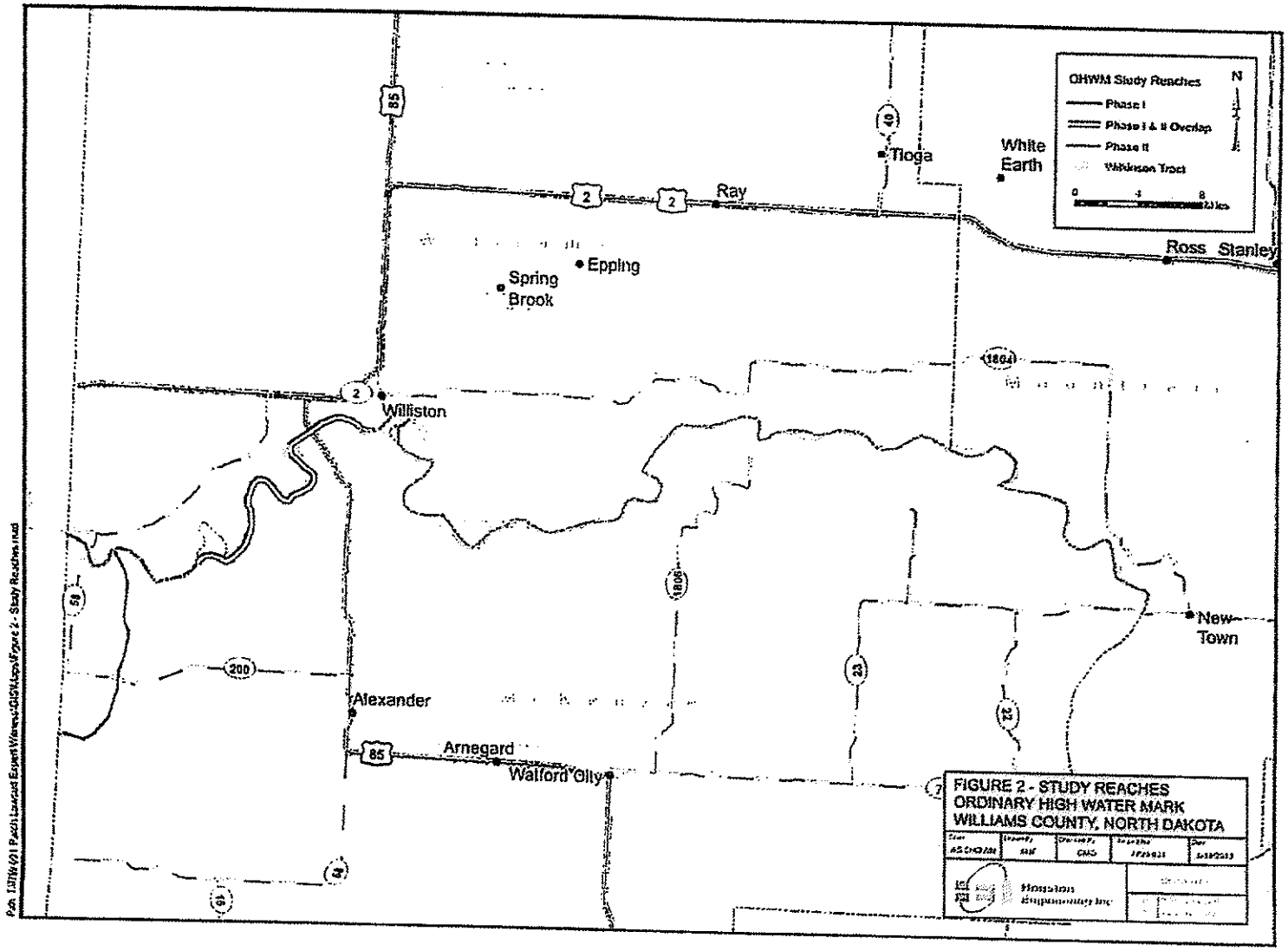
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.6. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,600 5,000
Feet
Williston
286 Acres In Question
Sections 12 & 13
T153N-R102W
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300
Path: N:\7700-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 1 - Location Map.mxd


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Wilkinson Tract
N
0
4
8
Miles
White Earth
Tioga
Ray
Ross
Stanley
Epping
Spring Brook
Williston
New Town
Alexander
Arnegard
Watford City
85
40
2
1804
1806
59
200
23
22
16
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

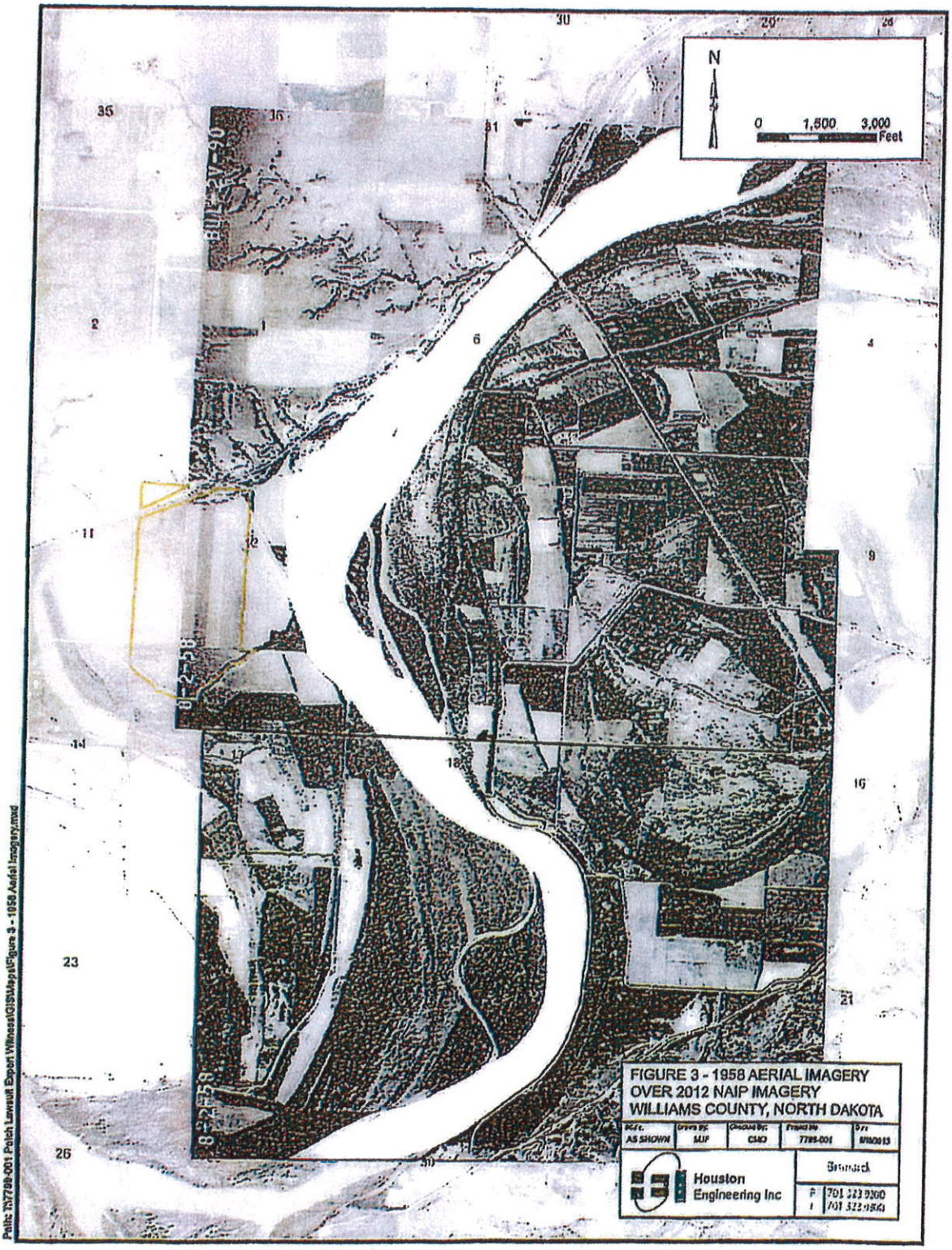
Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6.** With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.


N
0 1,500 3,000 Feet
FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Bismarck
P 701 323 9360
F 701 322 9545
P:\Projects\7977\7789-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 3 - 1958 Aerial Imagery.mxd

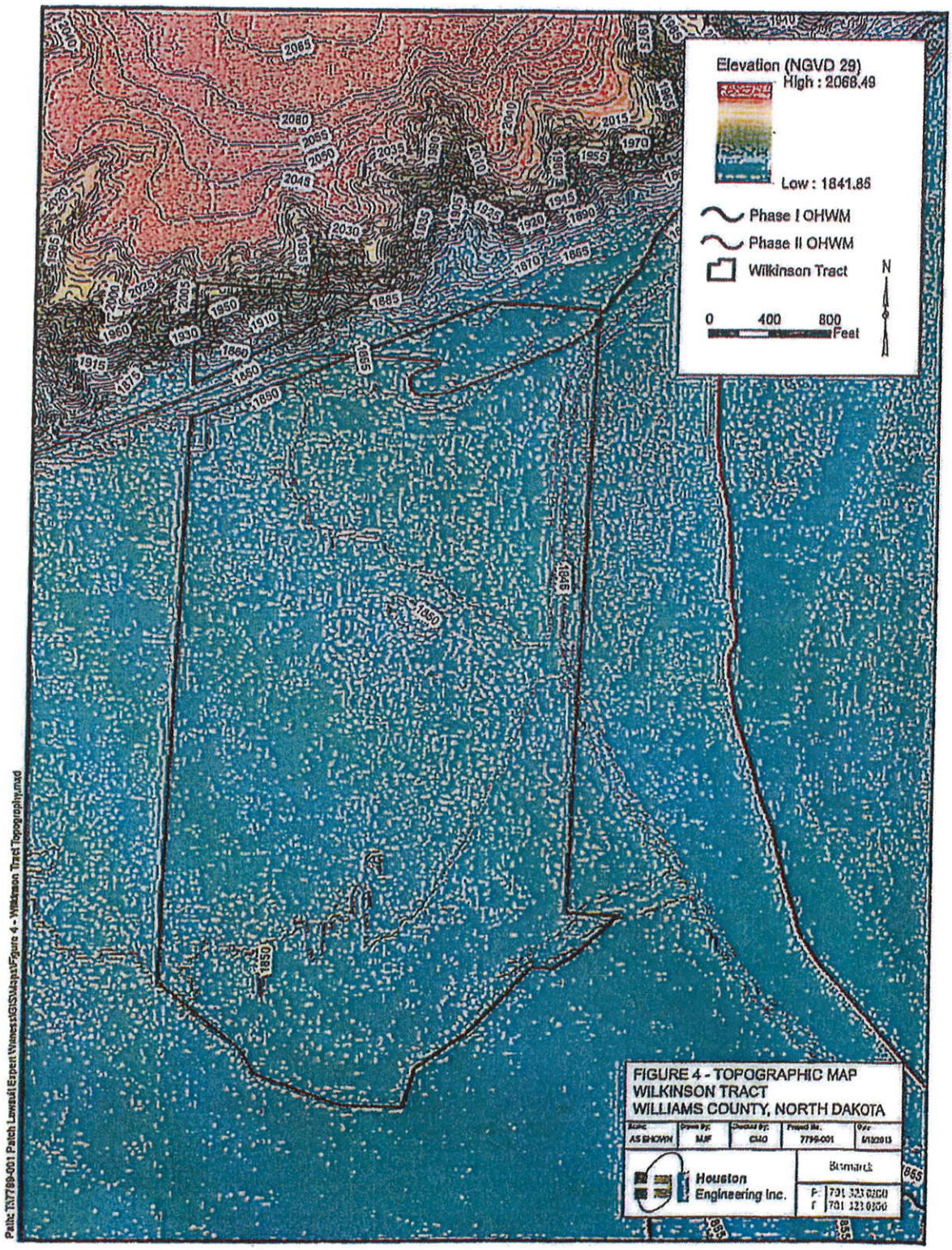

Elevation (NGVD 29)
High : 2068.49
Low : 1841.86
Phase I OHWM
Phase II OHWM
Wilkinson Tract
N
0 400 800
Feet
FIGURE 4 - TOPOGRAPHIC MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7795-001
6/13/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300
Path: I:\7795-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 4 - Wilkinson Tract Topography.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

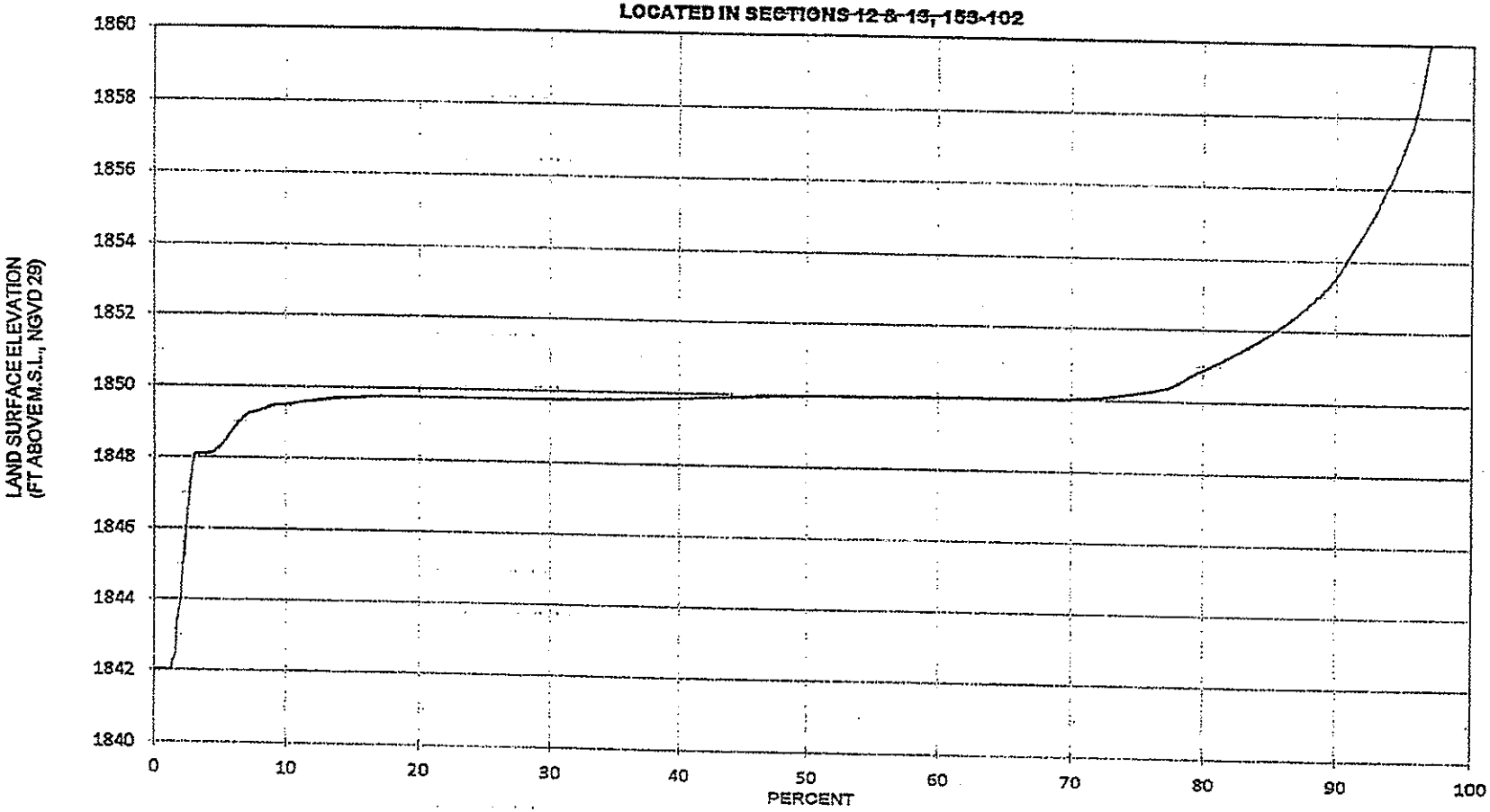


FIGURE 6

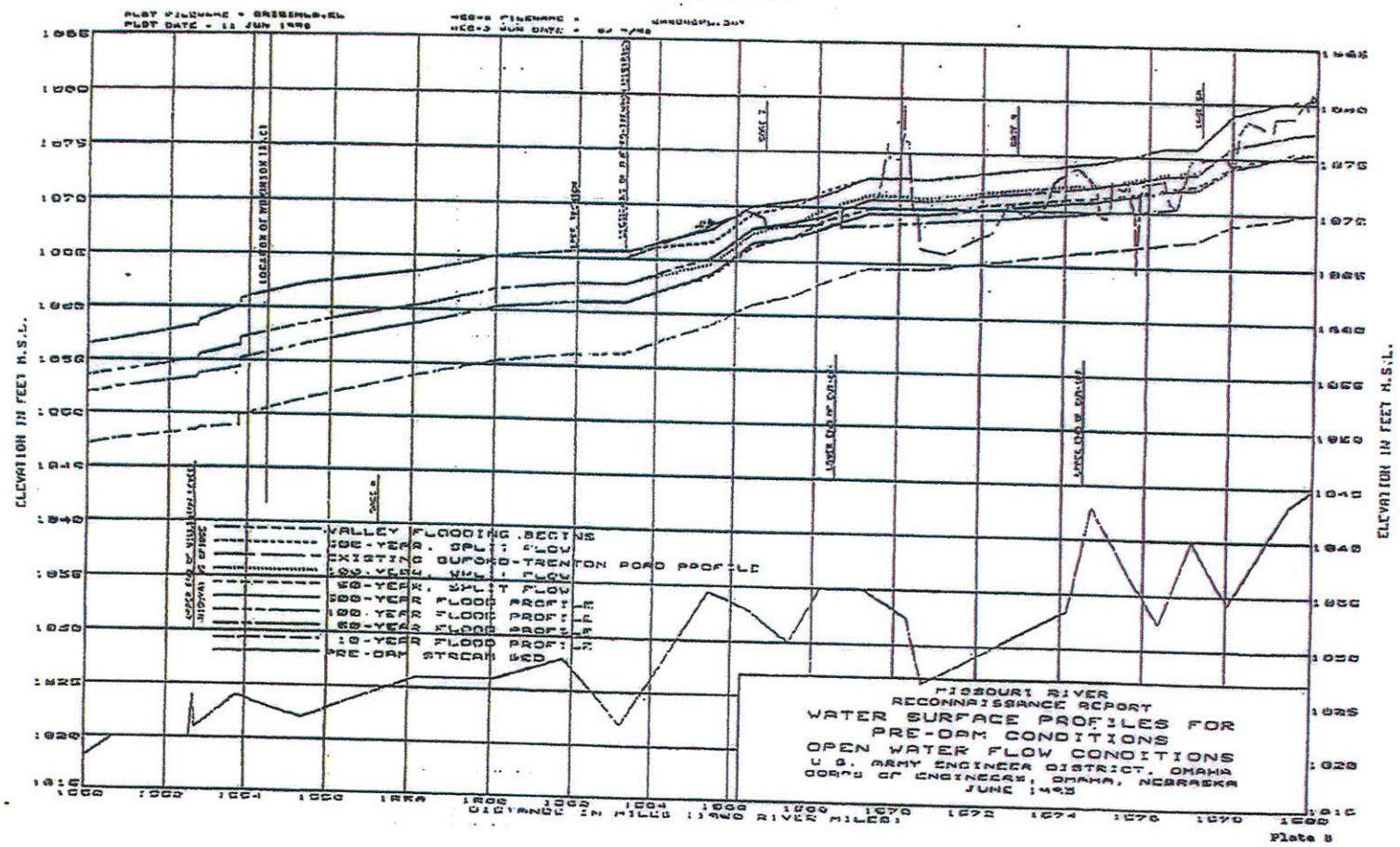
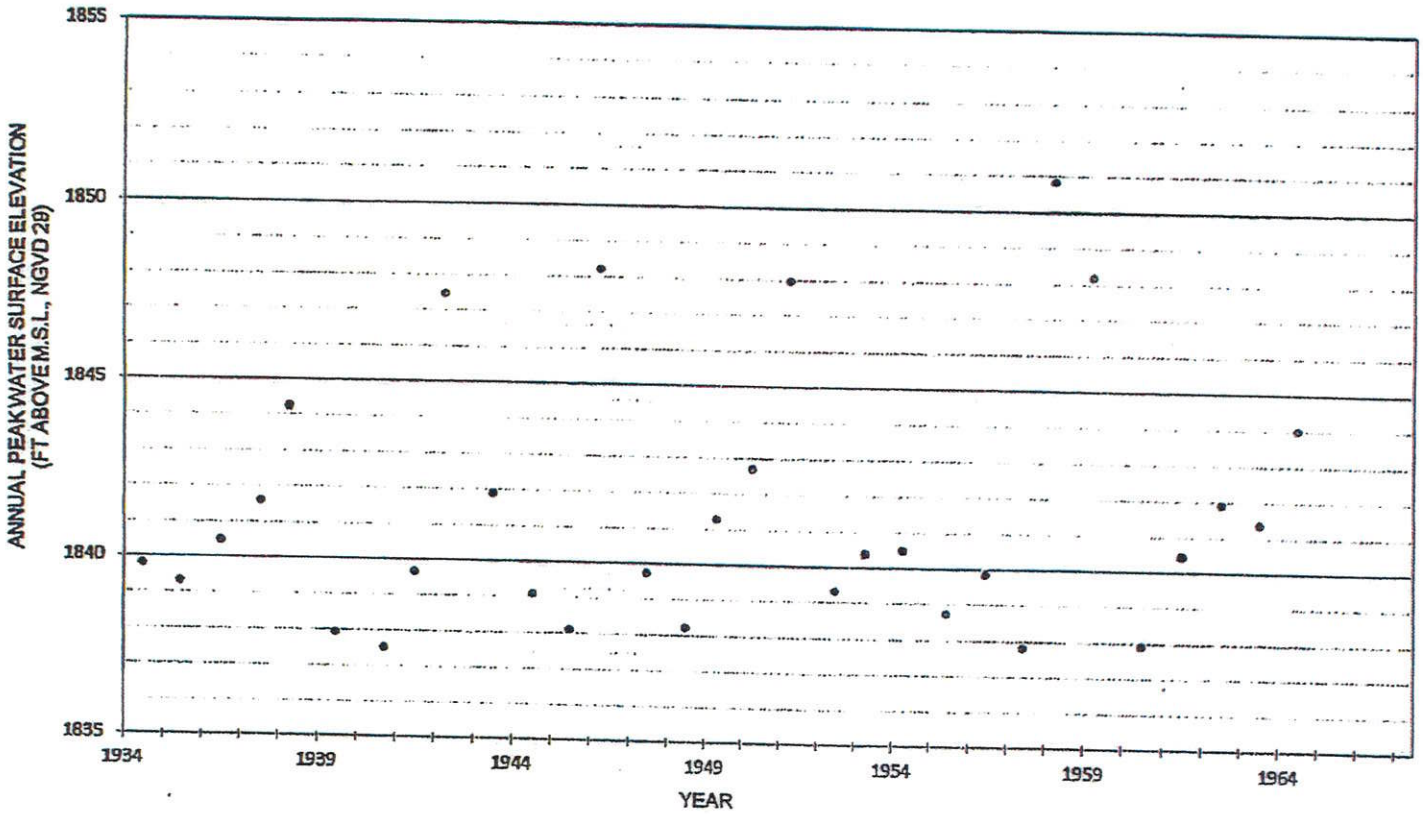

ELEVATION IN FEET M.S.L.
ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (MRS RIVER MILES)
VALLEY FLOODING BEGINS
10E-YEAR, SPLIT FLOW
EXISTING GAVINS-TRENTON POND PROFILE
50-YEAR, SPLIT FLOW
500-YEAR FLOOD PROFILE
100-YEAR FLOOD PROFILE
50-YEAR FLOOD PROFILE
10-YEAR FLOOD PROFILE
PRE-DAM STREAM BED
MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1945
Plate 8

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

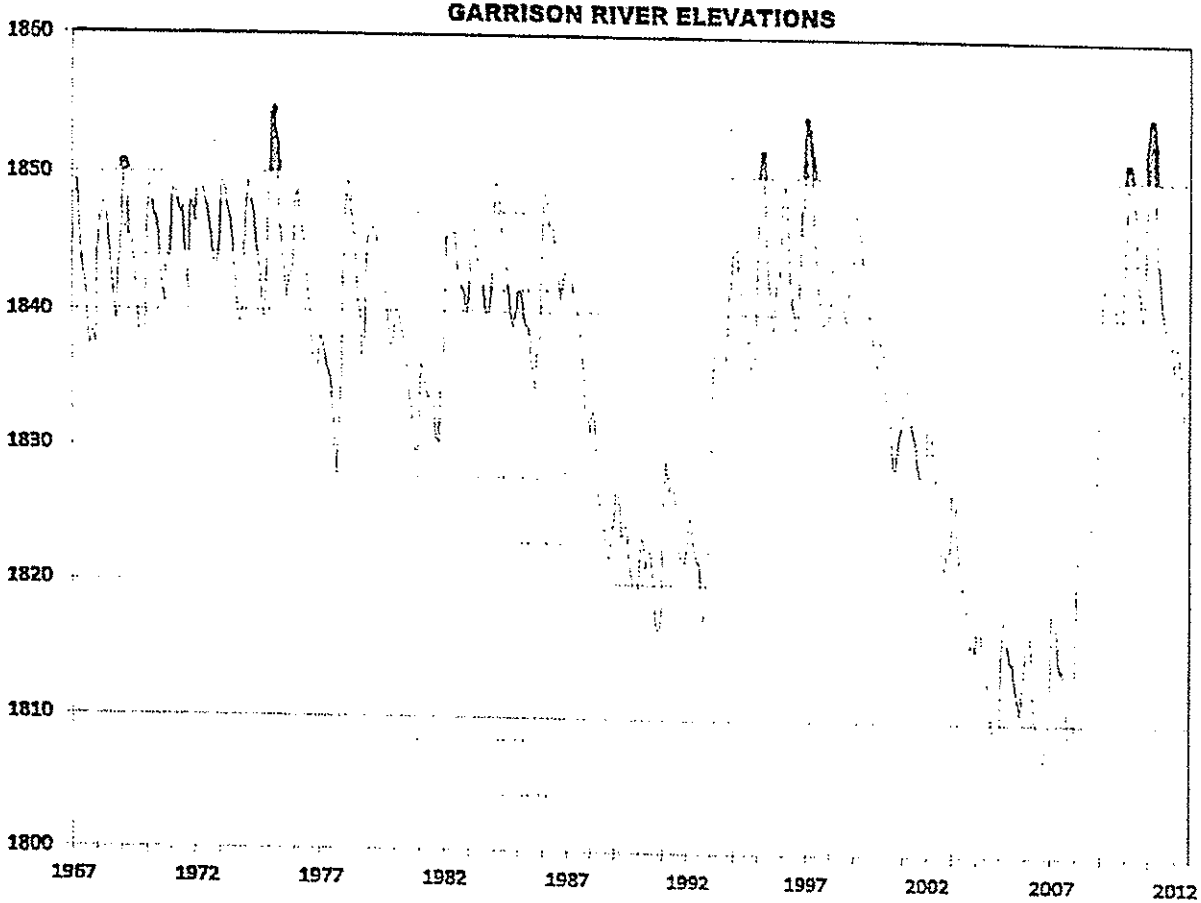
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

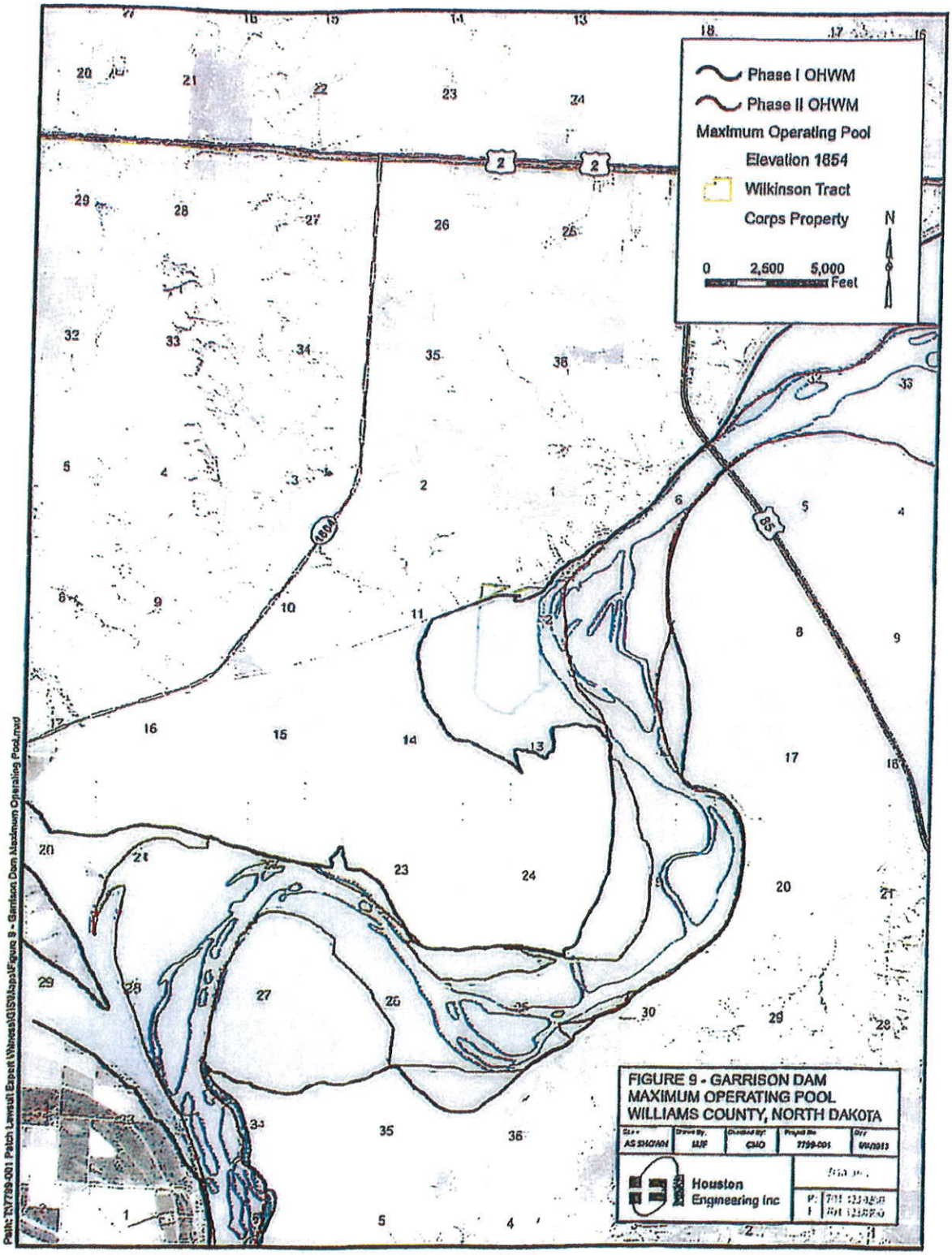
Point #2 Summary

The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool
Elevation 1854
Wilkinson Tract
Corps Property
N
0 2,500 5,000
Feet
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
Houston
Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 9 - Garrison Dam Maximum Operating Pool.mxd

N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: T:\7700-001 Patch Lawsuit Expert Witness\GIS\Mxd\Figure 10 - 1975 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
21
30
32
6
25
26
35
36
FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7793-001
Houston Engineering Inc.
Path: I:\7793-001 Patch Lowell Event Witness\GIS\Maps\Figure 11 - 1997 Aerial Imagery.mxd

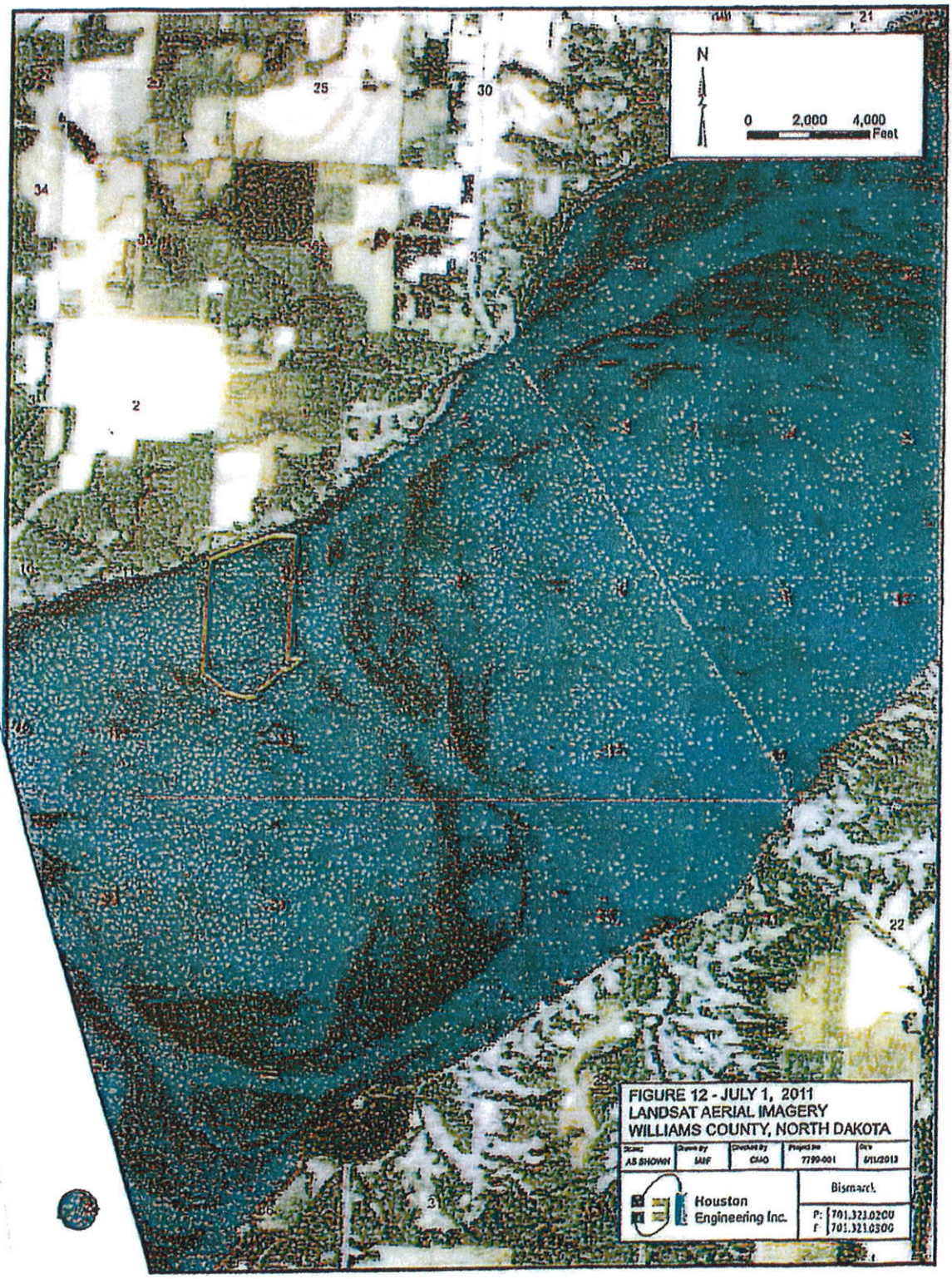
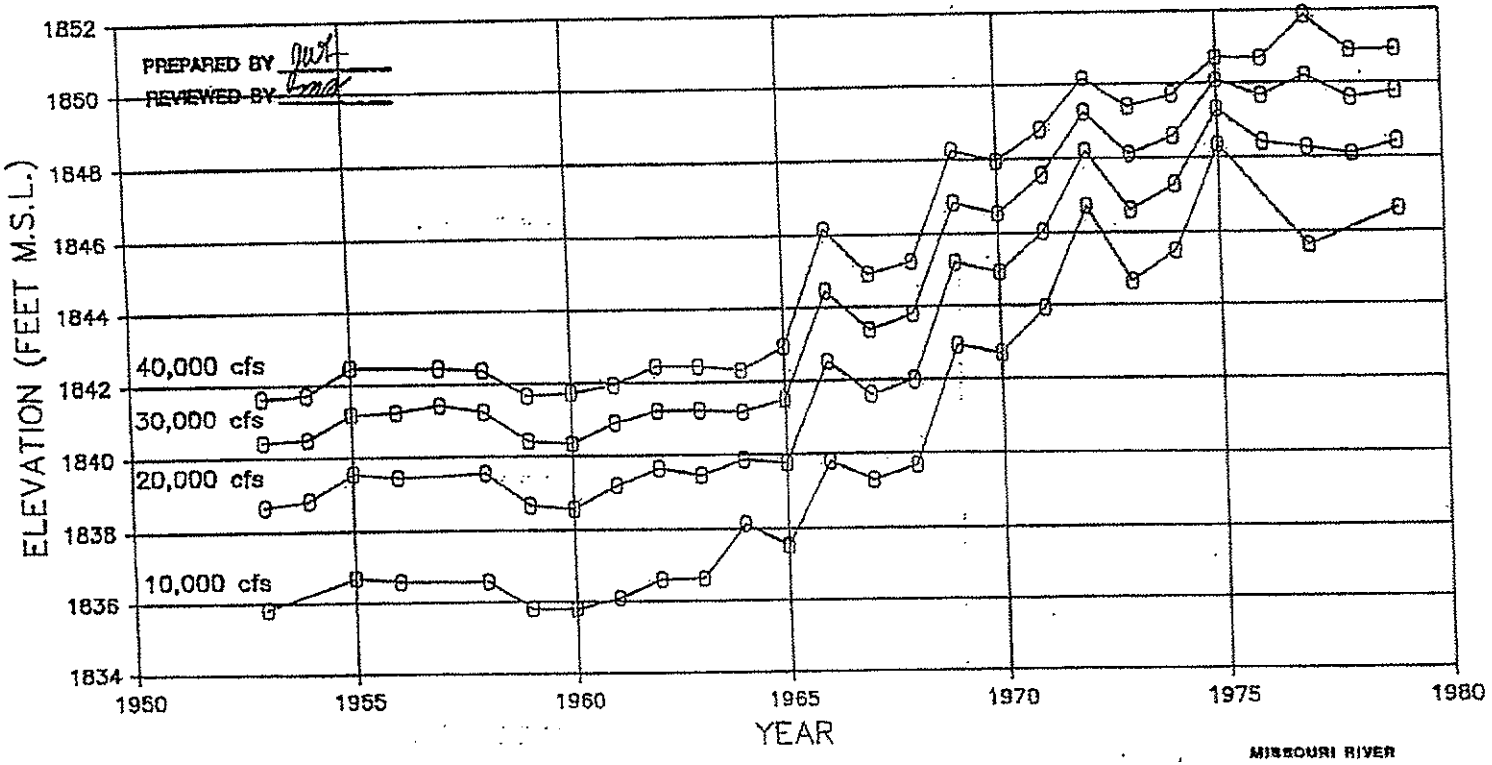

N
0 2,000 4,000
Feet
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT
Stage Trends - Gage 8
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

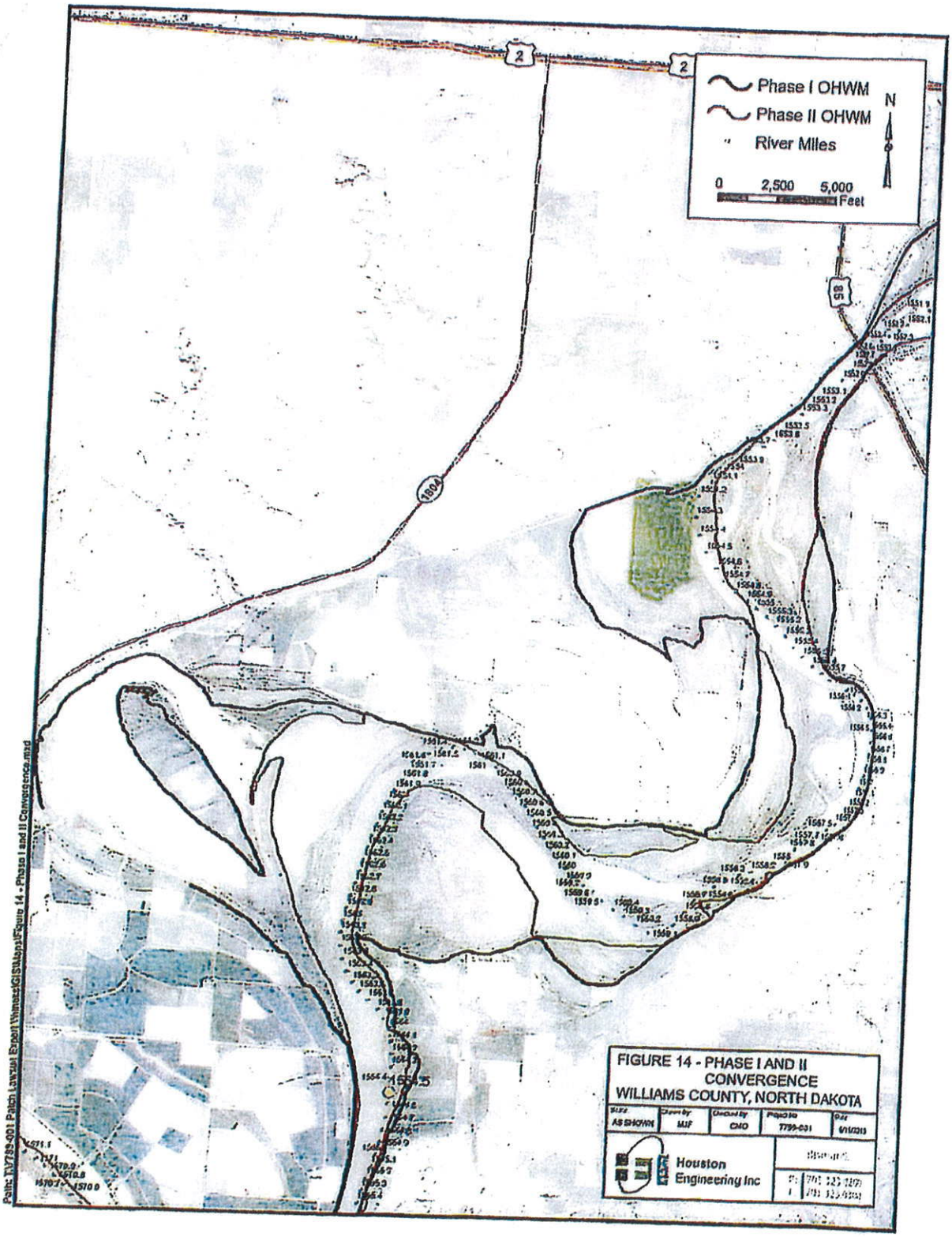
The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson Tract. The OHWM as delineated using the historic aerial imagery in the Phase II Study is more appropriate indication of the boundary between the riparian and the public rests in the area of the Wilkinson Tract.


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
2
1804
FIGURE 14 - PHASE I AND II CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
6/11/2013
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Report Wrinkles\GIS\Maps\Figure 14 - Phase I and II Convergence.mxd

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

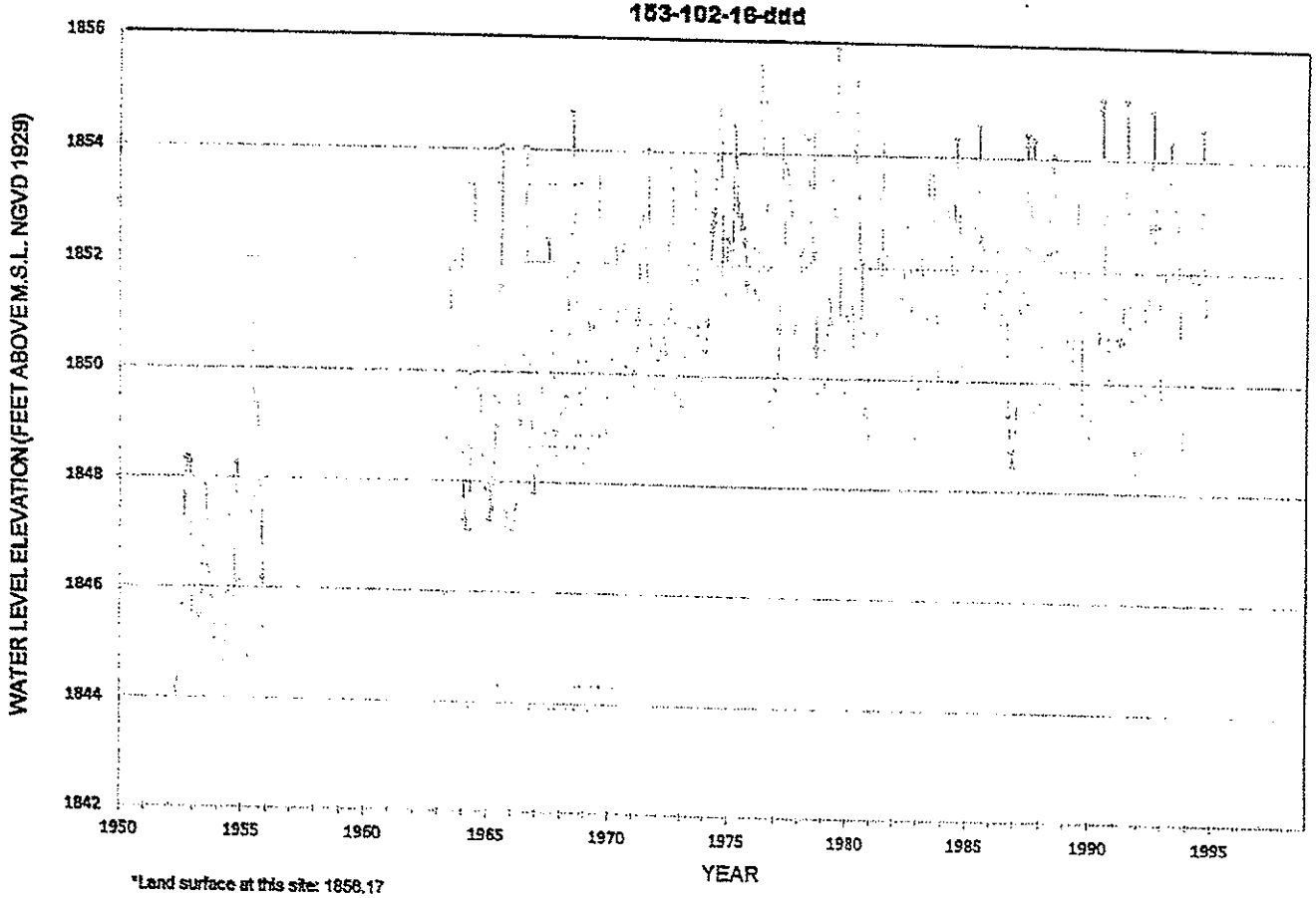
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16**. As illustrated in **Figure 17**, the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 16
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



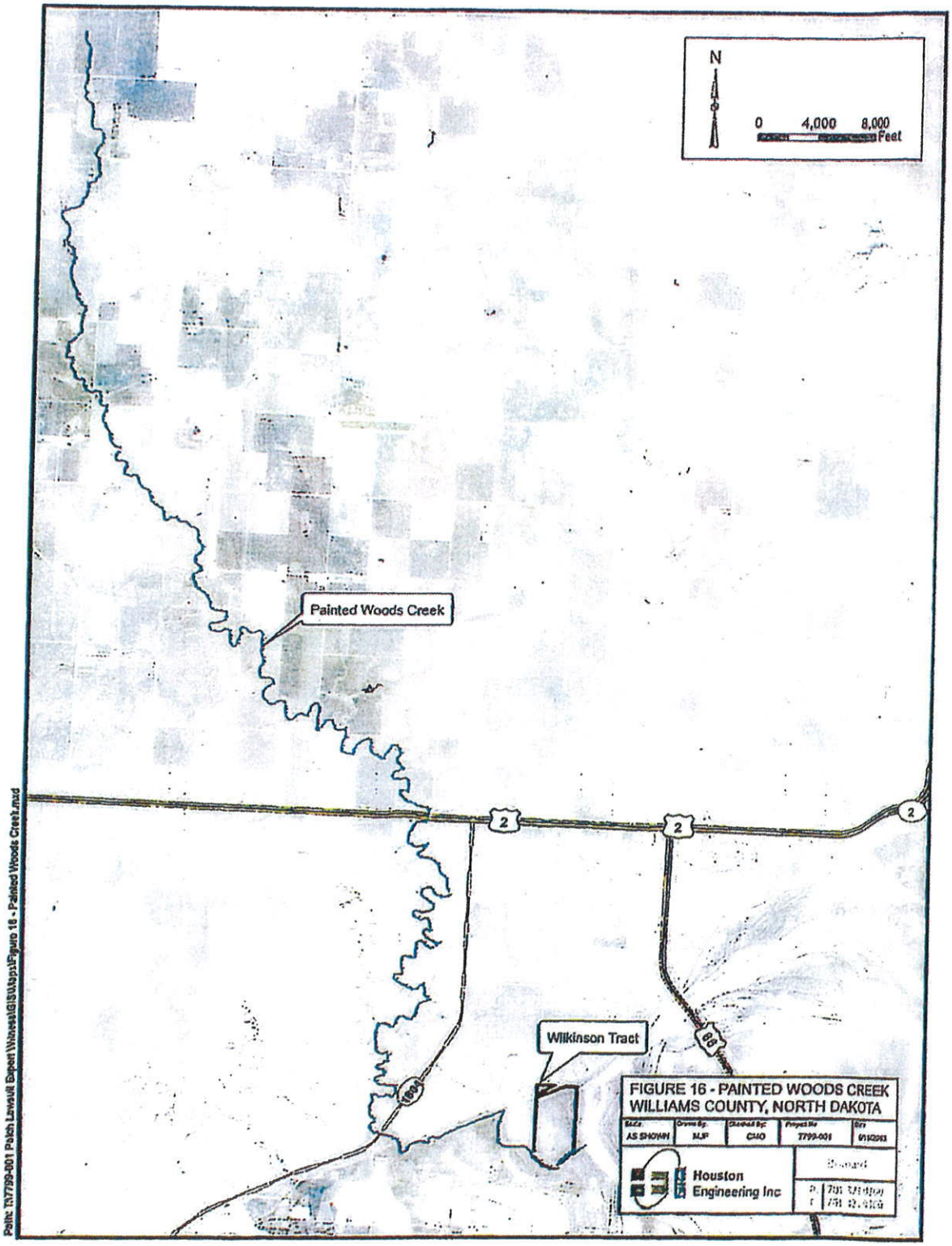
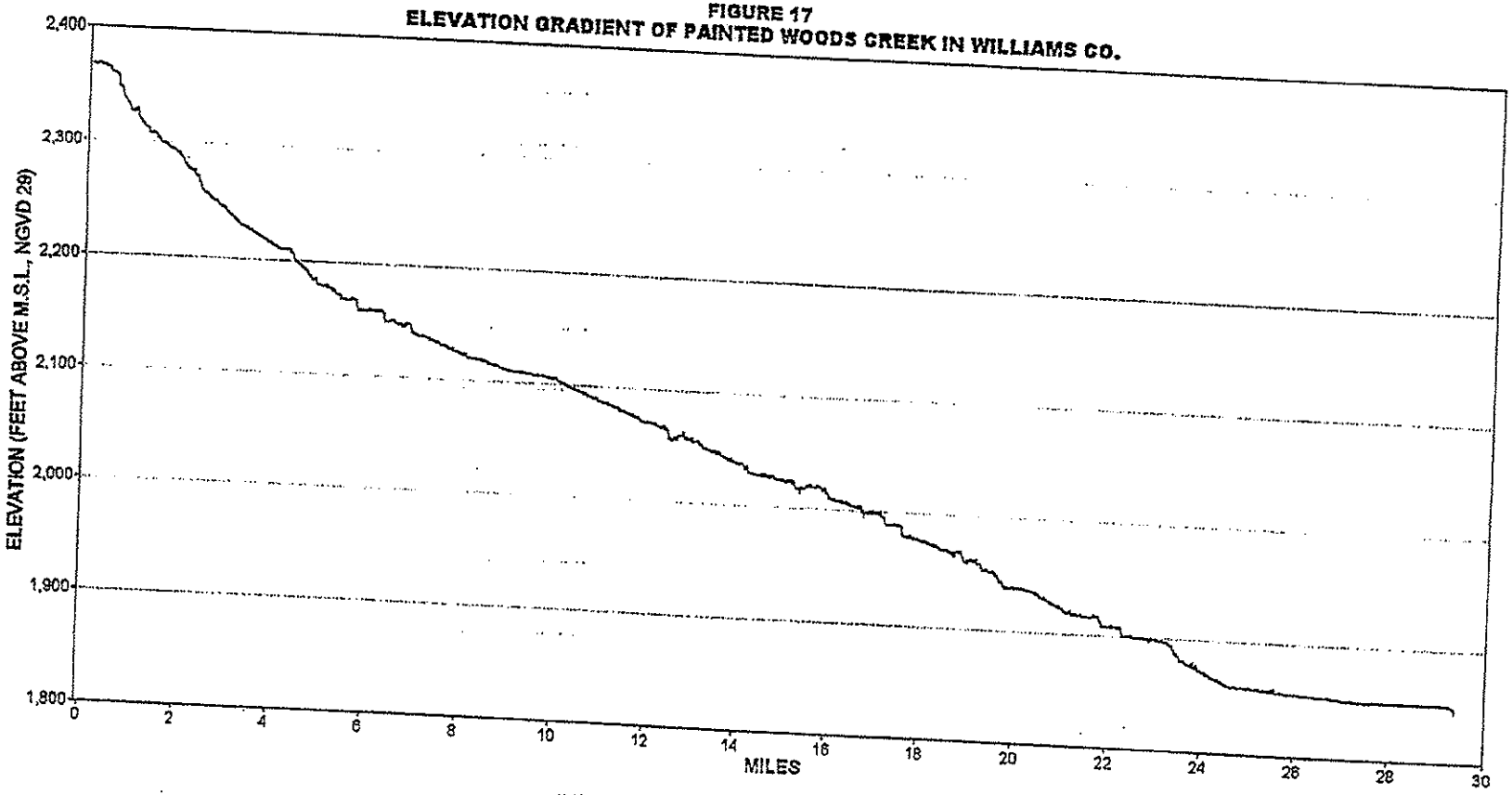

N
0 4,000 8,000
Feet
Painted Woods Creek
2
2
2
68
1804
Wilkinson Tract
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
6/15/2023
Houston Engineering Inc
Plotted: 7/7/2023 8:49 AM by Matthew Fischer
P:\7799-001 Polich Lawsuit Expert Witness\GIS\Maps\Figure 16 - Painted Woods Creek.mxd

FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.

2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.

3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.

4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.

5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.

6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx

7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.

State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

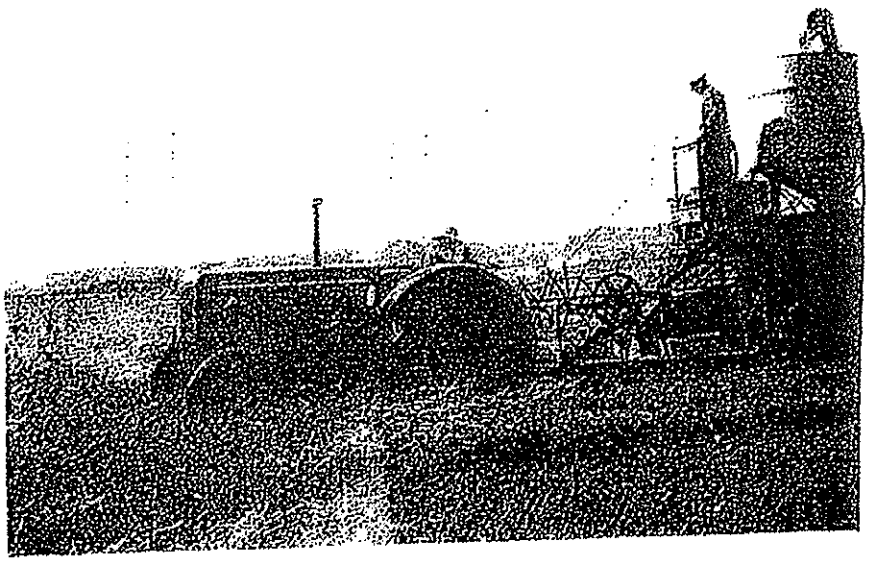
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan

ss.

County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: 2-14-2014

OFFICIAL SEAL
TAMMY WIEMAN
NOTARY PUBLIC State of New Mexico
My Commission Expires

Hi Jan -
thought good for
this interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Williamson, former on the Missouri bottoms in the county near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 265 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940241

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John L. Burgum, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. WR-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right or interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

(Name)

(Title)

John L. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter (SW¼) and the South half of the Northwest quarter (S½NW¼) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter (S½NW¼) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.

which sum is in full satisfaction and discharge of the interest of the under-signed in the premises conveyed.

(Payee or Payees) J. T. Wilkinson

Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. HH-3190

EXHIBIT

J-2

Exhibit J-2 – Feb. 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning House Bill No. 1199
House Energy and Natural Resources Committee
February 2, 2017, 8:30 AM

Chairman Porter and members of the Committee, thank you for the opportunity to comment on House Bill 1199. I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea. Private land owners like the Wilkinson family and Vohs family reserved these oil and gas rights when the United States acquired their property for Lake Sakakawea. The oil and gas interests we're talking about have been with these families for generations. The fact these families reserved the oil and gas interests is undisputed. The fact the United States acquired their property because it would be flooded by Lake Sakakawea is undisputed.

Notwithstanding – old wounds have been reopened by the State. Incredibly, the State claims it owns all the oil and gas that was reserved by private property owners when the United States flooded hundreds of thousands of acres of land for Lake Sakakawea. In essence, the State claims the government – federal or state – can flood private property and then claim that they, the government, owns the property. That is offensive, and it's the textbook definition of an unconstitutional taking. I urge you to support HB 1199 as it addresses this wrong.

BACKGROUND

Historically, the State claimed only the original 30,000 acres of the Missouri River riverbed as it existed before Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 2007 letter the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. A copy of the letter is included with this testimony as Exhibit 1. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims ownership of all the oil and gas under Lake Sakakawea. This runs roughshod over, and ignores, private property rights as memorialized by warranty deeds going back to the 1950s where the United States acquired this property from North Dakota citizens – like the Wilkinson and Vohs families. The oil and gas interests were reserved by these private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in the warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 2 and 3.

This has been the subject of litigation in Wilkinson v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038. The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that regardless of how or when thousands of acres were flooded by the United States government for Lake Sakakawea, the State somehow acquired ownership of that land as soon as it was flooded.

EXHIBIT
testifier
J-2

HB 1199 addresses the issues raised in that litigation, recognizing that the oil and gas interests owned by the Wilkinson and Vohs families, was affected by and subject to flooding from Lake Sakakawea as discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 4. Likewise, and more importantly, the United States' maps for the Garrison Project show dozens of tracts and thousands of acres west of the Highway 85 Bridge – like the land belonging to the Wilkinson and Vohs families – was acquired by the United States because of the flooding that would be caused by Garrison Dam. Similarly, the clear and unambiguous language in the warranty deeds where the United States acquired the property, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the reservation of the oil and gas rights were subject only to "[t]he right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, ..."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and the government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017 – adding insult to that long-ago injury, our great State seeking to further deprive private owners of their oil and gas interests, interests these private land owners had previously leased to oil companies for nearly sixty years before the State wrongfully claimed ownership of them.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the ordinary high watermark ("OHWM") of the Missouri River in the Garrison Dam area to justify its massive land grab. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam.

The United States Department of Interior ("DOI") has already rejected both of the State's surveys because of their flawed methodology, and because the studies are unsupported by law or the facts. A copy of the DOI's decision from last March rejecting the State's surveys is included with this testimony as Exhibit 5. On page six of its decision, the DOI explains that the State's surveys , "[d]o not comport with federal law and cannot be used to determine riverbed title under the equal footing doctrine." In rejecting the State's surveys, the DOI points out that the State's surveys depict the riverbed to be three times the width of the General Land Office's original surveys. Also of significance, on page 8 of its decision, the DOI affirms the position taken by the Wilkinson family in the litigation – specifically, that the United States' maps were the basis for land title acquisition by the Corps of Engineers for those lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea.

The DOI held that the segment maps are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea, stating:

"The Corps of Engineers Segment Maps are firmly grounded in guidance, methodology and contemporaneous field investigations of the land prior to the effects of flooding. The segment maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with the determinations from in the field investigations by BLM and involvement from the BLM and North Dakota State Land Department and have gone uncontested for over 60 years."

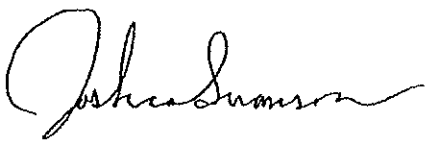
The DOI concluded its decision rejecting the State's surveys by finding the surveys: 1) did not comply with the federal definition of the OHWM; 2) did not honor chain of title or previous involvement by both the State and private landowners with the United States during the course of the Garrison Project; and 3) are an overreaching delineation that impairs the mineral rights of private owners.

HB 1199 addresses this with its language that the OHWM must be located as close as possible to the OHWM of the riverbed channel as it existed before the inundation of the channel that created the lake based on historical records. Effectively, HB 1199 recognizes that the State has title only to the bed of the historic Missouri River as it existed prior to the Garrison Dam, and remedies the State's unconstitutional taking that has deprived private property owners of their oil and gas interests.

As far as the fiscal note prepared by the State, and the State's claims that passing this legislation or SB 2134 will result in the loss of millions in revenue for the State, that's like a bank robber complaining they will have to forfeit the loot they stole from the bank. The money never belonged to the bank robber, they took it from someone else. Likewise, the money being held in suspense in the Strategic Investment and Improvements Fund (SIIF) never belonged to the State in the first place – it belongs to private property owners like the Wilkinson and Vohs families. It's being held in suspense because of the title disputes and legal challenges the State knew would occur as a result of its massive and unconstitutional land grab.

Thank you again for the opportunity to present this testimony. I urge you to pass HB 1199.

Respectfully,



Joshua Swanson

Exhibits Nos. 1 – 5

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: http://swc.nd.gov

2007 AUG 17 AM 8:50

August 13, 2007

Army Corps of Engineers, Omaha District
Attention: District Commander
106 South 15th Street
Omaha, NE 68102-1618

Dear District Commander:

The purpose of this letter is to respond to the Corps' request for comments on the recently released Draft Garrison Dam/Lake Sakakawea Master Plan (Master Plan).

In our May 16, 2007, letter regarding the preliminary draft Master Plan, we provided a number of general comments that were not included in the re-write, such as contingency plans to address the loss of water supply intakes, an analysis of projected recreation demands/needs, and a prioritization of recommendations. We respectfully request that you reconsider those comments in your development of the final report.

As you are aware, the Office of the State Engineer and the State Water Commission believe that the development, maintenance, and protection of water supply intakes should be an important consideration in any planning scenario for Lake Sakakawea. Thus, it is encouraging to see that the Corps has included an inventory of community water supply intakes that draw water from the reservoir, and the elevations at which they anticipate potential problems from low water levels. However, if contingency planning efforts will not be included in the Master Plan as requested in our May 16, 2007, letter; it would be advantageous to at least include a discussion of the Corps' role in correcting problems with community water supply intakes when reservoir levels are at dangerously low elevations. This might include discussions about cost-sharing opportunities for modifications or the availability of technical assistance.

Under EOP #2 it is suggested, "The Master Plan/EA includes information regarding the issuing of intake permits through the Corps regulatory process and aiding municipal and rural systems to ensure functionality of intakes during drought conditions." But that information was not readily apparent, and in fact, seems to be absent all together with the exception of a brief discussion of Section 10 requirements under Public Law 90-483 (82 Stat. 731) on page 2-135.

On page 1-11, it is stated that 30,000 of the 493,000 project acres did not need to be purchased because they were part of the original "riverbed." Further explanation might be appropriate to outline the fact the those 30,000 riverbed acres were, and are, sovereign lands, which are owned and managed by the State of North Dakota, through the Office of the State Engineer (N.D.C.C. 61-33-05) and the State Land Department (N.D.C.C. 61-33-03).

EXHIBIT
number 1

As a general comment, the Office of the State Engineer and the State Water Commission applaud the development of the updated Garrison Dam/Lake Sakakawea Master Plan. Lake Sakakawea is one of North Dakota's most precious and valuable natural resources. As such, a new Master Plan that considers input from other agencies and members of the general public is long overdue.

We appreciate your consideration of the above comments, and thank you for the opportunity to comment on this important planning process.

Sincerely,

Dale L. Frink, P.E.
State Engineer

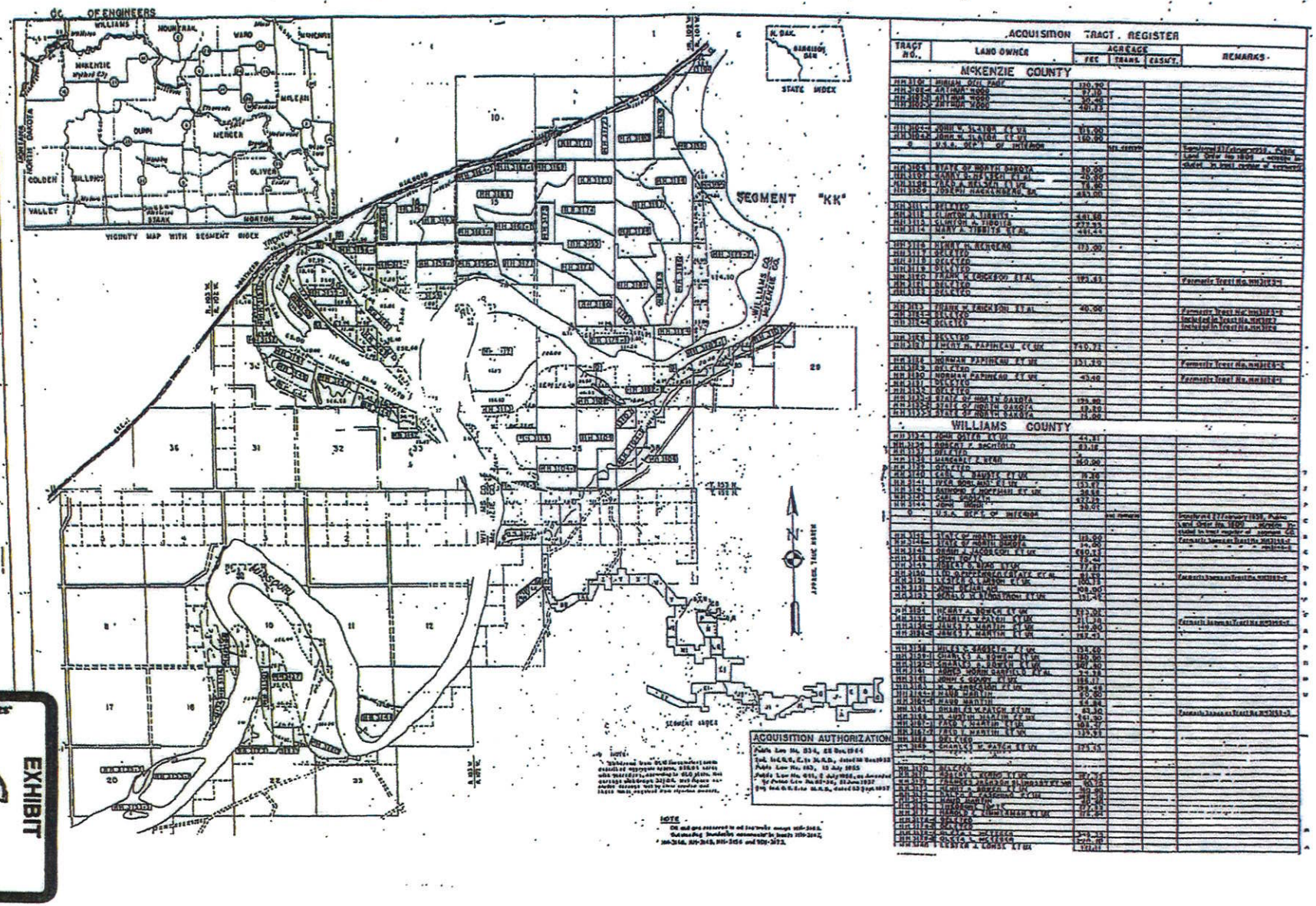
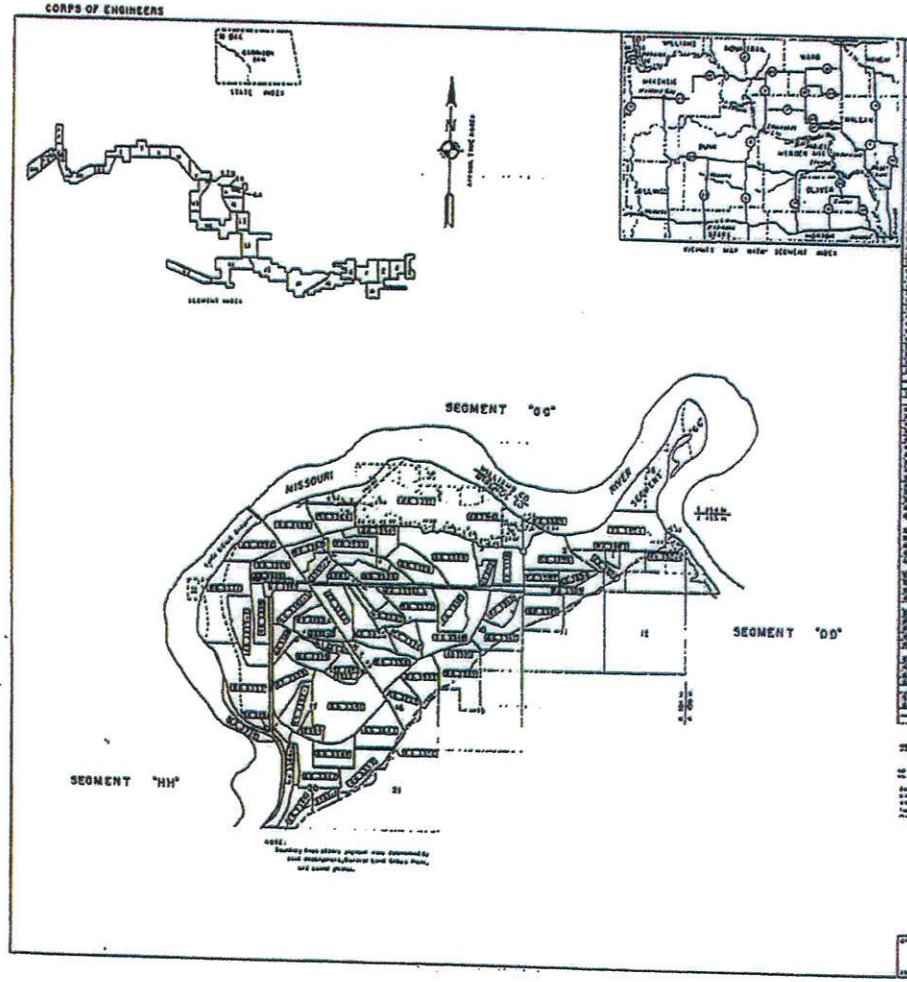


EXHIBIT 2

tabbies

CORPS OF ENGINEERS



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE EASEMENT	REMARKS
	MCKENZIE COUNTY			

U.S. ARMY

FINAL
PROJECT MAP

STATE NORTH DAKOTA
COUNTY MCKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAMSITE 3 miles N.E. of Mile P.O.
10 MILES S OF GARRISON
15 MILES N OF STANTON

SEGMENT KK
LAND AREA

TOTAL ACRES IN SEGMENT 9,168.25
ACRES FEE
ACRES EASEMENT
ACRES TRANSFERRED TO W.G.
ACRES PERMITS OR LICENSES

DISPOSALS

TOTAL ACRES DISPOSED OF
ACRES TRANSFERRED
ACRES LEASED FROM W.G.
ACRES EXCHANGE

LEGEND

ACQUISITION AUTHORIZATION

GARRISON DAM & LAKE SAKAKAWEA

SEGMENT KK

AUDITED

Tract No. BR-3190

WARRANTY DEED: Misc. Rec. Vol. Page

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 - - -

19

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances,

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same,

(N. P. Seal)

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

My commission expires Nov. 19, 1958

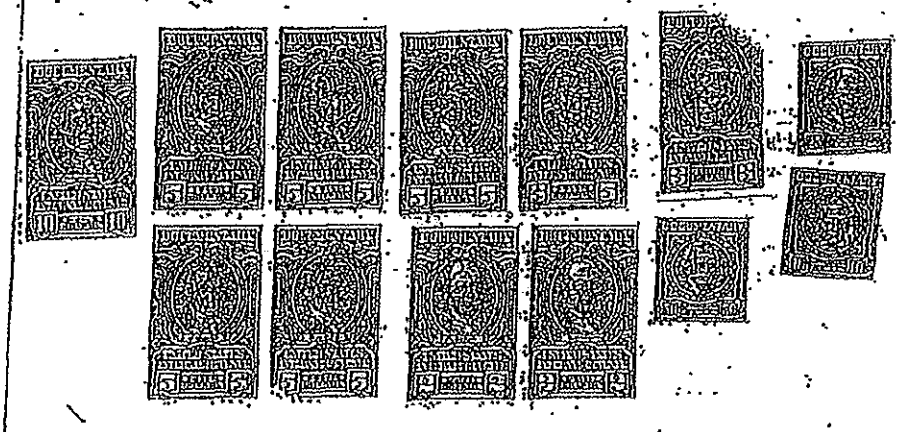
STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn H. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

Telmar E. Rolfstad
TELMAR E. ROLFSTAD
Notary Public for the County of Williams
State of North Dakota

My commission expires Nov. 19, 1958.



288165

No. 10 BEFORE 25 CHARTER CHARTER UNMARRIED MARRIED Warranty Deed

TRANSFER FEE $ 25
TO
RECORDING FEE $1.50

JUNE 10 1958

STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the 10 day of JUN 10 1958 A. D. 19 at 8 o'clock A. M. and was duly recorded in Book 147 of Warranty Deeds on page 118

Register of Deeds

By Deputy

Delinquent taxes, special assessments, interest and costs for which property is subject to sale, amount to $ None

County Auditor

By Deputy

KK-3371

BOOK 87 PAGE 505

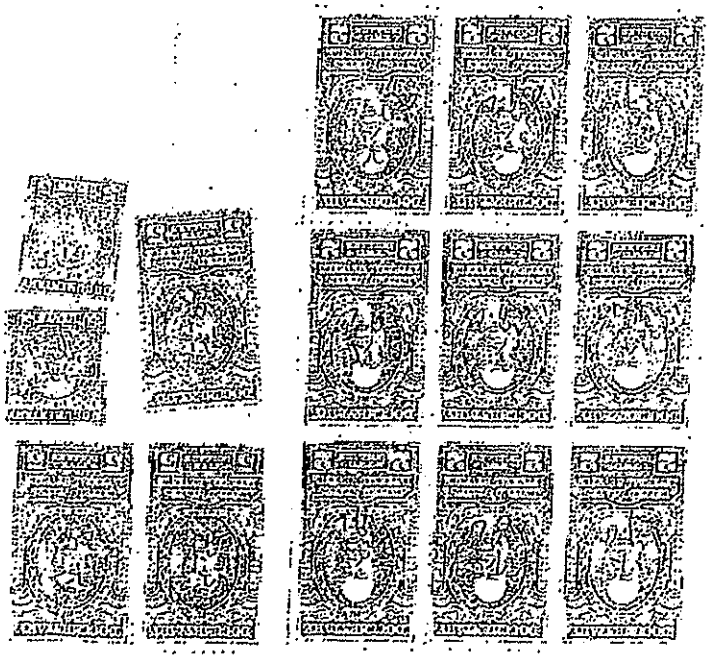
Document No. 165142

WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for



said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER. And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. Wenstrom

Notary Public for the County of Williams, State of North Dakota

F. A. WENSTROM
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

My commission expires July 11, 1959

Document No. 155142

BOOK 87 PAGE 508

REGISTER OF DEEDS OFFICE
McKENZIE
COUNTY
STATE OF NORTH DAKOTA

COUNTY AUDITOR

Corps of Engineers
Riverdale, N. D.

June 19, 2013

Houston Engineering Inc.

Wilkinson Trust Estate

Ordinary High Water Mark

EXHIBIT 4

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E., P.H.
North Dakota Reg. No. 1729

Date: June 20, 2013

REGISTERED PROFESSIONAL ENGINEER
LAWRENCE H. WOODBURY
PE-1729
DATE June 20, 2013
NORTH DAKOTA

HoustonEngineering Inc.

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Appendix A Affidavits
Appendix B Certificate of Inspection and Possession

The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1554.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

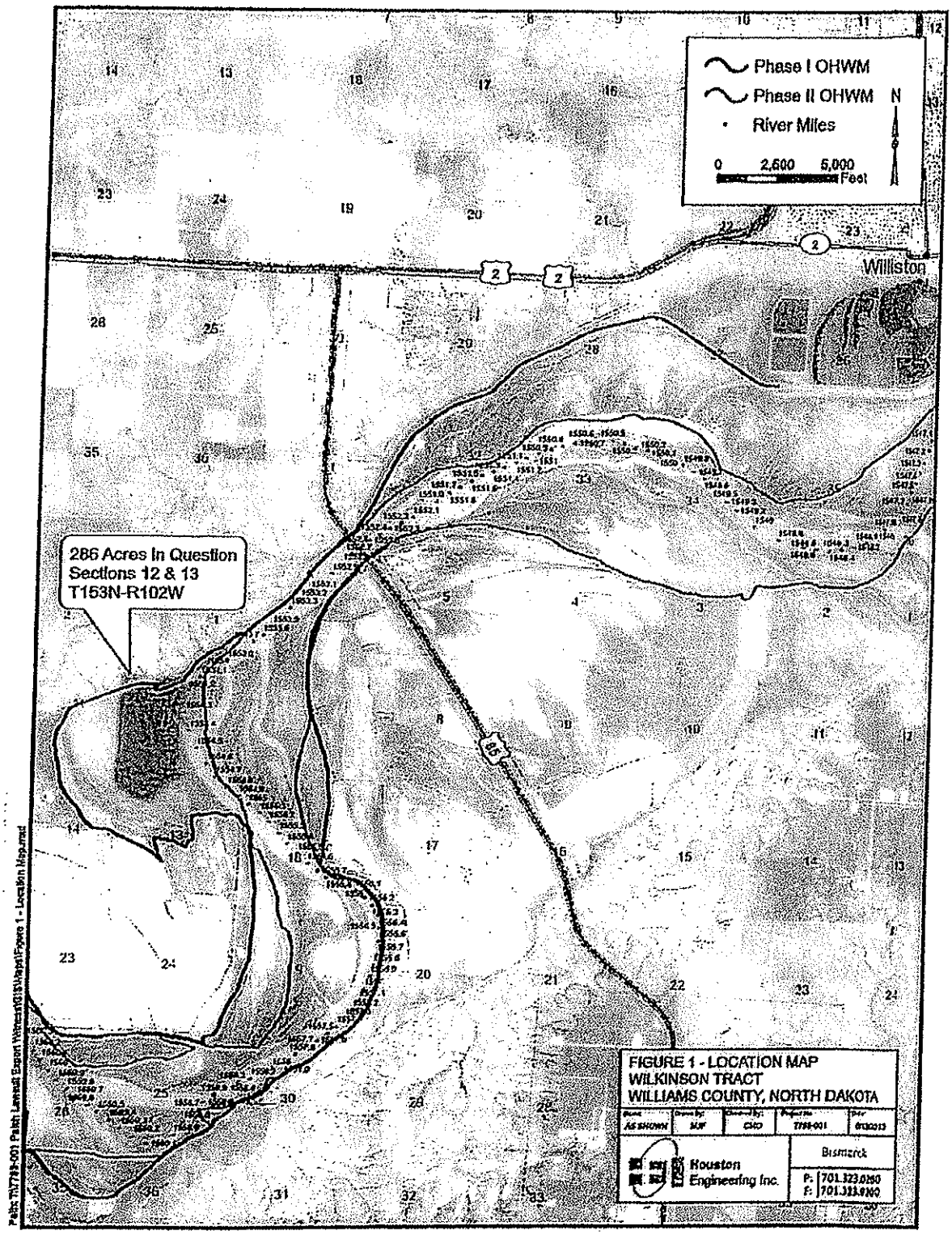
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

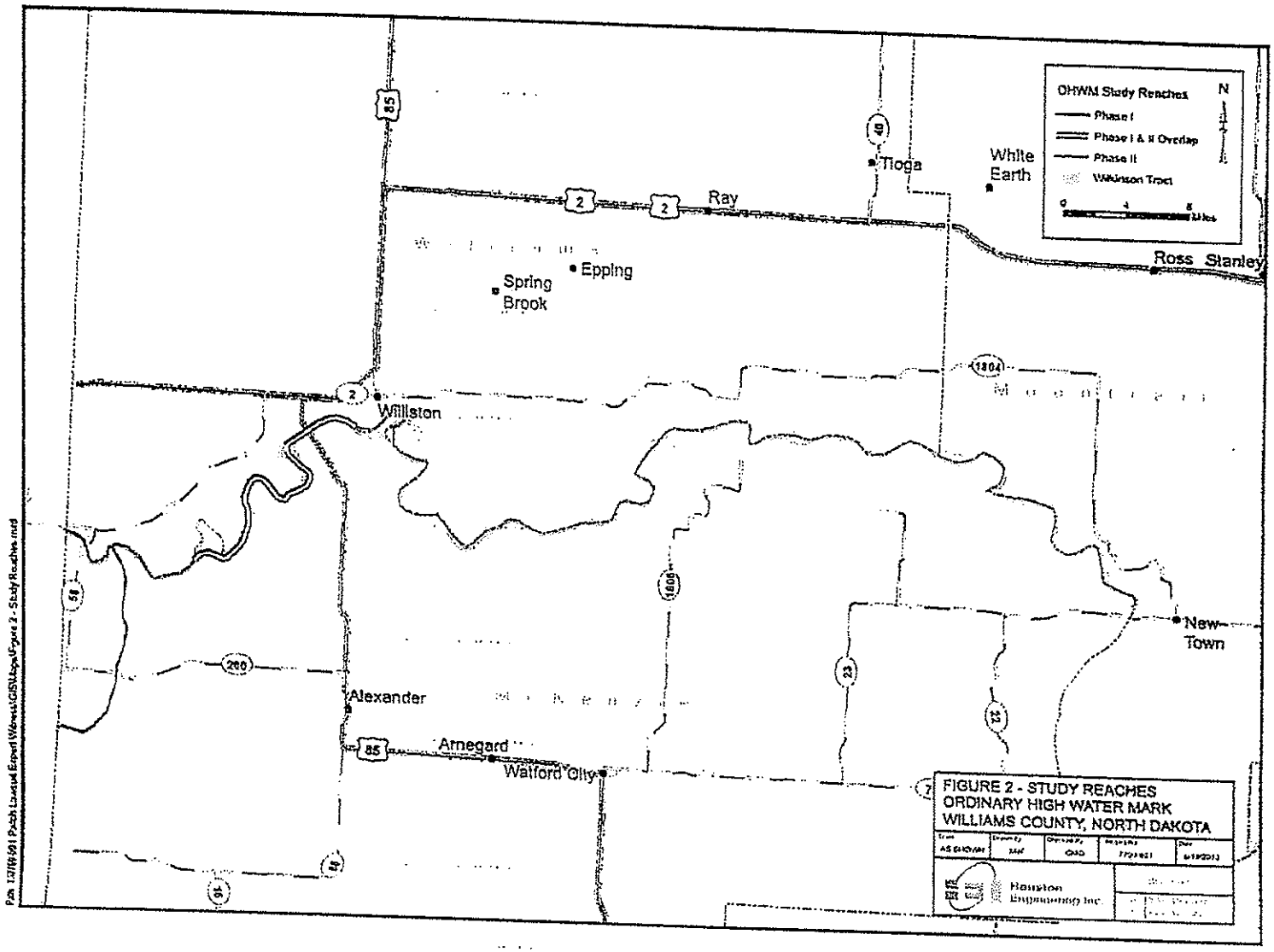
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.5. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
Williston
286 Acres In Question
Sections 12 & 13
T153N-R102W
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7788-001
6/3/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0150
F: 701.323.0140


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Wilkinson Tract
N
0
4
8 Miles
Tioga
White Earth
Ray
Ross
Stanley
Epping
Spring Brook
Williston
New Town
Alexander
Arnegard
Watford City
85
2
49
1804
1806
50
200
23
22
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

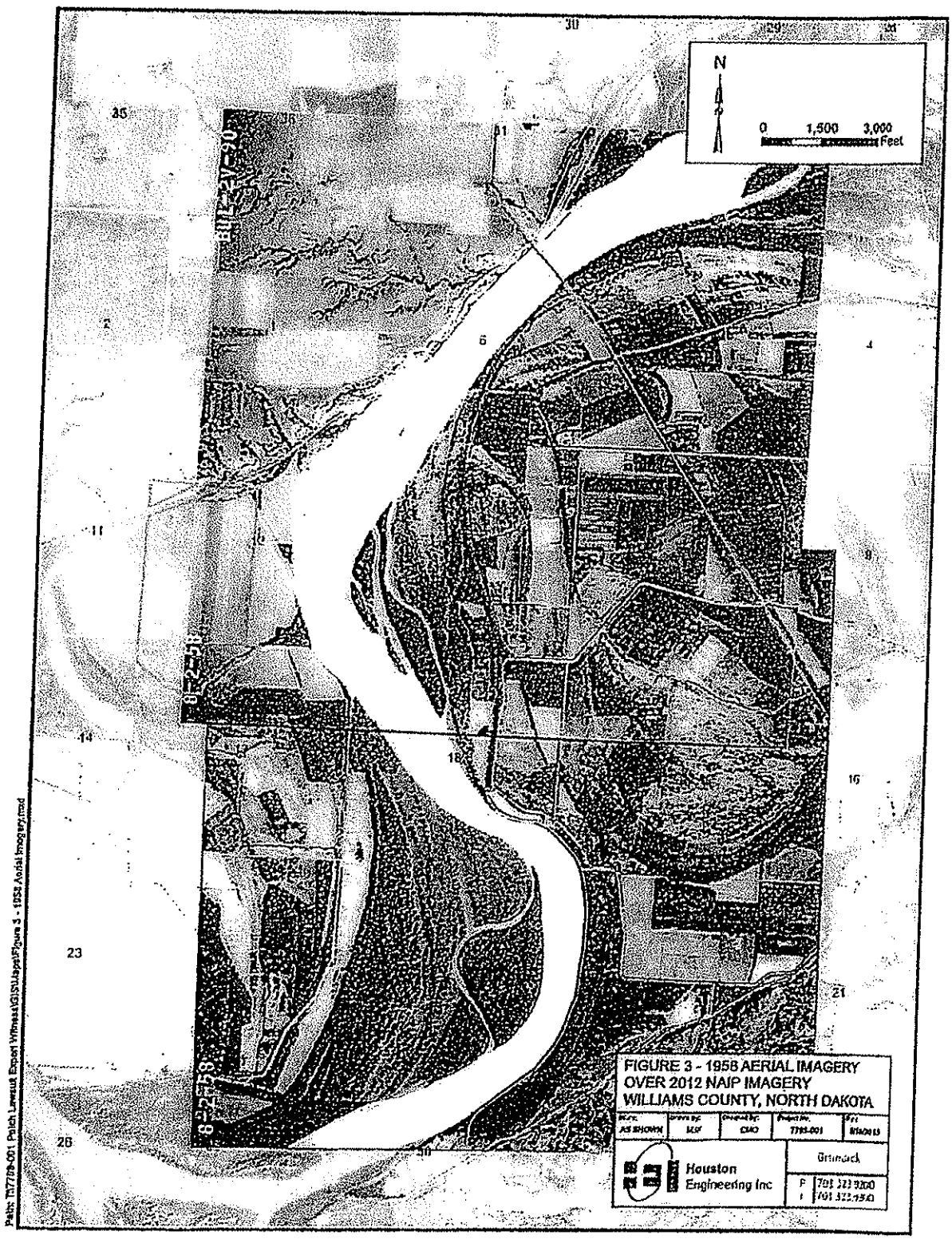
Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6**. With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.


N
0 1,500 3,000
Feet
30
29
35
1
2
6
4
11
9
14
16
23
21
26
FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7705-001
Houston
Engineering Inc
Grimsrud
P 701 323 9200
F 701 323 9240
Path: 7705-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 3 - 1958 Aerial Imagery.mxd

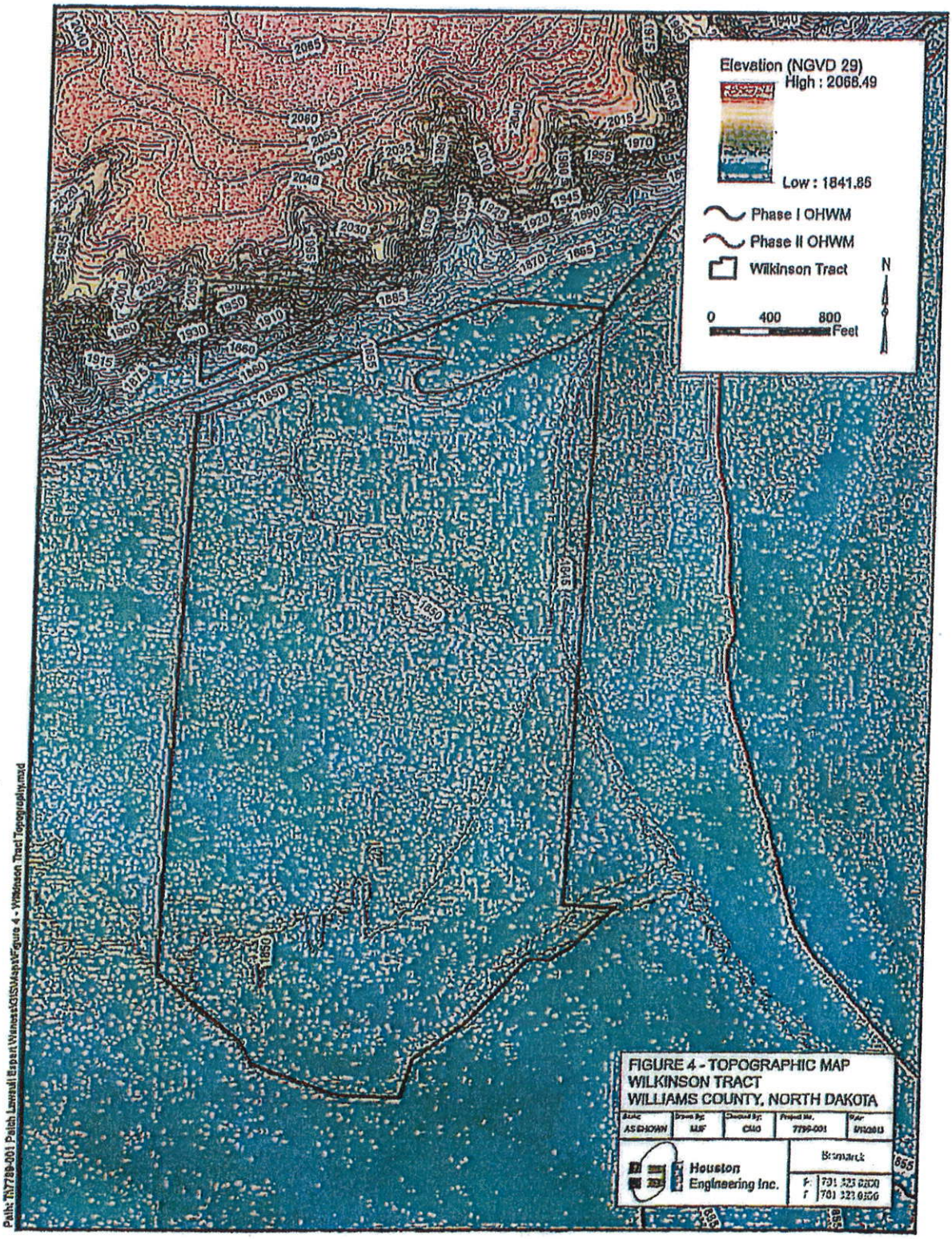

Elevation (NGVD 29)
High : 2068.49
Low : 1841.86
Phase I OHWM
Phase II OHWM
Wilkinson Tract
N
0 400 800 Feet
FIGURE 4 - TOPOGRAPHIC MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck
Path: Th7789-001 Patch Lawsuit\Expert Witness\GIS\Maps\Figure 4 - Wilkinson Tract Topographic.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

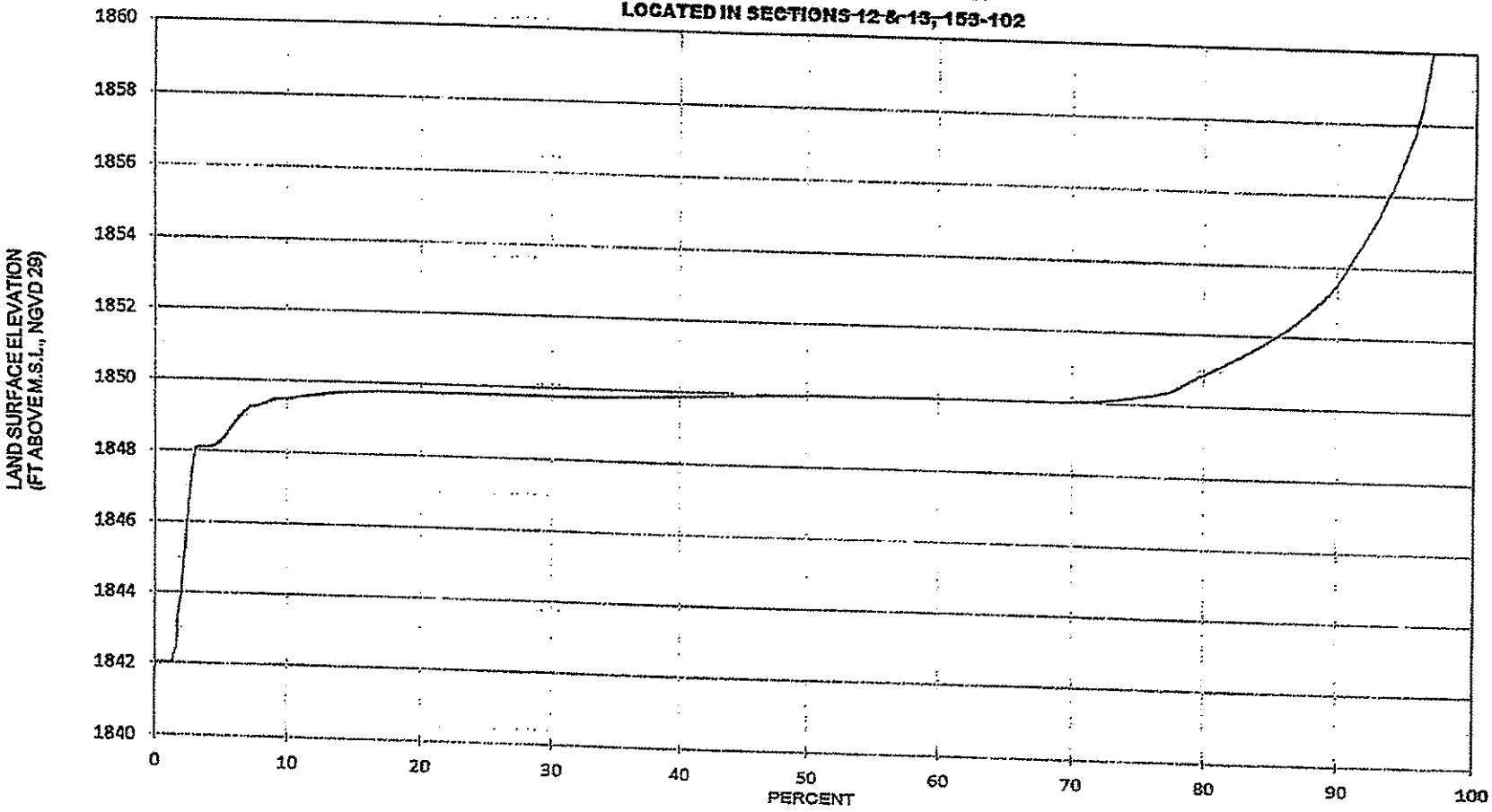


FIGURE 6

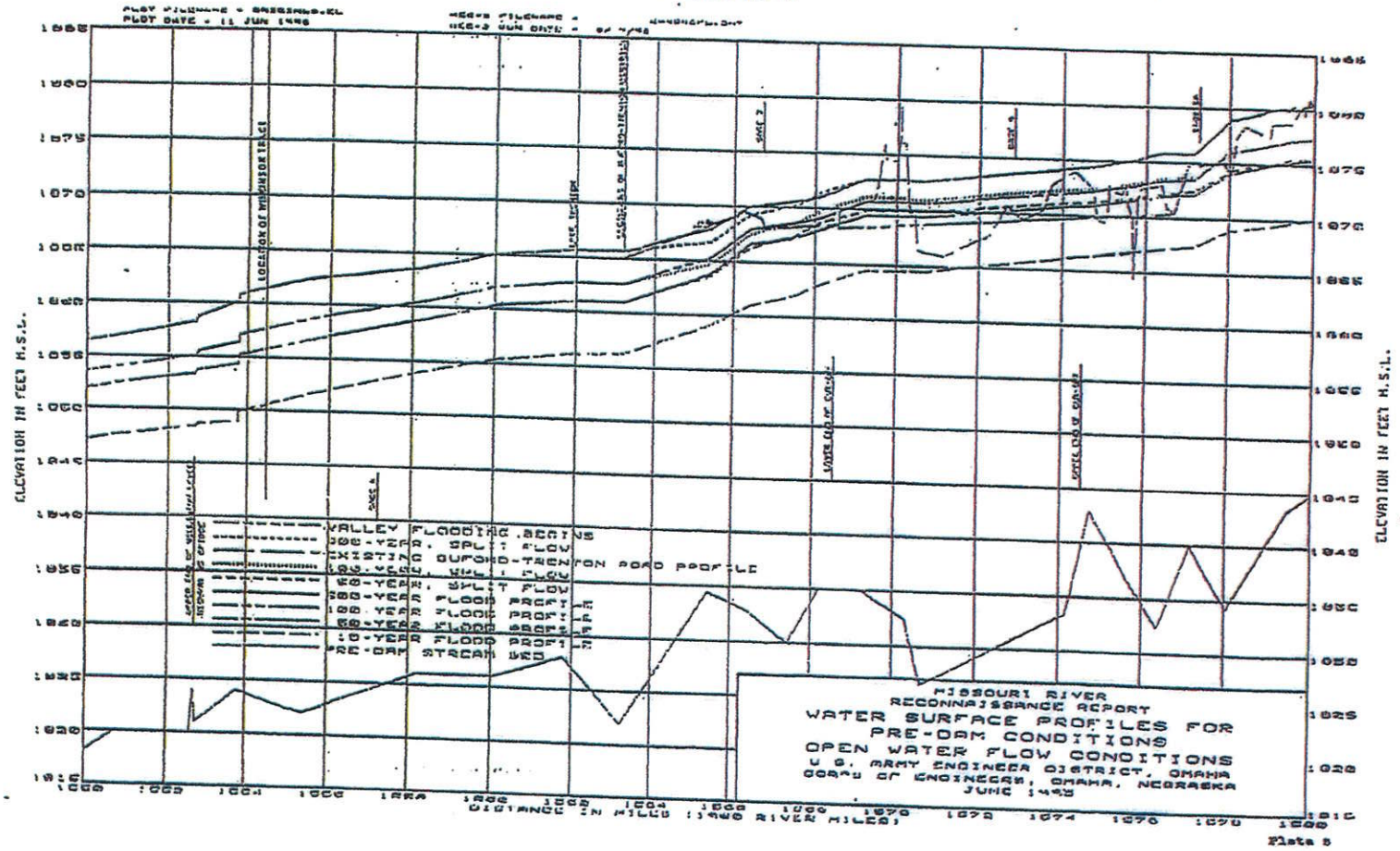
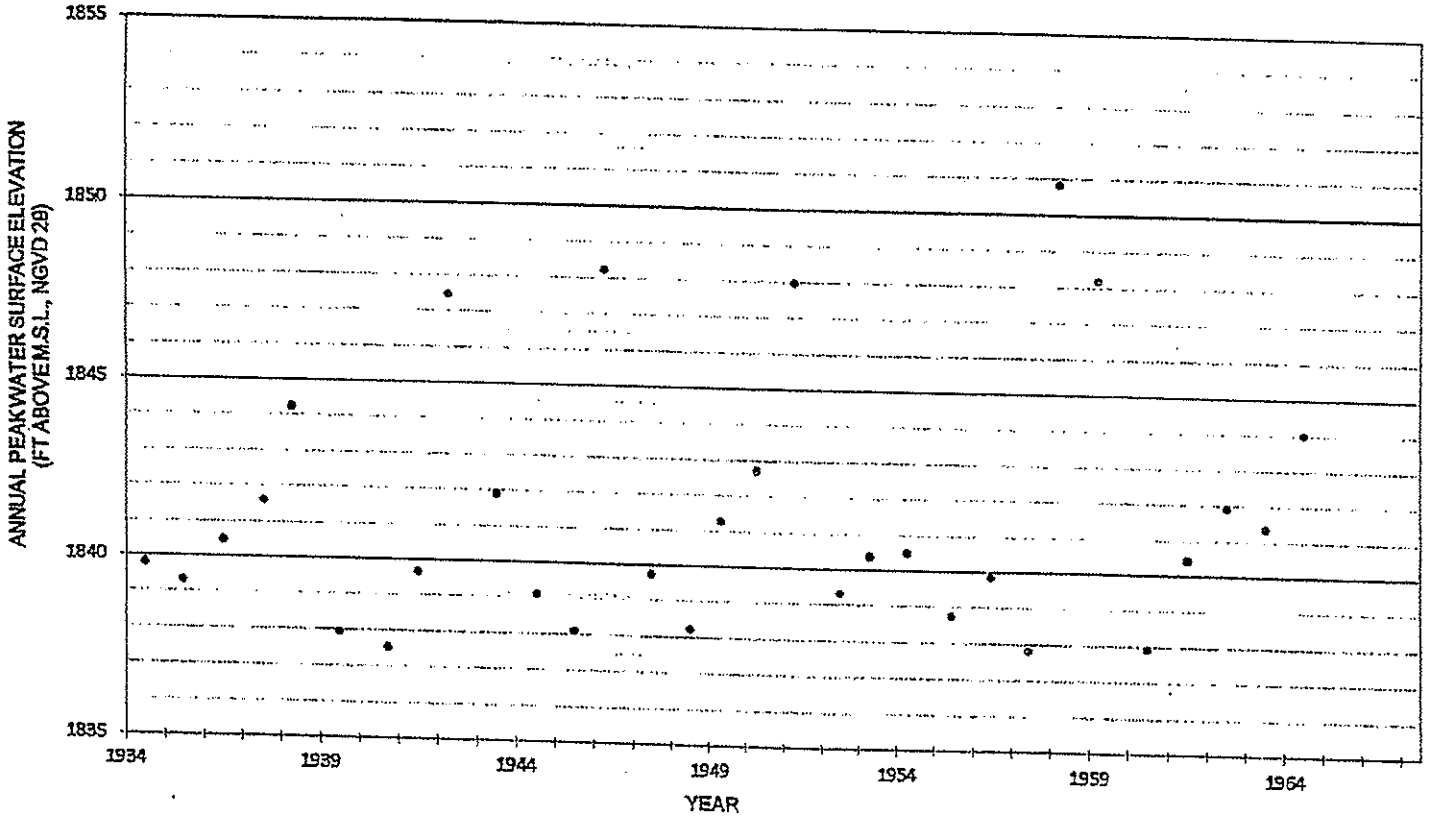

MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1945
ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (1960 RIVER MILES)
Plate 5

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

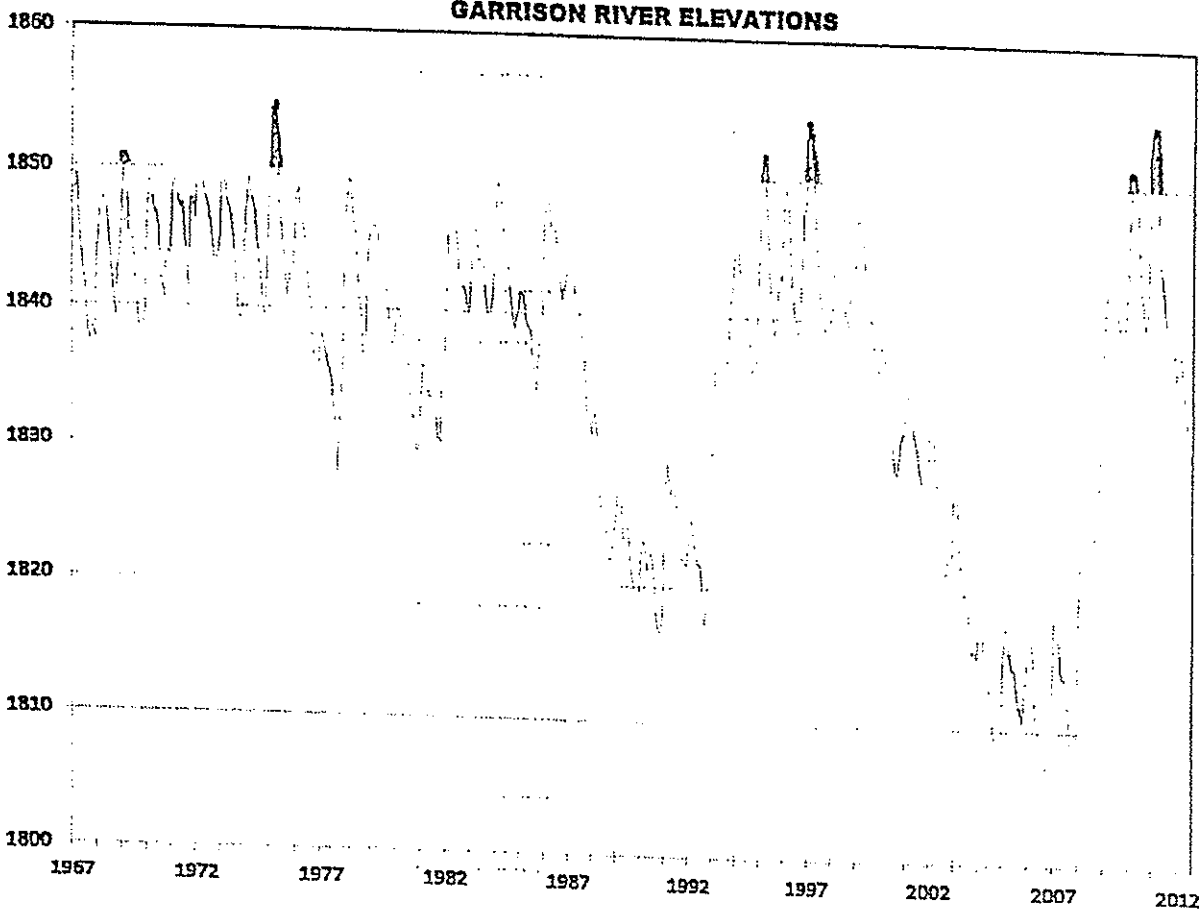
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

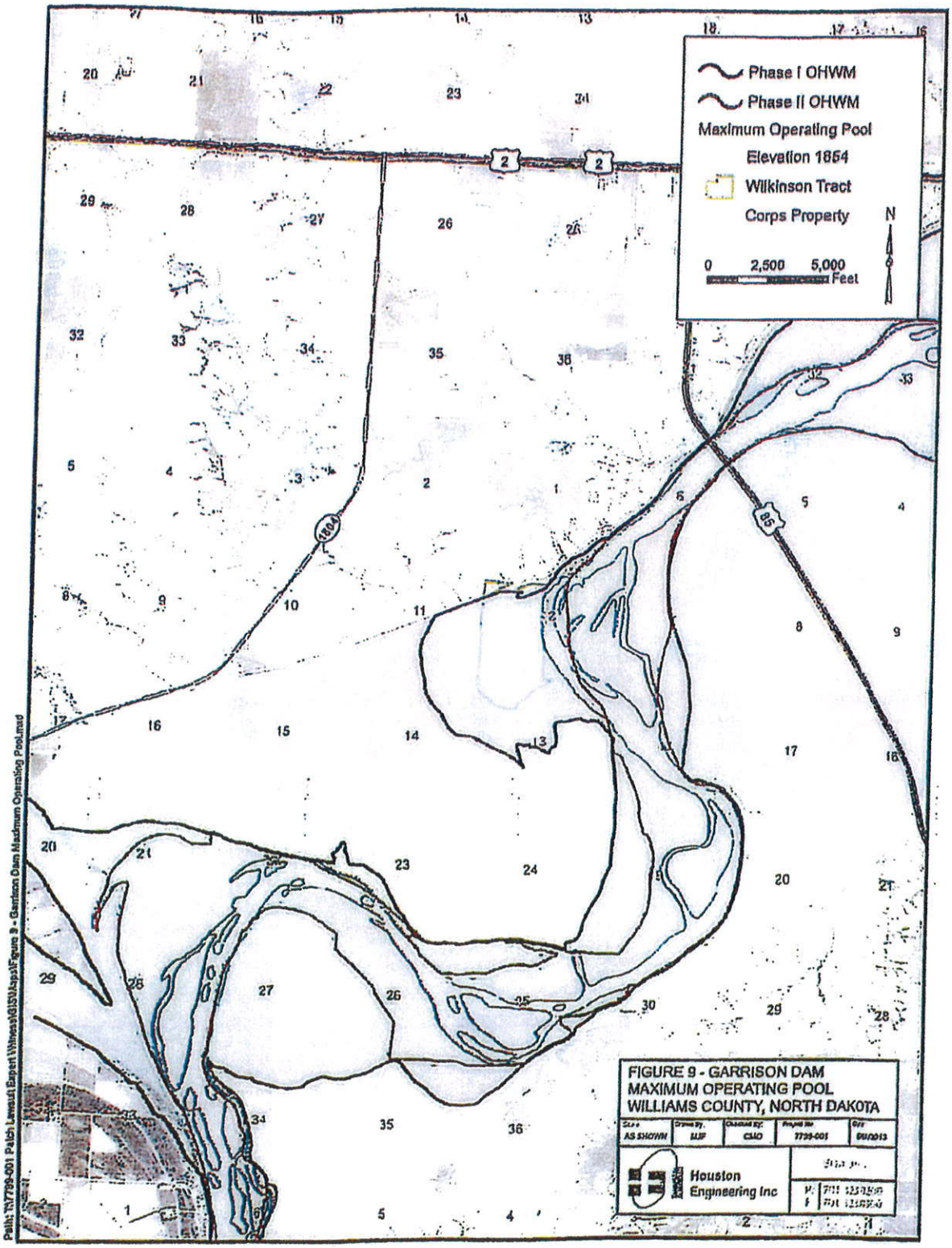
Point #2 Summary

The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool
Elevation 1854
Wilkinson Tract
Corps Property
N
0 2,500 5,000
Feet
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
LLF
CMO
7799-001
05/2013
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 9 - Garrison Dam Maximum Operating Pool.mxd

N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7799-001
Houston Engineering Inc
P:\7799-001 Petch Lawsuit Expert Work\GIS\Mxds\Figure 10 - 1975 Aerial Imagery.mxd

FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA

Size	Drawn by	Checked By	Project No	Date
AS SHOWN	MJF	CMO	7739-001	8/1/2013

Houston Engineering Inc.

Bismarck

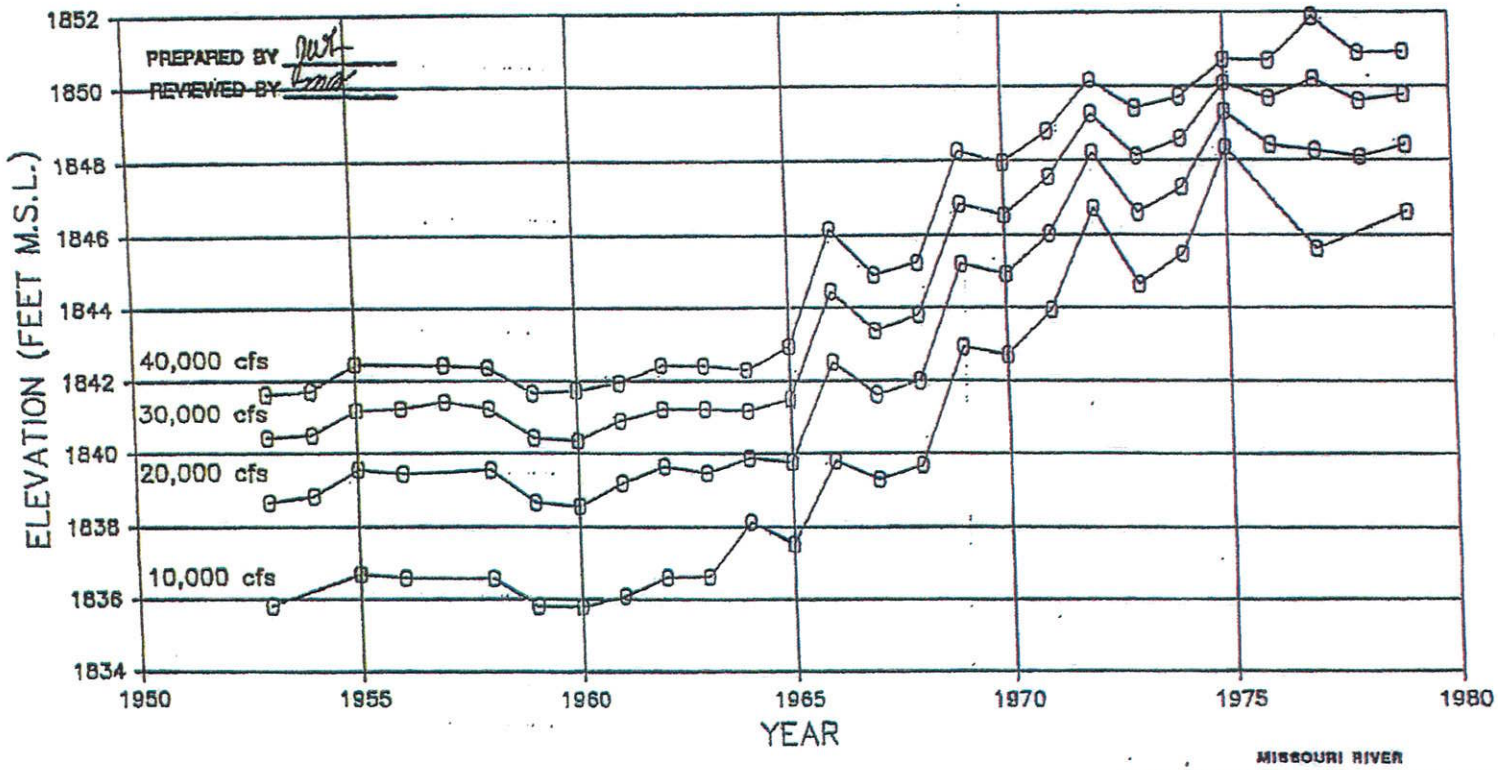
P: 701 [illegible]
F: 701 [illegible]

Path: T:\7739-001 Patch Lawsuit Expert Witness\GIS\MapsFigure 11 - 1997 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
25
30
34
2
22
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
6/1/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT
Stage Trends - Gage 8
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

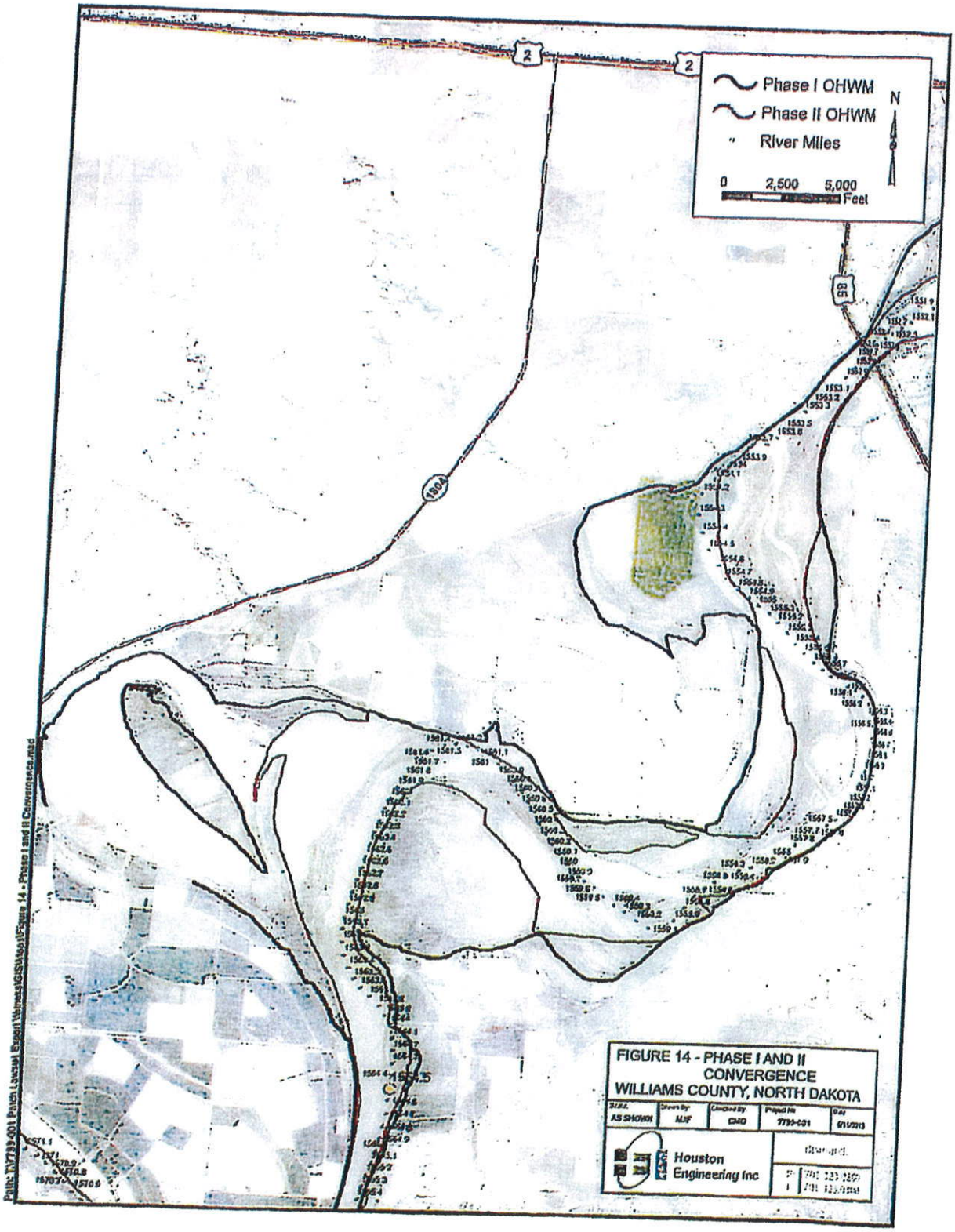
The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson Tract. The OHWM as delineated using the historic aerial imagery in the Phase II Study is a more appropriate indication of the boundary between the riparian and the public interests in the area of the Wilkinson Tract.


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
2
83
1804
FIGURE 14 - PHASE I AND II
CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7793-001
6/11/2013
Houston
Engineering Inc

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

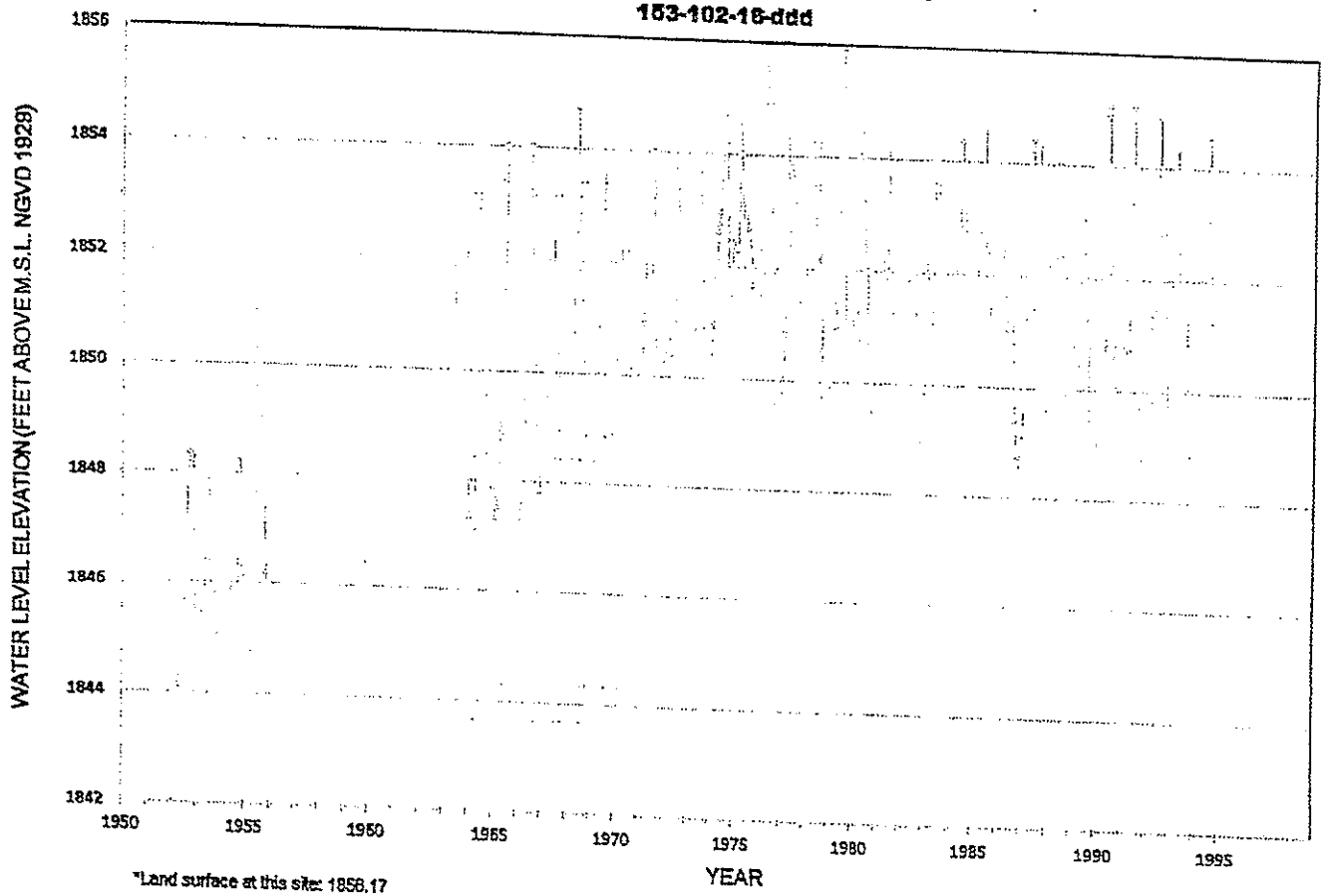
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16**. As illustrated in **Figure 17**, the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 15
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



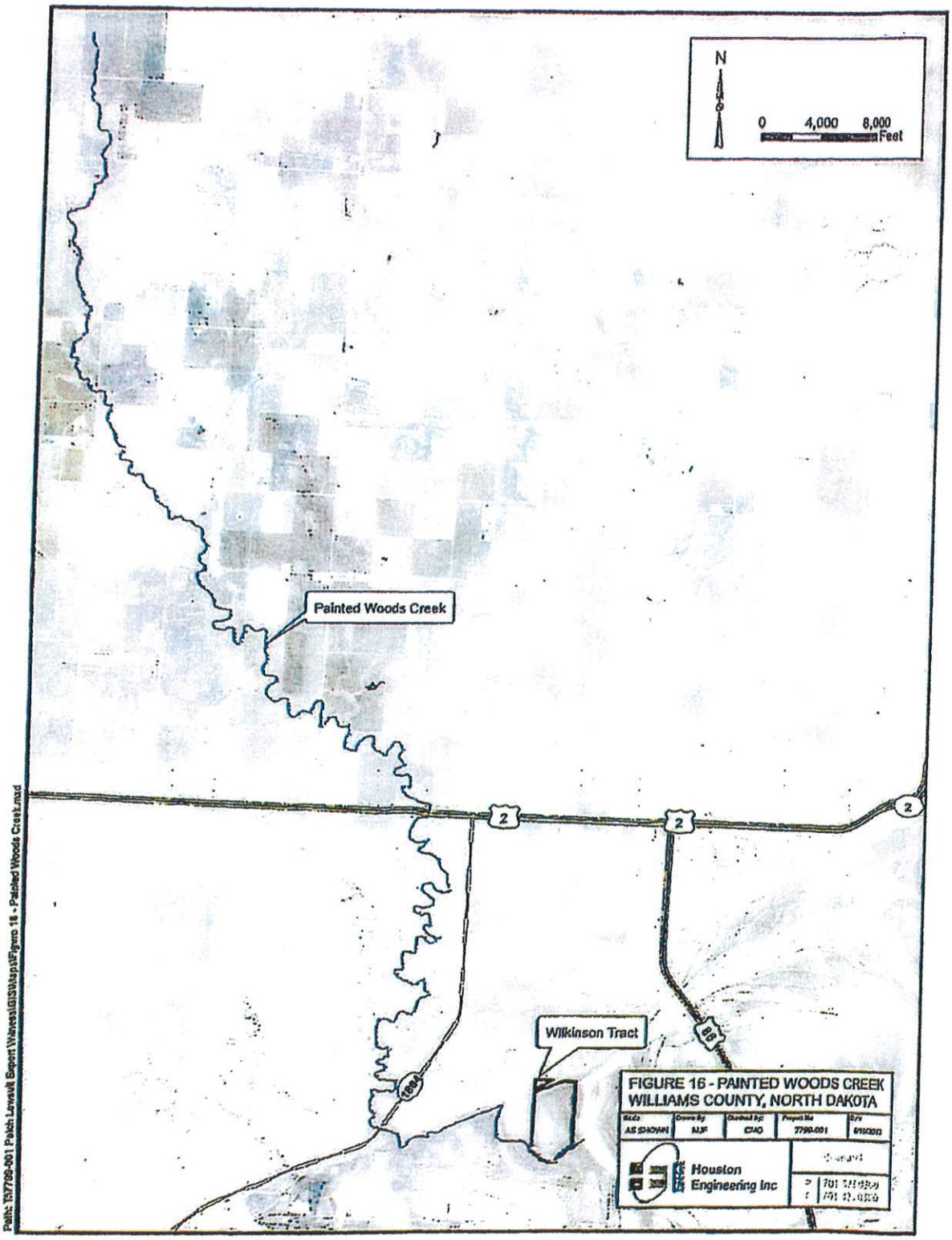
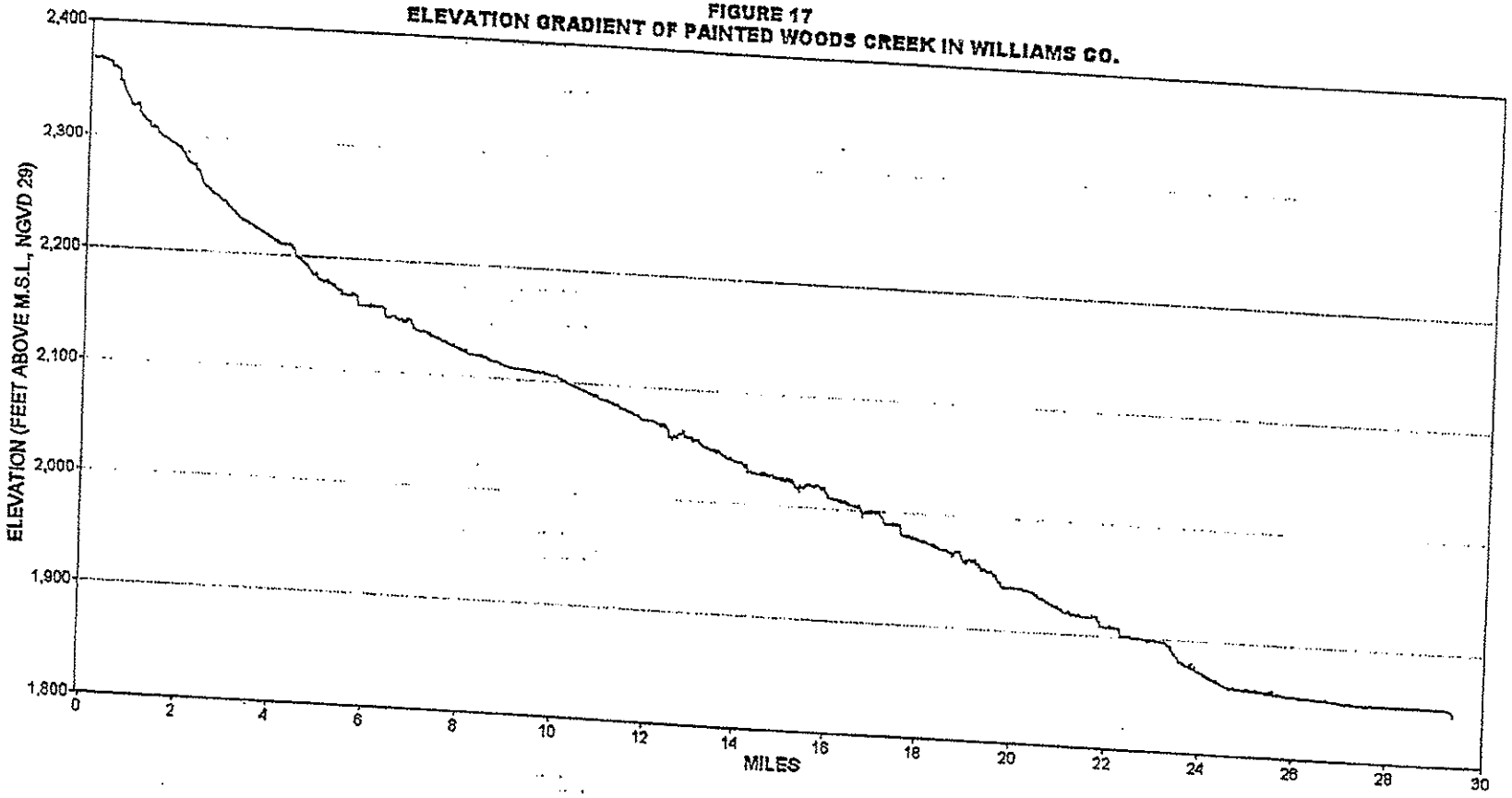

N
0 4,000 8,000
Feet
Painted Woods Creek
2
2
2
1804
88
Wilkinson Tract
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
Houston Engineering Inc
Path: I:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 16 - Painted Woods Creek.mxd

FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.

2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.

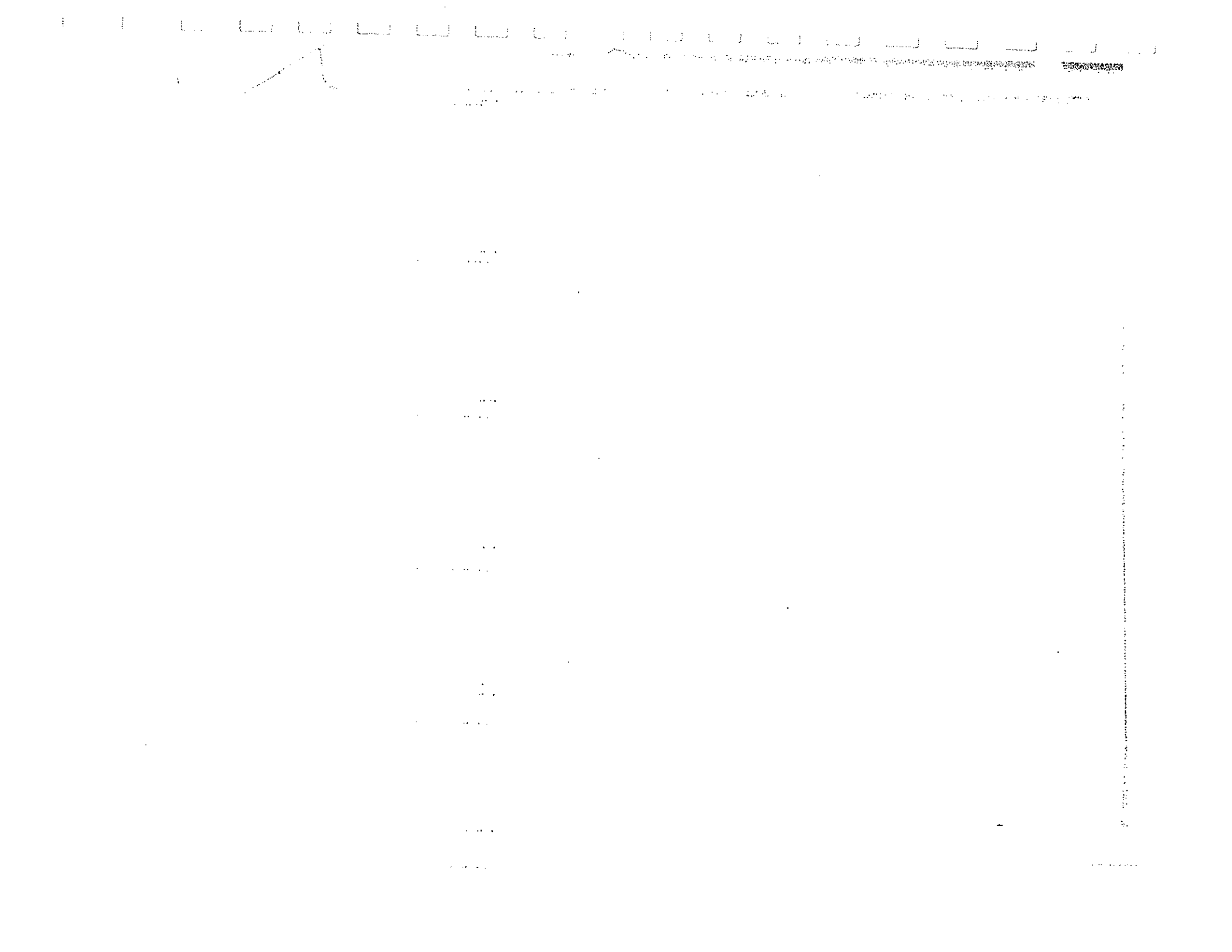
3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.

4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.

5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.

6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx

7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.



State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

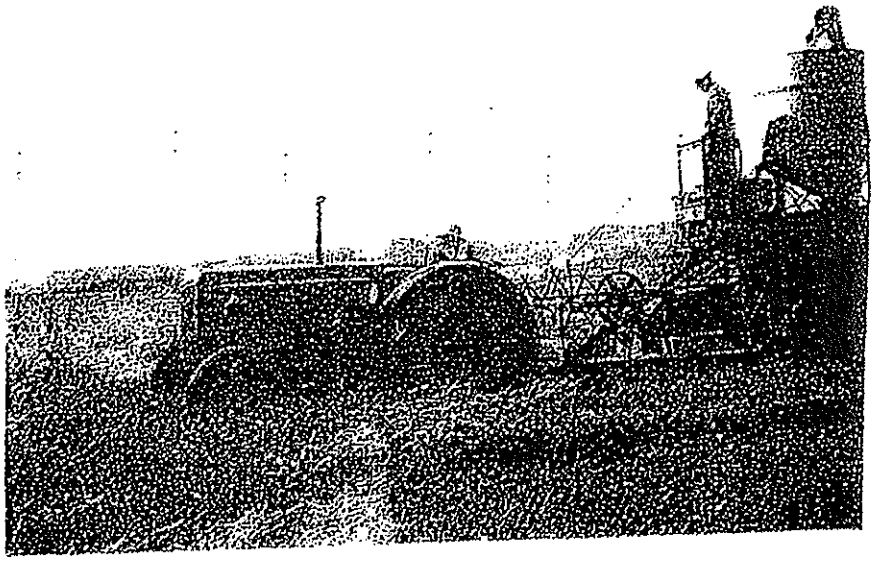
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan
ss.
County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. *That I was born in Williston, North Dakota on September 6, 1933 and* lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit *No. 312 in the Buford-Trenton Project, according to the recorded plat* thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: 2.14.2014

OFFICIAL SEAL
TAMMY WIEMAN
NOTARY PUBLIC State of New Mexico
My Commission Expires

Hi Jan -
Thought you'd find this interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Williamson, farmer on the Missouri bottoms in the country near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 265 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940 84 1

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John h. BURGUM, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. NR-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right of interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

_____ (Name)

_____ (Title)

John h. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter ($SW\frac{1}{4}$) and the South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.

which sum is in full satisfaction and discharge of the interest of the under-signed in the premises conveyed.

(Payee or Payees) J. T. Wilkinson

Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. HH-3190

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive
Billings, Montana 59101-4669
www.blm.gov/mt

In Reply Refer To:
9661 (MT926)

March 23, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Lance D. Gaebe
Commissioner of University and School Lands
North Dakota Department of Trust Lands
P.O. Box 5523
Bismarck, ND 58506-5523

Mr. Todd Sando
State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505-0850

Dear Messrs. Gaebe and Sando:

We are in receipt of your statement of reasons received on December 10, 2014, supporting the two letters of intent to protest the official filing of Supplemental Plats by the Branch of Cadastral Survey. The letters of intent to protest were received on August 6, 2014, from the North Dakota Department of Trust Lands and August 7, 2014, from the Office of the State Engineer (OSE).

In your statement of reasons, you assert two reasons why the Bureau of Land Management (BLM) should not officially file the Supplemental Plats, approved April 9, 2014, and May 8, 2014, representing the geographic limits of the Public Domain interests. Your reasons are:

1) The BLM's Supplemental Plats should utilize the Ordinary High Water Mark (OHWM) survey initiated by North Dakota in 2009 that follows the OSE's 2007 guidelines; and
2) The Army Corp of Engineer's (COE) Acquisition Segment Maps (Segment Maps), upon which the Supplemental Plats are based, are not an accurate reflection of the OHWM.

The State of North Dakota's (State) OHWM delineation, as depicted on Enclosure 1, claims approximately 1,140 acres of Public Domain[1] subsurface estate and 896 acres of Public Domain surface estate on the Supplemental Plats to be State sovereign land. In addition, the State also claims approximately 2,637 acres of fee subsurface estate and 2,881 acres of COE-acquired surface estate as State sovereign land, which are not addressed on the Supplemental Plats.

[1] For clarification, Public Domain interests in the State of North Dakota refer to land interests (surface and subsurface) where title has never left the Federal Government.

EXHIBIT
tabbies 5

Your protest points are focused on the location of the OHWM line, depicted on the Supplemental Plats, which is the boundary between upland ownership and State riverbed title under the Equal Footing Doctrine.

Riverbed Title Under the Equal Footing Doctrine

Your protest concerns riverbed title and not public trust issues. This distinction is important because it controls the source of law to be applied in defining the OHWM. A recent United States Supreme Court decision distinguishes the two in *PPL Montana, LLC v. Montana* 132 S. Ct. 1215, 1235 (2012):

> *"Under accepted rules of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine."*

Thus, federal law determines riverbed title under the equal footing doctrine. The following leading federal court cases provide the controlling definitions of the OHWM.

In *Howard v. Ingersoll*, 54 U.S. 381, ___ (1851), the United States Supreme Court's ruling focused on a line impressed upon the bank by the action of water as the primary indicator of the OHWM and marking the permanent bed of the river. The court also found that the bed of a river does not encompass lands outside of the banks that are subject to periodic overflow nor does it include those lands that are viable for agriculture or grazing:

> *"It neither takes in overflowed land beyond the bank, nor includes swamps or low grounds liable to be overflowed, but reclaimable for meadows or agriculture, or which, being to low for reclamation, though not always covered with water, may be used for cattle to range upon, as natural or uninclosed pasture. 54 U.S. at 415-16."*

The concurring opinions provide more clarification and established the importance of an examination of vegetation that separates the riverbed from upland, and help provide basis for subsequent federal court case definitions.

Approximately 50 years later, the Eighth Circuit reiterated *Howard v. Ingersoll* in slightly different wording:

> *"The bed of the river is that soil so usually covered by water that it is wrested from vegetation . . . and does not extend to or include that upon which grasses, shrubs, and trees grow, though covered by the great annual rises."*

Harrison v. Fite, 148 F. 781, 783 (8th Cir.1906).

A more recent federal district court case addressed the OHWM of a lake but lends guidance that transitional marshlands are not enough evidence for inclusion within the OHWM:

> *"At most the evidence shows that the dike stands on property that has historically served as marshland for Lake Harney periodically absorbing the lake's high waters*

and periodically serving as productive agricultural land for its owners. This is not enough to infer that the dike stands below the ordinary high water mark the point at which the bed of the lake ends and the fast lands begin."

United States v. Cameron, 466 F. Supp. 1099, 1114 (M.D. Fla. 1978)

And, finally, *United States v. Claridge*, 416 F. 2d 933, 934 (9th Cir.1969) references the definition in *Howard v. Ingersoll* and calls for a natural feature and further explains that the OHWM does not include the floodplain from bluff to bluff due to spring floods:

"The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."

The BLM's Manual of Surveying Instructions, 2009 (Manual) has interpreted these leading cases on OHWM and summarized them into a contemporary definition of the OHWM for the surveyor in section 3-164:

"For inland waters, the OHWM normally used is the line below which the water impresses on the soil by covering it for sufficient periods to deprive it of terrestrial vegetation, and the soil loses its value for agriculture, including the grazing of livestock."

The Manual provides guidance in section 3-167 on locating the OHWM by utilizing the vegetation examination:

"A small pocket of an aquatic type plant growing in low places not in the riverbed is also not an indicator of the OHWM and does not indicate that the OHWM should be moved toward upland to include that pocket of aquatics. It is the most water-ward location of the terrestrial species that is determinative."

Rivers and OHWMs have been moving on the earth's surface for thousands of years and remnants of those movements are evidenced on virtually every aerial photo. However, we concern ourselves with the date on which rights were established, such as date of statehood and subsequent river movements for riverbed title under the Equal Footing Doctrine and entry dates for patents. The original surveys by the General Land Office classified upland of the Public Domain for patenting and created survey plats; generating the first representation of all of the rights within a township in relationship to one another. Since you are not challenging the validity of the original surveys, in this case we concern ourselves with the location of the OHWM prior to the artificial rising of the Missouri River to form Lake Sakakawea.[2]

[2] Serving as background timeline information, the construction of Garrison Dam was authorized by the Flood Waters Control Act of 1946 and caused the artificial rising of the Missouri River to form Lake Sakakawea. Construction began in 1946 with reservoir filling initiated in December of 1953 and reaching minimum operating pool on August 7, 1955. http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487634/garrison-project-statistics.aspx

To resolve your protest, we will address locating the line of ordinary high water, both legally and factually. It must be accepted that the OHWM along a river is an ambulatory boundary that migrates through the normal actions of accretion and erosion and has moved since rights were bounded by it. While we agree there will be some differences in location based on dates of aerial photography and dates of field work due to accretion and erosion, it appears that your OHWM guidelines do not comport with federal law and cannot be used to determine riverbed title under the Equal Footing Doctrine.

Discussion of State Reason No. 1

A) OSE's OHWM Delineation Guidelines of 2007

The BLM's Branch of Cadastral Survey has reviewed the OSE's OHWM Delineation Guidelines of 2007 and finds it mostly in conformity with the federal definition except for defining grazing of livestock and certain agriculture as being below the OHWM, as outlined in the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea which states:

> *"Areas below the OHWM may have vegetation suitable for grazing but wetland vegetation capable of being grazed is not an "ordinary agricultural crop."*
>
> *Another complicated area included the low lying hayfields. For this study, the term "field" refers to hayed or mowed areas, and does not imply that the area has been cultivated or seeded. Farming practices along the river during drier, low water periods often extended into the lower floodplain areas, closer to the water's edge. These "fields" may be cut for hay, or cultivated for a short time, but rapid colonization of wetland species on these hay fields likely occurred when the wetter period and subsequent higher water levels returned."*

The grazing statement is in direct contradiction to the *Howard v. Ingersoll* reference of *natural or uninclosed* pasture and the Manual definition of OHWM. *United States v. Cameron* references marshland that periodically absorbs the high waters and periodically serves as productive agriculture which was directly tied to the grazing of livestock and was found not enough to infer the lands were below the OHWM.

The hay field statement is in direct contradiction to the *Howard v. Ingersoll* reference to lands liable to overflow but reclaimable for meadows or agriculture. It also contradicts *Harrison v. Fite* in that the bed does not extend to land which grasses grow although covered by rises in the water. The implication is that the land can ordinarily be utilized for agriculture, even though the remnants of water in low areas of the floodplain caused by rises in the river allow for pockets of aquatic vegetation to grow periodically, which is also addressed in the aforementioned cases.

The BLM's Branch of Cadastral Survey has reviewed the State's OHWM survey Task Order No. 2 and finds the intent to locate the OHWM of the Missouri River prior to the artificial rising of the Missouri River to form Lake Sakakawea to be correct and does not believe the State is attempting to claim the pooled lakebed of Lake Sakakawea as a navigable waterway under the Equal Footing Doctrine.

Cultivation and seeding are not prerequisites for *productive agriculture*[3] which would thereby exclude *natural or uninclosed*[4] pasture suitable for grazing or natural grass haying. Specifically the upland extends towards the river to the lowest extent of upland vegetation and not the landward extent of aquatic vegetation.

These deviations from the Federal definition of OHWM allow the State's delineation of OHWM, which is visually represented on Enclosure 2 hatched in blue and overlaid on the 1958 aerial photo, to impermissibly encompass upland with terrestrial vegetation, hay fields, and cultivated fields.

Likewise, the State's OHWM delineation, depicted on Enclosure 3 hatched in blue and overlaid onto the 1952 aerial photo, spans from *bluff to bluff*[5] taking in uplands temporarily overflowed by *freshets*[6] which is in direct contradiction to all Federal case law and moreover, the State's delineation, which does not reference utilizing the 1952 aerial photo follows the extent of water on the 1952 photo very closely. But, this photo is a representation of one of the highest recorded flows, which is not characterized as "ordinary." The date of the aerial photo, April 5, 1952, has been correlated to United States Geological Survey (USGS) flow data obtained at: http://waterdata.usgs.gov/usa/nwis/inventory/?site_no=06330000&agency_cd=USGS. Thirty-seven years of flow data from 1928-1965 shows that only 21 days had higher flows than the aerial photo date (April 5, 1952), of which 4 days were also in 1952. Enclosure 4a is the mean daily discharges for 1952; 4b is the highest daily means from 1928-1965; 4c is a graph of the 37 year discharges.

Therefore, BLM believes the State's OHWM delineation is skewed due to the aforementioned deviations from the Federal definition of OHWM and residual flood waters from an extraordinary event onto the floodplain. The State's OHWM delineation depicts the riverbed to be three times the width of the General Land Office's originally surveyed meanders. Originally surveyed meanders are typically landward of the actual OHWM, and while it is acknowledged that OHWMs move laterally, no evidence shows why the riverbed has widened, up to triple in size, to encompass lands classified as upland in the original survey.

The sheer width of the State's OHWM delineation, as depicted on Enclosure 1, clearly shows that it ignores the *natural physical characteristic*[7] of the OHWM which is a *natural object*[8] and extends *beyond the banks*[6] to encompass significant portions of the floodplain. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

B) Chain of Title

At the meeting on July 22, 2014, in Bismarck, ND, Josh Alexander, BLM's Acting Chief Cadastral Surveyor for public lands in North Dakota, specifically asked if the State's OHWM delineation was to determine surface rights, subsurface rights, or both. The verbal response was

[3] *United States v. Cameron*, 466 F. Supp. 1099 (M.D. Fla. 1978)
[4] *Howard v. Ingersoll*, 54 U.S. 381 (1851)
[5] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[6] *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991)
[7] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[8] *Howard v. Ingersoll*, 54 U.S. 381 (1851)

that it determined the boundary of State Sovereign land encompassing both surface and subsurface rights.

But, the State's delineation did not consider previous conveyances, as evidenced by chain of title research. Enclosures 5a, 5b, and 5c are the State's OHWM delineation, which is hatched in blue and overlaid onto the COE Segment maps, in which the State's delineation encompasses:

1) 188.66 acre island, Y2250 (Enclosure 5a)
2) 228 acres within Y2289 (Enclosure 5b)
3) 71.07 acres within Z2382 (Enclosure 5c)

These parcels were conveyed to the United States by the State as upland (see Enclosure 6 for conveyance documents). The magnitude of acquisitions by the COE clearly shows the intent was to purchase displaced uplands. The chain of title clearly shows that the State agreeably conveyed upland and islands, which is now being depicted and claimed as riverbed. An island must exist above the OHWM to be considered an island; otherwise it is a part of the bed (sandbar). At the time of the conveyance, an OHWM determination was made to facilitate the conveyance of the island and the upland. These conveyances were for upland surface only. The State's new OHWM delineation must omit these areas as they have previously been classified as upland, not below the OHWM, and are not part of surface Sovereign Lands of the State. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

C) Sovereign Lands

In its protest, the State is utilizing its delineation as a basis for claim to sovereign land and to require mineral lease and royalty payments from oil and gas operators. However, prior to viewing the delineations at https://land.nd.gov/minerals/mineralapps/OHWM2/OHWM2Disclaimer.aspx, there is a caveat:

> *"The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land.""*

Thus, it is unclear how much weight to give to the State's OHWM delineation even though the State's Statement of Reasons infers that we should honor it wholly. Instead, BLM's Supplemental Plats are without limitation and provide the better evidence of riverbed title.

For the foregoing reasons, the State's first protest point is denied.

Discussion of State Reason No. 2

A) BLM Field Investigations Prior to Flooding

The COE Segment Maps were the basis for land title acquisition by the COE for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most

comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea.

To determine what lands were classified as public lands, the COE engaged BLM's Branch of Cadastral Engineering (now Branch of Cadastral Survey) to execute field investigations prior to flooding. BLM surveyors were guided by Special Instructions dated October 24, 1952 (Enclosure 7). Importantly, there is no evidence that the State of North Dakota raised concerns about the Special Instructions or subsequent acquisitions.

The Special Instructions stated the following regarding the lot or legal subdivision listed:

> *"Ascertain whether any or all of it is above mean high water at the present time*
>
> *If it is found to be above water at present, determine whether any or all of it has been in existence above mean high water continuously since the original survey was made*
>
> *Show what part of the tract has been in existence since the date of the original survey*
>
> *If the land has been entirely washed away and has re-appeared, determine the date it was submerged and when it re-appeared*
>
> *If accretion to a tract of public domain land has formed, show the extent of such accretion*
>
> *If substantial accretion appears to have formed in front of riparian privately-owned lands prior to the date of entry, show the extent of such accretion and the date a substantial amount had formed in front of the original tract*
>
> *Where changes have taken place in the river channel, determine whether the change was due to avulsive action, or to the slow and imperceptible process of reliction and accretion*
>
> *To determine the above facts, you will study all plats, charts, maps, aerial photographs and records found that may have a bearing on the case at hand. You will determine the age of timber growing on the land and obtain such other information as is available including the interviewing of old settlers who may be familiar with the river changes at those places."*

BLM officers were operating under the BLM's Manual of Surveying Instructions, 1947 (1947 Manual), and the term "mean high water" for inland waters carries the same determination principles and conformance to law as the OHWM, as evidenced by guidelines in the 1947 Manual.

The BLM conducted extensive field investigations to determine what lands existed above the OHWM, made a determination on river movement, its effect on land title, and compiled this information in an investigative report. These reports were utilized to determine public lands above the OHWM, addressing both accretion and erosion to public lands. Those determinations

were depicted on the Segment Maps. In other words, the COE Segment maps are based on BLM field work, analysis, and standard practices. See Enclosures 8, 9, and 10 for the progression from BLM field investigation report map (8) to Segment Map (9) to Supplemental Plat (10), all of which depict the same findings from the field investigations.

B) North Dakota State Lands Department (SLD)'s Previous OHWM Delineation

1) Land acquisition documents show that SLD participated in the COE survey process.

A conveyance document in Enclosure 6 infers that the SLD performed an OHWM determination prior to the conveyance. The last page of Enclosure 6 states:

> *"The above is based on Survey Report furnished by the State School Land Department."*

The SLD Survey Report was requested by the BLM's Branch of Cadastral Survey. However, its whereabouts are unknown and remains unfurnished. But, based on the subsequent conveyance, the referenced SLD Survey Report likely made a determination that Y2250 was an island existing above the OHWM, thereby necessitating the need for purchase by the COE as uplands that would be displaced by the artificial rising of the Missouri River to create Lake Sakakawea.

Although the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea states that the SLD was unaware of any previous OHWM determinations, we believe that the land acquisition documents establish that the SLD participated in the OHWM determinations upon which the COE segment maps are based.

2) Documents show that SLD participated in the condemnation process for uplands.

To further outline the SLD's involvement and conclude that the State was aware of upland acquisitions, we obtained correspondence documents (Enclosure 11) showing that SLD and COE deliberations led to a formal and friendly condemnation process, which was followed by the SLD and the COE.

Despite legislation being passed to convey State lands without mineral reservation, the condemnation process was instituted due to the reluctance of then SLD Commissioner, John O. Lyngstad. Mr. Lyngstad was reluctant to sell State lands and supported the condemnation process for fear of political repercussions of selling State land. Mr. Lyngstad relays his reluctance by predicting accusations from farmers that they would be willing to pay the State more money than was being offered by the Federal Government. It is certain that farmers would not be willing to pay for these uplands if they were not productive for agriculture indicating the lands existed as upland above the OHWM. The State's OHWM delineation incorrectly classifies these same uplands as riverbed.

Revisit Enclosure 6 showing the execution of this process whereby the COE sent appraisals for displaced state uplands asking for consideration by the Board of University and School Lands, execution by the Land Commissioner, and condemnation.

C) Appraisals

Full appraisals were conducted for acquisition of displaced uplands to justify and provide basis for the expenditure of appropriated funds. These appraisals quantify upland area and quantify the uses of the upland, including agricultural production, timber, brush, etc. While utilized for appraisal values, these quantifications provide significant documentation with regard to the acquired displaced uplands, depicted on the COE Segment maps, existing above the OHWM. See Enclosure 12, which is the same area as Enclosure 2 showing the State's OHWM delineation encompassing brush and productive agriculture as identified by the land appraisal. The State's delineation does not follow Federal case law or OHWM definitions with the inclusion of these uplands.

For the reasons outlined above, we reject the State's assertion that the COE Segment Maps are not an accurate reflection of the OHWM. The OHWM was established by BLM-led field investigations using Special Instructions that were not disputed by the State. In fact, there is ample evidence showing that the SLD participated in the establishment of the OHWM determination. The second protest point is denied.

Conclusion

The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM, and involvement from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines.

Based on the aforementioned analysis, the BLM finds the State's OHWM delineation:

1) does not comply with the federal definition of the OHWM
2) does not honor chain of title or previous involvement with the COE
3) is an overreaching delineation that impairs:
   a) the mineral rights of private owners as vested from original patents from the Federal Government
   b) the Federal Government's acquired rights in land, and
   c) the rights of all in the Public Domain interests in land.

Your protest to the official filing of plats of survey posted in the *Federal Register* on July 8, 2014, is hereby dismissed. The Supplemental Plats shall be officially filed in this office.

You have the right to appeal this decision to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of the Interior, Board of Land Appeals (Board), in accordance with the regulations contained in 43 CFR Part 4 and the enclosed Form 1842-1 (Enclosure 13). In taking an appeal, there must be strict compliance with the regulations. If you choose to appeal, a notice of appeal must be filed in this office within thirty (30) days of receipt of this letter for transmittal to the Board. If your notice of appeal does not include a statement of reasons, one must be filed with the Board within thirty (30) days after the notice of appeal was filed. A copy of your notice of appeal and any statement of reasons, written arguments, or briefs, must also be served upon the Office of the Solicitor, Rocky Mountain Region, 2021 Fourth Avenue N., Suite 112, Billings MT 59101. Service must be accomplished within fifteen (15) days after filing in order to be in compliance with appeal regulations.

As provided by 43 CFR Part 4, you have the right to petition the Office of Hearings and Appeals to stay implementation of the decision; however, you must show standing and present reasons for requesting a stay of the decision that address your interests and the manner by which they would be harmed. A petition for stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) The relative harm to the parties if the stay is granted or denied; (2) The likelihood of the appellant's success on the merits; (3) The likelihood of immediate and irreparable harm if the stay is not granted; and (4) Whether the public interest favors granting the stay. Should you choose to file one, your stay request must accompany your notice of appeal. A notice of appeal with petition for stay must be served upon the Board, Regional Solicitor, and adverse parties at the same time such documents are served on the deciding official at this office. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR 1.3.

Sincerely,

Aden L. Seidlitz

Aden L. Seidlitz
Acting State Director

13 Enclosures
1- Overall comparison of OHWM delineations in protested area
2- OHWM comparison overlaid onto 1958 aerial photography
3- OHWM comparison overlaid onto 1952 flood aerial photography
4- USGS flow data
5- State OHWM delineation overlaid onto Segment Maps
6- State land conveyance correspondence and execution documents
7- BLM Special Instructions
8- BLM field investigation report map
9- Portion of Segment Map

10- Portion of BLM Supplemental Plat
11- COE and SLD correspondence
12- Land appraisal map
13- Form 1842-1

cc: Karan Dunnigan
Office of the Solicitor
Billings, MT

Joshua A. Swanson

jswanson@vogellaw.com

February 9, 2017

Rep. Todd Porter
Chairman
House Energy and Natural Resources Committee

e-mail only at: tkporter@nd.gov

Re: HB 1199

Dear Chairman Porter:

I wanted to thank you for allowing me to testify in support of HB 1199 last Thursday before the House Energy and Natural Resources Committee, and for the "do pass" recommendation from the Committee. HB 1199 is a landmark bill that corrects the wrongs done by the State and rectifies one of the greatest takings in the history of American jurisprudence. HB 1199 will make clear that ownership of the mineral interests reserved by my clients and thousands of other present and former North Dakota citizens will remain theirs to lease as they had for decades between the formation of Lake Sakakawea and the wrongful taking by the State. During the course of testimony Thursday, several questions were asked by Committee members ranging from:

- the number of acres the State has taken from private property owners that were previously acquired by the United States for the purpose of Garrison Dam and Lake Sakakawea;
- HB 1199's fiscal note and the State's claim that it would be "surrendering" revenue if the legislature recognized that the oil and gas interests vested in landowners – like the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank – who lost their property when the United States acquired it for the Garrison Dam and Lake Sakakawea;
- Rep. Heinert's question regarding the blacked-out language on the first page of the Wilkinson's Warranty Deed; and
- the differences between HB 1199 and a similar bill in the Senate, SB 2134.

Given the importance of this legislation for all the landowners who seek restoration of their private property rights, I wanted to address these questions.

1. NUMBER OF ACRES AFFECTED

When the United States began acquiring property in the 1950s for Garrison Dam and Lake Sakakawea, it was recognized by the United States and State of North Dakota that the State's interest was limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. This is noted in Exhibit 1 to the written testimony that was

submitted to the Committee. According to the Master Plan for the Garrison/Lake Sakakawea Project, the United States acquired 463,000 acres for Lake Sakakawea. Of the land acquired, approximately 300,000 acres were from private landowners outside of the Fort Berthold reservation. When the United States acquired the surface rights for Lake Sakakawea, the oil and gas interests under those 300,000 acres were largely reserved by the private landowners. From approximately 1950 to 2010, the Wilkinson and Vohs family and other private landowners, like the beneficiaries of the property managed by First National Bank, leased those mineral interests to interested parties. In approximately 2010, the Wilkinson family and others learned that the State had secretly begun to claim ownership of their private mineral interests and were leasing them out to interested companies.

Contrary to the State's testimony during the Committee hearing, in the lawsuit with the Wilkinson family, the State is claiming ***all*** the oil and gas interests under Lake Sakakawea. The State's claim is *not* limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. In the Wilkinson suit, the State argues that it can flood private property and then claim title to that property. While the exact number of acres claimed by the State is unknown, HB 1199 is written in such a way that it will correct this wrong for all affected private landowners who reserved their oil and gas interests because of Garrison Dam and Lake Sakakawea.

The language of HB 1199 includes over 4,000 acres west of the Highway 85 Bridge – where the Wilkinson and Vohs' oil and gas interests are located – that were acquired by the United States for Lake Sakakawea. As noted by Rep. Roers Jones during the hearing, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing 57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Stated bluntly, the State of North Dakota cannot flood a citizen's land and then claim it also owns all the valuable underwater mineral interests specifically reserved by the private landowner. As stated by the United States Supreme Court, such an action epitomizes the definition of an impermissible and unlawful "taking" by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). More recently, in 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a

categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. As many of the Committee members noted during the hearing on HB 1199, landowners like the Wilkinson and Vohs families, and the beneficiaries of the land managed by First National Bank, specifically reserved the oil and gas interests when the United States took their property for Garrison Dam and Lake Sakakawea. As Rep. Keiser appropriately stated when introducing the bill, what has been attempted by the State of North Dakota is the greatest taking of property he has ever seen.

Also contrary to the State's testimony, the state's claim to these private oil and gas interests only goes back to the beginning of North Dakota's most recent oil boom. As testified to by Mr. Patch, in 2010 the State placed thousands of mineral acres up for auction that it had never before claimed – including the Wilkinson's mineral interests – without notifying the private mineral owners of its actions. We have attached a July 2010 letter from Brigham Oil and Gas where, while it requested to lease the Wilkinson's property from the State, it expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

The handwritten notes on this letter were present when the State disclosed it in discovery during the Wilkinson's lawsuit. The State's wholesale deviation from its lawful practice of claiming only those oil and gas interests within the historic Missouri River as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the historic Missouri River as it existed before Garrison Dam. The only explanation for the State's decision in 2010 to suddenly claim thousands of acres outside of the historical Missouri River that it had never previously claimed is greed. The State's knowledge that it was acting unlawfully are found in committee notes set forth below.

2. **FISCAL NOTE – THE STATE SET ASIDE THIS MONEY KNOWING ITS CLAIM TO THE OIL AND GAS INTERESTS WAS SUSPECT**

Even while unlawfully laying claim to its citizen's private mineral interests, the State suspected the proceeds received by its improper actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the

historic Missouri River – like those owned by the Wilkinson and Vohs families. As Chairman Porter pointed out during his questioning, the State is a stranger to title of these privately held mineral interests. This is noted in the attached September 2010 Memorandum prepared by the Land Board. This Land Board Memorandum shows that Mr. Gaebe and Mr. Heiser, who testified before the Committee, were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, **"There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."**

All of the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – has been set aside in anticipation of the day the State would be required to make them whole again. That day is today. The money set aside by the State in anticipation of what this legislative body or the courts would inevitably do speaks volumes of the State's dubious action. Stated another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State of North Dakota's right to retain in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, the State claimed oil and gas interests held by private landowners while acknowledging it had absolutely no legal authority to support its unlawful taking.

In our State, where private property and mineral interests are passed from generation to generation and valued to the point they are sacrosanct, the Land Board nevertheless proceeded to take these privately held oil and gas interests because they "felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development." This was done despite Mr. Patch and others expressing grave concerns about the legality of what the State was doing. The August 2011 minutes from the Land Board meeting notes the presence of Mr. Patch and the fact Mr. Patch made a presentation defending his family's title to the oil and gas interests. The memorandum goes on to explain that, "Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a 'Designated Fund Balance' that should not be transferred out of the LMTF (Land and Minerals Trust Fund) until such time that any potential title disputes related to these leases have been resolved."

The Land Board's meeting minutes from July 2014 indicate the State has claimed 668 tracts of land with questionable acres. The proceeds received by the State from these tracts have been placed in the Designated Fund Balance until ownership is rightfully determined. While these tracts are definite and can be determined with certainty by the Land Board, the State has continued to refuse to identify the location of these tracts when asked by the Wilkinsons.

HB 1199 will resolve these title disputes in favor of the rightful landowners who reserved the oil and gas interests over 60 years ago when the United States acquired their property for Garrison Dam and Lake Sakakawea.

Mr. Patch raised this issue to the Land Board over five years ago. Yet, the State has forced his family to spend over $300,000 to fight them in court. The fact our client has had to exhaust his private resourced to defend the private property rights their grandparents reserved in 1958 – while the State stockpiled the ill-gotten gains from its unlawful action – is shameful.

3. REP. HEINERT'S QUESTION REGARDING THE BLACKED-OUT LANGUAGE ON THE FIRST PAGE OF THE WILKINSON'S WARRANTY DEED

During the hearing, Rep. Heinert asked about the blacked-out language on the first page of the Wilkinson's Warranty Deed to the United States. The blacked-out language is restated on the second page of the deed, and says the Wilkinson's interests did not include public highways or utilities. If you review the sentence before the blacked-out language, it reads: " ... containing, exclusive of said exception, 228.95 acres, more of less; subject to existing easements for public roads and highways, ..." After the blacked-out language, the deed resumes, stating, "... ner of any interest therein, ..." Turning to the second page of the same deed, you will see the blacked-out language restated in full, beginning towards the end of the first paragraph, which provides:

> " ... containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipelines.
>
> Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..."

This underlined language is what was, for unknown reasons, blacked-out on the first page of the Wilkinson's Warranty Deed when it was drafted in the late 1950s, likely explaining why the exact same language was repeated on the second page of the deed. This language does not alter, in any manner, the fact the Wilkinson's grandparents reserved the oil and gas interests subject only to the United States acquiring the property for Garrison Dam and Lake Sakakawea. Similar language is found in the Warranty Deed where the United States acquired the Vohs' property. The Vohs' deed is also part of Exhibit 3. If you go up 12 lines from the bottom of the first page of the Vohs' deed, it contains the same language as the Wilkinson's deed, providing "... subject to existing easements for public roads and highways, public utilities, railroads and pipelines, ..." If you turn to page 3 of the Vohs' deed, you'll see it contains the same language regarding the reservation of oil and gas interests that was blacked-out on the first page of the Wilkinson's deed, stating, "[R]eserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..." This same language was used in the hundreds of warranty deeds and condemnation orders whereby the United States acquired the property from private landowners for Garrison Dam and Lake Sakakawea.

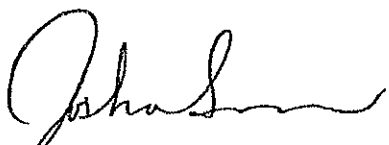
4. DIFFERENCES BETWEEN HB 1199 AND SB 2134

Both HB 1199 and SB 2134 address the State's unconstitutional taking of oil and gas interests rightfully belonging to private landowners who lost their property and surface rights to the United States for Garrison Dam and Lake Sakakawea.

We are concerned however that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in SB 2134. There is no rational reason to exclude the landowners in these 15 sections from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea. As such, HB 1199 is the preferred bill because it does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push this bill across the finish line for *all* affected property owners; not most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they are grateful for HB 1199. If you have any additional questions, I'd be glad to visit. I can be reached at 701.356.6369, via e-mail at jswanson@vogellaw.com, or would be glad to visit in person at your convenience.

Respectfully,



Joshua A. Swanson

BRIGHAM
Oil & Gas, L.P.

15207

Brigham Oil & Gas, L.P. ◆ 6300 Bridge Point Parkway, Bldg. 2, Suite 500 ◆ Austin, Texas 78730
Phone (512) 427-3300 ◆ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: Nominations for the August 3, 2010, State Lease Sale
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES	
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(1) ✓
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(2) ✓
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	Prev. Nom.
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04		Prev. Nom.

DTL002576

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 ff

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 Spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: Designated Fund Balance for Land and Minerals Trust
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the
Board of University and School Lands
August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: **Designated Fund Balance for the Lands and Minerals Trust Fund**
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

EXHIBIT

J-3

Exhibit J-3 – Mar. 10, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
House Energy and Natural Resources Committee
March 10, 2017, 9:00 AM

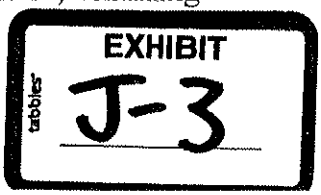
Chairman Porter and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. I'd like to also thank you for your work thus far on this issue, and for the Committee and House's support for HB 1199. As I testified previously to this Committee with regards to House Bill 1199, and to the Senate Energy and Natural Resources Committee with regards to Senate Bill 2134, I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea.

I will try not to repeat my testimony previously submitted to this Committee and to its counterpart in the Senate considering SB 2134. Instead, I'd like to address some of the questions asked by this Committee during the February 2 hearing on HB 1199, which are relevant to SB 2134, and were discussed in the February 9 letter I sent to the members of this Committee.

First, the Committee asked if SB 2134 and HB 1199 would resolve the lawsuits my clients have filed against the State. While my clients would abide by the legislation in its current form, the answer to this question is, essentially, up to the State. The State has not yet indicated whether they will continue pursuing their claims if legislation passes recognizing that the State does not own the oil and gas interests, which private land owners like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, reserved when the United States acquired their property for Lake Sakakawea.

Second, as to what exactly the State is claiming, contrary to the testimony previously offered by the State, in the lawsuit with the Wilkinson family, the State is claiming all the oil and gas interests under Lake Sakakawea. The State's position in the Wilkinson lawsuit is that Lake Sakakawea is one-and-the-same-thing as the Missouri River, and Lake Sakakawea does not exist as a separate body of water. The State's claim is not limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. The State has taken the position in the Wilkinson case that it can flood private property – like my clients' property and all the other acres flooded by Garrison Dam and Lake Sakakawea – and then claim title to that property. The State saying otherwise is simply not true, and flies in the face of the pleadings the State submitted to the court. SB 2134 addresses most of those acres.

As noted during this Committee's hearing on HB 1199, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony I submitted in support of HB 1199, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing



57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Additionally, contrary to the State's previous testimony, the State's claim to these private oil and gas interests only goes back to the beginning of our most recent oil boom. In 2010, the State placed thousands of acres up for auction that it had never before claimed – including the Wilkinson and Vohs' minerals – without notifying the private mineral owners of its actions. The July 2010 letter from Brigham Oil and Gas to the State, attached to my February 9 letter and included with this testimony as Exhibit 1, while requesting to lease the Wilkinson's property from the State, expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

(emphasis added). The State's wholesale deviation from its practice of claiming only those oil and gas interests within the "historic Missouri River" as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the "historic Missouri River" as it existed before Garrison Dam.

Even while laying claim to its citizen's private mineral interests, the State suspected the proceeds received from its actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the "historic Missouri River" – like those owned by the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank. As this Committee noted during its questioning on HB 1199, the State is a stranger to title of these privately held mineral interests. The State says as much in a September 2010 Memorandum prepared by the Land Board, also included with the February 9 letter, and attached to this testimony as Exhibit 2. This Memorandum shows that Mr. Gaebe and Mr. Heiser were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, "There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."

SB 2134 is necessary to restore the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – which was set aside in anticipation of the day the State would be required to make these private landowners whole again. That day is here. Stated

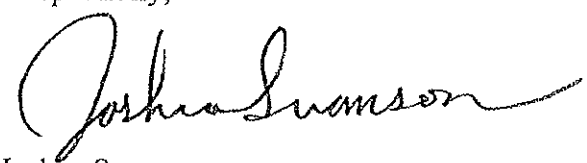
another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State's to claim in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, take first, sort out actual ownership later.

Finally, while both SB 2134 and HB 1199 address the State's unconstitutional taking of oil and gas interests, we are concerned that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in the amendment to SB 2134. There is no reason to exclude the landowners from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea.

Conversely, HB 1199 does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push a form of this legislation across the finish line for all affected property owners; not just most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they, and myself, are grateful for your efforts. Mr. Chairman, I'll stand for any questions the Committee may have.

Respectfully,



Joshua Swanson

BRIGHAM
Oil & Gas, L.P.

15207

Brigham Oil & Gas, L.P. ◆ 6300 Bridge Point Parkway, Bldg. 2, Suite 500 ◆ Austin, Texas 78730
Phone (512) 427-3300 ◆ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: **Nominations for the August 3, 2010, State Lease Sale**
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04	

① ✓
② ✓
Prev. Nom.
Prev. Nom.

EXHIBIT
1
DTL002576

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 JF

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 Spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

EXHIBIT 2

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: **Designated Fund Balance for Land and Minerals Trust**
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the Board of University and School Lands August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: Designated Fund Balance for the Lands and Minerals Trust Fund
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

From:	Joshua A. Swanson
To:	Kadrmas, Bethany R.
Subject:	Wilkinson Comment Letter Pursuant to NDCC 61-33.1 (NDIC case no. 26584)
Date:	Thursday, June 07, 2018 4:12:13 PM
Attachments:	VOGEL-#3289017-v1-Wilkinson_Comment_Letter_per_Chpt__61-33_1__NDCC.PDF

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Bethany,

Please find attached comments from the Wilkinson family on the Wenck Associates survey pursuant to NDCC 61-33.1-03, NDIC Case No. 26584. There are 12 exhibits that go with the comment letter. Given the size of the exhibits, I'll send those in separate e-mails. If you can please confirm receipt of this letter and the Wilkinsons' comments attached hereto, I'd appreciate it.

My office will mail hard copies of this comment letter along with the exhibits bound together like we did for Ed Lynch (EEE Minerals) and Suzanne Vohs' comment letter that we submitted last month.

Thanks,

Joshua A. Swanson | Attorney

VOGEL Law Firm

218 NP Avenue
P.O. Box 1389 | Fargo, ND 58107-1389
Tel: 701.237.6983 | Fax: 701.476.7676 | TF: 800.677.5024

e-mail | vogellaw.com | bio

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Joshua A. Swanson

jswanson@vogellaw.com

June 7, 2018

North Dakota Industrial Commission
Department of Mineral Resources, Oil & Gas Division
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

e-mail also to: brkadrmas@nd.gov

Re: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03
Case No. 26584
Our File No.: 047086.14000
Wilkinson Family / Plaintiffs in *Wilkinson v. Bd. of Univ. & Sch. Lands*

Dear Department of Mineral Resources:

I represent the Wilkinson family, which includes those parties named as Plaintiffs in Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, 903 N.W.2d 51 (hereafter, the "Wilkinsons"). They are the undivided owners of the oil, gas, and other minerals in, on, or underlying the following property in Williams County:

Township 153 North, Range 102 West
Section 12: SW/4
Section 12: S/2NW/4, excepting that portion which constitutes the right-of way of the BNSF Railway Company
Section 13: Farm Unit 312 in the Buford-Trenton Project

(the "Property").

1. The Wilkinsons' predecessors reserved the minerals under the Property when the surface was acquired by the United States for Lake Sakakawea

The surface of the Property was acquired by the United States Army Corps of Engineers ("Corps"), under the authority of the Flood Control Act of 1944, Public Law 534, 78th Congress, 2nd session. The Corps acquired fee title to all land that would be inundated when Lake Sakakawea reached full pool at 1,854 feet msl. The Property is within the 1,854 msl elevation. The United States acquired title to the surface of the Property because it was within the operational pool of Lake Sakakawea, and as such, the lake would inundate the Property as stated in the deed whereby the United States acquired its interest. A copy of the Corps' Segment Map showing the Property acquired by the

United States for the Garrison Project is enclosed as Exhibit A. The Property is Tract HH 3190. Documents from the Corps, including: (1) an abstract entry for Tract HH 3190; (2) the Abstracter's Certificate; (3) a May 12, 1959 letter to the Secretary of the Army, Wilbur M. Brucker, from the United States Attorney General, William P. Rogers, specifically stating that the Wilkinsons' predecessors, and their successors, owed "all oil and gas rights therein, under the terms contained in the deed to the United States," and (4) Payment and Closing Sheet for Tract HH 3190, are attached as Exhibit B.

In a March 2016 decision rejecting the State's previous position regarding the location of the OHWM of the historic Missouri River riverbed, the United States Department of Interior described the Segment Maps as the "most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea," stating:

> "The [Corps] Segment Maps were the basis for land title acquisition by the [Corps] for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea."

See March 23, 2016 decision by the United States Department of Interior, Bureau of Land Management ("2016 United States Report"). The 2016 United States Report is provided at Exhibit 5 to the February 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee, infra, attached as Exhibit J-2. The 2016 United States Report concluded that the Segment Maps, like Exhibit A, were the basis of appropriating millions of dollars by the United States Congress to acquire land, like the Property, for Garrison Dam and Lake Sakakawea.

> "The [Corps] Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. **These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea.** The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM [Bureau of Land Management], and involvement from the BLM, and ND SLD [North Dakota Land Board], and have gone uncontested for over 60 years."

See Exhibit J-2 at p 66. The final sentence of the preceding paragraph from the 2016 United States Report is significant – the Segments Maps were uncontested for over 60 years after Garrison Dam was closed and Lake Sakakawea inundated hundreds of thousands of acres in North Dakota. The Corps' Segment Map indicates the United States acquired 286.04 acres from J.T. and Evelyn Wilkinson, husband and wife, the Wilkinsons' predecessor in interest, for the Garrison Project. This included 228.95 acres in Section 12 and 57.09 acres in Section 13.

An aerial photograph taken in 1958 shows the Property was used for agricultural purposes and was above the historical OHWM of the Missouri River before the closure of Garrison Dam. See Exhibit C. The green box shown in Exhibit C, which includes parts of Sections 12 and 13, is the Property the Corps acquired from the Wilkinsons subject only to the Wilkinsons' reservation of the oil and gas interests. Jon Patch is one of the plaintiffs in the Wilkinson case and a successor in interest to J.T. and Evelyn Wilkinson. According to testimony Patch provided to the Legislature's Senate Energy and Natural Resources Committee on SB 2134 in January 2017, his grandparents and mother, along with her siblings, farmed the property for decades prior to the closure of Garrison Dam. A copy of Patch's testimony is attached as Exhibit D. An Affidavit from Patch's mother, Lois Jean Patch, who was the daughter of J.T. and Evelyn Wilkinson, makes clear that the family farmed the Property up until her father, J.T. Wilkinson, "[s]old that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday." Lois Jean Patch, who was a plaintiff in the Wilkinson case before she passed away in April 2018, identified the field visible in Sections 12 and 13 of Exhibit C as the "big field", indicating:

> "During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the 'big field.' I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these 'grubs' and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the 'big field' in sections 12 and 13."

See Exhibit E, Affidavit of Lois Jean Patch, at ¶ 2. Likewise, William S. Wilkinson, her brother, testified in his affidavit, "That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land." See Exhibit F, Affidavit of William S. Wilkinson, at ¶ 4. William S. Wilkinson is one of the plaintiffs in the Wilkinson case. William and Lois Jean's sister, Vanessa E. Blaine, also a plaintiff in the Wilkinson case, explained that while her brothers were fighting World War II, she obtained her driver's license at age 12 in order to help farm the Property.

> "During the WW II years my two older brother enlisted in the AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a 3/4 ton truck hauling grain from the harvested fields to the local grain elevator.

> During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. ...[a]nd the most easterly [field] was known to me as the Big Field. It is my belief that the Big Field was in the SW1/4, S1/2NW/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota."

See Exhibit G, Affidavit of Vanessa E. Blaine, at ¶¶ 2 – 4. Given the 1958 aerial photograph showing the Property being farmed, and the testimony of Lois Jean Patch, William S. Wilkinson, and Vanessa E. Blaine, it is unequivocally established that the Property was farmed and used for agricultural purposes prior to the United States acquiring it for the Garrison Project in 1958.

The Wilkinsons' predecessors, J.T. and Evelyn Wilkinson, reserved the mineral rights in the Property when the surface was acquired by the United States for the Garrison Project as evidenced by the Warranty Deed dated June 9, 1958, recorded at McKenzie County document no. 288165 (book 131, page 411). A copy of the Warranty Deed is enclosed as Exhibit H. The Warranty Deed reserved all the oil, gas, and other mineral rights therein, on, or under the Property. The Warranty Deed states, in relevant part:

> Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir.

The Wilkinsons leased the Property many times in the decades since the United States acquired the surface for Lake Sakakawea. The North Dakota Supreme Court held that, "There is undisputed evidence the plaintiffs [Wilkinsons] have leased the minerals numerous times since they conveyed the surface property to the United States." Wilkinson at ¶ 24. This "undisputed evidence" of leasing relied on by the Supreme Court was provided as part of the Wilkinsons' brief to the Supreme Court at Appendix 103 – 131, and is attached hereto as Exhibit I.

2. The State has no interest in the Wilkinsons' Property, and any attempt by the State to claim an interest is an unconstitutional taking according to the Supreme Court's decision in *Wilkinson v. Board of University and School Lands*

The government cannot flood a private citizen's land and then claim it owns the valuable, yet inundated, mineral interests reserved by the private landowner. That is the textbook definition of

an unconstitutional taking by the government. The State has no right, title, or interest in the Wilkinsons' Property. As explained by the United States Court of Claims, such a claim by the State epitomizes the very definition of an impermissible and unlawful taking by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). In 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. [1]

In Wilkinson, the Supreme Court held that any outcome resulting in the State having title to the Wilkinsons' mineral interests would be an unconstitutional taking.

> Mineral interests in Williams County, in the oil-producing Bakken formation, have value. *See Jacobs-Raak v. Raak*, 2016 ND 240, ¶ 12, 888 N.W.2d 770 (stating it would be disingenuous to believe mineral interests in a county in the Bakken formation have little or no value). There is undisputed evidence the plaintiffs have leased the minerals numerous times since they conveyed the surface property to the United States. **If the district court determines the State owns the minerals, the plaintiffs will be deprived of the mineral interests. The federal government compensated the plaintiffs for the surface property, but the plaintiffs have not been compensated for the mineral interests. The plaintiffs are entitled to compensation if the government's actions result in a "taking" of the mineral interests.** *See Arkansas Game & Fish Comm'n v. United States*, 568 U.S. 23, 31-34, 133 S.Ct. 511, 184 L.Ed.2d 417 (2012) (stating permanent physical occupation of property authorized by government is a taking, and government-induced flooding can constitute a taking); *Tarrant Reg'l Water Dist. v. Gragg*, 43 S.W.3d 609, 620-21 (Tex. Ct. App. 2001) (holding flooding of property will be considered a taking if the flooding after the construction of a reservoir was greater than it previously had been).

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[1] Any attempt by the State to "take" the Property via eminent domain would still fail as such a taking cannot withstand the scrutiny of the public use requirement under the Constitution's Fifth Amendment. See Kelo v. City of New London, Conn., 545 U.S. 469, 477, 125 S.Ct. 2655 (2005) (stating, "As for the first proposition, the City would no doubt be forbidden from taking petitioners' land for the purpose of conferring a private benefit on a particular private party. A purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.") (internal quotations omitted).

Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, ¶ 24, 903 N.W.2d 51, 58–59 (emphasis added). [2] As many legislators noted during the committee hearings on SB 2134 and HB 1199 during the 2017 legislative session, landowners like the Wilkinsons specifically reserved the minerals interests when the United States acquired their property for Lake Sakakawea. Rep. George Keiser – who championed the Wilkinsons' cause, and the rights of other private property owners during the legislative session – appropriately summarized the impetus for SB 2134 when describing the legislative efforts that culminated in the codification of Chpt. 61-33.1, N.D.C.C. Rep. Keiser noted that the State's attempt to claim these valuable mineral interests was the greatest taking of property that North Dakota had ever seen. Counsel for the Wilkinsons testified before the Legislature, providing background on the Wilkinson case and related litigation, and as to why the State cannot claim the mineral rights of private property owners like the Wilkinsons by virtue of the United States acquiring such land for Garrison Dam and Lake Sakakawea. Copies of that testimony are attached as Exhibits J-1, J-2, and J-3. ("Swanson testimony"). [3]

Fortunately, Chpt. 61-33.1, N.D.C.C., recognizes that private landowners like the Wilkinsons were, and are, the rightful owners of the mineral interests that their predecessors reserved decades ago when their land was acquired by the United States for the Garrison Project and flooded by Lake Sakakawea. So too, in Sorum, see supra at n. 2, the State now recognizes that landowners like the Wilkinsons, Lynch, and Vohs are the rightful mineral owners of their respective mineral interests, and that the State does not have any claim to minerals laying outside the historic Missouri River riverbed. Any result under Chpt. 61-33.1, N.D.C.C., that ends up with the Wilkinsons not being recognized as the owners of the Property would be an unconstitutional taking pursuant to Wilkinson, and will result in a legal challenge where the Wilkinsons will prevail.

3. **Wenck Associates Survey concludes that the Property is above the historical OHWM of the Missouri River**

The survey completed by Wenck Associates as provided for by Chpt. 61-33.1, N.D.C.C., concluded that the Property is above the OHWM of the historical Missouri River riverbed. The

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[2] After the decision in Wilkinson, the State concedes that landowners like the Wilkinsons, Ed Lynch, and Suzanne Vohs are the rightful owners of the minerals they reserved when the United States acquired their surface lands for Lake Sakakawea in the 1950s. As such, it appears the State has relinquished any claim or interest in the Property. See Sorum et al. v. Bd. of Univ. & Sch. Lands et al., case no. 09-2018-cv-00089, State Defendants Response to Plaintiffs' Motion for Preliminary Injunction (Doc. ID #120).

[3] Swanson testified at the Legislature on at least three occasions: (1) Senate Energy and Natural Resources Committee on January 12, 2017, see Exhibit J-1; (2) House Energy and Natural Resources Committee on February 2, 2017, see Exhibit J-2; and (3) House Energy and Natural Resources Committee on March 10, 2017, see Exhibit J-3.

Property is shown on Maps 16 and 17, at page 63 and 64, of the Wenck Associates' Report. The Wilkinsons support any conclusion by the Department of Mineral Resources that results in the State immediately disclaiming and releasing any and all claims to their Property, and the Wilkinsons being recognized as the rightful owners. Likewise, the "Phase II survey" previously commissioned by the State, and completed by Bartlett and West, determined the Property was above the OHWM of the historic Missouri River riverbed. Chpt. 61-33.1, N.D.C.C., requires that within six months after the Industrial Commission's action, any royalty proceeds held by the Land Board that are attributable to oil and gas mineral tracts above the OHWM under both the Corps survey and the Phase II delineation – being the non-contested acreage – must be distributed by the Board to the owners of such tracts.

Given the fact that the Wilkinsons have been forced to fight this battle to keep the State from taking their Property, which has been rightfully theirs' all along, and have expended hundreds of thousands of dollars in doing so, we respectfully ask the State see that the proceeds related to their interests are released as soon as possible in order to partially offset the losses they have incurred as a result of being deprived of their Property for the better part of a decade. Unfortunately, several of the Plaintiffs in the Wilkinson case have died during this litigation and were never able to enjoy the fruits of their predecessors – J.T. and Evelyn Wilkinson – reserving the oil and gas rights that should have accompanied the most recent and lucrative oil boom. The injustice this family, and thousands of other North Dakotans, have suffered by virtue of the State's taking is further compounded with each day that passes and they do not have what is rightfully theirs. With many of the Wilkinsons advancing in age, it is absolutely critical that the State take immediate action so they can enjoy the Property during their lifetime.

We appreciate your attention to this, and my clients particularly are looking forward to resolution and the State releasing and disclaiming its claim to their Property. If you have any questions, I would be glad to visit. I can be reached via phone at 701.237.6983 or e-mail at jswanson@vogellaw.com. I, along with a representative from the Wilkinsons, Jon Patch, will be in Bismarck on June 26 to testify at the public hearing in this matter.

Respectfully,

Joshua A. Swanson
enc:

Exhibit List

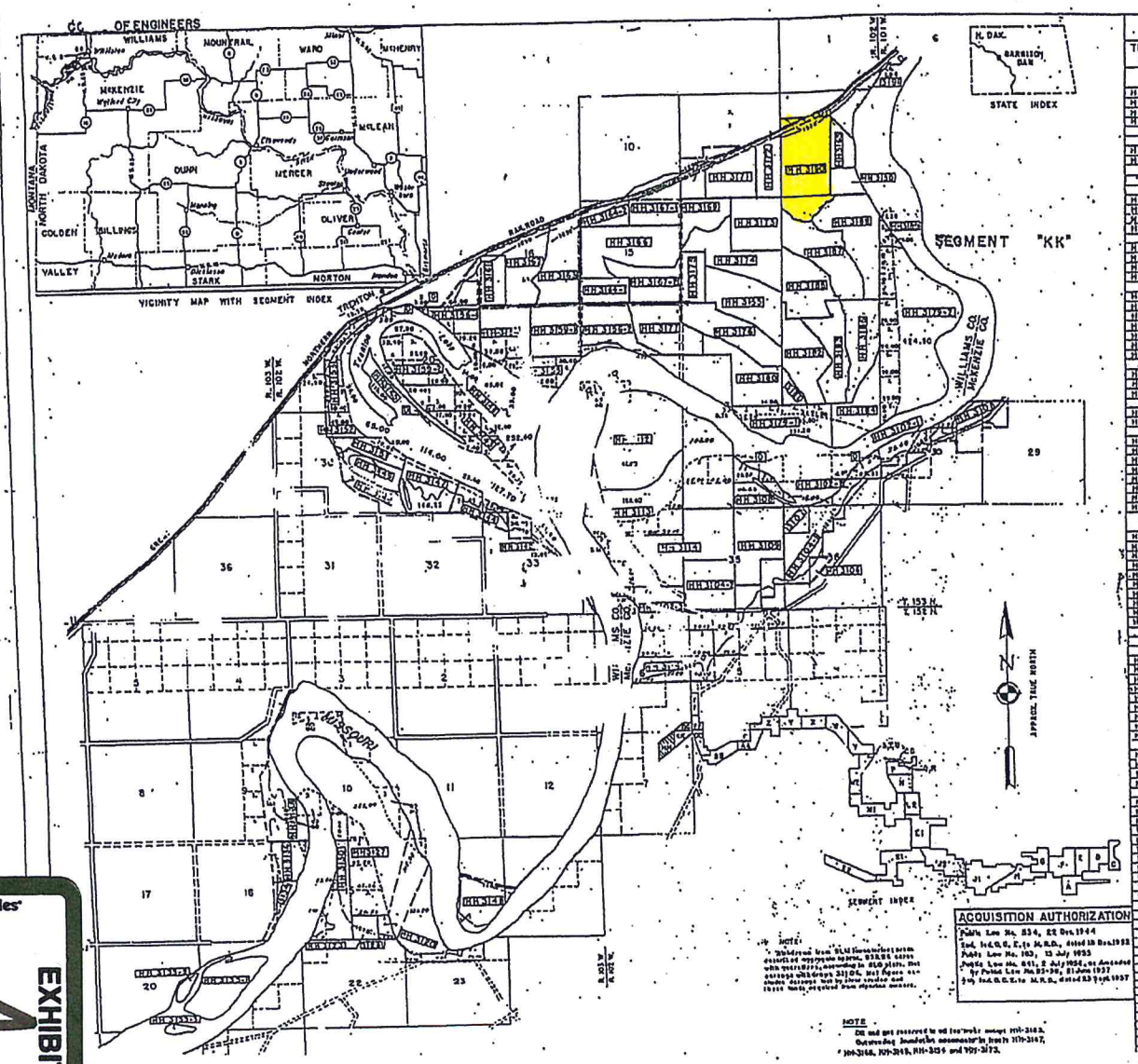
Exhibit A	United States Army Corps of Engineers Segment Map for Property (HH 3190)
Exhibit B	United States Army Corps of Engineers documents related to the Property
Exhibit C	1958 aerial image of the Property
Exhibit D	Patch January 12, 2017 testimony to North Dakota Legislature
Exhibit E	Affidavit of Lois Jean Patch
Exhibit F	Affidavit of William S. Wilkinson
Exhibit G	Affidavit of Vanessa E. Blaine
Exhibit H	Warranty Deed whereby United States acquired Property subject only to the Wilkinsons' predecessor's reservation of mineral interests
Exhibit I	Wilkinsons' Oil and Gas Leases
Exhibit J-1	Swanson January 12, 2017 testimony to North Dakota Legislature
Exhibit J-2	Swanson February 2, 2017 testimony to North Dakota Legislature
Exhibit J-3	Swanson March 10, 2017 testimony to North Dakota Legislature

Respectfully,

Joshua A. Swanson

3253162.1

Exhibit A - United States Army Corps of Engineers Segment Map for the Wilkinsons' Property



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS.	ACREAGE EASMT.	REMARKS
	McKENZIE COUNTY				
HH 3101	MIRIAM DEH. PAGE	130.90			
HH 3102-E	ANTHUR WOOD	97.10			
HH 3103-E	ANTHUR WOOD	30.40			
HH 3103-S	ANTHUR WOOD	401.25			
HH 3104-E	JOHN W. SLATOR ET UX	216.00			
HH 3104-S	JOHN W. SLATOR ET UX	160.00			
0	U.S.A. DEP'T OF INTERIOR		see remarks		Transferred 27 February 1939, Public Land Order No 1809 , acreage included in tract register of segment CC
HH 3106	STATE OF NORTH DAKOTA	30.00			
HH 3107	HANNY O. NELSEN ET AL	40.00			
HH 3108	FRED A. NELSEN ET UX	76.50			
HH 3109	JOSEPH HACKENBERG, SR.	655.00			
HH 3111	DELETED				
HH 3112	CLINTON A. TIBBITS	441.60			
HH 3113	CLINTON A. TIBBITS	272.95			
HH 3114	MARY A. TIBBITS ET AL	481.44			
HH 3116	HENRY H. KENBERG	173.00			
HH 3117	DELETED				
HH 3118	DELETED				
HH 3119	DELETED				
HH 3120	FRANK W. ERICKSON ET AL	185.85			Formerly Tract No. HH 3123-1
HH 3121	DELETED				
HH 3123	DELETED				
HH 3123	FRANK W. ERICKSON ET AL	40.00			Formerly Tract No. HH 3123-2
HH 3124-E	DELETED				Included in Tract No. HH 3127
HH 3124-S	DELETED				Included in Tract No. HH 3129
HH 3126	DELETED				
HH 3127	EMERY H. PAPINEAU ET UX	740.72			
HH 3128	NORMAN PAPINEAU ET UX	131.20			Formerly Tract No. HH 3126-2
HH 3129	DELETED				
HH 3130	NORMAN PAPINEAU ET UX	43.40			Formerly Tract No. HH 3126-1
HH 3131	DELETED				
HH 3132	DELETED				
HH 3133-E	STATE OF NORTH DAKOTA	159.80			
HH 3133-S	STATE OF NORTH DAKOTA	19.20			
HH 3133-S	STATE OF NORTH DAKOTA	16.00			
	WILLIAMS COUNTY				
HH 3134	JOHN OSTER ET UX	44.81			
HH 3136	ADOLPH P. BACHTOLD	83.15			
HH 3137	DELETED				
HH 3138	MARGARET E. KEAR	160.00			
HH 3139	DELETED				
HH 3140	CARL A. BAUSTE ET UX	19.20			
HH 3141	IVER BORLAUG ET UX	133.87			
HH 3142	RAYMOND F. HOFFMAN ET UX	28.68			
HH 3143	CARL GROSETH	677.39			
HH 3144	JOHN IRWIN	70.02			
0	U.S.A. DEP'T OF INTERIOR		see remarks		Transferred 27 February 1939, Public Land Order No. 1800 , acreage included in tract register of segment CC
HH 3145	STATE OF NORTH DAKOTA	119.00			Formerly known as Tract No. HH 3146-E
HH 3146-E	STATE OF NORTH DAKOTA	14.00			" " " " HH 3146-E
HH 3147	OMAHA J. JACOBSON ET UX	240.85			
HH 3148	JOHN TOFTE	13.64			
HH 3149	ROBERT D. BEAG ET UX	77.87			
HH 3150	LEO GIPPERT ESTATE ET AL	61.70			Formerly known as Tract No. HH 3152-E
HH 3151	LESTER O. LARSON ET UX	100.19			
HH 3152	JOHN SCHULTZ	109.00			
HH 3153	OSCAR W. STRATTON ET UX	151.42			
HH 3154	HENRY A. BOWEN ET UX	213.02			
HH 3155	CHARLES W. PATCH ET UX	211.20			Formerly known as Tract No. HH 3159-E
HH 3156-E	JAMES P. MARTIN ET UX	149.00			
HH 3156-S	JAMES P. MARTIN ET UX	168.93			
HH 3158	MILES C. GROSETH ET UX	158.60			
HH 3159-E	CHARLES A. BOWEN ET UX	180.00			
HH 3159-S	CHARLES A. BOWEN ET UX	207.80			
HH 3161	AGNES MORIN GARFIELD ET AL	24.38			
HH 3162	JOHN S. GOVOY ET UX	166.17			
HH 3163	H. W. ANDERSON ET UX	159.48			
HH 3164-E	MAUD MARTIN	80.00			
HH 3164-W	MAUD MARTIN	64.86			
HH 3165	CHARLES W. PATCH ET UX	63.30			Formerly known as Tract No. HH 3159-S
HH 3166	H. AUSTIN MARTIN ET UX	861.30			
HH 3167-E	FRED F. MARTIN ET UX	103.27			
HH 3167-S	FRED F. MARTIN ET UX	139.98			
HH 3168	DELETED				
HH 3169	CHARLES W. PATCH ET UX	175.15			
HH 3170	DELETED				
HH 3171	AGNES L. KEANE ET UX	182.34			
HH 3172	FRANCES JACKSON SLINGSBY ET VIR	60.75			
HH 3173	HENRY A. BOWEN ET UX	160.00			
HH 3174	RALPH A. FASCHING ET UX	158.20			
HH 3175	MAUD MARTIN	80.30			
HH 3176	SUNDONT LOFTE	177.31			
HH 3177	HAROLD E. ZIMMERMAN ET UX	116.64			
HH 3178-E	DELETED				
HH 3178-S	DELETED				
HH 3179-E	OLETA L. METZGER	348.33			
HH 3179-S	OLETA L. METZGER	320.60			
HH 3180	LESTER A. LOHSE ET UX	170.11			

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EXHIBIT
A

Exhibit B - United States Army Corps of Engineers documents related to the Wilkinsons' Property

19

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

United States of America
Address: Washington, D. C.

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

In consideration of $ 43,327.00, Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit:
Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that t he y executed the same.

Telmar E. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958

EXHIBIT
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B

EXHIBIT "3"

ABSTRACTER'S CERTIFICATE

Project Garrison Dam & Reservoir, N.D. Tract No. WH-3190

Williams County, State of North Dakota

containing 228.95 acres, more or less.

I hereby certify that for the use and benefit of the United States of America and its assigns I have made a complete examination of all public records pertaining to the title to the captioned land since Sept. 20, 1957, 5 P.M. the date of the previous certificate and that nothing affecting or relating to the title in any manner whatsoever has been filed or recorded in such records since the date of the previous certificate except as shown at page(s) Entries 10a to 12, inclusive, of the abstract.

I further certify that no taxes or special assessments now appear upon the records as unpaid and no tax sales now appear upon the records as unredeemed except as follows:

none

Made this 24th day of July A. D., 19 58 at 5 P.M.

Williston (City), North Dakota (State)

58058

20-0110

Nellie J. Hydle
Abstracter

(This form of certificate is to be attached to CONTINUATIONS OF ABSTRACTS)

Office of the Attorney General
Washington, D. C.

May 12, 1959

GARRISON DAM AND RESERVOIR

HH-3190

N. D.

Honorable Wilber M. Brucker
Secretary of the Army
Washington, D. C.

My dear Mr. Secretary:

A re-examination has been made of the title data relating to 286.04 acres of land, more or less, Tract No. HH-3190, Garrison Dam and Reservoir Project in Williams County, North Dakota. This land was conveyed to the United States of America under the provisions of existing legislation by J. T. Wilkinson and Evelyn M. Wilkinson, his wife, under deed dated June 9, 1958, filed for record on June 10, 1958, and recorded among the land records of the county in Book 131 of Deeds at page 411. Your reference is No. MRGRO 601.1 and the file number of this Department is 33-35-242-1238.

The land is described in the aforesaid deed, which recites a consideration of $43,327.00.

The abstract, consisting of volume No. 33315, containing 17 items, volume No. 33008, containing 34 items, volume No. 33009, containing 32 items and continuation abstract No. 56628, containing 12 items, was last satisfactorily certified on July 24, 1958, by the Williams County Abstract Company. All references to abstract numbers made herein refer to numbers appearing on the back cover of the abstract volume.

The abstract, recorded deed, and accompanying data disclose valid title to be vested in the United States of America subject to:

1. Easements for roads, highways, public utilities, railroads and pipe lines, if any, not shown of record.

2. Reservations contained in the patents from the United States shown at item 1 of abstract No. 33315, item 27 of abstract No. 56628.

3. Reservation by grantors and owners of any interest therein including third party lessees, their heirs, successors and assigns of all oil and gas rights therein, under the terms contained in the deed to the United States.

Your Department has advised that objections 1, 2 and 3 will not interfere with the contemplated use of the land.

Abstract volume No. 33315, continuation abstract volume No. 56628, deed and related papers are enclosed. Abstract volumes 33008 and 33009 are enclosed with the final opinion for Tract No. HH-3187, this Department's file No. 33-35-242-1232.

Sincerely yours,

William P. Rogers

Attorney General

ENG FORM 1566
1 Jan 46

Project: Garrison Dam and Reservoir, N. Dak.
Tract: HH-3190
County: Williams
State: North Dakota

PAYMENT AND CLOSING SHEET

Vendors: J. T. Wilkinson and Evelyn M. Wilkinson, his wife
New Address: Trenton, North Dakota
Acreage: 286.04 Consideration $: 43,327.00 Date: 10 June 1957

	Action Taken (✓)	Cash Payments by Vendor	Amount Paid From Treas. Check
Curative Material Obtained			
Approved by Spec. Atty. (abst.) or Title Co. (C. of T.)			
Notary Fees (Vendor's Expense)			
Recording Fees (Vendor's Expense)			
Physical Inspection of Property	X		
Disclaimers (CR Form 20)			
Statement of Consent of Commanding Officer			
Report on Vacation of Property (CR Form 106)			
Certificate of Crop Inspection (CR Form 77)			
Refund for Crops Harvested by Vendor			
Fee for Issuing Cashier's Check or Money Order			
Certificate of Inspection and Possession (CR Form 39)	X		
Deed to United States	X		
Notary Fee (Vendor's Expense)			
Federal Revenue Stamps - 55¢ for $500 (Vendor's Expense)	X	$47.85	
State Revenue Stamps (Vendor's Expense)			
Recording Fee by Vendor or United States (see option)			
Search of Records Since Last Continuation	X		
Mortgages, Judgments, F.S.A. Loans and Other Liens			
1. Payment to _____; Principal			
Interest from _____ to _____			
2. Payment to _____; Principal			
Interest from _____ to _____			
Release Fees (Vendor's Expense)			
Certificates Re: Blocked Nations (CR Form 98 or 99)			
Taxes: Delinquent (19__ to 19__)			
Current (19__)			
Withheld for Taxes Which are a Lien but not Payable			
Fee for Issuing Cashier's Check or Money Order			
Total Cash Payments by Vendor			
Total Amount Paid From Treasurer's Check			- - -
Option Price			$43,327.00
Total Amount Paid From Treasurer's Check (Are all requirements of Attorney General's opinion satisfied?)			
Balance Due Vendor			
Receipt for U. S. Treasurer's Check (CR Form 19)	X		
Certificates Re: Blocked Nationals (CR Form 98 or 99)			

The above is a complete, true and correct account of funds received and disbursed by me and a report of the action taken in conducting payment and closing of the instant transaction.

John H. Lundgren
Closing Attorney

I/We have examined the above statement and find it correct. This acknowledges that $ 43,327.00 has been disbursed as above with my/our approval and for my/our account and benefit, which said sum is the sale price set forth in my/our Option Agreement with the United States of America, and I/We acknowledge receipt of the balance due me/us as shown above.

J. T. Wilkinson
J. T. Wilkinson

Evelyn M. Wilkinson
Evelyn M. Wilkinson, his wife

Exhibit C - 1958 aerial image of the Property showing its use for agricultural purposes prior to Garrison Dam and Lake Sakakawea

FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA

Scale:	Drawn By:	Checked By:	Project No.:	Date:
AS SHOWN	MJF	CMO	7799-001	6/10/2013

Houston Engineering Inc.

Bismarck

P: 701.323.0200
F: 701.323.0500

Path: T:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 3 - 1958 Aerial Imagery.mxd

EXHIBIT
C
tabbies

Exhibit D - January 12, 2017 testimony of Jon Patch to Senate Energy and Natural Resources Committee

Testimony of Jon Patch

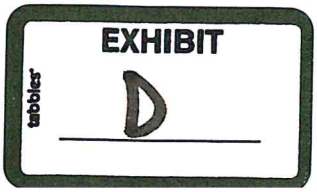
Concerning SB 2134

Senate Energy and Natural Resources Committee

January 12, 2017, 9:00 AM

Madam Chair, my name is Jon Patch. I'm a lifelong resident of North Dakota. I am here representing the family of my Grandparents, JT and Evelyn Wilkinson who homesteaded and farmed in the Trenton Valley of Williams County (figures 1 and 2). My mother, who is 92 years old, and is a resident of the MSLCC, often recalls the time growing up there and working in my grandfather's wheat fields. Deep under those wheat fields is the Bakken formation, which my grandfather knew absolutely nothing about, but had the providential wisdom to write "reserving the minerals" when he signed the title over to the U.S. government in the 1950s under the threat of condemnation (see Warranty Deed and letter from the US Attorney General). Why did he sign title of that land he owned in fee to the government? Because he was told that it was needed for the newly created Garrison Dam and man-made reservoir (Lake Sakakawea, figures 3, 4, & 5) that will occasionally flood that property. Well, that forced Grandpa out of the farming business but at least he still had some attachment to the property by leasing the mineral rights. He and his children who inherited those mineral rights have been actively leasing those minerals since the 1950s. The land we are talking about is 286 acres in the Trenton valley **west** of the highway 85 bridge.

I lay that groundwork because back in February 2010, the family was delighted to find out that our mineral acres were included in a 1280 acre spacing unit. In May, 2010 there was a special hearing held by the Oil and Gas division on a drilling permit request. Brigham oil spudded the well on 6/20/2010 and completed drilling on 7/13/2010. The well was fracked in November, 2010 and has been producing ever since. But, that is where our delight ends and our disheartenment begins. After many months of wondering why the royalty payments weren't forthcoming, I discovered by happenstance that our mineral acres had been nominated into the State Land Department mineral database after department employees shared draft information of an OHWM study that the Land Board commissioned at the behest of the oil companies. The State claimed our mineral acres as their own and auctioned them to the highest bidder at the August, 2010 state mineral auction. By the way, the OHWM study was not finalized, accepted, and made public by the land board until November, 2010, six months after the draft results were slipped into the hands of the oil company operatives. No notice was given, nor any opportunity to object to what the state did in their taking scheme. Many meetings with Department staff and attorneys and presentations to the Land Board met with deaf ears. Land Commissioner Gaebe told me at one point "nothing is going to change with their policies and practices unless told to do so by the legislature or a guy in a black robe." The family explored both options and decided for the sake of time we would take the court route. We hired an attorney and in January of 2012 we sued the state to get our minerals back. Now, some $300,000 in attorney and expert fees later, our case is in the hands of the Supreme Court. The sad fact is, we never got to have our day in court. Days before our scheduled trial last May, the judge signed verbatim a summary judgement order that was nothing more than the proposed order written by the state attorneys. The order states that "the Missouri River is not distinguishable from Lake Sakakawea." And that artificial changes such as dams and dam operations can influence the OHWM boundaries and the course of rivers and lakes. Therefore, the state argument is essentially saying the Lake does not



exist, its merely a widening of the Missouri River, thereby laying claim to hundreds of thousands of riverbed and mineral acres purchased by the corps for reservoir operations.

Land surface elevation of our mineral land, that the state has laid claim to, is in the 1850-1851 foot range above mean sea level. The Garrison Dam spillway is at 1854'. The corps acquired property upstream of the Dam based on that top of spillway elevation, which represents the maximum operating pool. All of the USGS National Hydrography Dataset maps use the 1854' contour as the limit of Lake Sakakawea (figure 3). The ND Industrial Commission use the 1854' contour in their "Special Places" rule for the extent and limit of Lake Sakakawea.

I would like to note that my mother and her siblings with first-hand knowledge have said under oath that the land in question never flooded prior to the dam being built. (See attached affidavits, Appendix 1)

But, since the dams were built, the land has flooded regularly, most recently in 2011 when the reservoir was operated at maximum capacity (figure 5).

Now, having said all that, where does our family stand with regards to this bill? That depends. The bill would need to be amended to remove unnecessary language that essentially limits the upstream extent of Lake Sakakawea as the Highway 85 bridge.

Keeping that language would validate the current practice of the Department of Trustlands of using one sovereign land determination east of the Highway 85 bridge and a different one west of the bridge. That determination was described in our expert's report as an arbitrary and capricious line/boundary for the western edge of Lake Sakakawea (report prepared by Houston Engineering Inc, available for download at:
https://www.dropbox.com/s/u996e0yiubikliq/houston%20report-final%28all%29.pdf?dl=0 .)

Statements by state officials and experts taken during our lawsuit depositions prove that there is no sound scientific or valid legal reasoning for it to be used as a boundary for sovereign land determination (see attached quotes). The Highway 85 bridge was used simply as a recognizable landmark when doing there OHWM studies. Hardcoding it in statute as legal boundary for sovereign land determination, as this bill would currently do, would be a big mistake.

We wholeheartedly and in the strongest way oppose the bill if this language remains.

By the same token, if the bill would be amended to include the entire reach of Lake Sakakawea up to the 1854' contour, we would wholeheartedly support it. This could easily be accomplished by striking the language that specifies the extent of the reservoir as ending at mile marker 1552.4. There is broad support from state officials and experts on the use of the "historic channel" within Lake Sakakawea as the state limit to it's sovereign ownership (see attached quotes).

I respectfully ask for your fair and just treatment of Mineral Owners west of the Highway 85 bridge, essentially, to do the right thing!

Sincerely,

Jon Patch, P.E.

19

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

United States of America
Address: Washington, D. C.

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

In consideration of $ 43,327.00, Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easments for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that t he y executed the same.

Telmar E. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958

EXHIBIT "3"

ABSTRACTER'S CERTIFICATE

Project Garrison Dam & Reservoir, N.D. Tract No. WI-3190

Williams County, State of North Dakota

containing 228.95 acres, more or less.

I hereby certify that for the use and benefit of the United States of America and its assigns I have made a complete examination of all public records pertaining to the title to the captioned land since Sept. 20, 1957, 5 P.M. the date of the previous certificate and that nothing affecting or relating to the title in any manner whatsoever has been filed or recorded in such records since the date of the previous certificate except as shown at page(s) Entries 10a to 12, inclusive, of the abstract.

I further certify that no taxes or special assessments now appear upon the records as unpaid and no tax sales now appear upon the records as unredeemed except as follows:

none

Made this 24th day of July A. D., 19 58 at 5 P.M.

Williston (City), North Dakota (State)

58058

AO-0110

Nellie J. Hydle
Abstracter

(This form of certificate is to be attached to CONTINUATIONS OF ABSTRACTS)

Office of the Attorney General
Washington, D. C.

May 12, 1959

GARRISON DAM AND RESERVOIR

HH-3190

N. D.

Honorable Wilber M. Brucker
Secretary of the Army
Washington, D. C.

My dear Mr. Secretary:

A re-examination has been made of the title data relating to 286.04 acres of land, more or less, Tract No. HH-3190, Garrison Dam and Reservoir Project in Williams County, North Dakota. This land was conveyed to the United States of America under the provisions of existing legislation by J. T. Wilkinson and Evelyn M. Wilkinson, his wife, under deed dated June 9, 1958, filed for record on June 10, 1958, and recorded among the land records of the county in Book 131 of Deeds at page 411. Your reference is No. MRGRO 601.1 and the file number of this Department is 33-35-242-1238.

The land is described in the aforesaid deed, which recites a consideration of $43,327.00.

The abstract, consisting of volume No. 33315, containing 17 items, volume No. 33008, containing 34 items, volume No. 33009, containing 32 items and continuation abstract No. 56628, containing 12 items, was last satisfactorily certified on July 24, 1958, by the Williams County Abstract Company. All references to abstract numbers made herein refer to numbers appearing on the back cover of the abstract volume.

The abstract, recorded deed, and accompanying data disclose valid title to be vested in the United States of America subject to:

1. Easements for roads, highways, public utilities, railroads and pipe lines, if any, not shown of record.

2. Reservations contained in the patents from the United States shown at item 1 of abstract No. 33315, item 27 of abstract No. 56628.

3. Reservation by grantors and owners of any interest therein including third party lessees, their heirs, successors and assigns of all oil and gas rights therein, under the terms contained in the deed to the United States.

Your Department has advised that objections 1, 2 and 3 will not interfere with the contemplated use of the land.

Abstract volume No. 33315, continuation abstract volume No. 56628, deed and related papers are enclosed. Abstract volumes 33008 and 33009 are enclosed with the final opinion for Tract No. HH-3187, this Department's file No. 33-35-242-1232.

Sincerely yours,

William P. Rogers

Attorney General

ENG FORM 1566
1 Jan 46

Project Garrison Dam and Reservoir, N. Dak.
Tract HH-3190
County Williams
State North Dakota

PAYMENT AND CLOSING SHEET

Vendors J. T. Wilkinson and Evelyn M. Wilkinson, his wife
New Address Trenton, North Dakota
Acreage 286.04 Consideration $ 43,327.00 Date 10 June 1957

	Action Taken (✓)	Cash Payments by Vendor	Amount Paid From Treas. Check
Curative Material Obtained			
Approved by Spec. Atty. (abst.) or Title Co. (C. of T.)			
Notary Fees (Vendor's Expense)			
Recording Fees (Vendor's Expense)			
Physical Inspection of Property	X		
Disclaimers (CR Form 20)			
Statement of Consent of Commanding Officer			
Report on Vacation of Property (CR Form 108)			
Certificate of Crop Inspection (CR Form 77)			
Refund for Crops Harvested by Vendor			
Fee for Issuing Cashier's Check or Money Order			
Certificate of Inspection and Possession (CR Form 39)	X		
Deed to United States	X		
Notary Fee (Vendor's Expense)			
Federal Revenue Stamps - 55¢ for $500 (Vendor's Expense)	X	$47.85	
State Revenue Stamps (Vendor's Expense)			
Recording Fee by Vendor or United States (see option)			
Search of Records Since Last Continuation	X		
Mortgages, Judgments, F.S.A. Loans and Other Liens			
1. Payment to _____; Principal			
Interest from _____ to _____			
2. Payment to _____; Principal			
Interest from _____ to _____			
Release Fees (Vendor's Expense)			
Certificates Re: Blocked Nations (CR Form 98 or 99)			
Taxes: Delinquent (19__ to 19__)			
Current (19__)			
Withheld for Taxes Which are a Lien but not Payable			
Fee for Issuing Cashier's Check or Money Order			
Total Cash Payments by Vendor			
Total Amount Paid From Treasurer's Check			- - -
Option Price			$43,327.00
Total Amount Paid From Treasurer's Check			
(Are all requirements of Attorney General's opinion satisfied?)			
Balance Due Vendor			
Receipt for U. S. Treasurer's Check (CR Form 19)	X		
Certificates Re: Blocked Nationals (CR Form 98 or 99)			

The above is a complete, true and correct account of funds received and disbursed by me and a report of the action taken in conducting payment and closing of the instant transaction.

John G. Benjamin
Closing Attorney

I/We have examined the above statement and find it correct. This acknowledges that $ 43,327.00 has been disbursed as above with my/our approval and for my/our account and benefit, which said sum is the sale price set forth in my/our Option Agreement with the United States of America, and I/We acknowledge receipt of the balance due me/us as shown above.

J. T. Wilkinson

J. T. Wilkinson

Evelyn M. Wilkinson

Evelyn M. Wilkinson, his wife

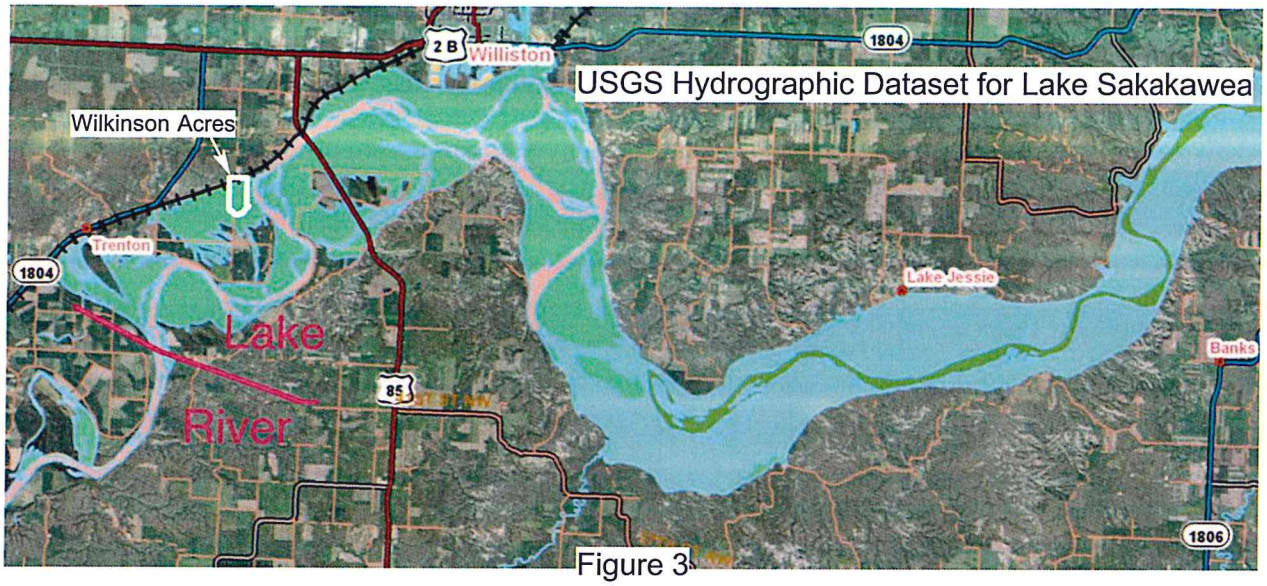


Figure 3

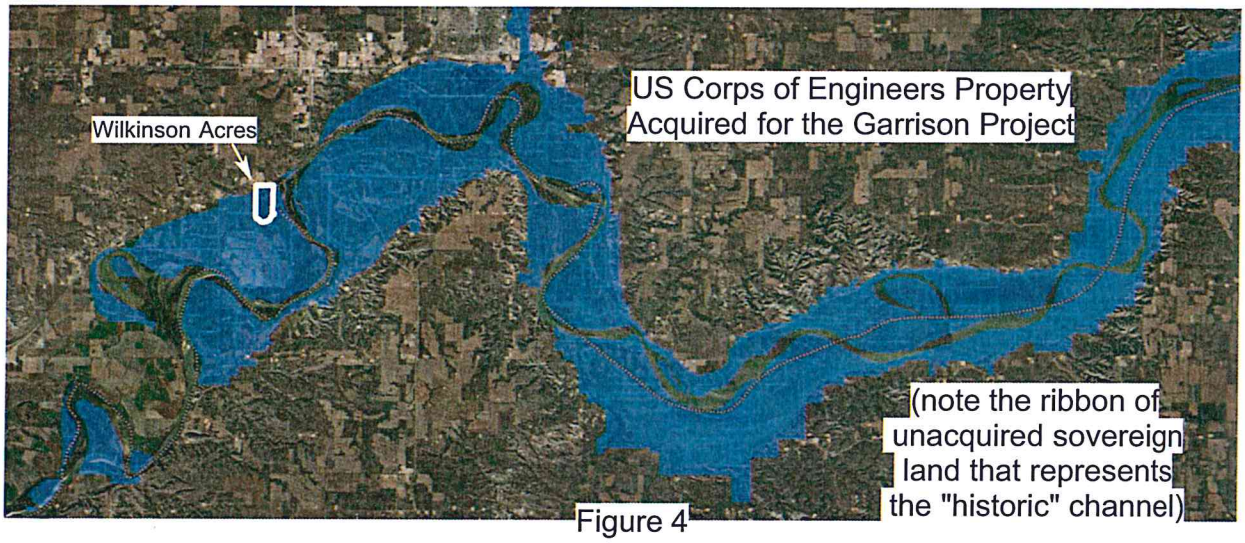


Figure 4

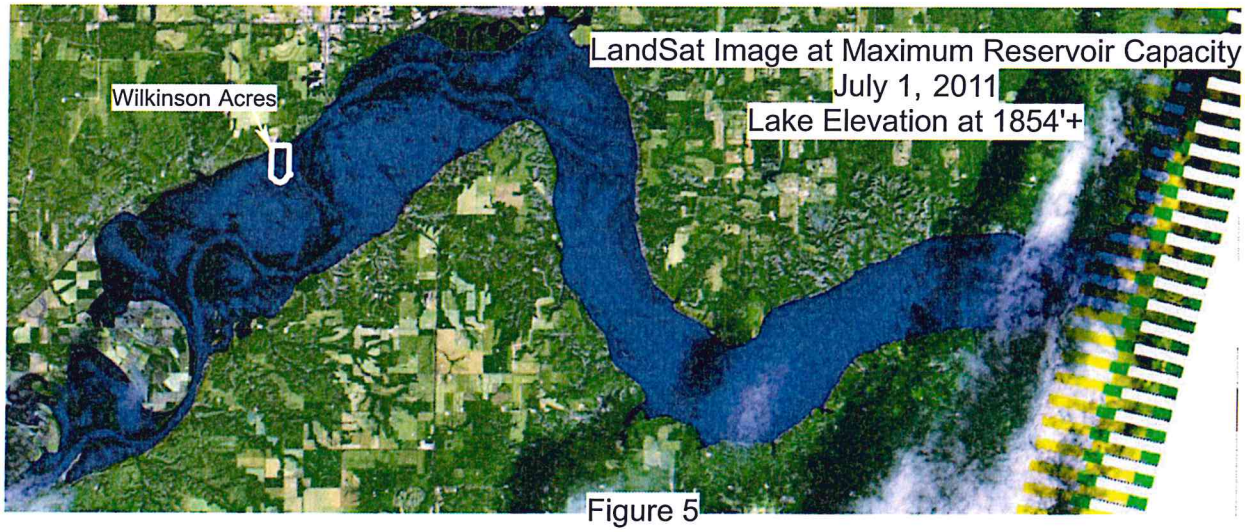


Figure 5

Quotes from state officials concerning the use of the Highway 85 Bridge as a dividing line.

From Depositions taken for the Wilkinson vs. State of ND et.al. Lawsuit

James Landenberger – Bartlett and West

Q. Do you know why the Highway 85 bridge is used as the dividing line between the Phase I and Phase II studies?

A. No.

Q. From an engineering and technical standpoint, is there any reason why the Highway 85 bridge should have been used as the dividing line between the Phase I and Phase II studies?

A. Engineeringwise why the bridge was chosen, I have no idea.

John Paczkowski – Chief of Regulatory, Office of the State Engineer

Q. Are you aware of any scientific basis for using the Highway 85 bridge as a transition for use of the Phase I Study over the Phase II Study?

A. No. Other than Phase II was an estimation -- or was an estimation based on historical photography versus natural delineation.

Q. Right. But I'm talking about specifically the Highway 85 bridge. Are you aware of any scientific basis for using the Highway 85 bridge as a transition --

A. No.

Todd Sando, ND State Engineer

Q. The State of North Dakota used the Highway 85 bridge as the cutoff point for separating the Phase I Study and the Phase II Study. Do you have any knowledge why they used the Highway 85 bridge?

A. No.

Q. Do you know if there's any scientific or technical reason the State would have used the Highway 85 bridge as the point for separating the Phase I Study and Phase II Study?

A. No.

Q. Did you have any discussions with anyone from the Land Board about using the Highway 85 bridge as the transition point between the Phase I and Phase II Study?

A. Don't recall any.

Gerald Heiser, Sovereign Lands Manager, Office of the State Engineer

Q. Are you aware of any scientific reason for the Land Department to use the Highway 85 bridge as a cutoff for leasing Phase I acreage west of that bridge?

A. I am not, no.

Q. And I understand you didn't have any input in using Highway 85 bridge as a cutoff for the mineral leasing acreage.

A. That's correct.

Q. Has there been any work done by the State Water Commission with respect to a definitive line where the Lake Sakakawea is on one side and the river is on the other side of that line?

A. No, I don't believe anything definitive.

Q. Has there been some preliminary work done in that regard?

A. No, I don't believe so.

Q. Do you agree that the western boundary of Lake Sakakawea is the land upstream of the Garrison Dam to the 1854 contour level?

MS. VERLEGER: Objection to the extent it calls for a legal conclusion.

THE WITNESS: I believe that was the elevation the Corps used to purchase lands for the reservoir, but --

Q. (MR. STOCK CONTINUING) And all those lands up to the 1854 level certainly would be subject to inundation by the dam?

A. I assume. Otherwise, I believe they wouldn't have purchased it.

Lance Gaebe, ND Land Commissioner

Q. And what is the basis of using the Highway 85 bridge to lease minerals up to the ordinary high water mark to the river as it existed that day instead of the historic Missouri River in that area?

A. It was a decision that was reached before my time. I don't know the basis of that. Before my time at the department.

Q. Okay. So to summarize here, the State used Phase I in the Wilkinson property because it was west of the Highway 85 bridge?

A. The State used Phase I because it identified the river condition as the river exists in its present state.

Q. And you used the condition as the river exists in its present state for the ordinary high water mark -- the cutoff for that decision is the Highway 85 bridge; yes?

A. Approximated, yes. I think in nearly all cases, that's correct.

Q. Is there any scientific reason to use Highway 85 bridge to determine ordinary high water mark as the river exists that day instead of using the historic Missouri River west of Highway 85 bridge?

A. I don't know.

Q. Are you aware of any scientific reason to use Highway 85 bridge for that distinction?

A. I am not.

Mike Brand, former Director of Surface Management, Department of Trustlands

Q. Is there any basis -- are you aware of any scientific basis for using the Highway 85 bridge as that distinction for leasing purposes?

A. That would be speculation on my part. I'm not involved in that decision or in studying that decision.

Q. Well, based on your expertise and your training and your experience as the director of the Surface Management Division, can you tell me any scientific reason why Highway 85 bridge should be used as the dividing point for using Phase I compared to Phase II?

A. That would be a question to ask the State Water Commission.

Q. You've been designated as an expert witness in this case, Dr. Brand. Do you have any opinion on the use of Highway 85 bridge as the dividing point between Phase I and Phase II with respect to the State's leasing practices?

A. I haven't -- I haven't studied that delineation point -- I mean, that division. All I can say is that we did stop essentially at Highway 85 because beyond there it was almost impossible to delineate the ordinary high water mark on the south side of the river.

Q. Did you -- did Bartlett & West delineate the ordinary high water mark on both sides of the river or just the south side?

A. Both sides.

Q. Why do you say it was impossible to delineate the ordinary high water mark on the south side of the river west of Highway 85?

A. Impossible is probably incorrect because nothing is impossible in this life, of course, but it would have been more difficult and beyond the scope of the project because of the wetlands that were there and the meandering that occurred there.

Bruce Zelmer, Surveyor, Bartlett and West

Q. Do you know why the State chose the Highway 85 bridge as the transition point between the Phase I and Phase II surveys?

A. I can't tell you exactly why. Our original contract and scope and RFP was to go to river mile 1549, I believe. We attempted to do that. As we came into the Williston area from upstream, we were very confident in what we did. And as we got to the bridge and then the left bank and there was some

major concerns that the delineators had on that right bank and how that swirled back around, and there was discussions on where to stop that, so, again, between the -- I think it was the Water Commission people that were involved in that, the Land Department, and ourselves, of course, but we did not make that decision.

Q. When you say how it -- was it how the water swirled around by there?

A. Yeah. Some is water, some is the high water mark, there's agricultural plots in there if you look on the imagery too.

Q. My understanding is that James Landenberger dealt with the State as far as comments they may have had with regards to the Phase I and Phase II Studies; is that correct?

A. Correct. James was our point of contact with all those projects.

Q. Are you aware of any scientific basis to support using the Highway 85 bridge as the point where the Phase II survey stops and the Phase I Study begins?

A. No.

Q. … With regards to the Highway 85 bridge, do you know if there was any scientific basis to use the Highway 85 bridge as a separation between the Phase I and Phase II Studies?

A. ….. Again, it's my opinion, but maybe because it's a physical feature.

Gary Preszler, former ND Land Commissioner

Q. I'll just tell you, I believe Mr. Gaebe stated that the State's use of the Highway 85 bridge for transition leasing purposes of using Phase II compared to Phase I came from you and conversations with others that came before him in the office. Is that not true?

A. Well, I'll tell you what the bridge represents. It does not represent any type of a man-made structure that we felt had an influence whatsoever. It just represented a recognizable landmark that we all knew and we used that as a basis, so when we talked about Phase I, Phase II, we would talk about miles east or west of the bridge. Tom certainly had the maps and he was more familiar with the actual river miles that were there. But as far as that we used Phase I up until the bridge, no. Well, we used the information that I had on Phase I up until my retirement. I did not have anything with Phase II, so I can't answer that as far as what the department did after my retirement.

Q. You'd agree that there's no scientific reason to use the Highway 85 bridge as the transition between Phase I and Phase II as far as leasing purposes?

A. No. It represented no scientific analysis or basis whatsoever. But I think if you look at the report that was given, on the north shore Bartlett & West delineated all the way east of Williston a number of miles. On the south shore they ended about where the bridge was. So that's, if anything, where it looked at the differences to what we were leasing, and stuff like that, that would have impacted it, because we didn't have complete data then east of the bridge on Phase I, if I'm correct in my understanding. You have the data.

Tom Feeney, Director of Mineral Management, Department of Trustlands

Q. Well, was the decision to use the Highway 85 bridge as the transition point between using Phase I and Phase II acreages?

A. Not to my knowledge. That Highway 85 bridge, I don't know where that term even came from or who initiated it or where -- what it represents. To me that was just a landmark, an easy point of reference. When somebody asks you, How far did you get on this project? Well, Highway 85 bridge approximately, you know. The bridge has nothing to do with what phase is used to determine what acreage is made available for nomination.

Q. Right. So you'd agree there's no scientific basis to use Highway 85 bridge as a transition point between Phase I and Phase II acreages; correct?

A. This is the wash area that we knew needed more study, and so we commissioned a phase 3 also. And Phase III -- I don't know if we called it Phase III. I think it was Task Order 3. But, anyway, the purpose of 3 was to take a closer examination of these problem areas, controversial areas, areas difficult to determine if it's river or lake, and there were maybe half a dozen of them that were studied in Phase -- or Task Order 3.

Quotes from state officials concerning the use of the "historic channel" as the limit to the state's claim to sovereign land ownership.

Gary Preszler – State Land Commissioner from 1995-2010 – from Deposition in Wilkinson vs. State Lawsuit

Q. (MR. STOCK CONTINUING) And, therefore, the State -- in your opinion, the State cannot claim as sovereign lands land underlying Lake Sakakawea; is that a fair statement?

THE WITNESS: No, I don't -- I don't agree with that. And the State has always maintained rights to the original riverbed under Lake Sakakawea.

Q. (MR. STOCK CONTINUING) That's a good point. So even though inundated by Lake Sakakawea, the State would claim, and has the right to claim, ownership of the original historic Missouri riverbed?

THE WITNESS: That's been the basis of our management at the Land Department. Yes, we maintain that the State did not convey the riverbed to the federal government nor did they condemn the riverbed itself.

Q. (MR. STOCK CONTINUING) In fact, the State is not -- well, has a policy of not claiming mineral interests up to the shores of Lake Sakakawea other than underneath the historic Missouri riverbed; correct?

THE WITNESS: I can only respond as to my tenure during -- as commissioner, we never claimed anything outside the riverbed.

Q. The historic Missouri riverbed?

A. The historic riverbed, that's correct.

Todd Sando – State Engineer 2010-2016 – from Deposition in Wilkinson vs. State Lawsuit

Q. But you don't know what sovereign land the State of North Dakota is claiming as part of the Garrison project that was owned by the United States?

A. Yes, I do. We're claiming where it's been delineated below the ordinary high water mark and we're managing the water that was -- I mean, the land that was transferred at the time of statehood, so the historic river channel through Lake Sakakawea.

Q. (MR. SWANSON CONTINUING) Lake Sakakawea did not exist at statehood; correct?

A. Correct.

Q. So Lake Sakakawea could not be navigable at statehood; correct?

A. Correct.

Q. And you do not know whether your office, the State Engineer and the State Water Commission, has determined that the State owns as sovereign lands 30,000 acres which represents the riverbed of the Missouri River lying underneath Lake Sakakawea?

A. You're saying I don't know. I do know, yes.

Q. Well, what do you know?

A. Like I said, the original channel at the time of statehood was transferred to the State of North Dakota, so whatever number of acres that is, the historic channel.

Gerald Heiser – Sovereign Lands Manager, office of the ND State Engineer 2008-present - from Deposition in Wilkinson vs. State Lawsuit

Q. Now, and that -- would that claim to sovereign lands up to the ordinary high water mark also include claim to lands inundated by Lake Sakakawea?

THE WITNESS: The State claims title to the historic bed of the Missouri River under Lake Sakakawea.

Q. (MR. STOCK CONTINUING) Correct. So you can claim -- the State of North Dakota claims title to the historic Missouri River but not necessarily the Garrison Reservoir created by the Garrison Dam?

THE WITNESS: At this time, no, we don't.

Q. (MR. STOCK CONTINUING) As the manager of sovereign lands, do you currently manage any sovereign lands around Lake Sakakawea, bordering Lake Sakakawea?

A. Well, we manage the Missouri River, so, I guess, yeah.

Q. Do you currently -- specifically does your office manage any sovereign lands bordering Lake Sakakawea, is what I'm asking, not bordering the river.

A. We administer sovereign lands on the historic Missouri River channel but not bordering -- I mean, nothing on the external boundaries of the reservoir.

Charles Carvell – Former Director, Natural Resources and Indian Affairs Division, Attorney General's office, - from Minutes of the Administrative Rules Committee Tuesday, March 9, 2010 (attached)

In response to a question from Representative Kasper, Mr. Carvell said with regard to water and lands at Lake Sakakawea, the Army Corps of Engineers owns most shorelands and land underlying the lake, with the exception of state ownership of the original river channel, and the state cannot preempt federal ownership and control.

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

ADMINISTRATIVE RULES COMMITTEE

Tuesday, March 9, 2010
Roughrider Room, State Capitol
Bismarck, North Dakota

Senator Jerry Klein, Chairman, called the meeting to order at 10:00 a.m.

Members present: Senators Jerry Klein, John M. Andrist, Tom Fischer, Joan Heckaman, Tracy Potter; Representatives Randy Boehning, Chuck Damschen, Duane DeKrey, Jim Kasper, Kim Koppelman, George J. Keiser, Joe Kroeber, Jon Nelson, Blair Thoreson, Francis J. Wald, Lonny Winrich, Dwight Wrangham

Members absent: Senator Layton W. Freborg; Representatives Wesley R. Belter, Stacey Dahl, Mary Ekstrom

Others present: See Appendix A

It was moved by Representative DeKrey, seconded by Representative Koppelman, and carried on a voice vote that the minutes of the previous meeting be approved as distributed.

STATE WATER COMMISSION

Chairman Klein called on Mr. Dale Frink, State Engineer, State Water Commission, for comments on State Water Commission rules carried over from the previous committee meeting. Mr. Frink said the rules submitted for Administrative Rules Committee consideration relate to management of sovereign lands but do not make changes in law or rules determining what is included in sovereign lands. He said in 1989 the Legislative Assembly transferred sovereign lands management from the Land Department to the State Engineer. He said a 2005 Attorney General opinion required development of a comprehensive plan for management of sovereign lands. He said the required comprehensive plan has been completed. He said the existence of the comprehensive plan has been beneficial because issues and uses relating to sovereign lands have grown in recent years. He said some rules changes were needed to conform preexisting rules to the comprehensive plan. He said that is the reason the rules were adopted.

Mr. Frink said the rules adopted cover issues relating to uses of sovereign lands, but he understands the concern of the committee is with obtaining information on what is included in sovereign lands and how the phrase "navigable waters" is defined. He said Mr. Charles Carvell, Director, Natural Resources and Indian Affairs Division, Attorney General's office, is the state's most experienced legal adviser on these issues, and he asked Mr. Carvell to provide information to the committee on these issues.

Representative Keiser asked why these changes were made through rules instead of legislation. Mr. Frink said the comprehensive plan as developed and implemented required adjustment of existing rules of the State Water Commission. Representative Keiser asked why sovereign lands are defined in rules instead of legislation. Mr. Frink said the definition of sovereign lands in the rules is identical to a definition in statute. He said the rules do not make any change in what is included within the coverage of the term sovereign lands.

Mr. Carvell provided testimony (Appendix B) based on a written outline distributed to the committee. He traced the history of the sovereign lands doctrine.

In response to a question from Representative Keiser, Mr. Carvell said constitutionally it is probably not possible for the state to change the status of sovereign lands because the waters that were navigable at statehood are the basis of the state's sovereign lands.

Senator Klein asked whether the federal government under Section 404 of the Clean Water Act is looking for ways to expand its jurisdiction by expanding what are considered navigable waters for Clean Water Act purposes. Mr. Carvell said that appears to be true.

In response to a question from Representative Kasper, Mr. Carvell said with regard to water and lands at Lake Sakakawea, the Army Corps of Engineers owns most shorelands and land underlying the lake, with the exception of state ownership of the original river channel, and the state cannot preempt federal ownership and control.

Representative Koppelman said as he understands the policy, navigable waters at statehood are certain defined waters but water level changes can change what land is included in sovereign lands of the state. Mr. Carvell said that is correct.

Senator Heckaman said at Devils Lake agricultural lands have been inundated and former owners are continuing to pay minimal property taxes on the property. Mr. Carvell said he does not see any reason why those owners should pay property taxes. He said the state owns the land under sovereign lands coverage, and those owners will be restored to ownership when the water recedes.

Mr. Frink said it is a local decision on property taxes on inundated lands. He said owners of those

Exhibit E - Affidavit of Lois Jean Patch

State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

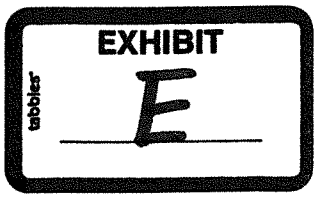
2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry



creek banks with my sisters as my dad and brothers worked in the fields.

RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.

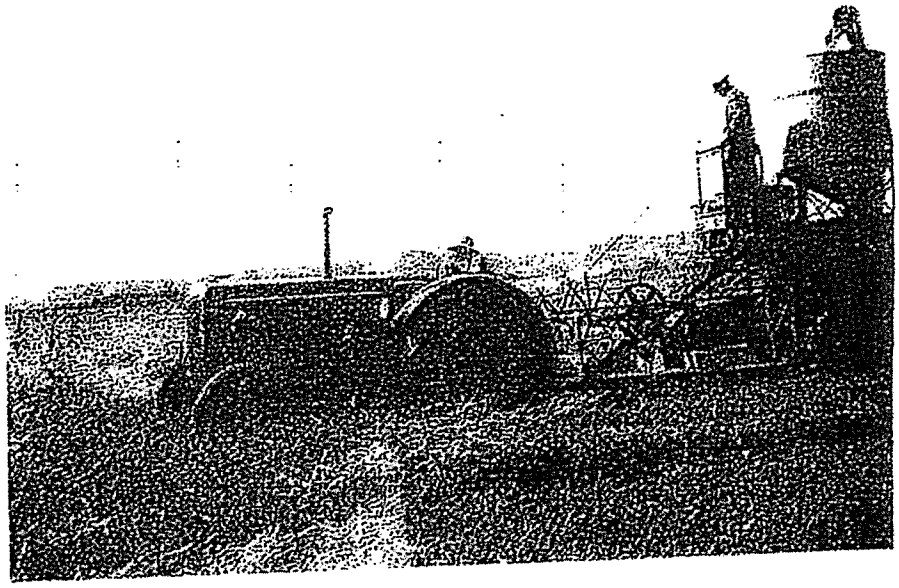


Exhibit F - Affidavit of William S. Wilkinson

AFFIDAVIT

State of Michigan
ss.
County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

EXHIBIT
tabbies
F

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

Exhibit G - Affidavit of Vanessa E. Blaine

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: 2.14.2014

OFFICIAL SEAL
TAMMY WIEMAN
NOTARY PUBLIC State of New Mexico
My Commission Expires

EXHIBIT
tabbies
G

Hi Jan -
Thought good for
this week's Tuesday.

Trenton Farmer Has Splendid Wheat Crop

Tom Wilkinson, farmer on the Missouri bottoms in the county near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 255 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

19400241

Exhibit H - 1958 Warranty Deed from the Wilkinsons to the United States reserving the mineral rights in the Wilkinsons

Tract No. HR-3190

1. WARRANTY DEED — 3M-2-61 — To: Nat'l Land Blanks, Bismarck, N. D.

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 - - -

12

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances,

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58 before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958.

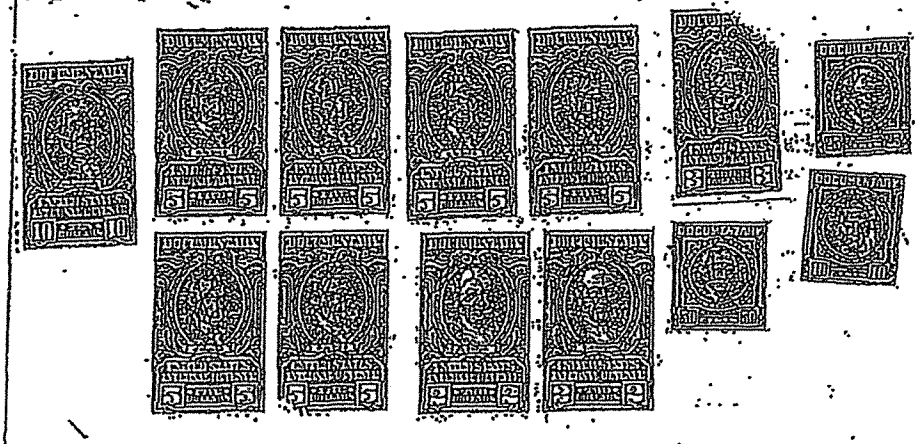
STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

TELMAR E. ROLFSTAD
Notary Public for the County of Williams,
State of North Dakota

My commission expires Nov. 19, 1958.



Doc. No. 288165
Abstracted
Grantor
Grantee
Compared
Indexed
Entered
Mailed
Warranty Deed

TRANSFER FEE $ 25
TO
RECORDING FEE $1.50

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the 10 day of JUN 1958 A. D. 19 at 4:45 o'clock P. M. and was duly recorded in book 247 of Warranty Deeds on page 477

Register of Deeds
By Deputy

Delinquent taxes and special assessments, if any, and all unpaid special assessments are paid for and transfer entered this 10 day of June, 1958

County Auditor
By Deputy

Exhibit I - The Wilkinsons' oil and gas leases cited by the North Dakota Supreme Court

September 17, 1977

Richard M. Patch
1833 Marian Drive
Bismark, North Dakota 58501

OIL & GAS LEASE
Township 153N, Range 102W
Williams County, North Dakota

Dear Mr. and Mrs. Patch:

Enclosed is an Oil and Gas Lease dated this date together with one copy marked "Your Copy" which you should retain for your records. Also, attached is a Draft in the amount of $1,408.75 reflecting your proportionate share of the acreage covered in the Lease. Please do the following:

1) Sign the original and one copy of the Lease on back where your name is typed exactly as it is typed;

2) Have your signatures acknowledge before a Notary Public;

3) Endorse the Draft on the back and place it with your bank for collection as soon as possible;

4) On the first page of the Lease, Please initial the changes made from the original Lease, i.e. "five (5) years"; also initial elimination of "pooling clause" (Paragraph 5)

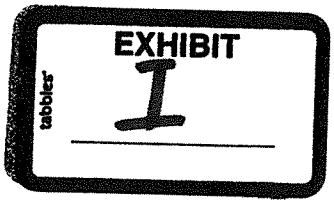
5) Return the original and one copy of the executed and acknowledged Lease to us in the enclosed, stamped, self-addressed envelope.

Thank you for your cooperation in this matter, and if we can be of further service, or if you have any questions, feel free to call COLLECT at Area Code (701) 572-4603.

Sincerely yours,

Gene Lang

GFL/grt
Enclosures



Description: T153N,R102W,5TH P.M.

Sec. 12: SW¼, S½NW¼ (less and except 5.58 acres Great Northern Railway right of way.);

Sec. 13: Farm Unit No. 312 of Buford-Trenton Project according to the plat thereof recorded in Deed Book 101, page 413 of Williams Co., North Dakota, being a part of Sec. 13, containing 57.09 acres more or less;

Sec. 19: Lot 2 (39.31 acres), Lot 3 (39.37 acres), Lot 6 (39.43 acres), E½NW¼, and the E½SW¼, NW¼NE¼, Lot 1 (27.80 acres), Lot 4 (31.70 acres) lying North of Great Northern Railway right of way, LESS and EXCEPT 3.00 acres between Great Northern Railway and Trenton road, LESS and EXCEPT 1.00 acre of Lot 1, and FURTHER EXCEPT 0.76 acre of NW¼NE¼ to Trenton Township, containing 73.88 acres more or less.

County WILLIAMS
State NORTH DAKOTA
Gross Acres 563.50
Net Acres 563.50

TOWNSHIP 153 NORTH, RANGE 102 WEST, 5TH PRINCIPAL MERIDIAN

Section 12: SW¼, S½NW¼ (less and except 5.58 acres more or less which constitutes the right of way of the Great Northern Railway Company.);

Section 13: Farm Unit No. 312 of the Buford-Trenton Project according to the plat thereof recorded in Deed Book 101, page 413 of Williams County, North Dakota, being a part of Section 13, containing 57.09 acres more or less;

Section 19: Lot 2 (39.31 acres), Lot 3 (39.37 acres), Lot 6 (39.43 acres), E½NW¼, and the E½SW¼, NW¼NE¼, Lot 1 (27.80 acres) and Lot 4 (31.70 acres) lying North of the Great Northern Railway Company right of way, LESS and EXCEPT that portion lying between the Northeastern boundary line of the Great Northern Railway Company right of way and the North boundary line of the Trenton road running alongside of the North boundary line of the Great Northern Railway, containing 3.00 acres more or less, and FURTHER EXCEPTING 1.00 acre of Lot 1, and FURTHER EXCEPT 0.76 acre of NW¼NE¼ to Trenton Township, containing 73.88 acres more or less;

LOIS JEAN PATCH

RICHARD M. PATCH

No. 5722 9-26 1977

Received of Lois Jean Patch and Richard M. Patch

One thousand four hundred eight and 75/100 Dollars

Collection item.

$1,408.75

DAKOTA NATIONAL BANK
Bismarck, N. Dak.
By P Kaul

BISMARCK TRIBUNE 85018

Producers 88-1959

OIL AND GAS LEASE

THIS AGREEMENT, made and entered into this 17th day of September, 19 77 by and between

LOIS JEAN PATCH and RICHARD K. PATCH, wife and husband,

1633 Marion Drive, of Bismark, North Dakota 58501

hereinafter called lessor (whether one or more) and R. E. Puckett, 215 Security Life Building,

Denver, Colorado 80202 hereinafter called lessee:

1. WITNESSETH: That the lessor, for and in consideration of $ 10.00 and Ores cash in hand paid, receipt of which is hereby acknowledged, and of the covenants and agreements hereinafter contained on the part of the lessee to be paid, kept and performed, has granted, demised, leased and let and by these presents does grant, demise, lease and let exclusively unto said lessee, with the exclusive right of mining, exploring by geophysical and other methods and operating for and producing therefrom oil and all gas of whatsoever nature or kind, and laying pipe lines, telephone and telegraph lines, housing and boarding employees, building tanks, power stations, gasoline plants, ponds, roadways, and structures thereon to produce, save, market and take care of said products and the exclusive surface and subsurface rights and privileges related in any manner to any and all such operations and any and all other rights and privileges necessary, incident to, or convenient for the economical operation alone or conjointly with neighboring land for such purposes, all that certain

tract or tracts of land situated in the County of Williams, State of North Dakota, described as follows, to-wit:

* SEE DESCRIPTION ATTACHED HERTO AND MADE A PART HEREOF AND SIGNED FOR IDENTIFICATION

of Section XX, Township XX, Range XX, and containing 563.50 acres, more or less.

2. It is agreed that this lease shall remain in force for a term of Five (5) years from date and as long thereafter as oil, or gas of whatsoever nature or kind, or either of them is produced from said land or premises pooled therewith or drilling operations are conducted as hereinafter provided. If prior to discovery of oil or gas on said land, or on acreage pooled therewith, lessee should drill a dry hole or holes thereon, or if after discovery of oil or gas production thereafter should cease for any cause, this lease shall not terminate if lessee commences additional drilling or reworking operations within sixty (60) days thereafter, or (if it be within the primary term) commences or resumes the payment or tender of rental on or before the rental-paying date next ensuing after the expiration of three (3) months from the date of completion of a dry hole or cessation of production. If, at the expiration of the primary term of this lease, oil or gas is not being produced on or from said land or said pooled premises but lessee is then engaged in drilling or reworking operations thereon, then this lease shall continue in force so long thereafter as drilling or reworking operations are being continuously prosecuted on said land or on a drilling or development or operating unit which includes all or a part of said land; and drilling or reworking operations shall be considered to be continuously prosecuted if not more than sixty days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling or reworking of another well. If oil or gas shall be discovered and/or produced from any such well or wells drilled, being drilled or reworked at or after the expiration of the primary term of this lease, this lease shall continue in force so long thereafter as oil or gas is produced from the leased premises or from any such unit which includes all or a part of said lands.

3. In consideration of the premises the said lessee covenants and agrees:

(a) To deliver to the credit of lessor, free of cost in the pipe line to which lessee may connect his wells, the equal one-eighth part of all oil produced and saved from the leased premises, or at the lessee's option, may pay to the lessor for such one-eighth royalty, the market price for oil of like grade and gravity prevailing on the day such oil is run into the pipe line or into storage tanks.

(b) To pay lessor for gas of whatsoever nature or kind produced and sold, or used off the premises, or used in the manufacture of any products therefrom, one-eighth, at the market price at the well for the gas sold, used off the premises, or in the manufacture of products therefrom. Where gas from a well producing gas only is not sold or used, lessee may pay or tender as royalty One Dollar per year per net royalty acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in and thereafter on or before the anniversary date of this lease during the period such well is shut in, to the royalty owners or to the royalty owners' credit in the rental depository bank herein designated. If such payment or tender is made, it will be considered that gas is being produced within the meaning of this lease.

4. If operations for the drilling of a well for oil or gas are not commenced or if there is no oil or gas being produced on said land or on acreage pooled therewith as hereinafter provided on or before one year from the date hereof, this lease shall terminate as to both parties, unless the lessee on or before that date shall pay or tender to the lessor or to the lessor's credit in the First National Bank at Bismark, North Dakota 58501, or its successor, which shall continue as the depository for rental regardless of changes in the ownership of said land, the sum of Five Hundred Sixty Three 50/100 DOLLARS ($ 563.50) which shall operate as a rental and cover the privilege of deferring the commencement of operations for drilling of a well for twelve months from said date. In like manner and upon like payments or tenders the commencement of operations for drilling of a well may be further deferred for like periods of the same number of months successively. All payments or tenders may be made by check or draft of lessee or any assignee thereof, mailed or delivered on or before the rental paying date. It is understood and agreed that the consideration first recited herein, the down payment, covers not only the privilege granted to the date when said first rental is payable as aforesaid, but also the lessee's right of extending that period as aforesaid, and any and all other rights conferred. Should the depository bank hereafter close without a successor, lessee or its assigns may deposit rental or royalties in any National bank located in the same county with the first named bank, due notice of such deposit to be mailed to lessor at last known address.

5. Lessee of its option is hereby given the right and power at any time or from time to time as a recurring right, either before or after production as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, lessee shall have the right to unitize, pool, or combine all or any part of the above described lands as to one or more of the formations hereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to lessor shall be based upon production only as so allocated. Lessor shall formally express lessor's consent to any cooperative or unit plan of development or operation adopted by lessee and approved by any governmental agency by executing the same upon request of lessee.

6. Lessee may, at any time, release this lease as to any stratum or strata and as to part or all of the lands above described, after which all payments and liabilities thereafter to accrue, as to the lands released, shall cease and determine. In the event of a partial release, the annual delay rental above mentioned shall be reduced proportionately.

7. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from ditches, ponds, reservoirs, or wells of lessor.

When requested by the lessor, lessee shall bury its pipe lines on cultivated portions below plow depth.

No well shall be drilled nearer than 200 feet to the house or barn now on said premises, without the written consent of the lessor.

Lessee shall pay for damages caused by his operation to growing crops on said lands.

Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

8. If the estate of either party hereto is assigned, and the privilege of assigning in whole or in part is expressly allowed, although it is agreed that no change or division in ownership of the land, rentals or royalties, however accomplished, shall operate to enlarge the obligations or diminish the rights of the lessee, the covenants hereof shall extend to their heirs, executors, administrators, successors or assigns, but no change in the ownership of the land or assignment of rentals or royalties shall be binding on the lessee until after the lessee has been furnished with certified copies of muniments of title deraigning title from lessor; and it is hereby agreed in the event this lease shall be assigned as to a part or parts of the above-described lands and the assignee or assignees of such part or parts shall fail or make default in the payment of the proportionate part of the rents due from him or them, such default shall not operate to defeat or affect this lease insofar as it covers a part or parts of said lands as to which the said lessee or any assignee thereof shall make due payment of said rental. In the event of death of any person entitled to rentals hereunder, lessee may pay or tender such rentals to the credit of the deceased or the estate of the deceased until such time as lessee is furnished with proper evidence of the appointment and qualification of an executor or administrator of the estate, or if there be none, then until lessee is furnished with evidence satisfactory to it as to the heirs or devisees of the deceased.

9. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the lessee shall have the right at any time to pay for lessor, any mortgage, taxes or other liens on the above-described lands in the event of default of payment by lessor, and be subrogated to the rights of the holder thereof, and lessor hereby agrees that any such payments made by the lessee for the lessor may be deducted from any amounts of money which may become due the lessor under the terms of this lease.

10. If said lessor owns a less interest in the above-described land than the entire and undivided fee simple estate therein, then the royalties and rentals herein provided shall be paid the lessor only in proportion which his interest bears to the whole and undivided fee. Any interest in the production from the lands herein described to which the interest of lessor may be subject shall be deducted from the royalty herein reserved.

11. Lessee shall comply with all laws and regulations of any Governmental body purporting to exercise taxing authority over the lands covered by this lease or the person of the lessee herein and in so complying lessee shall not be responsible for determining the legality, validity or constitutionality of any such law or regulation enacted or issued by any such Governmental body. In determining the residence of lessee for purposes of complying with such laws or regulations lessee may rely upon the address of lessee herein set forth or upon the last known address of lessee. Neither any error in the determination of the residence or status of lessee nor an error in the payment of any sums of money due or payable to lessor under the terms of this lease which is made during the course of or as a result of lessee's good faith efforts to comply with any such laws or regulations shall terminate this lease or constitute grounds for any cause of action against lessee. All of lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with any thereof is prevented or hindered by or is in conflict with Federal, State, County, or municipal laws, rules, regulations or Executive Orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field, weather, or market conditions, inability to obtain materials in the open market or transportation thereof, war, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by lessee, and this lease shall not be terminated in whole or in part, nor lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the contingencies above stated, shall be added to the primary term of the lease; provided, however, that delay rentals as herein provided shall not be suspended by reason of the suspension of operations and if this lease is extended beyond the primary term above stated by reason of such suspension, lessee shall pay an annual delay rental on the anniversary dates hereof in the manner and in the amount above provided.

12. Should any person, firm or corporation have an interest in the above-described land not leased to lessee, or should any one or more of the parties named above as lessors not execute this lease, it shall nevertheless be binding upon the party or parties executing the same.

13. The undersigned lessors for themselves and their heirs, successors, and assigns, hereby expressly release and waive all rights under and by virtue of the homestead exemption laws of said state, insofar as the same may in any way affect the purposes for which this lease is made as recited herein.

IN WITNESS WHEREOF, the undersigned execute this instrument as of the day and year first above written.

LOIS JEAN PATCH SS# 501-18-9438

RICHARD N. PATCH

ACKNOWLEDGMENTS

STATE OF NORTH DAKOTA
COUNTY OF _____ } ss.

INDIVIDUAL, North Dakota, South Dakota, Nebraska

On this September day of 77, 19____, before me, personally appeared LOIS JEAN PATCH and RICHARD N. PATCH, wife and husband, to me known to be the person s described in and who executed the foregoing instrument, and acknowledged to me that they executed the same as their free act and deed.

My commission expires:

_____ _____
Notary Public.

STATE OF _____
COUNTY OF _____ } ss.

INDIVIDUAL, North Dakota, South Dakota, Nebraska

On this _____ day of _____, 19____, before me, personally appeared _____, to me known to be the person _____ described in and who executed the foregoing instrument, and acknowledged to me that _____ executed the same as _____ free act and deed.

My commission expires:

_____ _____
Notary Public.

No. _____

Oil and Gas Lease

FROM _____

TO _____

Dated _____, 19____

No. Acres _____ County _____

Term _____

This instrument was filed for record on the _____ day of _____, 19____, at _____ o'clock _____ M., and duly recorded in Book _____, Page _____ of the records of this office.

_____ Register of Deeds.

By _____ Deputy

When recorded return to

STATE OF _____
COUNTY OF _____ } ss.

CORPORATE, North Dakota, South Dakota, Nebraska

On this _____ day of _____ in the year _____, before me, a Notary Public, personally appeared _____, known to me to be the _____ of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

_____ _____
Notary Public.

Producers 88-PAID UP

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 8th day of February, 2006, by and between Lois Jean Patch, a widow

whose post office address is 1833 Marion Drive, Bismarck, North Dakota 58501 hereinafter called Lessor (whether one or more) and

JOHN H. HOLT OIL PROPERTIES, INC. whose post office address is P. O. Box 24, Williston, North Dakota 58802-0024, hereinafter called Lessee:

WITNESSETH, That the Lessor, for and in consideration of Ten Dollars and more ($10.00+) cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas to include coalbed methane gas, of whatsoever nature or kind, together with the right to *construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of* said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas (including dewatering of coalbed gas wells), and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West
Section 12: SW/4, S/2NW/4 except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Including any and all accretions thereof

and containing 286.04 acres, more or less.

1. It is agreed that this lease shall remain in force for a term of four (4) years from this date and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or re-working operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith, and operations shall be considered to be continuously prosecuted in not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this lease shall not terminate if Lessee commences additional drilling or re-working operations within ninety (90) days from date of cessation of production or from date of completion of dry hole. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the leased premises or on acreage pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost, in the pipe line to which Lessee may connect wells on said land, the equal one -sixth (1/6) part of all oil produced and saved from the leased premises.

2nd. *To pay Lessor one-sixth (1/6) of the gross proceeds each year, payable quarterly*, for the gas from each well where gas only is found, while the same is being used off the premises, and if used in the manufacture of gasoline a royalty of one-sixth (1/6), payable monthly at the prevailing market rate for gas.

3rd. To pay Lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline, or any other product a royalty of one-sixth (1/6) of the proceeds, at the mouth of the well, payable monthly at the prevailing market rate.

4. If, at the expiration of the primary term or at any time or times thereafter there is any well on the leased premises either capable of producing oil or gas or subject to dewatering operations, then this lease shall not terminate so long as such well is shut in or such dewatering operations continue. For each such well, Lessee shall pay or tender to Lessor or Lessor's successor or assigns One Dollar per year per net mineral acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in or dewatering commences and thereafter on or before the anniversary date of this lease during the period such well is shut in or is in a dewatering phase. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

5. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the Lessor only in proportion which Lessor's interest bears to the whole and undivided fee.

6. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for Lessee's operation thereon, except water from the wells of Lessor.

7. When requested by Lessor, Lessee shall bury Lessee's pipeline below plow depth.

8. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of Lessor.

9. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

10. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

11. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest (by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other *kind of notice*, whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other leasehold owner.

12. Lessee, at its option, is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, *and irrespective of whether authority similar to this exists with respect to such other land, lease or leases.* Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; *such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease* and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, Lessee shall have the right to unitize, pool or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement, and in such event, the terms, conditions and provisions of this lease be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. *In the event that said above described lands or any part thereof*, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payment to be made hereunder to Lessor shall be based upon production only as so allocated. Lessor shall formally express Lessor's consent to any cooperative or unit plan of development or operation adopted by Lessee and approved by any governmental agency by executing the same upon request of Lessee.

EXHIBIT 4

13. All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

14. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

15. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word "Lessor," as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

16. PUGH CLAUSE: Notwithstanding anything to the contrary contained in the lease, at the end of the primary term of the lease, a well capable of production shall hold beyond the primary term only those lands covered by the lease which are located within the spacing unit as set forth from time to time by the State of North Dakota; provided, however, Lessee may maintain the entire lease in full force and effect beyond the primary term, so long as the Lessee conducts continuous drilling operations on the lands covered thereby or on lands pooled therewith, it being understood that Lessee shall have satisfied the continuous operations requirement by allowing not more than 180 days to elapse between the completion of drilling operations on any given well and the commencement of a succeeding well.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

_____

Lois Jean Patch, a widow

STATE OF North Dakota)
) ss.
COUNTY OF Burleigh)

ACKNOWLEDGMENT—INDIVIDUAL

BEFORE ME, the undersigned, a Notary public, in and for said County and State, on this _____ day of February, 2006, personally appeared Lois Jean Patch, a widow, to me known to be the identical person(s) described in and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My commission Expires: _____ _____ Notary Public.

(SEAL)

Address: _____

When recorded return to:
John H. Holt Oil Properties, Inc.
P.O. Box 24
Williston, North Dakota 58802-0024

Producers 88-PAID UP

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 8th day of February, 2006, by and between Dorothy A. Wilkinson, a widow

whose post office address is 417 Tailholt Lane Shelbyville, IN 46176 hereinafter called Lessor (whether one or more) and

JOHN H. HOLT OIL PROPERTIES, INC. whose post office address is P. O. Box 24, Williston, North Dakota 58802-0024, hereinafter called Lessee:

WITNESSETH, That the Lessor, for and in consideration of Ten Dollars and more ($10.00+) cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas to include coalbed methane gas, of whatsoever nature or kind, together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas (including dewatering of coalbed gas wells), and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West
Section 12: SW/4, S/2NW/4 except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Including any and all accretions thereof

and containing 286.04 acres, more or less.

1. It is agreed that this lease shall remain in force for a term of four (4) years from this date and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or re-working operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith, and operations shall be considered to be continuously prosecuted if not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this lease shall not terminate if Lessee commences additional drilling or re-working operations within ninety (90) days from date of cessation of production or from date of completion of dry hole. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the leased premises or on acreage pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost, in the pipe line to which Lessee may connect wells on said land, the equal one-sixth (1/6) part of all oil produced and saved from the leased premises.

2nd. To pay Lessor one-sixth (1/6) of the gross proceeds each year, payable quarterly, for the gas from each well where gas only is found, while the same is being used off the premises, and if used in the manufacture of gasoline a royalty of one-sixth (1/6), payable monthly at the prevailing market rate for gas.

3rd. To pay Lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline, or any other product a royalty of one-sixth (1/6) of the proceeds, at the mouth of the well, payable monthly at the prevailing market rate.

4. If, at the expiration of the primary term or at any time or times thereafter there is any well on the leased premises either capable of producing oil or gas or subject to dewatering operations, then this lease shall not terminate so long as such well is shut in or such dewatering operations continue. For each such well, Lessee shall pay or tender to Lessor or Lessor's successor or assigns One Dollar per year per net mineral acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in or dewatering commences and thereafter on or before the anniversary date of this lease during the period such well is shut in or is in a dewatering phase. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

5. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the Lessor only in proportion which Lessor's interest bears to the whole and undivided fe e.

6. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for Lessee's operation thereon, except water from the wells of Lessor.

7. When requested by Lessor, Lessee shall bury Lessee's pipeline below plow depth.

8. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of Lessor.

9. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

10. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

11. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest (by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other kind of notice, whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other le asehold owner.

12. Lessee, at its option, is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, Lessee shall have the right to unitize, pool or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement, and in such event, the terms, conditions and provisions of this lease be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payment to be made hereunder to Lessor shall be based upon production only as so allocated. Lessor shall formally express Lessor's consent to any cooperative or unit plan of development or operation adopted by Lessee and approved by any governmental agency by executing the same upon request of Lessee.

632814
Page: 1 of 2
02/23/2006 01:56P
WILLIAMS COUNTY, ND OGL 13.00

13. All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

14. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

15. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word "Lessor," as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

16. PUGH CLAUSE: Notwithstanding anything to the contrary contained in the lease, at the end of the primary term of the lease, a well capable of production shall hold beyond the primary term only those lands covered by the lease which are located within the spacing unit as set forth from time to time by the State of North Dakota; provided, however, Lessee may maintain the entire lease in full force and effect beyond the primary term, so long as the Lessee conducts continuous drilling operations on the lands covered thereby or on lands pooled therewith, it being understood that Lessee shall have satisfied the continuous operations requirement by allowing not more than 180 days to elapse between the completion of drilling operations on any given well and the commencement of a succeeding well.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

Dorothy A. Wilkinson

Dorothy A. Wilkinson, a widow

STATE OF Indiana)
) ss.
COUNTY OF Shelby)

ACKNOWLEDGMENT—INDIVIDUAL

BEFORE ME, the undersigned, a Notary public, in and for said County and State, on this 17 day of February, 2006, personally appeared Dorothy A. Wilkinson, a widow, to me known to be the identical person(s) described in and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My commission Expires: July 10, 2008

George K. Stubbs JV. Notary Public.

(SEAL)

220 S. Harrison St.

Address: Shelbyville, IN 46176

When recorded return to:
John H. Holt Oil Properties, Inc.
P.O. Box 24
Williston, North Dakota 58802-0024

TREASURER/RECORDER WILLIAMS SEAL COUNTY STATE OF NORTH DAKOTA

632814
Page: 2 of 2
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WILLIAMS COUNTY, ND OGL 13.00

COUNTY RECORDER, WILLIAMS COUNTY, ND 02/23/2006 01:56PM
I certify that this instrument was filed and recorded
Karl Evenson, County Recorder
by Tracey Reinhardt Deputy 632814

COUNTY RECORDER, WILLIAMS COUNTY, ND 8/3/2009 8:30 AM
I certify that this instrument was filed and recorded
Kari Evenson, County Recorder
by ... 671314

671314
Page: 1 of 4
8/3/2009 8:30 AM
WILLIAMS COUNTY, ND OGL $19.00

Producers 88
Rocky Mountain 1989
(Paid-Up Rev. 1996)

For Lessee's Use Only: Lease #:
Prospect #:

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 15th day of July, 2009 by and between **Dorothy A. Wilkinson**, a widow, whose post office address is 417 Tailholt lane, Shelbyville, IN 46176, hereinafter called Lessor (whether one or more) and: **Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111** hereinafter called Lessee:

WITNESSETH, That Lessor, for and in consideration of ten and more dollars ($10.00 and more) in hand paid, receipt of which is hereby acknowledged, and of the agreements of Lessee hereinafter set forth, hereby grants, demises, leases and lets exclusively unto Lessee the lands described below for the purpose of investigating, prospecting, exploring (by geophysical and other methods), drilling, mining, operating for and producing oil or gas, or both (as defined below), together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air; gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West, 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

and containing 286.04 acres more or less.

1. In addition to the land described above, Lessor hereby grants, leases and lets exclusively unto Lessee, to the same extent as if specifically described, lands which are owned or claimed by Lessor by one of the following reasons:
   a. all lands and rights acquired or retained by Lessor by avulsion, accretion, reliction or otherwise as the result of a change in the boundaries or centerline of any river or stream traversing or adjoining the lands described above;
   b. all riparian lands and rights which are or may be incident, appurtenant, related or attributed to Lessor in any lake, stream or river traversing or adjoining the lands described above by virtue of Lessor's ownership of the land described above;
   c. all lands included in any road, easement or right-of-way traversing or adjoining the lands described above which are or may be incident, appurtenant, related or attributed to Lessor by virtue of Lessor's ownership of the land described above; and
   d. all strips or tracts of land adjacent or contiguous to the lands described above owned or acquired by Lessor through adverse possession or other similar statutes of the state in which the lands are located.
2. The term oil as used in this lease shall be interpreted to include any liquid hydrocarbon substances which occur naturally in the earth, including drip gasoline or other natural condensate recovered from gas without resort to manufacturing process. The term gas as used in this lease shall be interpreted to include any substance, either combustible or non-combustible, which is produced in a natural state from the earth and which maintains a gaseous or rarified state at ordinary temperature and pressure conditions, including but not limited to helium, nitrogen, carbon dioxide, hydrogen sulphide, coal bed methane gas, casinghead gas and sulphur.
3. Subject to the other provisions herein contained, this lease shall remain in effect for **three (3) years** from the **8th day of February, 2010** (hereinafter called the "primary term" and as long thereafter as oil and gas, or either of them, is produced from the leased premises or drilling operations are continuously prosecuted. For purposes of this lease, a well completed for the production of coalbed methane gas shall be deemed to be producing gas under this lease at all times when dewatering of the coal seams from which the coalbed methane gas will be produced is occurring. For purposes of this

lease, "drilling operations" shall include operations for the drilling of a new well and operations for the reworking, deepening or plugging back of a well or hole or other operations conducted in an effort to establish, resume or re-establish production of oil and gas; drilling operations shall be considered to be "continuously prosecuted" if not more than one hundred twenty (120) days shall elapse between the completion and abandonment of one well or hole and the commencement of drilling operations on another well or hole; drilling operations shall be deemed to be commenced for a new well at such time as Lessee has begun the construction of the wellsite location or the road which provides access to the wellsite location; and drilling operations shall be deemed to be commenced with respect to reworking, deepening, plugging back or other operations conducted in an effort to resume or re-establish production of oil and gas at such time as Lessee has the requisite equipment for such operations at the wellsite.

4. The Lessee shall deliver to the credit of the Lessor as royalty, free of cost, into the tanks or in the pipe line on the leased premises to which Lessee may connect its wells the equal **three-sixteenths (3/16ths)** part of all oil produced and saved from the leased premises, or Lessee may from time to time at its option purchase any royalty oil in its possession, paying the market price thereof prevailing for oil of like grade and gravity in the field where produced on the date of purchase. The Lessee shall pay Lessor, as royalty, on gas, including casinghead gas or other gaseous substances, produced from the leased premises and sold or used off the premises or used in the manufacture of gasoline or other products, the market value at the well of **three-sixteenths (3/16ths)** of the gas sold or used, provided that on gas sold the royalty shall be three-sixteenths (3/16ths) of the amount realized from such sale. The amount realized from the sale of gas shall be the price established by the gas sales contract entered into in good faith by Lessee and a gas purchaser for such term and under such conditions as are customary in the industry. Price shall mean the net amount received by Lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders. In the event Lessee compresses, treats, purifies or dehydrates such gas (whether on or off the leased premises) or transports gas off the leased premises, Lessee in computing royalty hereunder may deduct from such price a reasonable charge for each of such functions performed; including associated fuel.
5. This is a paid-up lease and all cash consideration first recited above and annual rentals have been paid to Lessor in advance to keep this lease in full force and effect throughout the primary term. In consideration of the payment of such cash consideration and advance annual rentals, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of the land described above, and as to any strata or stratum, by delivering to Lessor or by filing of record a release or releases, and be relieved of all obligations thereafter accruing to the acreage surrendered.
6. If, at the expiration of the primary term of this lease, oil or gas is not being produced from the leased premises but Lessee is then engaged in drilling operations, this lease shall continue in force so long as drilling operations are continuously prosecuted; and if production of oil or gas results from any such drilling operations, this lease shall continue in force so long as oil or gas shall be produced from the leased premises. If, after the expiration of the primary term of this lease, production on the leased premises should cease for any cause, this lease shall not terminate if Lessee is then engaged in drilling operations, or within one hundred twenty (120) days after each such cessation of production commences or resumes drilling operations, and this lease shall remain in force so long as drilling operations are continuously prosecuted, and if production results therefrom, then as long thereafter as oil or gas is produced from the leased premises.
7. If at any time, either before or after the expiration of the primary term of this lease, there is a well capable of producing oil or gas on lands covered by this lease, or on other lands with which lands covered by this lease are pooled or unitized, but the well is shut-in, whether before or after production therefrom, and this lease is not being maintained otherwise as provided herein, this lease shall not terminate (unless released by Lessee) and it shall nevertheless be considered that oil or gas is being produced from lands covered by this lease during all times while the well is so shut-in. Lessee shall use reasonable diligence to market the oil or gas capable of being produced from such shut-in well, but shall be under no obligation to market the oil or gas under terms, conditions or circumstances which, in Lessee's judgment exercised in good faith, are unsatisfactory. When the lease is continued in force in this manner, Lessee shall pay or tender to the Lessor or Lessor's successors or assigns, an amount equal to $1.00 per year per net mineral acre covered by the lease. Such payments shall be made on or before the shut-in royalty payment date, as defined below, next occurring after the expiration of one hundred twenty (120) days from the date the well was shut-in, unless prior to such date oil or gas from the well is sold or used or the lease is otherwise maintained as provided herein. In like manner, on or before each succeeding shut-in royalty payment date while such well remains shut-in, Lessee shall make payment of shut-in royalty in the same amount and manner. The term "shut-in royalty payment date" shall mean the anniversary date of this lease. Any shut-in royalty payment may be made by cash, draft or check, mailed or tendered on or before the shut-in royalty date. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.
8. If Lessor owns a lesser interest in the above described land than the entire and undivided fee simple estate therein, then the royalties, including shut-in royalty, herein provided shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee. Any interest in production from the lands described herein to which the interest of Lessor may be subject shall be deducted from the royalty herein reserved.
9. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from wells and reservoirs of Lessor. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.
10. Lessee shall pay to Lessor reasonable amounts for damages caused by its operations to growing crops on said land. When requested by Lessor, Lessee shall bury its pipelines which traverse cultivated lands below plow depth. No well shall be drilled nearer than two hundred (200) feet to a house or barn now on said premises, without written consent of Lessor. Lessee shall have the right at any time (but not the obligation), to remove all improvements, machinery, and fixtures placed or erected by Lessee on said premises, including the right to pull and remove casings.
11. Lessee is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described above and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has heretofore been completed or upon which drilling operations have been commenced.

Production, drilling or reworking operations or a well shut-in for any reason anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut-in under this lease. In lieu of the royalties elsewhere herein specified, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit.

12. Lessee shall have the right to unitize, pool, or combine all or any part of the land described above as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that the land described above or any part thereof shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to Lessor shall be based upon production only as so allocated.
13. If the estate of either party hereto is assigned or sublet, and the privilege of assigning or subletting in whole or in part is expressly allowed, the express and implied covenants hereof shall extend to the subLessees, successors and assigns of the parties; and in the event of an assignment or subletting by Lessee, Lessee shall be relieved and discharged as to the leasehold rights so assigned or sublet from any liability to Lessor thereafter accruing upon any of the covenants or conditions of this lease, either express or implied. No change in Ownership of the land, royalties, or other payments, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee or require separate measuring or installation of separate tanks by Lessee. Notwithstanding any actual or constructive knowledge of or notice to Lessee, no change in ownership of said land or of the right to receive royalties or other payments hereunder, or of any interest therein, whether by reason of death, conveyance or any other matter, shall be binding on Lessee (except at Lessee's option in any particular case) until one hundred twenty (120) days after Lessee has been furnished written notice thereof, and the supporting information hereinafter referred to, by the party claiming as a result of such change in ownership or interest. Such notice shall be supported by original and certified copies of all documents and other instruments or proceedings necessary in Lessee's opinion to establish the ownership of the claiming party.
14. In the interest of conservation, the protection of reservoir pressures and recovery of the greatest ultimate yield of oil and/or gas, Lessee shall have the right to combine the leased premises with other premises in the same general area for the purpose of operating and maintaining repressuring and recycling facilities, and for such purpose may locate such facilities, including input wells, upon leased premises, and no royalties shall be payable hereunder upon any gas used for repressuring and recycling operations benefiting the leased premises.
15. Lessee is granted the right and option to extend this oil and gas lease for an additional two (2) years beyond the last day of the primary term hereof by remitting to Lessor on or before said date, an amount equal to the bonus per net mineral acre paid to Lessor as consideration for this Lease. Lessee shall have the option to extend this lease as to any, all, or less than all of the lease lands as Lessee chooses.
16. Should Lessee elect to purchase the lease pursuant to the terms hereof, it shall so notify Lessor in writing by mail, telefax, or telegram prior to expiration of said fifteen (15) day period. Lessee shall promptly thereafter furnish to Lessor the new lease for execution by Lessor along with Lessee's sight draft payable to Lessor in payment of the specified amount as consideration for the new lease, such draft being subject to approval of title according to the terms thereof. Upon receipt thereof, Lessor shall promptly execute said lease and return same along with the draft through Lessor's bank of record for payment.
17. In the event Lessor considers that Lessee has not complied with all its obligations hereunder, either express or implied, Lessor shall notify Lessee in writing, setting out specifically in what respects Lessee has breached this lease. Lessee shall then have sixty (60) days after receipt of said notice within which to meet or commence to meet all or any part of the breaches alleged by Lessor. The service of said notice shall be precedent to the bringing of any action by Lessor on said lease for any cause, and no such action shall be brought until the lapse of sixty (60) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder. This lease shall never be forfeited or cancelled for failure to perform in whole or in part any of its implied covenants, conditions, or stipulations until a judicial determination is made that such failure exists and Lessee fails within a reasonable time to satisfy any such covenants, conditions, or stipulations.
18. **Subject to the continuous drilling provision of Paragraph 3 of this Lease, six months plus one (1) day following the expiration of the Primary Term hereof, this Lease shall terminate as to all lease lands outside of any pooled or spacing unit, as established by applicable law or any governmental authority, upon which there is a well producing or capable of production in paying quantities.**
19. All express and implied covenants of this lease shall be subject to all federal and state, county or municipal laws, executive orders, rules and regulations, and Lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with such obligations and covenants is prevented or hindered by or is in conflict with federal, state, county, or municipal laws, rules, regulations or executive orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field, weather, or market conditions, inability to obtain materials in the open market or transportation thereof, wars, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by Lessee, and this lease shall not be terminated in whole or in part, nor Lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which Lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the contingencies above stated, shall be added to the primary term of the lease.
20. On the date this Top Lease is executed the following described oil and gas lease ("Prior Lease") appears to be in force and effect as to all of the lands and interests covered hereby:

Prior Lease:

Lessor: Dorothy A. Wilkinson
Lessee: John H. Holt Oil Properties, Inc.
Dated: February 8, 2006
Recorded: February 23, 2006

Reception No: 632814
Expires: February 7, 2010

This Top Lease is presently subordinate and subject to the Prior Lease for as long as, and to the extent that, the Prior Lease remains in force and effect according to its present terms. Lessor agrees not to extend, renew, amend or modify the Prior Lease at any time on or before the expiration or termination of the Prior Lease.

The effective date of this Top Lease shall be as stated hereinabove if the Prior Lease or any portion thereof expires at the end of its primary term. In the event the Prior Lease, or any portion thereof, terminates before the end of the primary term for whatever reason, the effective date of this lease shall be the date of such termination. If the Prior Lease terminates after its primary term because of drilling or reworking operations being prosecuted under the terms of the Prior Lease, then the effective date of this Top Lease shall be the date of the expiration of said primary term as extended by drilling or reworking operations, but only as to those lands described herein that are not extended by production under the terms of the Prior Lease. In the event it cannot be determined with reasonable certainty that the Prior Lease has expired or terminated because of dispute or litigation or any act, rule or regulation of any Federal, State, County or Municipal laws, or Executive Orders asserted as official by or under public authority claiming jurisdiction, the Top Lease effective date shall be that which coincides with the expiration or termination date of the Prior Lease as judicially determined.

Lessee agrees to pay Lessor consideration for this Top Lease as set forth in two (2) payments made payable to Lessor, subject to the terms outlined herein and approval of title. The first installment, of fifteen percent (15%) of the negotiated bonus consideration, shall be paid to Lessor, under the terms stated herein, following execution of this Top Lease, the receipt of which is hereby acknowledged by Lessor. Lessee shall have the option to either, (1) pay or tender to Lessor the second installment consisting of the remaining eighty-five percent (85%) of the total bonus amount negotiated, within thirty (30) days following the Effective Date of this lease, and subject to approval of title, or (2) allow this lease to lapse by withholding payment of the second installment. If Lessee elects not to pay the second installment, Lessee shall be relieved of all further obligations hereunder, except the duty to release this lease. The right of Lessee to not honor the second installment shall be exercised in Lessee's sole discretion.

The contingent interest or estate created by this Top Lease must vest within one day less than thirty (30) months from the date of execution hereof, and if it does not so vest within that interval, shall thenceforth be void, and of no effect.

21. Lessor hereby warrants and agrees to defend the title to the lands described above, and agrees that the Lessee, at its option, shall have the right at any time to pay for Lessor, any mortgage, taxes or other liens existing, levied or assessed on or against the above described lands in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and Lessor hereby agrees that any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due the Lessor under the terms of this lease.
22. This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors in interest, in whole or in part, of said Lessor or Lessee. Lessor agrees that in the event it acquires additional interest in the lands subject hereto, Lessor shall immediately notify Lessee in writing of such additional interest and Lessee shall have the option of tendering additional bonus under the terms of this lease and upon Lessor's receipt of additional bonus said additional interest shall be subject to the terms hereof as if such interest was owned by Lessor at the time Lessor executed this lease.
23. With respect to and for the purpose of this lease, Lessor, and each of them if there be more than one, hereby release and waive the right of homestead.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

Dorothy A. Wilkinson
Dorothy A. Wilkinson

STATE OF Indianna)
{§
COUNTY OF Shelby)

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 21 day of July, 2009 personally appeared Dorothy A. Wilkinson, a widow to me known to be the identical person described in that Oil and Gas Lease and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My Commission Expires: 3/15/10

OFFICIAL SEAL
P. ELAINE BUCKER
NOTARY PUBLIC - INDIANA
SHELBY COUNTY
My Comm. Expires Mar. 15, 2010

P Elaine Bucker
Notary Public

49 Public Sq, Shelbyville IN 46176
Address:

RETURN TO: Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111

COUNTY RECORDER, WILLIAMS COUNTY, ND 7/28/2009 10:16 A
I certify that this instrument was filed and recorded
Kari Evenson, County Recorder
by _____ 671012

TREASURER, RECORDER WILLIAMS SEAL COUNTY STATE OF NORTH DAKOTA

671012
Page: 1 of 4
7/28/2009 10:16 A
WILLIAMS COUNTY, ND OGL $19.00

Producers 88
Rocky Mountain 1989
(Paid-Up Rev. 1996)

For Lessee's Use Only: Lease #:
Prospect #:

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 15th day of July, 2009 by and between **Lois Jean Patch, a widow, whose post office address is 1833 Marian Drive, Bismarck, ND 58501,** hereinafter called Lessor (whether one or more) and: **Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111** hereinafter called Lessee:

WITNESSETH, That Lessor, for and in consideration of ten and more dollars ($10.00 and more) in hand paid, receipt of which is hereby acknowledged, and of the agreements of Lessee hereinafter set forth, hereby grants, demises, leases and lets exclusively unto Lessee the lands described below for the purpose of investigating, prospecting, exploring (by geophysical and other methods), drilling, mining, operating for and producing oil or gas, or both (as defined below), together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air; gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

and containing 286.04 acres more or less.

1. In addition to the land described above, Lessor hereby grants, leases and lets exclusively unto Lessee, to the same extent as if specifically described, lands which are owned or claimed by Lessor by one of the following reasons:
   a. all lands and rights acquired or retained by Lessor by avulsion, accretion, reliction or otherwise as the result of a change in the boundaries or centerline of any river or stream traversing or adjoining the lands described above;
   b. all riparian lands and rights which are or may be incident, appurtenant, related or attributed to Lessor in any lake, stream or river traversing or adjoining the lands described above by virtue of Lessor's ownership of the land described above;
   c. all lands included in any road, easement or right-of-way traversing or adjoining the lands described above which are or may be incident, appurtenant, related or attributed to Lessor by virtue of Lessor's ownership of the land described above; and
   d. all strips or tracts of land adjacent or contiguous to the lands described above owned or acquired by Lessor through adverse possession or other similar statutes of the state in which the lands are located.
2. The term oil as used in this lease shall be interpreted to include any liquid hydrocarbon substances which occur naturally in the earth, including drip gasoline or other natural condensate recovered from gas without resort to manufacturing process. The term gas as used in this lease shall be interpreted to include any substance, either combustible or non-combustible, which is produced in a natural state from the earth and which maintains a gaseous or rarified state at ordinary temperature and pressure conditions, including but not limited to helium, nitrogen, carbon dioxide, hydrogen sulphide, coal bed methane gas, casinghead gas and sulphur.
3. Subject to the other provisions herein contained, this lease shall remain in effect for **three (3) years from the 8th day of February, 2010** (hereinafter called the "primary term" and as long thereafter as oil and gas, or either of them, is produced from the leased premises or drilling operations are continuously prosecuted. For purposes of this lease, a well completed for the production of coalbed methane gas shall be deemed to be producing gas under this lease at all times when dewatering of the coal seams from which the coalbed methane gas will be produced is occurring. For purposes of this lease, "drilling operations" shall include operations for the drilling of a new well and operations for the reworking,

deepening or plugging back of a well or hole or other operations conducted in an effort to establish, resume or re-establish production of oil and gas; drilling operations shall be considered to be "continuously prosecuted" if not more than one hundred twenty (120) days shall elapse between the completion and abandonment of one well or hole and the commencement of drilling operations on another well or hole; drilling operations shall be deemed to be commenced for a new well at such time as Lessee has begun the construction of the wellsite location or the road which provides access to the wellsite location; and drilling operations shall be deemed to be commenced with respect to reworking, deepening, plugging back or other operations conducted in an effort to resume or re-establish production of oil and gas at such time as Lessee has the requisite equipment for such operations at the wellsite.

4. The Lessee shall deliver to the credit of the Lessor as royalty, free of cost, into the tanks or in the pipe line on the leased premises to which Lessee may connect its wells the equal **three-sixteenths (3/16ths)** part of all oil produced and saved from the leased premises, or Lessee may from time to time at its option purchase any royalty oil in its possession, paying the market price thereof prevailing for oil of like grade and gravity in the field where produced on the date of purchase. The Lessee shall pay Lessor, as royalty, on gas, including casinghead gas or other gaseous substances, produced from the leased premises and sold or used off the premises or used in the manufacture of gasoline or other products, the market value at the well of **three-sixteenths (3/16ths)** of the gas sold or used, provided that on gas sold the royalty shall be **three-sixteenths (3/16ths)** of the amount realized from such sale. The amount realized from the sale of gas shall be the price established by the gas sales contract entered into in good faith by Lessee and a gas purchaser for such term and under such conditions as are customary in the industry. Price shall mean the net amount received by Lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders. In the event Lessee compresses, treats, purifies or dehydrates such gas (whether on or off the leased premises) or transports gas off the leased premises, Lessee in computing royalty hereunder may deduct from such price a reasonable charge for each of such functions performed; including associated fuel.

5. This is a paid-up lease and all cash consideration first recited above and annual rentals have been paid to Lessor in advance to keep this lease in full force and effect throughout the primary term. In consideration of the payment of such cash consideration and advance annual rentals, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of the land described above, and as to any strata or stratum, by delivering to Lessor or by filing of record a release or releases, and be relieved of all obligations thereafter accruing to the acreage surrendered.

6. If, at the expiration of the primary term of this lease, oil or gas is not being produced from the leased premises but Lessee is then engaged in drilling operations, this lease shall continue in force so long as drilling operations are continuously prosecuted; and if production of oil or gas results from any such drilling operations, this lease shall continue in force so long as oil or gas shall be produced from the leased premises. If, after the expiration of the primary term of this lease, production on the leased premises should cease for any cause, this lease shall not terminate if Lessee is then engaged in drilling operations, or within one hundred twenty (120) days after each such cessation of production commences or resumes drilling operations, and this lease shall remain in force so long as drilling operations are continuously prosecuted, and if production results therefrom, then as long thereafter as oil or gas is produced from the leased premises.

7 If at any time, either before or after the expiration of the primary term of this lease, there is a well capable of producing oil or gas on lands covered by this lease, or on other lands with which lands covered by this lease are pooled or unitized, but the well is shut-in, whether before or after production therefrom, and this lease is not being maintained otherwise as provided herein, this lease shall not terminate (unless released by Lessee) and it shall nevertheless be considered that oil or gas is being produced from lands covered by this lease during all times while the well is so shut-in. Lessee shall use reasonable diligence to market the oil or gas capable of being produced from such shut-in well, but shall be under no obligation to market the oil or gas under terms, conditions or circumstances which, in Lessee's judgment exercised in good faith, are unsatisfactory. When the lease is continued in force in this manner, Lessee shall pay or tender to the Lessor or Lessor's successors or assigns, an amount equal to $1.00 per year per net mineral acre covered by the lease. Such payments shall be made on or before the shut-in royalty payment date, as defined below, next occurring after the expiration of one hundred twenty (120) days from the date the well was shut-in, unless prior to such date oil or gas from the well is sold or used or the lease is otherwise maintained as provided herein. In like manner, on or before each succeeding shut-in royalty payment date while such well remains shut-in, Lessee shall make payment of shut-in royalty in the same amount and manner. The term "shut-in royalty payment date" shall mean the anniversary date of this lease. Any shut-in royalty payment may be made by cash, draft or check, mailed or tendered on or before the shut-in royalty date. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

8. If Lessor owns a lesser interest in the above described land than the entire and undivided fee simple estate therein, then the royalties, including shut-in royalty, herein provided shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee. Any interest in production from the lands described herein to which the interest of Lessor may be subject shall be deducted from the royalty herein reserved.

9. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from wells and reservoirs of Lessor. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

10. Lessee shall pay to Lessor reasonable amounts for damages caused by its operations to growing crops on said land. When requested by Lessor, Lessee shall bury its pipelines which traverse cultivated lands below plow depth. No well shall be drilled nearer than two hundred (200) feet to a house or barn now on said premises, without written consent of Lessor. Lessee shall have the right at any time (but not the obligation), to remove all improvements, machinery, and fixtures placed or erected by Lessee on said premises, including the right to pull and remove casings.

11. Lessee is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described above and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has heretofore been completed or upon which drilling operations have been commenced. Production, drilling or reworking operations or a well shut-in for any reason anywhere on a unit which includes all or a part

of this lease shall be treated as if it were production, drilling or reworking operations or a well shut-in under this lease. In lieu of the royalties elsewhere herein specified, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit.

12. Lessee shall have the right to unitize, pool, or combine all or any part of the land described above as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that the land described above or any part thereof shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to Lessor shall be based upon production only as so allocated.
13. If the estate of either party hereto is assigned or sublet, and the privilege of assigning or subletting in whole or in part is expressly allowed, the express and implied covenants hereof shall extend to the subLessees, successors and assigns of the parties; and in the event of an assignment or subletting by Lessee, Lessee shall be relieved and discharged as to the leasehold rights so assigned or sublet from any liability to Lessor thereafter accruing upon any of the covenants or conditions of this lease, either express or implied. No change in Ownership of the land, royalties, or other payments, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee or require separate measuring or installation of separate tanks by Lessee. Notwithstanding any actual or constructive knowledge of or notice to Lessee, no change in ownership of said land or of the right to receive royalties or other payments hereunder, or of any interest therein, whether by reason of death, conveyance or any other matter, shall be binding on Lessee (except at Lessee's option in any particular case) until one hundred twenty (120) days after Lessee has been furnished written notice thereof, and the supporting information hereinafter referred to, by the party claiming as a result of such change in ownership or interest. Such notice shall be supported by original and certified copies of all documents and other instruments or proceedings necessary in Lessee's opinion to establish the ownership of the claiming party.
14. In the interest of conservation, the protection of reservoir pressures and recovery of the greatest ultimate yield of oil and/or gas, Lessee shall have the right to combine the leased premises with other premises in the same general area for the purpose of operating and maintaining repressuring and recycling facilities, and for such purpose may locate such facilities, including input wells, upon leased premises, and no royalties shall be payable hereunder upon any gas used for repressuring and recycling operations benefiting the leased premises.
15. Lessee is granted the right and option to extend this oil and gas lease for an additional two (2) years beyond the last day of the primary term hereof by remitting to Lessor on or before said date, an amount equal to the bonus per net mineral acre paid to Lessor as consideration for this Lease. Lessee shall have the option to extend this lease as to any, all, or less than all of the lease lands as Lessee chooses.
16. Should Lessee elect to purchase the lease pursuant to the terms hereof, it shall so notify Lessor in writing by mail, telefax, or telegram prior to expiration of said fifteen (15) day period. Lessee shall promptly thereafter furnish to Lessor the new lease for execution by Lessor along with Lessee's sight draft payable to Lessor in payment of the specified amount as consideration for the new lease, such draft being subject to approval of title according to the terms thereof. Upon receipt thereof, Lessor shall promptly execute said lease and return same along with the draft through Lessor's bank of record for payment.
17. In the event Lessor considers that Lessee has not complied with all its obligations hereunder, either express or implied, Lessor shall notify Lessee in writing, setting out specifically in what respects Lessee has breached this lease. Lessee shall then have sixty (60) days after receipt of said notice within which to meet or commence to meet all or any part of the breaches alleged by Lessor. The service of said notice shall be precedent to the bringing of any action by Lessor on said lease for any cause, and no such action shall be brought until the lapse of sixty (60) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder. This lease shall never be forfeited or cancelled for failure to perform in whole or in part any of its implied covenants, conditions, or stipulations until a judicial determination is made that such failure exists and Lessee fails within a reasonable time to satisfy any such covenants, conditions, or stipulations.
18. **Subject to the continuous drilling provision of Paragraph 3 of this Lease, six months plus one (1) day following the expiration of the Primary Term hereof, this Lease shall terminate as to all lease lands outside of any pooled or spacing unit, as established by applicable law or any governmental authority, upon which there is a well producing or capable of production in paying quantities.**
19. All express and implied covenants of this lease shall be subject to all federal and state, county or municipal laws, executive orders, rules and regulations, and Lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with such obligations and covenants is prevented or hindered by or is in conflict with federal, state, county, or municipal laws, rules, regulations or executive orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field weather or road conditions, inability to obtain materials in the open market or transportation thereof, wars, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by Lessee, and this lease shall not be terminated in whole or in part, nor Lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which Lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the conditions enumerated, shall be added to the primary term of the lease.
20. On the date this Top Lease is executed the following described oil and gas lease ("Prior Lease") appears to be in force and effect as to all of the lands and interests covered hereby:

Prior Lease:
Lessor: Lois Jean Patch Reception No: 632658

Lessee: John H. Holt Oil Properties, Inc.
Dated: February 8, 2006
Recorded: February 17, 2006

Expires: February 7, 2010

This Top Lease is presently subordinate and subject to the Prior Lease for as long as, and to the extent that, the Prior Lease remains in force and effect according to its present terms. Lessor agrees not to extend, renew, amend or modify the Prior Lease at any time on or before the expiration or termination of the Prior Lease.

The effective date of this Top Lease shall be as stated hereinabove if the Prior Lease or any portion thereof expires at the end of its primary term. In the event the Prior Lease, or any portion thereof, terminates before the end of the primary term for whatever reason, the effective date of this lease shall be the date of such termination. If the Prior Lease terminates after its primary term because of drilling or reworking operations being prosecuted under the terms of the Prior Lease, then the effective date of this Top Lease shall be the date of the expiration of said primary term as extended by drilling or reworking operations, but only as to those lands described herein that are not extended by production under the terms of the Prior Lease. In the event it cannot be determined with reasonable certainty that the Prior Lease has expired or terminated because of dispute or litigation or any act, rule or regulation of any Federal, State, County or Municipal laws, or Executive Orders asserted as official by or under public authority claiming jurisdiction, the Top Lease effective date shall be that which coincides with the expiration or termination date of the Prior Lease as judicially determined.

Lessee agrees to pay Lessor consideration for this Top Lease as set forth in two (2) payments made payable to Lessor, subject to the terms outlined herein and approval of title. The first installment, of fifteen percent (15%) of the negotiated bonus consideration, shall be paid to Lessor, under the terms stated herein, following execution of this Top Lease, the receipt of which is hereby acknowledged by Lessor. Lessee shall have the option to either, (1) pay or tender to Lessor the second installment consisting of the remaining eighty-five percent (85%) of the total bonus amount negotiated, within thirty (30) days following the Effective Date of this lease, and subject to approval of title, or (2) allow this lease to lapse by withholding payment of the second installment. If Lessee elects not to pay the second installment, Lessee shall be relieved of all further obligations hereunder, except the duty to release this lease. The right of Lessee to not honor the second installment shall be exercised in Lessee's sole discretion.

The contingent interest or estate created by this Top Lease must vest within one day less than thirty (30) months from the date of execution hereof, and if it does not so vest within that interval, shall thenceforth be void, and of no effect.

21. Lessor hereby warrants and agrees to defend the title to the lands described above, and agrees that the Lessee, at its option, shall have the right at any time to pay for Lessor, any mortgage, taxes or other liens existing, levied or assessed on or against the above described lands in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and Lessor hereby agrees that any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due the Lessor under the terms of this lease.
22. This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors in interest, in whole or in part, of said Lessor or Lessee. Lessor agrees that in the event it acquires additional interest in the lands subject hereto, Lessor shall immediately notify Lessee in writing of such additional interest and Lessee shall have the option of tendering additional bonus under the terms of this lease and upon Lessor's receipt of additional bonus said additional interest shall be subject to the terms hereof as if such interest was owned by Lessor at the time Lessor executed this lease.
23. With respect to and for the purpose of this lease, Lessor, and each of them if there be more than one, hereby release and waive the right of homestead.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

Lois Jean Patch

STATE OF North Dakota)
(§
COUNTY OF Burleigh)

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 21st day of July, 2009 personally appeared Lois Jean Patch, a widow to me known to be the identical person described in that Oil and Gas Lease and who executed the within and foregoing instrument of writing and acknowledged to me that she duly executed the same as her free and voluntary act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My Commission Expires:

PEGGY KAUK
Notary Public
State of North Dakota
My Commission Expires May 2, 2014

Notary Public

1144 N. 3rd Street Bismarck, ND
Address:

RETURN TO: Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111

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Page: 1 of 2
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WILLIAMS COUNTY, ND OGL 13.00

Producers 88-PAID UP

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 8th day of February, 2006, by and between William S. Wilkinson and Carol A. Wilkinson, husband and wife

whose post office address is 1707 Foxcroft Road, East Lansing, MI 48823 hereinafter called Lessor (whether one or more) and

JOHN H. HOLT OIL PROPERTIES, INC. whose post office address is P. O. Box 24, Williston, North Dakota 58802-0024, hereinafter called Lessee:

WITNESSETH, That the Lessor, for and in consideration of Ten Dollars and more ($10.00+) cash in hand paid, the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, has granted, demised, leased and let, and by these presents does grant, demise, lease and let exclusively unto the said Lessee, the land hereinafter described, with the exclusive right for the purpose of mining, exploring by geophysical and other methods, and operating for and producing therefrom oil and all gas to include coalbed methane gas, of whatsoever nature or kind, together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air, gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas (including dewatering of coalbed gas wells), and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West
Section 12: SW/4, S/2NW/4 except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Including any and all accretions thereof

and containing 286.04 acres, more or less.

1. It is agreed that this lease shall remain in force for a term of four (4) years from this date and as long thereafter as oil or gas of whatsoever nature or kind is produced from said leased premises or on acreage pooled therewith, or drilling operations are continued as hereinafter provided. If, at the expiration of the primary term of this lease, oil or gas is not being produced on the leased premises or on acreage pooled therewith but Lessee is then engaged in drilling or re-working operations thereon, then this lease shall continue in force so long as operations are being continuously prosecuted on the leased premises or on acreage pooled therewith, and operations shall be considered to be continuously prosecuted if not more than ninety (90) days shall elapse between the completion or abandonment of one well and the beginning of operations for the drilling of a subsequent well. If after discovery of oil or gas on said land or on acreage pooled therewith, the production thereof should cease from any cause after the primary term, this lease shall not terminate if Lessee commences additional drilling or re-working operations within ninety (90) days from date of cessation of production or from date of completion of dry hole. If oil or gas shall be discovered and produced as a result of such operations at or after the expiration of the primary term of this lease, this lease shall continue in force so long as oil or gas is produced from the leased premises or on acreage pooled therewith.

2. This is a PAID-UP LEASE. In consideration of the down cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered.

3. In consideration of the premises the said Lessee covenants and agrees:

1st. To deliver to the credit of Lessor, free of cost, in the pipe line to which Lessee may connect wells on said land, the equal one-sixth (1/6) part of all oil produced and saved from the leased premises.

2nd. To pay Lessor one-sixth (1/6) of the gross proceeds each year, payable quarterly, for the gas from each well where gas only is found, while the same is being used off the premises, and if used in the manufacture of gasoline a royalty of one-sixth (1/6), payable monthly at the prevailing market rate for gas.

3rd. To pay Lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline, or any other product a royalty of one-sixth (1/6) of the proceeds, at the mouth of the well, payable monthly at the prevailing market rate.

4. If, at the expiration of the primary term or at any time or times thereafter there is any well on the leased premises either capable of producing oil or gas or subject to dewatering operations, then this lease shall not terminate so long as such well is shut in or such dewatering operations continue. For each such well, Lessee shall pay or tender to Lessor or Lessor's successor or assigns One Dollar per year per net mineral acre retained hereunder, such payment or tender to be made on or before the anniversary date of this lease next ensuing after the expiration of 90 days from the date such well is shut in or dewatering commences and thereafter on or before the anniversary date of this lease during the period such well is shut in or is in a dewatering phase. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.

5. If said Lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties (including any shut-in gas royalty) herein provided for shall be paid the Lessor only in proportion which Lessor's interest bears to the whole and undivided fee.

6. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for Lessee's operation thereon, except water from the wells of Lessor.

7. When requested by Lessor, Lessee shall bury Lessee's pipeline below plow depth.

8. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of Lessor.

9. Lessee shall pay for damages caused by Lessee's operations to growing crops on said land.

10. Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

11. The rights of Lessor and Lessee hereunder may be assigned in whole or part. No change in ownership of Lessor's interest (by assignment or otherwise) shall be binding on Lessee until Lessee has been furnished with notice, consisting of certified copies of all recorded instruments or documents and other information necessary to establish a complete chain of record title from Lessor, and then only with respect to payments thereafter made. No other kind of notice, whether actual or constructive, shall be binding on Lessee. No present or future division of Lessor's ownership as to different portions or parcels of said land shall operate to enlarge the obligations or diminish the rights of Lessee, and all Lessee's operations may be conducted without regard to any such division. If all or any part of this lease is assigned, no leasehold owner shall be liable for any act or omission of any other leasehold owner.

12. Lessee, at its option, is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described herein and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, and irrespective of whether authority similar to this exists with respect to such other land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas, may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced. Production, drilling or reworking operations or a well shut in for want of a market anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut in for want of a market under this lease. In lieu of the royalties elsewhere herein specified, including shut-in gas royalties, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit. In addition to the foregoing, Lessee shall have the right to unitize, pool or combine all or any part of the above described lands as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement, and in such event, the terms, conditions and provisions of this lease be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payment to be made hereunder to Lessor shall be based upon production only as so allocated. Lessor shall formally express Lessor's consent to any cooperative or unit plan of development or operation adopted by Lessee and approved by any governmental agency by executing the same upon request of Lessee.

13. All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor Lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

14. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right at any time to redeem for Lessor, by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and the undersigned Lessors, for themselves and their heirs successors and assigns, hereby surrender and release all right of dower and homestead in the premises described herein, insofar as said right of dower and homestead may in any way affect the purposes for which this lease is made, as recited herein.

15. Should any one or more of the parties hereinabove named as Lessor fail to execute this lease, it shall nevertheless be binding upon all such parties who do execute it as Lessor. The word "Lessor," as used in this lease, shall mean any one or more or all of the parties who execute this lease as Lessor. All the provisions of this lease shall be binding on the heirs, successors and assigns of Lessor and Lessee.

16. PUGH CLAUSE: Notwithstanding anything to the contrary contained in the lease, at the end of the primary term of the lease, a well capable of production shall hold beyond the primary term only those lands covered by the lease which are located within the spacing unit as set forth from time to time by the State of North Dakota; provided, however, Lessee may maintain the entire lease in full force and effect beyond the primary term, so long as the Lessee conducts continuous drilling operations on the lands covered thereby or on lands pooled therewith, it being understood that Lessee shall have satisfied the continuous operations requirement by allowing not more than 180 days to elapse between the completion of drilling operations on any given well and the commencement of a succeeding well.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

William S. Wilkinson

Carol A. Wilkinson

STATE OF Michigan)
) ss.
COUNTY OF Ingham)

ACKNOWLEDGMENT--INDIVIDUAL

BEFORE ME, the undersigned, a Notary public, in and for said County and State, on this 10 day of February, 2006, personally appeared William S. Wilkinson and Carol A. Wilkinson, husband and wife, to me known to be the identical person(s) described in and who executed the within and foregoing instrument of writing and acknowledged to me that he/she duly executed the same as his/her free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My commission Expires: 10-13-06

(SEAL)

CINDY J. WEBER
Notary Public, Ingham County, MI
My Commission Expires Oct. 13, 2006

Notary Public.

Address: 1340 W. Lake Lansing Rd
East Lansing MI 48823

When recorded return to:
John H. Holt Oil Properties, Inc.
P.O. Box 24
Williston, North Dakota 58802-0024

632656
Page: 2 of 2
02/17/2006 01:41P
WILLIAMS COUNTY, ND OGL 13.00

COUNTY RECORDER, WILLIAMS COUNTY, ND 02/17/2006 01:41PM
I certify that this instrument was filed and recorded
Kari Evanson, County Recorder
by Grace Gerhardt Deputy
632656

TREASURER/RECORDER WILLIAMS SEAL COUNTY STATE OF NORTH DAKOTA

COUNTY RECORDER, WILLIAMS COUNTY, ND 8/3/2009 8:30 AM
I certify that this instrument was filed and recorded
Kari Evenson, County Recorder
by [signature] 671313

671313
Page: 1 of 4
8/3/2009 8:30 AM
WILLIAMS COUNTY, ND OGL $19.00

Producers 88
Rocky Mountain 1989
(Paid-Up Rev. 1996)

For Lessee's Use Only: Lease #: Prospect #:

OIL AND GAS LEASE

AGREEMENT, Made and entered into the 15th day of July, 2009 by and between **William S. Wilkinson and Carol A. Wilkinson**, husband and wife, whose post office address is 1707 Foxcroft Road East, Lansing, MI 48823, hereinafter called Lessor (whether one or more) and: **Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111** hereinafter called Lessee:

WITNESSETH, That Lessor, for and in consideration of ten and more dollars ($10.00 and more) in hand paid, receipt of which is hereby acknowledged, and of the agreements of Lessee hereinafter set forth, hereby grants, demises, leases and lets exclusively unto Lessee the lands described below for the purpose of investigating, prospecting, exploring (by geophysical and other methods), drilling, mining, operating for and producing oil or gas, or both (as defined below), together with the right to construct and maintain pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures thereon to produce, save and take care of said oil and gas (which right shall include specifically a right-of-way and easement for ingress to and egress from said lands by Lessee, or its assignees, agents or permittees, necessary to or associated with the construction and maintenance of such pipelines, telephone and electric lines, tanks, ponds, roadways, plants, equipment, and structures on said lands to produce, save and take care of the oil and gas), and the exclusive right to inject air; gas, water, brine and other fluids from any source into the subsurface strata, and any and all other rights and privileges necessary, incident to, or convenient for the economical operation of said land, alone or conjointly with neighboring land, for the production, saving and taking care of oil and gas and the injection of air, gas, water, brine, and other fluids into the subsurface strata, said lands being situated in the County of Williams, State of North Dakota, described as follows, to-wit:

Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

and containing 286.04 acres more or less.

1. In addition to the land described above, Lessor hereby grants, leases and lets exclusively unto Lessee, to the same extent as if specifically described, lands which are owned or claimed by Lessor by one of the following reasons:
   a. all lands and rights acquired or retained by Lessor by avulsion, accretion, reliction or otherwise as the result of a change in the boundaries or centerline of any river or stream traversing or adjoining the lands described above;
   b. all riparian lands and rights which are or may be incident, appurtenant, related or attributed to Lessor in any lake, stream or river traversing or adjoining the lands described above by virtue of Lessor's ownership of the land described above;
   c. all lands included in any road, easement or right-of-way traversing or adjoining the lands described above which are or may be incident, appurtenant, related or attributed to Lessor by virtue of Lessor's ownership of the land described above; and
   d. all strips or tracts of land adjacent or contiguous to the lands described above owned or acquired by Lessor through adverse possession or other similar statutes of the state in which the lands are located.
2. The term oil as used in this lease shall be interpreted to include any liquid hydrocarbon substances which occur naturally in the earth, including drip gasoline or other natural condensate recovered from gas without resort to manufacturing process. The term gas as used in this lease shall be interpreted to include any substance, either combustible or non-combustible, which is produced in a natural state from the earth and which maintains a gaseous or rarified state at ordinary temperature and pressure conditions, including but not limited to helium, nitrogen, carbon dioxide, hydrogen sulphide, coal bed methane gas, casinghead gas and sulphur.
3. Subject to the other provisions herein contained, this lease shall remain in effect for **three (3) years** from the **8th day of February, 2010** (hereinafter called the "primary term" and as long thereafter as oil and gas, or either of them, is produced from the leased premises or drilling operations are continuously prosecuted. For purposes of this lease, a well completed for the production of coalbed methane gas shall be deemed to be producing gas under this lease at all times when

dewatering of the coal seams from which the coalbed methane gas will be produced is occurring. For purposes of this lease, "drilling operations" shall include operations for the drilling of a new well and operations for the reworking, deepening or plugging back of a well or hole or other operations conducted in an effort to establish, resume or re-establish production of oil and gas; drilling operations shall be considered to be "continuously prosecuted" if not more than one hundred twenty (120) days shall elapse between the completion and abandonment of one well or hole and the commencement of drilling operations on another well or hole; drilling operations shall be deemed to be commenced for a new well at such time as Lessee has begun the construction of the wellsite location or the road which provides access to the wellsite location; and drilling operations shall be deemed to be commenced with respect to reworking, deepening, plugging back or other operations conducted in an effort to resume or re-establish production of oil and gas at such time as Lessee has the requisite equipment for such operations at the wellsite.

4. The Lessee shall deliver to the credit of the Lessor as royalty, free of cost, into the tanks or in the pipe line on the leased premises to which Lessee may connect its wells the equal **three-sixteenths (3/16ths)** part of all oil produced and saved from the leased premises, or Lessee may from time to time at its option purchase any royalty oil in its possession, paying the market price thereof prevailing for oil of like grade and gravity in the field where produced on the date of purchase. The Lessee shall pay Lessor, as royalty, on gas, including casinghead gas or other gaseous substances, produced from the leased premises and sold or used off the premises or used in the manufacture of gasoline or other products, the market value at the well of **three-sixteenths (3/16ths)** of the gas sold or used, provided that on gas sold the royalty shall be **three-sixteenths (3/16ths)** of the amount realized from such sale. The amount realized from the sale of gas shall be the price established by the gas sales contract entered into in good faith by Lessee and a gas purchaser for such term and under such conditions as are customary in the industry. Price shall mean the net amount received by Lessee after giving effect to applicable regulatory orders and after application of any applicable price adjustments specified in such contract or regulatory orders. In the event Lessee compresses, treats, purifies or dehydrates such gas (whether on or off the leased premises) or transports gas off the leased premises, Lessee in computing royalty hereunder may deduct from such price a reasonable charge for each of such functions performed; including associated fuel.
5. This is a paid-up lease and all cash consideration first recited above and annual rentals have been paid to Lessor in advance to keep this lease in full force and effect throughout the primary term. In consideration of the payment of such cash consideration and advance annual rentals, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term. Lessee may at any time or times during or after *the primary term surrender this lease as to all or any portion of the land described above, and as to any strata or stratum,* by delivering to Lessor or by filing of record a release or releases, and be relieved of all obligations thereafter accruing to the acreage surrendered.
6. If, at the expiration of the primary term of this lease, oil or gas is not being produced from the leased premises but Lessee is then engaged in drilling operations, this lease shall continue in force so long as drilling operations are continuously prosecuted; and if production of oil or gas results from any such drilling operations, this lease shall continue in force so long as oil or gas shall be produced from the leased premises. If, after the expiration of the primary term of this lease, production on the leased premises should cease for any cause, this lease shall not terminate if Lessee is then engaged in drilling operations, or within one hundred twenty (120) days after each such cessation of production commences or resumes drilling operations, and this lease shall remain in force so long as drilling operations are continuously prosecuted, and if production results therefrom, then as long thereafter as oil or gas is produced from the leased premises.
7. *If at any time, either before or after the expiration of the primary term of this lease, there is a well capable of* producing oil or gas on lands covered by this lease, or on other lands with which lands covered by this lease are pooled or unitized, but the well is shut-in, whether before or after production therefrom, and this lease is not being maintained otherwise as provided herein, this lease shall not terminate (unless released by Lessee) and it shall nevertheless be considered that oil or gas is being produced from lands covered by this lease during all times while the well is so shut-in. Lessee shall use reasonable diligence to market the oil or gas capable of being produced from such shut-in well, but shall be under no obligation to market the oil or gas under terms, conditions or circumstances which, in Lessee's judgment exercised in good faith, are unsatisfactory. When the lease is continued in force in this manner, Lessee shall pay or tender to the Lessor or Lessor's successors or assigns, an amount equal to $1.00 per year per net mineral acre covered by the lease. Such payments shall be made on or before the shut-in royalty payment date, as defined below, next occurring after the expiration of one hundred twenty (120) days from the date the well was shut-in, unless prior to such date oil or gas from *the well is sold or used or the lease is otherwise maintained as provided herein. In like manner, on or before each* succeeding shut-in royalty payment date while such well remains shut-in, Lessee shall make payment of shut-in royalty in the same amount and manner. The term "shut-in royalty payment date" shall mean the anniversary date of this lease. Any shut-in royalty payment may be made by cash, draft or check, mailed or tendered on or before the shut-in royalty date. Lessee's failure to pay or tender, or properly pay or tender, any such sum shall render Lessee liable for the amount due but it shall not operate to terminate the lease.
8. If Lessor owns a lesser interest in the above described land than the entire and undivided fee simple estate therein, then the royalties, including shut-in royalty, herein provided shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee. Any interest in production from the lands described herein to which the interest of Lessor may be subject shall be deducted from the royalty herein reserved.
9. Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for its operation thereon, except water from wells and reservoirs of Lessor. *Lessee shall have the right at any time to remove all machinery* and fixtures placed on said premises, including the right to draw and remove casing.
10. Lessee shall pay to Lessor reasonable amounts for damages caused by its operations to growing crops on said land. When requested by Lessor, Lessee shall bury its pipelines which traverse cultivated lands below plow depth. No well shall be drilled nearer than two hundred (200) feet to a house or barn now on said premises, without written consent of Lessor. Lessee shall have the right at any time (but not the obligation), to remove all improvements, machinery, and fixtures placed or erected by Lessee on said premises, including the right to pull and remove casings.
11. Lessee is hereby given the right and power at any time and from time to time as a recurring right, either before or after production, as to all or any part of the land described above and as to any one or more of the formations hereunder, to pool or unitize the leasehold estate and the mineral estate covered by this lease with other land, lease or leases in the immediate vicinity for the production of oil and gas, or separately for the production of either, when in Lessee's judgment it is necessary or advisable to do so, *and irrespective of whether authority similar to this exists with respect to such other* land, lease or leases. Likewise, units previously formed to include formations not producing oil or gas may be reformed to exclude such non-producing formations. The forming or reforming of any unit shall be accomplished by Lessee executing and filing of record a declaration of such unitization or reformation, which declaration shall describe the unit. Any unit may

include land upon which a well has heretofore been completed or upon which drilling operations have been commenced. Production, drilling or reworking operations or a well shut-in for any reason anywhere on a unit which includes all or a part of this lease shall be treated as if it were production, drilling or reworking operations or a well shut-in under this lease. In lieu of the royalties elsewhere herein specified, Lessor shall receive on production from the unit so pooled royalties only on the portion of such production allocated to this lease; such allocation shall be that proportion of the unit production that the total number of surface acres covered by this lease and included in the unit bears to the total number of surface acres in such unit.

12. Lessee shall have the right to unitize, pool, or combine all or any part of the land described above as to one or more of the formations thereunder with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval, to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that the land described above or any part thereof shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to Lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to Lessor shall be based upon production only as so allocated.
13. If the estate of either party hereto is assigned or sublet, and the privilege of assigning or subletting in whole or in part is expressly allowed, the express and implied covenants hereof shall extend to the subLessees, successors and assigns of the parties; and in the event of an assignment or subletting by Lessee, Lessee shall be relieved and discharged as to the leasehold rights so assigned or sublet from any liability to Lessor thereafter accruing upon any of the covenants or conditions of this lease, either express or implied. No change in Ownership of the land, royalties, or other payments, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee or require separate measuring or installation of separate tanks by Lessee. Notwithstanding any actual or constructive knowledge of or notice to Lessee, no change in ownership of said land or of the right to receive royalties or other payments hereunder, or of any interest therein, whether by reason of death, conveyance or any other matter, shall be binding on Lessee (except at Lessee's option in any particular case) until one hundred twenty (120) days after Lessee has been furnished written notice thereof, and the supporting information hereinafter referred to, by the party claiming as a result of such change in ownership or interest. Such notice shall be supported by original and certified copies of all documents and other instruments or proceedings necessary in Lessee's opinion to establish the ownership of the claiming party.
14. In the interest of conservation, the protection of reservoir pressures and recovery of the greatest ultimate yield of oil and/or gas, Lessee shall have the right to combine the leased premises with other premises in the same general area for the purpose of operating and maintaining repressuring and recycling facilities, and for such purpose may locate such facilities, including input wells, upon leased premises, and no royalties shall be payable hereunder upon any gas used for repressuring and recycling operations benefiting the leased premises.
15. Lessee is granted the right and option to extend this oil and gas lease for an additional two (2) years beyond the last day of the primary term hereof by remitting to Lessor on or before said date, an amount equal to the bonus per net mineral acre paid to Lessor as consideration for this Lease. Lessee shall have the option to extend this lease as to any, all, or less than all of the lease lands as Lessee chooses.
16. Should Lessee elect to purchase the lease pursuant to the terms hereof, it shall so notify Lessor in writing by mail, telefax, or telegram prior to expiration of said fifteen (15) day period. Lessee shall promptly thereafter furnish to Lessor the new lease for execution by Lessor along with Lessee's sight draft payable to Lessor in payment of the specified amount as consideration for the new lease, such draft being subject to approval of title according to the terms thereof. Upon receipt thereof, Lessor shall promptly execute said lease and return same along with the draft through Lessor's bank of record for payment.
17. In the event Lessor considers that Lessee has not complied with all its obligations hereunder, either express or implied, Lessor shall notify Lessee in writing, setting out specifically in what respects Lessee has breached this lease. Lessee shall then have sixty (60) days after receipt of said notice within which to meet or commence to meet all or any part of the breaches alleged by Lessor. The service of said notice shall be precedent to the bringing of any action by Lessor on said lease for any cause, and no such action shall be brought until the lapse of sixty (60) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder. This lease shall never be forfeited or cancelled for failure to perform in whole or in part any of its implied covenants, conditions, or stipulations until a judicial determination is made that such failure exists and Lessee fails within a reasonable time to satisfy any such covenants, conditions, or stipulations.
18. **Subject to the continuous drilling provision of Paragraph 3 of this Lease, six months plus one (1) day following the expiration of the Primary Term hereof, this Lease shall terminate as to all lease lands outside of any pooled or spacing unit, as established by applicable law or any governmental authority, upon which there is a well producing or capable of production in paying quantities.**
19. All express and implied covenants of this lease shall be subject to all federal and state, county or municipal laws, executive orders, rules and regulations, and Lessee's obligations and covenants hereunder, whether express or implied, shall be suspended at the time or from time to time as compliance with such obligations and covenants is prevented or hindered by or is in conflict with federal, state, county, or municipal laws, rules, regulations or executive orders asserted as official by or under public authority claiming jurisdiction, or Act of God, adverse field, weather, or market conditions, inability to obtain materials in the open market or transportation thereof, wars, strikes, lockouts, riots, or other conditions or circumstances not wholly controlled by Lessee, and this lease shall not be terminated in whole or in part, nor Lessee held liable in damages for failure to comply with any such obligations or covenants if compliance therewith is prevented or hindered by or is in conflict with any of the foregoing eventualities. The time during which Lessee shall be prevented from conducting drilling or reworking operations during the primary term of this lease, under the contingencies above stated, shall be added to the primary term of the lease.
20. On the date this Top Lease is executed the following described oil and gas lease ("Prior Lease") appears to be in force and effect as to all of the lands and interests covered hereby:

Prior Lease:
Lessor: William S. Wilkinson and Carol A. Wilkinson
Lessee: John H. Holt Oil Properties, Inc.
Dated: February 8, 2006
Recorded: February 17, 2006

Reception No: 632656
Expires: February 7, 2010

This Top Lease is presently subordinate and subject to the Prior Lease for as long as, and to the extent that, the Prior Lease remains in force and effect according to its present terms. Lessor agrees not to extend, renew, amend or modify the Prior Lease at any time on or before the expiration or termination of the Prior Lease.

The effective date of this Top Lease shall be as stated hereinabove if the Prior Lease or any portion thereof expires at the end of its primary term. In the event the Prior Lease, or any portion thereof, terminates before the end of the primary term for whatever reason, the effective date of this lease shall be the date of such termination. If the Prior Lease terminates after its primary term because of drilling or reworking operations being prosecuted under the terms of the Prior Lease, then the effective date of this Top Lease shall be the date of the expiration of said primary term as extended by drilling or reworking operations, but only as to those lands described herein that are not extended by production under the terms of the Prior Lease. In the event it cannot be determined with reasonable certainty that the Prior Lease has expired or terminated because of dispute or litigation or any act, rule or regulation of any Federal, State, County or Municipal laws, or Executive Orders asserted as official by or under public authority claiming jurisdiction, the Top Lease effective date shall be that which coincides with the expiration or termination date of the Prior Lease as judicially determined.

Lessee agrees to pay Lessor consideration for this Top Lease as set forth in two (2) payments made payable to Lessor, subject to the terms outlined herein and approval of title. The first installment, of **fifteen percent (15%)** of the negotiated bonus consideration, shall be paid to Lessor, under the terms stated herein, following execution of this Top Lease, the receipt of which is hereby acknowledged by Lessor. Lessee shall have the option to either, (1) pay or tender to Lessor the second installment consisting of the remaining **eighty-five percent (85%)** of the total bonus amount negotiated, within thirty (30) days following the Effective Date of this lease, and subject to approval of title, or (2) allow this lease to lapse by withholding payment of the second installment. If Lessee elects not to pay the second installment, Lessee shall be relieved of all further obligations hereunder, except the duty to release this lease. The right of Lessee to not honor the second installment shall be exercised in Lessee's sole discretion.

The contingent interest or estate created by this Top Lease must vest within one day less than thirty (30) months from the date of execution hereof, and if it does not so vest within that interval, shall thenceforth be void, and of no effect.

21. Lessor hereby warrants and agrees to defend the title to the lands described above, and agrees that the Lessee, at its option, shall have the right at any time to pay for Lessor, any mortgage, taxes or other liens existing, levied or assessed on or against the above described lands in the event of default of payment by Lessor and be subrogated to the rights of the holder thereof, and Lessor hereby agrees that any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due the Lessor under the terms of this lease.
22. This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors in interest, in whole or in part, of said Lessor or Lessee. Lessor agrees that in the event it acquires additional interest in the lands subject hereto, Lessor shall immediately notify Lessee in writing of such additional interest and Lessee shall have the option of tendering additional bonus under the terms of this lease and upon Lessor's receipt of additional bonus said additional interest shall be subject to the terms hereof as if such interest was owned by Lessor at the time Lessor executed this lease.
23. With respect to and for the purpose of this lease, Lessor, and each of them if there be more than one, hereby release and waive the right of homestead.

IN WITNESS WHEREOF, this instrument is executed as of the date first above written.

William S. Wilkinson

Carol A. Wilkinson

STATE OF Michigan)
(§
COUNTY OF ~~Mason~~ INGHAM)

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 22nd day of July, 2009 personally appeared William S. Wilkinson and Carol A. Wilkinson, husband and wife to me known to be the identical person described in that Oil and Gas Lease and who executed the within and foregoing instrument of writing and acknowledged to me that they duly executed the same as their free and voluntary act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My Commission Expires:

JAMELL DEON WILLIAMS
Notary Public, Ingham County, Michigan
Acting in Ingham County
My Commission Expires May 25, 2011

Notary Public

1390 W Lake Lansing Rd
Address: East Lansing, MI 48823

RETURN TO: Alfson Energy Land Services, Inc.; 7600 E. Orchard Road, Suite 115 South, Greenwood Village, CO 80111

Alfson Energy
LAND SERVICES

July 17, 2009

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Paid-up Oil and Gas Lease
Williams County, ND
Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

Dear Lois:

Per our recent phone conversation, I have enclosed an oil and gas lease for your consideration. The enclosed lease is top leasing the current lease you have with John H. Holt and will become effective the date the original lease expires. I have also included two payment vouchers totaling **$14,302.00** as bonus payment for your signed oil and gas lease. The first payment voucher is in the amount of **$2,145.30**, and reflects the first installment of the bonus that will be paid within 30 business days of our office receiving the signed oil and gas lease. The second payment voucher in the amount of **$12,156.70**, which reflects the remaining bonus amount, will be paid within 30 business days after the lease becomes effective. The payment of both vouchers is dependent on the title being researched and verified. The terms of the lease are listed below:

Lease Primary Term: 3 years	Your Net Acres: 47.673333
Royalty: 3/16ths	Bonus per acre: $300.00
Gross Acres: 286.04	Total Bonus: $14,302.00

If you don't have any questions, please do the following:

1. Sign your lease – exactly as your name appears – in front of a notary public.
2. Have the notary complete the notary section of the lease attesting to your signature.
3. Complete the highlighted areas of the enclosed W-9 form.
4. Sign the Payment Voucher.
5. Return your signed notarized lease, W-9 form and Payment Voucher in the enclosed return envelope.

The documents with "COPY" printed on them are for you to keep for your records. If you have any questions, please don't hesitate to call me at 303-638-6315. Thank you for leasing with us.

Sincerely,

Carlisle White

Carlisle White
By: Peggy Anderson

Enclosures

Alfson Energy
LAND SERVICES

August 31, 2009

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Paid-up Oil and Gas Lease
Williams County, ND
Township 153 North, Range 102 West , 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company.
Section 13: Farm Unit 312

Dear Lois:
Enclosed please find check No. 2814 from Alfson Energy Land Services, Inc., drawn on our lease account ALA Energy Resources, Inc., in the amount of $2,145.30 as bonus consideration for your oil and gas lease on the above referenced land.

Please acknowledge receipt of this check by signing and dating this letter below. Return the signed original to us in the enclosed self-addressed envelope and retain the copy for your records. If you have any questions regarding this matter, please contact the undersigned at 303-730-1667 ext 109.

Sincerely,

Peggy Anderson
Landman

Enclosures

Received Check No. 2814 in the amount of $2,145.30 on this 4th day of September, 2009.

Lois Jean Patch
Lois Jean Patch

COPY

ALA Energy Resources, L.L.C.

2814

Lois Jean Patch

8/31/2009

Oil and Gas Lease Bonus -- voucher 0106 Township 153 North, Range 102 West , 5th P.M. Section 12: SW¼, S½NW ¼ except that portion there constitutes the right-of-way of the Great Northern Rail Section 13: Farm Unit 312 Williams County ND 286.04 gross ac / 47.673333 net ac	2,145.30

Colorado Business Ba

2,145.30

PII 0480

Alfson Energy
LAND SERVICES

December 29, 2009

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Assignment of Oil and Gas Lease
Area: Townships 153 – 155 North, Ranges 102 – 104 West
Williams or Williams / McKenzie Counties, North Dakota

Dear Lois Jean:

You recently signed an oil and gas lease with Alfson Energy Land Services, Inc. covering a mineral interest that you own in the captioned area. We are writing to inform you that your oil and gas lease has been assigned, in its entirety, to:

EOG Resources, Inc.
600 17th Street
Suite 1000N
Denver, CO 80202

If you would like to learn about EOG, you can visit their website at www.eogresources.com.

I've enclosed guidelines on what to do if your address or your mineral ownership changes or if you should have questions about your lease. We will also be available to answer questions that you have.

Thank you for leasing with us. On behalf of the team at Alfson Energy Land Services, we appreciate the opportunity to work with you and look forward to being able to do so again the in the future.

Sincerely,

Susan J. Alfson
President

Enclosure

Alfson Energy
LAND SERVICES

Information Concerning Oil and Gas Leases

1. Contact Information for EOG if you have questions about your lease:

Theresa Wysocki
EOG Resources, Inc.
P.O. Box 4362
Houston TX 77210-4362

Theresa_Wysocki@eogresources.com
Phone: 713-651-6716

2. Website for information about drilling operations in ND: https://www.dmr.nd.gov/oilgas

3. When EOG will contact you: EOG will send you a division order if a well(s) is drilled on your mineral interest and the well is commercially successful. The division order will confirm your interest in the well and reconfirm that EOG has your correct name spelling, address and social security or tax ID number. Once you have signed and returned your division order, EOG will begin sending royalty payments based on sales of oil and / or gas production from the well(s).

4. Why EOG needs your social security or tax ID number: Under IRS regulations, EOG is required to report any income paid to you but can only do so if it has your proper social security or tax ID number (companies, corporations, trusts). Failure to provide this number to EOG may require them to withhold twenty-eight percent (28%) of your income for tax purposes.

5. **When you should contact EOG:**

   a. When your address changes – EOG will use the address on your oil and gas lease to get in touch with you for information about drilling operations. It's important that you let them know if your address changes.
   b. Name changes –
      i. Individuals: you will need to provide EOG with a copy of your marriage certificate, divorce decree or other document showing legal evidence of your name change.
      ii. Companies and Corporations: you will need to provide EOG a copy of the Certificate of Name Change; or in the case of merger, a copy of the Certificate of Merger.
   c. When your ownership in the minerals you've leased to EOG changes: You will need to provide EOG with reliable evidence of the change of ownership before they will be able to change the interest to another owner(s) name. ***This is for your protection and to prevent fraud by someone illegally trying to change the name on your interest records.*** There are several circumstances under which ownership of a leased interest might legally change:
      i. Sale of your interest – send EOG a copy of the recorded document conveying your minerals to another party or parties.
      ii. Change of ownership due to a divorce – EOG will need a copy of the divorce decree and copies of any recorded conveyances.
      iii. Death of a Mineral Owner – EOG will need certain legal documents showing the proper party or parties that now have the ownership rights in the minerals. At a minimum, you will need to send EOG a death certificate. When a mineral owner dies, an heir should call EOG and ask for instructions on which documents need to be provided to support the

change of ownership to the heirs. EOG will request information about which of the following circumstances apply and then let you know what additional documents they will need copies of:

a. decedent had a Will;
b. decedent didn't have a Will;
c. decedent's estate is being probated;
d. decedent's estate is being probated in a state other than ND;
e. decedent's estate is not being probated at all.

iv. Termination of Joint Tenancy – if the mineral owners held their interests as joint tenants and the joint tenancy is terminated for any reason (i.e., death, divorce, sale of one joint tenant's interest, or any other reason), EOG will need a copy of the document that terminates the joint tenancy. You should contact them to explain the circumstances of the termination and ask which documents need to be provided.

v. Trusts – if the mineral interest is made part of the assets of a Trust after the oil and gas lease is signed; or, if the Trustees signed the original oil and gas lease and the trust assets are distributed to the beneficiaries, EOG will need a copy of the Trust Agreement and the recorded conveyances into or out of the Trust.

vi. Guardianships – if a mineral owner is declared incompetent and placed under the care of a Guardian, EOG will need a copy of the Letters of Guardianship issued by the court creating the guardianship. If a Guardian originally signed the oil and gas lease on behalf of a minor child who has now come of legal age, EOG will need a copy of the child's birth certificate.

vii. Bankruptcy – if the mineral owner's interest becomes subject to bankruptcy proceedings, EOG will need copies of the court order appointing a Trustee in Bankruptcy and any recorded conveyances of the minerals in settlement of the bankruptcy along with a court order confirming the sale.

viii. Creation of an LLC, subchapter "S" corporation or other legal entity – if the mineral owner creates a legal entity and transfers ownership of the minerals into the legal entity, EOG will need a copy of the recorded document conveying title into the legal entity.

THIS COMMUNICATION DOES NOT, AND IS NOT INTENDED TO, CREATE AN ATTORNEY-CLIENT RELATIONSHIP. ANY INFORMATION CONTAINED HEREIN DOES NOT CONSTITUTE LEGAL ADVICE AND SHOULD NOT BE INTERPRETED AS SUCH. Many of the events discussed in this document have legal and possible tax implications. It is always prudent to seek the advice of an attorney or tax professional when any of these events occur.

Alfson Energy
LAND SERVICES

March 3, 2010

Lois Jean Patch
1833 Marian Drive
Bismarck, ND 58501

Re: Paid-up Oil and Gas Lease
Williams County, ND
Township 153 North, Range 102 West, 5th P.M.
Section 12: SW¼, S½NW¼ except that portion thereof which constitutes the right-of-way of the Great Northern Railway Company
Section 13: Farm Unit 312

Dear Lois:

Enclosed please find check No. 3163 from Alfson Energy Land Services, Inc., drawn on our lease account ALA Energy Resources, Inc., in the amount of $12,156.70. This check represents the remainder of your bonus consideration for the top lease you signed on July 15, 2009 on the above referenced land. This lease took effect on February 8, 2010.

Please acknowledge receipt of this check by signing and dating this letter below. Return the signed original to us in the enclosed self-addressed envelope and retain the copy for your records. If you have any questions regarding this matter, please contact me at 303-730-1667 ext 315.

Sincerely,

Peggy Anderson/jc

Peggy Anderson
By: Joanne Conklin

Landman

Enclosures

Received Check No. 3163 in the amount of $12,156.70 on this 4th day of March, 2010.

Lois Jean Patch

Exhibit J-1 – Jan. 12, 2017 testimony of Joshua Swanson to the Senate Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
Senate Energy and Natural Resources Committee
January 12, 2017, 9:00 AM

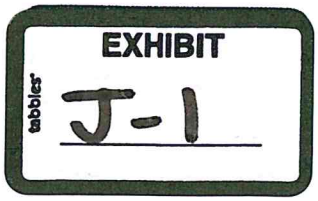
Chairman Schaible and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. My remarks focus on the problem caused by using river mile 1552.4, the location of the Highway 85 Bridge, as the dividing line in the Bill that arbitrarily distinguishes between lands east of the Bridge versus lands west of the Bridge that were also acquired as part of the Pick-Sloan Missouri basin project – commonly referred to as the Garrison Project – by the United States because such lands would be affected and inundated by Lake Sakakawea.

BACKGROUND

Historically, the State of North Dakota claimed an interest in only the original 30,000 acres of the Missouri River riverbed as it existed before the existence of Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 13, 2007, letter that the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims title to all the oil and gas under Lake Sakakawea. The State made this massive land grab despite the fact this property, including property west of the Highway 85 Bridge, was undisputedly acquired by the United States for the Garrison Project because of the flooding that would be caused by Lake Sakakawea. In the warranty deeds dating back to the 1950s whereby the United States acquired this property from North Dakota citizens like Ed Lynch and Jon Patch's predecessors, the oil and gas rights were unquestionably reserved in the private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in said warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 1 and 2.

This has been the subject of litigation in William S. Wilkinson, et al. v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038, and EEE Minerals, LLC et al. v. The Board of University and School Lands of the State of North Dakota, et al. (the latter case filed this week in McKenzie County). The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that, regardless of how or when land came to lie within the ordinary high water mark ("OHWM") of Lake Sakakawea, the State automatically acquired ownership of that land as soon as it was flooded. This view is legally erroneous. With the exception of using river mile 1554.2, which is the location of the Highway 85 Bridge, as the boundary for the effect of Garrison Dam and western reach of Lake Sakakawea, the Bill addresses the issues raised in this litigation.

The use of the Highway 85 Bridge as the western reach of Lake Sakakawea and delineating the impacts of Garrison Dam, and in distinguishing between what the State owns versus what it does not own as currently provided for in SB 2134, is lacking in any scientific support and makes the Bill problematic. The fact that property located west of the Highway 85 Bridge – like that owned by the Wilkinson and Vohs families – was and remains affected by and subject to flooding from Lake



Sakakawea is discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 3. Point #3 to Dr. Woodbury's report explains why using the Highway 85 Bridge as a dividing line is arbitrary. The arbitrary nature of using the Highway 85 Bridge as the dividing line for what the State owns, as Mr. Patch notes in his testimony, was acknowledged by several individuals employed by the State who were deposed in the Wilkinson case. These individuals, including John Paczkowski, Todd Sando, Gerald Heiser, Lance Gaebe, Mike Brand, Gary Preszler, and Tom Feeney, each testified they were unaware of any scientific or technical basis for using the Highway 85 Bridge as the western reach of Lake Sakakawea and its impacts. Mr. Preszler, the former Land Commission for the State, summarized the problematic nature of using the Highway 85 Bridge as the dividing line when he stated, "It [Highway 85 Bridge] just represented a recognizable landmark that we all knew and we used that as a basis, ... ," and it "represented no scientific analysis or basis whatsoever."

The use of the Highway 85 Bridge as the dividing line in SB 2134 also ignores the undisputed fact that the United States acquired property west of the Highway 85 Bridge for the Garrison Project and flooding that would be caused by Lake Sakakawea. This is illustrated by the United States' maps for the Garrison Project showing dozens of tracts and many acres west of the Bridge – like the property belonging to the Wilkinson and Vohs families – that were acquired by the United States because of the flooding that would be caused by Lake Sakakawea. Similarly, the clear and unambiguous language in the warranty deeds whereby the United States acquired property west of the Highway 85 Bridge for the Garrison Project, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the Wilkinsons' reservation of the oil and gas rights were "[s]ubordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, ..."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and their government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017, adding insult to that long-ago injury, this great State seeking to further deprive them of their property by claiming their oil and gas rights – rights they had previously leased to oil companies for nearly sixty years before the State claimed ownership of them.

NORTH DAKOTA'S TITLE TO THE RIVERBED OF THE HISTORIC MISSOURI RIVER

At the time of Statehood, North Dakota took title to the bed of navigable bodies of water as those bodies of water existed at the moment of statehood. (See, e.g., Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co., 429 U.S. 363, 371 (1977)). The legal mechanism that gave North Dakota this title is known as the "Equal Footing Doctrine," which grants each State in our Union title to the bed of all navigable bodies of water, including underlying minerals, as of the moment of Statehood. (Id.) After the moment of Statehood, the Equal Footing Doctrine has run its course and is of no further effect. (Id.) The Equal Footing Doctrine does not grant the State title to the bed of any body of water that later becomes navigable, like Lake Sakakawea, whether by natural or artificial means. (Id.) While the State can also acquire property by purchase, the State cannot arbitrarily claim title to property that it does not own. That is the textbook definition of an unconstitutional taking under this State and our United States constitutions.

The State cannot validly designate the Highway 85 Bridge as the cutoff of the effect of Garrison Dam and western reach of Lake Sakakawea. Garrison Dam's effect and the reaches of Lake Sakakawea go beyond this point. Using an artificial cutoff like the Highway 85 Bridge defeats the purpose of the Bill by effectively granting the State title to private land that the State does not own.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the OHWM of the Missouri River in the Garrison Dam area. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam. The first study shares a common flaw with the proposed Bill – the Highway 85 Bridge is not the end of Lake Sakakawea and its impacts as detailed in Dr. Woodbury's report. As Dr. Woodbury explained, "The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge." (Woodbury Report at p. 21). Dr. Woodbury also noted that property belonging to the Wilkinson family, lying to the west of the Highway 85 Bridge, was suitable for agricultural purposes prior to the construction of Garrison Dam. (Id.) Further, as noted by Dr. Woodbury, the United States purchased property extending well beyond the Highway 85 Bridge for the Garrison Project, which demonstrates that Lake Sakakawea was always anticipated to affect areas beyond the Highway 85 Bridge. Moreover, the pre-dam streambed elevation at the Highway 85 Bridge was approximately 1823.0 feet; any time the reservoir impounds water that exceeds that water surface elevation, as it does 95% of the time, the reservoir is impounding water upstream or beyond the Highway 85 Bridge. (Id.)

COMMENTS ON BILL DRAFT

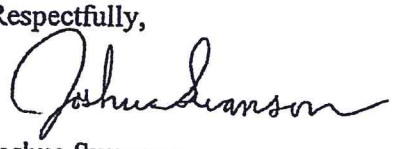
Effectively, SB 2134 recognizes that the State has title to the bed of the historic Missouri River as it existed prior to the Garrison Dam. However, the Bill legislatively mandates that, as a matter of North Dakota law, Garrison Dam's effect and the western reach of Lake Sakakawea ceases at the Highway 85 Bridge. This limitation is arbitrary, unsupported by any scientific or technical grounds, and would lead to unconstitutional results and additional legal challenges.

The State does not need to use an artificial limit on the extent of the effect of Lake Sakakawea. As the Bill notes, the historical Missouri riverbed channel can be determined by prior Army Corps of Engineering surveys, and, if necessary, by studies of historical aerial photos as the State has already done for large parts of Lake Sakakawea. Thus, there is little risk of the State encountering protracted issues with determining the extent of the State's interest absent the artificial cutoff. The artificial cutoff undermines what can be a just and right Bill for people like the Wilkinson and Vohs families that have already been deprived of their property once by the Garrison Project and Lake Sakakawea. The artificial cutoff is a state-sanctioned taking without compensation for all property west of the Highway 85 Bridge that was acquired by the United States for the Garrison Project and, as noted by Dr. Woodbury, clearly affected by Lake Sakakawea.

The artificial cutoff for the effect of Lake Sakakawea is a proverbial line in the sand; on one side of the line, the State recognizes that it has no automatic legal right to artificially flooded property, but on the other side of the line the State claims an automatic legal right regardless of whether it is actually affected by Lake Sakakawea. The State can prevent this unfair and unconstitutional treatment by removing the artificial cutoff from the proposed Bill.

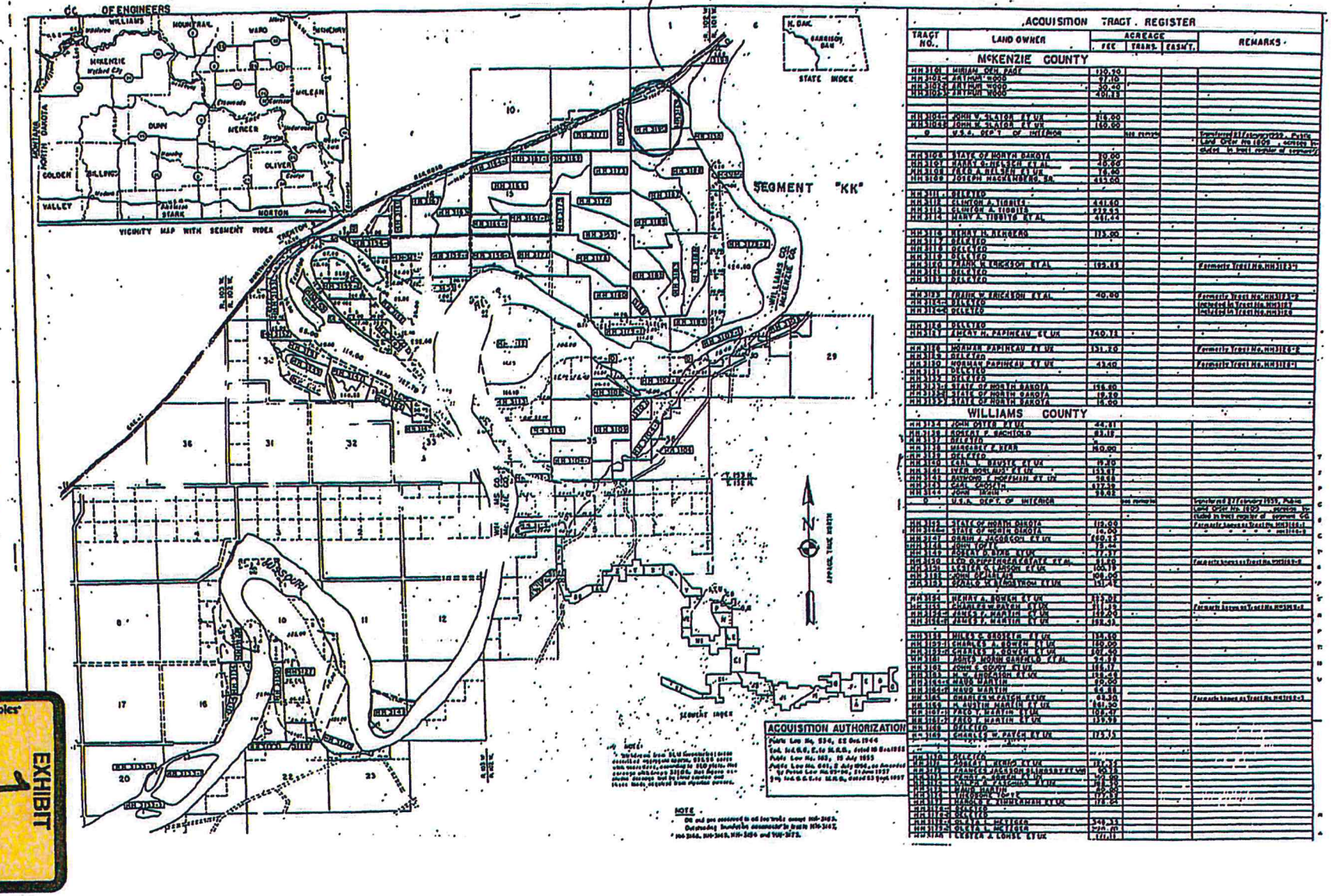
Thank you again for the opportunity to present this testimony. I urge you not to pass the proposed Bill without first removing the artificial cutoff point at river mile 1552.4, which is the location of the Highway 85 Bridge.

Respectfully,



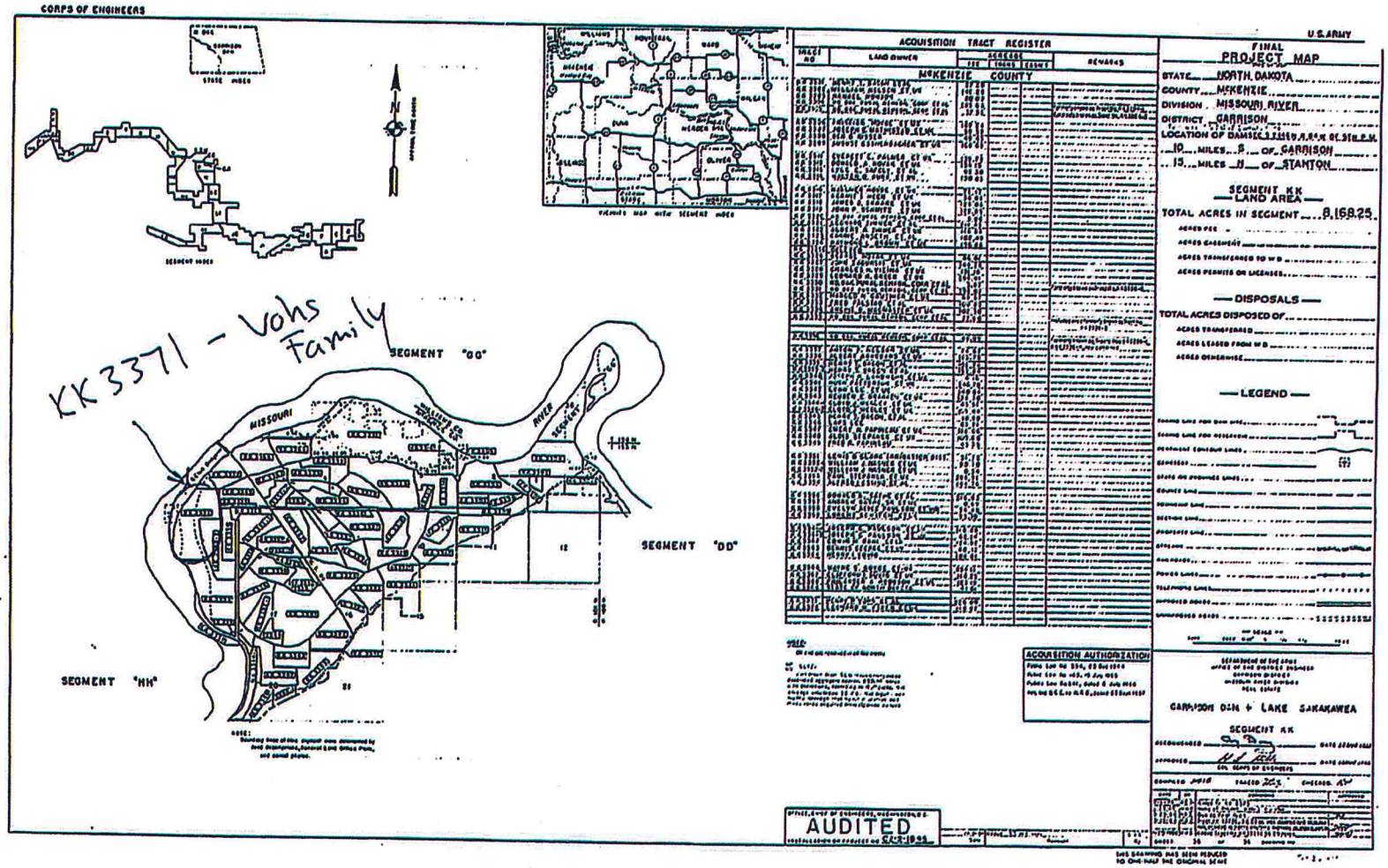
Joshua Swanson

HH 3190 (Wilkinson Family)



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS.	ACREAGE EASM'T.	REMARKS
	McKENZIE COUNTY				
HH 3101	MIRIAM DEH, PART	120.70			
HH 3102-E	ARTHUR WOOD	97.10			
HH 3102-F	ARTHUR WOOD	30.40			
HH 3102-X	ARTHUR WOOD	491.13			
HH 3104-E	JOHN W. SLAIGH ET UX	318.60			
HH 3104-X	JOHN W. SLAIGH ET UX	160.00			
- 0	U.S.A. DEP'T OF INTERIOR		See remarks		Transferred to Secretary of Army, Public Land Order No. 1899, dated 11 October 1960 (46 FR 12303)
HH 3106	STATE OF NORTH DAKOTA	20.00			
HH 3107	HARRY S. HEISER ET AL	40.00			
HH 3108	TALA A. NELSON ET UX	16.00			
HH 3109	JOSEPH HACKENBERG, SR.	613.00			
HH 3111	DELETED				
HH 3112	CLINTON A. TIBBITS	441.60			
HH 3113	CLINTON A. TIBBITS	232.55			
HH 3114	MARY A. TIBBITS ET AL	481.44			
HH 3116	HENRY H. BERGERUD	113.00			
HH 3117	DELETED				
HH 3118	DELETED				
HH 3119	DELETED				
HH 3120	FRANK W. ERICKSON ET AL	193.68			Formerly Tract No. HH 3113-E
HH 3121	DELETED				
HH 3122	DELETED				
HH 3123	FRANK W. ERICKSON ET AL	40.00			Formerly Tract No. HH 3113-X; Increased in Tract No. HH 3122; Deleted in Tract No. HH 3124
HH 3124	DELETED				
HH 3125	JEFFREY H. PAPINEAU ET UX	740.72			
HH 3126	MORRIS PAPINEAU ET UX	151.20			Formerly Tract No. HH 3115-E
HH 3130	NORMAN PAPINEAU ET UX	43.40			Formerly Tract No. HH 3115-X
HH 3131	DELETED				
HH 3132	DELETED				
HH 3133-E	STATE OF NORTH DAKOTA	158.80			
HH 3133-F	STATE OF NORTH DAKOTA	19.30			
HH 3133-X	STATE OF NORTH DAKOTA	15.00			
	WILLIAMS COUNTY				
HH 3134	JOHN OTTER ET UX	44.81			
HH 3139	DOROTHY F. BACHOLD	81.19			
HH 3140	DELETED				
HH 3141	MARGARET F. KEAR	140.00			
HH 3142	DELETED				
HH 3143	CECIL L. REVISTE ET UX	19.20			
HH 3145	IVER BOSENDS ET UX	153.87			
HH 3147	RAYMOND F. HOFFMAN ET UX	58.60			
HH 3148	CARL GOODLIN	617.39			
HH 3149	JOHN IRWIN	20.82			
0	U.S.A. DEP'T OF INTERIOR		See remarks		Transferred to Secretary of Army, Public Land Order No. 1899, dated 11 October 1960 (46 FR 12303)
HH 3150	STATE OF NORTH DAKOTA	120.80			
HH 3150-E	STATE OF NORTH DAKOTA	19.20			
HH 3150-F	OSMIN A. JACOBSON ET UX	280.32			
HH 3151	JOHN TOFTE	78.44			
HH 3152	LESLEY A. KING ET UX	77.31			
HH 3153	TED A. SPECKERT ET UX ET AL	81.60			Formerly known as Tract No. HH 3115-E-2
HH 3154	LESTER L. LARSON ET UX	100.70			
HH 3155	JOHN BOLLINGER	104.00			
HH 3156	ALVIN WINTHROW ET UX	151.42			
HH 3157	HENRY A. ROESCH ET UX	117.31			
HH 3158-E	CHARLES P. PAYCH ET UX	81.10			Formerly known as Tract No. HH 3115-E-3
HH 3158-F	JAMES F. MARTIN ET UX	119.20			
HH 3158-X	JAMES F. MARTIN ET UX	159.53			
HH 3159	HILES G. BROOKS ET UX	158.60			
HH 3160-E	CHARLES A. BOWEN ET UX	160.00			
HH 3160-F	CHARLES F. BOUCH ET UX	160.40			
HH 3160-X	JAMES MARK KANELOS ET AL	41.81			
HH 3162	JOHN C. COVEY ET UX	164.17			
HH 3163	H. V. HOGARTH ET UX	158.60			
HH 3164-E	HAZEL MARTIN	120.00			
HH 3164-X	HAZEL MARTIN	64.88			
HH 3165	CHARLES W. PAYCH ET UX	81.30			Formerly known as Tract No. HH 3115-E-3
HH 3166	A. JUSTIN HAGE ET UX	160.00			
HH 3167-E	PAUL F. MARTIN ET UX	161.97			
HH 3167-F	PAUL F. MARTIN ET UX	159.98			
HH 3168	DELETED				
HH 3169	CHARLES W. PAYCH ET UX	119.15			
HH 3170	DELETED				
HH 3171	ASHLEY L. HEATH ET UX	119.35			
HH 3172	FRANCES (FRANCIS) BERGET ET UX	40.10			
HH 3173	ROBERT JAMES ET UX	160.00			
HH 3174	RALPH A. FAUCHER ET UX	318.30			
HH 3175	HAZEL MARTIN	80.00			
HH 3176	THEODORE TOFTE ET UX	117.87			
HH 3177	CHARLES L. TUNNELMEIER ET UX	119.04			
HH 3178	DELETED				
HH 3179	DELETED				
HH 3180	DELETED				
HH 3181	OLIVIA L. METZGER	349.33			
HH 3182	OLIVIA L. METZGER	320.00			
HH 3183	CHESTER A. LOWSE ET UX	119.81			


CORPS OF ENGINEERS
U.S. ARMY
KK3371 - Vohs Family
SEGMENT "GG"
SEGMENT "HH"
SEGMENT "DD"
MISSOURI
RIVER
ACQUISITION TRACT REGISTER
McKENZIE COUNTY
ACQUISITION AUTHORIZATION
AUDITED
FINAL
PROJECT MAP
STATE NORTH DAKOTA
COUNTY McKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAM SEC 3 T 151 N R 84 W 5TH P.M.
10 MILES S OF GARRISON
15 MILES N OF STANTON
SEGMENT KK
LAND AREA
TOTAL ACRES IN SEGMENT 9,168.25
DISPOSALS
TOTAL ACRES DISPOSED OF
LEGEND
GARRISON DAM & LAKE SAKAKAWEA
SEGMENT KK

Tract No. HR-3190 ← HM-3190

1. WARRANTY DEED: 3M-2-61 To: Red Lake Water Users Bismarck N. D.

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. State of , party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 - - -

12

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

United States of America
Address: Washington, D. C.

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the S½ and S½N½ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½N½ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easments for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

(N. P. Seal)

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

My commission expires Nov. 19, 1958.

STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

TELMAR D. ROLFSTAD
Notary Public for the County of Williams
State of North Dakota

My commission expires Nov. 19, 1958.

288165

TRANSFER FEE $ 25
TO
RECORDING FEE $1.50

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the ___ day of JUN 10 1958 A. D. 19 ___ at ___ o'clock ___ M. and was duly recorded in Book ___ of Warranty Deeds on page ___

Register of Deeds
By ___ Deputy

Delinquent taxes, if any, and special assessments, if any, paid to and including the year ___

Dated this ___ day of ___ 19 ___

County Auditor
By ___

KK-3371 ← KK-3371

Document No. 155142

BOOK 87 PAGE 505

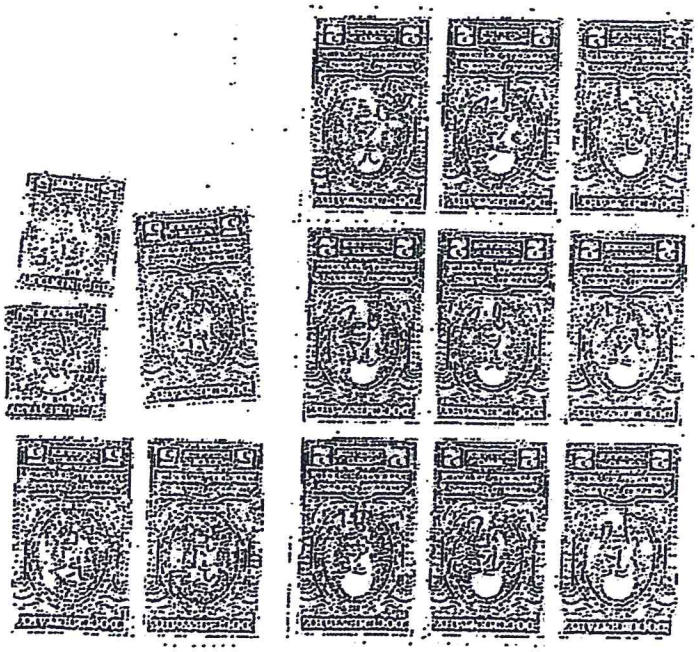
WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for

BOOK 87 PAGE 506



said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil & gas ownership reserved by Vohs Family subject only to right of United States to flood the property for Lake Sakakawea

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER. And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
STATE OF NORTH DAKOTA

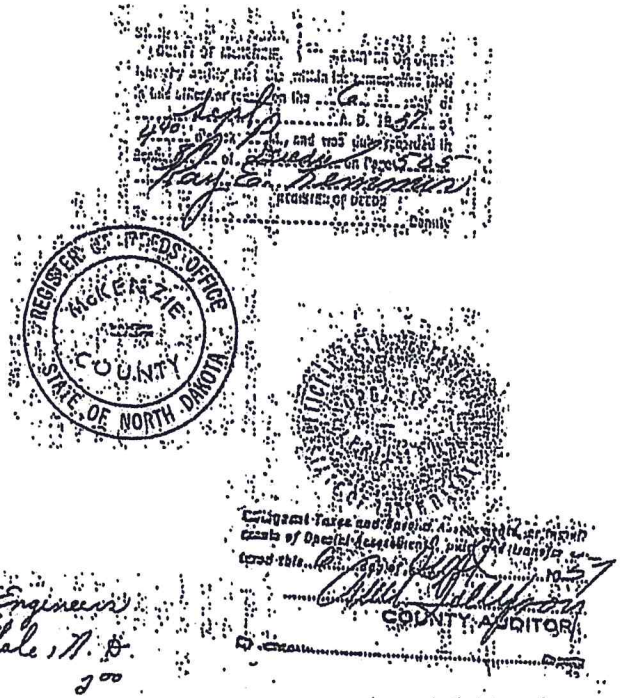
My commission expires
July 11, 1959

Notary Public for the County of
Williams, State of North Dakota

F. A. WENSTROM,
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

Document No. 155142

BOOK 87 PAGE 508



Corps of Engineers
Riverdale, N. D.
200

June 19, 2013

HoustonEngineering Inc.

Wilkinson Trust Estate

Ordinary High Water Mark

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E., P.H.
North Dakota Reg. No. 1729

Date: June 20, 2013

HoustonEngineering Inc.

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The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1554.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

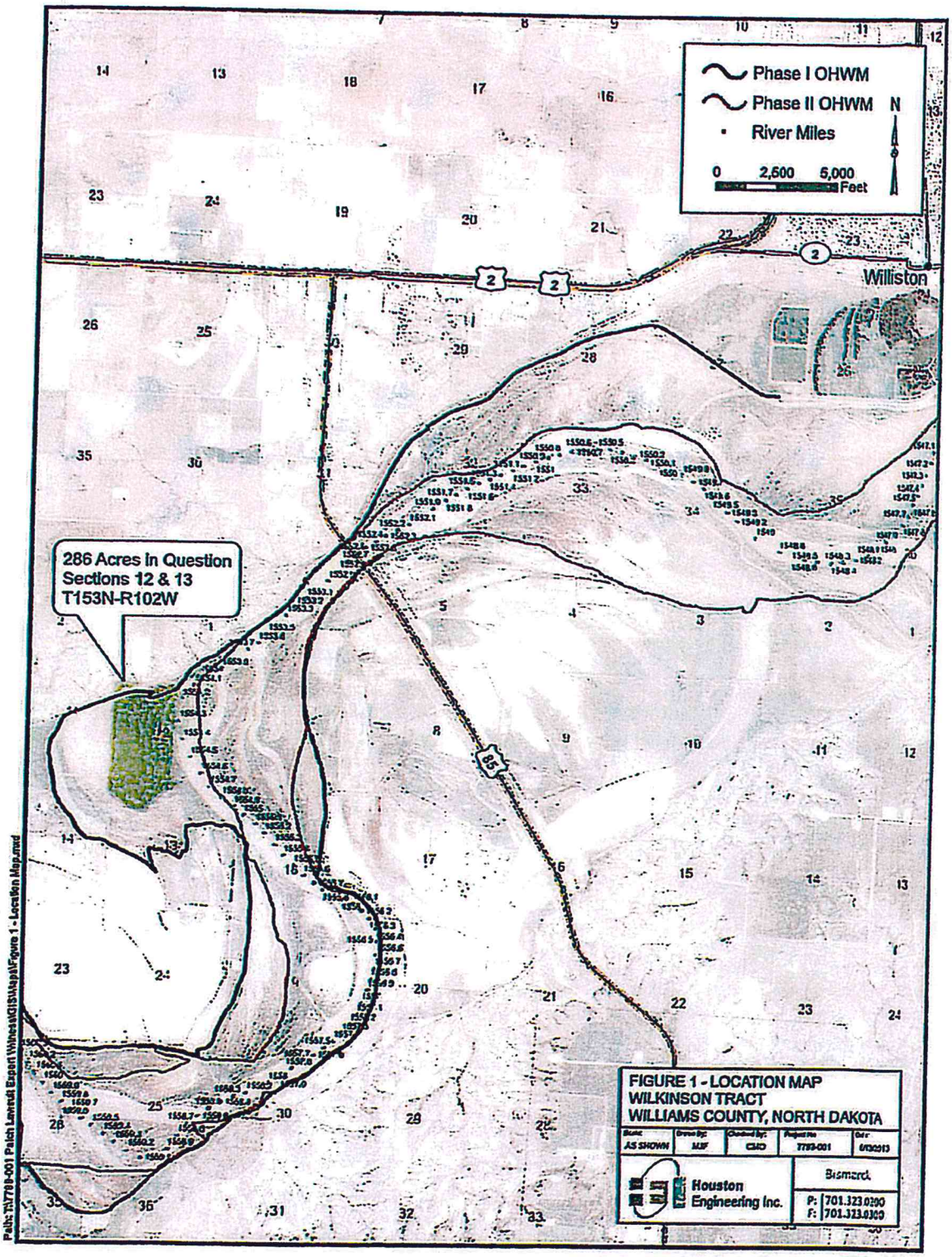
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

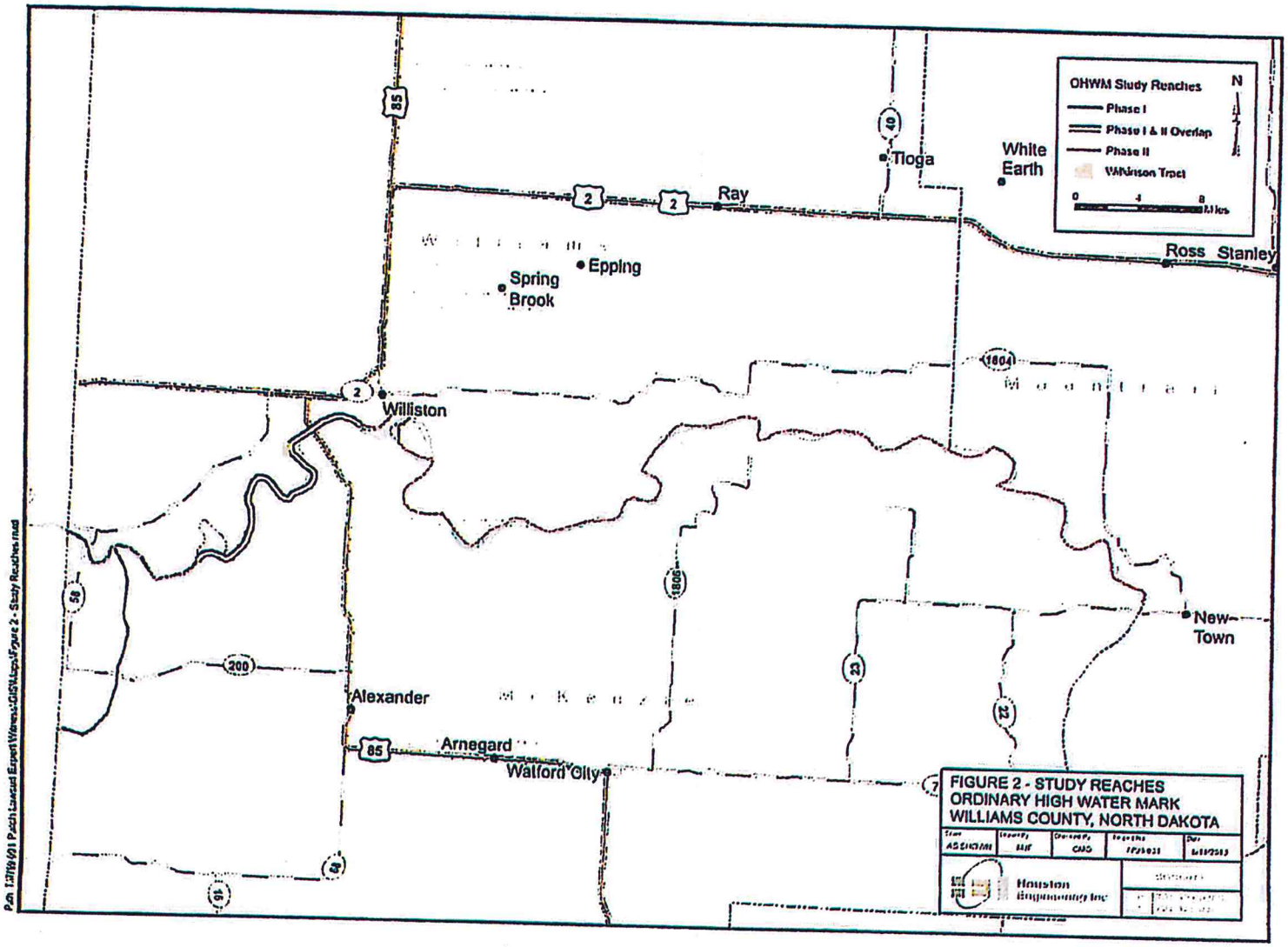
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.5. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
286 Acres in Question
Sections 12 & 13
T153N-R102W
Williston
2
85
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7799-001
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0309
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 1 - Location Map.mxd


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Wilkinson Tract
N
0
4
8
Miles
Tioga
White Earth
Ray
Ross
Stanley
Epping
Spring Brook
Williston
Alexander
Arnegard
Watford City
New Town
85
2
1804
1806
200
23
58
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

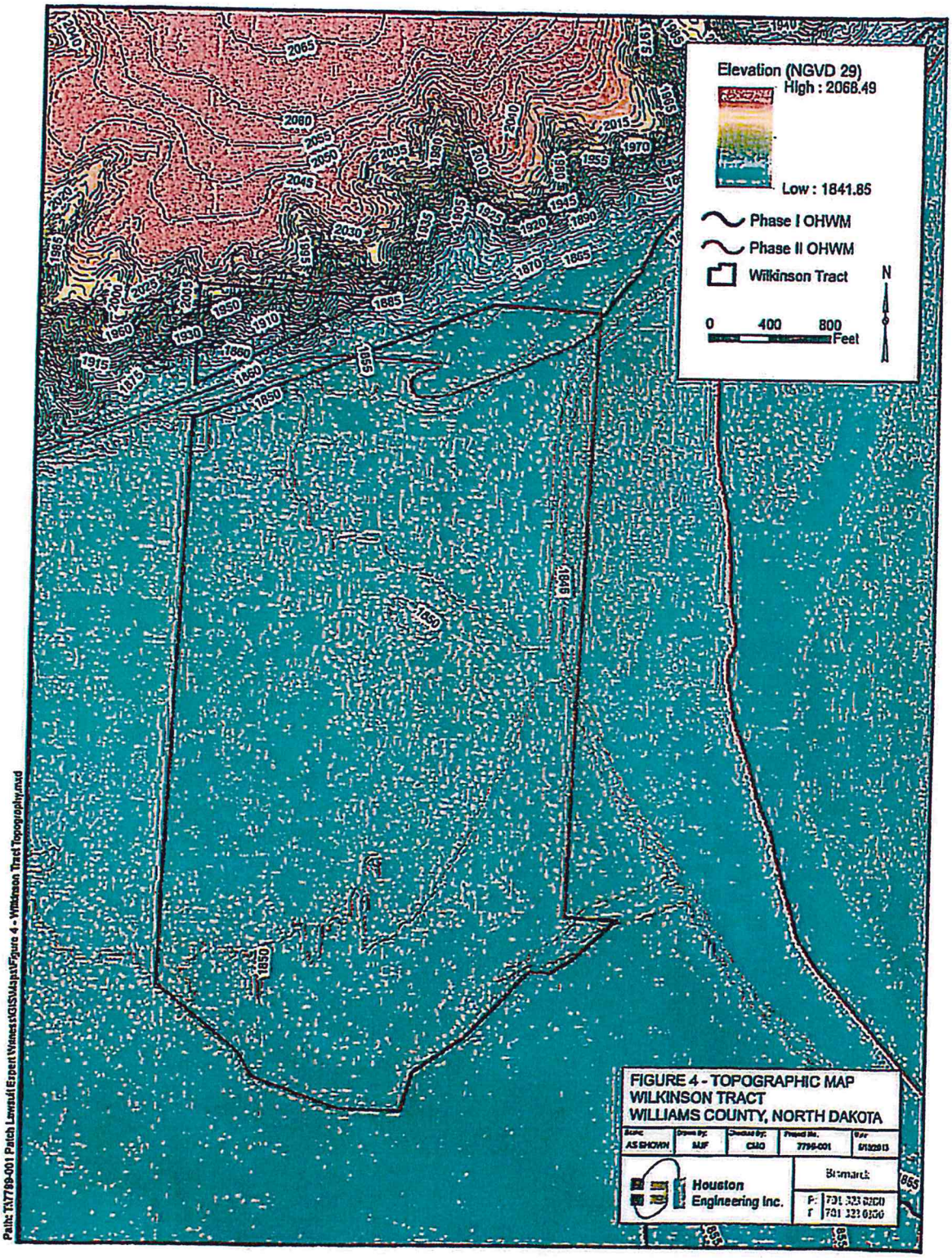
Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6.** With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.

N
0 1,500 3,000
Feet
30
25
35
36
31
2
1
6
4
11
12
9
14
13
18
16
23
21
26
30
FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7789-001
Houston Engineering Inc
Bismarck
P 701 223 8300
F 701 223 1645
Path: N:\7789-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 3 - 1958 Aerial Imagery.mxd



Path: I:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 4 - Wilkinson Tract Topography.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

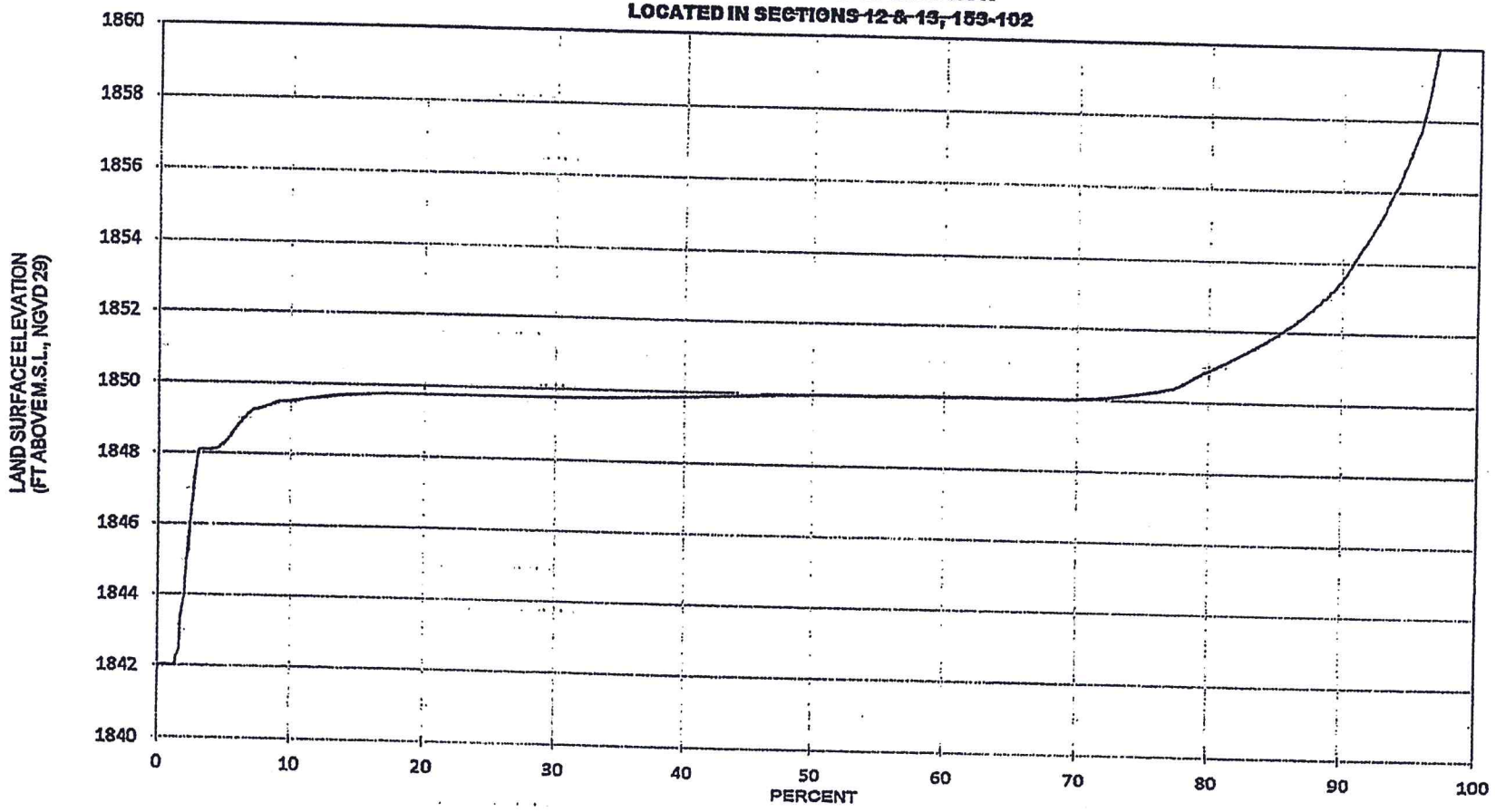


FIGURE 6

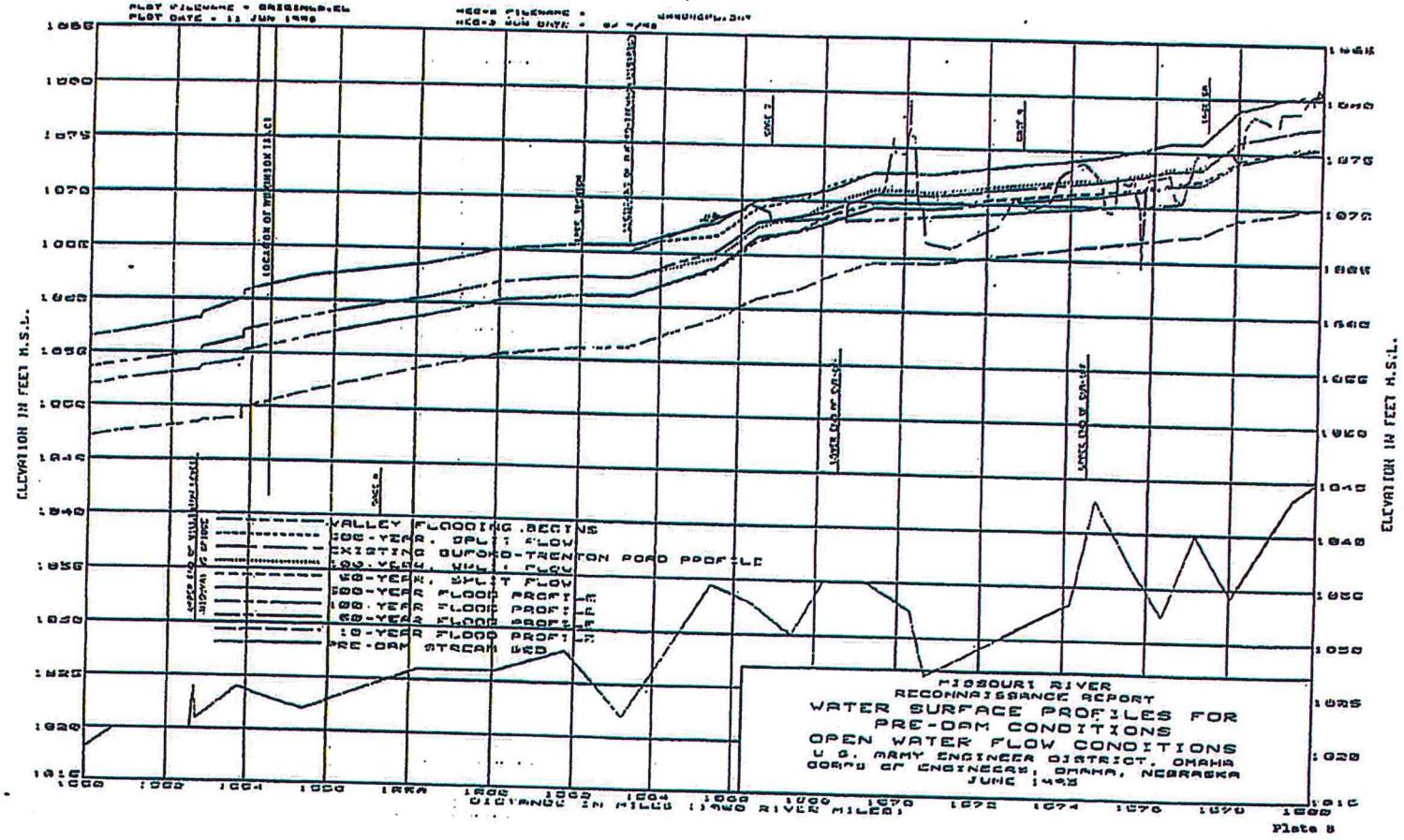
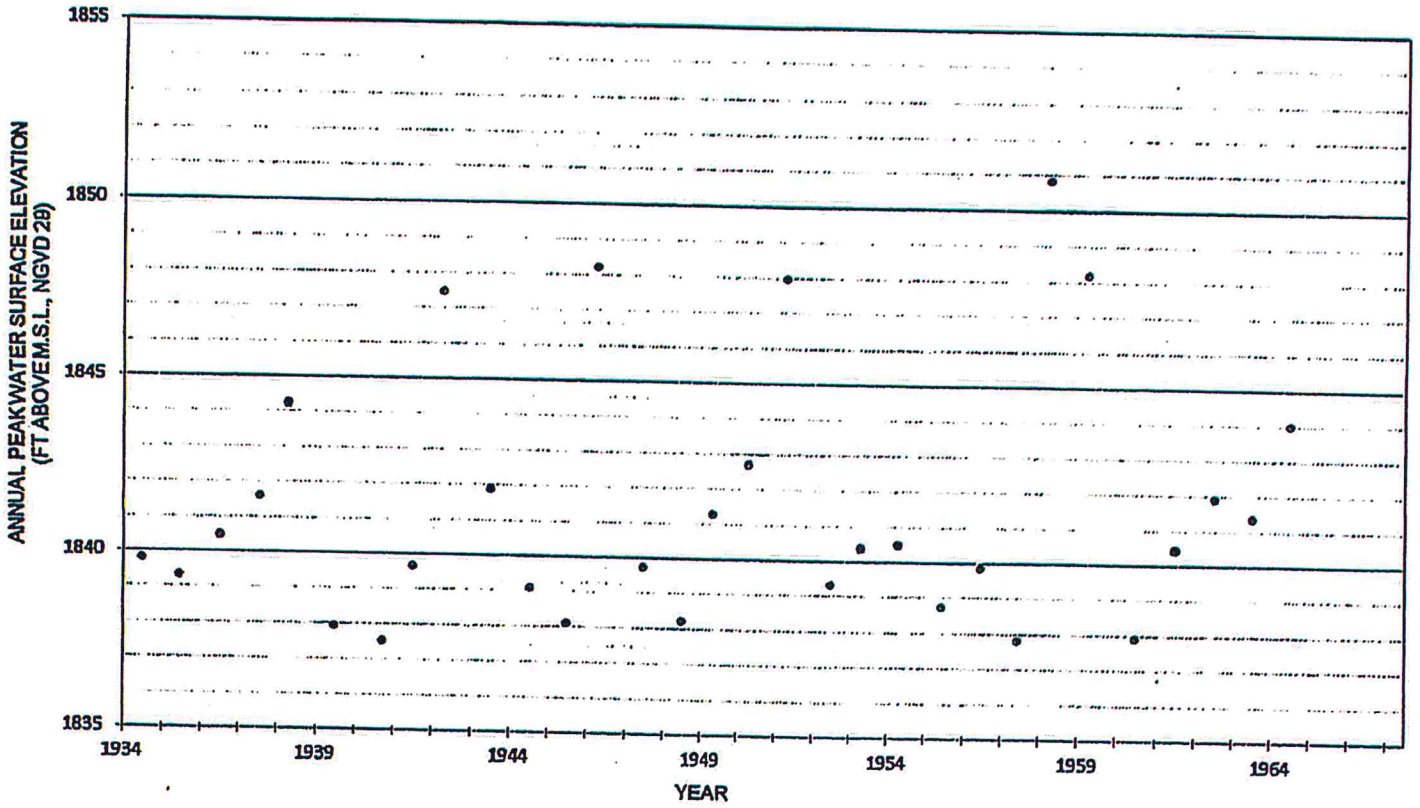

ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (MO RIVER MILES)
VALLEY FLOODING BEGINS
EXISTING GARRISON DAM TAILWATER POOL PROFILE
PRE-DAM STREAM BED
MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1945
Plate 8

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

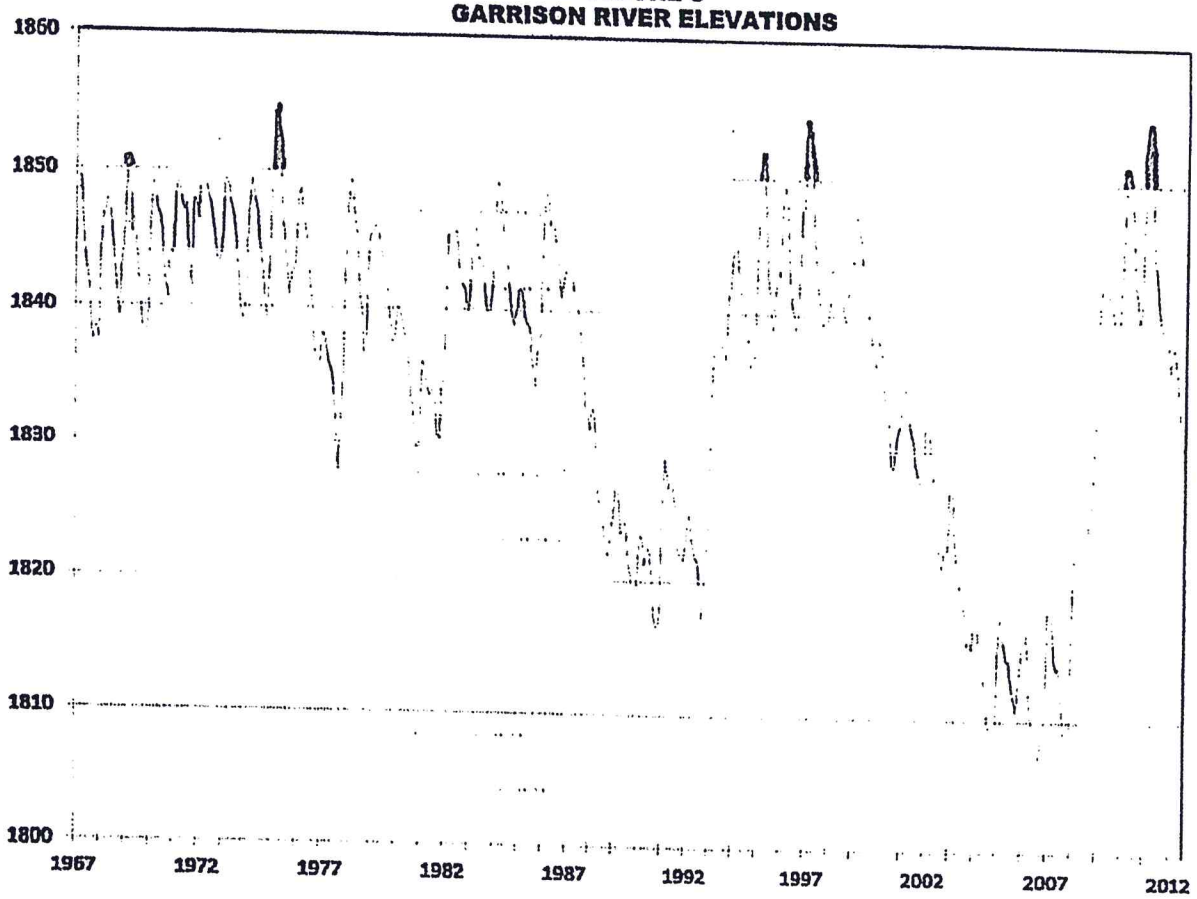
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

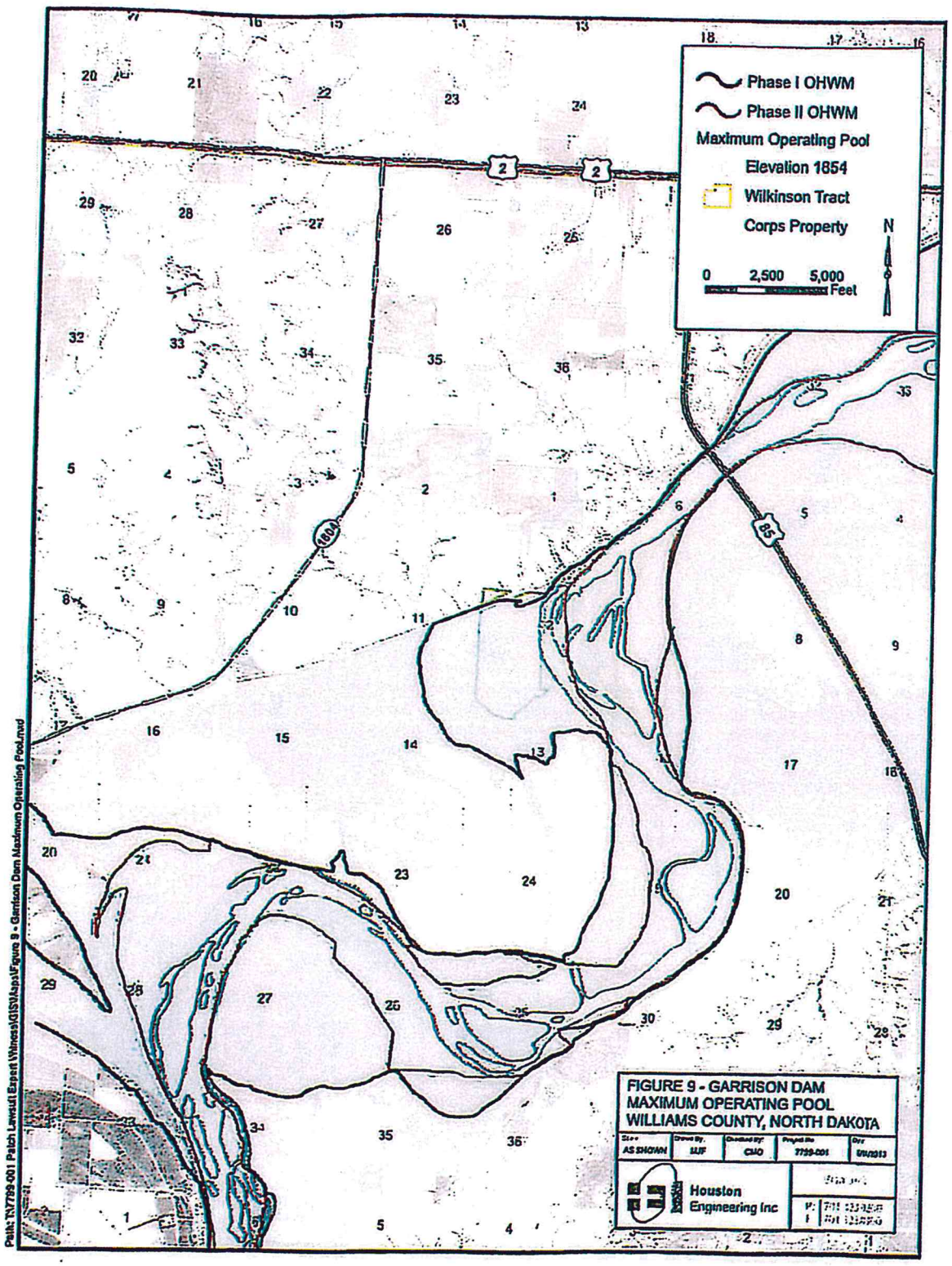
Point #2 Summary

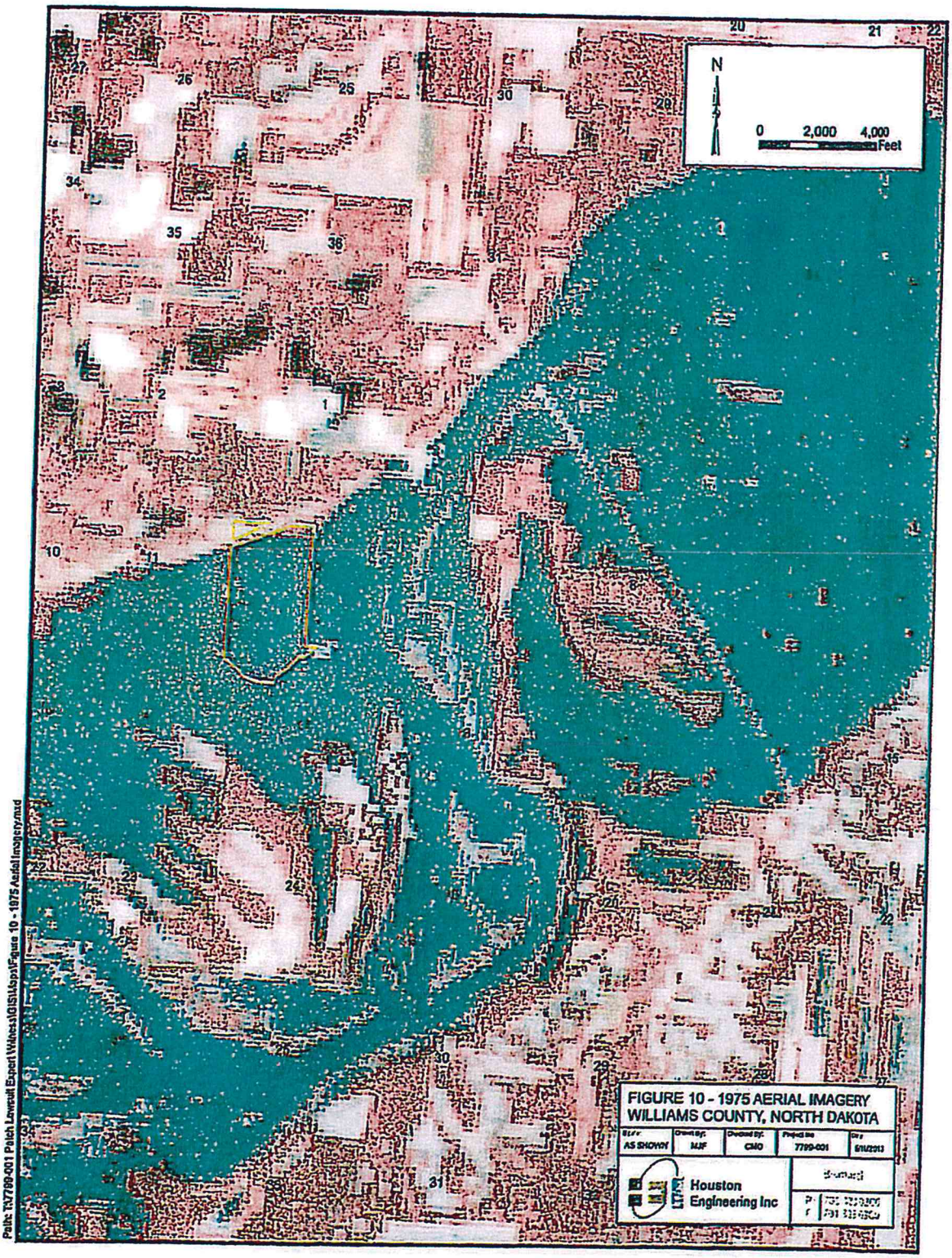
The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool
Elevation 1854
Wilkinson Tract
Corps Property
N
0
2,500
5,000
Feet
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
Houston
Engineering Inc
Path: TN:7789-001 Patch Lawsuit Expert Witness\GIS\Aspx\Figure 9 - Garrison Dam Maximum Operating Pool.mxd


N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\MXD\pdf\Figure 10 - 1975 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
21
25
30
32
1
6
28
35
36
3
27
FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Path: N:\7739-001 Patch Lawsuit Expert Witness\GIS\MXDs\Figure 11 - 1997 Aerial Imagery.mxd

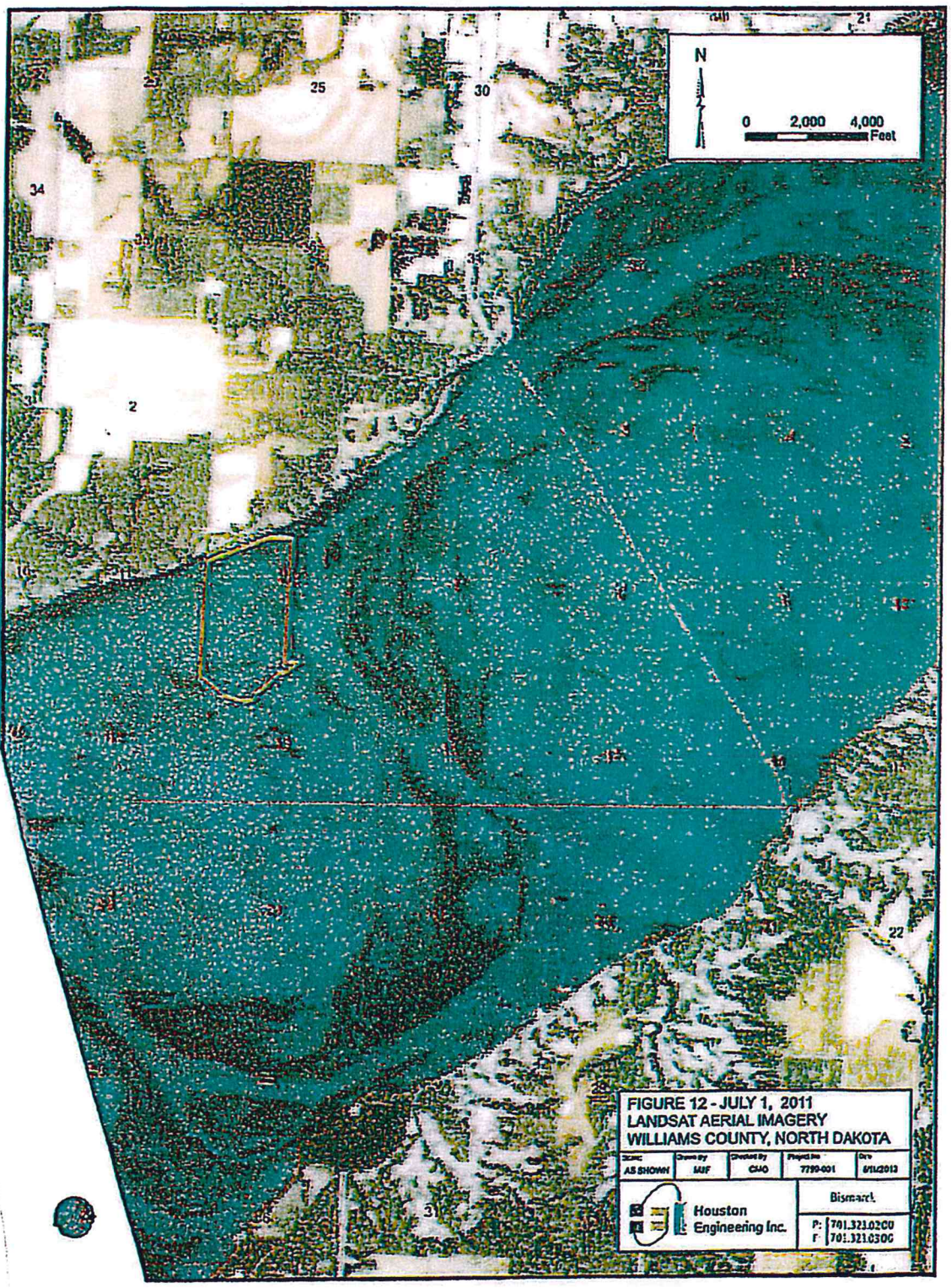
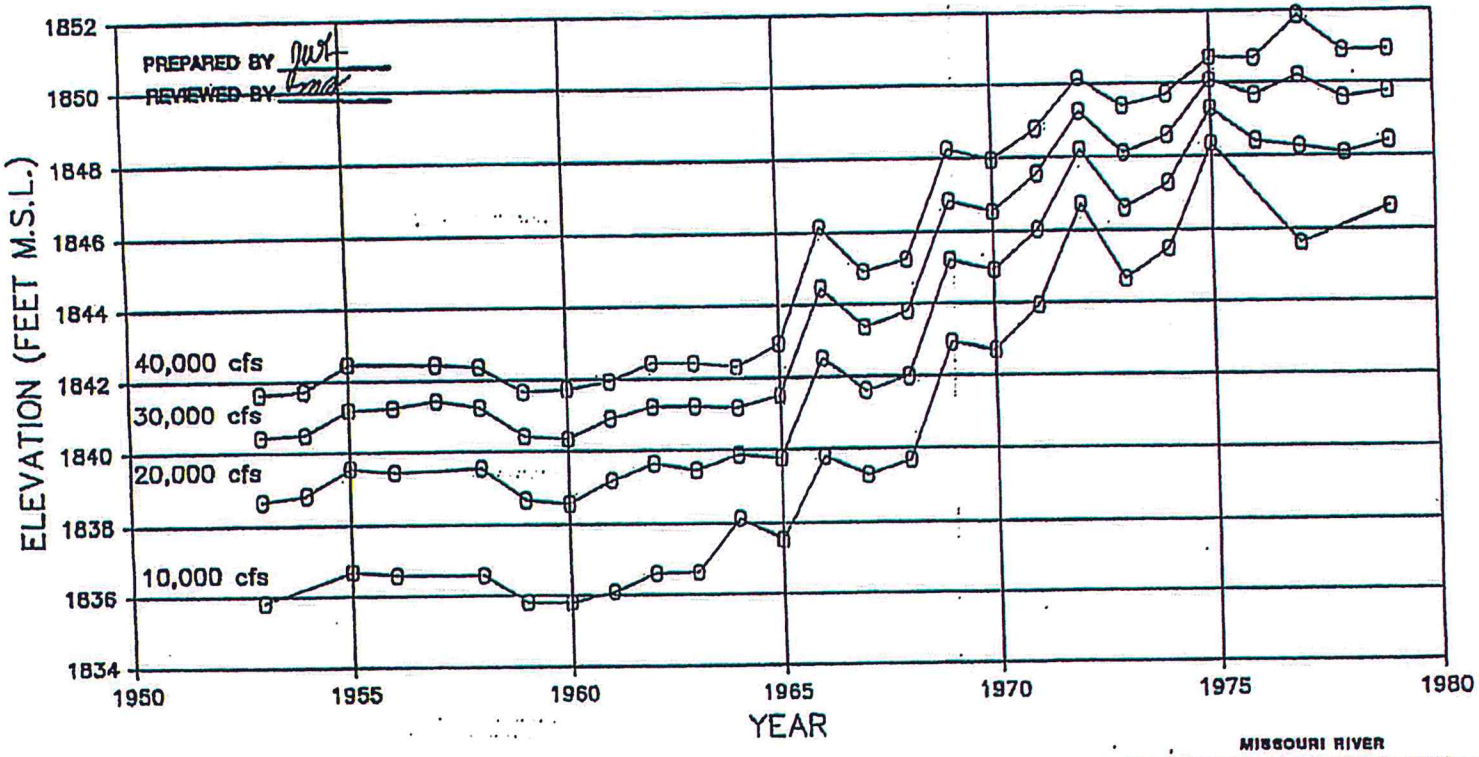

N
0 2,000 4,000
Feet
21
25
30
34
2
22
31
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
6/11/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT
Stage Trends - Gage 8
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

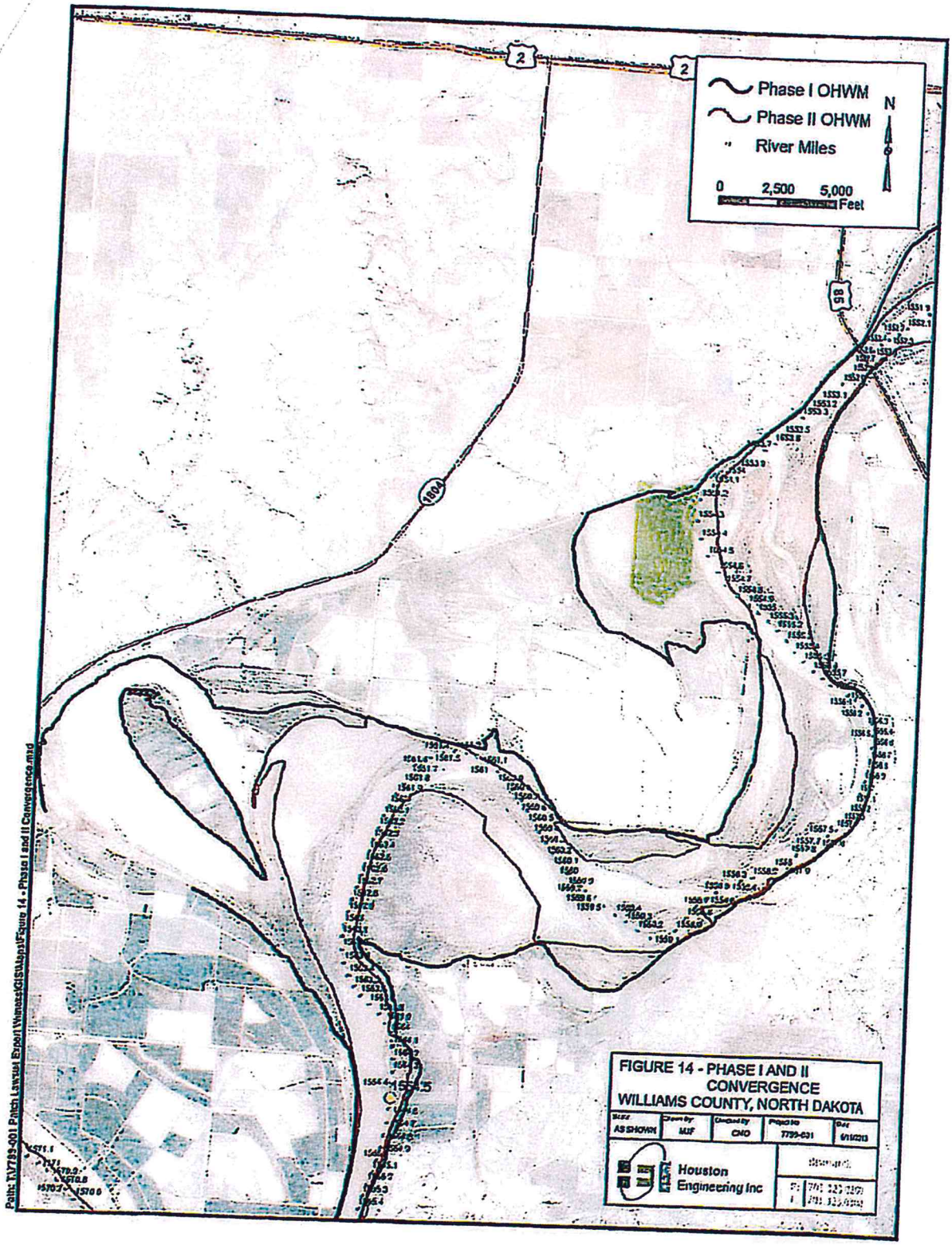
The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson Tract. The OHWM as delineated using the historic aerial imagery in the Phase II Study is more appropriate indication of the boundary between the riparian and the public interests in the area of the Wilkinson Tract.


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
2
85
1804
FIGURE 14 - PHASE I AND II CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7799-031
6/15/2013
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Export\Wetes\GIS\Maps\Figure 14 - Phase I and II Convergence.mxd

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

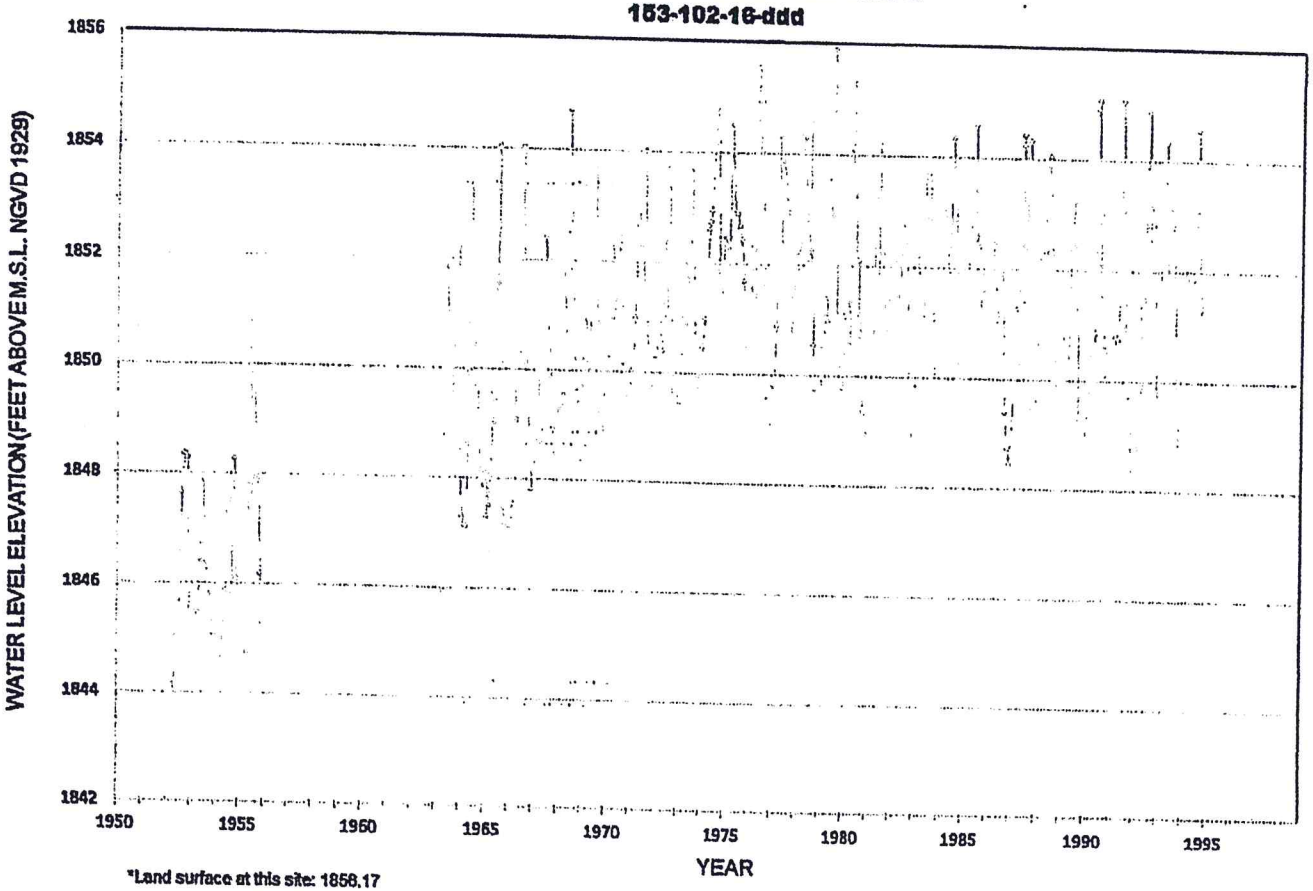
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16**. As illustrated in **Figure 17**, the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 15
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



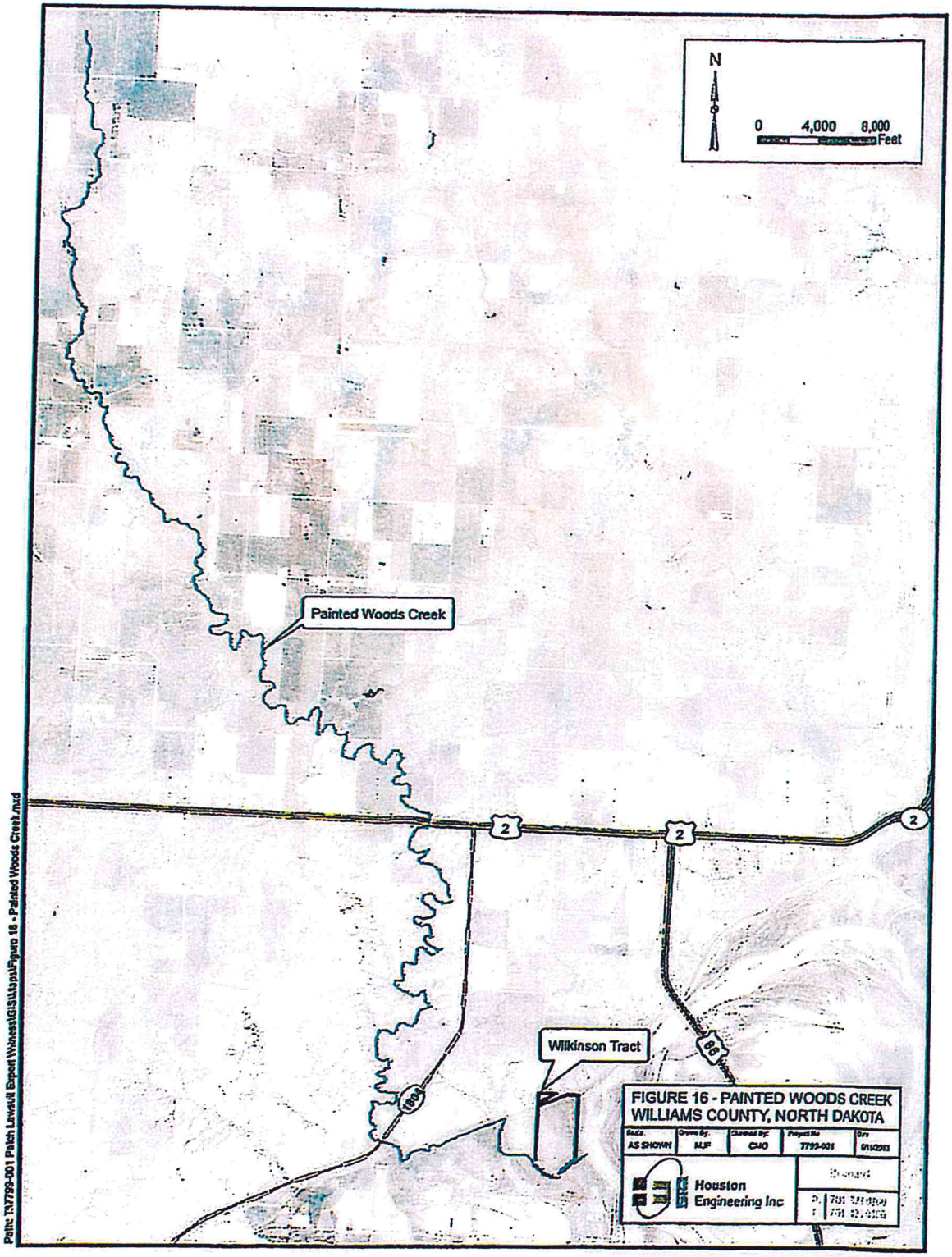
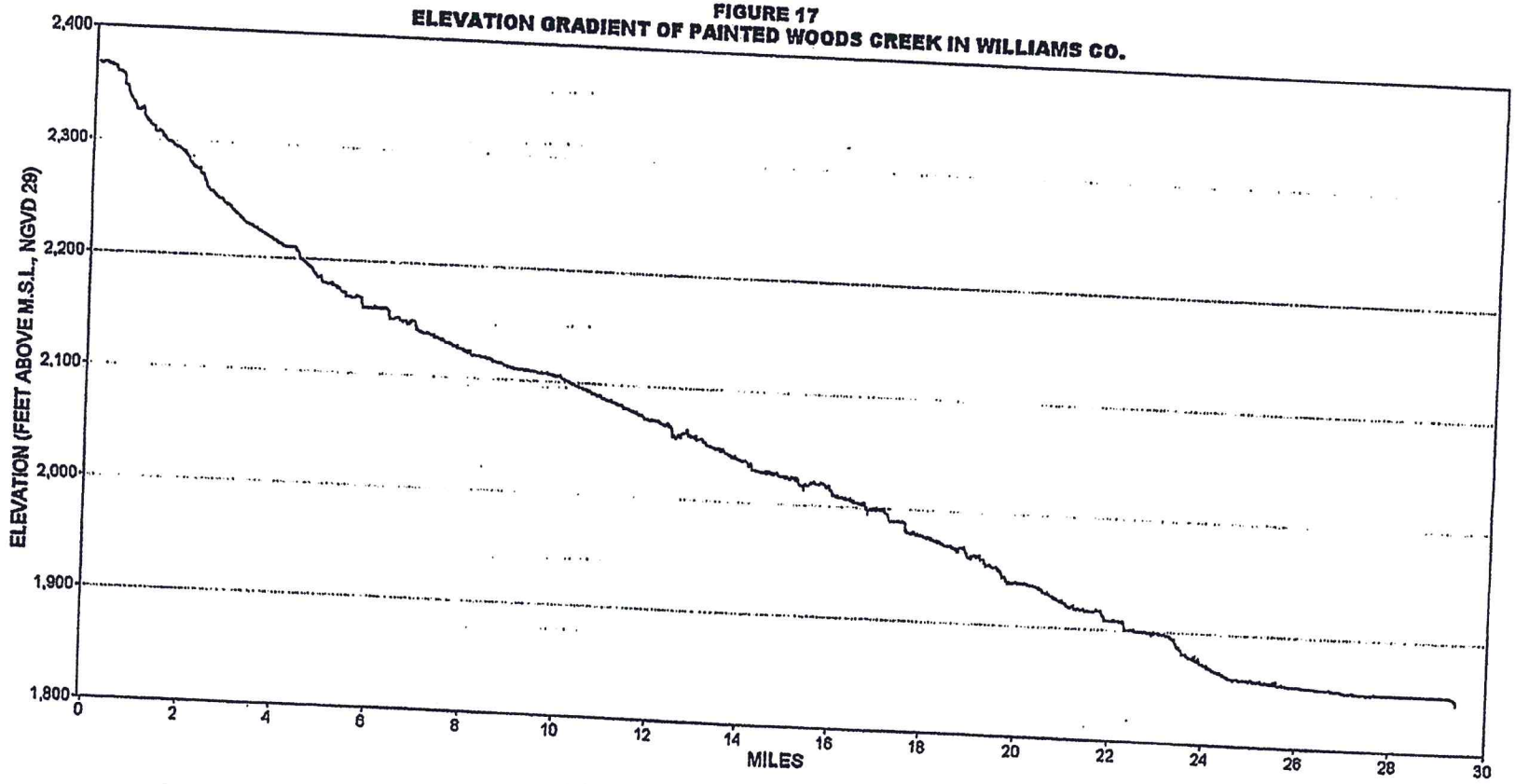

N
0 4,000 8,000
Feet
Painted Woods Creek
2
2
2
1804
85
Wilkinson Tract
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: T:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 16 - Painted Woods Creek.mxd

FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.

2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.

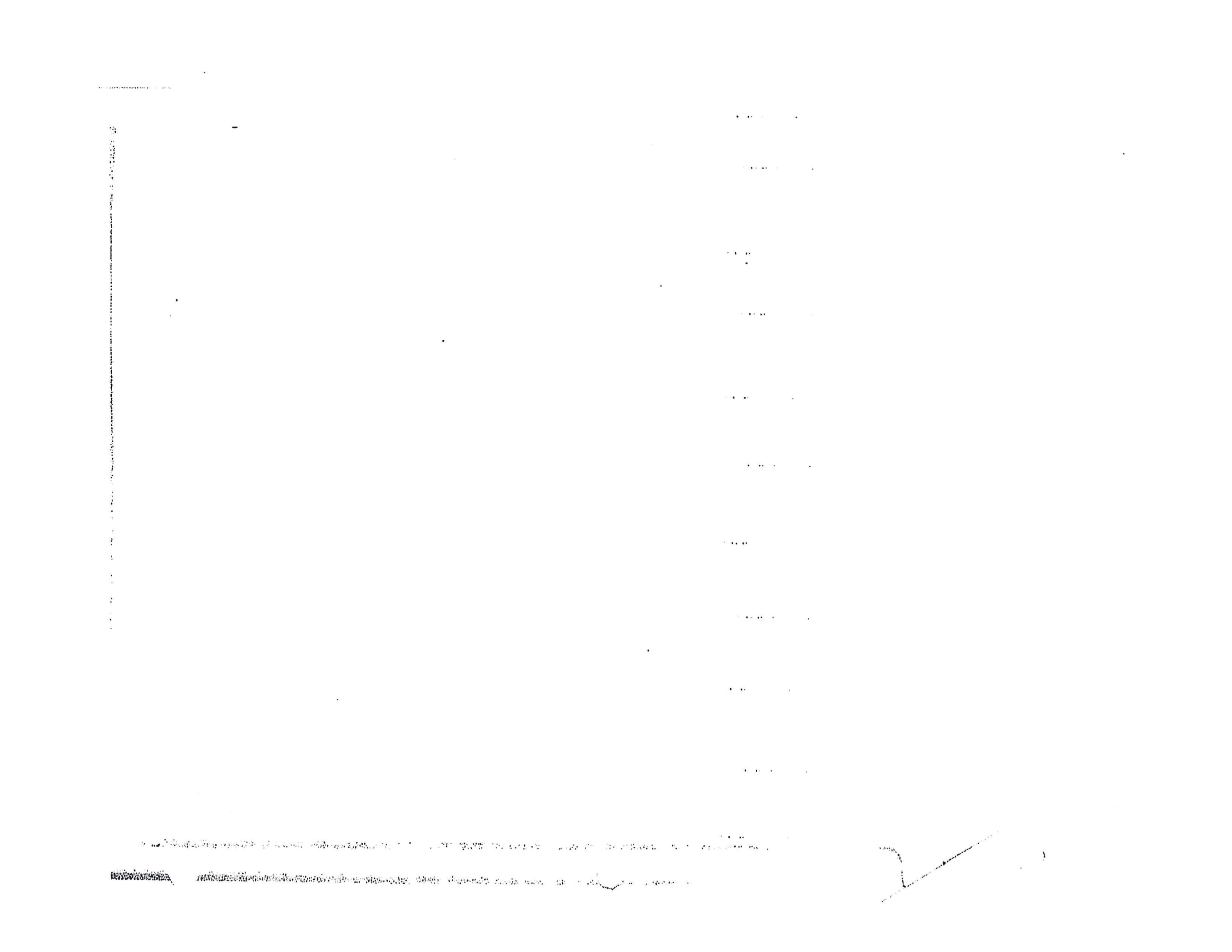
3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.

4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.

5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.

6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx

7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.



State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

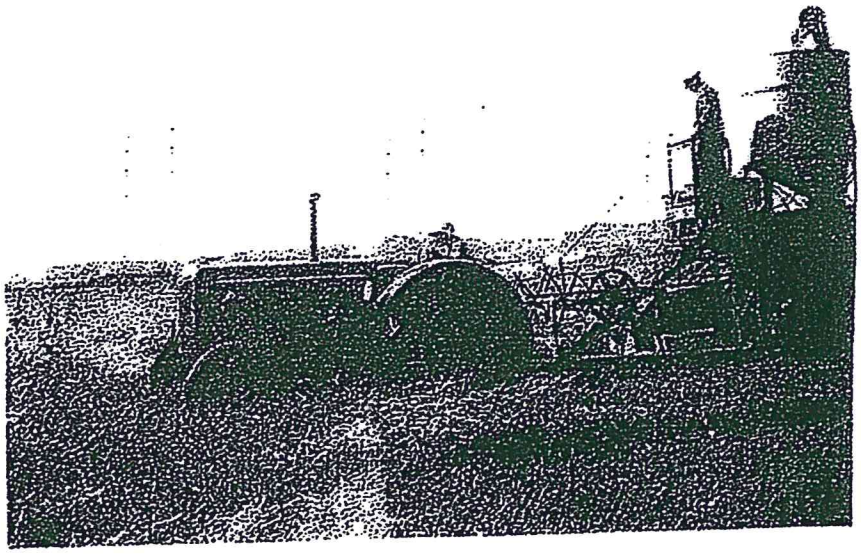
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan
ss.
County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 1st day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: 2-14-2014

OFFICIAL SEAL
TAMMY WIEMAN
NOTARY PUBLIC State of New Mexico
My Commission Expires

Hi Jan -
Thought good June ad
This interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Williamson, farmer on the Missouri bottoms in the country near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 265 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940s 4-1

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John L. Burgum, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. HR-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right of interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

_____ (Name)

_____ (Title)

John L. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter (SW¼) and the South half of the Northwest quarter (S½NW¼) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter (S½NW¼) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.

which sum is in full satisfaction and discharge of the interest of the undersigned in the premises conveyed.

(Payee or Payees) J. T. Wilkinson
J. T. Wilkinson
Evelyn M. Wilkinson
Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. HH-3190

Exhibit J-2 – Feb. 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning House Bill No. 1199
House Energy and Natural Resources Committee
February 2, 2017, 8:30 AM

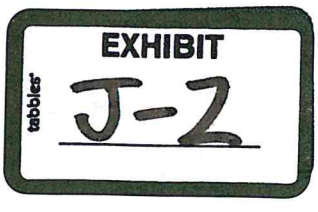
Chairman Porter and members of the Committee, thank you for the opportunity to comment on House Bill 1199. I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea. Private land owners like the Wilkinson family and Vohs family reserved these oil and gas rights when the United States acquired their property for Lake Sakakawea. The oil and gas interests we're talking about have been with these families for generations. The fact these families reserved the oil and gas interests is undisputed. The fact the United States acquired their property because it would be flooded by Lake Sakakawea is undisputed.

Notwithstanding – old wounds have been reopened by the State. Incredibly, the State claims it owns all the oil and gas that was reserved by private property owners when the United States flooded hundreds of thousands of acres of land for Lake Sakakawea. In essence, the State claims the government – federal or state – can flood private property and then claim that they, the government, owns the property. That is offensive, and it's the textbook definition of an unconstitutional taking. I urge you to support HB 1199 as it addresses this wrong.

BACKGROUND

Historically, the State claimed only the original 30,000 acres of the Missouri River riverbed as it existed before Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 2007 letter the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. A copy of the letter is included with this testimony as Exhibit 1. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims ownership of all the oil and gas under Lake Sakakawea. This runs roughshod over, and ignores, private property rights as memorialized by warranty deeds going back to the 1950s where the United States acquired this property from North Dakota citizens – like the Wilkinson and Vohs families. The oil and gas interests were reserved by these private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in the warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 2 and 3.

This has been the subject of litigation in Wilkinson v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038. The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that regardless of how or when thousands of acres were flooded by the United States government for Lake Sakakawea, the State somehow acquired ownership of that land as soon as it was flooded.



HB 1199 addresses the issues raised in that litigation, recognizing that the oil and gas interests owned by the Wilkinson and Vohs families, was affected by and subject to flooding from Lake Sakakawea as discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 4. Likewise, and more importantly, the United States' maps for the Garrison Project show dozens of tracts and thousands of acres west of the Highway 85 Bridge – like the land belonging to the Wilkinson and Vohs families – was acquired by the United States because of the flooding that would be caused by Garrison Dam. Similarly, the clear and unambiguous language in the warranty deeds where the United States acquired the property, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the reservation of the oil and gas rights were subject only to "[t]he right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, ..."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and the government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017 – adding insult to that long-ago injury, our great State seeking to further deprive private owners of their oil and gas interests, interests these private land owners had previously leased to oil companies for nearly sixty years before the State wrongfully claimed ownership of them.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the ordinary high watermark ("OHWM") of the Missouri River in the Garrison Dam area to justify its massive land grab. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam.

The United States Department of Interior ("DOI") has already rejected both of the State's surveys because of their flawed methodology, and because the studies are unsupported by law or the facts. A copy of the DOI's decision from last March rejecting the State's surveys is included with this testimony as Exhibit 5. On page six of its decision, the DOI explains that the State's surveys , "[d]o not comport with federal law and cannot be used to determine riverbed title under the equal footing doctrine." In rejecting the State's surveys, the DOI points out that the State's surveys depict the riverbed to be three times the width of the General Land Office's original surveys. Also of significance, on page 8 of its decision, the DOI affirms the position taken by the Wilkinson family in the litigation – specifically, that the United States' maps were the basis for land title acquisition by the Corps of Engineers for those lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea.

The DOI held that the segment maps are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea, stating:

"The Corps of Engineers Segment Maps are firmly grounded in guidance, methodology and contemporaneous field investigations of the land prior to the effects of flooding. The segment maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with the determinations from in the field investigations by BLM and involvement from the BLM and North Dakota State Land Department and have gone uncontested for over 60 years."

The DOI concluded its decision rejecting the State's surveys by finding the surveys: 1) did not comply with the federal definition of the OHWM; 2) did not honor chain of title or previous involvement by both the State and private landowners with the United States during the course of the Garrison Project; and 3) are an overreaching delineation that impairs the mineral rights of private owners.

HB 1199 addresses this with its language that the OHWM must be located as close as possible to the OHWM of the riverbed channel as it existed before the inundation of the channel that created the lake based on historical records. Effectively, HB 1199 recognizes that the State has title only to the bed of the historic Missouri River as it existed prior to the Garrison Dam, and remedies the State's unconstitutional taking that has deprived private property owners of their oil and gas interests.

As far as the fiscal note prepared by the State, and the State's claims that passing this legislation or SB 2134 will result in the loss of millions in revenue for the State, that's like a bank robber complaining they will have to forfeit the loot they stole from the bank. The money never belonged to the bank robber, they took it from someone else. Likewise, the money being held in suspense in the Strategic Investment and Improvements Fund (SIIF) never belonged to the State in the first place – it belongs to private property owners like the Wilkinson and Vohs families. It's being held in suspense because of the title disputes and legal challenges the State knew would occur as a result of its massive and unconstitutional land grab.

Thank you again for the opportunity to present this testimony. I urge you to pass HB 1199.

Respectfully,

Joshua Swanson

Exhibits Nos. 1 – 5

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: http://swc.nd.gov

2007 AUG 17 AM 8:50

August 13, 2007

Army Corps of Engineers, Omaha District
Attention: District Commander
106 South 15th Street
Omaha, NE 68102-1618

Dear District Commander:

The purpose of this letter is to respond to the Corps' request for comments on the recently released Draft Garrison Dam/Lake Sakakawea Master Plan (Master Plan).

In our May 16, 2007, letter regarding the preliminary draft Master Plan, we provided a number of general comments that were not included in the re-write, such as contingency plans to address the loss of water supply intakes, an analysis of projected recreation demands/needs, and a prioritization of recommendations. We respectfully request that you reconsider those comments in your development of the final report.

As you are aware, the Office of the State Engineer and the State Water Commission believe that the development, maintenance, and protection of water supply intakes should be an important consideration in any planning scenario for Lake Sakakawea. Thus, it is encouraging to see that the Corps has included an inventory of community water supply intakes that draw water from the reservoir, and the elevations at which they anticipate potential problems from low water levels. However, if contingency planning efforts will not be included in the Master Plan as requested in our May 16, 2007, letter; it would be advantageous to at least include a discussion of the Corps' role in correcting problems with community water supply intakes when reservoir levels are at dangerously low elevations. This might include discussions about cost-sharing opportunities for modifications or the availability of technical assistance.

Under EOP #2 it is suggested, "The Master Plan/EA includes information regarding the issuing of intake permits through the Corps regulatory process and aiding municipal and rural systems to ensure functionality of intakes during drought conditions." But that information was not readily apparent, and in fact, seems to be absent all together with the exception of a brief discussion of Section 10 requirements under Public Law 90-483 (82 Stat. 731) on page 2-135.

#5

On page 1-11, it is stated that 30,000 of the 493,000 project acres did not need to be purchased because they were part of the original "riverbed." Further explanation might be appropriate to outline the fact the those 30,000 riverbed acres were, and are, sovereign lands, which are owned and managed by the State of North Dakota, through the Office of the State Engineer (N.D.C.C. 61-33-05) and the State Land Department (N.D.C.C. 61-33-03).

EXHIBIT 1

As a general comment, the Office of the State Engineer and the State Water Commission applaud the development of the updated Garrison Dam/Lake Sakakawea Master Plan. Lake Sakakawea is one of North Dakota's most precious and valuable natural resources. As such, a new Master Plan that considers input from other agencies and members of the general public is long overdue.

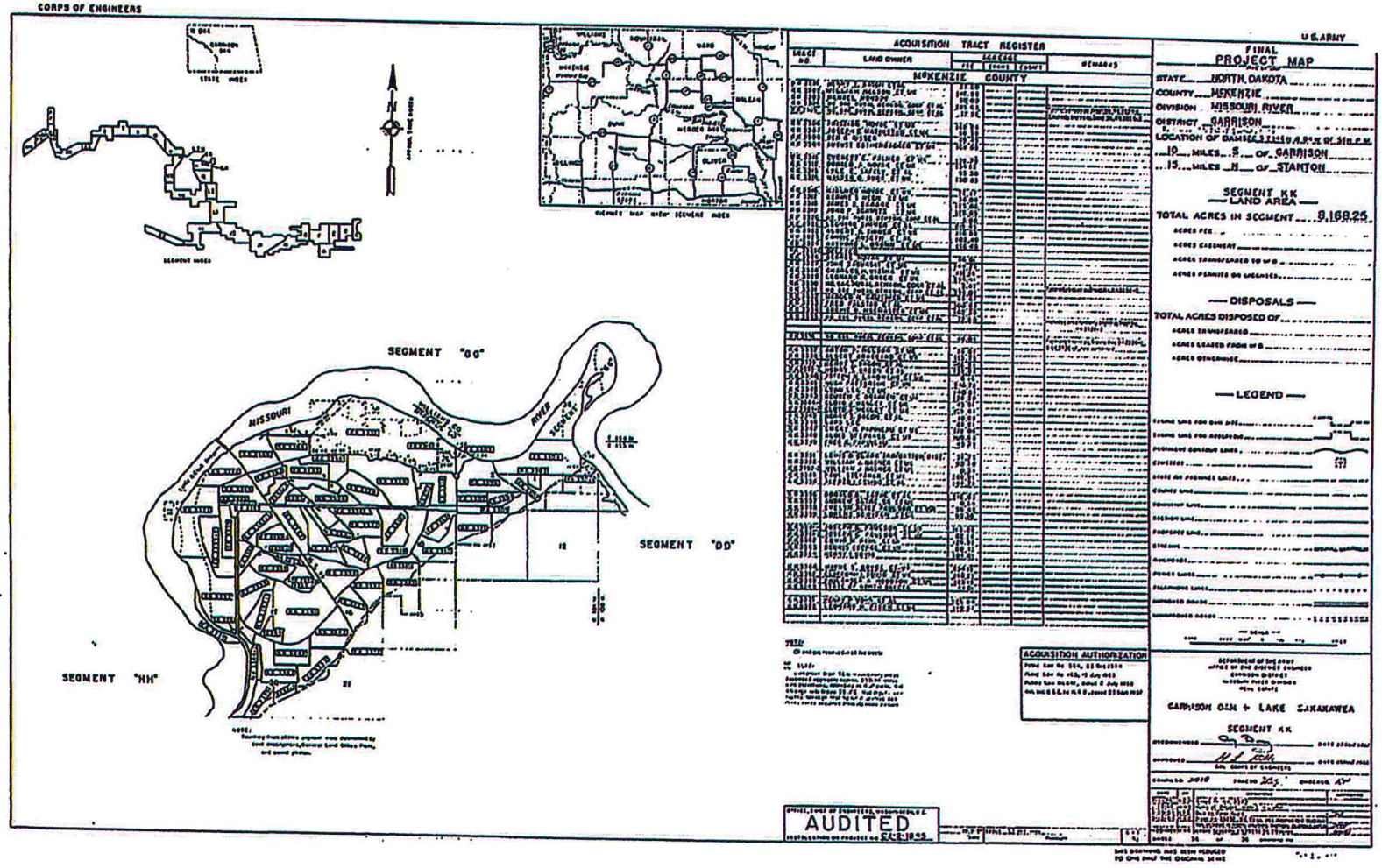
We appreciate your consideration of the above comments, and thank you for the opportunity to comment on this important planning process.

Sincerely,

Dale L. Frink, P.E.
State Engineer

OF ENGINEERS
VICINITY MAP WITH SEGMENT INDEX
STATE INDEX
SEGMENT "KK"
ACQUISITION AUTHORIZATION
NOTE
SEGMENT INDEX
ACQUISITION TRACT REGISTER
TRACT NO.
LAND OWNER
ACREAGE
FEE
TEMP.
EASMT.
REMARKS
McKENZIE COUNTY
WILLIAMS COUNTY
tabbies
EXHIBIT
Z

CORPS OF ENGINEERS



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACRES (TOTAL)	ACRES (COURT)	REMARKS
	MCKENZIE COUNTY			

U.S. ARMY

FINAL
PROJECT MAP

STATE NORTH DAKOTA
COUNTY MCKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAMSITE 3 miles A.B.M. of Sec. P.M.
19 MILES S OF GARRISON
15 MILES N OF STANTON

SEGMENT KK
LAND AREA

TOTAL ACRES IN SEGMENT 9,168.25
ACRES FEE
ACRES EASEMENT
ACRES TRANSFERRED TO W.D.
ACRES PERMITS OR LICENSES

DISPOSALS

TOTAL ACRES DISPOSED OF
ACRES TRANSFERRED
ACRES LEASED FROM W.D.
ACRES OTHERWISE

LEGEND

ACQUISITION AUTHORIZATION

GARRISON DAM & LAKE SAKAKAWEA

SEGMENT KK

AUDITED

Tract No. HR-3190

1. WARRANTEE DEED: [illegible] TO: [illegible]

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 ---------- DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL and CONVEY unto the said party of the second part, and its heirs and assigns FOREVER, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit:

Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest Quarter (SW¼) and the South half of the Northwest quarter (S½NW¼) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter (S½NW¼) which constitutes right-of-way of the Great Northern Railway Company, containing, inclusive of said exception, 228.95 acres, more or less; subject to existing easements for public roads and highways,

[redacted] interest therein, the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

and they and their heirs, executors, administrators and assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances,

and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its heirs and assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Signed and Delivered in Presence of

J. T. Wilkinson

Evelyn M. Wilkinson, his wife

EXHIBIT 3

Filed - Clerk of District Court
7/1/2014 2:37:29 PM
Williams County, ND

19

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

(N. P. Seal)

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

My commission expires Nov. 19, 1958.

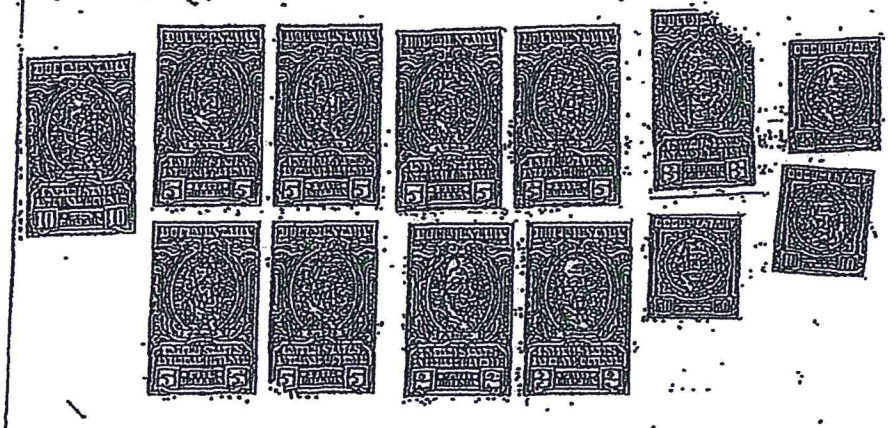
STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

TELMAR E. ROLFSTAD
Notary Public for the County of Williams,
State of North Dakota.

My commission expires Nov. 19, 1958.



Jan. Warranty Deed 12 pp.

15-3-48

Doc. No. 288165
Series
Grantor
Grantee
Consideration
Abstracted
Indexed
Warranty Deed

TRANSFER FEE $.25
TO
RECORDING FEE $1.50

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the 10 day of JUN 1958 A. D. 19 at 4 o'clock P. M. and was duly recorded in Book 3 of Warranty Deeds on page 117

Register of Deeds
By Deputy

Delinquent taxes and general taxes, special assessments, if any, unredeemed special assessments, if any, have been paid for the year 19

County Auditor
By

KK-3371

Document No. 155142

BOOK 87 PAGE 505

WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees .7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for

said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER. And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
STATE OF NORTH DAKOTA

My commission expires
July 11, 1959

Notary Public for the County of
Williams, State of North Dakota

F. A. WENSTROM
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

Document No. 155142

BOOK 87 PAGE 508

Corps of Engineers
Riverdale, N. D.

June 19, 2013

Houston Engineering Inc.

Wilkinson Trust Estate
Ordinary High Water Mark

EXHIBIT
4

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E. P.H.
North Dakota Reg. No. 1729

Date: June 20, 2013

REGISTERED PROFESSIONAL ENGINEER
LAWRENCE H. WOODBURY
PE-1729
DATE June 20, 2013
NORTH DAKOTA

HoustonEngineering Inc.

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The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1554.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

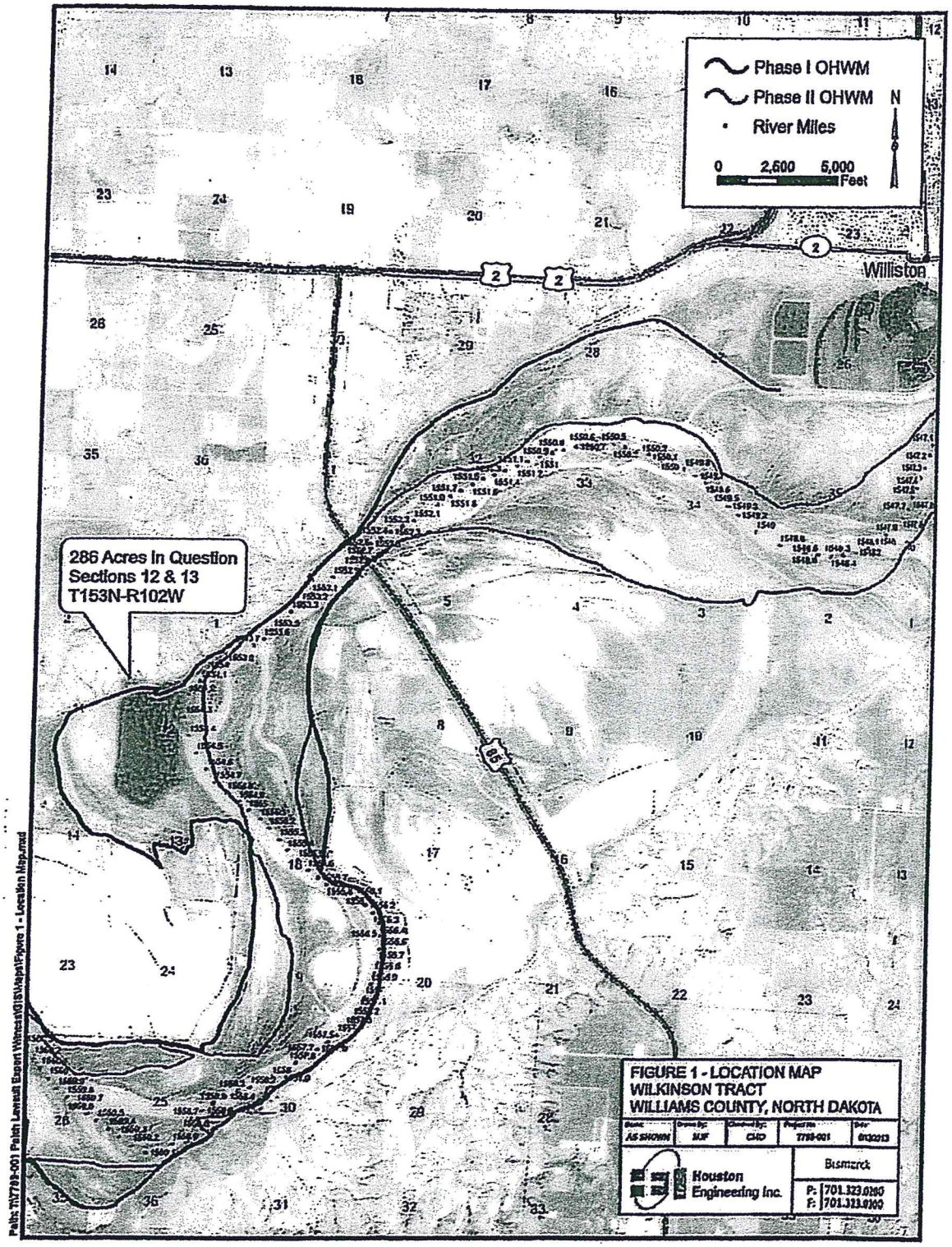
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

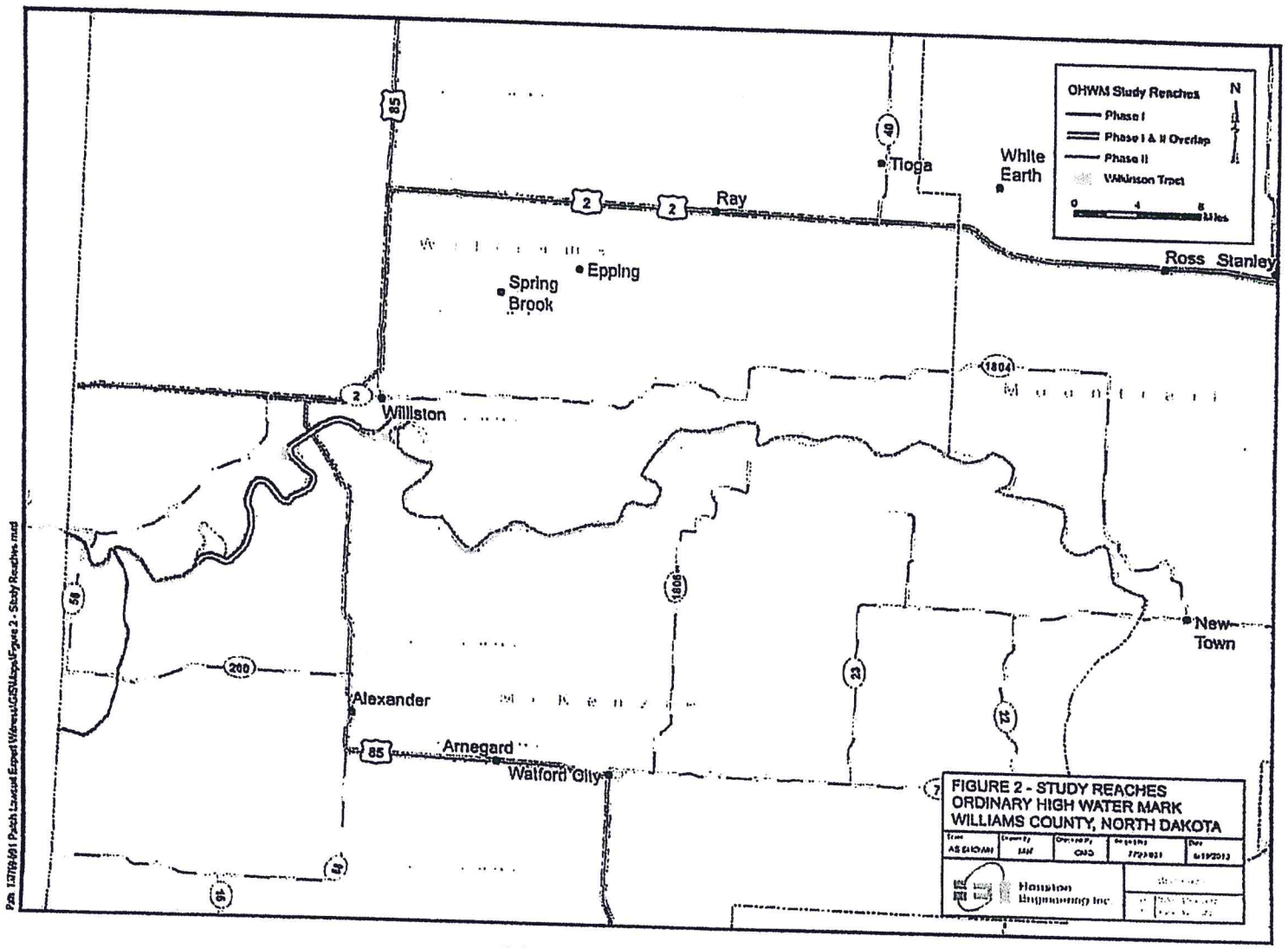
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.5. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,600 5,000
Feet
Williston
286 Acres In Question
Sections 12 & 13
T153N-R102W
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7788-001
6/3/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0200
Path: N:\7788-001 Polar Lawsuit Expert Witness\GIS\Mxd\Figure 1 - Location Map.mxd


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Wilkinson Tract
N
0 4 8 Miles
White Earth
Tioga
Ray
Ross
Stanley
Epping
Spring Brook
Williston
New Town
Alexander
Arnegard
Watford City
85
2
40
1804
1806
200
23
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Path: I:\37\99\01 Patch Lawsuit Expert Witness\GIS\Maps\Figure 2 - Study Reaches.mxd

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

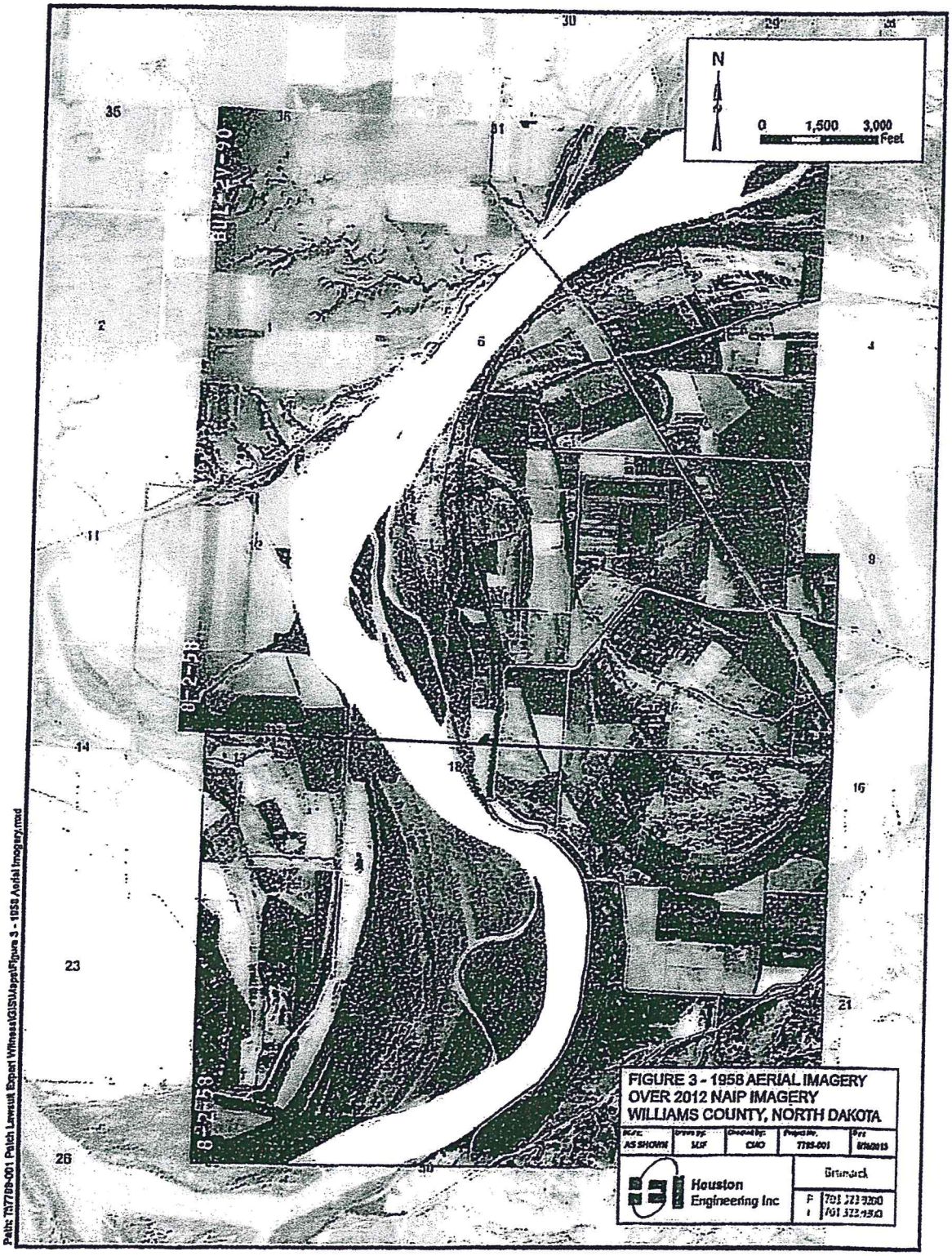
Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6.** With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.


N
0 1,500 3,000
Feet
30
29
35
36
31
2
6
1
11
12
9
14
13
18
16
23
24
21
26
25
30
FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7785-001
8/16/2013
Houston Engineering Inc
Bismarck
P 701 323 9200
F 701 323 9240
Path: T:\7785-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 3 - 1958 Aerial Imagery.mxd

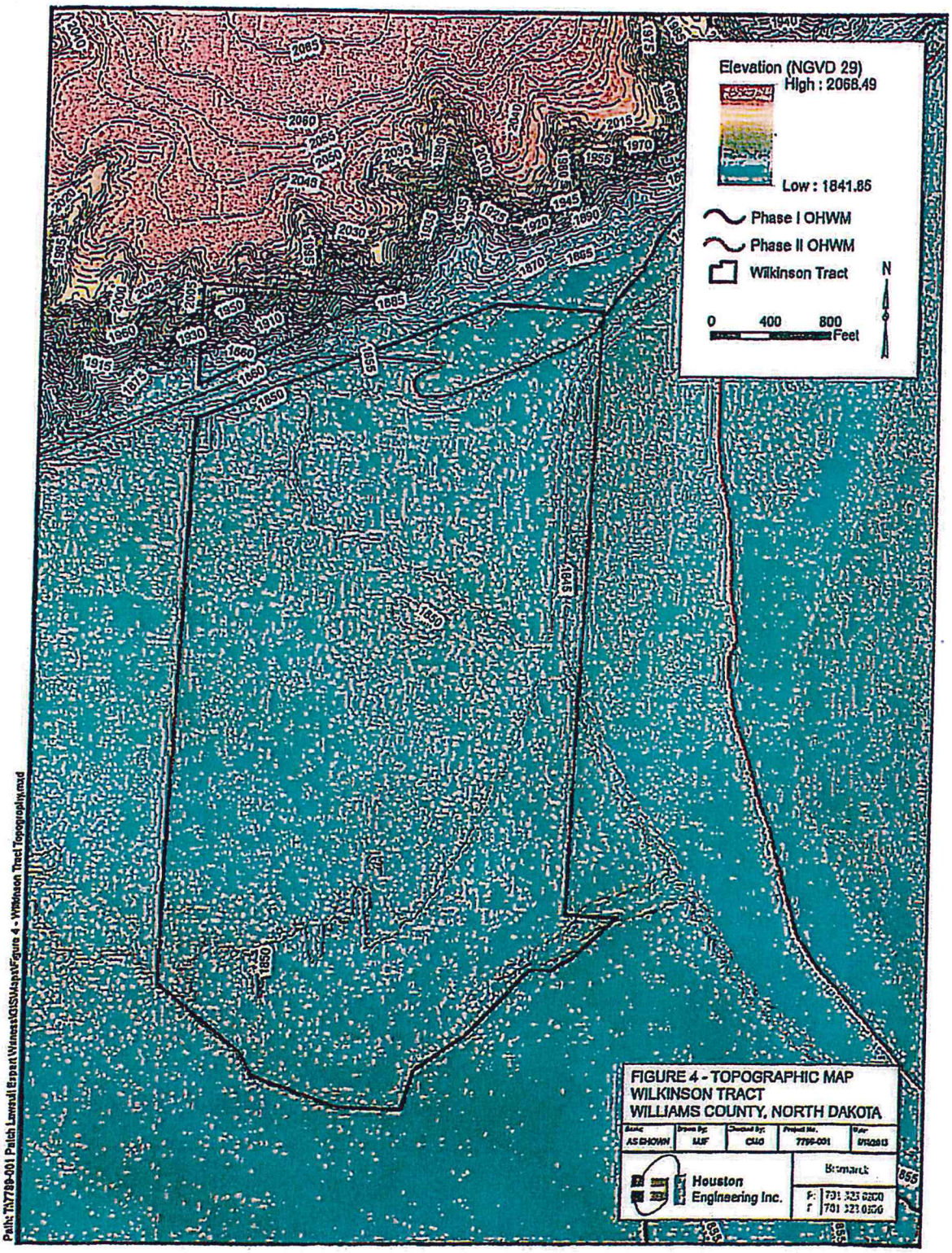

Elevation (NGVD 29)
High : 2068.49
Low : 1841.85
Phase I OHWM
Phase II OHWM
Wilkinson Tract
N
0 400 800 Feet
FIGURE 4 - TOPOGRAPHIC MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
Houston Engineering Inc.
Bismarck
P: 701 323 6200
F: 701 323 6299
Path: T:\7799-001 Patch Lawrell Expan Witness\GIS\Mxds\Figure 4 - Wilkinson Tract Topographic.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

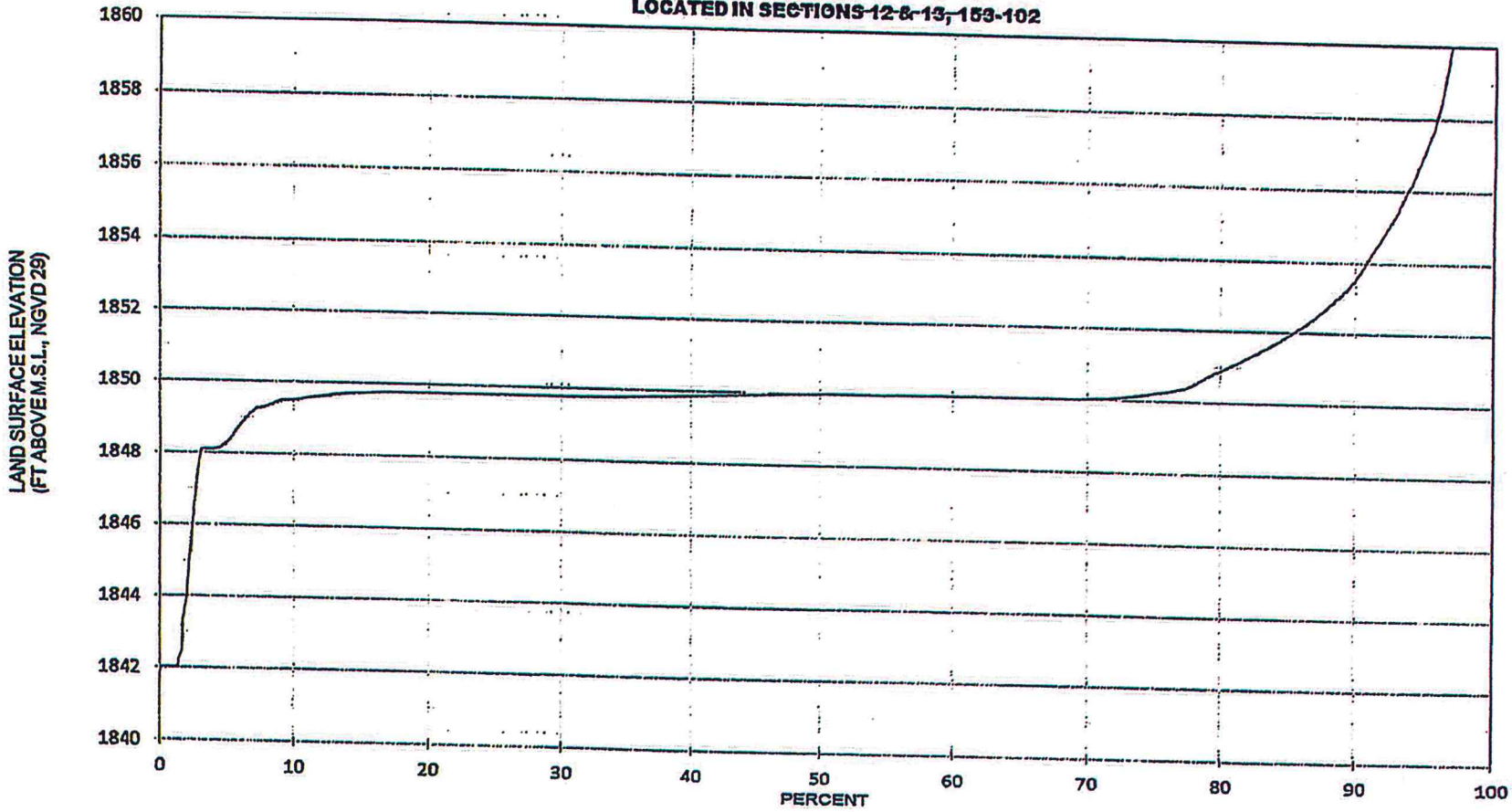


FIGURE 6

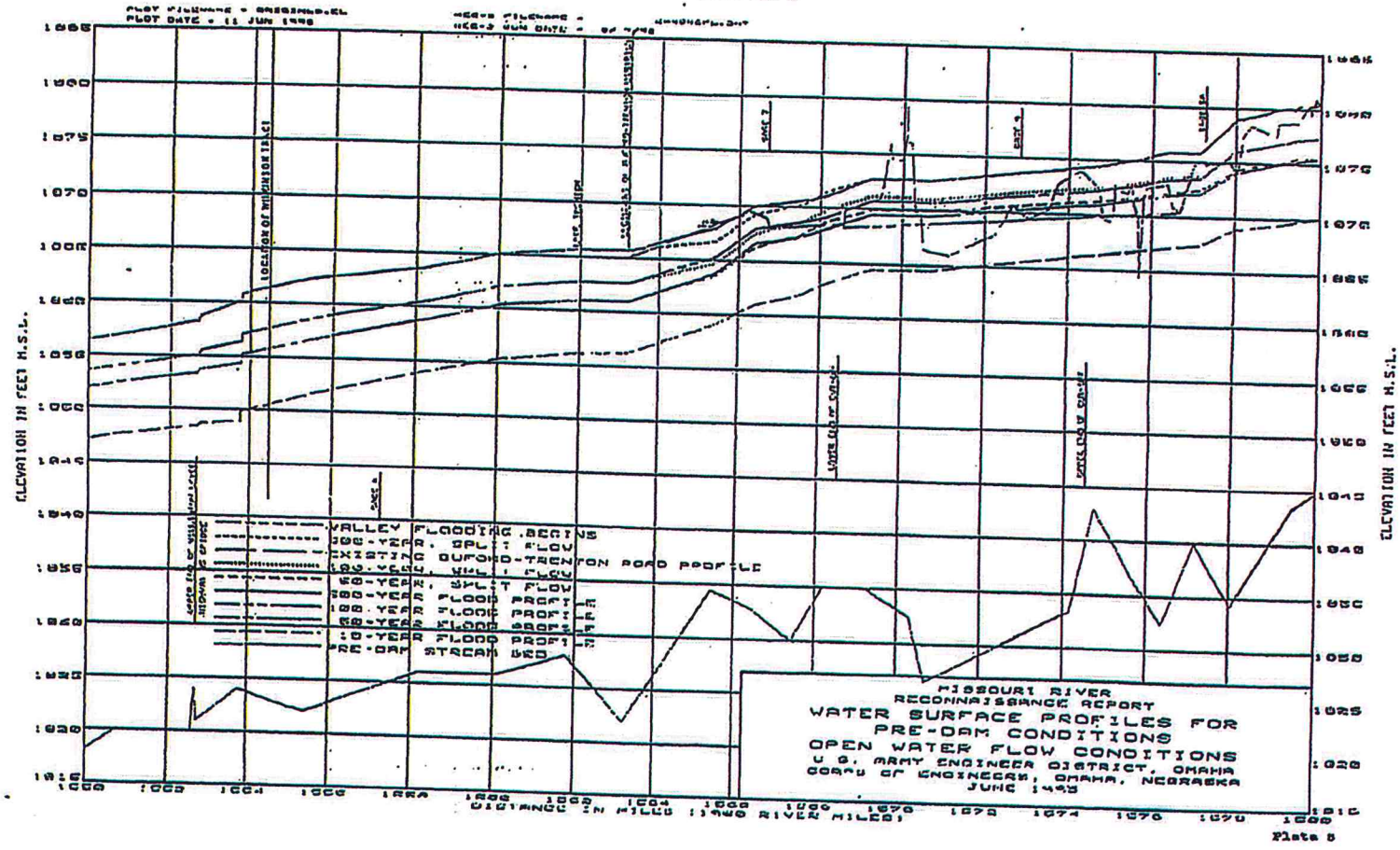
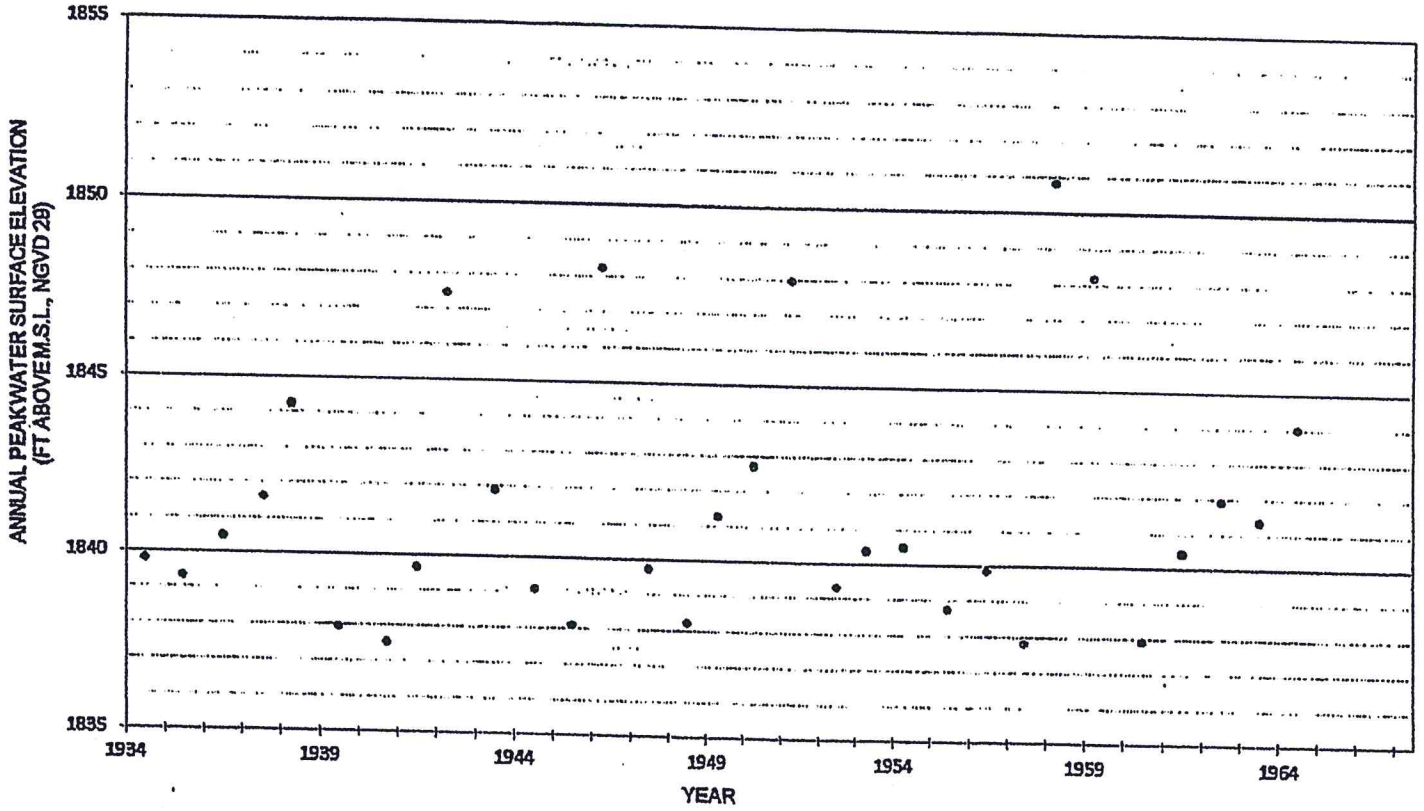

ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (MWD RIVER MILES)
VALLEY FLOODING BEGINS
EXISTING OUTLET-TRENTON ROAD PROFILE
50-YEAR FLOOD PROFILE
10-YEAR FLOOD PROFILE
PRE-DAM STREAM BED
MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1945
Plate 5

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

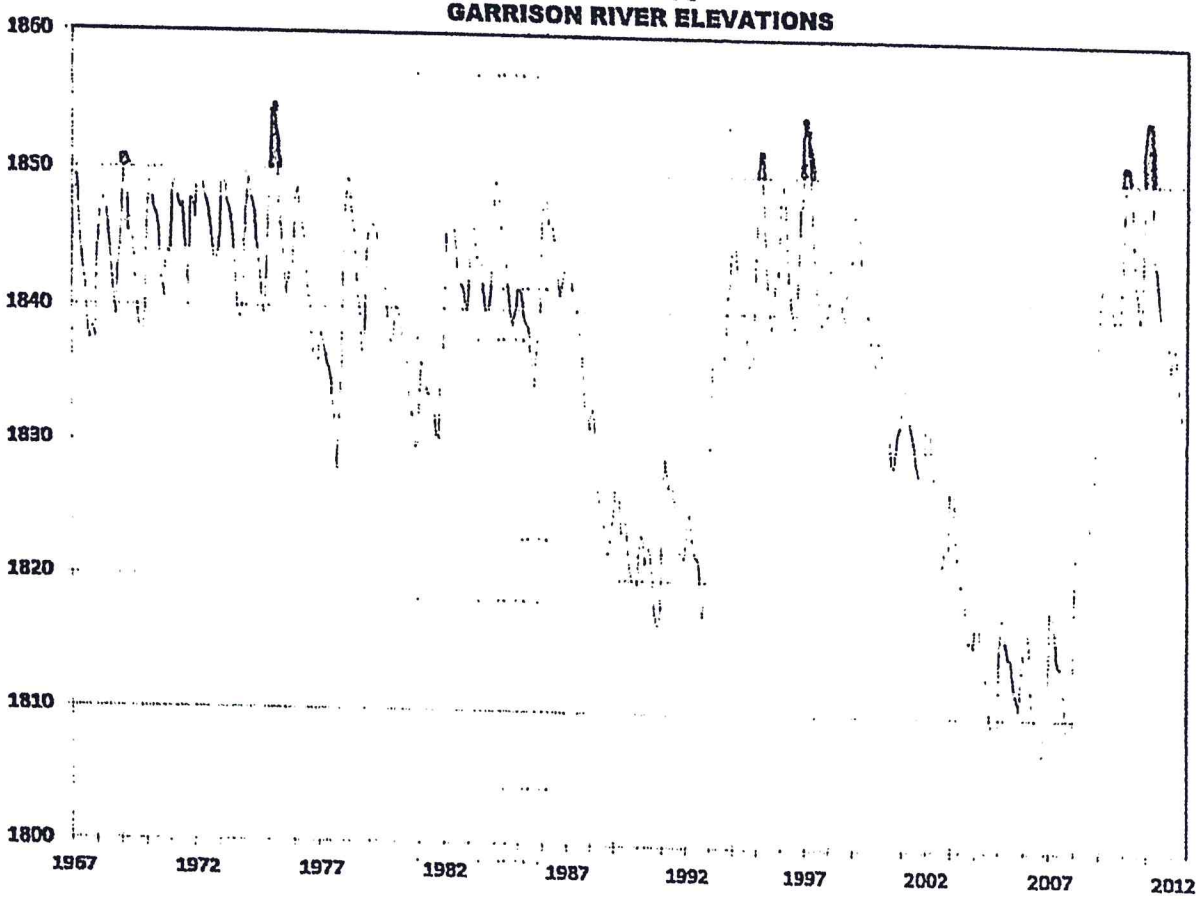
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

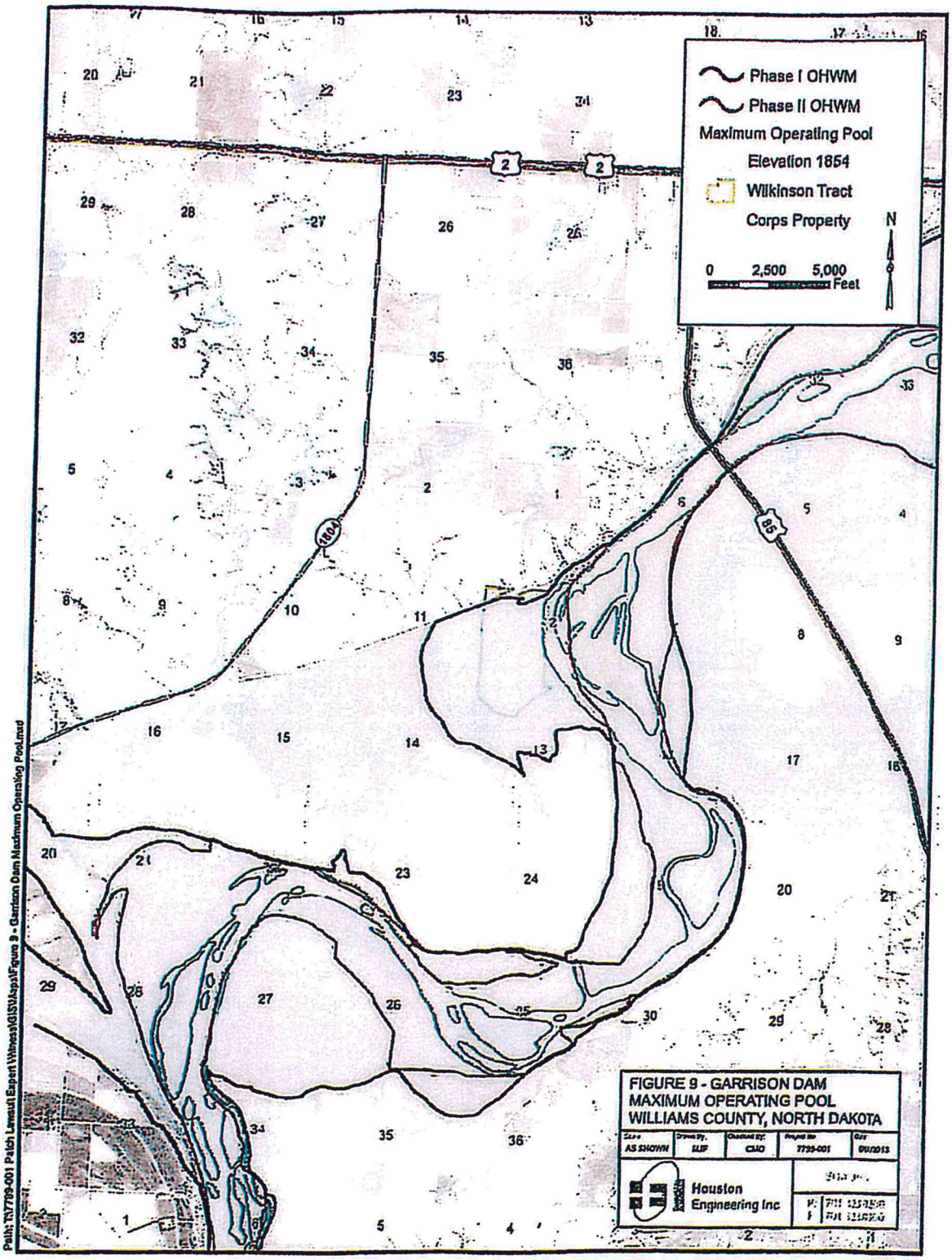
Point #2 Summary

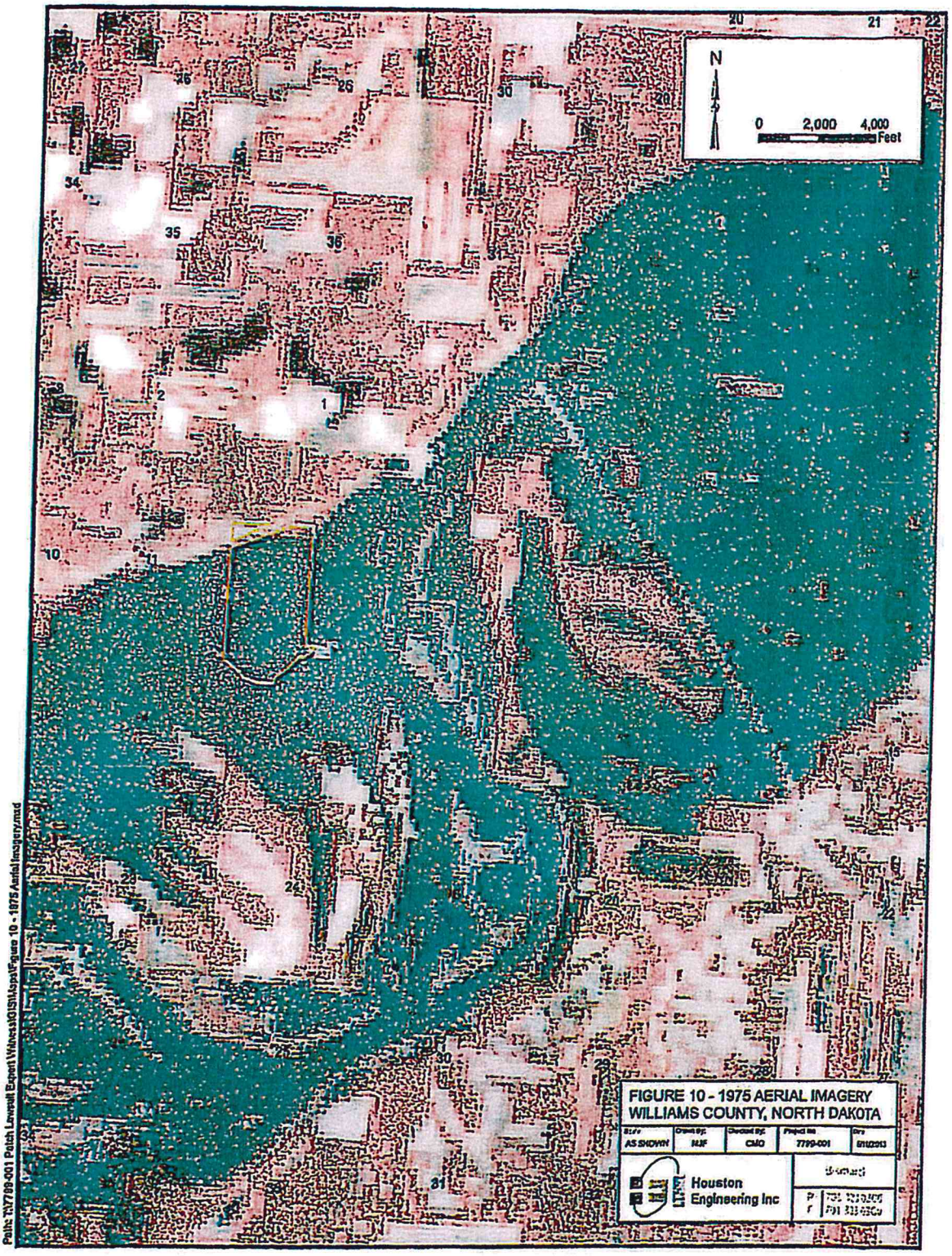
The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool Elevation 1854
Wilkinson Tract
Corps Property
N
0 2,500 5,000 Feet
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: N:\7709-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 9 - Garrison Dam Maximum Operating Pool.mxd


N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 10 - 1975 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
21
25
30
32
6
1
28
27
35
36
3
FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Path: T:\7799-001 Patch Lawsuit Expert Witness\GIS\MapsVFigure 11 - 1997 Aerial Imagery.mxd

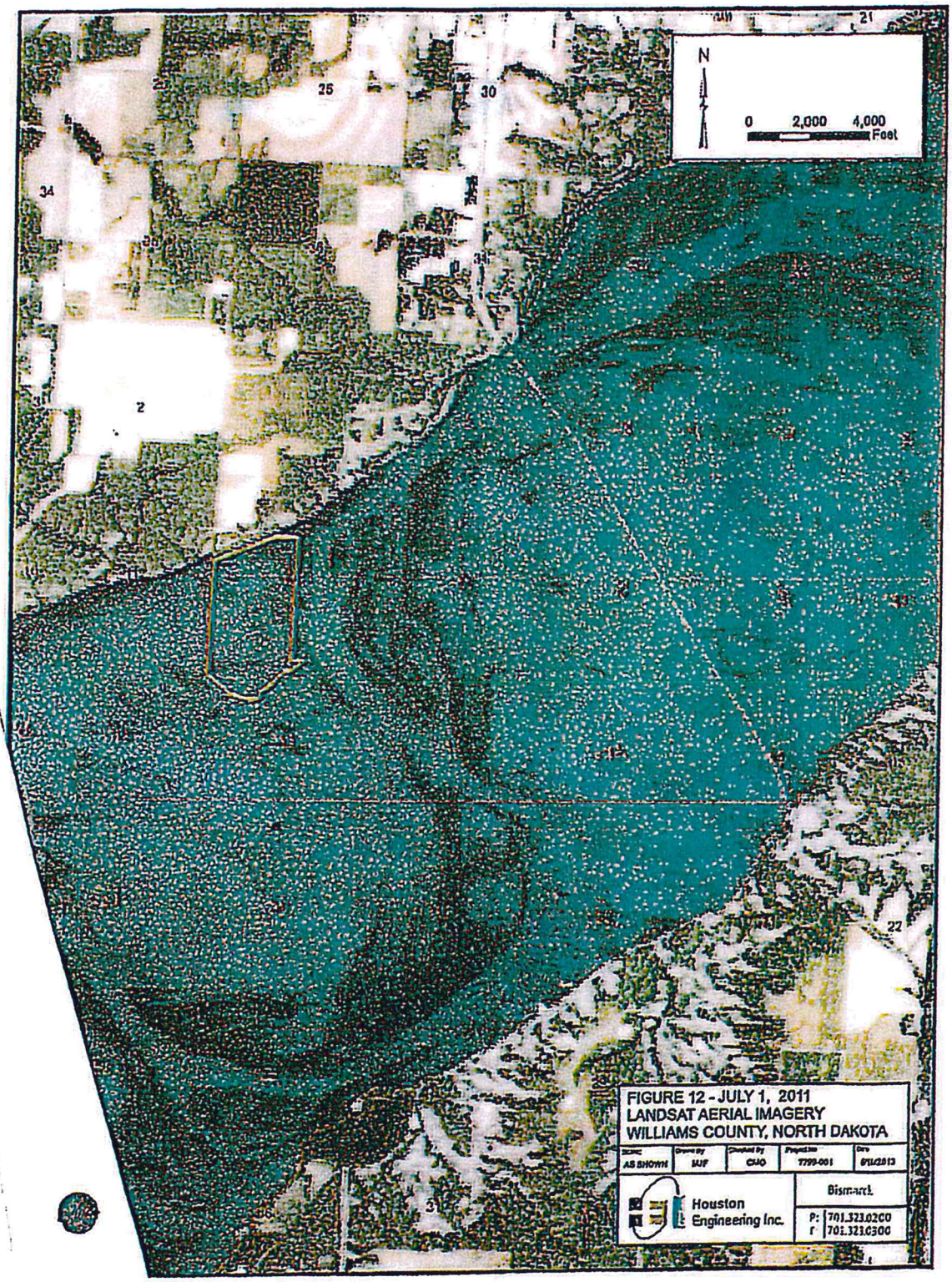
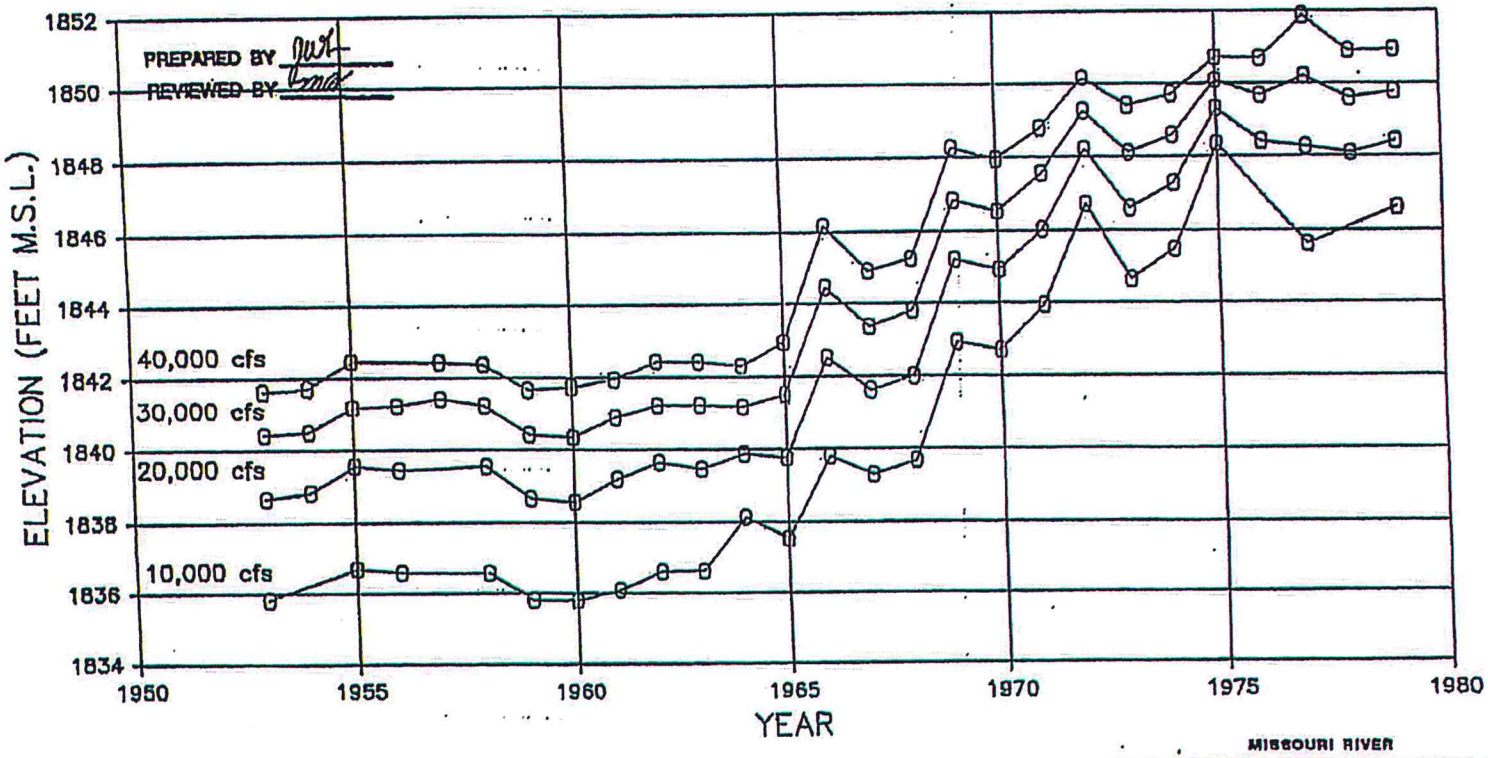

N
0 2,000 4,000
Feet
21
25
30
34
2
22
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CHO
7799-001
8/11/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT
Stage Trends - Gage 8
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson Tract. The OHWM as delineated using the historic aerial imagery in the Phase II Study is more appropriate indication of the boundary between the riparian and the public trusts in the area of the Wilkinson Tract.

Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
2
1804
83
FIGURE 14 - PHASE I AND II
CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
Houston
Engineering Inc
Path: TX7793-001 Patch Lawsuit Exhibit Maps\GIS\Mxd\Figure 14 - Phase I and II Convergence.mxd

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

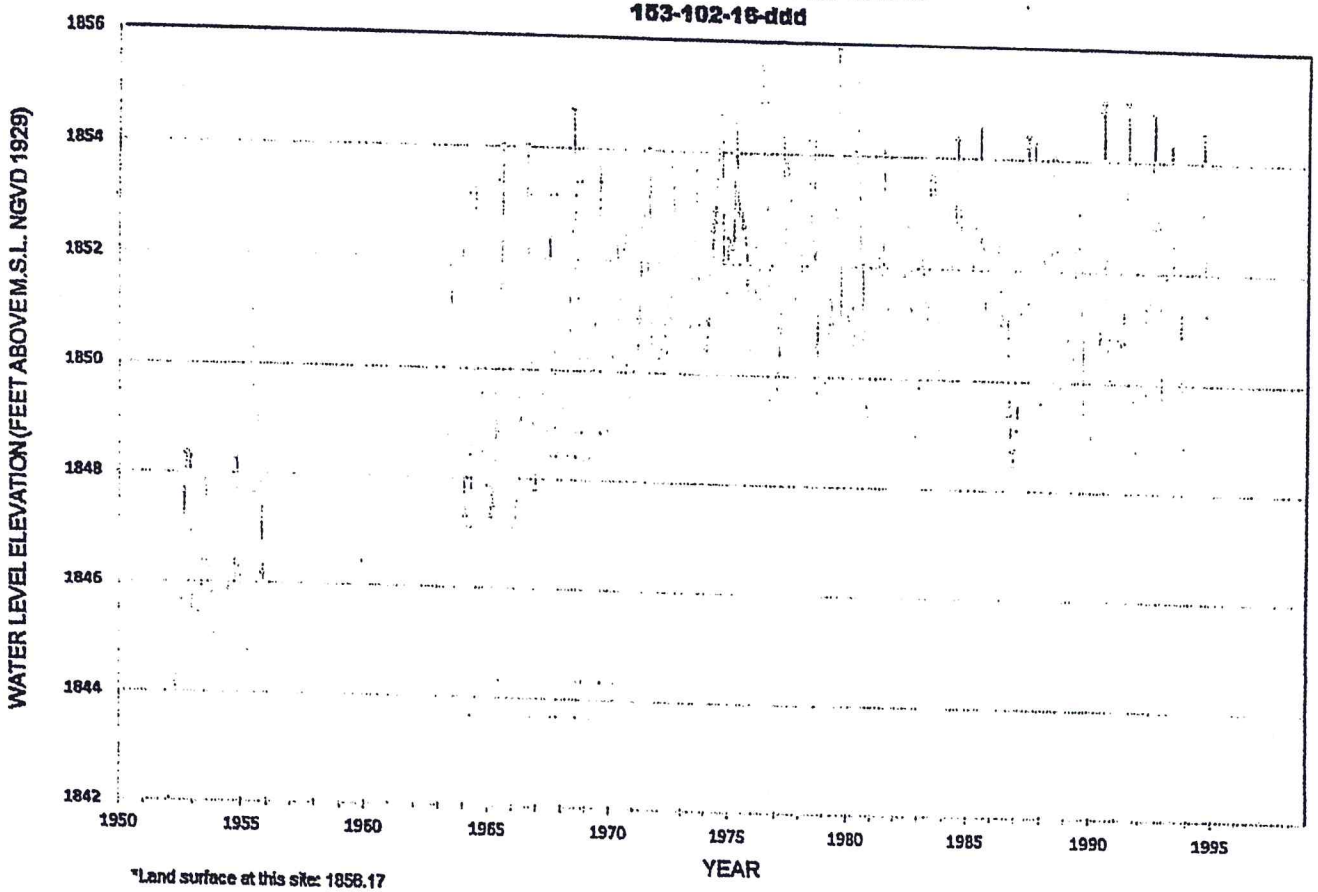
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16.** As illustrated in **Figure 17,** the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 15
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



*Land surface at this site: 1858.17

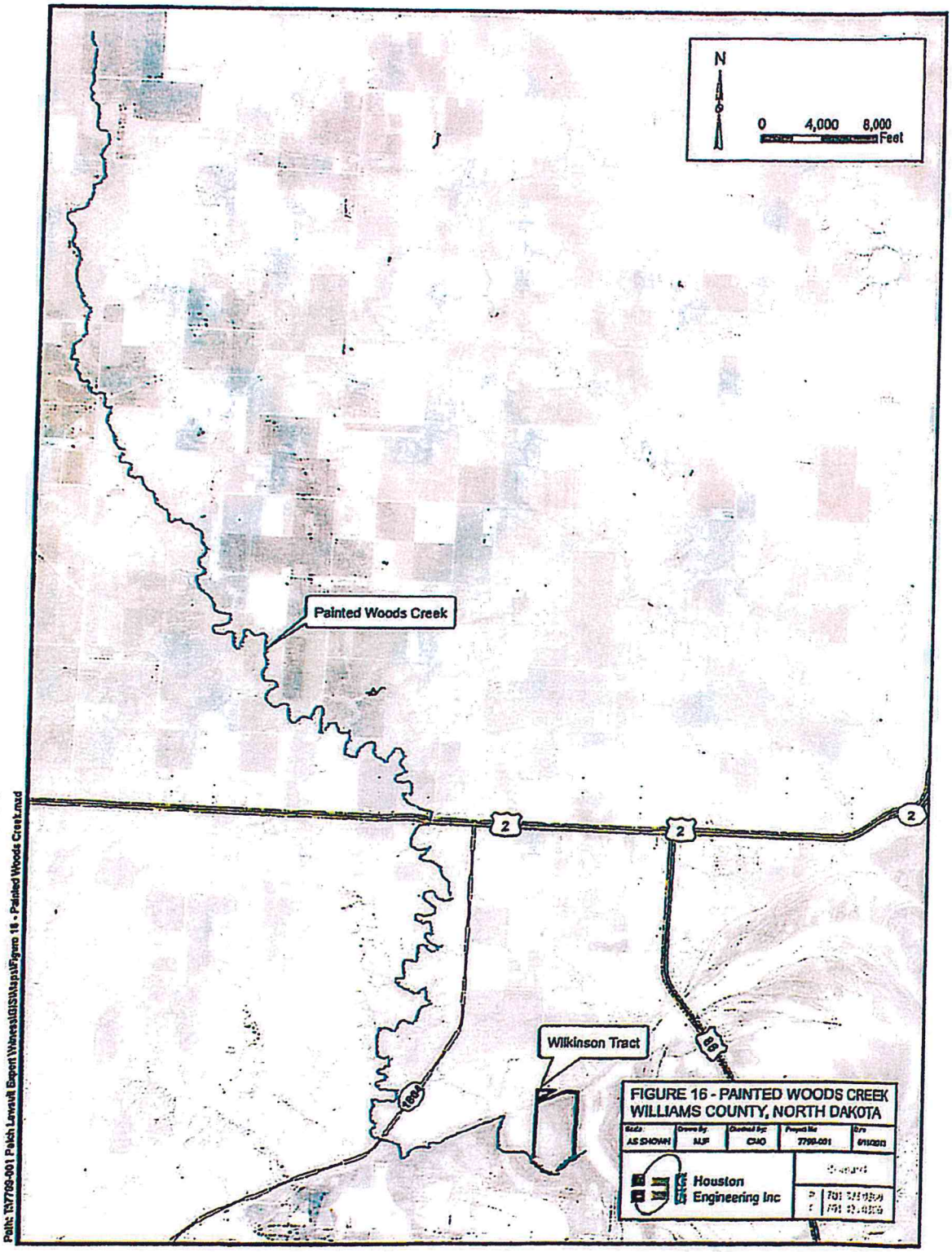
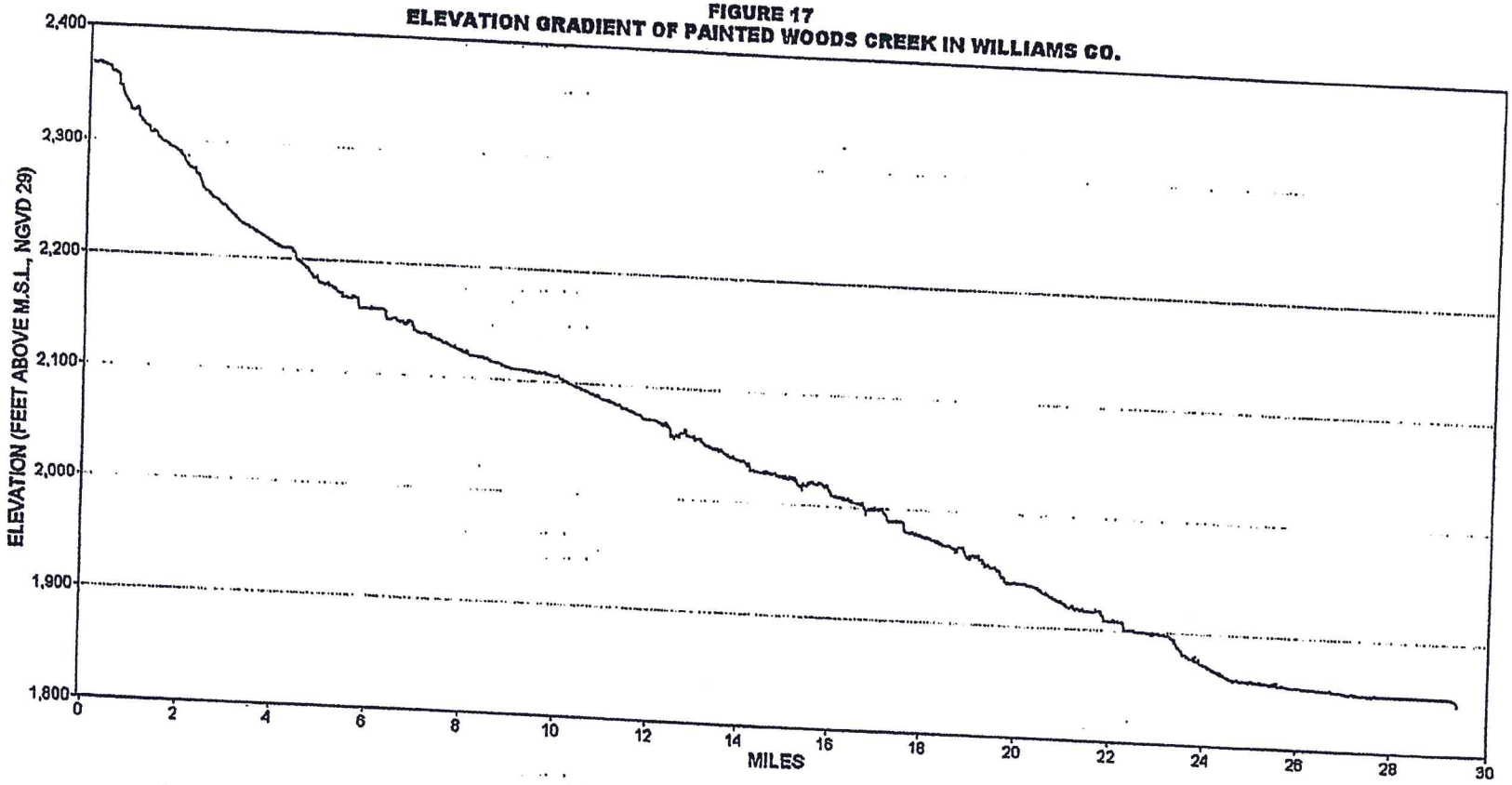

N
0 4,000 8,000
Feet
Painted Woods Creek
2
2
2
1806
83
Wilkinson Tract
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
6/1/2021
Houston Engineering Inc
Path: N:\7799-001 Patch Levee\R Report Writes\GIS\Maps\Figure 16 - Painted Woods Creek.mxd

FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.

2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.

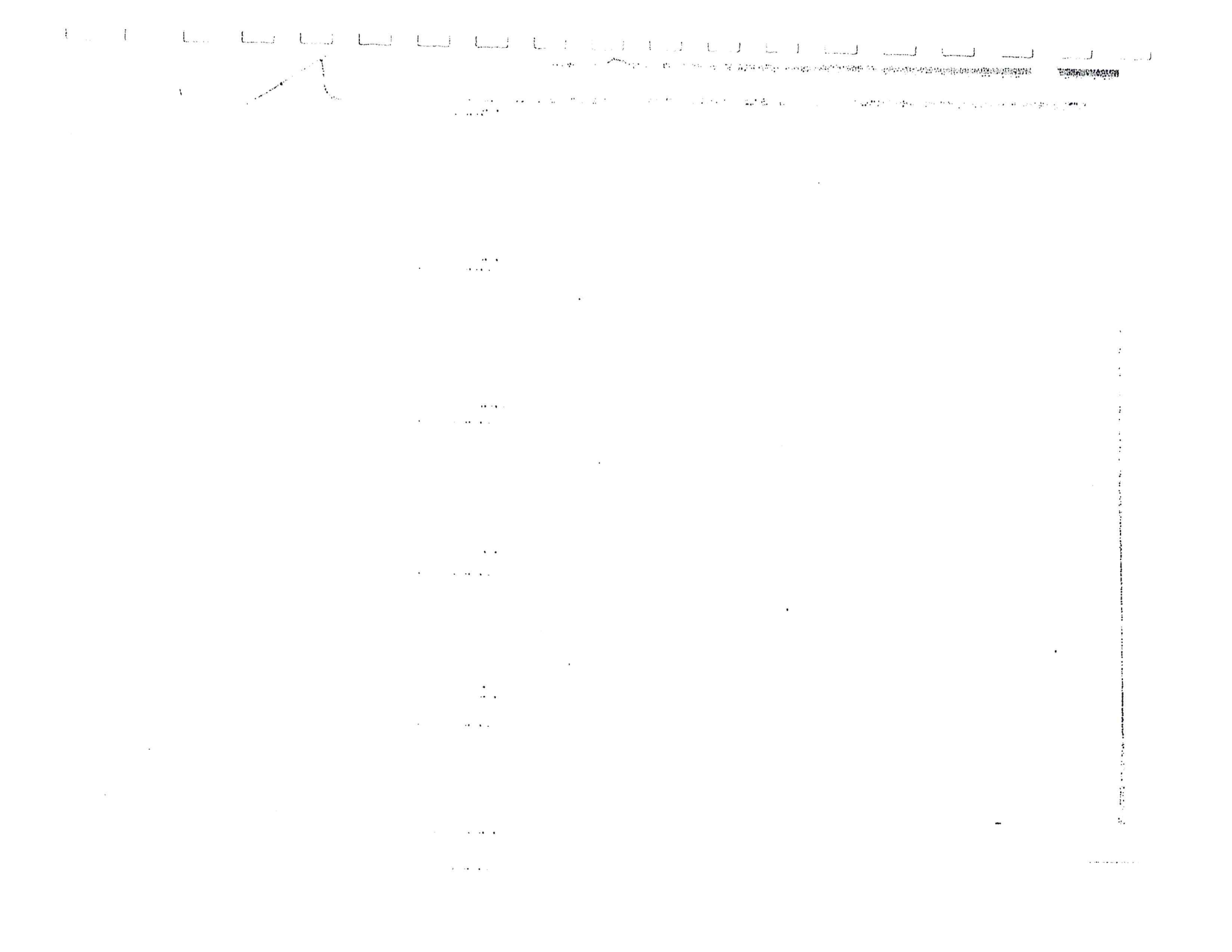
3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.

4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.

5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.

6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx

7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.



State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

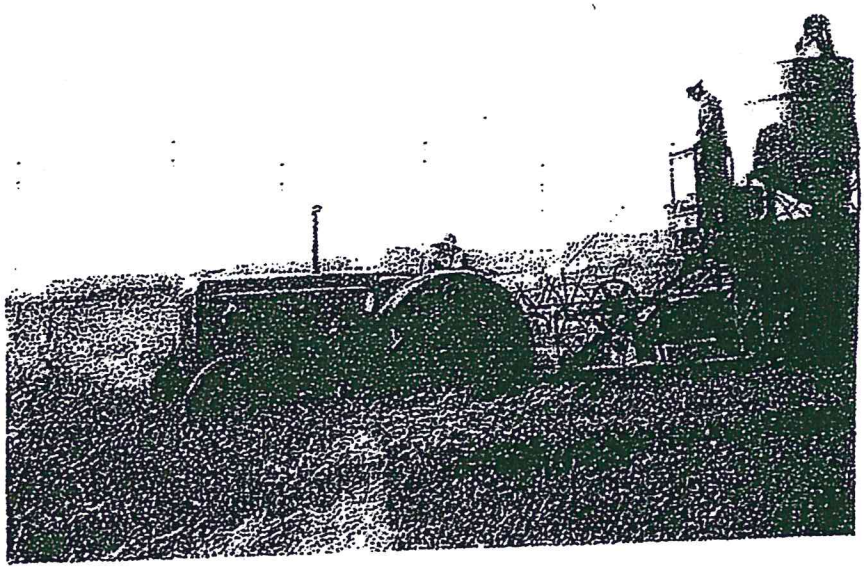
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan

ss.

County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: OFFICIAL SEAL TAMMY WIEMAN NOTARY PUBLIC State of New Mexico My Commission Expires 2.14.2014

Hi Jan -
Thought good / June
This interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Williamson, farmer on the Missouri bottoms in the county near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 200 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940s?

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John L. BURGUM, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. NR-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right or interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

_____ (Name)

_____ (Title)

John L. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter ($SW\frac{1}{4}$) and the South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.

which sum is in full satisfaction and discharge of the interest of the undersigned in the premises conveyed.

(Payee or Payees) J. T. Wilkinson

Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. HH-3190

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive
Billings, Montana 59101-4669
www.blm.gov/mt

In Reply Refer To:
9661 (MT926)

March 23, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Lance D. Gaebe
Commissioner of University and School Lands
North Dakota Department of Trust Lands
P.O. Box 5523
Bismarck, ND 58506-5523

Mr. Todd Sando
State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505-0850

Dear Messrs. Gaebe and Sando:

We are in receipt of your statement of reasons received on December 10, 2014, supporting the two letters of intent to protest the official filing of Supplemental Plats by the Branch of Cadastral Survey. The letters of intent to protest were received on August 6, 2014, from the North Dakota Department of Trust Lands and August 7, 2014, from the Office of the State Engineer (OSE).

In your statement of reasons, you assert two reasons why the Bureau of Land Management (BLM) should not officially file the Supplemental Plats, approved April 9, 2014, and May 8, 2014, representing the geographic limits of the Public Domain interests. Your reasons are:

1) The BLM's Supplemental Plats should utilize the Ordinary High Water Mark (OHWM) survey initiated by North Dakota in 2009 that follows the OSE's 2007 guidelines; and
2) The Army Corp of Engineer's (COE) Acquisition Segment Maps (Segment Maps), upon which the Supplemental Plats are based, are not an accurate reflection of the OHWM.

The State of North Dakota's (State) OHWM delineation, as depicted on Enclosure 1, claims approximately 1,140 acres of Public Domain[1] subsurface estate and 896 acres of Public Domain surface estate on the Supplemental Plats to be State sovereign land. In addition, the State also claims approximately 2,637 acres of fee subsurface estate and 2,881 acres of COE-acquired surface estate as State sovereign land, which are not addressed on the Supplemental Plats.

[1] For clarification, Public Domain interests in the State of North Dakota refer to land interests (surface and subsurface) where title has never left the Federal Government.

EXHIBIT
tabbies
5

Your protest points are focused on the location of the OHWM line, depicted on the Supplemental Plats, which is the boundary between upland ownership and State riverbed title under the Equal Footing Doctrine.

Riverbed Title Under the Equal Footing Doctrine

Your protest concerns riverbed title and not public trust issues. This distinction is important because it controls the source of law to be applied in defining the OHWM. A recent United States Supreme Court decision distinguishes the two in *PPL Montana, LLC v. Montana* 132 S. Ct. 1215, 1235 (2012):

> *"Under accepted rules of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine."*

Thus, federal law determines riverbed title under the equal footing doctrine. The following leading federal court cases provide the controlling definitions of the OHWM.

In *Howard v. Ingersoll*, 54 U.S. 381, ___ (1851), the United States Supreme Court's ruling focused on a line impressed upon the bank by the action of water as the primary indicator of the OHWM and marking the permanent bed of the river. The court also found that the bed of a river does not encompass lands outside of the banks that are subject to periodic overflow nor does it include those lands that are viable for agriculture or grazing:

> *"It neither takes in overflowed land beyond the bank, nor includes swamps or low grounds liable to be overflowed, but reclaimable for meadows or agriculture, or which, being to low for reclamation, though not always covered with water, may be used for cattle to range upon, as natural or uninclosed pasture. 54 U.S. at 415-16."*

The concurring opinions provide more clarification and established the importance of an examination of vegetation that separates the riverbed from upland, and help provide basis for subsequent federal court case definitions.

Approximately 50 years later, the Eighth Circuit reiterated *Howard v. Ingersoll* in slightly different wording:

> *"The bed of the river is that soil so usually covered by water that it is wrested from vegetation . . . and does not extend to or include that upon which grasses, shrubs, and trees grow, though covered by the great annual rises."*

Harrison v. Fite, 148 F. 781, 783 (8th Cir.1906).

A more recent federal district court case addressed the OHWM of a lake but lends guidance that transitional marshlands are not enough evidence for inclusion within the OHWM:

> *"At most the evidence shows that the dike stands on property that has historically served as marshland for Lake Harney periodically absorbing the lake's high waters*

and periodically serving as productive agricultural land for its owners. This is not enough to infer that the dike stands below the ordinary high water mark the point at which the bed of the lake ends and the fast lands begin."

United States v. Cameron, 466 F. Supp. 1099, 1114 (M.D. Fla. 1978)

And, finally, *United States v. Claridge*, 416 F. 2d 933, 934 (9th Cir.1969) references the definition in *Howard v. Ingersoll* and calls for a natural feature and further explains that the OHWM does not include the floodplain from bluff to bluff due to spring floods:

"The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."

The BLM's Manual of Surveying Instructions, 2009 (Manual) has interpreted these leading cases on OHWM and summarized them into a contemporary definition of the OHWM for the surveyor in section 3-164:

"For inland waters, the OHWM normally used is the line below which the water impresses on the soil by covering it for sufficient periods to deprive it of terrestrial vegetation, and the soil loses its value for agriculture, including the grazing of livestock."

The Manual provides guidance in section 3-167 on locating the OHWM by utilizing the vegetation examination:

"A small pocket of an aquatic type plant growing in low places not in the riverbed is also not an indicator of the OHWM and does not indicate that the OHWM should be moved toward upland to include that pocket of aquatics. It is the most water-ward location of the terrestrial species that is determinative."

Rivers and OHWMs have been moving on the earth's surface for thousands of years and remnants of those movements are evidenced on virtually every aerial photo. However, we concern ourselves with the date on which rights were established, such as date of statehood and subsequent river movements for riverbed title under the Equal Footing Doctrine and entry dates for patents. The original surveys by the General Land Office classified upland of the Public Domain for patenting and created survey plats; generating the first representation of all of the rights within a township in relationship to one another. Since you are not challenging the validity of the original surveys, in this case we concern ourselves with the location of the OHWM prior to the artificial rising of the Missouri River to form Lake Sakakawea.[2]

[2] Serving as background timeline information, the construction of Garrison Dam was authorized by the Flood Waters Control Act of 1946 and caused the artificial rising of the Missouri River to form Lake Sakakawea. Construction began in 1946 with reservoir filling initiated in December of 1953 and reaching minimum operating pool on August 7, 1955. http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487634/garrison-project-statistics.aspx

To resolve your protest, we will address locating the line of ordinary high water, both legally and factually. It must be accepted that the OHWM along a river is an ambulatory boundary that migrates through the normal actions of accretion and erosion and has moved since rights were bounded by it. While we agree there will be some differences in location based on dates of aerial photography and dates of field work due to accretion and erosion, it appears that your OHWM guidelines do not comport with federal law and cannot be used to determine riverbed title under the Equal Footing Doctrine.

Discussion of State Reason No. 1

A) OSE's OHWM Delineation Guidelines of 2007

The BLM's Branch of Cadastral Survey has reviewed the OSE's OHWM Delineation Guidelines of 2007 and finds it mostly in conformity with the federal definition except for defining grazing of livestock and certain agriculture as being below the OHWM, as outlined in the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea which states:

> *"Areas below the OHWM may have vegetation suitable for grazing but wetland vegetation capable of being grazed is not an "ordinary agricultural crop."*
>
> *Another complicated area included the low lying hayfields. For this study, the term "field" refers to hayed or mowed areas, and does not imply that the area has been cultivated or seeded. Farming practices along the river during drier, low water periods often extended into the lower floodplain areas, closer to the water's edge. These "fields" may be cut for hay, or cultivated for a short time, but rapid colonization of wetland species on these hay fields likely occurred when the wetter period and subsequent higher water levels returned."*

The grazing statement is in direct contradiction to the *Howard v. Ingersoll* reference of *natural or uninclosed* pasture and the Manual definition of OHWM. *United States v. Cameron* references marshland that periodically absorbs the high waters and periodically serves as productive agriculture which was directly tied to the grazing of livestock and was found not enough to infer the lands were below the OHWM.

The hay field statement is in direct contradiction to the *Howard v. Ingersoll* reference to lands liable to overflow but reclaimable for meadows or agriculture. It also contradicts *Harrison v. Fite* in that the bed does not extend to land which grasses grow although covered by rises in the water. The implication is that the land can ordinarily be utilized for agriculture, even though the remnants of water in low areas of the floodplain caused by rises in the river allow for pockets of aquatic vegetation to grow periodically, which is also addressed in the aforementioned cases.

The BLM's Branch of Cadastral Survey has reviewed the State's OHWM survey Task Order No. 2 and finds the intent to locate the OHWM of the Missouri River prior to the artificial rising of the Missouri River to form Lake Sakakawea to be correct and does not believe the State is attempting to claim the pooled lakebed of Lake Sakakawea as a navigable waterway under the Equal Footing Doctrine.

Cultivation and seeding are not prerequisites for *productive agriculture*[3] which would thereby exclude *natural or uninclosed*[4] pasture suitable for grazing or natural grass haying. Specifically the upland extends towards the river to the lowest extent of upland vegetation and not the landward extent of aquatic vegetation.

These deviations from the Federal definition of OHWM allow the State's delineation of OHWM, which is visually represented on Enclosure 2 hatched in blue and overlaid on the 1958 aerial photo, to impermissibly encompass upland with terrestrial vegetation, hay fields, and cultivated fields.

Likewise, the State's OHWM delineation, depicted on Enclosure 3 hatched in blue and overlaid onto the 1952 aerial photo, spans from *bluff to bluff*[5] taking in uplands temporarily overflowed by *freshets*[6] which is in direct contradiction to all Federal case law and moreover, the State's delineation, which does not reference utilizing the 1952 aerial photo follows the extent of water on the 1952 photo very closely. But, this photo is a representation of one of the highest recorded flows, which is not characterized as "ordinary." The date of the aerial photo, April 5, 1952, has been correlated to United States Geological Survey (USGS) flow data obtained at: http://waterdata.usgs.gov/usa/nwis/inventory/?site_no=06330000&agency_cd=USGS. Thirty-seven years of flow data from 1928-1965 shows that only 21 days had higher flows than the aerial photo date (April 5, 1952), of which 4 days were also in 1952. Enclosure 4a is the mean daily discharges for 1952; 4b is the highest daily means from 1928-1965; 4c is a graph of the 37 year discharges.

Therefore, BLM believes the State's OHWM delineation is skewed due to the aforementioned deviations from the Federal definition of OHWM and residual flood waters from an extraordinary event onto the floodplain. The State's OHWM delineation depicts the riverbed to be three times the width of the General Land Office's originally surveyed meanders. Originally surveyed meanders are typically landward of the actual OHWM, and while it is acknowledged that OHWMs move laterally, no evidence shows why the riverbed has widened, up to triple in size, to encompass lands classified as upland in the original survey.

The sheer width of the State's OHWM delineation, as depicted on Enclosure 1, clearly shows that it ignores the *natural physical characteristic*[7] of the OHWM which is a *natural object*[8] and extends *beyond the banks*[6] to encompass significant portions of the floodplain. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

B) Chain of Title

At the meeting on July 22, 2014, in Bismarck, ND, Josh Alexander, BLM's Acting Chief Cadastral Surveyor for public lands in North Dakota, specifically asked if the State's OHWM delineation was to determine surface rights, subsurface rights, or both. The verbal response was

[3] *United States v. Cameron*, 466 F. Supp. 1099 (M.D. Fla. 1978)
[4] *Howard v. Ingersoll*, 54 U.S. 381 (1851)
[5] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[6] *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991)
[7] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[8] *Howard v. Ingersoll*, 54 U.S. 381 (1851)

that it determined the boundary of State Sovereign land encompassing both surface and subsurface rights.

But, the State's delineation did not consider previous conveyances, as evidenced by chain of title research. Enclosures 5a, 5b, and 5c are the State's OHWM delineation, which is hatched in blue and overlaid onto the COE Segment maps, in which the State's delineation encompasses:

1) 188.66 acre island, Y2250 (Enclosure 5a)
2) 228 acres within Y2289 (Enclosure 5b)
3) 71.07 acres within Z2382 (Enclosure 5c)

These parcels were conveyed to the United States by the State as upland (see Enclosure 6 for conveyance documents). The magnitude of acquisitions by the COE clearly shows the intent was to purchase displaced uplands. The chain of title clearly shows that the State agreeably conveyed upland and islands, which is now being depicted and claimed as riverbed. An island must exist above the OHWM to be considered an island; otherwise it is a part of the bed (sandbar). At the time of the conveyance, an OHWM determination was made to facilitate the conveyance of the island and the upland. These conveyances were for upland surface only. The State's new OHWM delineation must omit these areas as they have previously been classified as upland, not below the OHWM, and are not part of surface Sovereign Lands of the State. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

C) Sovereign Lands

In its protest, the State is utilizing its delineation as a basis for claim to sovereign land and to require mineral lease and royalty payments from oil and gas operators. However, prior to viewing the delineations at https://land.nd.gov/minerals/mineralapps/OHWM2/OHWM2Disclaimer.aspx, there is a caveat:

> *"The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land.""*

Thus, it is unclear how much weight to give to the State's OHWM delineation even though the State's Statement of Reasons infers that we should honor it wholly. Instead, BLM's Supplemental Plats are without limitation and provide the better evidence of riverbed title.

For the foregoing reasons, the State's first protest point is denied.

Discussion of State Reason No. 2

A) BLM Field Investigations Prior to Flooding

The COE Segment Maps were the basis for land title acquisition by the COE for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most

comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea.

To determine what lands were classified as public lands, the COE engaged BLM's Branch of Cadastral Engineering (now Branch of Cadastral Survey) to execute field investigations prior to flooding. BLM surveyors were guided by Special Instructions dated October 24, 1952 (Enclosure 7). Importantly, there is no evidence that the State of North Dakota raised concerns about the Special Instructions or subsequent acquisitions.

The Special Instructions stated the following regarding the lot or legal subdivision listed:

"Ascertain whether any or all of it is above mean high water at the present time

If it is found to be above water at present, determine whether any or all of it has been in existence above mean high water continuously since the original survey was made

Show what part of the tract has been in existence since the date of the original survey

If the land has been entirely washed away and has re-appeared, determine the date it was submerged and when it re-appeared

If accretion to a tract of public domain land has formed, show the extent of such accretion

If substantial accretion appears to have formed in front of riparian privately-owned lands prior to the date of entry, show the extent of such accretion and the date a substantial amount had formed in front of the original tract

Where changes have taken place in the river channel, determine whether the change was due to avulsive action, or to the slow and imperceptible process of reliction and accretion

To determine the above facts, you will study all plats, charts, maps, aerial photographs and records found that may have a bearing on the case at hand. You will determine the age of timber growing on the land and obtain such other information as is available including the interviewing of old settlers who may be familiar with the river changes at those places."

BLM officers were operating under the BLM's Manual of Surveying Instructions, 1947 (1947 Manual), and the term "mean high water" for inland waters carries the same determination principles and conformance to law as the OHWM, as evidenced by guidelines in the 1947 Manual.

The BLM conducted extensive field investigations to determine what lands existed above the OHWM, made a determination on river movement, its effect on land title, and compiled this information in an investigative report. These reports were utilized to determine public lands above the OHWM, addressing both accretion and erosion to public lands. Those determinations

were depicted on the Segment Maps. In other words, the COE Segment maps are based on BLM field work, analysis, and standard practices. See Enclosures 8, 9, and 10 for the progression from BLM field investigation report map (8) to Segment Map (9) to Supplemental Plat (10), all of which depict the same findings from the field investigations.

B) North Dakota State Lands Department (SLD)'s Previous OHWM Delineation

1) Land acquisition documents show that SLD participated in the COE survey process.

A conveyance document in Enclosure 6 infers that the SLD performed an OHWM determination prior to the conveyance. The last page of Enclosure 6 states:

"The above is based on Survey Report furnished by the State School Land Department."

The SLD Survey Report was requested by the BLM's Branch of Cadastral Survey. However, its whereabouts are unknown and remains unfurnished. But, based on the subsequent conveyance, the referenced SLD Survey Report likely made a determination that Y2250 was an island existing above the OHWM, thereby necessitating the need for purchase by the COE as uplands that would be displaced by the artificial rising of the Missouri River to create Lake Sakakawea.

Although the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea states that the SLD was unaware of any previous OHWM determinations, we believe that the land acquisition documents establish that the SLD participated in the OHWM determinations upon which the COE segment maps are based.

2) Documents show that SLD participated in the condemnation process for uplands.

To further outline the SLD's involvement and conclude that the State was aware of upland acquisitions, we obtained correspondence documents (Enclosure 11) showing that SLD and COE deliberations led to a formal and friendly condemnation process, which was followed by the SLD and the COE.

Despite legislation being passed to convey State lands without mineral reservation, the condemnation process was instituted due to the reluctance of then SLD Commissioner, John O. Lyngstad. Mr. Lyngstad was reluctant to sell State lands and supported the condemnation process for fear of political repercussions of selling State land. Mr. Lyngstad relays his reluctance by predicting accusations from farmers that they would be willing to pay the State more money than was being offered by the Federal Government. It is certain that farmers would not be willing to pay for these uplands if they were not productive for agriculture indicating the lands existed as upland above the OHWM. The State's OHWM delineation incorrectly classifies these same uplands as riverbed.

Revisit Enclosure 6 showing the execution of this process whereby the COE sent appraisals for displaced state uplands asking for consideration by the Board of University and School Lands, execution by the Land Commissioner, and condemnation.

C) Appraisals

Full appraisals were conducted for acquisition of displaced uplands to justify and provide basis for the expenditure of appropriated funds. These appraisals quantify upland area and quantify the uses of the upland, including agricultural production, timber, brush, etc. While utilized for appraisal values, these quantifications provide significant documentation with regard to the acquired displaced uplands, depicted on the COE Segment maps, existing above the OHWM. See Enclosure 12, which is the same area as Enclosure 2 showing the State's OHWM delineation encompassing brush and productive agriculture as identified by the land appraisal. The State's delineation does not follow Federal case law or OHWM definitions with the inclusion of these uplands.

For the reasons outlined above, we reject the State's assertion that the COE Segment Maps are not an accurate reflection of the OHWM. The OHWM was established by BLM-led field investigations using Special Instructions that were not disputed by the State. In fact, there is ample evidence showing that the SLD participated in the establishment of the OHWM determination. The second protest point is denied.

Conclusion

The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM, and involvement from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines.

Based on the aforementioned analysis, the BLM finds the State's OHWM delineation:

1) does not comply with the federal definition of the OHWM
2) does not honor chain of title or previous involvement with the COE
3) is an overreaching delineation that impairs:
   a) the mineral rights of private owners as vested from original patents from the Federal Government
   b) the Federal Government's acquired rights in land, and
   c) the rights of all in the Public Domain interests in land.

Your protest to the official filing of plats of survey posted in the *Federal Register* on July 8, 2014, is hereby dismissed. The Supplemental Plats shall be officially filed in this office.

You have the right to appeal this decision to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of the Interior, Board of Land Appeals (Board), in accordance with the regulations contained in 43 CFR Part 4 and the enclosed Form 1842-1 (Enclosure 13). In taking an appeal, there must be strict compliance with the regulations. If you choose to appeal, a notice of appeal must be filed in this office within thirty (30) days of receipt of this letter for transmittal to the Board. If your notice of appeal does not include a statement of reasons, one must be filed with the Board within thirty (30) days after the notice of appeal was filed. A copy of your notice of appeal and any statement of reasons, written arguments, or briefs, must also be served upon the Office of the Solicitor, Rocky Mountain Region, 2021 Fourth Avenue N., Suite 112, Billings MT 59101. Service must be accomplished within fifteen (15) days after filing in order to be in compliance with appeal regulations.

As provided by 43 CFR Part 4, you have the right to petition the Office of Hearings and Appeals to stay implementation of the decision; however, you must show standing and present reasons for requesting a stay of the decision that address your interests and the manner by which they would be harmed. A petition for stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) The relative harm to the parties if the stay is granted or denied; (2) The likelihood of the appellant's success on the merits; (3) The likelihood of immediate and irreparable harm if the stay is not granted; and (4) Whether the public interest favors granting the stay. Should you choose to file one, your stay request must accompany your notice of appeal. A notice of appeal with petition for stay must be served upon the Board, Regional Solicitor, and adverse parties at the same time such documents are served on the deciding official at this office. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR 1.3.

Sincerely,

Aden L. Seidlitz

Aden L. Seidlitz
Acting State Director

13 Enclosures
1- Overall comparison of OHWM delineations in protested area
2- OHWM comparison overlaid onto 1958 aerial photography
3- OHWM comparison overlaid onto 1952 flood aerial photography
4- USGS flow data
5- State OHWM delineation overlaid onto Segment Maps
6- State land conveyance correspondence and execution documents
7- BLM Special Instructions
8- BLM field investigation report map
9- Portion of Segment Map

10- Portion of BLM Supplemental Plat
11- COE and SLD correspondence
12- Land appraisal map
13- Form 1842-1

cc: Karan Dunnigan
Office of the Solicitor
Billings, MT

Joshua A. Swanson

jswanson@vogellaw.com

February 9, 2017

Rep. Todd Porter
Chairman
House Energy and Natural Resources Committee

e-mail only at: tkporter@nd.gov

Re: HB 1199

Dear Chairman Porter:

I wanted to thank you for allowing me to testify in support of HB 1199 last Thursday before the House Energy and Natural Resources Committee, and for the "do pass" recommendation from the Committee. HB 1199 is a landmark bill that corrects the wrongs done by the State and rectifies one of the greatest takings in the history of American jurisprudence. HB 1199 will make clear that ownership of the mineral interests reserved by my clients and thousands of other present and former North Dakota citizens will remain theirs to lease as they had for decades between the formation of Lake Sakakawea and the wrongful taking by the State. During the course of testimony Thursday, several questions were asked by Committee members ranging from:

- the number of acres the State has taken from private property owners that were previously acquired by the United States for the purpose of Garrison Dam and Lake Sakakawea;
- HB 1199's fiscal note and the State's claim that it would be "surrendering" revenue if the legislature recognized that the oil and gas interests vested in landowners – like the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank – who lost their property when the United States acquired it for the Garrison Dam and Lake Sakakawea;
- Rep. Heinert's question regarding the blacked-out language on the first page of the Wilkinson's Warranty Deed; and
- the differences between HB 1199 and a similar bill in the Senate, SB 2134.

Given the importance of this legislation for all the landowners who seek restoration of their private property rights, I wanted to address these questions.

1. **NUMBER OF ACRES AFFECTED**

When the United States began acquiring property in the 1950s for Garrison Dam and Lake Sakakawea, it was recognized by the United States and State of North Dakota that the State's interest was limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. This is noted in Exhibit 1 to the written testimony that was

submitted to the Committee. According to the Master Plan for the Garrison/Lake Sakakawea Project, the United States acquired 463,000 acres for Lake Sakakawea. Of the land acquired, approximately 300,000 acres were from private landowners outside of the Fort Berthold reservation. When the United States acquired the surface rights for Lake Sakakawea, the oil and gas interests under those 300,000 acres were largely reserved by the private landowners. From approximately 1950 to 2010, the Wilkinson and Vohs family and other private landowners, like the beneficiaries of the property managed by First National Bank, leased those mineral interests to interested parties. In approximately 2010, the Wilkinson family and others learned that the State had secretly begun to claim ownership of their private mineral interests and were leasing them out to interested companies.

Contrary to the State's testimony during the Committee hearing, in the lawsuit with the Wilkinson family, the State is claiming ***all*** the oil and gas interests under Lake Sakakawea. The State's claim is *not* limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. In the Wilkinson suit, the State argues that it can flood private property and then claim title to that property. While the exact number of acres claimed by the State is unknown, HB 1199 is written in such a way that it will correct this wrong for all affected private landowners who reserved their oil and gas interests because of Garrison Dam and Lake Sakakawea.

The language of HB 1199 includes over 4,000 acres west of the Highway 85 Bridge – where the Wilkinson and Vohs' oil and gas interests are located – that were acquired by the United States for Lake Sakakawea. As noted by Rep. Roers Jones during the hearing, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing 57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Stated bluntly, the State of North Dakota cannot flood a citizen's land and then claim it also owns all the valuable underwater mineral interests specifically reserved by the private landowner. As stated by the United States Supreme Court, such an action epitomizes the definition of an impermissible and unlawful "taking" by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). More recently, in 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a

categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. As many of the Committee members noted during the hearing on HB 1199, landowners like the Wilkinson and Vohs families, and the beneficiaries of the land managed by First National Bank, specifically reserved the oil and gas interests when the United States took their property for Garrison Dam and Lake Sakakawea. As Rep. Keiser appropriately stated when introducing the bill, what has been attempted by the State of North Dakota is the greatest taking of property he has ever seen.

Also contrary to the State's testimony, the state's claim to these private oil and gas interests only goes back to the beginning of North Dakota's most recent oil boom. As testified to by Mr. Patch, in 2010 the State placed thousands of mineral acres up for auction that it had never before claimed – including the Wilkinson's mineral interests – without notifying the private mineral owners of its actions. We have attached a July 2010 letter from Brigham Oil and Gas where, while it requested to lease the Wilkinson's property from the State, it expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

The handwritten notes on this letter were present when the State disclosed it in discovery during the Wilkinson's lawsuit. The State's wholesale deviation from its lawful practice of claiming only those oil and gas interests within the historic Missouri River as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the historic Missouri River as it existed before Garrison Dam. The only explanation for the State's decision in 2010 to suddenly claim thousands of acres outside of the historical Missouri River that it had never previously claimed is greed. The State's knowledge that it was acting unlawfully are found in committee notes set forth below.

2. FISCAL NOTE – THE STATE SET ASIDE THIS MONEY KNOWING ITS CLAIM TO THE OIL AND GAS INTERESTS WAS SUSPECT

Even while unlawfully laying claim to its citizen's private mineral interests, the State suspected the proceeds received by its improper actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the

historic Missouri River – like those owned by the Wilkinson and Vohs families. As Chairman Porter pointed out during his questioning, the State is a stranger to title of these privately held mineral interests. This is noted in the attached September 2010 Memorandum prepared by the Land Board. This Land Board Memorandum shows that Mr. Gaebe and Mr. Heiser, who testified before the Committee, were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, **"There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."**

All of the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – has been set aside in anticipation of the day the State would be required to make them whole again. That day is today. The money set aside by the State in anticipation of what this legislative body or the courts would inevitably do speaks volumes of the State's dubious action. Stated another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State of North Dakota's right to retain in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, the State claimed oil and gas interests held by private landowners while acknowledging it had absolutely no legal authority to support its unlawful taking.

In our State, where private property and mineral interests are passed from generation to generation and valued to the point they are sacrosanct, the Land Board nevertheless proceeded to take these privately held oil and gas interests because they "felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development." This was done despite Mr. Patch and others expressing grave concerns about the legality of what the State was doing. The August 2011 minutes from the Land Board meeting notes the presence of Mr. Patch and the fact Mr. Patch made a presentation defending his family's title to the oil and gas interests. The memorandum goes on to explain that, "Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a 'Designated Fund Balance' that should not be transferred out of the LMTF (Land and Minerals Trust Fund) until such time that any potential title disputes related to these leases have been resolved."

The Land Board's meeting minutes from July 2014 indicate the State has claimed 668 tracts of land with questionable acres. The proceeds received by the State from these tracts have been placed in the Designated Fund Balance until ownership is rightfully determined. While these tracts are definite and can be determined with certainty by the Land Board, the State has continued to refuse to identify the location of these tracts when asked by the Wilkinsons.

HB 1199 will resolve these title disputes in favor of the rightful landowners who reserved the oil and gas interests over 60 years ago when the United States acquired their property for Garrison Dam and Lake Sakakawea.

Mr. Patch raised this issue to the Land Board over five years ago. Yet, the State has forced his family to spend over $300,000 to fight them in court. The fact our client has had to exhaust his private resourced to defend the private property rights their grandparents reserved in 1958 – while the State stockpiled the ill-gotten gains from its unlawful action – is shameful.

3. REP. HEINERT'S QUESTION REGARDING THE BLACKED-OUT LANGUAGE ON THE FIRST PAGE OF THE WILKINSON'S WARRANTY DEED

During the hearing, Rep. Heinert asked about the blacked-out language on the first page of the Wilkinson's Warranty Deed to the United States. The blacked-out language is restated on the second page of the deed, and says the Wilkinson's interests did not include public highways or utilities. If you review the sentence before the blacked-out language, it reads: " ... containing, exclusive of said exception, 228.95 acres, more of less; subject to existing easements for public roads and highways, ..." After the blacked-out language, the deed resumes, stating, "... ner of any interest therein, ..." Turning to the second page of the same deed, you will see the blacked-out language restated in full, beginning towards the end of the first paragraph, which provides:

> " ... containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipelines.
>
> Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..."

This underlined language is what was, for unknown reasons, blacked-out on the first page of the Wilkinson's Warranty Deed when it was drafted in the late 1950s, likely explaining why the exact same language was repeated on the second page of the deed. This language does not alter, in any manner, the fact the Wilkinson's grandparents reserved the oil and gas interests subject only to the United States acquiring the property for Garrison Dam and Lake Sakakawea. Similar language is found in the Warranty Deed where the United States acquired the Vohs' property. The Vohs' deed is also part of Exhibit 3. If you go up 12 lines from the bottom of the first page of the Vohs' deed, it contains the same language as the Wilkinson's deed, providing "... subject to existing easements for public roads and highways, public utilities, railroads and pipelines, ..." If you turn to page 3 of the Vohs' deed, you'll see it contains the same language regarding the reservation of oil and gas interests that was blacked-out on the first page of the Wilkinson's deed, stating, "[R]eserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..." This same language was used in the hundreds of warranty deeds and condemnation orders whereby the United States acquired the property from private landowners for Garrison Dam and Lake Sakakawea.

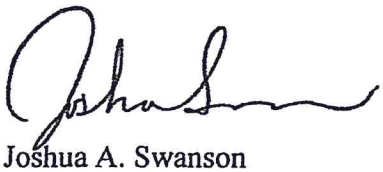
4. DIFFERENCES BETWEEN HB 1199 AND SB 2134

Both HB 1199 and SB 2134 address the State's unconstitutional taking of oil and gas interests rightfully belonging to private landowners who lost their property and surface rights to the United States for Garrison Dam and Lake Sakakawea.

We are concerned however that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in SB 2134. There is no rational reason to exclude the landowners in these 15 sections from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea. As such, HB 1199 is the preferred bill because it does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push this bill across the finish line for *all* affected property owners; not most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they are grateful for HB 1199. If you have any additional questions, I'd be glad to visit. I can be reached at 701.356.6369, via e-mail at jswanson@vogellaw.com, or would be glad to visit in person at your convenience.

Respectfully,



Joshua A. Swanson

BRIGHAM
Oil & Gas, L.P.

15202

Brigham Oil & Gas, L.P. ◆ 6300 Bridge Point Parkway, Bldg. 2, Suite 500 ◆ Austin, Texas 78730
Phone (512) 427-3300 ◆ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: Nominations for the August 3, 2010, State Lease Sale
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES	
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(1) ✓
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(2) ✓
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	Prev. Nom.
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04		Prev. Nom.

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 #

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

DTL002577

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: Designated Fund Balance for Land and Minerals Trust
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the
Board of University and School Lands
August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: Designated Fund Balance for the Lands and Minerals Trust Fund
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

Exhibit J-3 – Mar. 10, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
House Energy and Natural Resources Committee
March 10, 2017, 9:00 AM

Chairman Porter and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. I'd like to also thank you for your work thus far on this issue, and for the Committee and House's support for HB 1199. As I testified previously to this Committee with regards to House Bill 1199, and to the Senate Energy and Natural Resources Committee with regards to Senate Bill 2134, I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea.

I will try not to repeat my testimony previously submitted to this Committee and to its counterpart in the Senate considering SB 2134. Instead, I'd like to address some of the questions asked by this Committee during the February 2 hearing on HB 1199, which are relevant to SB 2134, and were discussed in the February 9 letter I sent to the members of this Committee.

First, the Committee asked if SB 2134 and HB 1199 would resolve the lawsuits my clients have filed against the State. While my clients would abide by the legislation in its current form, the answer to this question is, essentially, up to the State. The State has not yet indicated whether they will continue pursuing their claims if legislation passes recognizing that the State does not own the oil and gas interests, which private land owners like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, reserved when the United States acquired their property for Lake Sakakawea.

Second, as to what exactly the State is claiming, contrary to the testimony previously offered by the State, in the lawsuit with the Wilkinson family, the State is claiming all the oil and gas interests under Lake Sakakawea. The State's position in the Wilkinson lawsuit is that Lake Sakakawea is one-and-the-same-thing as the Missouri River, and Lake Sakakawea does not exist as a separate body of water. The State's claim is not limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. The State has taken the position in the Wilkinson case that it can flood private property – like my clients' property and all the other acres flooded by Garrison Dam and Lake Sakakawea – and then claim title to that property. The State saying otherwise is simply not true, and flies in the face of the pleadings the State submitted to the court. SB 2134 addresses most of those acres.

As noted during this Committee's hearing on HB 1199, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony I submitted in support of HB 1199, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing

57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Additionally, contrary to the State's previous testimony, the State's claim to these private oil and gas interests only goes back to the beginning of our most recent oil boom. In 2010, the State placed thousands of acres up for auction that it had never before claimed – including the Wilkinson and Vohs' minerals – without notifying the private mineral owners of its actions. The July 2010 letter from Brigham Oil and Gas to the State, attached to my February 9 letter and included with this testimony as Exhibit 1, while requesting to lease the Wilkinson's property from the State, expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

(emphasis added). The State's wholesale deviation from its practice of claiming only those oil and gas interests within the "historic Missouri River" as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the "historic Missouri River" as it existed before Garrison Dam.

Even while laying claim to its citizen's private mineral interests, the State suspected the proceeds received from its actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the "historic Missouri River" – like those owned by the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank. As this Committee noted during its questioning on HB 1199, the State is a stranger to title of these privately held mineral interests. The State says as much in a September 2010 Memorandum prepared by the Land Board, also included with the February 9 letter, and attached to this testimony as Exhibit 2. This Memorandum shows that Mr. Gaebe and Mr. Heiser were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, "There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."

SB 2134 is necessary to restore the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – which was set aside in anticipation of the day the State would be required to make these private landowners whole again. That day is here. Stated

another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State's to claim in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, take first, sort out actual ownership later.

Finally, while both SB 2134 and HB 1199 address the State's unconstitutional taking of oil and gas interests, we are concerned that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in the amendment to SB 2134. There is no reason to exclude the landowners from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea.

Conversely, HB 1199 does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push a form of this legislation across the finish line for all affected property owners; not just most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they, and myself, are grateful for your efforts. Mr. Chairman, I'll stand for any questions the Committee may have.

Respectfully,

Joshua Swanson

BRIGHAM
Oil & Gas, L.P.

15207

Brigham Oil & Gas, L.P. ◆ 6300 Bridge Point Parkway, Bldg. 2, Suite 500 ◆ Austin, Texas 78730
Phone (512) 427-3300 ◆ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: **Nominations for the August 3, 2010, State Lease Sale**
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04	

① ✓
② ✓
Prev. Nom.
Prev. Nom.

EXHIBIT
tabbies
1

DTL002576

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 #

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 Spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

DTL002577

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

EXHIBIT 2

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: **Designated Fund Balance for Land and Minerals Trust**
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the
Board of University and School Lands
August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: **Designated Fund Balance for the Lands and Minerals Trust Fund**
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

From: OPSAHL, RON
To: Kadrmas, Bethany R.
Subject: Case No 26584 (Herberger Comment re Wenck Delineation) [FC-Email.FID3716539]
Date: Wednesday, June 06, 2018 11:44:57 AM
Attachments: 118060612445201925.png
118060612445202225.png
118060612445202425.png
118060612445202625.png
118060612445202825.png
Herberger NDIC Wenck Comment 20180606.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Attached, please find the comments of The Herberger Foundation filed in Case No. 26584 regarding the Wenck ordinary high-water mark delineation.

Thank you.

Ron

Ron Opsahl, Of Counsel

FENNEMORE CRAIG

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T: 303.813.3848 | F: 303.813.3894
ropsahl@fclaw.com | View Bio
Admitted in Colorado, Kansas, Montana, Wyoming

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FENNEMORE CRAIG
ATTORNEYS

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PH (303) 813-3848 | **FX** (303) 813-3894
fennemorecraig.com

June 6, 2018

VIA E-MAIL ONLY

North Dakota Industrial Commission
Oil and Gas Division
1016 East Calgary Avenue
Bismarck, North Dakota 58503-5512
brkadrmas@nd.gov

Re: Case No. 26584, Comments regarding Wenck Delineation

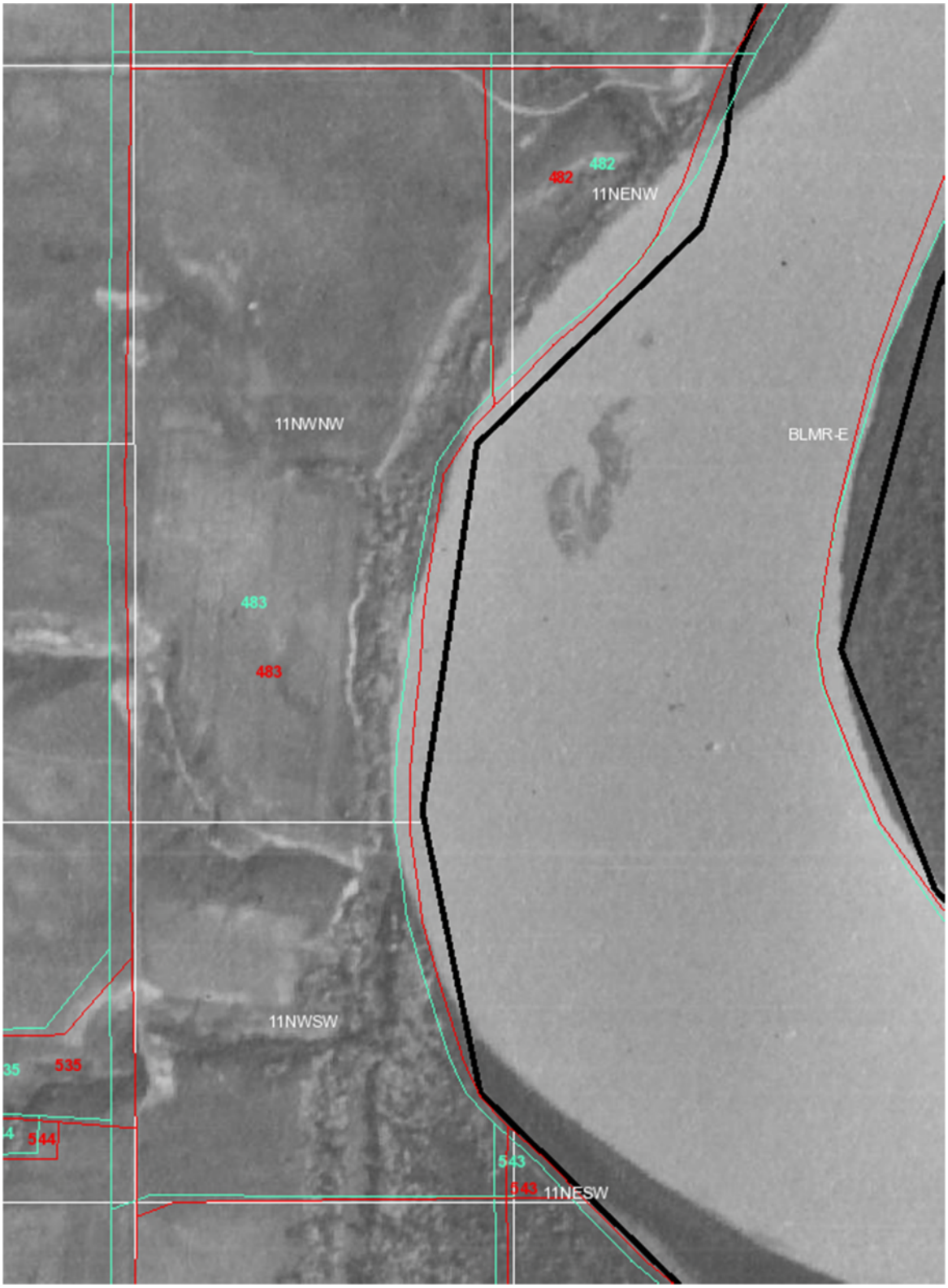
Dear Commissioners:

The Herberger Foundation respectfully submits the following comments regarding the delineation of the ordinary high-water mark conducted by Wenck Associates, Inc. ("Wenck").[1] The Herberger Foundation is the owner of valuable mineral rights in property immediately west of and adjacent to the Missouri River in Williams County (T. 153 N, R. 98 W, S. 11: Lot 6, W/2NW/4, NW/4SW/4).

The Herberger Foundation is concerned with the acreage of its mineral interests as delineated by Wenck. The issue is most easily described graphically. Below is a screenshot of the Wenck delineation of The Herberger Foundation's parcels (denoted thereon as: 11NWNW, 11NWSW, and 11NESW).[2] On the screenshot, the BLM's Master Title Plat river boundary appears as a heavy solid black line, the Public Land Survey System ("PLSS") quarter section boundaries appear as solid white lines, the U.S. Army Corps of Engineers "Original Tracts" appear as solid green lines, and the "Wenck Adjusted Tracts" appear as a solid red lines (see below).

As shown, the Wenck "Adjusted Tracts" do not appear to follow PLSS boundaries, nor do they appear to follow the U.S. Army Corps of Engineers "Original Tracts." As a result, it is unclear exactly what the reported acreage in the Wenck delineation represents. That is, is the acreage reported by Wenck the area of the PLSS quarter section, less the acreage delineated below the ordinary high water mark? Is it the area of the "Original Tracts," less the land below the ordinary high water mark? Or, is it the area of the "Wenck Adjusted Tracts," less the land below the ordinary high water mark?

[1] Wenck Associates, Inc., *Ordinary High Water Mark of the Missouri River Bed* (April 2018), *available at* https://www.dmr.nd.gov/Wenck_Ordinary_High_Water_Mark_of_the_Missouri_River_Bed_Review.pdf.
[2] Wenck Associates, Inc., *DMR_OHWN Web* Application, *available at:* https://ndgov.maps.arcgis.com/apps/webappviewer/index.html?id=3f15faa4a1f0479ea3f9dde95a820958.


482
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11NESW

If the area reported in the delineation is based upon either the 'Original Tracts" or the "Wenck Adjusted Tracts," the acreage reported is of little value to adjacent landowners because the delineation boundaries do not comport with the PLSS quarter section boundaries. If this is the case, then land is improperly omitted on one boundary, and improperly included on the opposite boundary. While the distinction may seem minor, even a single valuable mineral acre lost due to an improper boundary designation can represent significant monetary losses given the volume of oil and gas production in the area.

Accordingly, prior to adopting a final ordinary high-water mark delineation, The Herberger Foundation requests that the acreages provided by Wenck be more clearly described, and that the delineation be designed to comport with the PLSS quarter section boundaries.

Sincerely,

FENNEMORE CRAIG, P.C.

Ronald W. Opsahl

ROPS

From: Ed Grim
To: Kadrmas, Bethany R.
Subject: Public Input Wenck Survey
Date: Wednesday, May 09, 2018 4:41:41 PM

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

My greater family of 13 members has minerals affected by the Wenck survey and the greater attempt by the attorney general of the state as well as the recent lawsuits to take our minerals along the Missouri River. I would try to speak for all of us. I have studied the Wenck survey. Unfortunately, being a layman I cannot tell how we are affected one way or the other as I studied the maps and charts. What I do know is that when the Missouri was flooded to create Lake Sacajawea we were forced to give up a portion of our ranch. OK, the state clearly needed the land to create the lake. What the state didn't need to create the lake was our mineral rights. Therefore we disagree with the results any new survey results that seek to give the state any of our minerals by redefining the high water mark. Our minerals have been held in suspense since this whole issue began a few years ago. Perhaps you could suggest a simple way to find out definitively how the new survey affects our minerals. Thank you for the opportunity to offer input to the DMR.

Edward Grim

616 West Boone

Chewelah, WA 99109

5099360296

Received
MAY 07 2018
ND Oil & Gas Division

Joshua A. Swanson
jswanson@vogellaw.com

May 4, 2018

North Dakota Industrial Commission
Department of Mineral Resources, Oil & Gas Division
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

e-mail to: brkadrmas@nd.gov

Re: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03
Case No. 26584
Our File No.: 047390.14001

Dear Department of Mineral Resources:

I represent EEE Minerals, LLC, Edward Lynch ("Lynch"), and Suzanne Vohs as Trustee for The Vohs Family Revocable Living Trust ("Vohs"). They are the undivided owners of the oil, gas, and other minerals in, on, or underlying the following property in McKenzie County:

Township 153 North, Range 101 West
Section 6: Lot 10
Section 7: Portions of Lots 1, 4, and 5, described on a deed recorded in Book 87, page 505, in the office of the McKenzie County Register of Deeds

(the "Property"). EEE Minerals is a limited liability company registered with the North Dakota Secretary of State, and Lynch, who grew up in Williston, N.D., is a resident of South Carolina. Vohs is a resident of the State of California.

1. Lynch and Vohs' predecessor reserved the minerals under the Property when the surface was acquired by the United States for Lake Sakakawea

The surface of the Property was acquired by the United States Army Corps of Engineers ("Corps"), under the authority of the Flood Control Act of 1944, Public Law 534, 78th Congress, 2nd session. The Corps acquired fee title to all land that would be inundated when Lake Sakakawea reached full pool at 1,854 feet msl. The Property is within the 1,854 msl elevation. The United States acquired title to the surface of the Property because it was within the operational pool of Lake Sakakawea, and as such, the lake would inundate the Property as stated in the deed whereby the United States acquired its interest. A copy of the Corps' Segment Map showing the Property acquired by the United States for the Garrison Project is enclosed as Exhibit A. The Property is Tract KK 3371.

In a March 2016 decision rejecting the State's previous position regarding the location of the OHWM of the historic Missouri River riverbed, the United States Department of Interior described

these Segment Maps as the "most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea," stating:

> "The [Corps] Segment Maps were the basis for land title acquisition by the [Corps] for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea."

See March 23, 2016 decision by the United States Department of Interior, Bureau of Land Management ("2016 United States Report"). The 2016 United States Report is provided at Exhibit 5 to the February 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee, infra, attached as Exhibit G-2. The 2016 United States Report concluded that the Segment Maps, like Exhibit A, were the basis of appropriating millions of dollars by the United States Congress to acquire land, like the Property, for Garrison Dam and Lake Sakakawea.

> "The [Corps] Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM [Bureau of Land Management], and involvement from the BLM, and ND SLD [North Dakota Land Board], and have gone uncontested for over 60 years."

See Exhibit G-2 at p 66. The Corps' Segment Map indicates the United States acquired 276.80 acres from Henry Vohs, Lynch and Vohs' predecessor in interest, for the Garrison Project. A copy of the atlas map showing the Property is enclosed as Exhibit B. An aerial photograph taken in 1958 shows the Property was used for agricultural purposes and is above the historical OHWM of the Missouri River before the closure of Garrison Dam. Additional aerial photographs taken by the United States Department of Agriculture, submitted during Lynch's testimony to the Legislature on SB 2134, show the Property was used for agricultural purposes going back to at least 1939. These aerial photographs are enclosed as Exhibit C. According to Lynch, after the closure of Garrison Dam, the United States has leased the surface of the Property with the tenants growing hay and alfalfa.

Lynch and Vohs' predecessor reserved the mineral rights in the Property when the surface was acquired by the United States for the Garrison Project as evidenced by the Warranty Deed dated July 24, 1957, recorded at McKenzie County document no. 155142 (book 87, page 505). A copy of the Warranty Deed is enclosed as Exhibit D. In 2009, Lynch and Vohs entered into oil and gas leases with Golden Eye Resources, LLC, recorded at McKenzie County document nos. 396124

and 395827, with the latter lease being ratified in 2013 as evidenced by McKenzie County document no. 445704. Subsequently, in November 2016, Golden Eye Resources, LLC, assigned its interest in the leases to GREP William LLC and GREP Wolverine LLC as evidenced by McKenzie County document no. 497135. Prior to 2009, the minerals were also leased by Lynch, Vohs, and their predecessor. A copy of the 2009 leases are attached as Exhibit E.

2. The State has no interest in Lynch and Vohs' Property, and any attempt by the State to claim an interest is an unconstitutional taking according to the Supreme Court's decision in *Wilkinson v. Board of University and School Lands*

The government cannot flood a private citizen's land and then claim it owns the valuable, yet inundated, mineral interests reserved by the private landowner. The State has no right, title, or interest in the Property owned by Lynch and Vohs. As explained by the United States Court of Claims, such a claim by the State epitomizes the very definition of an impermissible and unlawful taking by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). In 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. [1]

In Wilkinson v. Board of University and School Lands, the Supreme Court held that any outcome resulting in the State having title to Lynch and Vohs' mineral interests would be an unconstitutional taking.

> Mineral interests in Williams County, in the oil-producing Bakken formation, have value. *See Jacobs-Raak v. Raak*, 2016 ND 240, ¶ 12, 888 N.W.2d 770 (stating it would be disingenuous to believe mineral interests in a county in the Bakken formation have little or no value). There is undisputed evidence the plaintiffs have leased the minerals numerous

[1] Any attempt by the State to "take" the Property via eminent domain would still fail as such a taking cannot withstand the scrutiny of the public use requirement under the Constitution's Fifth Amendment. See Kelo v. City of New London, Conn., 545 U.S. 469, 477, 125 S.Ct. 2655 (2005) (stating, "As for the first proposition, the City would no doubt be forbidden from taking petitioners' land for the purpose of conferring a private benefit on a particular private party. A purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.") (internal quotations omitted).

> times since they conveyed the surface property to the United States. **If the district court determines the State owns the minerals, the plaintiffs will be deprived of the mineral interests. The federal government compensated the plaintiffs for the surface property, but the plaintiffs have not been compensated for the mineral interests. The plaintiffs are entitled to compensation if the government's actions result in a "taking" of the mineral interests.** *See Arkansas Game & Fish Comm'n v. United States*, 568 U.S. 23, 31-34, 133 S.Ct. 511, 184 L.Ed.2d 417 (2012) (stating permanent physical occupation of property authorized by government is a taking, and government-induced flooding can constitute a taking); *Tarrant Reg'l Water Dist. v. Gragg*, 43 S.W.3d 609, 620-21 (Tex. Ct. App. 2001) (holding flooding of property will be considered a taking if the flooding after the construction of a reservoir was greater than it previously had been).
>
> The district court erred in determining there was no taking because the plaintiffs leased the minerals during the period before the State claimed ownership of the mineral interests. We reverse the district court's dismissal of the plaintiffs' takings claims. The court must reconsider this issue on remand if it decides the State owns the disputed minerals.

Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, ¶¶ 24-25, 903 N.W.2d 51, 58–59 (emphasis added). [2] As many legislators noted during the committee hearings on SB 2134 and HB 1199 during the 2017 legislative session, landowners like Lynch and Vohs specifically reserved the oil and gas interests when the United States acquired their property for Lake Sakakawea. Rep. George Keiser appropriately summarized the impetus for SB 2134 when describing the legislative efforts that culminated in the codification of Chpt. 61-33.1, N.D.C.C. During his testimony, Rep. Keiser noted that the State's attempt to claim these valuable mineral interests in the Wilkinson case was the greatest taking of property that North Dakota has ever seen. Lynch, along with counsel, testified before the Legislature on SB 2134 and HB 1199. Copies of that testimony provided to the Legislature are enclosed as Exhibit F (Lynch & Vohs testimony) and Exhibits G-1, G-2, and G-3. (Swanson testimony). [3]

---

[2] After the decision in Wilkinson, the State concedes that landowners like Lynch, Vohs, and the Wilkinsons are the rightful owners of the minerals they reserved when the United States acquired their surface lands for Lake Sakakawea in the 1950s. As such, it appears the State has relinquished any claim or interest in the Property. See Sorum et al. v. Bd. of Univ. & Sch. Lands et al., case no. 09-2018-cv-00089, State Defendants Response to Plaintiffs' Motion for Preliminary Injunction (Doc. ID #120).

[3] Swanson testified at the Legislature on at least three occasions: (1) Senate Energy and Natural Resources Committee on January 12, 2017, see Exhibit G-1; (2) House Energy and Natural Resources Committee on February 2, 2017, see Exhibit G-2; and (3) House Energy and Natural Resources Committee on March 10, 2017, see Exhibit G-3.

Fortunately, Chpt. 61-33.1, N.D.C.C., recognizes that landowners like Lynch and Vohs were, and are, the rightful owners of the mineral interests that their predecessors reserved decades ago when their land was acquired by the United States for the Garrison Project and flooded by Lake Sakakawea. So too, in Sorum, see supra at n. 2, the State now recognizes that landowners like Lynch, Vohs, and the Wilkinsons are the rightful mineral owners of their respective mineral interests, and that the State does not have any claim to minerals laying outside the historic Missouri River riverbed.

3. **Wenck Associates Survey concludes that the Property is above the historical OHWM of the Missouri River**

The survey completed by Wenck Associates as provided for by Chpt. 61-33.1, N.D.C.C., concluded that the Property is above the OHWM of the historical Missouri River riverbed. The Property is shown on Map 16 of 18 at page 63 of Wenck Associates' Report. Lynch and Vohs support any conclusion by the Department of Mineral Resources that results in the State immediately disclaiming and releasing any and all claims to their Property. Likewise, the "Phase II survey" previously commissioned by the State, and completed by Bartlett and West, determined the Property was above the OHWM of the historic Missouri River riverbed. Chpt. 61-33.1, N.D.C.C., requires that within six months after the Industrial Commission's action, any royalty proceeds held by the Land Board that are attributable to oil and gas mineral tracts above the OHWM under both the Corps survey and the Phase II delineation – being the non-contested acreage – must be distributed by the Board to the owners of such tracts.

Given the fact that Lynch and Vohs have been forced to fight this battle to keep the State from taking their Property, which has been rightfully theirs' all along, and have expended hundreds of thousands of dollars in doing so, we respectfully ask the State see that the proceeds related to their interests are released as soon as possible to offset the losses they have incurred as a result of being deprived of their Property for the better part of a decade. We appreciate your attention to this, and my clients particularly are looking forward to resolution and the State releasing and disclaiming its claim to their Property. If you have any questions, I would be glad to visit. I can be reached via phone at 701.237.6983 or e-mail at jswanson@vogellaw.com. I will be in Bismarck on June 26 to testify at the public hearing in this matter.

Respectfully,

Joshua A. Swanson

enc:

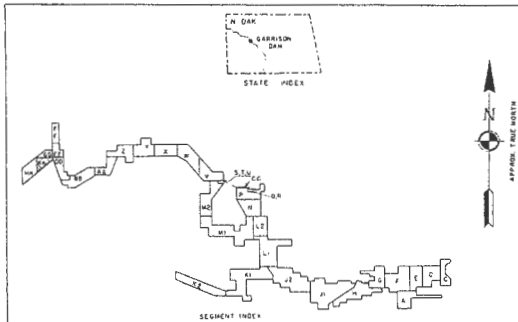
Exhibit List

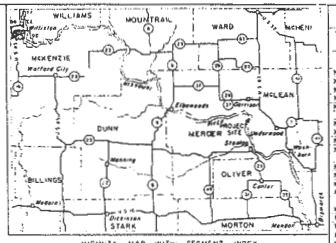
Exhibit A	United States Army Corps of Engineers Segment Map for Property (KK 3371)
Exhibit B	Atlas map of the Property
Exhibit C	1958 aerial images of the Property
Exhibit D	Warranty Deed whereby United States acquired Property subject only to Lynch and Vohs' predecessor's reservation of mineral interests
Exhibit E	Lynch and Vohs oil and gas leases
Exhibit F	Lynch and Vohs testimony on SB 2134 to North Dakota Legislature
Exhibit G-1	Swanson January 12, 2017 testimony to North Dakota Legislature
Exhibit G-2	Swanson February 2, 2017 testimony to North Dakota Legislature
Exhibit G-3	Swanson March 10, 2017 testimony to North Dakota Legislature

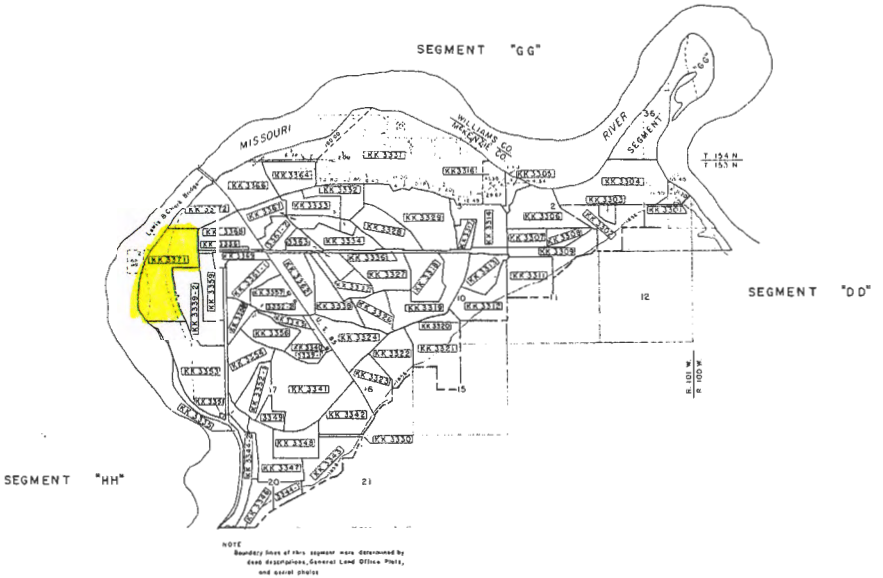
Exhibit A- Corps Segment Map for Property
"KK 3371"

CORPS OF ENGINEERS

U.S. ARMY







ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS EASMT	REMARKS
	McKENZIE COUNTY			
KK 3301	HENRY T. BACON ET AL	27.20		
KK 3302	WILLIAM NELSON ET UX	142.28		
KK 3303	MANGEL MONSON	20.00		
KK 3304	ND DAK RURAL REHABIL CORP ET AL	285.63		Formerly subparcels Tract No. KK3304-1
KK 3305	ND DAK RURAL REHABIL CORP ET AL	32.52		Formerly subparcels Tract No. KK3304-2
KK 3306	KRISTIAN HOVDE ET UX	169.24		
KK 3307	JOSEPH K MATHISTAD ET UX	55.39		
KK 3308	BEN G. MISSER	49.45		
KK 3309	AUGUST ESTHENSACHER ET UX	108.56		
KK 3311	EVERETT E. PALMER ET UX	139.79		
KK 3312	DONALD A. NOVAK ET UX	134.15		
KK 3313	LYLE E. SAFELY ET AL	93.30		
KK 3314	WALTER Q. BURK ET UX	130.85		
KK 3316	HJALMER HOVDE ET UX	71.17		
KK 3317	KERMIT I. HEEN ET UX	36.08		
KK 3318	JAMES B. SKAARE ET UX	123.06		
KK 3319	JOHN P. SCHMITZ ET UX	172.85		
KK 3320	ND DAK RURAL REHABIL CORP ET AL	5.00		
KK 3321	LEONARD ZIMMER ET AL	219.45		
KK 3322	ALBERT R. ZIMMER ET UX	116.58		
KK 3323	CARRIE ANSETH ET AL	102.49		
KK 3324	RAYMOND L. BROWN ET UX	156.46		
KK 3325	DELETED			
KK 3326	GEORGE NOVAK ET UX	86.01		
KK 3327	JOHN ZAGURSKI ET UX	144.75		
KK 3328	CHARLES H. VIZINA ET UX	131.16		
KK 3329	LEONARD H. GREEN ET UX	264.41		
KK 3330	ND DAK RURAL REHABIL CORP ET AL	3.87		Formerly subparcels KK3336-2
KK 3331	ND DAK RURAL REHABIL CORP ET AL	796.02		
KK 3332	HARO LE W. CRUTHER ET UX	89.67		
KK 3333	FRED FALSTAD ET AL	200.85		
KK 3334	ARCH E. D. MACMASTER ET UX	102.30		
KK 3335	ND R. RURAL REHABIL CORP ET AL	77.60		Includes area formerly known as Tract No. KK3336-1
KK 3336	ND DAK RURAL REHABIL CORP ET AL	48.09		Formerly known as Tracts Nos. KK3336-1 & KK3336-2 now combined
KK 3337	ANTON P. NELSON ET UX	74.87		
KK 3338	ALBERT ARNEGARD ET UX	113.79		
KK 3339-1	HENRY T. BACON ET AL	106.24		
KK 3339-2	HENRY T. BACON ET AL	152.84		
KK 3340	JOSEPH H. LANDWEHR ET UX	0.16		
KK 3341	HUGH PATTERSON ET UX	346.78		
KK 3342	LYNN LEE ET UX	140.84		
KK 3343	REUBEN E. BRAKKEN ET UX	136.30		
KK 3344-1	CLOYD J. WEDLEY ET UX	43.51		
KK 3344-2	CLOYD J. WEDLEY ET UX	105.84		
KK 3345	HENRY T. BACON ET AL	16.99		
KK 3346	LARS LEE	83.21		
KK 3347	EMERY N. PAPINEAU ET UX	118.06		
KK 3348	ALOIS STAPANIK ET UX	100.68		
KK 3349	FRED E. PAPINE ET AL	43.35		
KK 3351	LEWIS & CLARK IRRIGATION DIST	31.90		
KK 3352-1	WILLIAM J. NASHER ET UX	90.10		
KK 3352-2	WILLIAM J. NASHER ET UX	0.34		
KK 3353	PAUL STEPANEK ET UX	286.91		
KK 3354	ALFRED I. ISSING ET AL	149.76		
KK 3356	DONALD S. SATHE ET AL	216.63		
KK 3357	ANDREW SATHE, SR ET UX	0.60		
KK 3358	EVELYN ALICE PAULSON ET VIR	56.49		
KK 3359	LORENZ SCHWITCH ET UX	53.10		
KK 3360-1	JOSEPH C. PAULSON ET UX	118.29		
KK 3360-2	JOSEPH C. PAULSON ET UX	62.16		
KK 3361	EDWIN M. DAHL ET UX	124.92		
KK 3363	DENNIS GEORGE ET UX	80.10		
KK 3364	HENRY I. SOVIG	104.81		
KK 3366	WAYNE S. BOYCE ET UX	254.11		
KK 3367	CLIFFORD J. SOVIG ET UX	116.45		
KK 3368	PHILANDER A. HODGSON ET UX	120.19		
KK 3369	STATE OF NORTH DAKOTA	41.01		
KK 3371	HENRY B. VOHS ET AL	276.90		
KK 3372	LEONARD M. FIXEN ET UX	119.67		

NOTE:
Oil and gas reserved on fee tracts

ACQUISITION AUTHORIZATION

Public Law No. 534, 22 Dec 1944
Public Law No. 483, 15 July 1955
Public Law No. 641, dated 2 July 1958
4th Ind OCE to M.R.D. dated 23 Sept 1957

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED
INSTALLATION OR PROJECT NO. C2-2.1895

FINAL PROJECT MAP

TYPE OF MAP

STATE NORTH DAKOTA
COUNTY McKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAM SEC 5 T 146 N R 84 W OF 5TH P.M.
10 MILES S OF GARRISON
15 MILES N OF STANTON

SEGMENT KK — LAND AREA

TOTAL ACRES IN SEGMENT 8,168.25
ACRES FEE
ACRES EASEMENT
ACRES TRANSFERRED TO W.D.
ACRES PERMITS OR LICENSES

DISPOSALS

TOTAL ACRES DISPOSED OF
ACRES TRANSFERRED
ACRES LEASED FROM W.D.
ACRES OTHERWISE

LEGEND

TAKING LINE FOR DAM SITE
TAKING LINE FOR RESERVOIR
PERTINENT CONTOUR LINES
CEMETERY
STATE OR PROVINCE LINES
COUNTY LINE
TOWNSHIP LINE
SECTION LINE
PROPERTY LINE
STREAMS
RAILROADS
POWER LINES
TELEPHONE LINES
IMPROVED ROADS
UNIMPROVED ROADS

SCALE

DEPARTMENT OF THE ARMY
OFFICE OF THE DISTRICT ENGINEER
GARRISON DISTRICT
MISSOURI RIVER DIVISION
REAL ESTATE

GARRISON DAM & LAKE SAKAKAWEA

SEGMENT KK

RECOMMENDED _____ DATE 23 SEPT 1958
APPROVED H. J. Hills DATE 23 SEPT 1958
COL. CORPS OF ENGINEERS

COMPILED JWB TRACED MJS CHECKED RW

DATE	BY	REVISIONS	APPROVED
7-12-76	RLP	Added Tr. KK 3333	
1-12-77	WWP	Index of Project Lands	
3-13-89	MLS	Dec 15 Fiscal Audit	
5-15-89	RLP	Revised Tr. KK 3330 & 3336 per revised legal descriptions	
7-20-98	SWB	Added Tract No. KK3334 36.89 acres	

SHEET 36 OF 36 DRAWING NO.

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

tabbies
EXHIBIT
A

Exhibit B- township atlas map for the Property

TOWNSHIP 153 NORTH RANGE 101 WEST OF THE 5th PRINCIPAL MERIDIAN, NORTH DAKOTA

WILLIAMS COUNTY 105

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES AND ACQUIRED LANDS

MT PLAT

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

11/28/1917 subject to all prior existing rights or claims

PLO 1809 Wdl Garrison Resvr includes unsurveyed accretion in lots 4, 5, 8 of Sec 19

NDM 44120 (99.0) Acreage Info C of E Secs 18, 19, 30

NDM 48445 (99.0) C of E Acquisition Info

NDM 18100 (99.0) Status Info Secs 3, 6, 19

McKENZIE COUNTY 053

Lat 48°01'27"N
Long 103°36'13"W

SCALE in chains
10 5 0 10 20 30 60

WARNING STATEMENT
This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records hereon do not reflect title changes which may have been affected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

CURRENT TO			
10-22-2013	PDS-GR	LK	T 153 N
		OG	R 101 W

tabbies

EXHIBIT B

Exhibit C- aerial photographs of Property before closure of Garrison Dam and inundation by Lake Sakakawea

FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA

Scale:	Drawn By:	Checked By:	Project No:	Date:
AS SHOWN	MJF	CMO	7799-001	8/10/2013

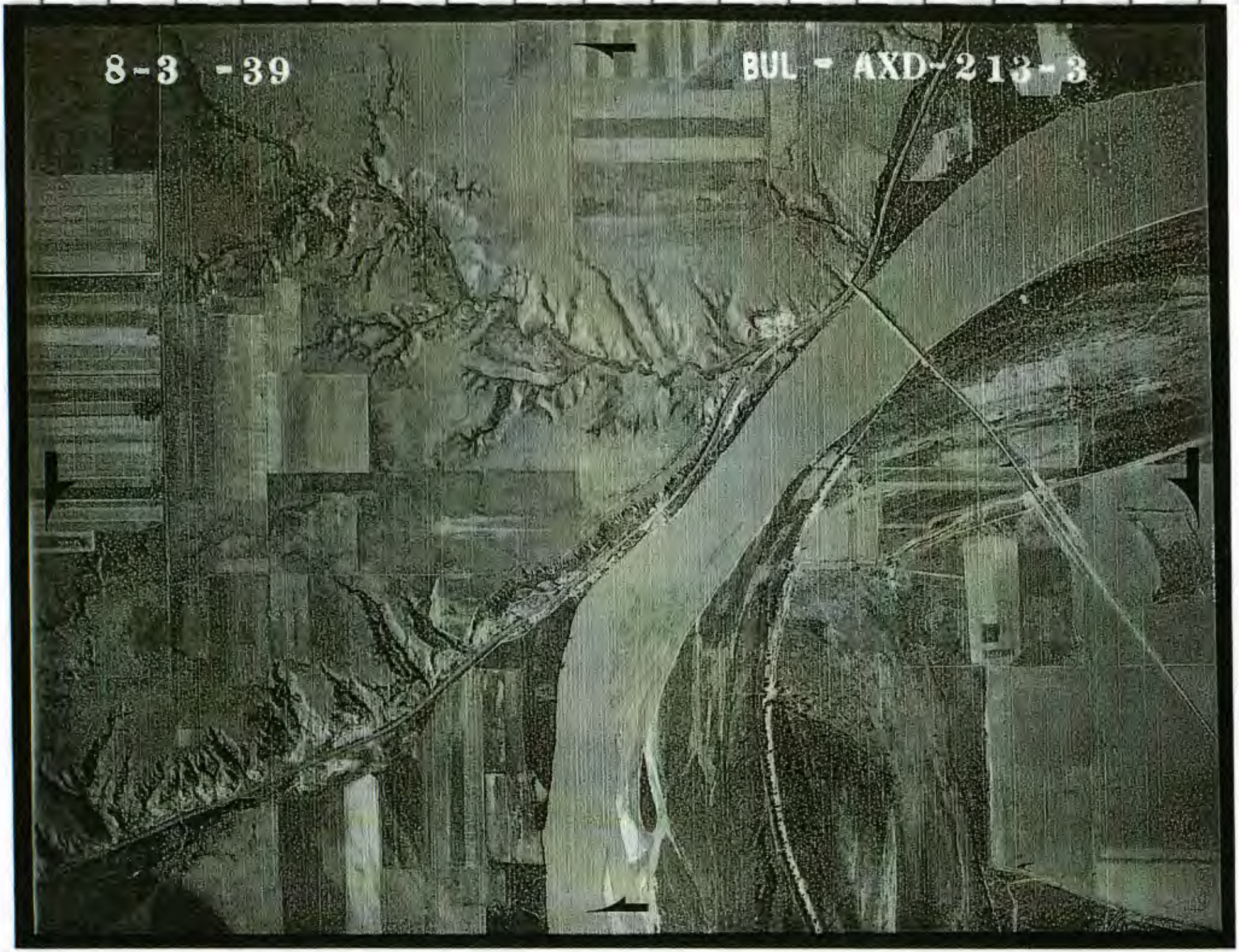
Houston Engineering Inc

Bismarck

P 701 323 0200

Path: T:\7799-001 Palich Lawsuit Expert Witness\GIS\Mxds\Figure 3 - 1958 Aerial Imagery.mxd

EXHIBIT
C
tabbies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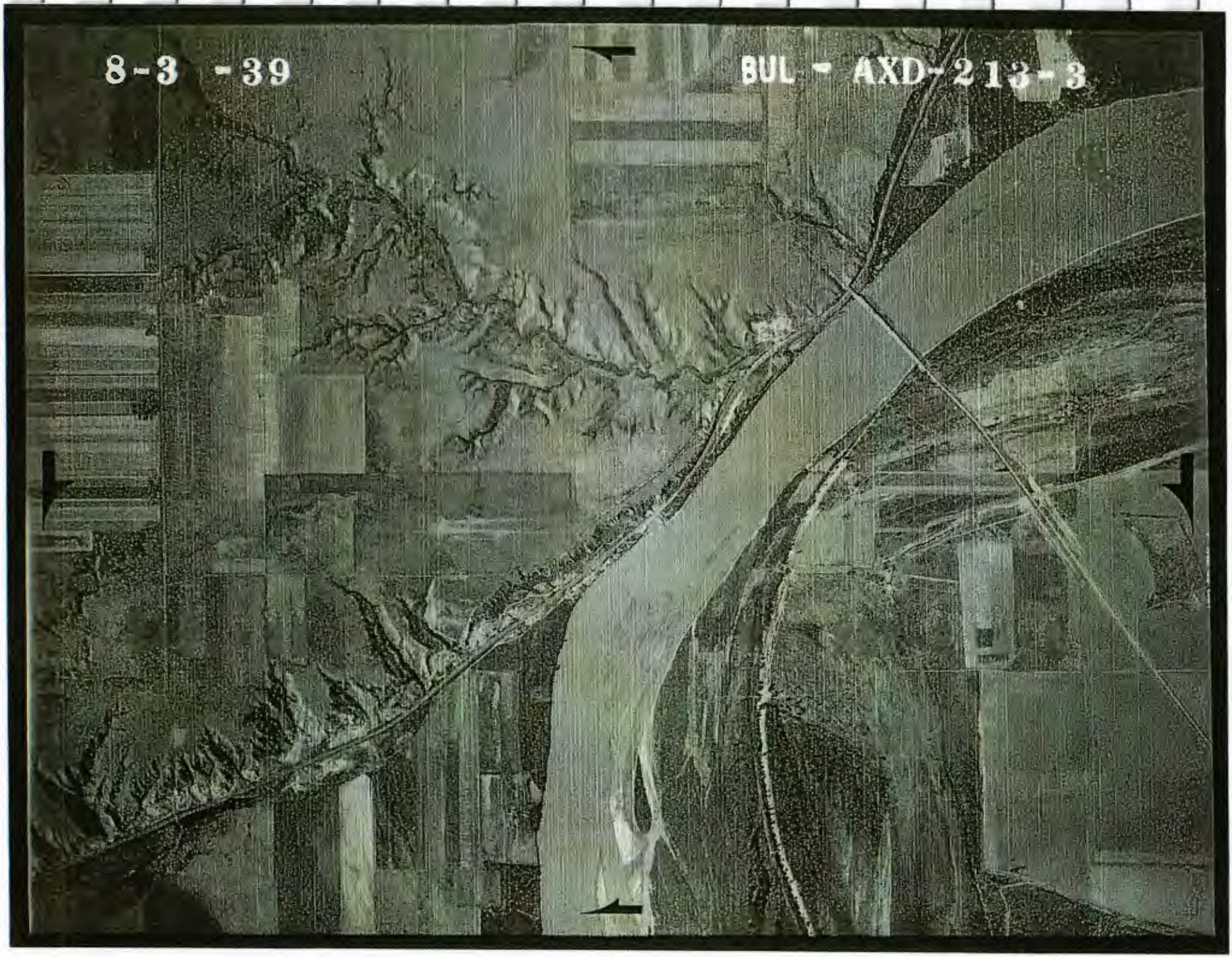
8-3 -39
BUL -AXD-213-5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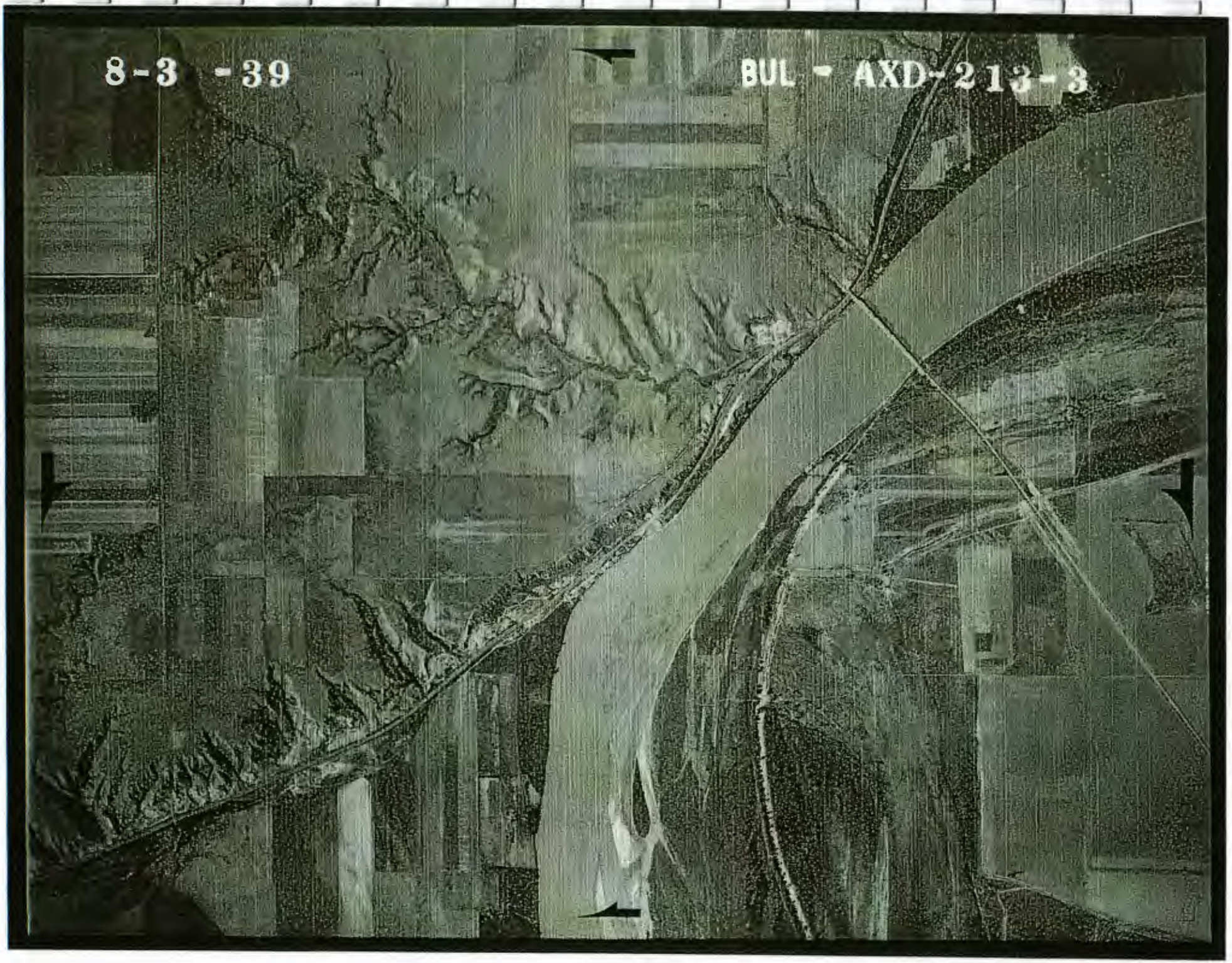
8-3 -39
BUL -AXD-213-5

8-28-49
AXD-13F- 17


8-3 -39
BUL - AXD-213-3

8-3-39
BUL-AXD-213-5

8-28-49
AXD-13F- 17

Exhibit D- July 1957 Warranty Deed between United States and Lynch and Vohs' predecessors in interest

KK-3371 ← KK-3371

BOOK 87 PAGE 505

Document No. 155142

WARRANTY DEED

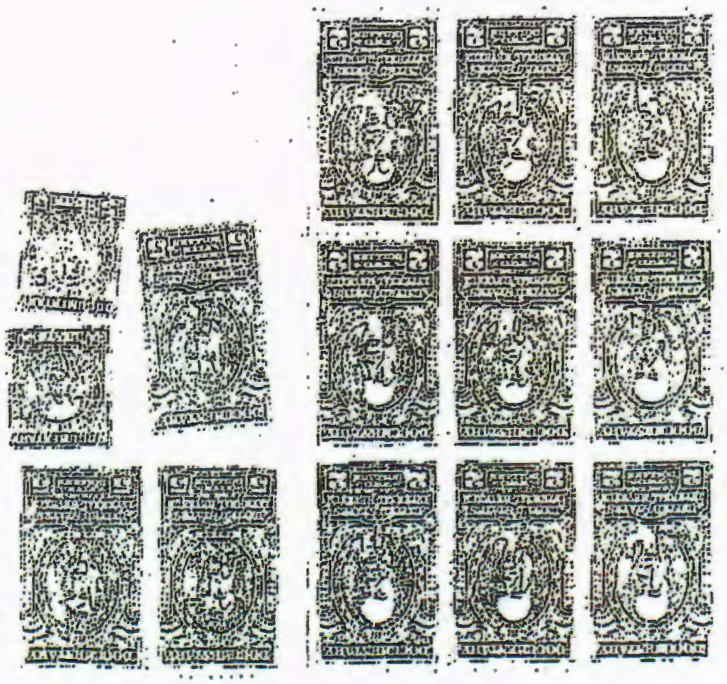
THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwestorly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for

EXHIBIT
tabbies
D

87 mar 508



said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil & gas ownership reserved by Vohs Family subject only to right of United States to flood the property for Lake Sakakawea

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER, And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
STATE OF NORTH DAKOTA

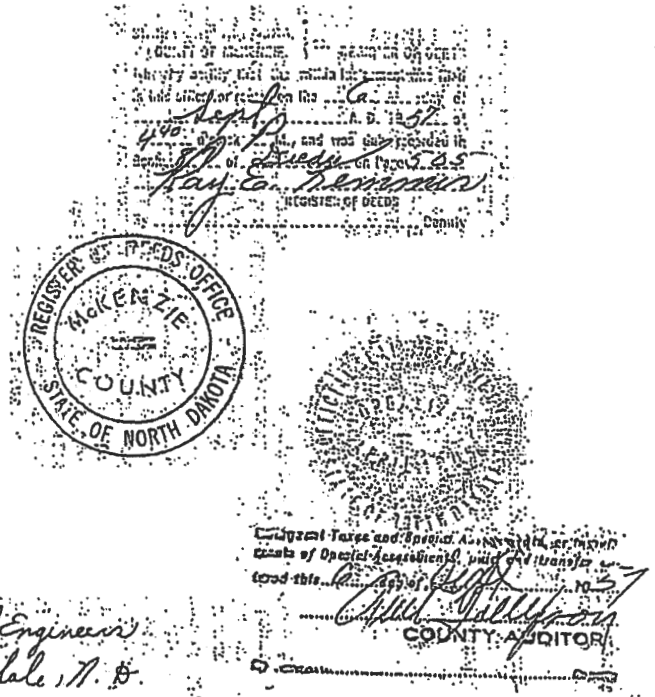
My commission expires July 11, 1959

Notary Public for the County of Williams, State of North Dakota

F. A. WENSTROM
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

Document No. 155142

BOOK 87 PAGE 508



Corps of Engineers
Riverdale, N. D.
200

Exhibit E- 2009 Lynch and Vohs oil and gas leases

PAID UP OIL AND GAS LEASE

OIL AND GAS LEASE

PROD 88

THIS LEASE AGREEMENT is made as of the 19th day of December, 2009 between Edward Patrick Lynch, a married man dealing in his sole and separate property, whose post office address is 694 Hamlet Circle, Goose Creek, SC 29445, hereinafter called Lessor (whether one or more) and Golden Eye Resources, LLC, whose post office address is P. O. Box 2270, Littleton, CO 80161 hereinafter called Lessee. All printed portions of this lease were prepared by the party hereinabove named as Lessee, but all other provisions (including the completion of blank spaces) were prepared jointly by Lessor and Lessee.

Grant of Leased Premises. In consideration of a cash bonus in hand paid and the covenants herein contained, Lessor hereby grants, leases and lets exclusively to Lessee the following described land, hereinafter called leased premises :

Township 153 North, Range 101 West, of the 5th P.M.
Section 6: Lot 10 (41.00)
Section 7: Parts of Lots 1, 4 & 5 more fully described in Book 87 of Deeds-Page 505.
Including any and all accretions or riparian rights thereto.

in the County of McKenzie, State of North Dakota, containing 276.80 gross acres, more or less (including any interests therein which Lessor may hereafter acquire by reversion, prescription or otherwise), for the purpose of exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith ("Oil and Gas Substances"). The term "gas" as used herein includes helium, carbon dioxide, gaseous sulfur compounds, methane produced from coal formations and other commercial gases, as well as normal hydrocarbon gases. In addition to the above-described land, this lease and the term "leased premises" also covers accretions and any small strips or parcels of land now or hereafter owned by Lessor which are contiguous or adjacent to the above-described land, and, in consideration of the aforementioned cash bonus, Lessor agrees to execute at Lessee's request any additional or supplemental instruments for a more complete or accurate description of the land so covered. For the purpose of determining the amount of any payments based on acreage hereunder, the number of gross acres above specified shall be deemed correct, whether actually more or less.

1. **Ancillary Rights.** The rights granted to Lessee hereunder shall include the right of ingress and egress on the leased premises or lands pooled or unitized therewith, along with such rights as may be reasonably necessary or beneficial to conduct operations for exploring, developing, producing and marketing Oil and Gas Substances, including but not limited to geophysical operations, the drilling of wells, and the construction and use of roads, canals, pipelines, tanks, water wells, disposal wells, injection wells, pits, electric and telephone lines, power stations, and other facilities for Lessee to explore, discover, produce, store, treat and/or transport Oil and Gas Substances and water produced from the leased premises or other lands that share central facilities and are jointly operated with the leased premises for gathering, treating, compression, transporting, processing and water disposal. Lessee may use in such operations, free of cost, any oil, gas, water and/or other substances produced on the leased premises, except water from Lessor's wells or ponds. In exploring, developing, producing or marketing from the leased premises or lands pooled or unitized therewith, the ancillary rights granted herein shall apply (a) to the entire leased premises, notwithstanding any partial release or other partial termination of this lease; and (b) to any other lands in which Lessor now or hereafter has authority to grant such rights in the vicinity of the leased premises or lands pooled or unitized therewith. When requested by Lessor in writing, Lessee shall bury its pipelines below ordinary plow depth on cultivated lands. No well shall be located less than 200 feet from any house or barn now on the leased premises or other lands of Lessor used by Lessee hereunder, without Lessor's consent, and Lessee shall pay for damage caused by its operations to buildings and other improvements now on the leased premises or such other lands, and to commercial timber and growing crops thereon. Lessee shall have the right at any time to remove its fixtures, equipment and materials, including well casing, from the leased premises or such other lands during the term of this lease or within a reasonable time thereafter.

2. **Term of Lease.** This lease shall be in force for a primary term of three (3) years from the date hereof, and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from lands pooled or unitized therewith or this lease is otherwise maintained in effect pursuant to the provisions hereof.

3. **Operations.** If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled or unitized therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of this lease or the action of any governmental authority, then in the event this lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences further operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled or unitized therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If after the primary term this lease is not otherwise being maintained in force, but Lessee is then engaged in Operations, as defined below, this lease shall remain in force so long as any one or more of such Operations are prosecuted with no interruption of more than 90 consecutive days, and if any such Operations result in the production of Oil and Gas Substances, as long thereafter as there is production in paying quantities from the leased premises or lands pooled or unitized therewith. After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled or unitized therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to reservoirs then capable of producing in paying quantities on the leased premises or lands pooled or unitized therewith, or (b) protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled or unitized therewith. There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein. As used herein, the term Operations shall mean any activity conducted on or off the leased premises that is reasonably calculated to obtain or restore production, including without limitation, (i) drilling or any act preparatory to drilling (such as obtaining permits, surveying a drill site, staking a drill site, building roads, clearing a drill site, or hauling equipment or supplies); (ii) reworking, plugging back, deepening, treating, stimulating, refitting, installing any artificial lift or production-enhancement equipment or technique; (iii) constructing facilities related to the production, treatment, transportation and marketing of substances produced from the lease premises; (iv) contracting for marketing services and sale of Oil and Gas Substances; and (v) construction of water disposal facilities and the physical movement of water produced from the leased premises.

4. **Shut-In Royalty.** If after the primary term one or more wells on the leased premises or lands pooled or unitized therewith are capable of producing Oil and Gas Substances in paying quantities, but such well or wells are either shut in or production therefrom

396124

Return to:

TRANSCONTINENT OIL CO
621 17TH ST STE 1555

DENVER CO 80293-1201

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 4

EXHIBIT
tabbies
E

is not being sold by Lessee, such well or wells shall nevertheless be deemed to be producing in paying quantities for the purpose of maintaining this lease. If for a period of 90 consecutive days such well or wells are shut in or production therefrom is not sold by Lessee, then Lessee shall pay an aggregate shut-in royalty of one dollar per acre then covered by this lease. The payment shall be made to Lessor on or before the first anniversary date of the lease following the end of the 90-day period and thereafter on or before each anniversary while the well or wells are shut in or production therefrom is not being sold by Lessee; provided that if this lease is otherwise being maintained by operations under this lease, or if production is being sold by Lessee from another well or wells on the leased premises or lands pooled or unitized therewith, no shut-in royalty shall be due until the first anniversary date of the lease following the end of the 90-day period after the end of the period next following the cessation of such operations or production, as the case may be. Lessee's failure to properly pay shut-in royalty shall render Lessee liable for the amount due, but shall not operate to terminate this lease. It is agreed, however, that no well may be shut-in and perpetuate this lease for more than three (3) years beyond the primary term; actual production and payment on production is required to perpetuate this lease beyond such period.

5. **Royalty Payment**. For all Oil and Gas Substances that are physically produced from the leased premises, or lands pooled, unitized or communitized therewith, and sold, lessor shall receive as its royalty **three sixteenths (3/16ths)** of the sales proceeds actually received by lessee or, if applicable, its affiliate, as a result of the first sale of the affected production to an unaffiliated party, less this same percentage share of all Post Production Costs and this same percentage share of all production, severance, ad valorem and other taxes. As used in this provision, Post Production Costs shall mean all costs actually incurred by lessee or its affiliate and all losses of produced volumes whether by use as fuel, line loss, flaring, venting or otherwise from and after the wellhead to the point of sale. These costs include without limitation, all costs of gathering, marketing, compression, dehydration, transportation, removal of liquid or gaseous substances or impurities from the affected production, and any other treatment or processing required by the first unaffiliated party who purchases the affected production. For royalty calculation purposes, lessee shall never be required to adjust the sales proceeds to account for the purchaser's costs or charges downstream of the point of sale.

Lessee or its affiliate shall have the right to construct, maintain and operate any facilities providing some or all of the services identified as Post Production Costs. If this occurs, the actual costs of such facilities shall be included in the Post Production Costs as a per barrel or per mcf charge, as appropriate, calculated by spreading the construction, maintenance and operating costs for such facilities over the reasonably estimated total production volumes attributable to the well or wells using such facilities.

If Lessee uses the Oil and Gas Substances (other than as fuel in connection with the production and sale thereof) in lieu of receiving sale proceeds, the price to be used under this provision shall be based upon arm's-length sale(s) to unaffiliated parties for the applicable month that are obtainable, comparable in terms of quality and quantity, and in closest proximity to the leased premises. Such comparable arm's-length sales price shall be less any Post Production Costs applicable to the specific arms-length transaction that is utilized.

6. **Pooling.** Lessee shall have the right but not the obligation to pool all or any part of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all substances covered by this lease, either before or after the commencement of drilling or production, whenever Lessee deems it necessary or proper to do so in order to prudently develop or operate the leased premises, whether or not similar pooling authority exists with respect to such other lands or interests. The creation of a unit by such pooling shall be based on the following criteria (hereinafter called "pooling criteria"): A unit for an oil well (other than a horizontal completion) shall not exceed 40 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on a 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means a well in which the horizontal component of the completion interval in the reservoir exceeds the vertical component in such interval. In exercising its pooling rights hereunder, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this lease and included in the unit bears to the total acreage in the unit, but only to the extent such proportion of unit production is sold by Lessee. In the event a unit is formed hereunder before the unit well is drilled and completed, so that the applicable pooling criteria are not yet known, the unit shall be based on the pooling criteria Lessee expects in good faith to apply upon completion of the well; provided that within a reasonable time after completion of the well, the unit shall be revised if necessary to conform to the pooling criteria that actually exist. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. To revise a unit hereunder, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly.

7. **Unitization.** Lessee shall have the right but not the obligation to commit all or any part of the leased premises or intarest therein to one or more unit plans or agreements for the cooperative development or operation of one or more oil and/or gas reservoirs or portions thereof, if in lessee's judgment such plan or agreement will prevent waste and protect correlative rights, and if such plan or agreement is approved by the federal, state or local governmental authority having jurisdiction. When such a commitment is made, this lease shall be subject to the terms and conditions of the unit plan or agreement, including any formula prescribed therein for the allocation of production from a unit. Upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Pooling hereunder shall not constitute a cross-conveyance of interests.

8. **Payment Reductions.** If Lessor owns less than the full mineral estate in all or any part of the leased premises, payment of royalties and shut-in royalties hereunder shall be reduced as follows: royalties and shut-in royalties for any well on any part of the leased premises or lands pooled therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises. To the extent any royalty or other payment attributable

to the mineral estate covered by this lease is payable to someone other than Lessor, such royalty or other payment shall be deducted from the corresponding amount otherwise payable to Lessor hereunder.

9. **Ownership Changes.** The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this lease, the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this lease then held by each

10. **Release of Lease.** Lessee may, at any time and from time to time, deliver to Lessor or file of record a written release of this lease as to a full or undivided interest in all or any portion of the area covered by this lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases less than all of the interest or area covered hereby, Lessee's obligation to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder.

11. **Regulation and Delay.** Lessee's obligations under this lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders, governmental action or inaction of any governmental authority having jurisdiction, including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby. When drilling, reworking, production or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this lease shall not terminate because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any provisions or implied covenants of this lease when drilling, production or other operations are so prevented or delayed.

12. **Breach or Default.** No litigation shall be initiated by Lessor for damages, forfeiture or cancellation with respect to any breach or default by Lessee hereunder, for a period of at least 60 days after Lessor has given Lessee written notice fully describing the breach or default, and then only if Lessee fails to remedy the breach or default within such period.

13. **Warranty of Title.** Lessor Lessee at Lessee's option may pay and discharge any taxes, mortgages or liens existing, levied or assessed on or against the leased premises. If Lessee exercises such option, Lessee shall be subrogated to the rights of the party to whom payment is made, and, in addition to its other rights, may reimburse itself out of any royalties or shut-in royalties otherwise payable to Lessor hereunder. In the event Lessee is made aware of any claim inconsistent with Lessor's title, Lessee may suspend the payment of royalties and shut-in royalties hereunder, without interest, until Lessee has been furnished satisfactory evidence that such claim has been resolved.

14. **Pugh Clause.** Notwithstanding any provisions of this lease to the contrary, upon expiration of the primary term, or upon cessation of "continuous drilling operations" (as hereinafter defined), whichever is later, this lease shall terminate as to all the lands covered hereby except lands within a production or a spacing unit prescribed by law or administrative authority, on which is located a well producing, or capable of producing, oil and/or gas. Lessee shall be considered to be engaged in "continuous drilling operations" for the purposes hereof if (I) Lessee is engaged in drilling, reworking or completion operations on a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, or (II) Lessee has completed or abandoned a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, within 180 days prior to the end of the primary term. Lessee shall be deemed to be engaged in continuous drilling operations for as long thereafter as Lessee conducts drilling, reworking or completion operations on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, with not more than 180 days elapsing between the completion or abandonment of one well and the beginning of operations for the drilling of an additional well or reworking an existing well.

IN WITNESS WHEREOF, this lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this lease has been executed by all parties hereinabove named as Lessor.

LESSOR(S)

Edward Patrick Lynch

Edward Patrick Lynch

ACKNOWLEDGEMENTS

STATE OF ND)
) ss.
COUNTY OF WILLIAMS)

On this 20th day of DECEMBER, 2009, before me, the undersigned Notary Public in and for said county and state, personally appeared Edward Patrick Lynch, a married man dealing in his sole and separate property known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 11/3/2012

Kent M Lynch
Notary Public
Williston, ND

KENT M LYNCH
NOTARY PUBLIC
STATE OF NORTH DAKOTA
My Commission Expires November 3, 2012

COUNTY RECORDER
McKENZIE COUNTY
STATE OF NORTH DAKOTA

County Recorder 396124

McKenzie County
Watford City ND 58854 Page 4 of 4
COUNTY RECORDER, MCKENZIE COUNTY, ND

I certify that this instrument was filed and recorded, 396124

Ann M Johnsrud, County Recorder Fee $19.00

By Ann M. Johnsrud Jan 07, 2010 03:59 PM

Return to:

POULSON ODELL & PETERSON LLC
1775 SHERMAN ST #4100

DENVER CO 80203

445704

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 4

RATIFICATION OF OIL AND GAS LEASE

KNOW ALL BY THESE PRESENTS:

COMES NOW, Suzanne Vohs, A/K/A Dorothee S. Vohs, F/K/A Suzanne Green and Dorothee S. Green, individually and as Trustee of the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs, A/K/A Donald K. Vohs Trust, A/K/A Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 and hereby sets forth the following:

WHEREAS, by Oil and Gas Lease dated December 18, 2009, recorded on December 30, 2009 at Reception No. 395827 of the records of McKenzie County, North Dakota, executed and delivered by Suzanne Vohs, as Trustee of the Vohs Family Revocable Living Trust, dated November 19, 2009, as Lessor, leased to Golden Eye Resources, LLC as Lessee, the following described lands located in McKenzie County, North Dakota, referred to herein as the "Subject Lands," to wit:

Township 153 North, Range 101 West, 5th P.M.
Section 6: Lot 10
Section 7: Parts of Lots 1, 4 and 5 more fully described in Book 87 of Deeds, Page 505, including any and all accretions or riparian rights thereto

containing 276.80 gross acres, more or less, said lease being referred to herein as the "Lease."

WHEREAS, the Lease remains valid and in force and effect as to the Subject Lands;

WHEREAS, the intent of the Lease was to lease unto Golden Eye the entire interest previously held by Donald K. Vohs in the Subject Lands, and such other interests that may hereafter be acquired by the Lessor or the undersigneds, according to the terms of the Lease;

WHEREAS, Suzanne Vohs, and/or the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs, is the successor in interest to the entire mineral interest in the Subject Lands previously held by Donald K. Vohs to the extent such mineral interest is not already in the name of Suzanne Vohs or her successor, the Vohs Family Revocable Living Trust, dated November 19, 2009;

WHEREAS, it is the intent of the undersigneds to ratify the Lease;

NOW, THEREFORE, in consideration of the premises, the mutual advantages to be derived hereunder, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigneds agree that the Lease is valid and in full force and effect, and do hereby ratify, adopt and confirm said Lease, and for such purposes, the undersigneds do hereby grant, lease and let unto Lessee, its successors and assigns, all of its interests in the above described lands upon the same terms, conditions and provisions as are contained in the Lease.

4
19

EXECUTED the 9 day of January, 2013rd.

Suzanne Vohs

Suzanne Vohs, as Trustee of the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs

STATE OF California)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2013, by Suzanne Vohs.

Witness my hand and official seal.

My commission expires: _____

Loose certificate attached

Notary Public

STATE OF _____)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2013, by Suzanne Vohs, as Trustee of the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs.

Witness my hand and official seal.

My commission expires: _____

Loose certificate attached

Notary Public

ACKNOWLEDGMENT

State of California
County of Riverside)

On January 9, 2013 before me, Linda E. Keeney, notary public
(insert name and title of the officer)

personally appeared Suzanne Vohs,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Linda E Keeney (Seal)

LINDA E. KEENEY
Commission # 1954071
Notary Public - California
Riverside County
My Comm. Expires Sep 26, 2015

445704

County Recorder
McKenzie County
Watford City ND 58854

ACKNOWLEDGMENT

State of California
County of Riverside)

On January 9, 2013 before me, Linda E. Keeney, notary public
(insert name and title of the officer)

personally appeared Suzanne Vohs,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(s) ~~acted~~, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Linda E Keeney (Seal)

LINDA E. KEENEY
Commission # 1954071
Notary Public - California
Riverside County
My Comm. Expires Sep 26, 2015

COUNTY RECORDER
McKENZIE COUNTY
STATE OF NORTH DAKOTA

445704

County Recorder
McKenzie County
Watford City ND 58854

Page 4 of 4

COUNTY RECORDER, MCKENZIE COUNTY, ND

I certify that this instrument was filed and recorded, 445704

Ann M Johnsrud, County Recorder Fee $19.00

By Ann M. Johnsrud Jan 15, 2013 11:03 AM

Exhibit F- testimony of Edward Lynch and Suzanne Vohs to the North Dakota Legislature on SB 2134

Testimony of Edward Lynch

Concerning SB2134

Senate Energy and Natural Resources Committee

January 12, 2017, 9:00 AM

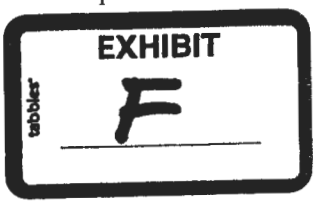
Madam Chair, my name is Edward P. Lynch. I was born and raised in Williston North Dakota.

I am here representing myself and my family as well as the Lynch family and members of the Vohs Family past and present. The Vohs family of Williston has a very long and storied history in Western, ND. The Patriarch of this family Adolph Vohs migrated from South St.Paul, MN with wife Helen Sackett, in the early years after ND was granted Statehood to a small town called Inkster, ND in order to operate and manage a meat market / Butcher shop. Adolph Vohs hired by JD Sears of Swift and Company was by all accounts a success in this venture. So much so that he was once yet again tasked with migrating to Williston in 1904 to do the same, open a butcher shop meat market on main street Williston, ND in the original location of Vohs Meat Market known now as the Grand Theater. The original Vohs homestead located about 7 miles NW of Williston, and also the cattle line ranch located next to the Missouri River approximately 5 miles or so SW of Williston, directly across the Hwy 85 bridge on the west side (township 153 Range 101 sections 6 and 7.)

For many years through trial and hardship, through fires and thievery the Vohs Family endured for 60 or more years. The Vohs Family served and contributed through public service in more ways than one to the community, the city of Williston, Williams County and moreover to the history of State of North Dakota. In 1952 under public Land Order 1809 and Executive order 10355 dated May 26, 1952 The Vohs Family was required to abandon the land they owned and operated due to the building of Garrison Dam which would inundate that area. The Public Land Notice 1809 *(See attached)* describes in detail the lands effected by township, range and sections. At that time, the surface land was being withdrawn from public use, the Vohs Family like so many others at that time were able to reserve the mineral interests.

In 1989 upon the death and passing of my great Aunt Esther Vohs, she bequeathed to me, Grand Nephew and God Son, her portion of mineral acreage located at the former Vohs cattle ranch. There are a total of approximately 276 mineral acers which are owned by the three surviving members of the Vohs Family, Suzanne Vohs, John Vohs and Marge Vohs and myself. The minerals were leased in whole once prior mid 1980's and then again in 2010. At this point the State of ND and the State Land board had never indicated any interest in this property.

In 2012, drilling permits were issued for the Continental Resources Atlanta Super Pad, Continental Resources of course being required to perform due diligence hired Lear and Lear a professional title search and research company to document a detailed historical document of title /chain ownership for the 2560 acre spacing area. It was July of 2014 that I as well as the other Vohs members received from Continental Resources a division order for these Atlanta Wells for the entire 276 + mineral acers as were documented in the official title of ownership



record used by Continental Resources. It was several months later that we also received an amended division order stating that we did not own all of the minerals as was stated in the official title of ownership, and then it was again in January 0f 2015 we received yet another amended division order stating again that we all owned even less than before.

At that time I then wanted to find out and investigate what was going on but I could not get any straight answers from Continental. I was able to find out later that The ND Department of School Trust Lands (The ND Land Board had also leased our minerals to Continental Resources and was thus claiming ownership of 2/3rd's of the original 276 + mineral acreage.

The title record of ownership of these minerals have mineral deeds and chain of title deeds filed in Williams County as well as McKenzie County and all of these title records go back many years. Despite the fact that Continentals own official record of title and ownership specifically states that these minerals are owned in fact by myself and the Vohs family, the State of ND Land Board ignores this fact and by the use of some clever legal maneuvering and clever legalese albeit through a legal disclaimer, they have successfully taken private property from myself as well as numerous others. Without so much as a simple phone call, a simple letter or any type of notification, the rightful owners of record for these minerals have had their constitutional rights to private property and due process trampled upon.

The ND Land Board claims and has assumed ownership but then in the same breath use this disclaimer.

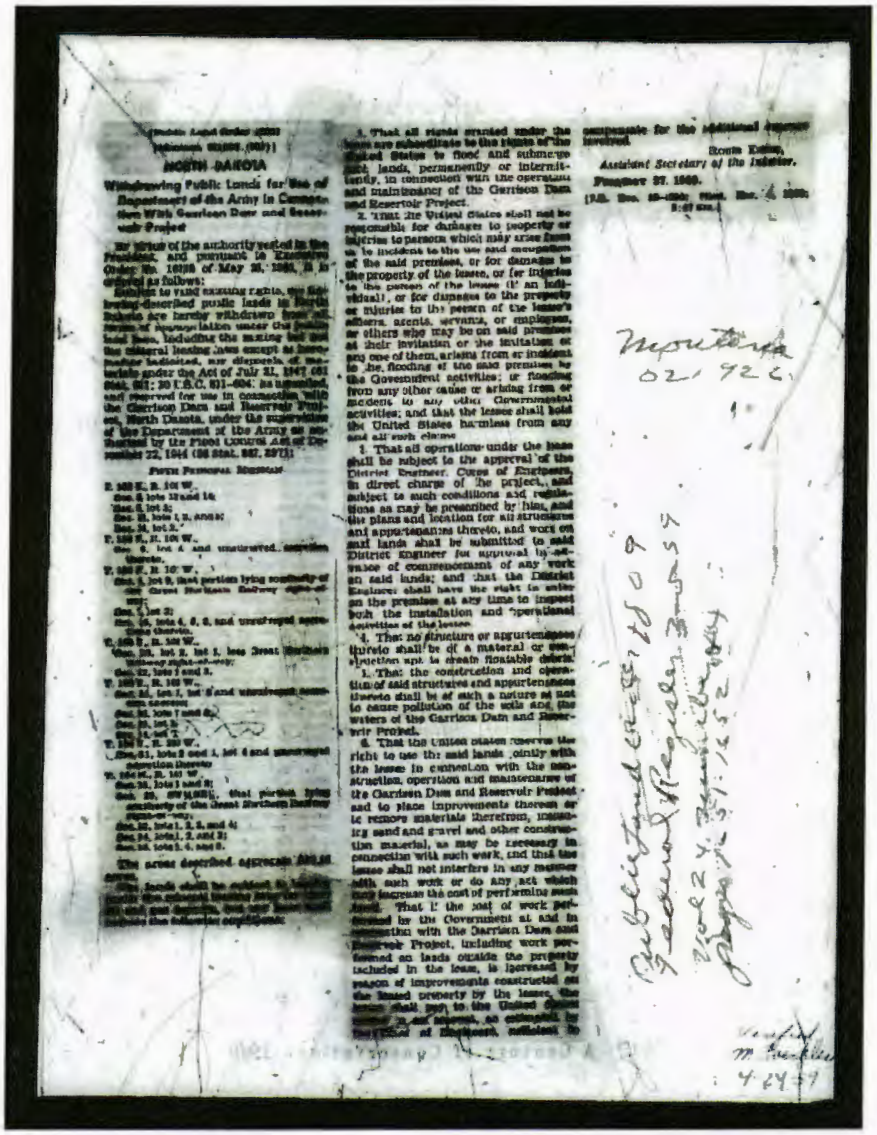
Disclaimer: The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land".

I have read and understand the above disclaimer. ☐

Please note Honorable members of this Committee, I am not a wealthy individual, I have worked hard all these years to be somewhat successful and to raise two wonderful children who were also born in the State of North Dakota. I have always had a very strong connection to this State as well, I have tried to instill pride in my children. I have to say I am deeply disappointed at this time. The State of ND gave no notification of this unconstitutional taking of private property as required under the ND Constitution and also the US Constitution.

I respectfully request that the State of ND by and through legislation or any other means return the private property which was wrongfully taken from myself and others. The State of ND was granted title to the riverbed of the Historical Missouri River and other lakes and such when granted Statehood. Now because of a huge Oil Boom we are witnessing crony capitalism at its finest and the manufacturing of a massive land grab of private property by the land board.

As I previously e-mailed a concern regarding the draft legislation of Senate Bill 2134, my concern is the language of the bill which delineates the highway 85 bridge as the end of Lake Sakakawea. Clearly all of the lands and property as listed in Public Land Order 1809 prior to Garrison Dam are effected, it is just that simple.



NORTH DAKOTA

Withdrawing Public Lands for Use of Department of the Army in Connection With Garrison Dam and Reservoir Project

By virtue of the authority vested in the President, and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

Subject to valid existing rights, the following-described public lands in North Dakota are hereby withdrawn from all forms of appropriation under the public land laws, including the mining and the mineral leasing laws except as to mineral deposits, and reserved for use in connection with the Garrison Dam and Reservoir Project, North Dakota, under the supervision of the Department of the Army or as authorized by the Flood Control Act of December 22, 1944 (58 Stat. 887, 897):

FIFTH PRINCIPAL MERIDIAN

T. 149 N., R. 101 W.,
Sec. 6 lots 12 and 14;
Sec. 8, lot 5;
Sec. 18, lots 1, 2, and 3;
Sec. 24, lot 2.

T. 150 N., R. 101 W.,
Sec. 6, lot 4 and unsurveyed accretion thereto.

T. 150 N., R. 101 W.,
Sec. 5, lot 9, that portion lying southerly of the Great Northern Railway right-of-way;
Sec. 7, lot 2;
Sec. 18, lots 4, 6, 8, and unsurveyed accretion thereto.

T. 150 N., R. 102 W.,
Sec. 25, lot 2, lot 3, less Great Northern railway right-of-way;
Sec. 32, lots 1 and 2.

T. 149 N., R. 102 W.,
Sec. 31, lot 1, lot 2 and subsequent accretion thereto;
Sec. 32, lots 7 and 8;
Sec. 33, lot 5;
Sec. 34, lot 2.

T. 150 N., R. 102 W.,
Sec. 31, lots 2 and 3, lot 4 and unsurveyed accretion thereto;

T. 150 N., R. 103 W.,
Sec. 25, lots 3 and 5;
Sec. 26, 677.16 acres, that portion lying southerly of the Great Northern Railway right-of-way;
Sec. 32, lots 1, 2, 3, and 4;
Sec. 34, lots 1, 2, and 3;
Sec. 35, lots 1, 4, and 5.

The areas described aggregate [illegible] acres.

The lands shall be subject to valid existing rights, the mineral leasing laws, and all other applicable laws and regulations.

1. That all rights granted under the lease are subordinate to the rights of the United States to flood and submerge said lands, permanently or intermittently, in connection with the operation and maintenance of the Garrison Dam and Reservoir Project.

2. That the United States shall not be responsible for damages to property or injuries to persons which may arise from or be incident to the use and occupation of the said premises, or for damages to the property of the lessee, or for injuries to the person of the lessee (if an individual), or for damages to the property or injuries to the person of the lessee's officers, agents, servants, or employees, or others who may be on said premises at their invitation or the invitation of any one of them, arising from or incident to the flooding of the said premises by the Government activities; or flooding from any other cause or arising from or incident to any other Governmental activities; and that the lessee shall hold the United States harmless from any and all such claims.

3. That all operations under the lease shall be subject to the approval of the District Engineer, Corps of Engineers, in direct charge of the project, and subject to such conditions and regulations as may be prescribed by him, and the plans and location for all structures and appurtenances thereto, and work on said lands shall be submitted to said District Engineer for approval in advance of commencement of any work on said lands; and that the District Engineer shall have the right to enter on the premises at any time to inspect both the installation and operational activities of the lessee.

4. That no structure or appurtenances thereto shall be of a material or construction not to remain floatable debris.

5. That the construction and operation of said structures and appurtenances thereto shall be of such a nature as not to cause pollution of the soils and the waters of the Garrison Dam and Reservoir Project.

6. That the United States reserves the right to use the said lands jointly with the lessee in connection with the construction, operation and maintenance of the Garrison Dam and Reservoir Project and to place improvements thereon or to remove materials therefrom, including sand and gravel and other construction material, as may be necessary in connection with such work, and that the lessee shall not interfere in any manner with such work or do any act which may increase the cost of performing such work.

7. That if the cost of work performed by the Government at and in connection with the Garrison Dam and Reservoir Project, including work performed on lands outside the property included in the lease, is increased by reason of improvements constructed on the leased property by the lessee, the lessee shall pay to the United States [illegible] and assessed, as estimated by the District Engineer, sufficient to compensate for the additional expense involved.

Roman Ruble,
Assistant Secretary of the Interior.

February 27, 1959.

[F.R. Doc. 59-1836; Filed, Mar. 4, 1959; 8:47 a.m.]

Montana
02 92 c

But, since the Garrison dam was built, the land has flooded regularly, most recently in 2011 and 2014 when the reservoir was operated at maximum capacity. Please see attached photos the historical photos all the way through current day.

This photograph was taken April of 2014 driving west from atop Indian Hill SE of Williston, the area inundated by flood waters is West of Hwy 85 Bridge.

Hwy 85 West roughly 2.5 miles from Hwy 85 Lewis & Clark Bridge, the entire 2560 acre spacing unit is flooded

Groups ask for higher releases through Garrison Dam ASAP

APRIL 09, 2014 10:34 PM • BY BRIAN GEHRING

BISMARCK, N.D. _ Despite the U.S. Army Corps of Engineers' forecast that the risk of flooding along the upper Missouri River Basin is minimal this spring, some groups want stepped up releases through Garrison Dam to begin as soon as possible.

The corps hosted a public meeting in Bismarck on Wednesday night on plans for reservoir management in 2014, one of five such meetings conducted along river cities from Missouri to Montana.

Col. Bill Leady, deputy commander for the corps' northwest division, said he believes there is enough storage in the system to handle runoff this spring.

The corps' April 1 runoff forecast was for 32 million acre-feet of water to enter the system through July.

He said average runoff is about 26 million acre-feet. An acre-foot of water is roughly the size of a football field covered with a foot of water.

Still, the North Dakota State Water Commission and other groups urged the corps to crank up releases sooner rather than later to avoid a repeat of 2011 flooding.

According to the corps, current reservoir levels are well below 2011 levels; Fort Peck is 14.5 feet lower, Lake Sakakawea is 5.2 feet lower and Lake Oahe 10.4 feet lower.

Bruce Engelhardt of the State Water Commission's water development division, said conditions in the upper basin have been "more volatile" in recent decade.

Engelhardt said releases can be increased while still maintaining balance on the upper three reservoirs – Fort Peck, Lake Sakakawea and Lake Oahe — which contain about 90 percent of the water storage for the basin.

"Constant vigilance must be maintained," he said, to avoid flooding like in 2011.

Mountain snowpack above Fort Peck is 133 percent of normal and 139 percent of normal between Fort Peck and Garrison.

Jody Farmer, water management chief for the corps, said plans are to step up releases through Garrison Dam from the current 18,000 cubic feet per second to 24,000 cfs by April 15 and 25,000 cfs by the end of the month.

Farmer said May average releases should be around 27,000 cfs and 30,000 cfs for June.

Press Release in the Bismarck Tribune Requesting higher releases from Garrison Dam, April 2014

Historical Photographs of 153 / 101 Sec 6 & 7

August 1995

August 23rd 2003

July 29th 2005

August 8th 2006

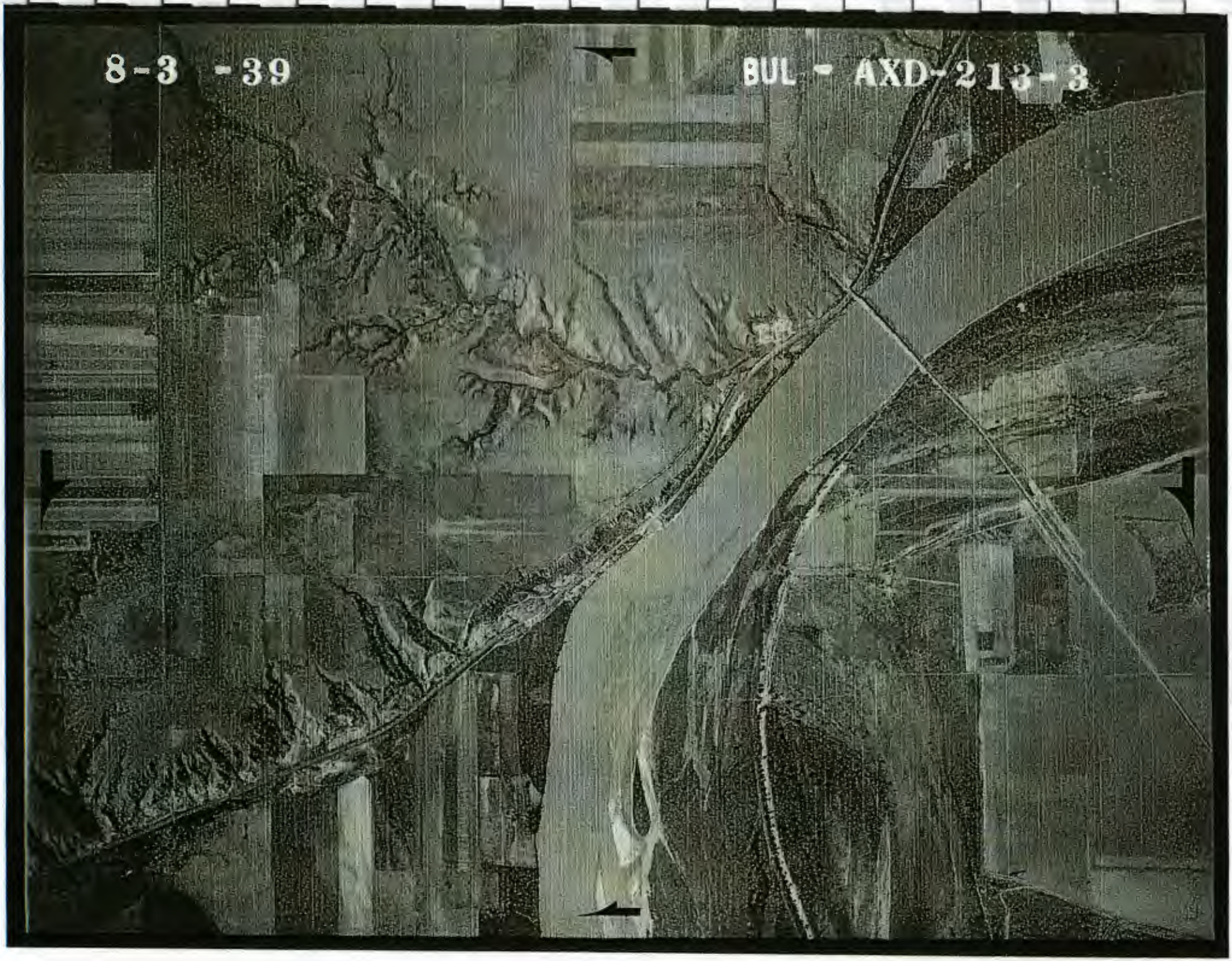
August 31st 2009

December 30th 2010

December 9th 2011

August 15th 2013

Aerial view above the Atlanta Well Pad December 2012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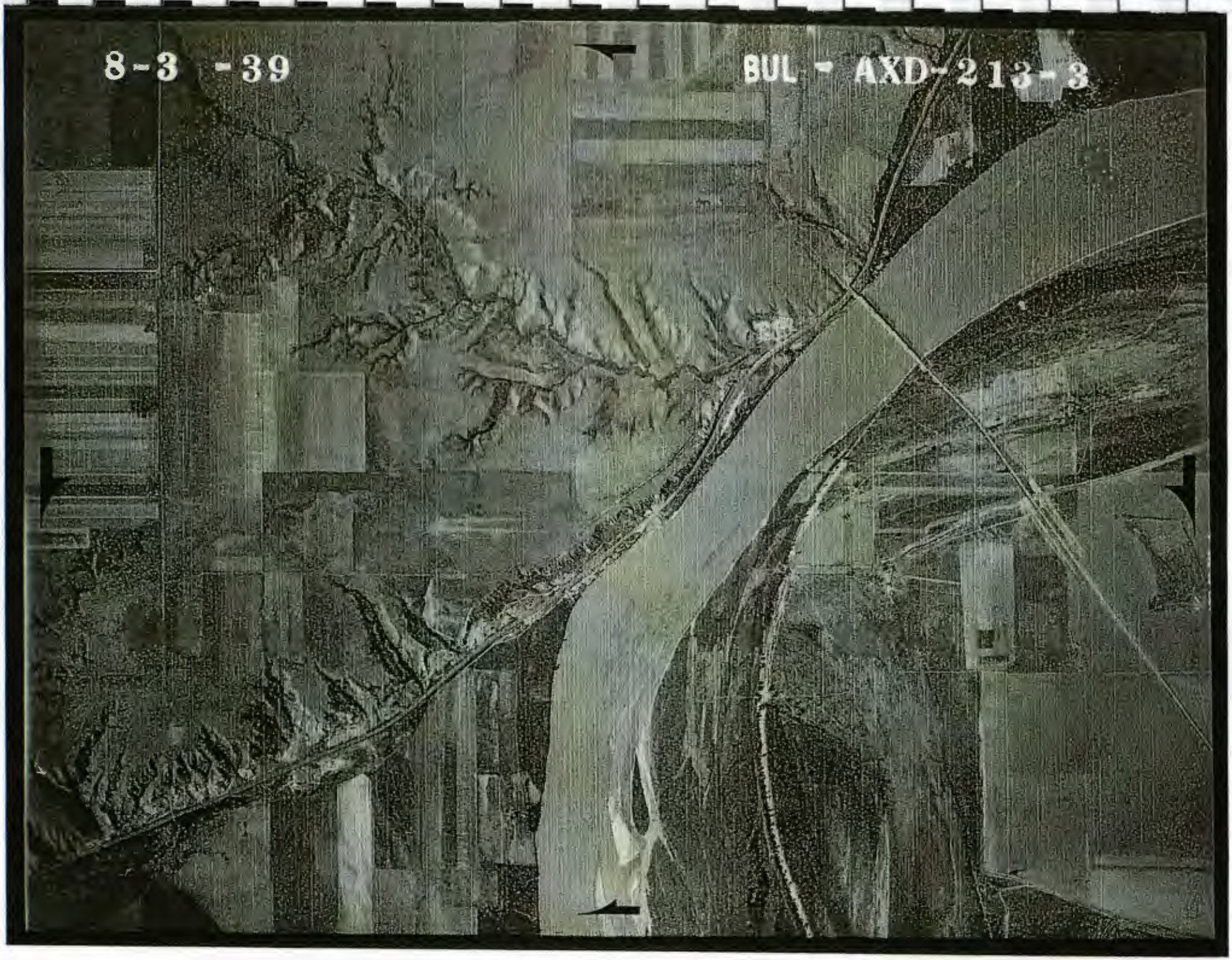
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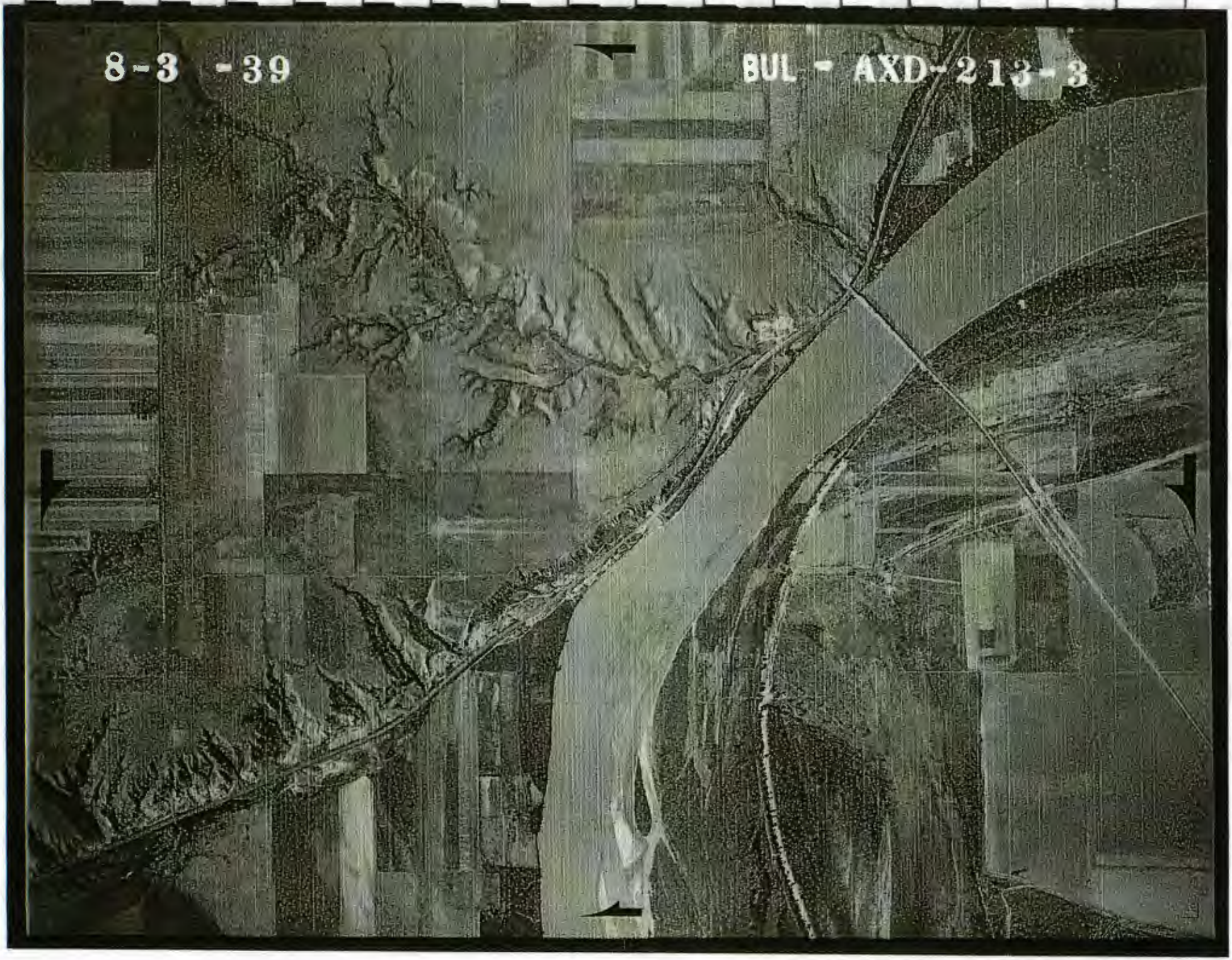
AXD-13F- 17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8-3 -39
BUL -AXD-213-5

8-28-49
AXD-13F- 17

527305

STATE OF NORTH DAKOTA
RELEASE OF ESTATE TAX LIEN

Re: Estate of Esther A. Vohs, Deceased.

I, M.K. Heidi Heitkamp, duly qualified and acting Tax Commissioner for the State of North Dakota, do hereby certify that:

1. The decedent at the time of her death on October 9, 1989, was a resident of the City of Williston, County of Williams, and State of North Dakota and was owner of certain real property in North Dakota described as follows (specify type of ownership as sole ownership, joint tenancy, life estate, etc., and specify joint tenants where applicable):

(SOLE OWNERSHIP)

WILLIAMS COUNTY, NORTH DAKOTA:

An undivided 6.4/160ths of the oil, gas and other minerals in and under the following:

Township 157 North, Range 96 West
Section 33: SE¼

An undivided 2/160ths of the oil, gas and other minerals in and under the following:

Township 156 North, Range 96 West
Section 20: E½NE¼
Section 21: W½NW¼

MCKENZIE COUNTY, NORTH DAKOTA:

An undivided 92.27/276.80ths interest in and to the oil, gas and other minerals in and under the following:

Township 153 North, Range 101 West
Section 6: Lot 10
Section 7: Portions of Lots 1, 4, and 5, described on a deed recorded in Book 87, Page 505 in the office of the McKenzie County Register of Deeds.

2. Pursuant to Chapter 57-37.1 of the North Dakota Century Code there is no estate tax liability with respect to the estate of the above-named decedent, and as such, no estate tax lien exists on the estate of said decedent.

Dated this 10th day of January, 1990, at Bismarck, ND.

M.K. Heidi Heitkamp
TAX COMMISSIONER

Estate Tax Examiner

RECORD THIS INSTRUMENT FOR RELEASE OF ESTATE TAX LIENS

STATE OF NORTH DAKOTA)
ss.
COUNTY OF WILLIAMS)

I hereby certify that with this office on the _____ day o'clock _____.M., and was duly _____ on page _____ _____.

Register of Deeds
Williams County, N.D.
I hereby certify that the within instrument was filed in this state for record the 17 day of January A.D. 1990 at 08:57:51 o'clock AM., and was duly recorded as microfilm document No. 527305

Register of Deeds
Recording Fee 5.00

(Submit in Duplicate)

1 Dec 19 2010
2 Dec 19 2011
3 Dec 19 2012

~~PAID UP~~ OIL AND GAS LEASE

LEASE - 100K plus -

COPY

OIL AND GAS LEASE

PROD 88

THIS LEASE AGREEMENT is made as of the 19th day of December, 2009 between Edward Patrick Lynch, a married man dealing in his sole and separate property, whose post office address is 694 Hamlet Circle, Goose Creek, SC 29445, hereinafter called Lessor (whether one or more) and Golden Eye Resources, LLC, whose post office address is P. O. Box 2270, Littleton, CO 80161 hereinafter called Lessee. All printed portions of this lease were prepared by the party hereinabove named as Lessee, but all other provisions (including the completion of blank spaces) were prepared jointly by Lessor and Lessee.

Grant of Leased Premises. In consideration of a cash bonus in hand paid and the covenants herein contained, Lessor hereby grants, leases and lets exclusively to Lessee the following described land, hereinafter called leased premises :

Township 153 North. Range 101 West, of the 5th P.M.
Section 6: Lot 10 (41.00)
Section 7: Parts of Lots 1, 4 & 5 more fully described in Book 87 of Deeds-Page 505.
Including any and all accretions or riparian rights thereto.

in the County of McKenzie, State of North Dakota, containing 276.80 gross acres, more or less (including any interests therein which Lessor may hereafter acquire by reversion, prescription or otherwise), for the purpose of exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith ("Oil and Gas Substances"). The term "gas" as used herein includes helium, carbon dioxide, gaseous sulfur compounds, methane produced from coal formations and other commercial gases, as well as normal hydrocarbon gases. In addition to the above-described land, this lease and the term "leased premises" also covers accretions and any small strips or parcels of land now or hereafter owned by Lessor which are contiguous or adjacent to the above-described land, and, in consideration of the aforementioned cash bonus, Lessor agrees to execute at Lessee's request any additional or supplemental instruments for a more complete or accurate description of the land so covered. For the purpose of determining the amount of any payments based on acreage hereunder, the number of gross acres above specified shall be deemed correct, whether actually more or less.

1. **Ancillary Rights.** The rights granted to Lessee hereunder shall include the right of ingress and egress on the leased premises or lands pooled or unitized therewith, along with such rights as may be reasonably necessary or beneficial to conduct operations for exploring, developing, producing and marketing Oil and Gas Substances, including but not limited to geophysical operations, the drilling of wells, and the construction and use of roads, canals, pipelines, tanks, water wells, disposal wells, injection wells, pits, electric and telephone lines, power stations, and other facilities for Lessee to explore, discover, produce, store, treat and/or transport Oil and Gas Substances and water produced from the leased premises or other lands that share central facilities and are jointly operated with the leased premises for gathering, treating, compression, transporting, processing and water disposal. Lessee may use in such operations, free of cost, any oil, gas, water and/or other substances produced on the leased premises, except water from Lessor's wells or ponds. In exploring, developing, producing or marketing from the leased premises or lands pooled or unitized therewith, the ancillary rights granted herein shall apply (a) to the entire leased premises, notwithstanding any partial release or other partial termination of this lease; and (b) to any other lands in which Lessor now or hereafter has authority to grant such rights in the vicinity of the leased premises or lands pooled or unitized therewith. When requested by Lessor in writing, Lessee shall bury its pipelines below ordinary plow depth on cultivated lands. No well shall be located less than 200 feet from any house or barn now on the leased premises or other lands of Lessor used by Lessee hereunder, without Lessor's consent, and Lessee shall pay for damage caused by its operations to buildings and other improvements now on the leased premises or such other lands, and to commercial timber and growing crops thereon. Lessee shall have the right at any time to remove its fixtures, equipment and materials, including well casing, from the leased premises or such other lands during the term of this lease or within a reasonable time thereafter.

2. **Term of Lease.** This lease shall be in force for a primary term of three (3) years from the date hereof, and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from lands pooled or unitized therewith or this lease is otherwise maintained in effect pursuant to the provisions hereof.

3. **Operations.** If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled or unitized therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of this lease or the action of any governmental authority, then in the event this lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences further operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled or unitized therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If after the primary term this lease is not otherwise being maintained in force, but Lessee is then engaged in Operations, as defined below, this lease shall remain in force so long as any one or more of such Operations are prosecuted with no interruption of more than 90 consecutive days, and if any such Operations result in the production of Oil and Gas Substances, as long thereafter as there is production in paying quantities from the leased premises or lands pooled or unitized therewith. After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled or unitized therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to reservoirs then capable of producing in paying quantities on the leased premises or lands pooled or unitized therewith, or (b) protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled or unitized therewith. There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein. As used herein, the term Operations shall mean any activity conducted on or off the leased premises that is reasonably calculated to obtain or restore production, including without limitation, (i) drilling or any act preparatory to drilling (such as obtaining permits, surveying a drill site, staking a drill site, building roads, clearing a drill site, or hauling equipment or supplies); (ii) reworking, plugging back, deepening, treating, stimulating, refitting, installing any artificial lift or production-enhancement equipment or technique; (iii) constructing facilities related to the production, treatment, transportation and marketing of substances produced from the lease premises; (iv) contracting for marketing services and sale of Oil and Gas Substances; and (v) construction of water disposal facilities and the physical movement of water produced from the leased premises.

4. **Shut-in Royalty.** If after the primary term one or more wells on the leased premises or lands pooled or unitized therewith are capable of producing Oil and Gas Substances in paying quantities, but such well or wells are either shut in or production therefrom

is not being sold by Lessee, such well or wells shall nevertheless be deemed to be producing in paying quantities for the purpose of maintaining this lease. If for a period of 90 consecutive days such well or wells are shut in or production therefrom is not sold by Lessee, then Lessee shall pay an aggregate shut-in royalty of one dollar per acre then covered by this lease. The payment shall be made to Lessor on or before the first anniversary date of the lease following the end of the 90-day period and thereafter on or before each anniversary while the well or wells are shut in or production therefrom is not being sold by Lessee; provided that if this lease is otherwise being maintained by operations under this lease, or if production is being sold by Lessee from another well or wells on the leased premises or lands pooled or unitized therewith, no shut-in royalty shall be due until the first anniversary date of the lease following the end of the 90-day period after the end of the period next following the cessation of such operations or production, as the case may be. Lessee's failure to properly pay shut-in royalty shall render Lessee liable for the amount due, but shall not operate to terminate this lease. It is agreed, however, that no well may be shut-in and perpetuate this lease for more than three (3) years beyond the primary term; actual production and payment on production is required to perpetuate this lease beyond such period.

5. **Royalty Payment**. For all Oil and Gas Substances that are physically produced from the leased premises, or lands pooled, unitized or communitized therewith, and sold, lessor shall receive as its royalty **three sixteenths (3/16ths)** of the sales proceeds actually received by lessee or, if applicable, its affiliate, as a result of the first sale of the affected production to an unaffiliated party, less this same percentage share of all Post Production Costs and this same percentage share of all production, severance, ad valorem and other taxes. As used in this provision, Post Production Costs shall mean all costs actually incurred by lessee or its affiliate and all losses of produced volumes whether by use as fuel, line loss, flaring, venting or otherwise from and after the wellhead to the point of sale. These costs include without limitation, all costs of gathering, marketing, compression, dehydration, transportation, removal of liquid or gaseous substances or impurities from the affected production, and any other treatment or processing required by the first unaffiliated party who purchases the affected production. For royalty calculation purposes, lessee shall never be required to adjust the sales proceeds to account for the purchaser's costs or charges downstream of the point of sale.

Lessee or its affiliate shall have the right to construct, maintain and operate any facilities providing some or all of the services identified as Post Production Costs. If this occurs, the actual costs of such facilities shall be included in the Post Production Costs as a per barrel or per mcf charge, as appropriate, calculated by spreading the construction, maintenance and operating costs for such facilities over the reasonably estimated total production volumes attributable to the well or wells using such facilities.

If Lessee uses the Oil and Gas Substances (other than as fuel in connection with the production and sale thereof) in lieu of receiving sale proceeds, the price to be used under this provision shall be based upon arm's-length sale(s) to unaffiliated parties for the applicable month that are obtainable, comparable in terms of quality and quantity, and in closest proximity to the leased premises. Such comparable arm's-length sales price shall be less any Post Production Costs applicable to the specific arms-length transaction that is utilized.

6. **Pooling.** Lessee shall have the right but not the obligation to pool all or any part of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all substances covered by this lease, either before or after the commencement of drilling or production, whenever Lessee deems it necessary or proper to do so in order to prudently develop or operate the leased premises, whether or not similar pooling authority exists with respect to such other lands or interests. The creation of a unit by such pooling shall be based on the following criteria (hereinafter called "pooling criteria"): A unit for an oil well (other than a horizontal completion) shall not exceed 40 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on a 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means a well in which the horizontal component of the completion interval in the reservoir exceeds the vertical component in such interval. In exercising its pooling rights hereunder, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this lease and included in the unit bears to the total acreage in the unit, but only to the extent such proportion of unit production is sold by Lessee. In the event a unit is formed hereunder before the unit well is drilled and completed, so that the applicable pooling criteria are not yet known, the unit shall be based on the pooling criteria Lessee expects in good faith to apply upon completion of the well; provided that within a reasonable time after completion of the well, the unit shall be revised if necessary to conform to the pooling criteria that actually exist. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. To revise a unit hereunder, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly.

7. **Unitization.** Lessee shall have the right but not the obligation to commit all or any part of the leased premises or interest therein to one or more unit plans or agreements for the cooperative development or operation of one or more oil and/or gas reservoirs or portions thereof, if in lessee's judgment such plan or agreement will prevent waste and protect correlative rights, and if such plan or agreement is approved by the federal, state or local governmental authority having jurisdiction. When such a commitment is made, this lease shall be subject to the terms and conditions of the unit plan or agreement, including any formula prescribed therein for the allocation of production from a unit. Upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Pooling hereunder shall not constitute a cross-conveyance of interests.

8. **Payment Reductions.** If Lessor owns less than the full mineral estate in all or any part of the leased premises, payment of royalties and shut-in royalties hereunder shall be reduced as follows: royalties and shut-in royalties for any well on any part of the leased premises or lands pooled therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises. To the extent any royalty or other payment attributable

to the mineral estate covered by this lease is payable to someone other than Lessor, such royalty or other payment shall be deducted from the corresponding amount otherwise payable to Lessor hereunder.

9. **Ownership Changes.** The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this lease, the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this lease then held by each

10. **Release of Lease.** Lessee may, at any time and from time to time, deliver to Lessor or file of record a written release of this lease as to a full or undivided interest in all or any portion of the area covered by this lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases less than all of the interest or area covered hereby, Lessee's obligation to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder.

11. **Regulation and Delay.** Lessee's obligations under this lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders, governmental action or inaction of any governmental authority having jurisdiction, including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby. When drilling, reworking, production or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this lease shall not terminate because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any provisions or implied covenants of this lease when drilling, production or other operations are so prevented or delayed.

12. **Breach or Default.** No litigation shall be initiated by Lessor for damages, forfeiture or cancellation with respect to any breach or default by Lessee hereunder, for a period of at least 60 days after Lessor has given Lessee written notice fully describing the breach or default, and then only if Lessee fails to remedy the breach or default within such period.

13. **Warranty of Title.** Lessor Lessee at Lessee's option may pay and discharge any taxes, mortgages or liens existing, levied or assessed on or against the leased premises. If Lessee exercises such option, Lessee shall be subrogated to the rights of the party to whom payment is made, and, in addition to its other rights, may reimburse itself out of any royalties or shut-in royalties otherwise payable to Lessor hereunder. In the event Lessee is made aware of any claim inconsistent with Lessor's title, Lessee may suspend the payment of royalties and shut-in royalties hereunder, without interest, until Lessee has been furnished satisfactory evidence that such claim has been resolved.

14. **Pugh Clause.** Notwithstanding any provisions of this lease to the contrary, upon expiration of the primary term, or upon cessation of "continuous drilling operations" (as hereinafter defined), whichever is later, this lease shall terminate as to all the lands covered hereby except lands within a production or a spacing unit prescribed by law or administrative authority, on which is located a well producing, or capable of producing, oil and/or gas. Lessee shall be considered to be engaged in "continuous drilling operations" for the purposes hereof if (I) Lessee is engaged in drilling, reworking or completion operations on a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, or (II) Lessee has completed or abandoned a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, within 180 days prior to the end of the primary term. Lessee shall be deemed to be engaged in continuous drilling operations for as long thereafter as Lessee conducts drilling, reworking or completion operations on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, with not more than 180 days elapsing between the completion or abandonment of one well and the beginning of operations for the drilling of an additional well or reworking an existing well.

IN WITNESS WHEREOF, this lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this lease has been executed by all parties hereinabove named as Lessor.

LESSOR(S)

Edward Patrick Lynch

Edward Patrick Lynch

PAID UP OIL AND GAS LEASE

OIL AND GAS LEASE

PROD 88

THIS LEASE AGREEMENT is made as of the 19th day of December, 2009 between Edward Patrick Lynch, a married man dealing in his sole and separate property, whose post office address is 694 Hamlet Circle, Goose Creek, SC 29445, hereinafter called Lessor (whether one or more) and Golden Eye Resources, LLC, whose post office address is P. O. Box 2270, Littleton, CO 80161 hereinafter called Lessee. All printed portions of this lease were prepared by the party hereinabove named as Lessee, but all other provisions (including the completion of blank spaces) were prepared jointly by Lessor and Lessee.

Grant of Leased Premises. In consideration of a cash bonus in hand paid and the covenants herein contained, Lessor hereby grants, leases and lets exclusively to Lessee the following described land, hereinafter called leased premises :

Township 153 North, Range 101 West, of the 5th P.M.
Section 6: Lot 10 (41.00)
Section 7: Parts of Lots 1, 4 & 5 more fully described in Book 87 of Deeds-Page 505.
Including any and all accretions or riparian rights thereto.

in the County of McKenzie, State of North Dakota, containing 276.80 gross acres, more or less (including any interests therein which Lessor may hereafter acquire by reversion, prescription or otherwise), for the purpose of exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith ("Oil and Gas Substances"). The term "gas" as used herein includes helium, carbon dioxide, gaseous sulfur compounds, methane produced from coal formations and other commercial gases, as well as normal hydrocarbon gases. In addition to the above-described land, this lease and the term "leased premises" also covers accretions and any small strips or parcels of land now or hereafter owned by Lessor which are contiguous or adjacent to the above-described land, and, in consideration of the aforementioned cash bonus, Lessor agrees to execute at Lessee's request any additional or supplemental instruments for a more complete or accurate description of the land so covered. For the purpose of determining the amount of any payments based on acreage hereunder, the number of gross acres above specified shall be deemed correct, whether actually more or less.

1. **Ancillary Rights.** The rights granted to Lessee hereunder shall include the right of ingress and egress on the leased premises or lands pooled or unitized therewith, along with such rights as may be reasonably necessary or beneficial to conduct operations for exploring, developing, producing and marketing Oil and Gas Substances, including but not limited to geophysical operations, the drilling of wells, and the construction and use of roads, canals, pipelines, tanks, water wells, disposal wells, injection wells, pits, electric and telephone lines, power stations, and other facilities for Lessee to explore, discover, produce, store, treat and/or transport Oil and Gas Substances and water produced from the leased premises or other lands that share central facilities and are jointly operated with the leased premises for gathering, treating, compression, transporting, processing and water disposal. Lessee may use in such operations, free of cost, any oil, gas, water and/or other substances produced on the leased premises, except water from Lessor's wells or ponds. In exploring, developing, producing or marketing from the leased premises or lands pooled or unitized therewith, the ancillary rights granted herein shall apply (a) to the entire leased premises, notwithstanding any partial release or other partial termination of this lease; and (b) to any other lands in which Lessor now or hereafter has authority to grant such rights in the vicinity of the leased premises or lands pooled or unitized therewith. When requested by Lessor in writing, Lessee shall bury its pipelines below ordinary plow depth on cultivated lands. No well shall be locatad less than 200 feet from any house or barn now on the leased premises or other lands of Lessor used by Lessee hereunder, without Lessor's consent, and Lessee shall pey for damage caused by its operations to buildings and other improvements now on the leased premises or such other lands, and to commercial timber and growing crops thereon. Lessee shall have the right at any time to remove its fixtures, equipment and materials, including well casing, from the leased premises or such other lands during the term of this lease or within a reasonable time thereafter.

2. **Term of Lease.** This lease shall be in force for a primary term of three (3) years from the date hereof, and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from lands pooled or unitized therewith or this lease is otherwise maintained in effect pursuant to the provisions hereof.

3. **Operations.** If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled or unitized therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of this lease or the action of any governmental authority, then in the event this lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences further operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled or unitized therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If after the primary term this lease is not otherwise being maintained in force, but Lessee is then engaged in Operations, as defined below, this lease shall remain in force so long as any one or more of such Operations are prosecuted with no interruption of more than 90 consecutive days, and if any such Operations result in the production of Oil and Gas Substances, as long thereafter as there is production in paying quantities from the leased premises or lands pooled or unitized therewith. After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled or unitized therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to reservoirs then capable of producing in paying quantities on the leased premises or lands pooled or unitized therewith, or (b) protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled or unitized therewith. There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein. As used herein, the term Operations shall mean any activity conducted on or off the leased premises that is reasonably calculated to obtain or restore production, including without limitation, (i) drilling or any act preparatory to drilling (such as obtaining permits, surveying a drill site, staking a drill site, building roads, clearing a drill site, or hauling equipment or supplies); (ii) reworking, plugging back, deepening, treating, stimulating, refitting, installing any artificial lift or production-enhancement equipment or technique; (iii) constructing facilities related to the production, treatment, transportation and marketing of substances produced from the lease premises; (iv) contracting for marketing services and sale of Oil and Gas Substances; and (v) construction of water disposal facilities and the physical movement of water produced from the leased premises.

4. **Shut-in Royalty.** If after the primary term one or more wells on the leased premises or lands pooled or unitized therewith are capable of producing Oil and Gas Substances in paying quantities, but such well or wells are either shut in or production therefrom

396124

Return to:
TRANSCONTINENT OIL CO
621 17TH ST STE 1555
DENVER CO 80293-1201

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 4

is not being sold by Lessee, such well or wells shall nevertheless be deemed to be producing in paying quantities for the purpose of maintaining this lease. If for a period of 90 consecutive days such well or wells are shut in or production therefrom is not sold by Lessee, then Lessee shall pay an aggregate shut-in royalty of one dollar per acre then covered by this lease. The payment shall be made to Lessor on or before the first anniversary date of the lease following the end of the 90-day period and thereafter on or before each anniversary while the well or wells are shut in or production therefrom is not being sold by Lessee; provided that if this lease is otherwise being maintained by operations under this lease, or if production is being sold by Lessee from another well or wells on the leased premises or lands pooled or unitized therewith, no shut-in royalty shall be due until the first anniversary date of the lease following the end of the 90-day period after the end of the period next following the cessation of such operations or production, as the case may be. Lessee's failure to properly pay shut-in royalty shall render Lessee liable for the amount due, but shall not operate to terminate this lease. It is agreed, however, that no well may be shut-in and perpetuate this lease for more than three (3) years beyond the primary term; actual production and payment on production is required to perpetuate this lease beyond such period.

5. **Royalty Payment**. For all Oil and Gas Substances that are physically produced from the leased premises, or lands pooled, unitized or communitized therewith, and sold, lessor shall receive as its royalty **three sixteenths (3/16ths)** of the sales proceeds actually received by lessee or, if applicable, its affiliate, as a result of the first sale of the affected production to an unaffiliated party, less this same percentage share of all Post Production Costs and this same percentage share of all production, severance, ad valorem and other taxes. As used in this provision, Post Production Costs shall mean all costs actually incurred by lessee or its affiliate and all losses of produced volumes whether by use as fuel, line loss, flaring, venting or otherwise from and after the wellhead to the point of sale. These costs include without limitation, all costs of gathering, marketing, compression, dehydration, transportation, removal of liquid or gaseous substances or impurities from the affected production, and any other treatment or processing required by the first unaffiliated party who purchases the affected production. For royalty calculation purposes, lessee shall never be required to adjust the sales proceeds to account for the purchaser's costs or charges downstream of the point of sale.

Lessee or its affiliate shall have the right to construct, maintain and operate any facilities providing some or all of the services identified as Post Production Costs. If this occurs, the actual costs of such facilities shall be included in the Post Production Costs as a per barrel or per mcf charge, as appropriate, calculated by spreading the construction, maintenance and operating costs for such facilities over the reasonably estimated total production volumes attributable to the well or wells using such facilities.

If Lessee uses the Oil and Gas Substances (other than as fuel in connection with the production and sale thereof) in lieu of receiving sale proceeds, the price to be used under this provision shall be based upon arm's-length sale(s) to unaffiliated parties for the applicable month that are obtainable, comparable in terms of quality and quantity, and in closest proximity to the leased premises. Such comparable arm's-length sales price shall be less any Post Production Costs applicable to the specific arms-length transaction that is utilized.

6. **Pooling.** Lessee shall have the right but not the obligation to pool all or any part of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all substances covered by this lease, either before or after the commencement of drilling or production, whenever Lessee deems it necessary or proper to do so in order to prudently develop or operate the leased premises, whether or not similar pooling authority exists with respect to such other lands or interests. The creation of a unit by such pooling shall be based on the following criteria (hereinafter called "pooling criteria"): A unit for an oil well (other than a horizontal completion) shall not exceed 40 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on a 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means a well in which the horizontal component of the completion interval in the reservoir exceeds the vertical component in such interval. In exercising its pooling rights hereunder, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this lease and included in the unit bears to the total acreage in the unit, but only to the extent such proportion of unit production is sold by Lessee. In the event a unit is formed hereunder before the unit well is drilled and completed, so that the applicable pooling criteria are not yet known, the unit shall be based on the pooling criteria Lessee expects in good faith to apply upon completion of the well; provided that within a reasonable time after completion of the well, the unit shall be revised if necessary to conform to the pooling criteria that actually exist. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. To revise a unit hereunder, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly.

7. **Unitization.** Lessee shall have the right but not the obligation to commit all or any part of the leased premises or interest therein to one or more unit plans or agreements for the cooperative development or operation of one or more oil and/or gas reservoirs or portions thereof, if in lessee's judgment such plan or agreement will prevent waste and protect correlative rights, and if such plan or agreement is approved by the federal, state or local governmental authority having jurisdiction. When such a commitment is made, this lease shall be subject to the terms and conditions of the unit plan or agreement, including any formula prescribed therein for the allocation of production from a unit. Upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Pooling hereunder shall not constitute a cross-conveyance of interests.

8. **Payment Reductions.** If Lessor owns less than the full mineral estate in all or any part of the leased premises, payment of royalties and shut-in royalties hereunder shall be reduced as follows: royalties and shut-in royalties for any well on any part of the leased premises or lands pooled therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises. To the extent any royalty or other payment attributable

to the mineral estate covered by this lease is payable to someone other than Lessor, such royalty or other payment shall be deducted from the corresponding amount otherwise payable to Lessor hereunder.

9. **Ownership Changes.** The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this lease, the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this lease then held by each

10. **Release of Lease.** Lessee may, at any time and from time to time, deliver to Lessor or file of record a written release of this lease as to a full or undivided interest in all or any portion of the area covered by this lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases less than all of the interest or area covered hereby, Lessee's obligation to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder.

11. **Regulation and Delay.** Lessee's obligations under this lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders, governmental action or inaction of any governmental authority having jurisdiction, including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby. When drilling, reworking, production or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this lease shall not terminate because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any provisions or implied covenants of this lease when drilling, production or other operations are so prevented or delayed.

12. **Breach or Default.** No litigation shall be initiated by Lessor for damages, forfeiture or cancellation with respect to any breach or default by Lessee hereunder, for a period of at least 60 days after Lessor has given Lessee written notice fully describing the breach or default, and then only if Lessee fails to remedy the breach or default within such period.

13. **Warranty of Title.** Lessor Lessee at Lessee's option may pay and discharge any taxes, mortgages or liens existing, levied or assessed on or against the leased premises. If Lessee exercises such option, Lessee shall be subrogated to the rights of the party to whom payment is made, and, in addition to its other rights, may reimburse itself out of any royalties or shut-in royalties otherwise payable to Lessor hereunder. In the event Lessee is made aware of any claim inconsistent with Lessor's title, Lessee may suspend the payment of royalties and shut-in royalties hereunder, without interest, until Lessee has been furnished satisfactory evidence that such claim has been resolved.

14. **Pugh Clause.** Notwithstanding any provisions of this lease to the contrary, upon expiration of the primary term, or upon cessation of "continuous drilling operations" (as hereinafter defined), whichever is later, this lease shall terminate as to all the lands covered hereby except lands within a production or a spacing unit prescribed by law or administrative authority, on which is located a well producing, or capable of producing, oil and/or gas. Lessee shall be considered to be engaged in "continuous drilling operations" for the purposes hereof if (I) Lessee is engaged in drilling, reworking or completion operations on a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, or (II) Lessee has completed or abandoned a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, within 180 days prior to the end of the primary term. Lessee shall be deemed to be engaged in continuous drilling operations for as long thereafter as Lessee conducts drilling, reworking or completion operations on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, with not more than 180 days elapsing between the completion or abandonment of one well and the beginning of operations for the drilling of an additional well or reworking an existing well.

IN WITNESS WHEREOF, this lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this lease has been executed by all parties hereinabove named as Lessor.

LESSOR(S)

Edward Patrick Lynch

Edward Patrick Lynch

ACKNOWLEDGEMENTS

STATE OF ND)
) ss.
COUNTY OF WILLIAMS)

On this 20th day of DECEMBER, 2009, before me, the undersigned Notary Public in and for said county and state, personally appeared Edward Patrick Lynch, a married man dealing in his sole and separate property known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 11/3/2012

Kent M Lynch
Notary Public
Williston, ND

KENT M LYNCH
NOTARY PUBLIC
STATE OF NORTH DAKOTA
My Commission Expires November 3, 2012

COUNTY RECORDER
McKENZIE COUNTY
STATE OF NORTH DAKOTA

County Recorder 396124
McKenzie County
Watford City ND 58854 Page 4 of 4
COUNTY RECORDER, MCKENZIE COUNTY, ND
I certify that this instrument was filed and recorded. 396124
Ann M Johnsrud, County Recorder Fee $19.00
By Ann M. Johnsrud Jan 07, 2010 03:59 PM

Testimony of Suzanne Vohs
Concerning SB2134

Senate Energy and Natural Resources Committee
January 12, 2017, 9:00 AM

Honorable Senators and Representatives:

In regards to SB 2134. I am deeply troubled by the unlawful taking of a great many of my families mineral rights. I hope you have the courage to do what is right and pass legislation to correct this terribly unjust and illegal taking of not only my family's legacy of mineral rights, but many other family's mineral right legacies in addition to ours. Let me tell you my family's story.

In 1904 my Great Grandfather Adolph Vohs brought his family to North Dakota. He and the family worked hard to to eke out an existence in harsh conditions in the early days of Williston, North Dakota. Words echo through my mind from a recording his son, my Grandfather A.J. Vohs, recorded for the the oral history project at the North Dakota Historical Society. Those words related how they built a 'tar paper shack' to live in for a family of eight. Five children and their parents. A tar paper shack in the harsh weather of North Dakota!! They were determined to make a life there. Sadly, three of those children did not survive to adulthood, and yet the family persevered. Over several years they were able to establish a cattle ranch on the river. It was good planning to position the cattle near the river. One of those ranches was exactly west of where the highway 85 bridge now spans that water source. They supplied Williston and much of the surrounding area with meat. Subsequently, they opened Vohs' City Market. Eventually the ranch and the store passed to my Grandfather, A.J. Vohs and his two brothers Addie and Heinrich Vohs. While the brothers worked the ranches and the City Market they were proud of their town and Williston and helped it grow into the city it is today. My Grandfather, A.J. Vohs, was the first fire chief of Williston. His brother Heinie was also with the fire department. My grandfather was instrumental in creating and making Williston's first food pantry successful in reaching out to those who were suffering through the very difficult times of the dust bowl in the early 1930's. I want you to know they gave of themselves to their community. They were good and honorable citizens. They gave of themselves so their fledgling town and state could thrive. And then,in the early 1950's, the brothers agreed to let the waters from the Garrison Dam occupy some of their precious land. What they did not agree to was giving up any of their mineral rights. They specifically and knowingly reserved the mineral rights and did not relinquish them. The three Vohs brothers all lived on the same street within blocks of each other. My father Donald K. Vohs was able to grow up directly across the street from his two cousins, John Vohs and Margery Vohs. They were 3rd generation North Dakotans. My father married my mother, Florence H. Grover in Williston. Both my parents were born and raised there. My father worked for the Great Northern Railroad for 35 years with his run between Williston and Glasgow. My cousin Eleanor Wallace married Jack Snyder who would eventually become mayor of Williston. My ancestors gave themselves to that community and had the utmost faith in the government of North Dakota. I always have fondly revered the people of North Dakota for their ethics and moral fiber. My ancestors believed in and trusted their state and local government. They worked for their town and they worked for the betterment of their state. Now we come to the 4th generation. As my ancestors before me I worked and worked and worked my whole life. My first job was an entire summer at the age of twelve. I, and my disabled brother, are the

last of my dad's line. I have struggled to make ends meet most of my life. I got married straight out of high school at the age of seventeen. With no college, wages weren't so good. Although I worked and took college courses throughout my life, it just seemed the financial struggling and juggling was ever present. When my parents passed away within three months of each other, I chose to rearrange my life in order to care for my brother, who has brain damage from birth. I have taken care of him for 13 years now. I don't get a break. Sometimes I just wish I could have a day for me but, really I am happy knowing my brother is cared for by someone who loves him and I know he is safe. It seems like I was always juggling dollars just to get by. My father left the family mineral rights to me. I didn't know exactly what that meant or what it would hold for us. A few years later I started getting what I thought was junk mail from people wanting to discuss my minerals with me. They all went in the trash until one day when I got a call from my Dad's cousin John Vohs inquiring as to why I hadn't responded to those perceived 'junk mails'. I then actually spoke to one of them. He called himself a landman. Unfamiliar term to me. Oh my goodness!! Suddenly there was light at end of a very long tunnel. They were offering me money to lease those minerals. It seemed our existence would no longer be a struggle. What a massive relief that would be. I read everything I could in an effort to understand this new world. It was very complicated to sort out. On December 18, 2009, I, as Trustee, signed a lease indicating '276.80 gross acres more less for the purpose of developing and producing oil and gas' !! This would lead any reasonable person to rely on a contract. An offer and acceptance had taken place. What my agreement states and what actually happened are not the same. I was grossly misled. When I learned Continental Oil was building a much publicized and acclaimed 14 well super pad, I was relieved all the years of struggle would come to an end. As the super pad was completed, I set out for North Dakota to see it. I was so proud of North Dakota and my 14 well super pad. Imagine my confusion when I was contacted, while on the road in North Dakota, and told not to go near that super pad. I was told there was a guard and I was not even to go near there and definitely not to take pictures. This was strange since I had already reached North Dakota and driven by many oil wells. They were not fenced in and they definitely didn't have guards. Well, I did drive by the super pad anyway. I hadn't driven thousands of miles just to turn around a go home. They were fenced in with a fence that may have been 10 or 12 feet high. I couldn't see in. The fence was solid. Imagine my further consternation when, within days, the press was indicating Heidi Heitkamp would be touring the super pad. What was secret from me, a mineral owner whose oil would soon be extracted from the earth, that wasn't secret from a North Dakota Senator? It just seemed so cloak and dagger kind of weird to me. I can only wonder, as I look back on that, if they had already stolen my minerals from me. I was heartbroken and shocked to eventually learn the State of North Dakota had used some illegal creative angle to steal (yes Steal!) property that had been in my family for over 125 years. They took what had been worked so hard for, over the course of 125 years, without any due process, compensation or even notice so that I could voice my protest. It is my understanding they were given a dollar amount in the millions just for the lease! North Dakota and Big Oil picking on the little guy. Me. Someone without the dollars to fight back. I'm sure they know all of us little guys they stole from can't possibly have the kind of financial resources to fight back. I'm certain I am not their only victim. The highway 85 bridge does not stop the Garrison Dam from changing the flow of water that inundated my family's land and changed the High water mark that was the historic high water mark when my Grandfather signed his agreement which did not include relinquishing his mineral rights.

How does that bridge become come some arbitrary point to determine where North Dakota can and cannot steal mineral rights? What basis of fact is there that suddenly, West of that bridge, the high water mark is determined differently than East of that bridge????? Are you kidding me? That's nonsensical. The state of North Dakota should be ashamed of their failure to recognize and follow the North Dakota State Constitution. I feel as if I was preyed upon. This has created in me gut wrenching emotions and mind boggling

thoughts attempting to sort through all of this injustice. My thoughts question how could something so egregious could be happening in this country? And in North Dakota? The state I have heretofore thought so highly of. I was grateful the 3 generations of my family before me had the foresight to retain those mineral rights. I was relieved that in the later years of my life to finally be getting a break from my financial hardships and experience the benefits the legacy my beloved ancestors had the foresight to preserve and hang onto all the way to me, the fourth generation from my family's beginnings in North Dakota 125 years ago. I just wanted you to know who I am. I am a descendant of hard working North Dakota citizens who trusted the agreements they made would be honored. They have not been honored. I ask that you please right this injustice. I ask you to please recognize those mineral owners West of the highway 85 bridge have been victims of an unlawful taking also. Please pass legislation to correct this huge wrong done to many trusting North Dakota citizens.

Suzanne Vohs

Exhibit G-1 – Jan. 12, 2017 testimony of Joshua Swanson to the Senate Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
Senate Energy and Natural Resources Committee
January 12, 2017, 9:00 AM

Chairman Schaible and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. My remarks focus on the problem caused by using river mile 1552.4, the location of the Highway 85 Bridge, as the dividing line in the Bill that arbitrarily distinguishes between lands east of the Bridge versus lands west of the Bridge that were also acquired as part of the Pick-Sloan Missouri basin project – commonly referred to as the Garrison Project – by the United States because such lands would be affected and inundated by Lake Sakakawea.

BACKGROUND

Historically, the State of North Dakota claimed an interest in only the original 30,000 acres of the Missouri River riverbed as it existed before the existence of Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 13, 2007, letter that the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims title to all the oil and gas under Lake Sakakawea. The State made this massive land grab despite the fact this property, including property west of the Highway 85 Bridge, was undisputedly acquired by the United States for the Garrison Project because of the flooding that would be caused by Lake Sakakawea. In the warranty deeds dating back to the 1950s whereby the United States acquired this property from North Dakota citizens like Ed Lynch and Jon Patch's predecessors, the oil and gas rights were unquestionably reserved in the private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in said warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 1 and 2.

This has been the subject of litigation in William S. Wilkinson, et al. v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038, and EEE Minerals, LLC et al. v. The Board of University and School Lands of the State of North Dakota, et al. (the latter case filed this week in McKenzie County). The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that, regardless of how or when land came to lie within the ordinary high water mark ("OHWM") of Lake Sakakawea, the State automatically acquired ownership of that land as soon as it was flooded. This view is legally erroneous. With the exception of using river mile 1554.2, which is the location of the Highway 85 Bridge, as the boundary for the effect of Garrison Dam and western reach of Lake Sakakawea, the Bill addresses the issues raised in this litigation.

The use of the Highway 85 Bridge as the western reach of Lake Sakakawea and delineating the impacts of Garrison Dam, and in distinguishing between what the State owns versus what it does not own as currently provided for in SB 2134, is lacking in any scientific support and makes the Bill problematic. The fact that property located west of the Highway 85 Bridge – like that owned by the Wilkinson and Vohs families – was and remains affected by and subject to flooding from Lake

EXHIBIT
tabbies G-1

Sakakawea is discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 3. Point #3 to Dr. Woodbury's report explains why using the Highway 85 Bridge as a dividing line is arbitrary. The arbitrary nature of using the Highway 85 Bridge as the dividing line for what the State owns, as Mr. Patch notes in his testimony, was acknowledged by several individuals employed by the State who were deposed in the Wilkinson case. These individuals, including John Paczkowski, Todd Sando, Gerald Heiser, Lance Gaebe, Mike Brand, Gary Preszler, and Tom Feeney, each testified they were unaware of any scientific or technical basis for using the Highway 85 Bridge as the western reach of Lake Sakakawea and its impacts. Mr. Preszler, the former Land Commission for the State, summarized the problematic nature of using the Highway 85 Bridge as the dividing line when he stated, "It [Highway 85 Bridge] just represented a recognizable landmark that we all knew and we used that as a basis, ... ," and it "represented no scientific analysis or basis whatsoever."

The use of the Highway 85 Bridge as the dividing line in SB 2134 also ignores the undisputed fact that the United States acquired property west of the Highway 85 Bridge for the Garrison Project and flooding that would be caused by Lake Sakakawea. This is illustrated by the United States' maps for the Garrison Project showing dozens of tracts and many acres west of the Bridge – like the property belonging to the Wilkinson and Vohs families – that were acquired by the United States because of the flooding that would be caused by Lake Sakakawea. Similarly, the clear and unambiguous language in the warranty deeds whereby the United States acquired property west of the Highway 85 Bridge for the Garrison Project, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the Wilkinsons' reservation of the oil and gas rights were "[s]ubordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, ..."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and their government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017, adding insult to that long-ago injury, this great State seeking to further deprive them of their property by claiming their oil and gas rights – rights they had previously leased to oil companies for nearly sixty years before the State claimed ownership of them.

NORTH DAKOTA'S TITLE TO THE RIVERBED OF THE HISTORIC MISSOURI RIVER

At the time of Statehood, North Dakota took title to the bed of navigable bodies of water as those bodies of water existed at the moment of statehood. (See, e.g., Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co., 429 U.S. 363, 371 (1977)). The legal mechanism that gave North Dakota this title is known as the "Equal Footing Doctrine," which grants each State in our Union title to the bed of all navigable bodies of water, including underlying minerals, as of the moment of Statehood. (Id.) After the moment of Statehood, the Equal Footing Doctrine has run its course and is of no further effect. (Id.) The Equal Footing Doctrine does not grant the State title to the bed of any body of water that later becomes navigable, like Lake Sakakawea, whether by natural or artificial means. (Id.) While the State can also acquire property by purchase, the State cannot arbitrarily claim title to property that it does not own. That is the textbook definition of an unconstitutional taking under this State and our United States constitutions.

The State cannot validly designate the Highway 85 Bridge as the cutoff of the effect of Garrison Dam and western reach of Lake Sakakawea. Garrison Dam's effect and the reaches of Lake Sakakawea go beyond this point. Using an artificial cutoff like the Highway 85 Bridge defeats the purpose of the Bill by effectively granting the State title to private land that the State does not own.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the OHWM of the Missouri River in the Garrison Dam area. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam. The first study shares a common flaw with the proposed Bill – the Highway 85 Bridge is not the end of Lake Sakakawea and its impacts as detailed in Dr. Woodbury's report. As Dr. Woodbury explained, "The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge." (Woodbury Report at p. 21). Dr. Woodbury also noted that property belonging to the Wilkinson family, lying to the west of the Highway 85 Bridge, was suitable for agricultural purposes prior to the construction of Garrison Dam. (Id.) Further, as noted by Dr. Woodbury, the United States purchased property extending well beyond the Highway 85 Bridge for the Garrison Project, which demonstrates that Lake Sakakawea was always anticipated to affect areas beyond the Highway 85 Bridge. Moreover, the pre-dam streambed elevation at the Highway 85 Bridge was approximately 1823.0 feet; any time the reservoir impounds water that exceeds that water surface elevation, as it does 95% of the time, the reservoir is impounding water upstream or beyond the Highway 85 Bridge. (Id.)

COMMENTS ON BILL DRAFT

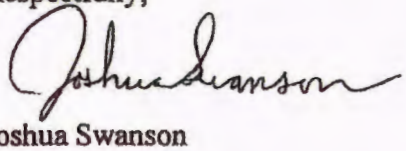
Effectively, SB 2134 recognizes that the State has title to the bed of the historic Missouri River as it existed prior to the Garrison Dam. However, the Bill legislatively mandates that, as a matter of North Dakota law, Garrison Dam's effect and the western reach of Lake Sakakawea ceases at the Highway 85 Bridge. This limitation is arbitrary, unsupported by any scientific or technical grounds, and would lead to unconstitutional results and additional legal challenges.

The State does not need to use an artificial limit on the extent of the effect of Lake Sakakawea. As the Bill notes, the historical Missouri riverbed channel can be determined by prior Army Corps of Engineering surveys, and, if necessary, by studies of historical aerial photos as the State has already done for large parts of Lake Sakakawea. Thus, there is little risk of the State encountering protracted issues with determining the extent of the State's interest absent the artificial cutoff. The artificial cutoff undermines what can be a just and right Bill for people like the Wilkinson and Vohs families that have already been deprived of their property once by the Garrison Project and Lake Sakakawea. The artificial cutoff is a state-sanctioned taking without compensation for all property west of the Highway 85 Bridge that was acquired by the United States for the Garrison Project and, as noted by Dr. Woodbury, clearly affected by Lake Sakakawea.

The artificial cutoff for the effect of Lake Sakakawea is a proverbial line in the sand; on one side of the line, the State recognizes that it has no automatic legal right to artificially flooded property, but on the other side of the line the State claims an automatic legal right regardless of whether it is actually affected by Lake Sakakawea. The State can prevent this unfair and unconstitutional treatment by removing the artificial cutoff from the proposed Bill.

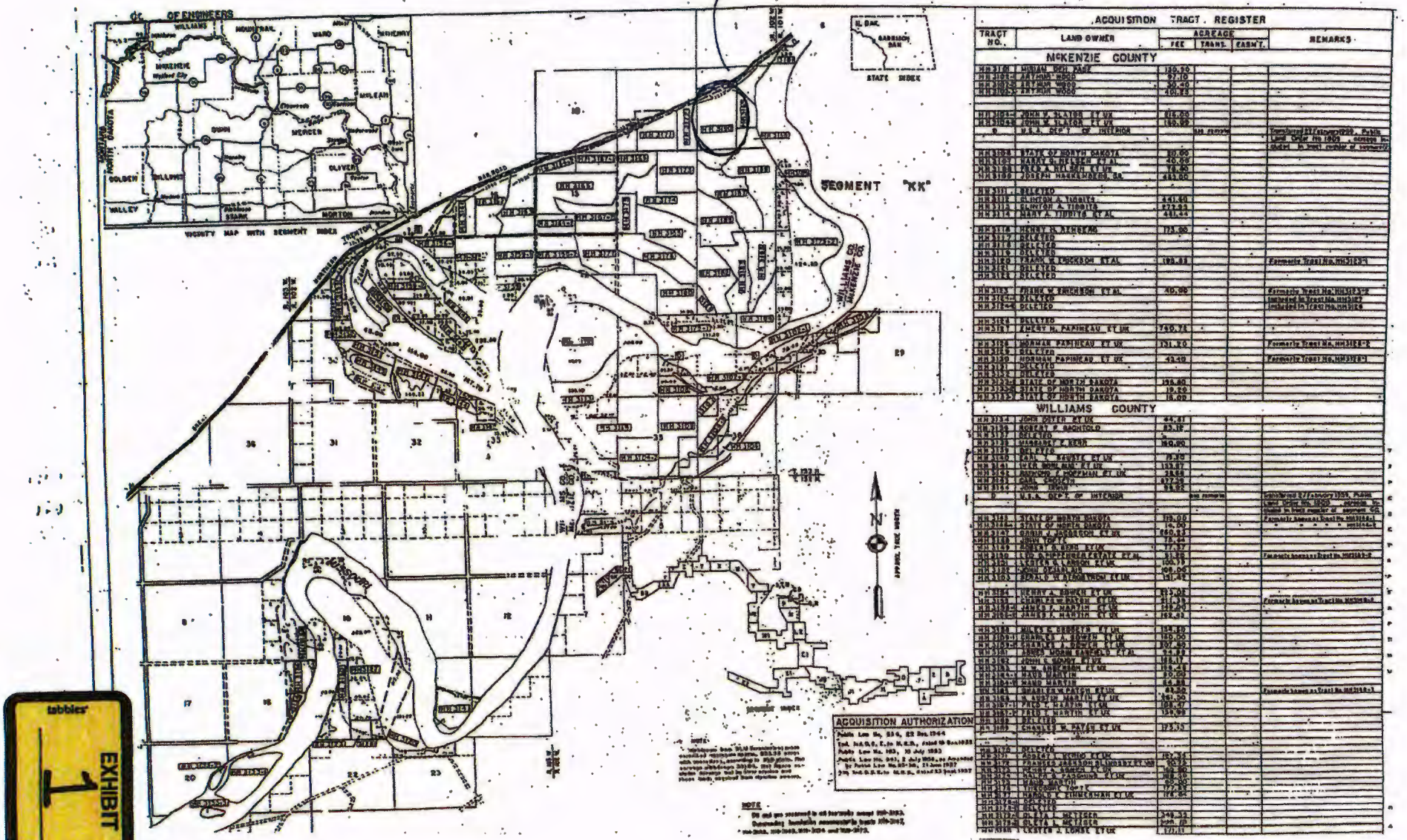
Thank you again for the opportunity to present this testimony. I urge you not to pass the proposed Bill without first removing the artificial cutoff point at river mile 1552.4, which is the location of the Highway 85 Bridge.

Respectfully,



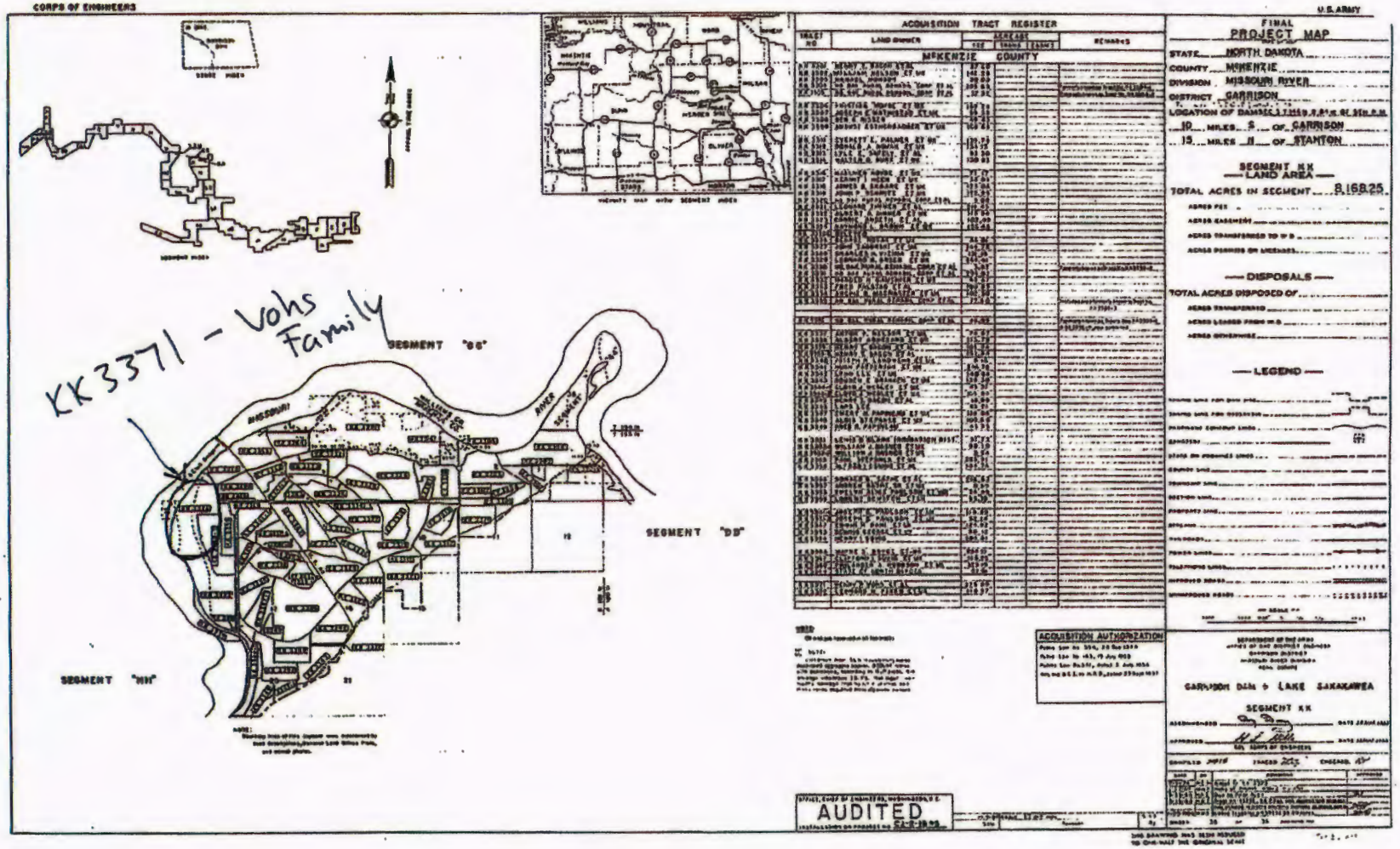
Joshua Swanson

HH 3190 (Wilkinson Family)



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS.	ACREAGE EASMT.	REMARKS
	McKENZIE COUNTY				
HM 3108	MIRIAM RUTH KAGE	120.30			
HM 3109-E	ANTHONY HESS	97.10			
HM 3109-E	ANTHONY HESS	30.40			
HM 3109-E	ANTHONY HESS	480.93			
HM 3109-F	JOHN W. SLATER ET UX	80.00			
HM 3109-G	JOHN W. SLATER ET UX	160.89			
0	U.S.A. DEPT OF INTERIOR		368 rods		Transferred 27 February 1970, Public Land Order No 1805 , acreage to be determined by exact number of surveyed
HM 3110-B	STATE OF NORTH DAKOTA	80.00			
HM 3110-C	HARRY G. NELSEN ET AL	40.00			
HM 3110-D	PETE A. PELOIAN ET UX	78.40			
HM 3110-E	JOSEPH MARKEWICH, SR.	480.00			
HM 3111	DELETED				
HM 3112	CLINTON A. TIBBITS	441.60			
HM 3113	CLINTON A. TIBBITS	477.43			
HM 3114	MARY A. TIBBITS ET AL	481.54			
HM 3115	HENRY H. ATKESON	173.00			
HM 3116	DELETED				
HM 3117	DELETED				
HM 3118	DELETED				
HM 3119	DELETED				
HM 3120	FRANK E. ERICKSON ET AL	198.88			Formerly Tract No. HM 3120-E
HM 3121	DELETED				
HM 3122	DELETED				
HM 3123	JULIUS W. ERICKSON ET AL	40.00			Extension Tract No. HM 3123-E Included in Tract No. HM 3123
HM 3124	DELETED				Included in Tract No. HM 3124-E
HM 3125	DELETED				
HM 3126	DELETED				
HM 3127	EMERY N. PAPINEAU ET UX	740.72			
HM 3128	NORMAN PAPINEAU ET UX	131.20			Formerly Tract No. HM 3128-E
HM 3129	DELETED				
HM 3130	NORMAN PAPINEAU ET UX	43.40			Formerly Tract No. HM 3130-E
HM 3131	DELETED				
HM 3132	DELETED				
HM 3132-A	STATE OF NORTH DAKOTA	134.80			
HM 3132-B	STATE OF NORTH DAKOTA	19.20			
HM 3132-C	STATE OF NORTH DAKOTA	16.00			
	WILLIAMS COUNTY				
HM 3134	JOHN OSTER ET UX	64.81			
HM 3135	ADOLPH F. BACHTOLD	83.17			
HM 3136	DELETED				
HM 3137	MARGARET E. KERR	160.00			
HM 3138	DELETED				
HM 3139	DELETED				
HM 3140	EARL MAURICE ET UX	79.20			
HM 3141	HILTE MINING CO. ET UX	133.87			
HM 3142	RAYMOND A. HOFFMAN ET UX	38.68			
HM 3143	CARL CROCKETT	477.33			
HM 3144	JOHN OSTER	84.82			
0	U.S.A. DEPT OF INTERIOR		368 rods		Transferred 27 February 1970, Public Land Order No. 1805 , acreage to be determined by exact number of surveyed
HM 3145	STATE OF NORTH DAKOTA	120.00			Formerly known as Tract No. HM 3145-E
HM 3145-A	STATE OF NORTH DAKOTA	16.00			
HM 3147	GARIN J. JACOBSON ET UX	660.32			
HM 3148	JOHN OSTER	79.47			
HM 3149	HILTE MINING CO. ET UX	77.97			
HM 3150	L. W. SHOPTEESE ESTATE ET AL	81.88			Formerly known as Tract No. HM 3150-E
HM 3151	LYDIA K. LARSON ET UX	160.19			
HM 3152	JOHN OSTER ET UX	160.00			
HM 3153	DONALD W. ALEXANDER ET UX	131.44			
HM 3154	HENRY A. ERICKEN ET UX	81.08			
HM 3155	LEONARD W. HAUGEN ET UX	81.36			Formerly known as Tract No. HM 3155-E
HM 3156	JAMES J. MARTIN ET UX	161.20			
HM 3156-A	JAMES J. MARTIN ET UX	162.24			
HM 3158	MILES K. GIBBERTS ET UX	159.20			
HM 3159-B	CHARLES A. BROWN ET UX	160.00			
HM 3159-C	CHARLES A. BROWN ET UX	160.00			
HM 3160	JOHN D. MORAN SANDELL ET AL	81.28			
HM 3162	Albert L. Gorby ET UX	158.17			
HM 3163	W. W. ERICKSON ET UX	158.40			
HM 3164	JOHN OSTER ET UX	320.00			
HM 3164-A	HANS MARTIN	84.88			
HM 3165	ISABEL E. W. PATCH ET UX	81.20			Formerly known as Tract No. HM 3165-E
HM 3166	A. ARVID MARTIN ET UX	161.00			
HM 3167	JAMES J. MARTIN ET UX	159.20			
HM 3168	FRED T. MARTIN ET UX	159.98			
HM 3169	DELETED				
HM 3170	CHARLES W. PAYNE ET UX	173.53			
HM 3171	DELETED				
HM 3172	ARNOLD L. HOUND ET UX	157.34			
HM 3173	FRANCES JOHNSON BLUMBERG ET AL	80.32			
HM 3174	CHESTER A. ERICKSON ET UX	160.00			
HM 3175	JULIUS W. ERICKSON ET UX	158.40			
HM 3176	WARD MARTIN	80.00			
HM 3177	WILLIAM GUNTZ	177.84			
HM 3178	HAROLD T. KIMMERMAN ET UX	176.84			
HM 3179	DELETED				
HM 3180	DELETED				
HM 3180-A	OLLIE L. METZGER	149.33			
HM 3180-B	OLLIE L. METZGER	non. fit			
HM 3181	CHESTER J. LOMBE ET UX	177.11			


CORPS OF ENGINEERS
U.S. ARMY
ACQUISITION TRACT REGISTER
MCKENZIE COUNTY
FINAL
PROJECT MAP
STATE NORTH DAKOTA
COUNTY MCKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAM
10 MILES S OF GARRISON
15 MILES N OF STANTON
SEGMENT KK
LAND AREA
TOTAL ACRES IN SEGMENT 8,168.25
DISPOSALS
LEGEND
KK3371 - Vohs Family
SEGMENT "GG"
SEGMENT "DD"
SEGMENT "HH"
MISSOURI
RIVER
ACQUISITION AUTHORIZATION
GARRISON DAM & LAKE SAKAKAWEA
SEGMENT KK
AUDITED

Tract No. HM-3190 ← HM-3190

1. WARRANTY DEED: 1954-41 W. Mc Kenzie County, Williston, N. D.

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 ---------- DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL and CONVEY unto the said party of the second part and its heirs and assigns FOREVER, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter (SW¼) and the South half of the Northwest quarter (S½NW¼) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter (S½NW¼) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less; subject to existing easements for public roads and highways, [redacted] owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil + gas reserved to Wilkinsons subject only to right of United States to flood property for Lake Sakakawea

and they their heirs and assigns, that they are well seized in fee of the said premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances,

and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its heirs and assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Signed and Delivered in Presence of

J. T. Wilkinson

Evelyn M. Wilkinson, his wife

EXHIBIT 2

Filed - Clerk of District Court
7/1/2014 2:37:29 PM
Williams County, ND

12

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 388165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 37.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58 before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958.

STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn H. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

THIAR D. ROLFSTAD
Notary Public for the County of Williams
State of North Dakota

My commission expires Nov. 19, 1958.

[illegible]

Doc. No. 288165
Recorded
Grantor
Grantee
Company Warranty Deed
Abstr.
Marginal

TRANSFER FEE $ .25
TO
RECORDING FEE $1.50

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the 10 day of JUN 1958 A. D. 19 at 2 o'clock P. M. and was duly recorded in Book 131 of Warranty Deeds on page 1

Register of Deeds
By Deputy

Delinquent special assessments, if any, affecting the premises described herein, as of this date, are as follows:

County Auditor
By

KK-3371 ← KK-3371

BOOK 87 PAGE 505

Document No. 155142

WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for

said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil & gas ownership reserved by Vohs Family subject only to right of United States to flood the property for Lake Sakakawea

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER, And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

Notary Public for the County of Williams, State of North Dakota

P. A. WENSTROM,
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

My commission expires July 11, 1959

Document No. 155142

BOOK 87 PAGE 508

REGISTER OF DEEDS OFFICE
McKENZIE
COUNTY
STATE OF NORTH DAKOTA

Current Taxes and Special Assessments, if any, and Certificates of Special Assessments paid and transferred this ... day of ... 19...

COUNTY AUDITOR

Corps of Engineers
Riverdale, N. D.

June 19, 2013

HoustonEngineering Inc.

Wilkinson Trust Estate

Ordinary High Water Mark

EXHIBIT

3

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E., P.H.
North Dakota Reg. No. 1729

Date: June 20, 2013

HoustonEngineering Inc.

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The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1564.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

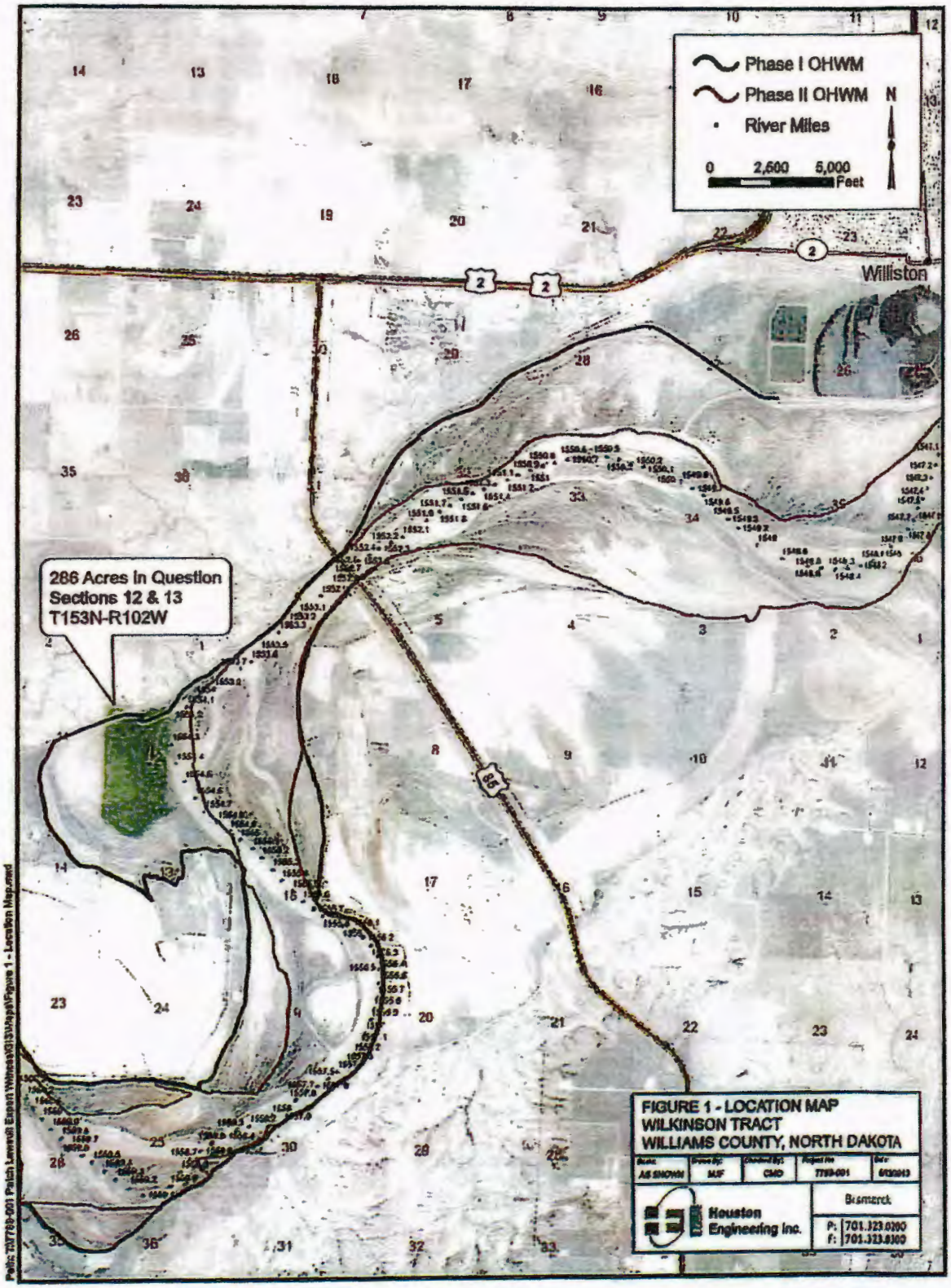
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

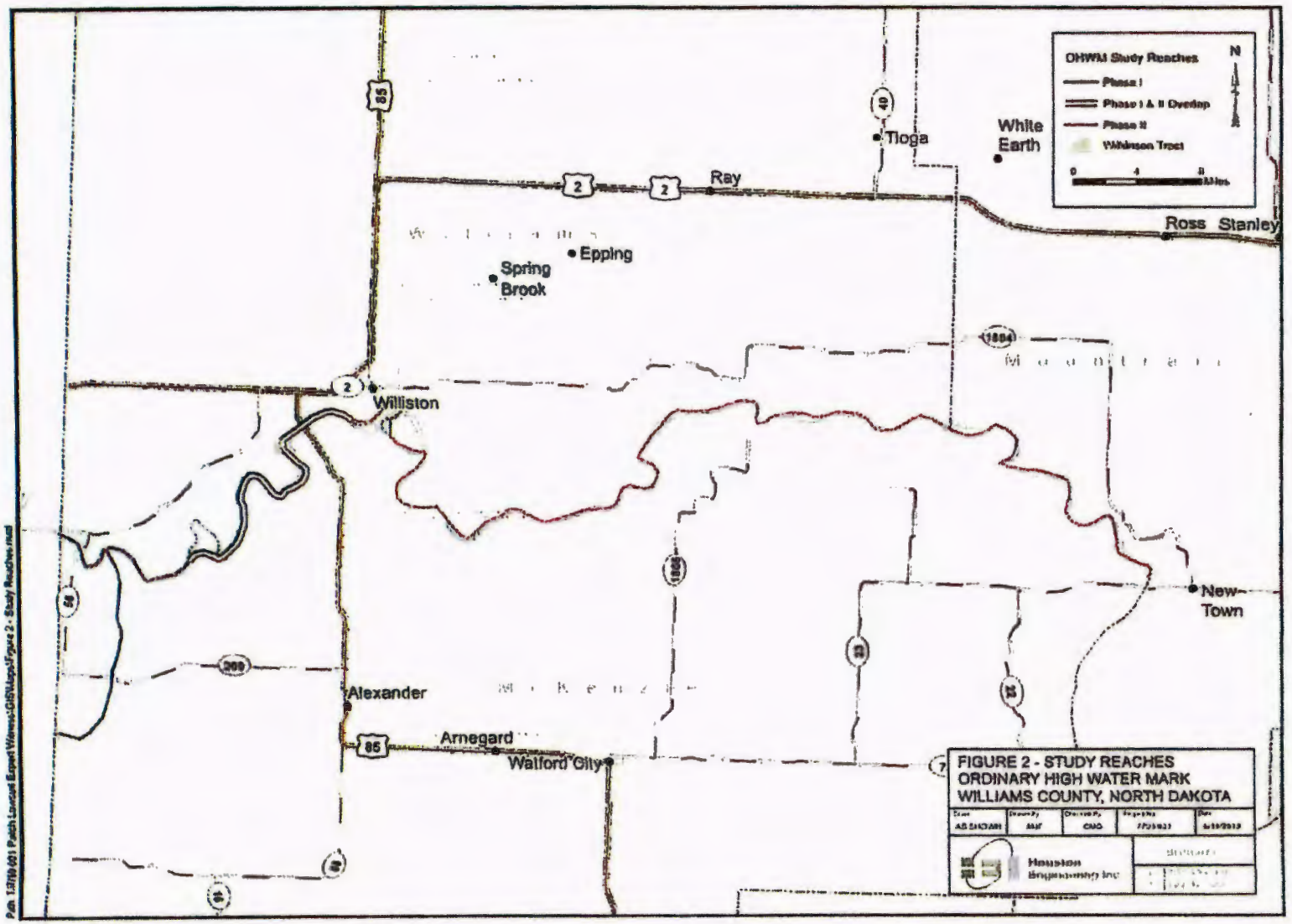
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.5. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,600 5,000
Feet
Williston
286 Acres In Question
Sections 12 & 13
T153N-R102W
85
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7769-001
6/30/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300
Path: Z:\7769-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 1 - Location Map.mxd


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Williston Tract
N
Tioga
White Earth
Ray
Ross
Stanley
Epping
Spring Brook
Williston
New Town
Alexander
Arnegard
Watford City
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6**. With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.

Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 3 - 1958 Aerial Imagery.mxd

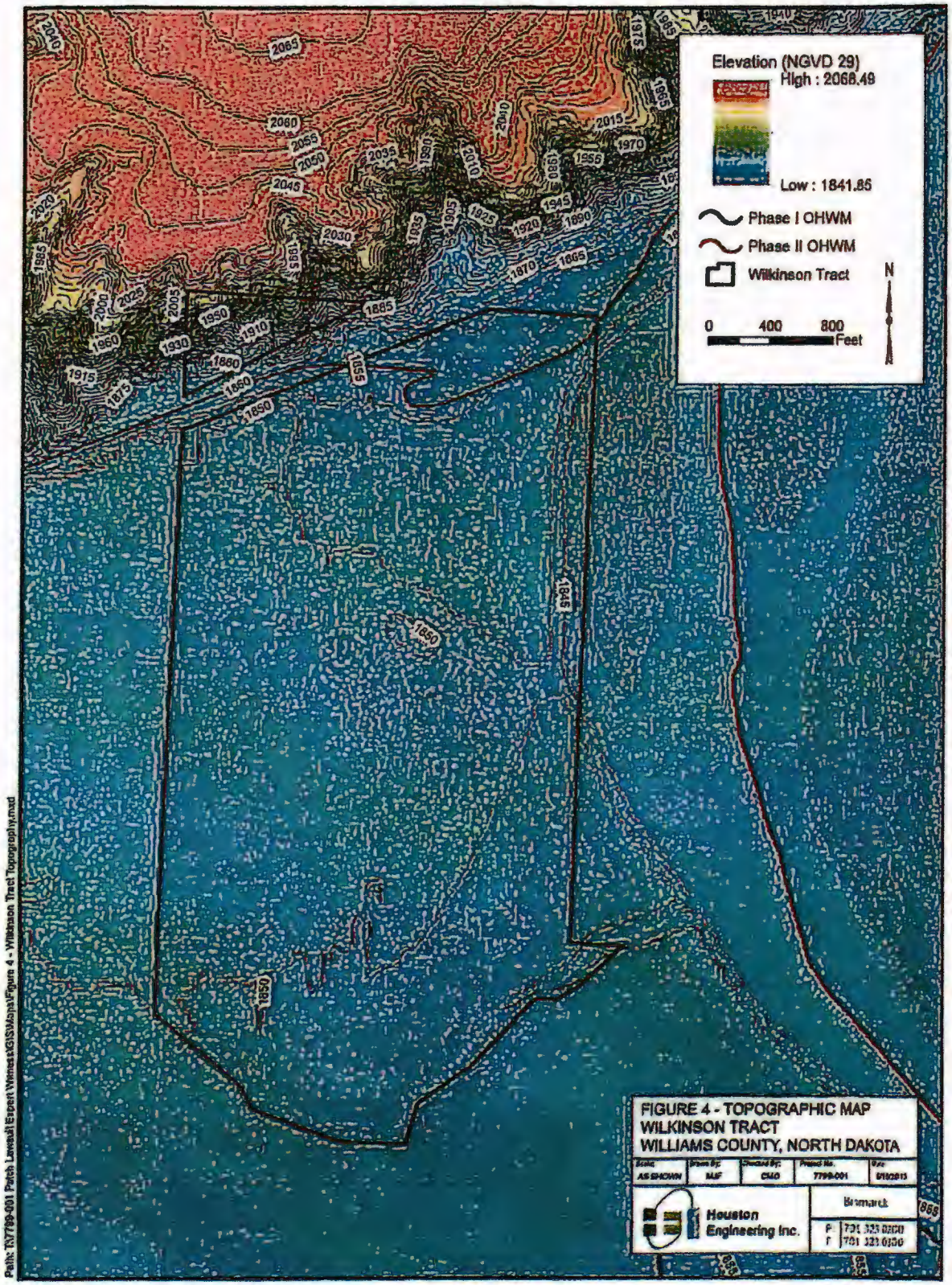

Elevation (NGVD 29)
High : 2068.48
Low : 1841.85
Phase I OHWM
Phase II OHWM
Wilkinson Tract
N
0
400
800
Feet
FIGURE 4 - TOPOGRAPHIC MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck
Path: R:\7799-001 Petch Lawsuit\Export Wenstrom\GIS\Maps\Figure 4 - Wilkinson Tract Topography.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

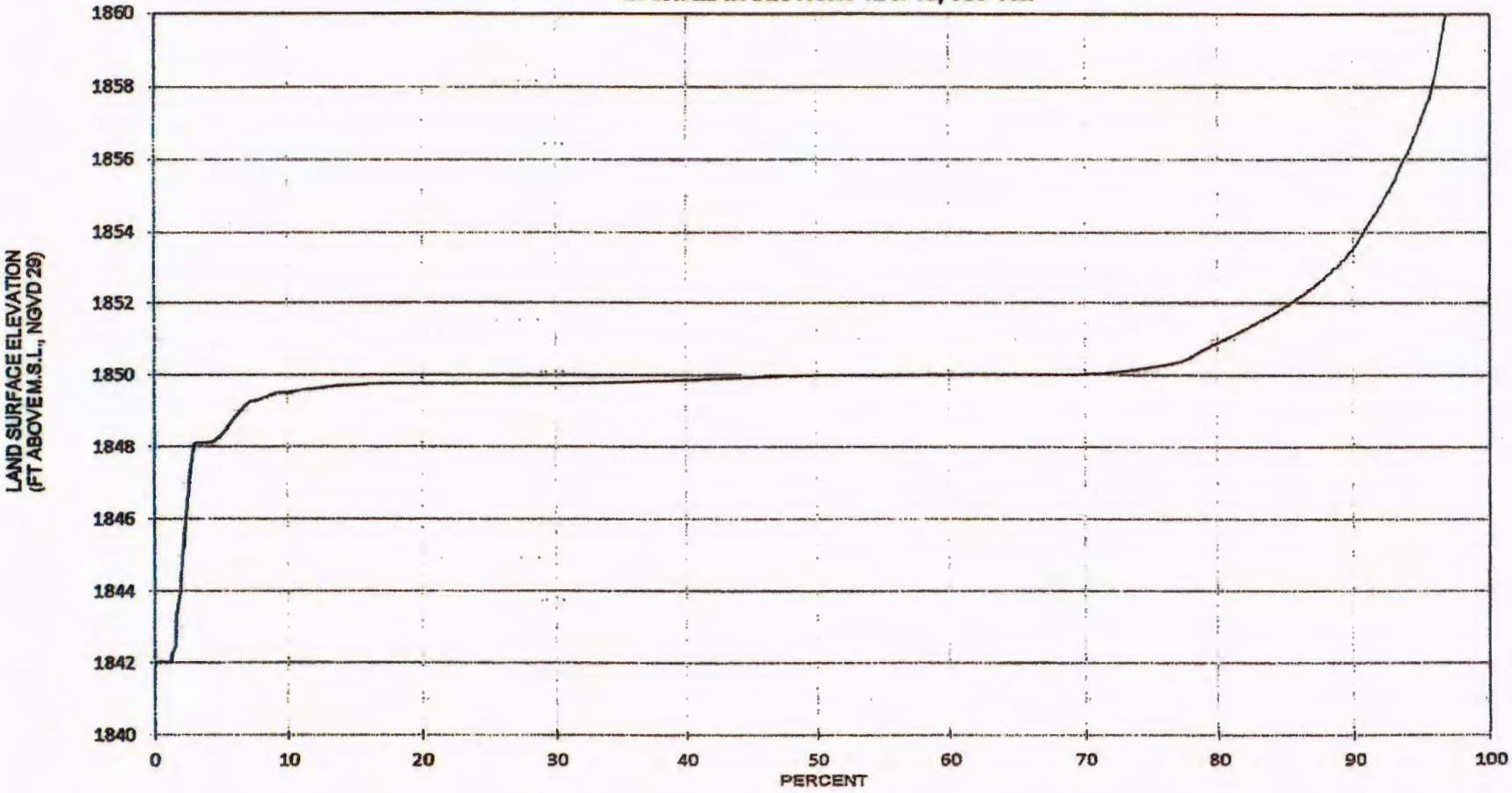


FIGURE 6

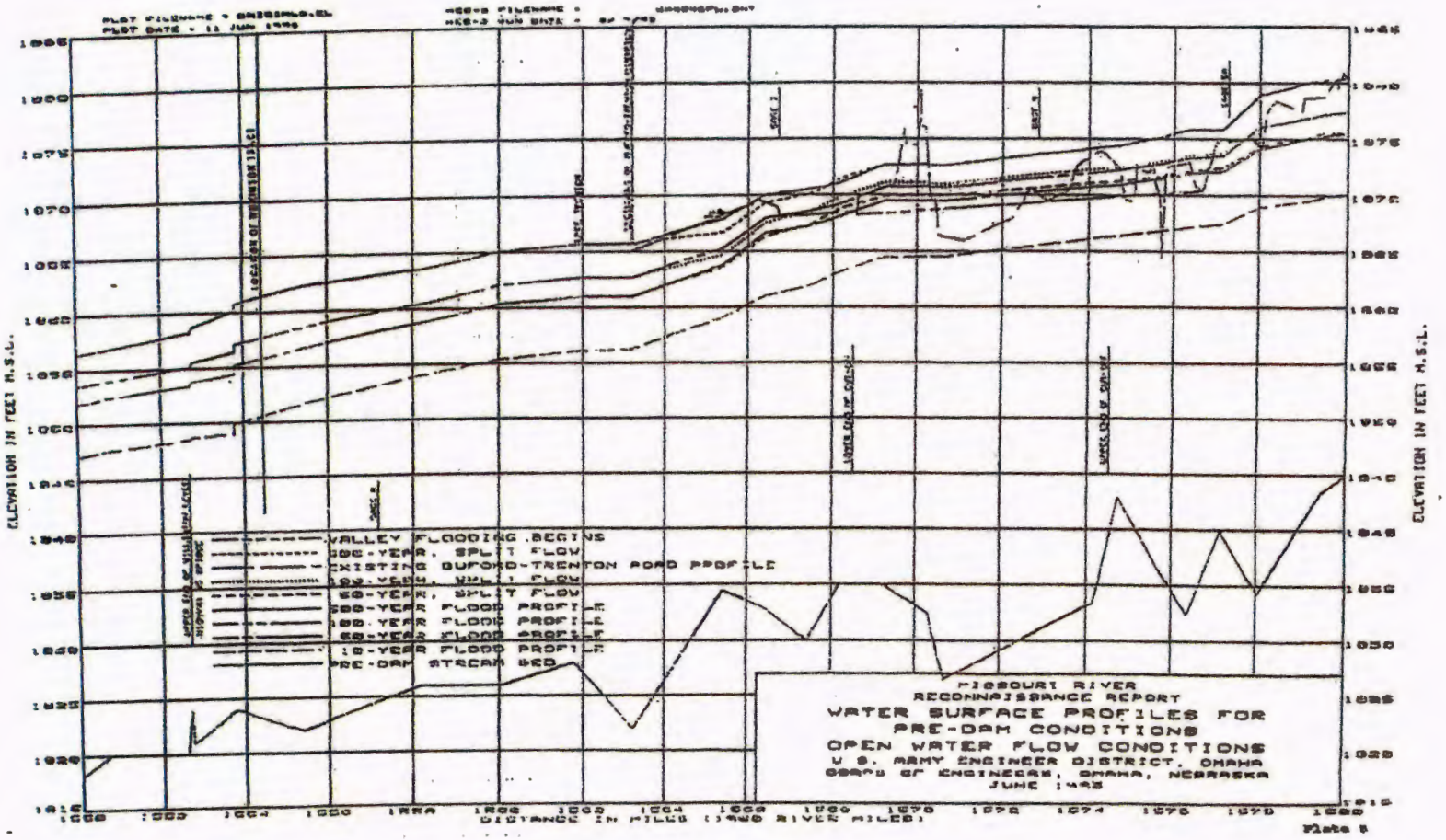
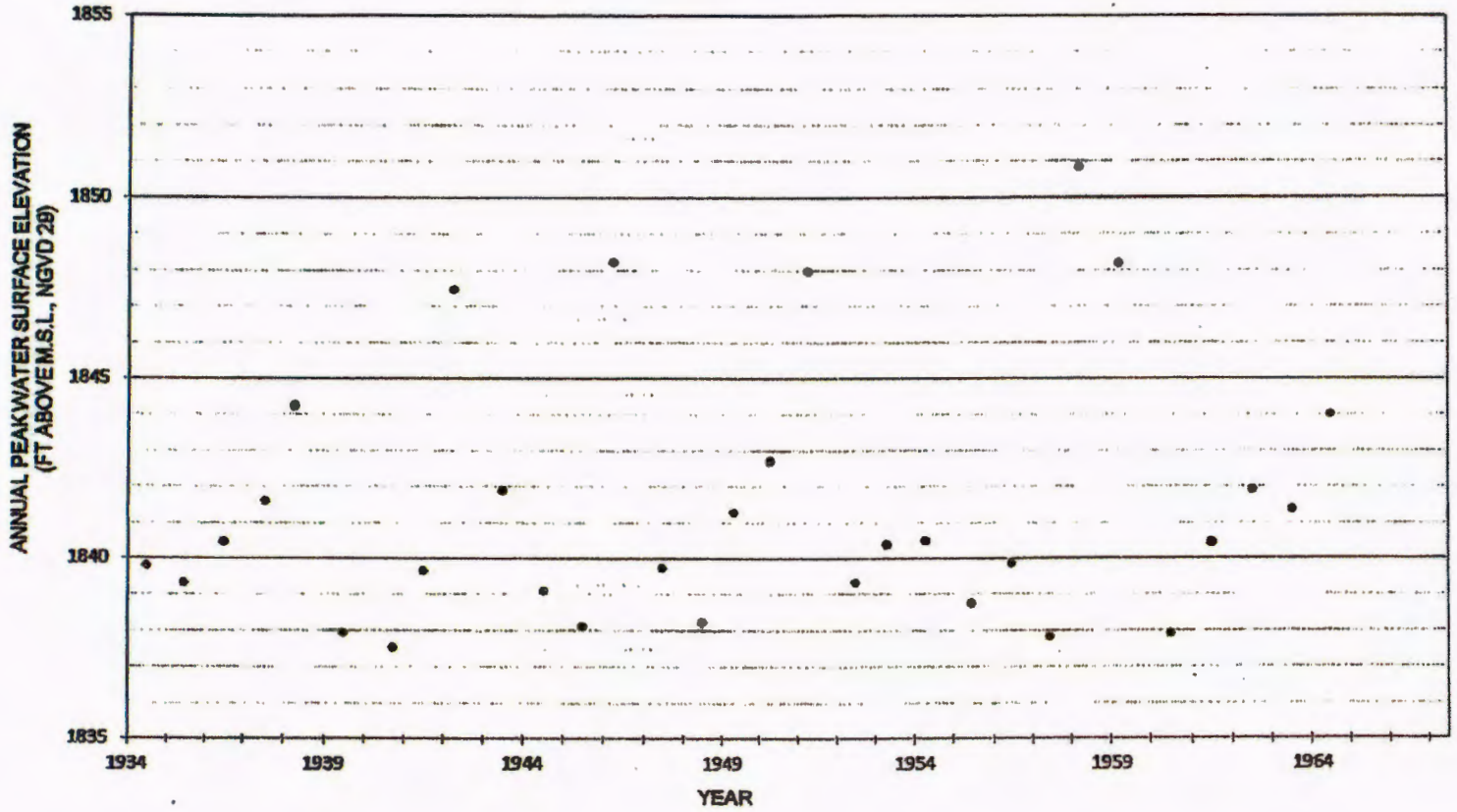

ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (MISSOURI RIVER MILES)
VALLEY FLOODING BEGINS
-YEAR, SPLIT FLOW
EXISTING BUFORD-TRENTON ROAD PROFILE
-YEAR, SPLIT FLOW
-YEAR FLOOD PROFILE
-YEAR FLOOD PROFILE
-YEAR FLOOD PROFILE
-YEAR FLOOD PROFILE
PRE-DAM STREAM BED
MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1975
Plate 6

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

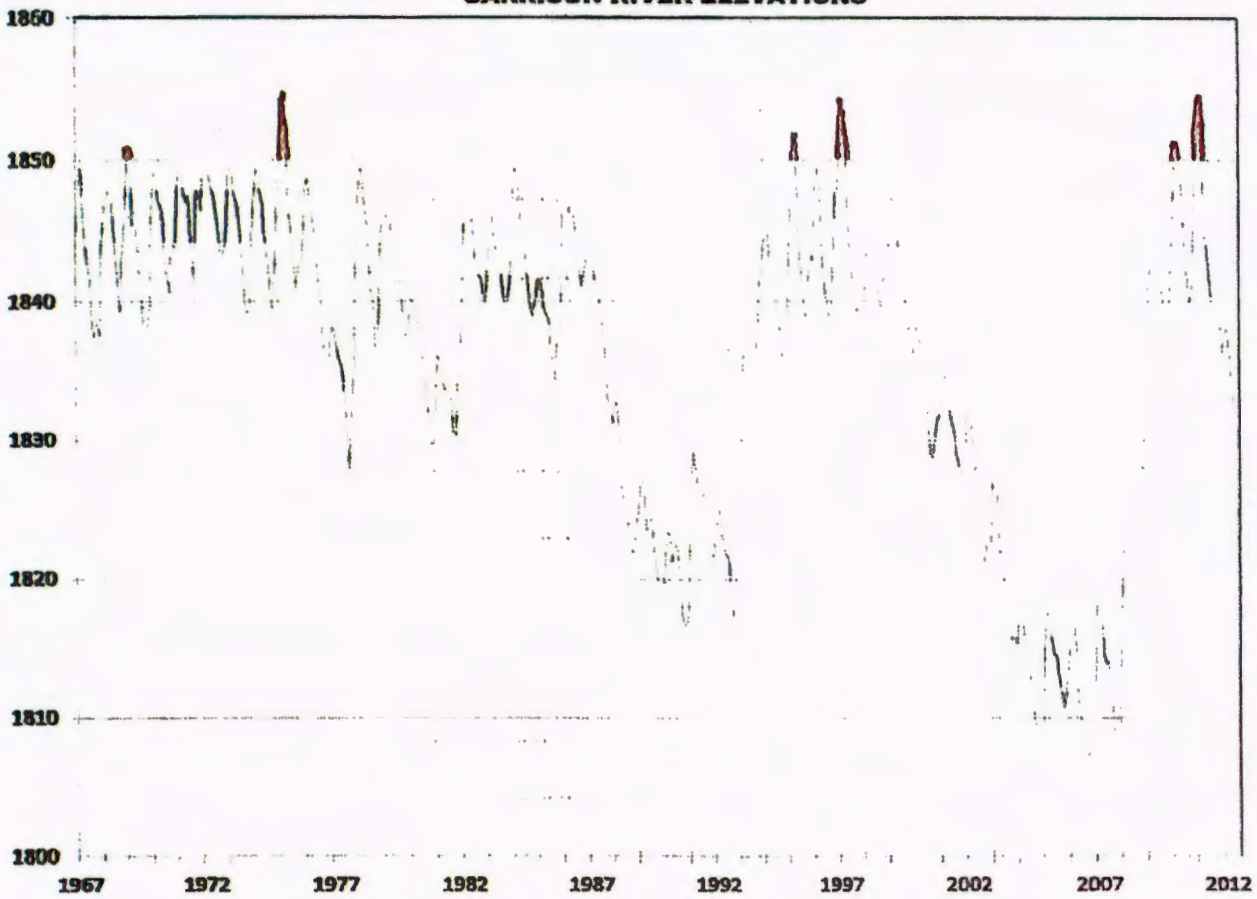
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

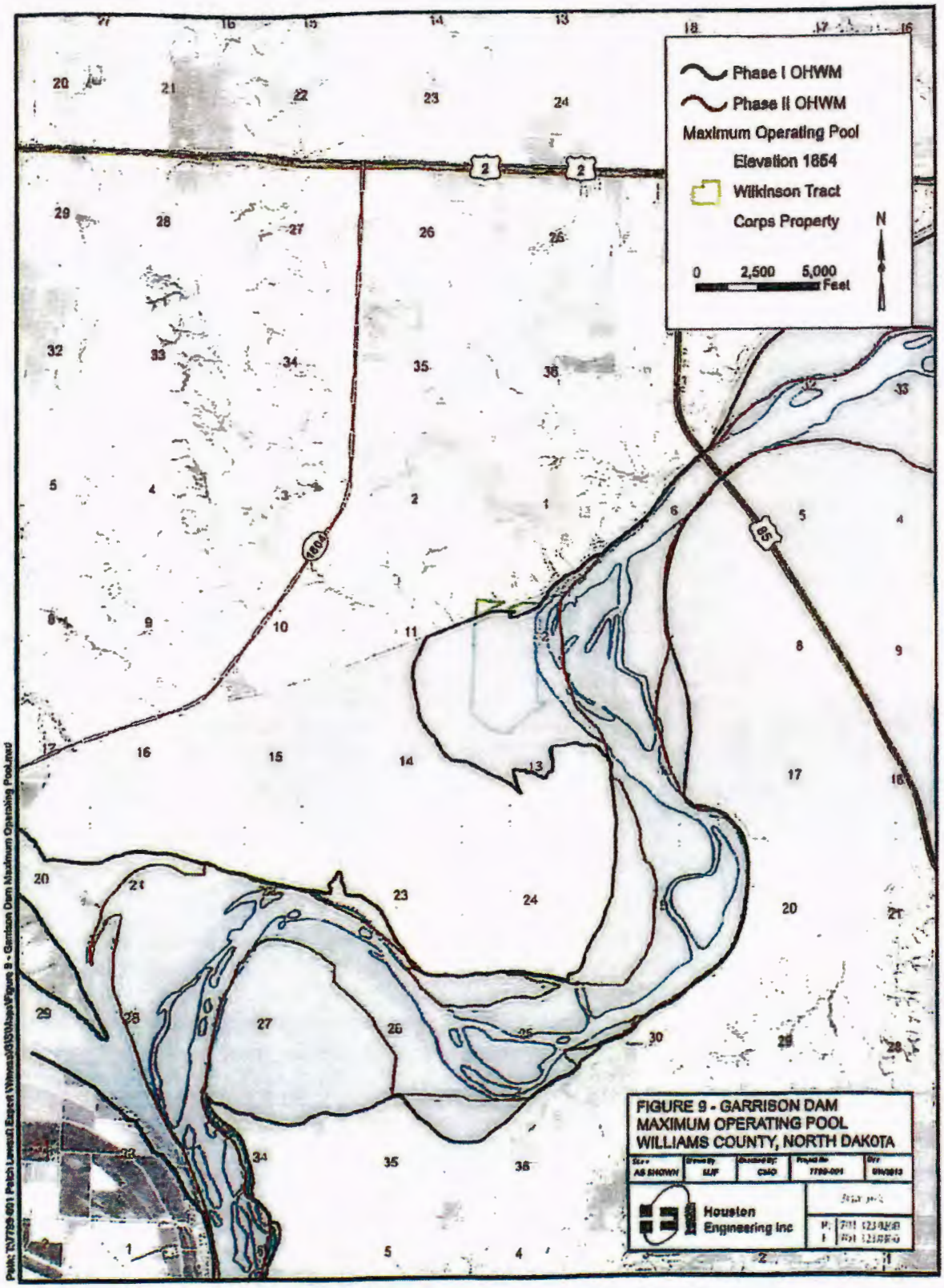
Point #2 Summary

The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool Elevation 1854
Wilkinson Tract
Corps Property
N
0 2,500 5,000 Feet
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc

N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: TX7789-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 10 - 1975 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7797-001
Houston Engineering Inc

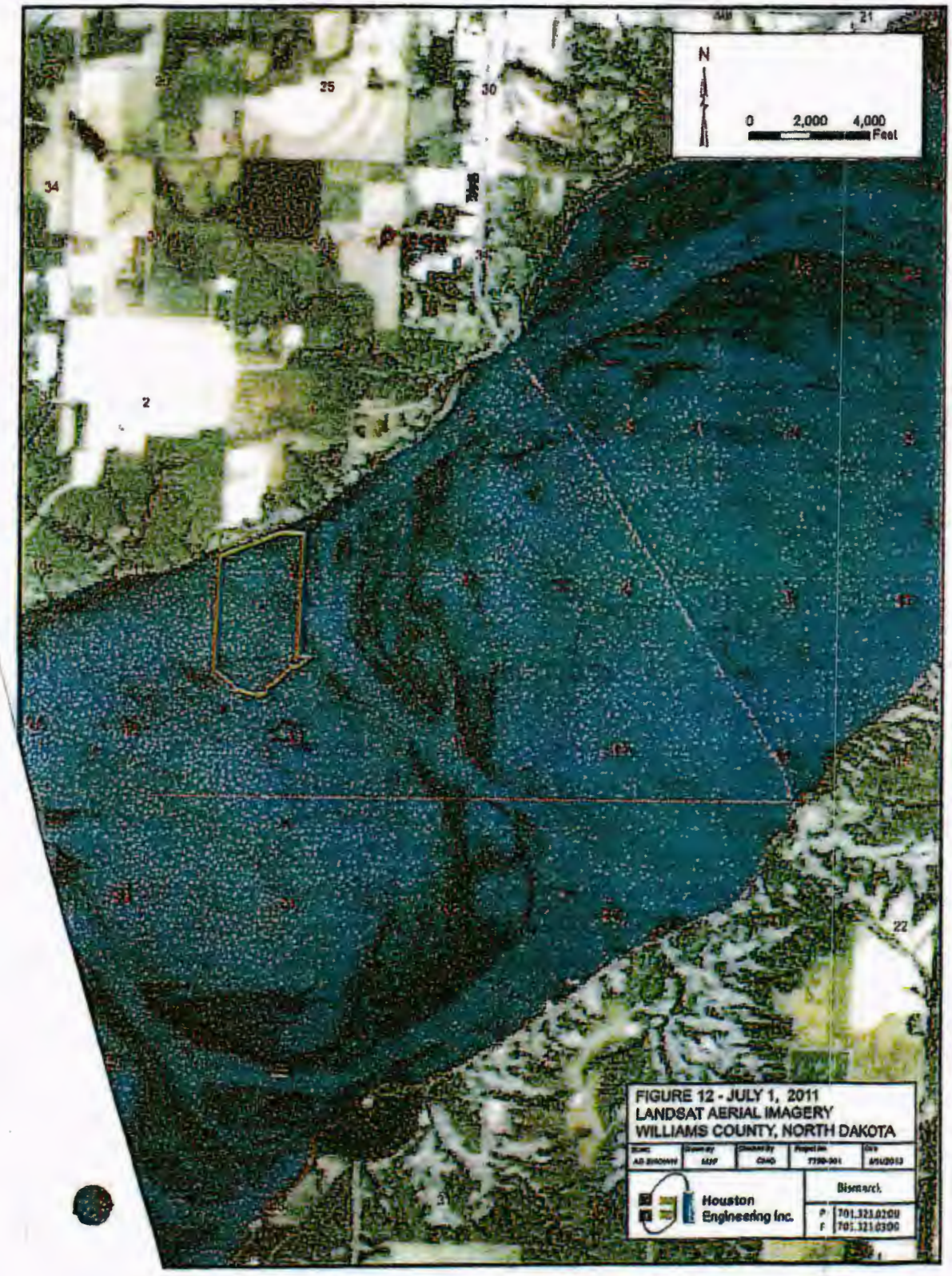
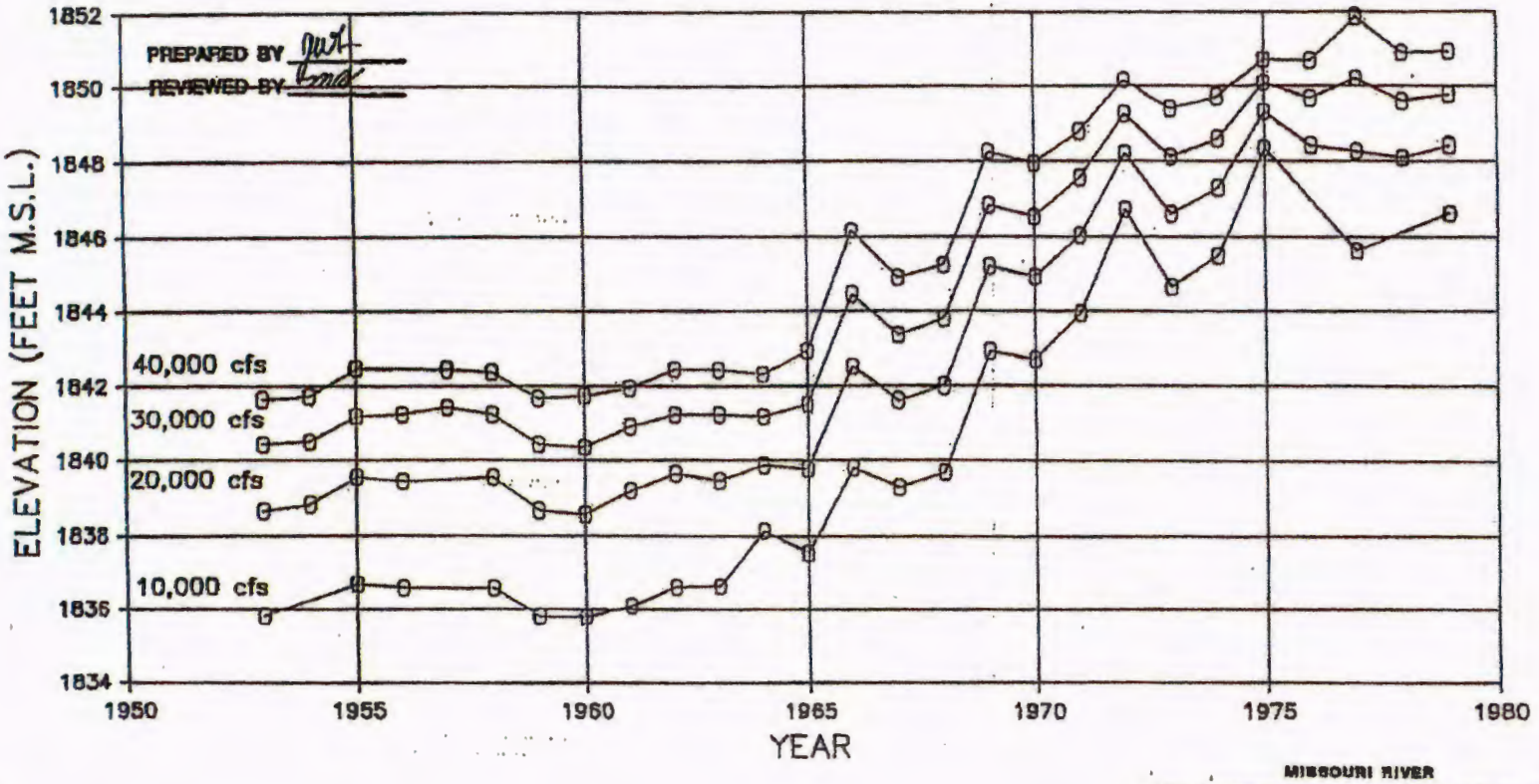

N
0 2,000 4,000
Feet
25
30
34
2
21
22
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck,
P 701.323.0200
F 701.323.0300

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT
Stage Trends - Gage 8
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

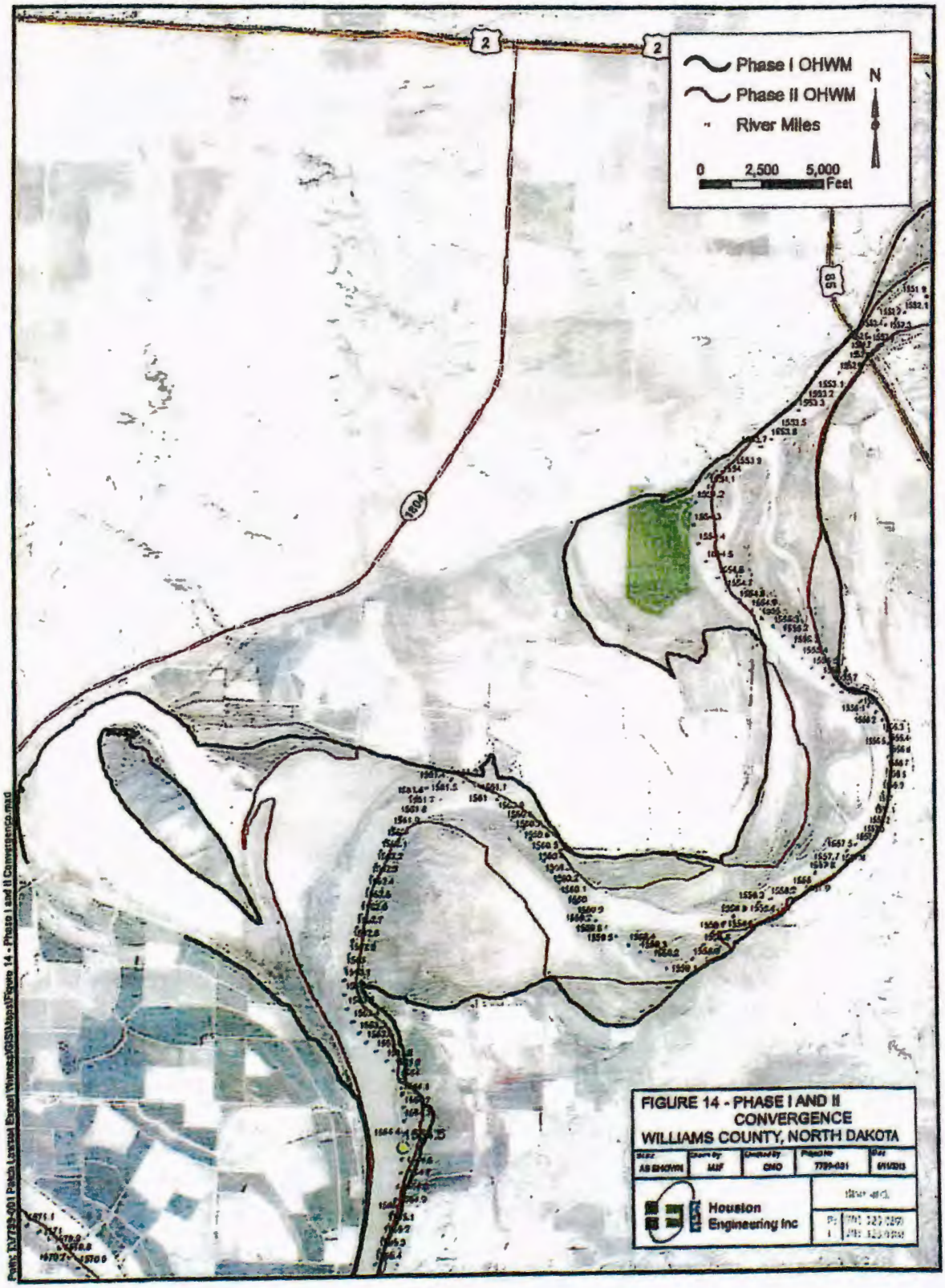
The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

he use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no ientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson ict. The OHWM as delineated using the historic aerial imagery in the Phase II Study is more appropriate indication of the boundary between the riparian and the public rests in the area of the Wilkinson Tract.


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
1804
FIGURE 14 - PHASE I AND II CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

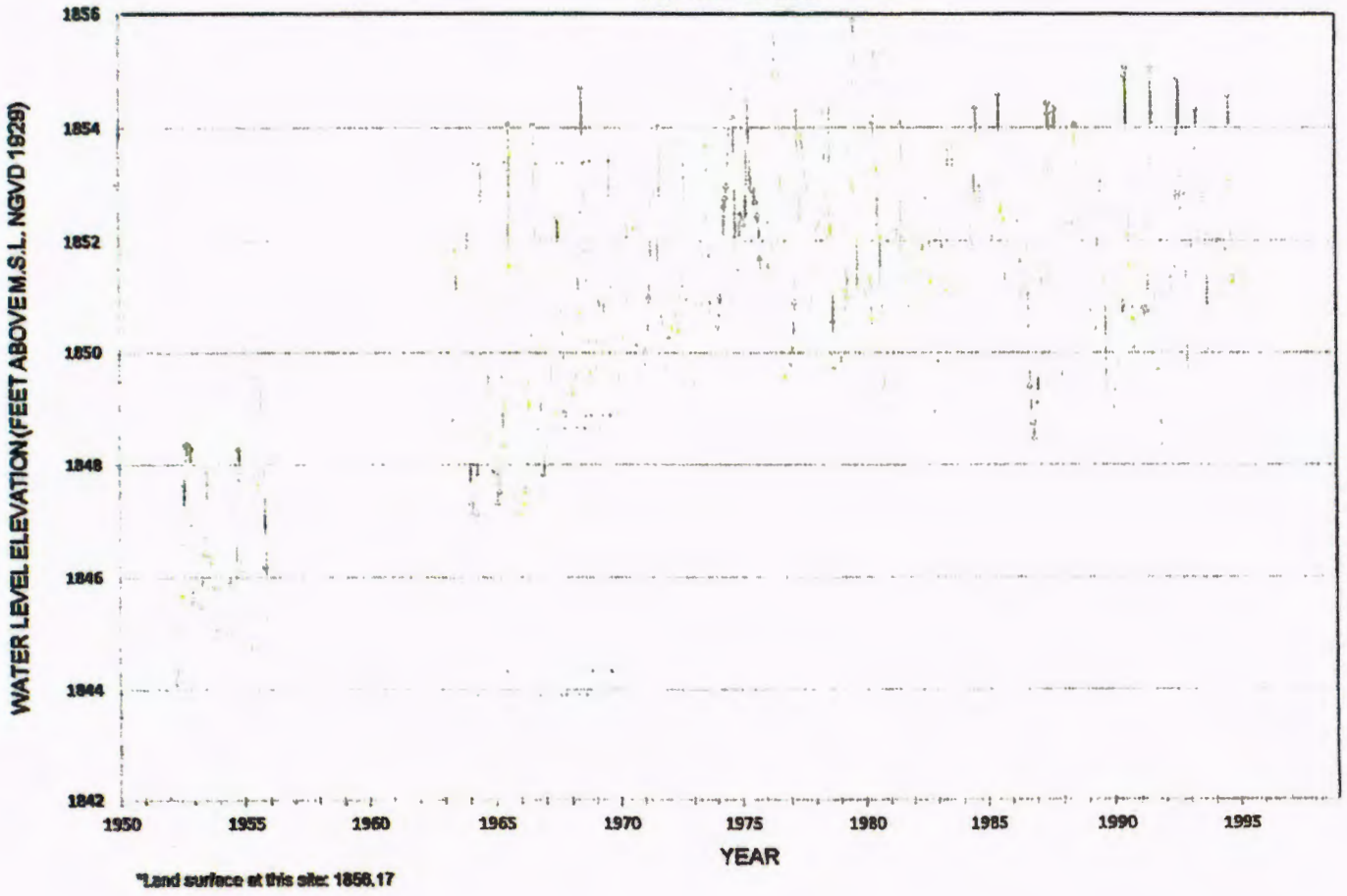
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16**. As illustrated in **Figure 17**, the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 16
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



*Land surface at this site: 1856.17

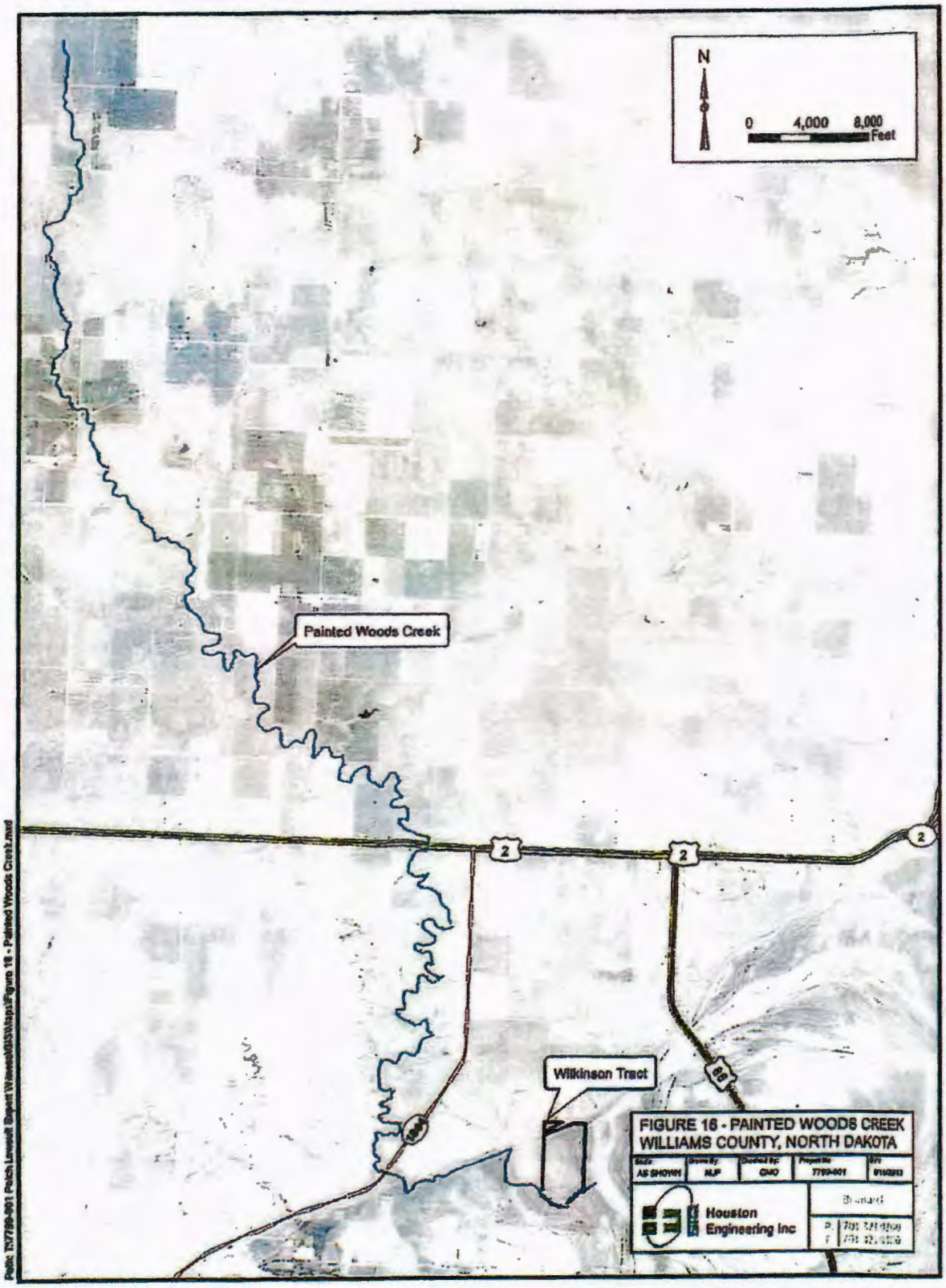
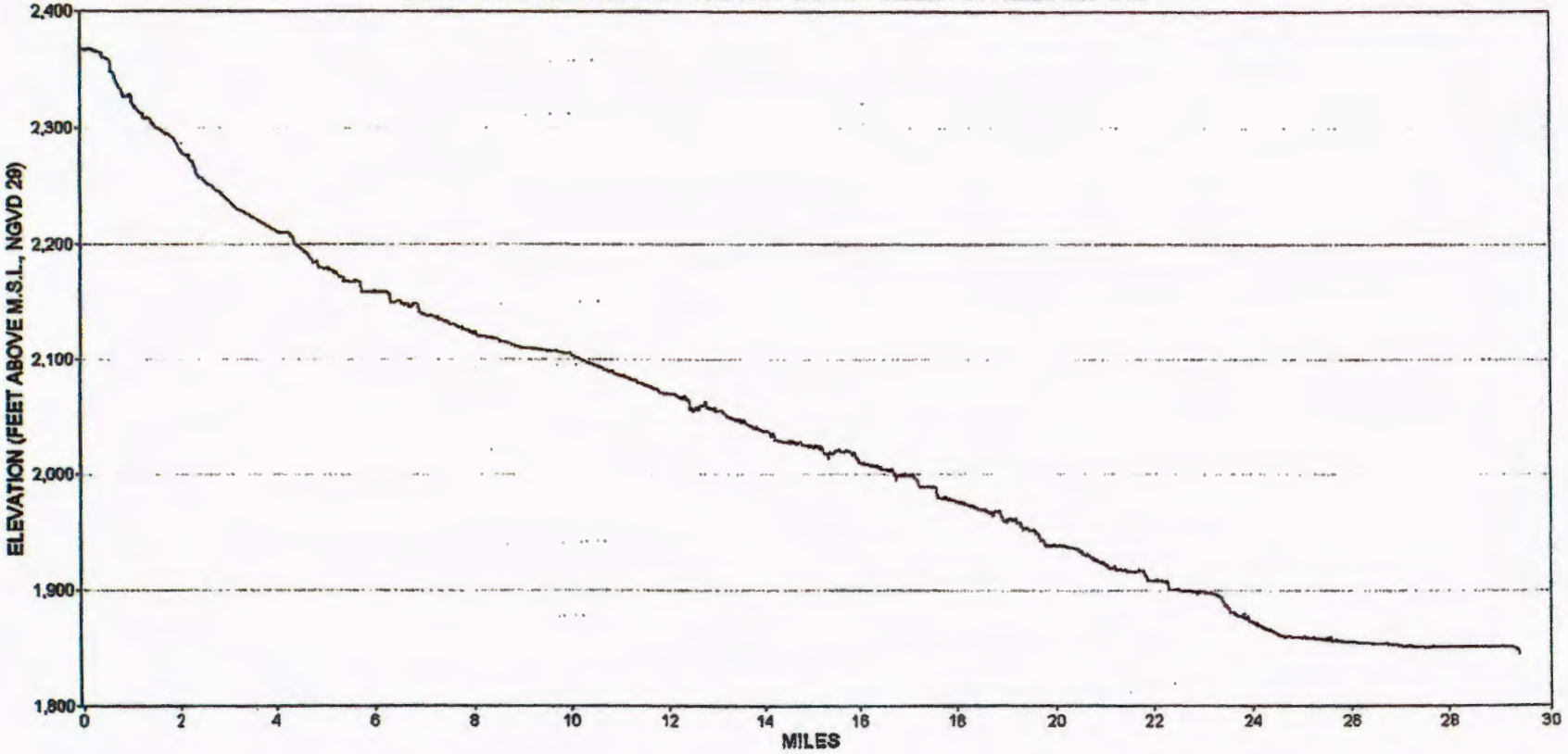

N
0
4,000
8,000
Feet
Painted Woods Creek
2
2
2
Wilkinson Tract
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc

FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.

2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.

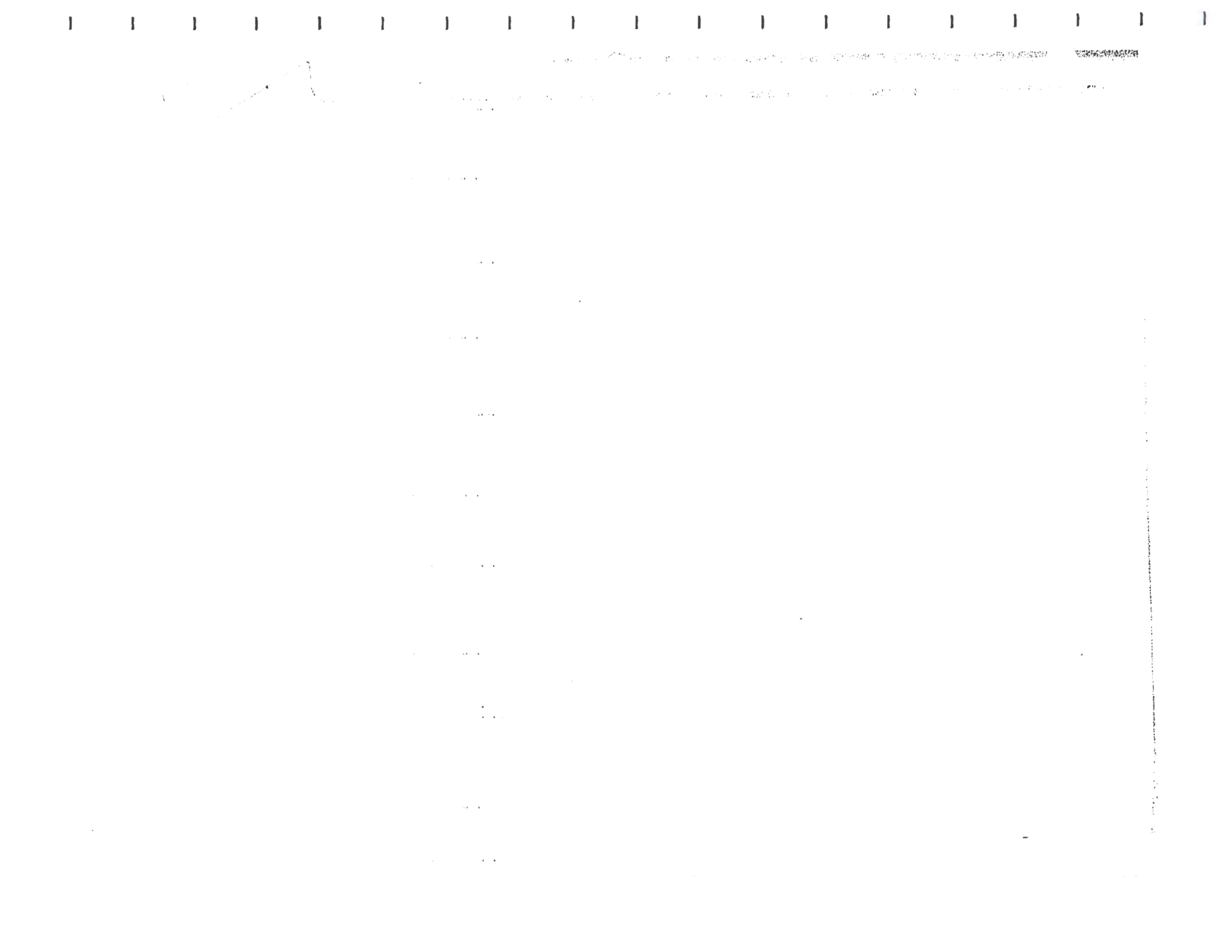
3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.

4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.

5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.

6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx

7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.



State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

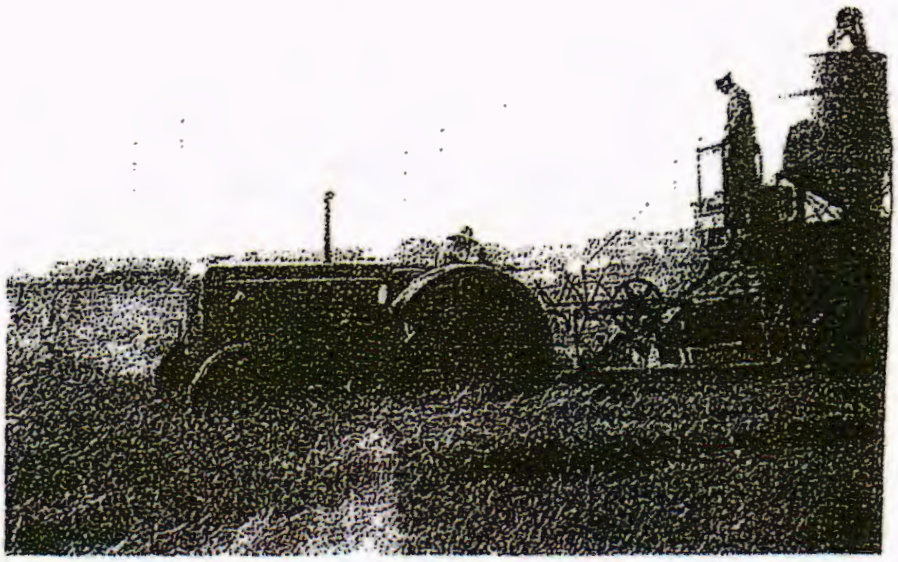
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan

ss.

County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: 2.14.2014

OFFICIAL SEAL
TAMMY WIEMAN
NOTARY PUBLIC State of New Mexico
My Commission Expires

Hi Jan -
thought you'd like ~~it~~ this -
This interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Wilkinson, farmer on the Missouri bottoms in the county near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 255 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940241

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John L. BURGUM, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. NH-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right of interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

(Name)

(Title)

John L. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter ($SW\frac{1}{4}$) and the South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.
which sum is in full satisfaction and discharge of the interest of the undersigned in the premises conveyed.

(Payee or Payees) J. T. Wilkinson
J. T. Wilkinson
Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. BH-3190

Exhibit G-2 – Feb. 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning House Bill No. 1199
House Energy and Natural Resources Committee
February 2, 2017, 8:30 AM

Chairman Porter and members of the Committee, thank you for the opportunity to comment on House Bill 1199. I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea. Private land owners like the Wilkinson family and Vohs family reserved these oil and gas rights when the United States acquired their property for Lake Sakakawea. The oil and gas interests we're talking about have been with these families for generations. The fact these families reserved the oil and gas interests is undisputed. The fact the United States acquired their property because it would be flooded by Lake Sakakawea is undisputed.

Notwithstanding – old wounds have been reopened by the State. Incredibly, the State claims it owns all the oil and gas that was reserved by private property owners when the United States flooded hundreds of thousands of acres of land for Lake Sakakawea. In essence, the State claims the government – federal or state – can flood private property and then claim that they, the government, owns the property. That is offensive, and it's the textbook definition of an unconstitutional taking. I urge you to support HB 1199 as it addresses this wrong.

BACKGROUND

Historically, the State claimed only the original 30,000 acres of the Missouri River riverbed as it existed before Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 2007 letter the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. A copy of the letter is included with this testimony as Exhibit 1. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims ownership of all the oil and gas under Lake Sakakawea. This runs roughshod over, and ignores, private property rights as memorialized by warranty deeds going back to the 1950s where the United States acquired this property from North Dakota citizens – like the Wilkinson and Vohs families. The oil and gas interests were reserved by these private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in the warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 2 and 3.

This has been the subject of litigation in Wilkinson v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038. The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that regardless of how or when thousands of acres were flooded by the United States government for Lake Sakakawea, the State somehow acquired ownership of that land as soon as it was flooded.

HB 1199 addresses the issues raised in that litigation, recognizing that the oil and gas interests owned by the Wilkinson and Vohs families, was affected by and subject to flooding from Lake Sakakawea as discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 4. Likewise, and more importantly, the United States' maps for the Garrison Project show dozens of tracts and thousands of acres west of the Highway 85 Bridge – like the land belonging to the Wilkinson and Vohs families – was acquired by the United States because of the flooding that would be caused by Garrison Dam. Similarly, the clear and unambiguous language in the warranty deeds where the United States acquired the property, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the reservation of the oil and gas rights were subject only to "[t]he right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, … ."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and the government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017 – adding insult to that long-ago injury, our great State seeking to further deprive private owners of their oil and gas interests, interests these private land owners had previously leased to oil companies for nearly sixty years before the State wrongfully claimed ownership of them.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the ordinary high watermark ("OHWM") of the Missouri River in the Garrison Dam area to justify its massive land grab. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam.

The United States Department of Interior ("DOI") has already rejected both of the State's surveys because of their flawed methodology, and because the studies are unsupported by law or the facts. A copy of the DOI's decision from last March rejecting the State's surveys is included with this testimony as Exhibit 5. On page six of its decision, the DOI explains that the State's surveys , "[d]o not comport with federal law and cannot be used to determine riverbed title under the equal footing doctrine." In rejecting the State's surveys, the DOI points out that the State's surveys depict the riverbed to be three times the width of the General Land Office's original surveys. Also of significance, on page 8 of its decision, the DOI affirms the position taken by the Wilkinson family in the litigation – specifically, that the United States' maps were the basis for land title acquisition by the Corps of Engineers for those lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea.

The DOI held that the segment maps are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea, stating:

"The Corps of Engineers Segment Maps are firmly grounded in guidance, methodology and contemporaneous field investigations of the land prior to the effects of flooding. The segment maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with the determinations from in the field investigations by BLM and involvement from the BLM and North Dakota State Land Department and have gone uncontested for over 60 years."

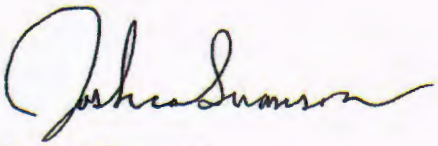
The DOI concluded its decision rejecting the State's surveys by finding the surveys: 1) did not comply with the federal definition of the OHWM; 2) did not honor chain of title or previous involvement by both the State and private landowners with the United States during the course of the Garrison Project; and 3) are an overreaching delineation that impairs the mineral rights of private owners.

HB 1199 addresses this with its language that the OHWM must be located as close as possible to the OHWM of the riverbed channel as it existed before the inundation of the channel that created the lake based on historical records. Effectively, HB 1199 recognizes that the State has title only to the bed of the historic Missouri River as it existed prior to the Garrison Dam, and remedies the State's unconstitutional taking that has deprived private property owners of their oil and gas interests.

As far as the fiscal note prepared by the State, and the State's claims that passing this legislation or SB 2134 will result in the loss of millions in revenue for the State, that's like a bank robber complaining they will have to forfeit the loot they stole from the bank. The money never belonged to the bank robber, they took it from someone else. Likewise, the money being held in suspense in the Strategic Investment and Improvements Fund (SIIF) never belonged to the State in the first place – it belongs to private property owners like the Wilkinson and Vohs families. It's being held in suspense because of the title disputes and legal challenges the State knew would occur as a result of its massive and unconstitutional land grab.

Thank you again for the opportunity to present this testimony. I urge you to pass HB 1199.

Respectfully,



Joshua Swanson

Exhibits Nos. 1 – 5

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: http://swc.nd.gov

2007 AUG 17 AM 8:50

August 13, 2007

Army Corps of Engineers, Omaha District
Attention: District Commander
106 South 15th Street
Omaha, NE 68102-1618

Dear District Commander:

The purpose of this letter is to respond to the Corps' request for comments on the recently released Draft Garrison Dam/Lake Sakakawea Master Plan (Master Plan).

In our May 16, 2007, letter regarding the preliminary draft Master Plan, we provided a number of general comments that were not included in the re-write, such as contingency plans to address the loss of water supply intakes, an analysis of projected recreation demands/needs, and a prioritization of recommendations. We respectfully request that you reconsider those comments in your development of the final report.

As you are aware, the Office of the State Engineer and the State Water Commission believe that the development, maintenance, and protection of water supply intakes should be an important consideration in any planning scenario for Lake Sakakawea. Thus, it is encouraging to see that the Corps has included an inventory of community water supply intakes that draw water from the reservoir, and the elevations at which they anticipate potential problems from low water levels. However, if contingency planning efforts will not be included in the Master Plan as requested in our May 16, 2007, letter; it would be advantageous to at least include a discussion of the Corps' role in correcting problems with community water supply intakes when reservoir levels are at dangerously low elevations. This might include discussions about cost-sharing opportunities for modifications or the availability of technical assistance.

Under EOP #2 it is suggested, "The Master Plan/EA includes information regarding the issuing of intake permits through the Corps regulatory process and aiding municipal and rural systems to ensure functionality of intakes during drought conditions." But that information was not readily apparent, and in fact, seems to be absent all together with the exception of a brief discussion of Section 10 requirements under Public Law 90-483 (82 Stat. 731) on page 2-135.

#5

On page 1-11, it is stated that 30,000 of the 493,000 project acres did not need to be purchased because they were part of the original "riverbed." Further explanation might be appropriate to outline the fact the those 30,000 riverbed acres were, and are, sovereign lands, which are owned and managed by the State of North Dakota, through the Office of the State Engineer (N.D.C.C. 61-33-05) and the State Land Department (N.D.C.C. 61-33-03).

EXHIBIT
1

As a general comment, the Office of the State Engineer and the State Water Commission applaud the development of the updated Garrison Dam/Lake Sakakawea Master Plan. Lake Sakakawea is one of North Dakota's most precious and valuable natural resources. As such, a new Master Plan that considers input from other agencies and members of the general public is long overdue.

We appreciate your consideration of the above comments, and thank you for the opportunity to comment on this important planning process.

Sincerely,

Dale L. Frink, P.E.
State Engineer

ACQUISITION TRACT REGISTER

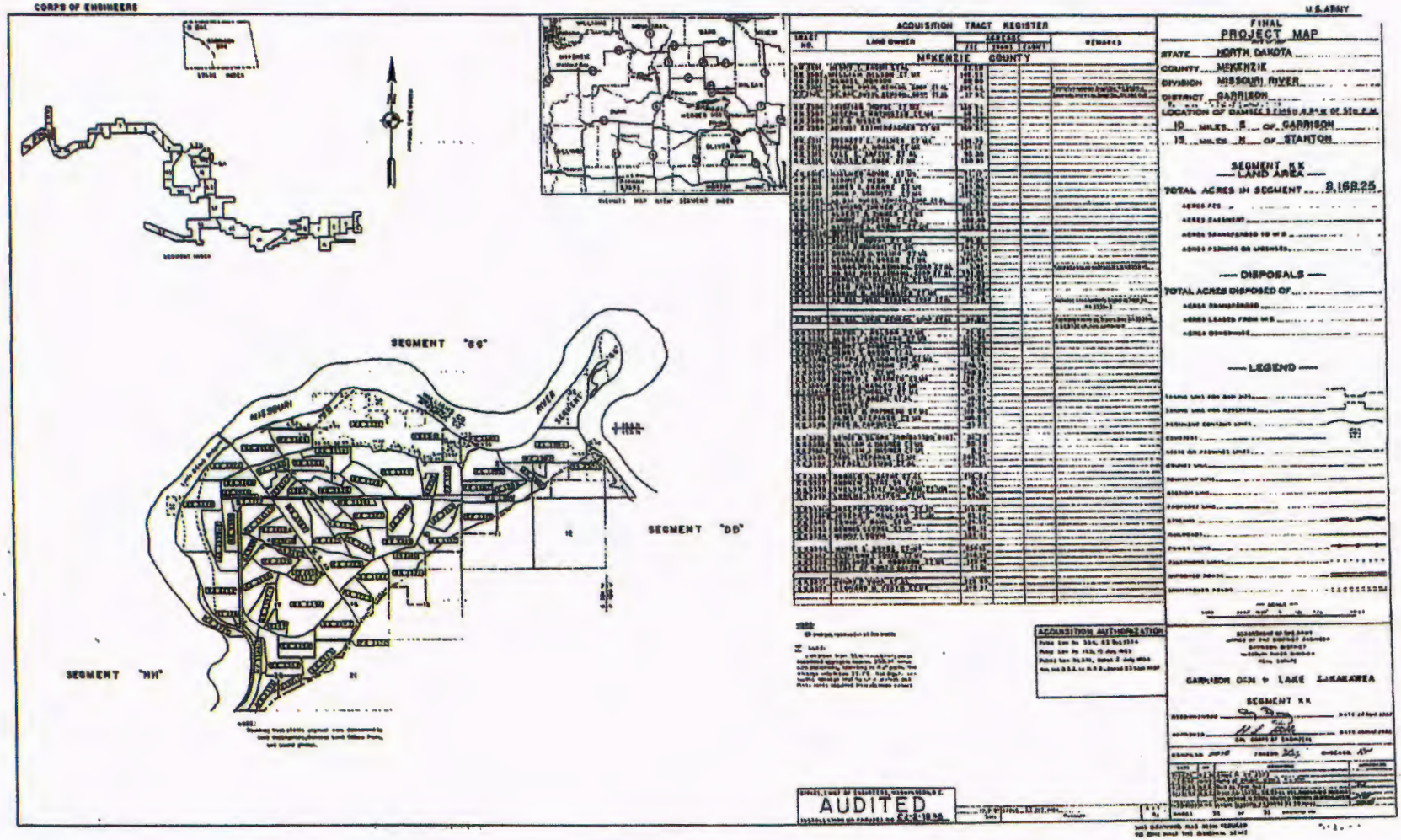
TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS.	ACREAGE EASM'T.	REMARKS
	McKENZIE COUNTY				
	WILLIAMS COUNTY				

EXHIBIT 2

tabbies

CORPS OF ENGINEERS

U.S. ARMY



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACRES FEE	ACRES EASEMENT	REMARKS
	McKENZIE COUNTY			

FINAL
PROJECT MAP

STATE NORTH DAKOTA
COUNTY MCKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAM SEC 3 T150 R84 W OF 5TH P.M.
10 MILES S OF GARRISON
15 MILES N OF STANTON

SEGMENT KK
LAND AREA

TOTAL ACRES IN SEGMENT 8,168.25
ACRES FEE
ACRES EASEMENT
ACRES TRANSFERRED TO W.D.
ACRES FISHING OR UNDEVELOPED

DISPOSALS

TOTAL ACRES DISPOSED OF
ACRES TRANSFERRED
ACRES LEASED FROM W.D.
ACRES REMAINING

LEGEND

ACQUISITION AUTHORIZATION

GARRISON DAM & LAKE SAKAKAWEA

SEGMENT KK

AUDITED

Tract No. HR-3190

1. WARRANTY DEED

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL and CONVEY unto the said party of the second part, and its heirs and assigns FOREVER, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit:

Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 12, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter (SW¼) and the South half of the Northwest quarter (S½NW¼) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter (S½NW¼) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less; subject to existing easements for public roads and highways.

[redacted] owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

and ~~its~~ assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances,

and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and ~~its~~ assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Signed and Delivered in Presence of

J. T. Wilkinson

Evelyn M. Wilkinson, his wife

EXHIBIT 3

Filed - Clerk of District Court
7/1/2014 2:37:29 PM
Williams County, ND

12

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 388165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 37.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that t he y executed the same.

(N. P. Seal)

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

My commission expires Nov. 19, 1958.

STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

THELMAR E. ROLFSTAD
Notary Public for the County of Williams
State of North Dakota

My commission expires Nov. 19, 1958.

288165

DOC. NO.
GRANTOR
GRANTEE
CONVEYANCE
FEE
RECORDED

TRANSFER FEE $ .25
TO
RECORDING FEE $1.25

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA,
County of WILLIAMS } ss.

I hereby certify that the within Warranty Deed was filed in this office for record on the 1 day of JUN 1 1958 A. D. 19 at 11 o'clock A M. and was duly recorded in Book 77 of Warranty Deeds on page 1

Register of Deeds
By Deputy

Delinquent taxes, if any, special assessments, interest and costs

County Auditor
By Deputy

KK-3371

BOOK 87 PAGE 505

Document No. 155142

WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for

said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER, And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
STATE OF NORTH DAKOTA

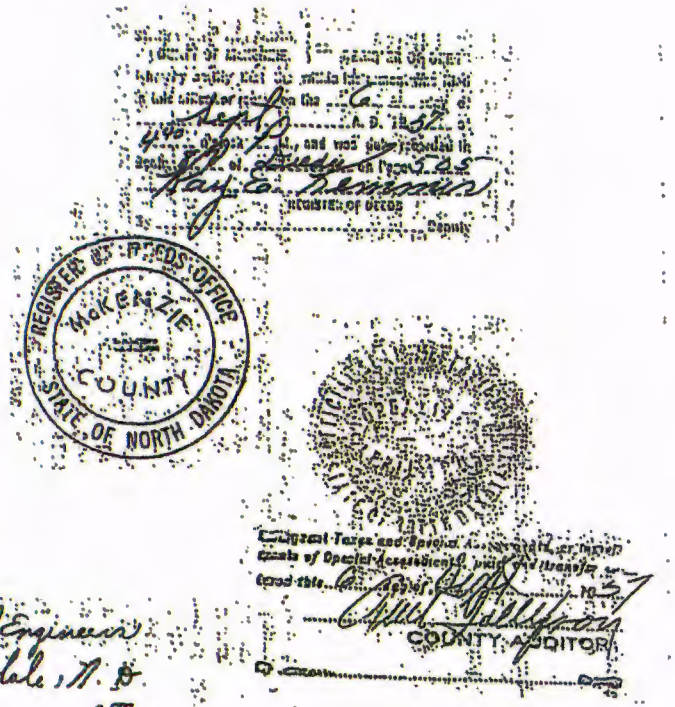
My commission expires July 11, 1959

Notary Public for the County of Williams, State of North Dakota

F. A. WENSTROM
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

Document No. 155142

BOOK 87 PAGE 508



Corps of Engineers
Riverdale, N. D.

June 19, 2013

HoustonEngineering Inc.

Wilkinson Trust Estate

Ordinary High Water Mark

EXHIBIT
tabbies
4

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E./P.H.
North Dakota Reg. No. 1729

Date: June 20, 2013

HoustonEngineering Inc.

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Appendix A	Affidavits
Appendix B	Certificate of Inspection and Possession

The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1554.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

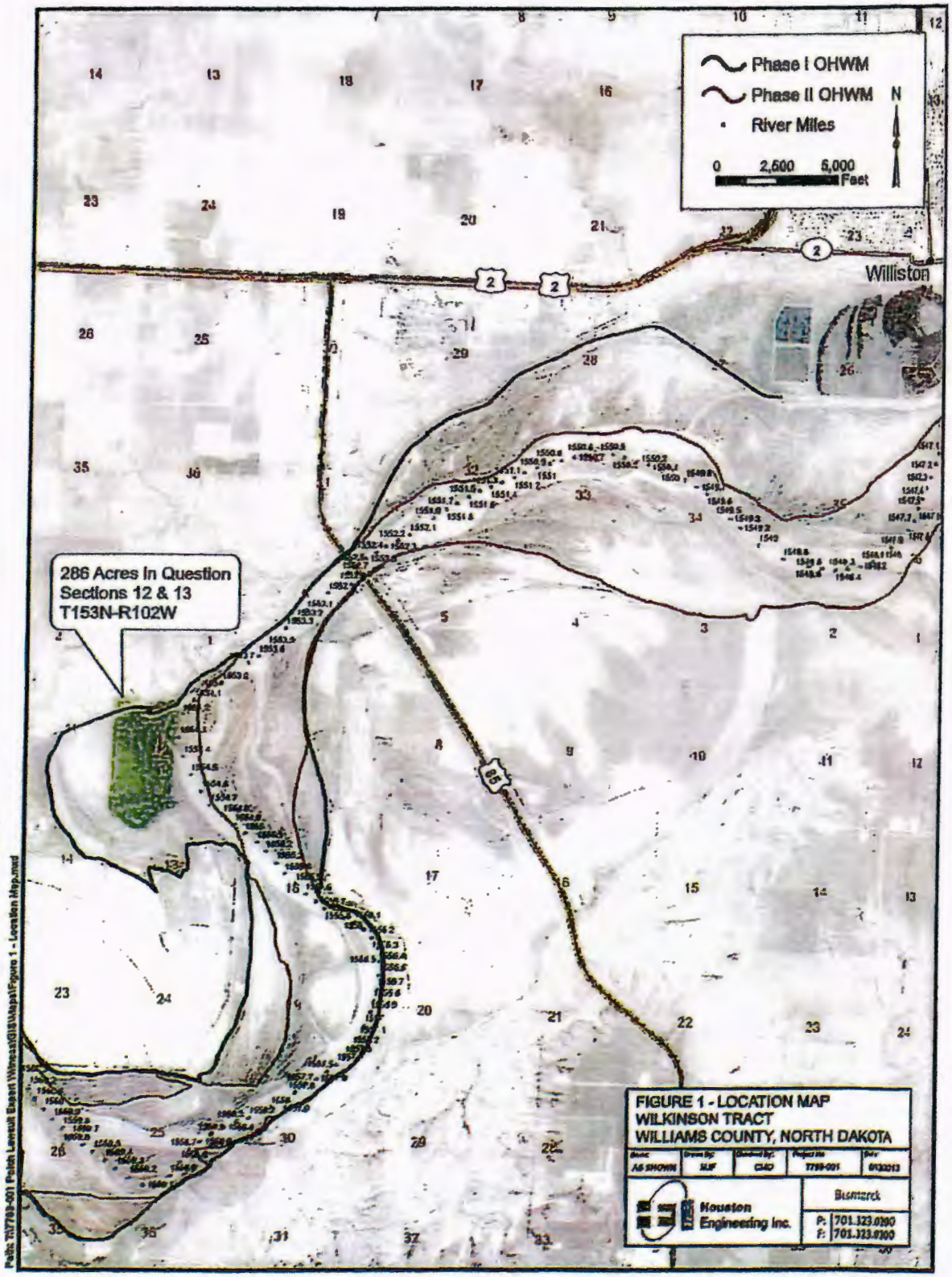
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

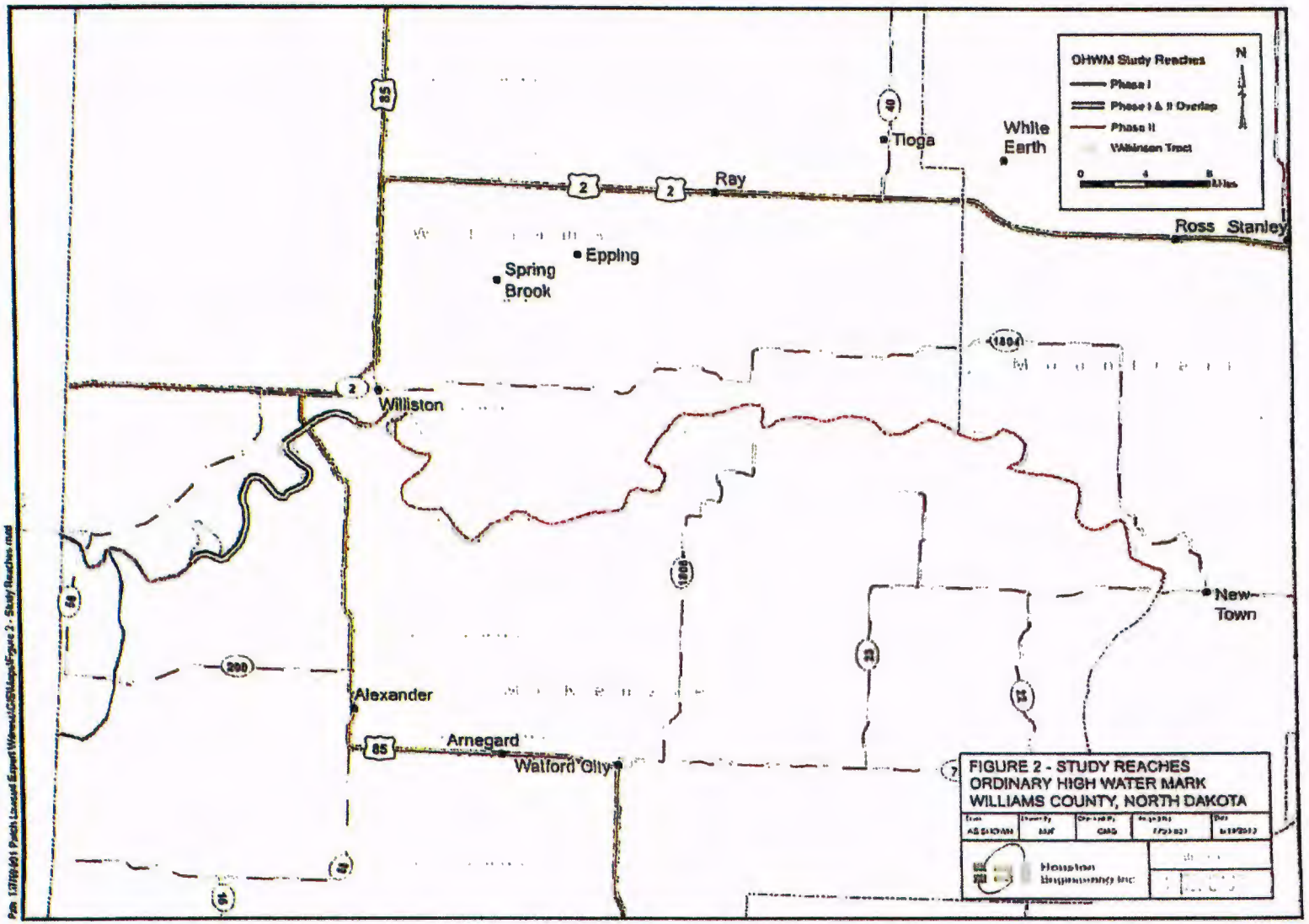
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.5. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
Williston
286 Acres In Question
Sections 12 & 13
T153N-R102W
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300
Path: N:\7799-001 Fidelity Exploration & Production Company\Lawsuit Event Witness\GIS\Maps\Figure 1 - Location Map.mxd


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Wilkinson Tract
N
0
4
8
Miles
Tioga
White Earth
Ray
Ross
Stanley
Epping
Spring Brook
Williston
New Town
Alexander
Arnegard
Watford City
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6**. With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.

N
0 1,500 3,000
Feet
30
29
36
31
1
6
4
11
12
9
14
18
16
23
21
26
30
T150N-R97W
T150N-R98W
FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7785-001
Houston
Engineering Inc
Grimsrud
Path: I:\7785-001 Polich Lawsuit Report\Wmsat\GIS\Maps\Figure 3 - 1958 Aerial Imagery.mxd

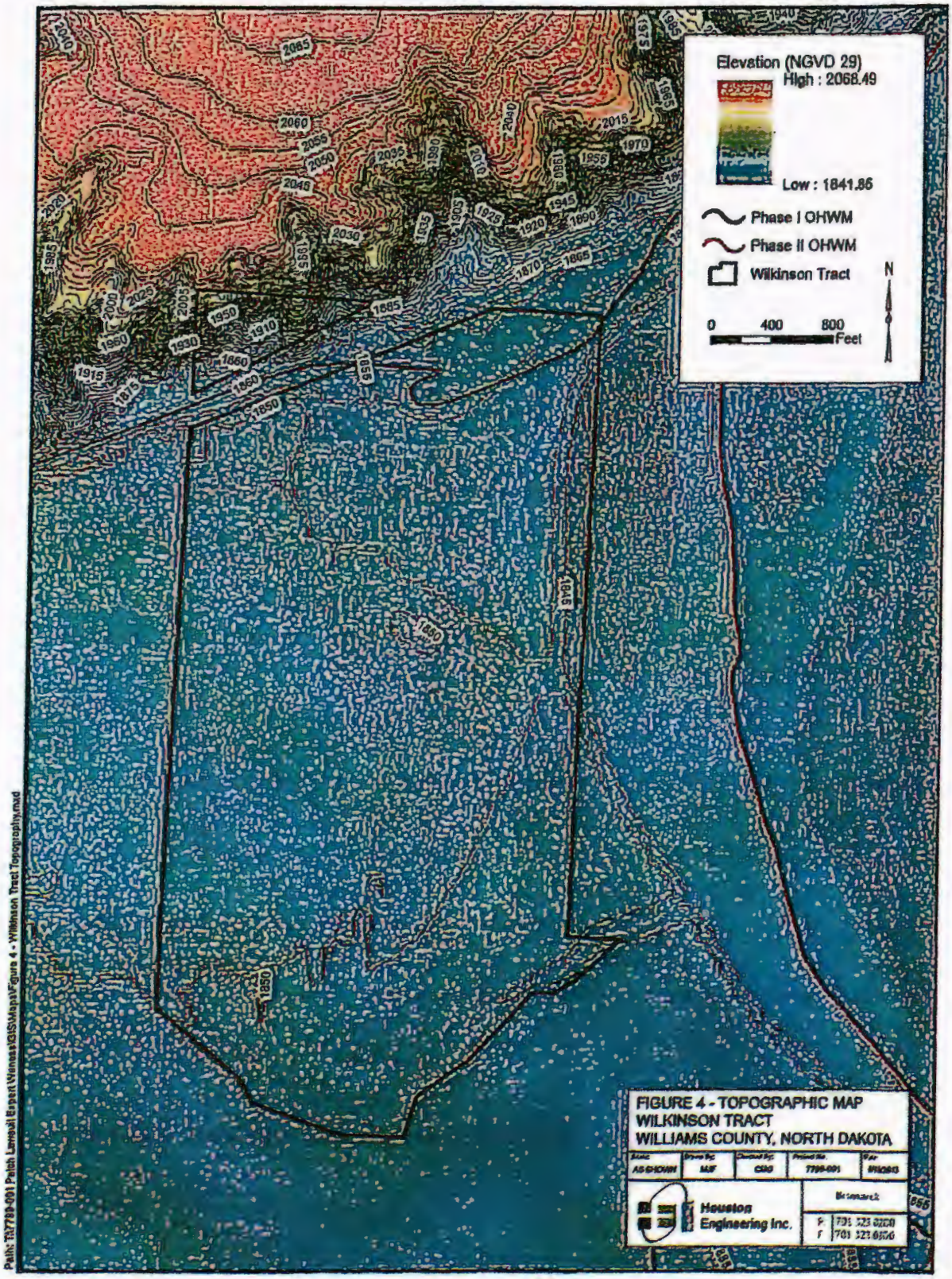

Elevation (NGVD 29)
High : 2068.49
Low : 1841.86
Phase I OHWM
Phase II OHWM
Wilkinson Tract
N
0
400
800
Feet
FIGURE 4 - TOPOGRAPHIC MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Path: T:\7789-001 Polich Lawsuit Expert Witness\GIS\Maps\Figure 4 - Wilkinson Tract Topography.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

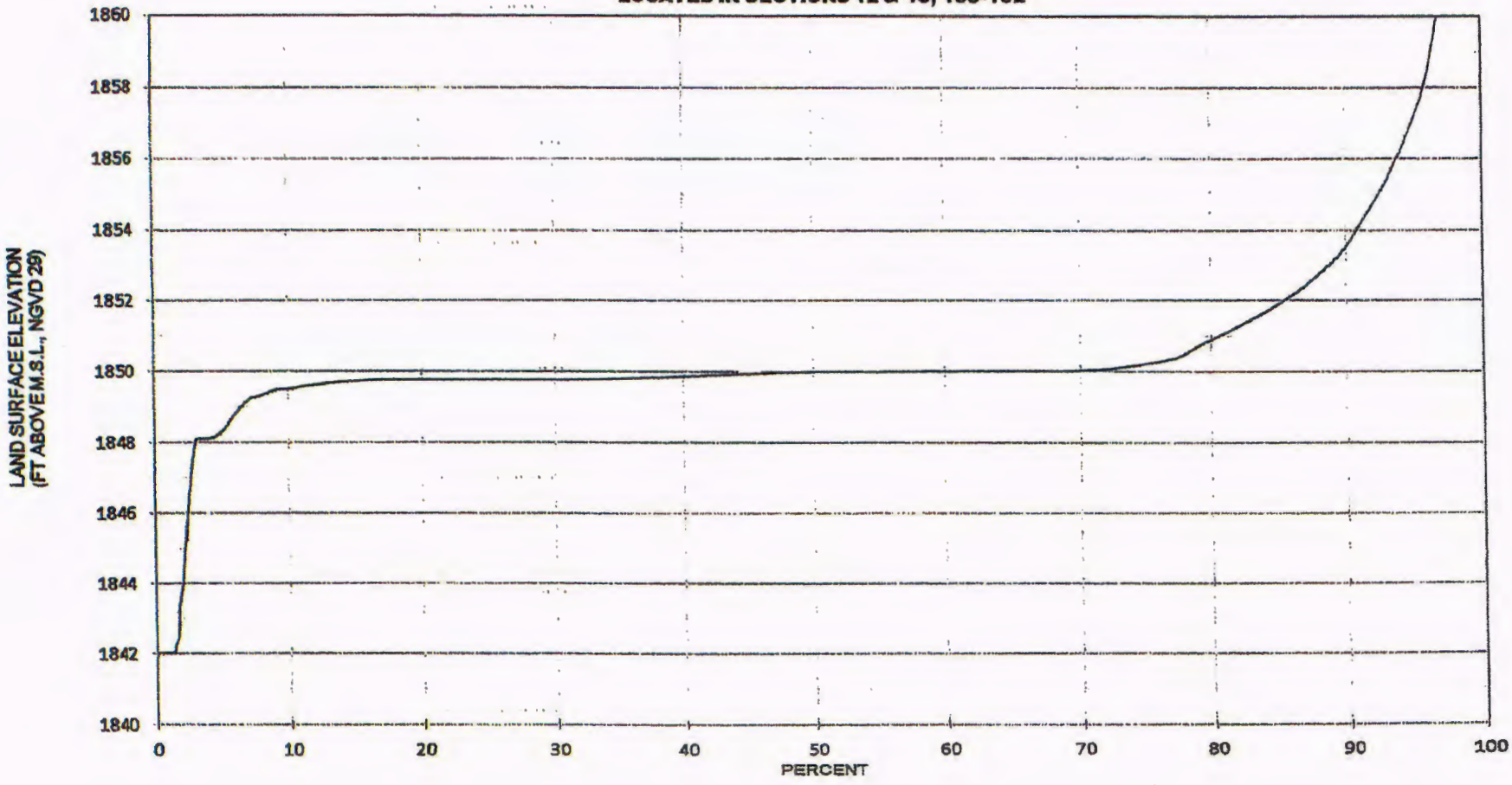


FIGURE 6

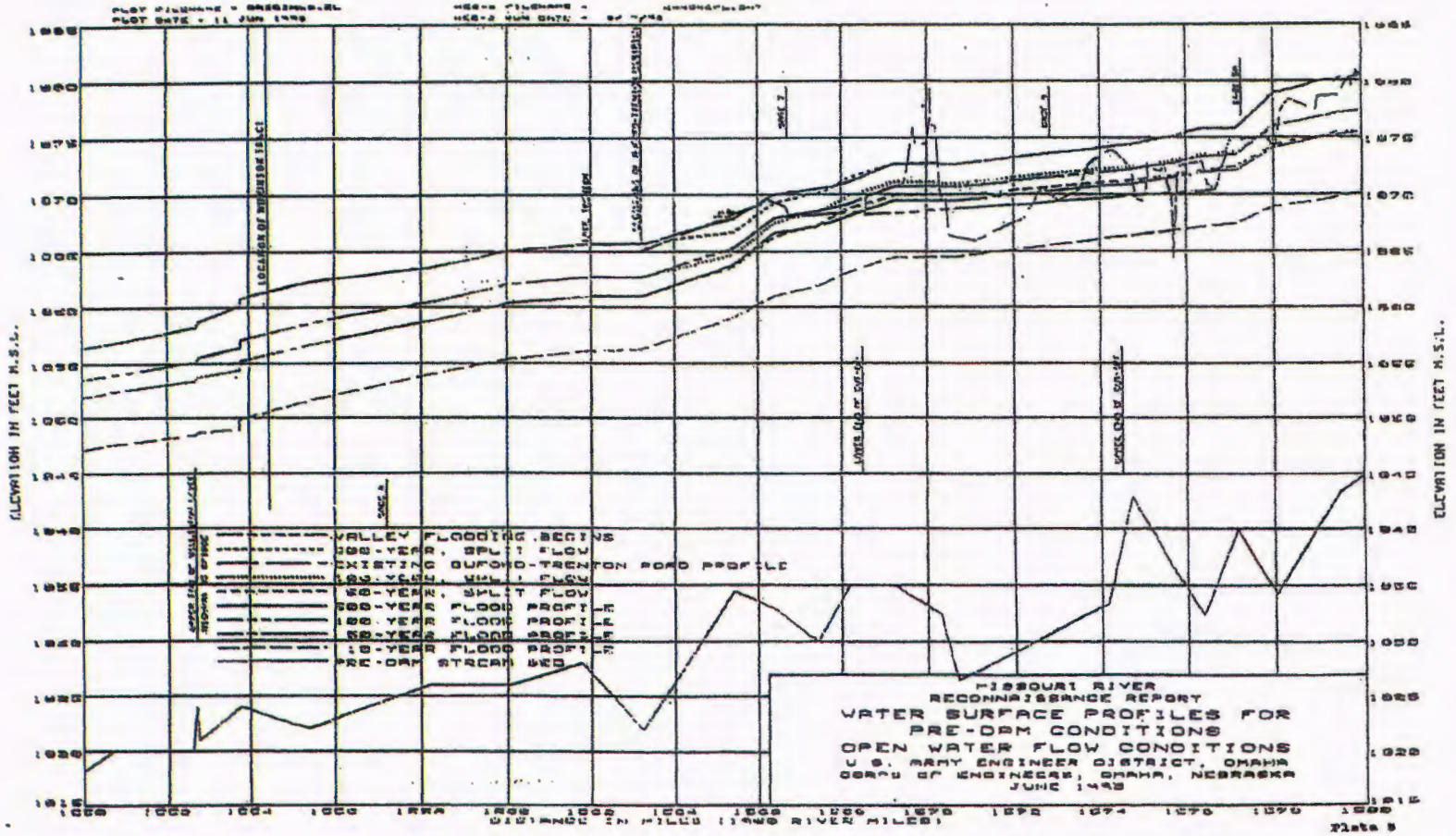
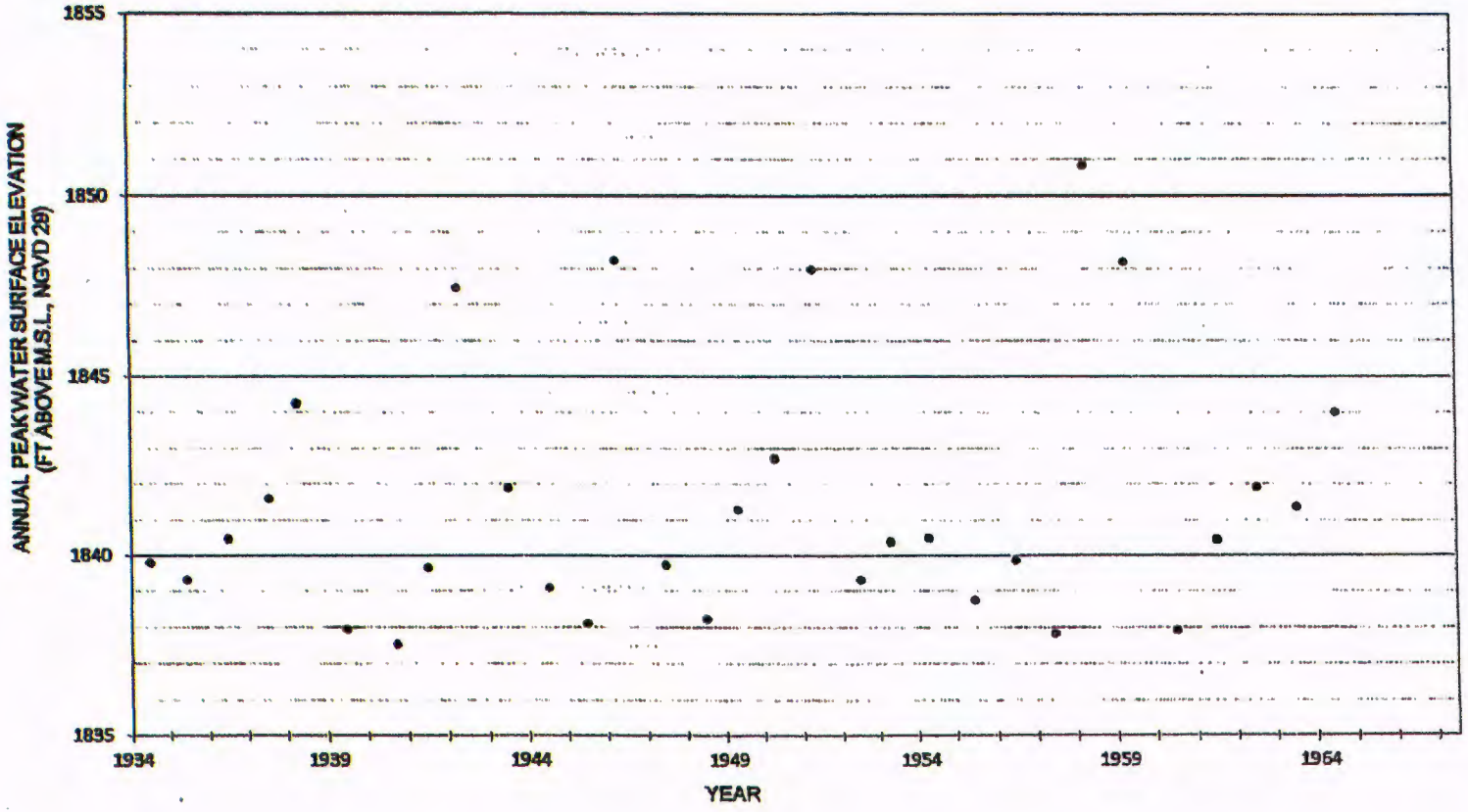

ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (MWD RIVER MILES)
VALLEY FLOODING BEGINS
EXISTING BUFORD-TRENTON ROAD PROFILE
PRE-DAM STREAM BED
MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1952
Plate 5

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

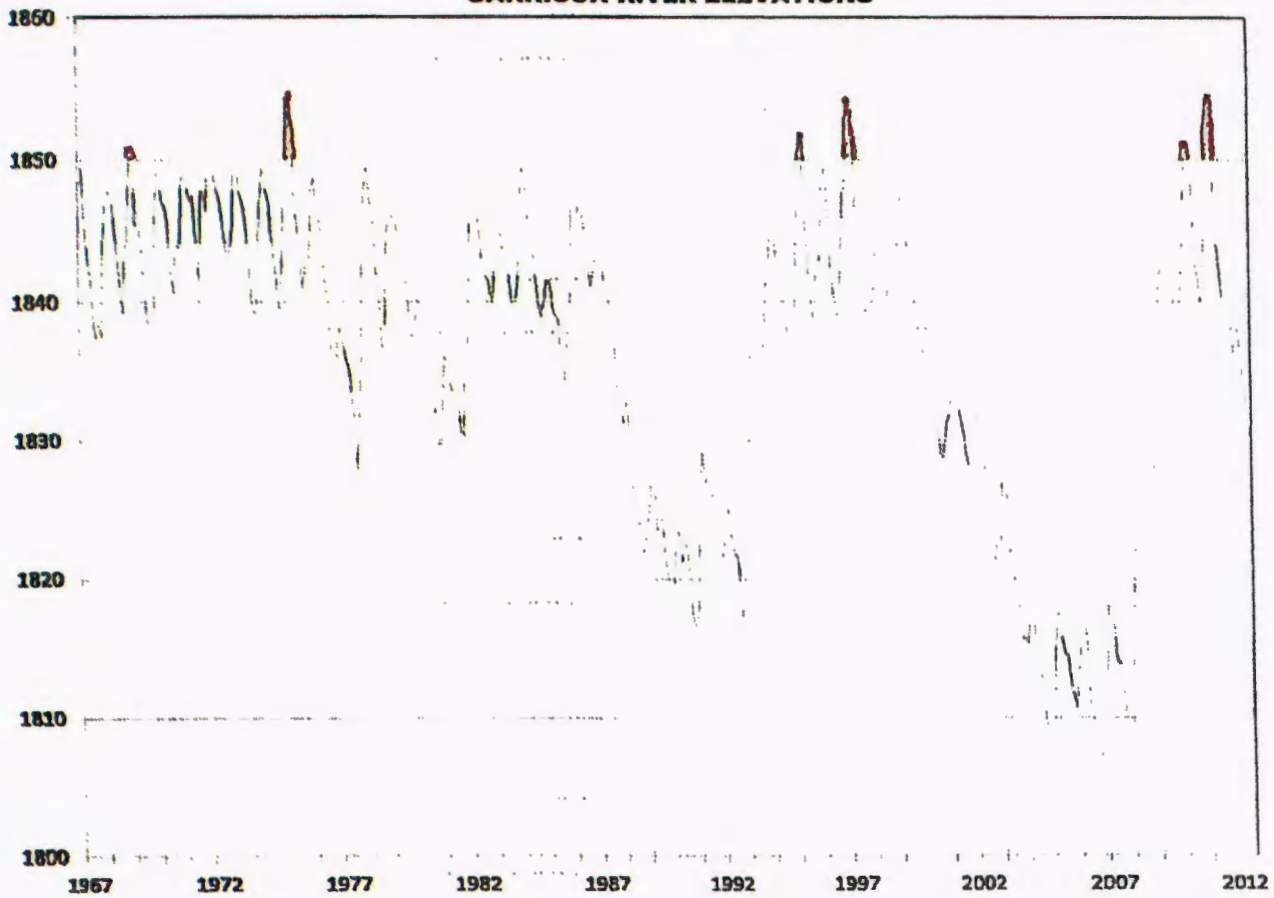
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

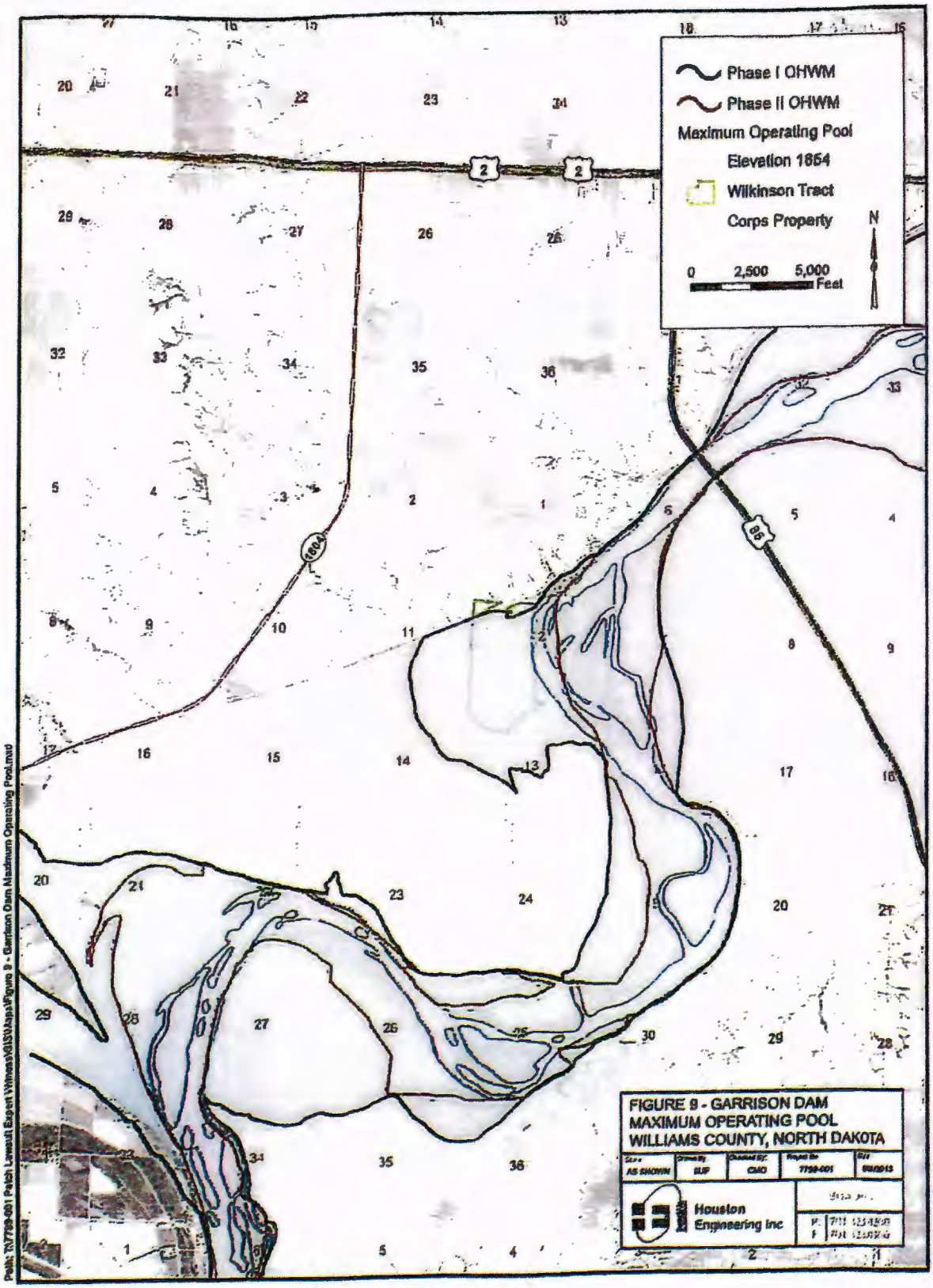
Point #2 Summary

The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool
Elevation 1854
Wilkinson Tract
Corps Property
N
0
2,500
5,000
Feet
1804
2
85
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
ELP
CMO
7759-001
Houston
Engineering Inc
Path: N:\7759-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 9 - Garrison Dam Maximum Operating Pool.mxd

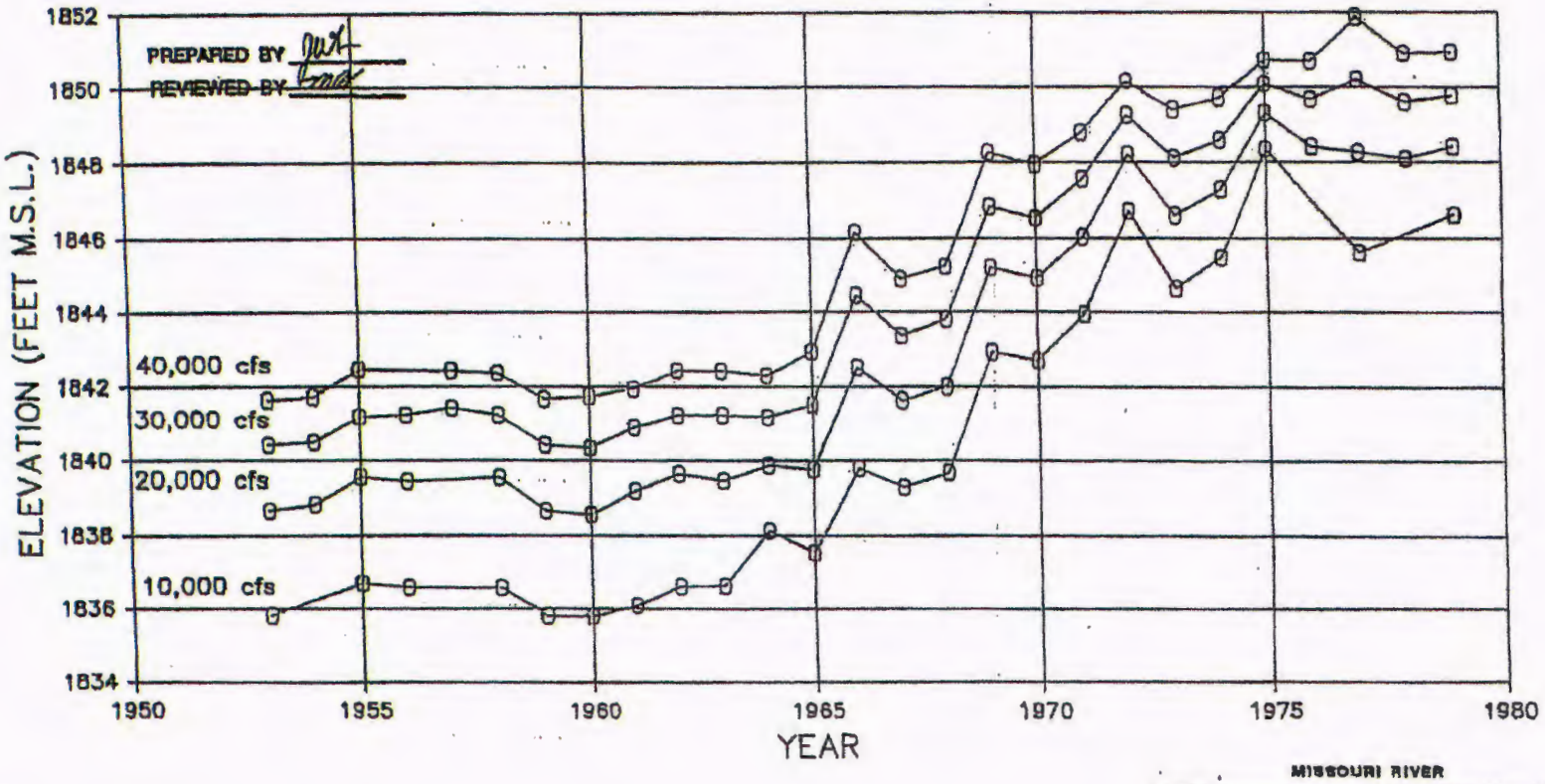
N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7799-001
Houston Engineering Inc
Path: I:\7799-001 Petch Lowest Expnt Wtlnds\GIS\Mxds\Figure 10 - 1975 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
21
25
30
32
1
6
28
27
35
36
FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston
Engineering Inc.
Path: N:\7795-001 Patch Lawsuit Expert Witness\GIS\MXDs\Figure 11 - 1997 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
25
30
34
2
21
22
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT
Stage Trends - Gage 8
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

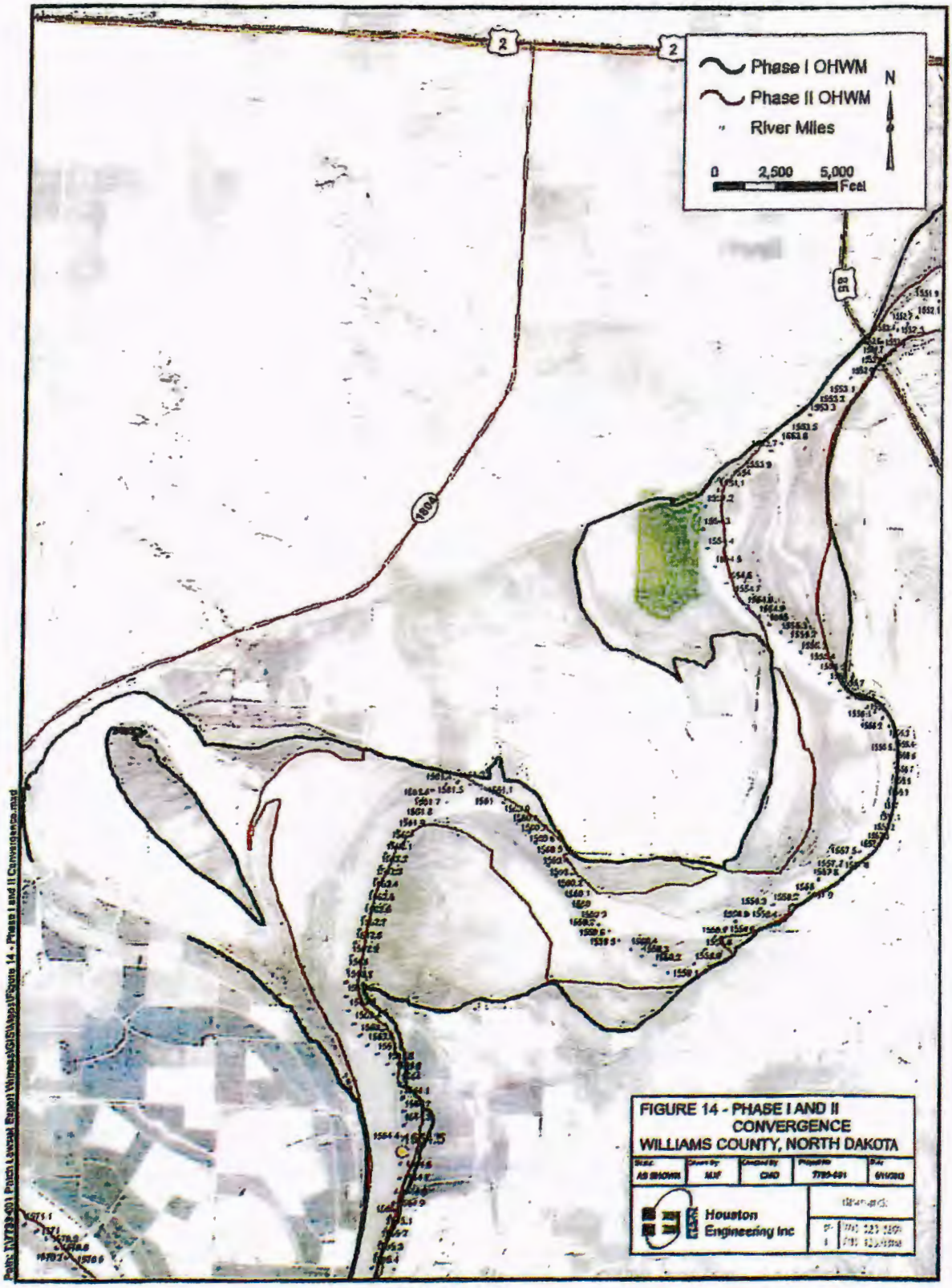
The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

he use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no ientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson act. The OHWM as delineated using the historic aerial imagery in the Phase II Study is more appropriate indication of the boundary between the riparian and the public rests in the area of the Wilkinson Tract.


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
2
1804
FIGURE 14 - PHASE I AND II CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

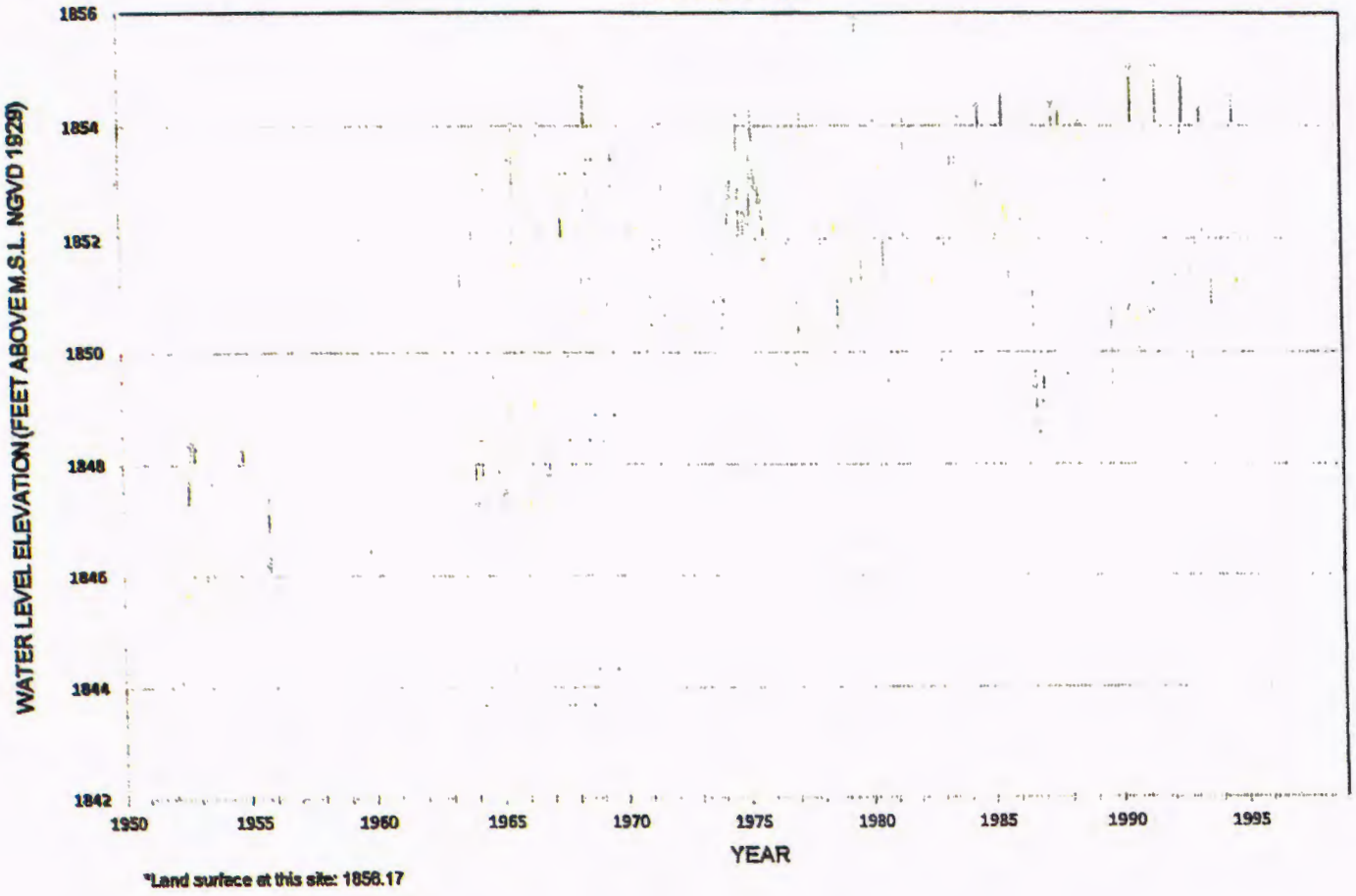
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16**. As illustrated in **Figure 17**, the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 15
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



*Land surface at this site: 1856.17

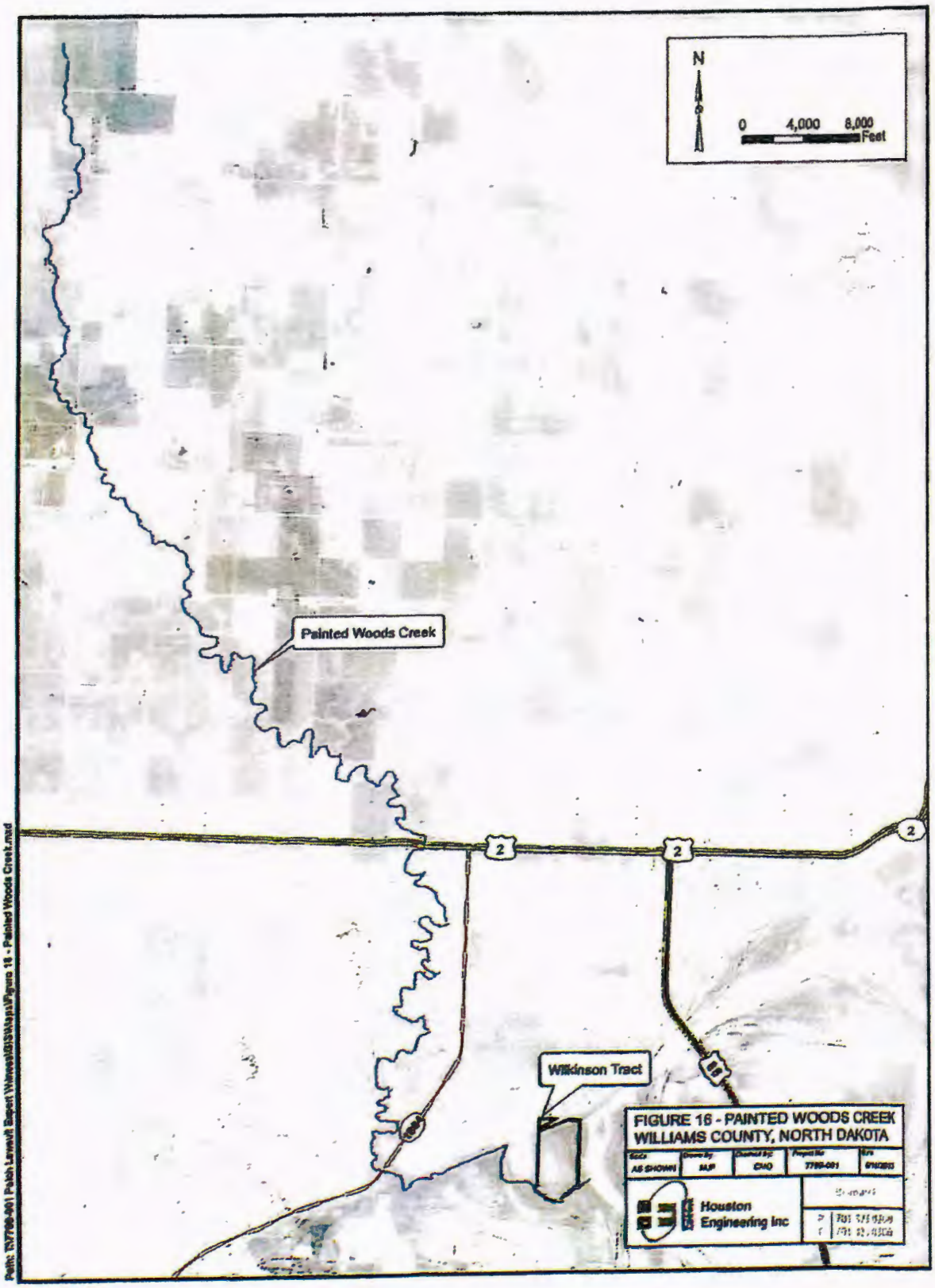
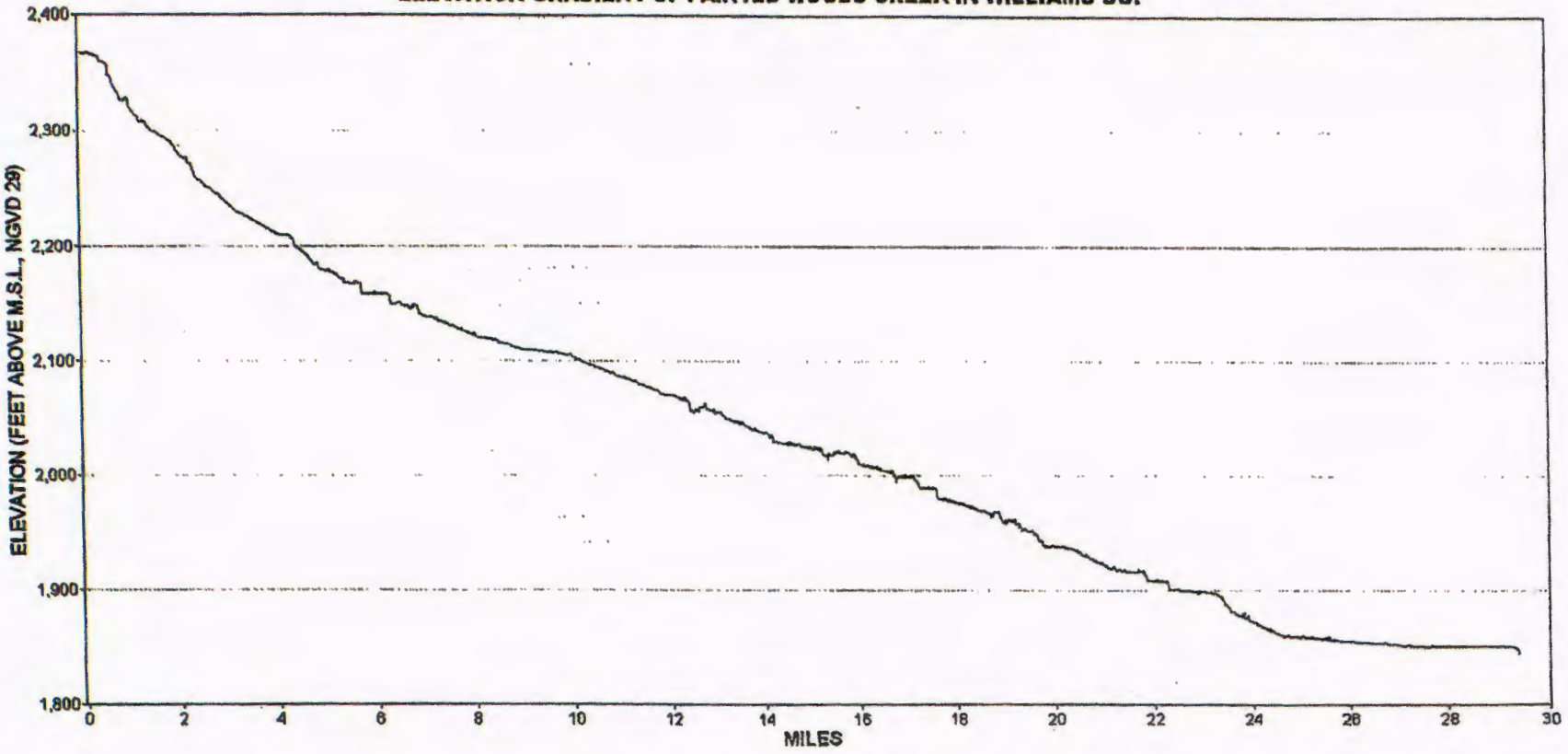

N
0
4,000
8,000
Feet
Painted Woods Creek
2
2
2
Wilkinson Tract
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJP
CHO
7799-001
Houston Engineering Inc
Path: I:\7700-001 Polish Lawsuit Report\Wetland\GIS\Maps\Figure 16 - Painted Woods Creek.mxd

FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.
2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.
3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.
4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.
5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.
6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx
7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.

State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

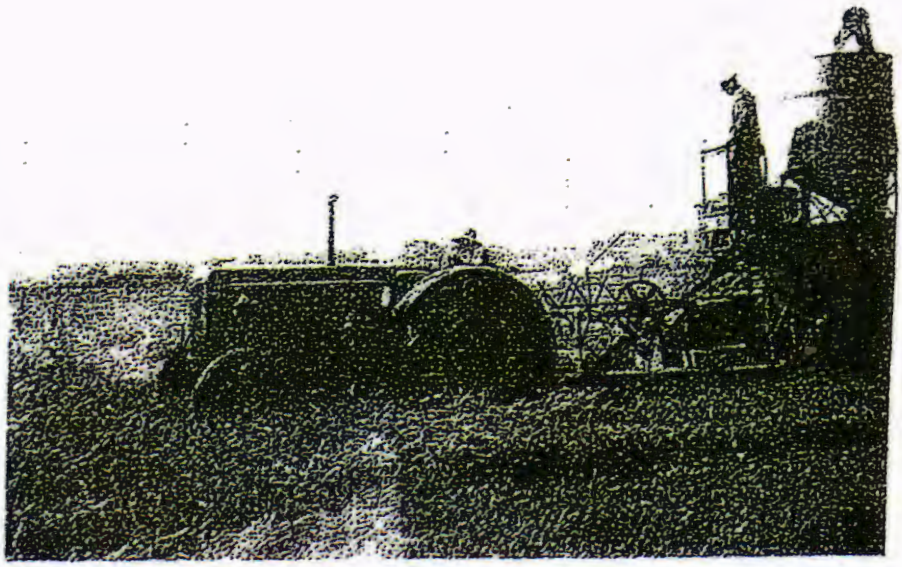
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan

ss.

County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: OFFICIAL SEAL TAMMY WIEMAN NOTARY PUBLIC State of New Mexico My Commission Expires 2-14-2014

Hi Jan -
Thought you'd find this interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Wilkinson, farmer on the Missouri bottoms in the country near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 255 acres which gave an average yield of 26 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940s41

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John L. Burgum, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. NR-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right or interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

_____ (Name)

_____ (Title)

John L. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter ($SW\frac{1}{4}$) and the South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.
which sum is in full satisfaction and discharge of the interest of the undersigned in the premises conveyed.

(Payee or Payees) J. T. Wilkinson
J. T. Wilkinson
Evelyn M. Wilkinson
Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. HH-3190

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive
Billings, Montana 59101-4669
www.blm.gov/mt

In Reply Refer To:
9661 (MT926)

March 23, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Lance D. Gaebe
Commissioner of University and School Lands
North Dakota Department of Trust Lands
P.O. Box 5523
Bismarck, ND 58506-5523

Mr. Todd Sando
State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505-0850

Dear Messrs. Gaebe and Sando:

We are in receipt of your statement of reasons received on December 10, 2014, supporting the two letters of intent to protest the official filing of Supplemental Plats by the Branch of Cadastral Survey. The letters of intent to protest were received on August 6, 2014, from the North Dakota Department of Trust Lands and August 7, 2014, from the Office of the State Engineer (OSE).

In your statement of reasons, you assert two reasons why the Bureau of Land Management (BLM) should not officially file the Supplemental Plats, approved April 9, 2014, and May 8, 2014, representing the geographic limits of the Public Domain interests. Your reasons are:

1) The BLM's Supplemental Plats should utilize the Ordinary High Water Mark (OHWM) survey initiated by North Dakota in 2009 that follows the OSE's 2007 guidelines; and
2) The Army Corp of Engineer's (COE) Acquisition Segment Maps (Segment Maps), upon which the Supplemental Plats are based, are not an accurate reflection of the OHWM.

The State of North Dakota's (State) OHWM delineation, as depicted on Enclosure 1, claims approximately 1,140 acres of Public Domain[1] subsurface estate and 896 acres of Public Domain surface estate on the Supplemental Plats to be State sovereign land. In addition, the State also claims approximately 2,637 acres of fee subsurface estate and 2,881 acres of COE-acquired surface estate as State sovereign land, which are not addressed on the Supplemental Plats.

[1] For clarification, Public Domain interests in the State of North Dakota refer to land interests (surface and subsurface) where title has never left the Federal Government.

EXHIBIT
5

Your protest points are focused on the location of the OHWM line, depicted on the Supplemental Plats, which is the boundary between upland ownership and State riverbed title under the Equal Footing Doctrine.

Riverbed Title Under the Equal Footing Doctrine

Your protest concerns riverbed title and not public trust issues. This distinction is important because it controls the source of law to be applied in defining the OHWM. A recent United States Supreme Court decision distinguishes the two in *PPL Montana, LLC v. Montana* 132 S. Ct. 1215, 1235 (2012):

> *"Under accepted rules of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine."*

Thus, federal law determines riverbed title under the equal footing doctrine. The following leading federal court cases provide the controlling definitions of the OHWM.

In *Howard v. Ingersoll*, 54 U.S. 381, ___ (1851), the United States Supreme Court's ruling focused on a line impressed upon the bank by the action of water as the primary indicator of the OHWM and marking the permanent bed of the river. The court also found that the bed of a river does not encompass lands outside of the banks that are subject to periodic overflow nor does it include those lands that are viable for agriculture or grazing:

> *"It neither takes in overflowed land beyond the bank, nor includes swamps or low grounds liable to be overflowed, but reclaimable for meadows or agriculture, or which, being to low for reclamation, though not always covered with water, may be used for cattle to range upon, as natural or uninclosed pasture. 54 U.S. at 415-16."*

The concurring opinions provide more clarification and established the importance of an examination of vegetation that separates the riverbed from upland, and help provide basis for subsequent federal court case definitions.

Approximately 50 years later, the Eighth Circuit reiterated *Howard v. Ingersoll* in slightly different wording:

> *"The bed of the river is that soil so usually covered by water that it is wrested from vegetation . . . and does not extend to or include that upon which grasses, shrubs, and trees grow, though covered by the great annual rises."*

Harrison v. Fite, 148 F. 781, 783 (8th Cir.1906).

A more recent federal district court case addressed the OHWM of a lake but lends guidance that transitional marshlands are not enough evidence for inclusion within the OHWM:

> *"At most the evidence shows that the dike stands on property that has historically served as marshland for Lake Harney periodically absorbing the lake's high waters*

and periodically serving as productive agricultural land for its owners. This is not enough to infer that the dike stands below the ordinary high water mark the point at which the bed of the lake ends and the fast lands begin."

United States v. Cameron, 466 F. Supp. 1099, 1114 (M.D. Fla. 1978)

And, finally, *United States v. Claridge*, 416 F. 2d 933, 934 (9th Cir.1969) references the definition in *Howard v. Ingersoll* and calls for a natural feature and further explains that the OHWM does not include the floodplain from bluff to bluff due to spring floods:

"The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."

The BLM's Manual of Surveying Instructions, 2009 (Manual) has interpreted these leading cases on OHWM and summarized them into a contemporary definition of the OHWM for the surveyor in section 3-164:

"For inland waters, the OHWM normally used is the line below which the water impresses on the soil by covering it for sufficient periods to deprive it of terrestrial vegetation, and the soil loses its value for agriculture, including the grazing of livestock."

The Manual provides guidance in section 3-167 on locating the OHWM by utilizing the vegetation examination:

"A small pocket of an aquatic type plant growing in low places not in the riverbed is also not an indicator of the OHWM and does not indicate that the OHWM should be moved toward upland to include that pocket of aquatics. It is the most water-ward location of the terrestrial species that is determinative."

Rivers and OHWMs have been moving on the earth's surface for thousands of years and remnants of those movements are evidenced on virtually every aerial photo. However, we concern ourselves with the date on which rights were established, such as date of statehood and subsequent river movements for riverbed title under the Equal Footing Doctrine and entry dates for patents. The original surveys by the General Land Office classified upland of the Public Domain for patenting and created survey plats; generating the first representation of all of the rights within a township in relationship to one another. Since you are not challenging the validity of the original surveys, in this case we concern ourselves with the location of the OHWM prior to the artificial rising of the Missouri River to form Lake Sakakawea.[2]

[2] Serving as background timeline information, the construction of Garrison Dam was authorized by the Flood Waters Control Act of 1946 and caused the artificial rising of the Missouri River to form Lake Sakakawea. Construction began in 1946 with reservoir filling initiated in December of 1953 and reaching minimum operating pool on August 7, 1955. http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487634/garrison-project-statistics.aspx

To resolve your protest, we will address locating the line of ordinary high water, both legally and factually. It must be accepted that the OHWM along a river is an ambulatory boundary that migrates through the normal actions of accretion and erosion and has moved since rights were bounded by it. While we agree there will be some differences in location based on dates of aerial photography and dates of field work due to accretion and erosion, it appears that your OHWM guidelines do not comport with federal law and cannot be used to determine riverbed title under the Equal Footing Doctrine.

Discussion of State Reason No. 1

A) OSE's OHWM Delineation Guidelines of 2007

The BLM's Branch of Cadastral Survey has reviewed the OSE's OHWM Delineation Guidelines of 2007 and finds it mostly in conformity with the federal definition except for defining grazing of livestock and certain agriculture as being below the OHWM, as outlined in the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea which states:

> *"Areas below the OHWM may have vegetation suitable for grazing but wetland vegetation capable of being grazed is not an "ordinary agricultural crop."*
>
> *Another complicated area included the low lying hayfields. For this study, the term "field" refers to hayed or mowed areas, and does not imply that the area has been cultivated or seeded. Farming practices along the river during drier, low water periods often extended into the lower floodplain areas, closer to the water's edge. These "fields" may be cut for hay, or cultivated for a short time, but rapid colonization of wetland species on these hay fields likely occurred when the wetter period and subsequent higher water levels returned."*

The grazing statement is in direct contradiction to the *Howard v. Ingersoll* reference of *natural or uninclosed* pasture and the Manual definition of OHWM. *United States v. Cameron* references marshland that periodically absorbs the high waters and periodically serves as productive agriculture which was directly tied to the grazing of livestock and was found not enough to infer the lands were below the OHWM.

The hay field statement is in direct contradiction to the *Howard v. Ingersoll* reference to lands liable to overflow but reclaimable for meadows or agriculture. It also contradicts *Harrison v. Fite* in that the bed does not extend to land which grasses grow although covered by rises in the water. The implication is that the land can ordinarily be utilized for agriculture, even though the remnants of water in low areas of the floodplain caused by rises in the river allow for pockets of aquatic vegetation to grow periodically, which is also addressed in the aforementioned cases.

The BLM's Branch of Cadastral Survey has reviewed the State's OHWM survey Task Order No. 2 and finds the intent to locate the OHWM of the Missouri River prior to the artificial rising of the Missouri River to form Lake Sakakawea to be correct and does not believe the State is attempting to claim the pooled lakebed of Lake Sakakawea as a navigable waterway under the Equal Footing Doctrine.

Cultivation and seeding are not prerequisites for *productive agriculture*[3] which would thereby exclude *natural or uninclosed*[4] pasture suitable for grazing or natural grass haying. Specifically the upland extends towards the river to the lowest extent of upland vegetation and not the landward extent of aquatic vegetation.

These deviations from the Federal definition of OHWM allow the State's delineation of OHWM, which is visually represented on Enclosure 2 hatched in blue and overlaid on the 1958 aerial photo, to impermissibly encompass upland with terrestrial vegetation, hay fields, and cultivated fields.

Likewise, the State's OHWM delineation, depicted on Enclosure 3 hatched in blue and overlaid onto the 1952 aerial photo, spans from *bluff to bluff*[5] taking in uplands temporarily overflowed by *freshets*[6] which is in direct contradiction to all Federal case law and moreover, the State's delineation, which does not reference utilizing the 1952 aerial photo follows the extent of water on the 1952 photo very closely. But, this photo is a representation of one of the highest recorded flows, which is not characterized as "ordinary." The date of the aerial photo, April 5, 1952, has been correlated to United States Geological Survey (USGS) flow data obtained at: http://waterdata.usgs.gov/usa/nwis/inventory/?site_no=06330000&agency_cd=USGS. Thirty-seven years of flow data from 1928-1965 shows that only 21 days had higher flows than the aerial photo date (April 5, 1952), of which 4 days were also in 1952. Enclosure 4a is the mean daily discharges for 1952; 4b is the highest daily means from 1928-1965; 4c is a graph of the 37 year discharges.

Therefore, BLM believes the State's OHWM delineation is skewed due to the aforementioned deviations from the Federal definition of OHWM and residual flood waters from an extraordinary event onto the floodplain. The State's OHWM delineation depicts the riverbed to be three times the width of the General Land Office's originally surveyed meanders. Originally surveyed meanders are typically landward of the actual OHWM, and while it is acknowledged that OHWMs move laterally, no evidence shows why the riverbed has widened, up to triple in size, to encompass lands classified as upland in the original survey.

The sheer width of the State's OHWM delineation, as depicted on Enclosure 1, clearly shows that it ignores the *natural physical characteristic*[7] of the OHWM which is a *natural object*[8] and extends *beyond the banks*[6] to encompass significant portions of the floodplain. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

B) Chain of Title

At the meeting on July 22, 2014, in Bismarck, ND, Josh Alexander, BLM's Acting Chief Cadastral Surveyor for public lands in North Dakota, specifically asked if the State's OHWM delineation was to determine surface rights, subsurface rights, or both. The verbal response was

---

[3] *United States v. Cameron*, 466 F. Supp. 1099 (M.D. Fla. 1978)
[4] *Howard v. Ingersoll*, 54 U.S. 381 (1851)
[5] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[6] *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991)
[7] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[8] *Howard v. Ingersoll*, 54 U.S. 381 (1851)

that it determined the boundary of State Sovereign land encompassing both surface and subsurface rights.

But, the State's delineation did not consider previous conveyances, as evidenced by chain of title research. Enclosures 5a, 5b, and 5c are the State's OHWM delineation, which is hatched in blue and overlaid onto the COE Segment maps, in which the State's delineation encompasses:

1) 188.66 acre island, Y2250 (Enclosure 5a)
2) 228 acres within Y2289 (Enclosure 5b)
3) 71.07 acres within Z2382 (Enclosure 5c)

These parcels were conveyed to the United States by the State as upland (see Enclosure 6 for conveyance documents). The magnitude of acquisitions by the COE clearly shows the intent was to purchase displaced uplands. The chain of title clearly shows that the State agreeably conveyed upland and islands, which is now being depicted and claimed as riverbed. An island must exist above the OHWM to be considered an island; otherwise it is a part of the bed (sandbar). At the time of the conveyance, an OHWM determination was made to facilitate the conveyance of the island and the upland. These conveyances were for upland surface only. The State's new OHWM delineation must omit these areas as they have previously been classified as upland, not below the OHWM, and are not part of surface Sovereign Lands of the State. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

C) Sovereign Lands

In its protest, the State is utilizing its delineation as a basis for claim to sovereign land and to require mineral lease and royalty payments from oil and gas operators. However, prior to viewing the delineations at https://land.nd.gov/minerals/mineralapps/OHWM2/OHWM2Disclaimer.aspx, there is a caveat:

> *"The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land.""*

Thus, it is unclear how much weight to give to the State's OHWM delineation even though the State's Statement of Reasons infers that we should honor it wholly. Instead, BLM's Supplemental Plats are without limitation and provide the better evidence of riverbed title.

For the foregoing reasons, the State's first protest point is denied.

Discussion of State Reason No. 2

A) BLM Field Investigations Prior to Flooding

The COE Segment Maps were the basis for land title acquisition by the COE for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most

comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea.

To determine what lands were classified as public lands, the COE engaged BLM's Branch of Cadastral Engineering (now Branch of Cadastral Survey) to execute field investigations prior to flooding. BLM surveyors were guided by Special Instructions dated October 24, 1952 (Enclosure 7). Importantly, there is no evidence that the State of North Dakota raised concerns about the Special Instructions or subsequent acquisitions.

The Special Instructions stated the following regarding the lot or legal subdivision listed:

> *"Ascertain whether any or all of it is above mean high water at the present time*
>
> *If it is found to be above water at present, determine whether any or all of it has been in existence above mean high water continuously since the original survey was made*
>
> *Show what part of the tract has been in existence since the date of the original survey*
>
> *If the land has been entirely washed away and has re-appeared, determine the date it was submerged and when it re-appeared*
>
> *If accretion to a tract of public domain land has formed, show the extent of such accretion*
>
> *If substantial accretion appears to have formed in front of riparian privately-owned lands prior to the date of entry, show the extent of such accretion and the date a substantial amount had formed in front of the original tract*
>
> *Where changes have taken place in the river channel, determine whether the change was due to avulsive action, or to the slow and imperceptible process of reliction and accretion*
>
> *To determine the above facts, you will study all plats, charts, maps, aerial photographs and records found that may have a bearing on the case at hand. You will determine the age of timber growing on the land and obtain such other information as is available including the interviewing of old settlers who may be familiar with the river changes at those places."*

BLM officers were operating under the BLM's Manual of Surveying Instructions, 1947 (1947 Manual), and the term "mean high water" for inland waters carries the same determination principles and conformance to law as the OHWM, as evidenced by guidelines in the 1947 Manual.

The BLM conducted extensive field investigations to determine what lands existed above the OHWM, made a determination on river movement, its effect on land title, and compiled this information in an investigative report. These reports were utilized to determine public lands above the OHWM, addressing both accretion and erosion to public lands. Those determinations

were depicted on the Segment Maps. In other words, the COE Segment maps are based on BLM field work, analysis, and standard practices. See Enclosures 8, 9, and 10 for the progression from BLM field investigation report map (8) to Segment Map (9) to Supplemental Plat (10), all of which depict the same findings from the field investigations.

B) North Dakota State Lands Department (SLD)'s Previous OHWM Delineation

1) Land acquisition documents show that SLD participated in the COE survey process.

A conveyance document in Enclosure 6 infers that the SLD performed an OHWM determination prior to the conveyance. The last page of Enclosure 6 states:

> *"The above is based on Survey Report furnished by the State School Land Department."*

The SLD Survey Report was requested by the BLM's Branch of Cadastral Survey. However, its whereabouts are unknown and remains unfurnished. But, based on the subsequent conveyance, the referenced SLD Survey Report likely made a determination that Y2250 was an island existing above the OHWM, thereby necessitating the need for purchase by the COE as uplands that would be displaced by the artificial rising of the Missouri River to create Lake Sakakawea.

Although the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea states that the SLD was unaware of any previous OHWM determinations, we believe that the land acquisition documents establish that the SLD participated in the OHWM determinations upon which the COE segment maps are based.

2) Documents show that SLD participated in the condemnation process for uplands.

To further outline the SLD's involvement and conclude that the State was aware of upland acquisitions, we obtained correspondence documents (Enclosure 11) showing that SLD and COE deliberations led to a formal and friendly condemnation process, which was followed by the SLD and the COE.

Despite legislation being passed to convey State lands without mineral reservation, the condemnation process was instituted due to the reluctance of then SLD Commissioner, John O. Lyngstad. Mr. Lyngstad was reluctant to sell State lands and supported the condemnation process for fear of political repercussions of selling State land. Mr. Lyngstad relays his reluctance by predicting accusations from farmers that they would be willing to pay the State more money than was being offered by the Federal Government. It is certain that farmers would not be willing to pay for these uplands if they were not productive for agriculture indicating the lands existed as upland above the OHWM. The State's OHWM delineation incorrectly classifies these same uplands as riverbed.

Revisit Enclosure 6 showing the execution of this process whereby the COE sent appraisals for displaced state uplands asking for consideration by the Board of University and School Lands, execution by the Land Commissioner, and condemnation.

C) Appraisals

Full appraisals were conducted for acquisition of displaced uplands to justify and provide basis for the expenditure of appropriated funds. These appraisals quantify upland area and quantify the uses of the upland, including agricultural production, timber, brush, etc. While utilized for appraisal values, these quantifications provide significant documentation with regard to the acquired displaced uplands, depicted on the COE Segment maps, existing above the OHWM. See Enclosure 12, which is the same area as Enclosure 2 showing the State's OHWM delineation encompassing brush and productive agriculture as identified by the land appraisal. The State's delineation does not follow Federal case law or OHWM definitions with the inclusion of these uplands.

For the reasons outlined above, we reject the State's assertion that the COE Segment Maps are not an accurate reflection of the OHWM. The OHWM was established by BLM-led field investigations using Special Instructions that were not disputed by the State. In fact, there is ample evidence showing that the SLD participated in the establishment of the OHWM determination. The second protest point is denied.

Conclusion

The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM, and involvement from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines.

Based on the aforementioned analysis, the BLM finds the State's OHWM delineation:

1) does not comply with the federal definition of the OHWM
2) does not honor chain of title or previous involvement with the COE
3) is an overreaching delineation that impairs:
   a) the mineral rights of private owners as vested from original patents from the Federal Government
   b) the Federal Government's acquired rights in land, and
   c) the rights of all in the Public Domain interests in land.

Your protest to the official filing of plats of survey posted in the *Federal Register* on July 8, 2014, is hereby dismissed. The Supplemental Plats shall be officially filed in this office.

You have the right to appeal this decision to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of the Interior, Board of Land Appeals (Board), in accordance with the regulations contained in 43 CFR Part 4 and the enclosed Form 1842-1 (Enclosure 13). In taking an appeal, there must be strict compliance with the regulations. If you choose to appeal, a notice of appeal must be filed in this office within thirty (30) days of receipt of this letter for transmittal to the Board. If your notice of appeal does not include a statement of reasons, one must be filed with the Board within thirty (30) days after the notice of appeal was filed. A copy of your notice of appeal and any statement of reasons, written arguments, or briefs, must also be served upon the Office of the Solicitor, Rocky Mountain Region, 2021 Fourth Avenue N., Suite 112, Billings MT 59101. Service must be accomplished within fifteen (15) days after filing in order to be in compliance with appeal regulations.

As provided by 43 CFR Part 4, you have the right to petition the Office of Hearings and Appeals to stay implementation of the decision; however, you must show standing and present reasons for requesting a stay of the decision that address your interests and the manner by which they would be harmed. A petition for stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) The relative harm to the parties if the stay is granted or denied; (2) The likelihood of the appellant's success on the merits; (3) The likelihood of immediate and irreparable harm if the stay is not granted; and (4) Whether the public interest favors granting the stay. Should you choose to file one, your stay request must accompany your notice of appeal. A notice of appeal with petition for stay must be served upon the Board, Regional Solicitor, and adverse parties at the same time such documents are served on the deciding official at this office. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR 1.3.

Sincerely,

Aden L. Seidlitz

Aden L. Seidlitz
Acting State Director

13 Enclosures
1- Overall comparison of OHWM delineations in protested area
2- OHWM comparison overlaid onto 1958 aerial photography
3- OHWM comparison overlaid onto 1952 flood aerial photography
4- USGS flow data
5- State OHWM delineation overlaid onto Segment Maps
6- State land conveyance correspondence and execution documents
7- BLM Special Instructions
8- BLM field investigation report map
9- Portion of Segment Map

10- Portion of BLM Supplemental Plat
11- COE and SLD correspondence
12- Land appraisal map
13- Form 1842-1

cc: Karan Dunnigan
Office of the Solicitor
Billings, MT

Joshua A. Swanson

jswanson@vogellaw.com

February 9, 2017

Rep. Todd Porter
Chairman
House Energy and Natural Resources Committee

e-mail only at: tkporter@nd.gov

Re: HB 1199

Dear Chairman Porter:

I wanted to thank you for allowing me to testify in support of HB 1199 last Thursday before the House Energy and Natural Resources Committee, and for the "do pass" recommendation from the Committee. HB 1199 is a landmark bill that corrects the wrongs done by the State and rectifies one of the greatest takings in the history of American jurisprudence. HB 1199 will make clear that ownership of the mineral interests reserved by my clients and thousands of other present and former North Dakota citizens will remain theirs to lease as they had for decades between the formation of Lake Sakakawea and the wrongful taking by the State. During the course of testimony Thursday, several questions were asked by Committee members ranging from:

- the number of acres the State has taken from private property owners that were previously acquired by the United States for the purpose of Garrison Dam and Lake Sakakawea;
- HB 1199's fiscal note and the State's claim that it would be "surrendering" revenue if the legislature recognized that the oil and gas interests vested in landowners – like the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank – who lost their property when the United States acquired it for the Garrison Dam and Lake Sakakawea;
- Rep. Heinert's question regarding the blacked-out language on the first page of the Wilkinson's Warranty Deed; and
- the differences between HB 1199 and a similar bill in the Senate, SB 2134.

Given the importance of this legislation for all the landowners who seek restoration of their private property rights, I wanted to address these questions.

1. NUMBER OF ACRES AFFECTED

When the United States began acquiring property in the 1950s for Garrison Dam and Lake Sakakawea, it was recognized by the United States and State of North Dakota that the State's interest was limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. This is noted in Exhibit 1 to the written testimony that was

submitted to the Committee. According to the Master Plan for the Garrison/Lake Sakakawea Project, the United States acquired 463,000 acres for Lake Sakakawea. Of the land acquired, approximately 300,000 acres were from private landowners outside of the Fort Berthold reservation. When the United States acquired the surface rights for Lake Sakakawea, the oil and gas interests under those 300,000 acres were largely reserved by the private landowners. From approximately 1950 to 2010, the Wilkinson and Vohs family and other private landowners, like the beneficiaries of the property managed by First National Bank, leased those mineral interests to interested parties. In approximately 2010, the Wilkinson family and others learned that the State had secretly begun to claim ownership of their private mineral interests and were leasing them out to interested companies.

Contrary to the State's testimony during the Committee hearing, in the lawsuit with the Wilkinson family, the State is claiming ***all*** the oil and gas interests under Lake Sakakawea. The State's claim is *not* limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. In the Wilkinson suit, the State argues that it can flood private property and then claim title to that property. While the exact number of acres claimed by the State is unknown, HB 1199 is written in such a way that it will correct this wrong for all affected private landowners who reserved their oil and gas interests because of Garrison Dam and Lake Sakakawea.

The language of HB 1199 includes over 4,000 acres west of the Highway 85 Bridge – where the Wilkinson and Vohs' oil and gas interests are located – that were acquired by the United States for Lake Sakakawea. As noted by Rep. Roers Jones during the hearing, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing 57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Stated bluntly, the State of North Dakota cannot flood a citizen's land and then claim it also owns all the valuable underwater mineral interests specifically reserved by the private landowner. As stated by the United States Supreme Court, such an action epitomizes the definition of an impermissible and unlawful "taking" by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). More recently, in 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a

categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. As many of the Committee members noted during the hearing on HB 1199, landowners like the Wilkinson and Vohs families, and the beneficiaries of the land managed by First National Bank, specifically reserved the oil and gas interests when the United States took their property for Garrison Dam and Lake Sakakawea. As Rep. Keiser appropriately stated when introducing the bill, what has been attempted by the State of North Dakota is the greatest taking of property he has ever seen.

Also contrary to the State's testimony, the state's claim to these private oil and gas interests only goes back to the beginning of North Dakota's most recent oil boom. As testified to by Mr. Patch, in 2010 the State placed thousands of mineral acres up for auction that it had never before claimed – including the Wilkinson's mineral interests – without notifying the private mineral owners of its actions. We have attached a July 2010 letter from Brigham Oil and Gas where, while it requested to lease the Wilkinson's property from the State, it expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

The handwritten notes on this letter were present when the State disclosed it in discovery during the Wilkinson's lawsuit. The State's wholesale deviation from its lawful practice of claiming only those oil and gas interests within the historic Missouri River as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the historic Missouri River as it existed before Garrison Dam. The only explanation for the State's decision in 2010 to suddenly claim thousands of acres outside of the historical Missouri River that it had never previously claimed is greed. The State's knowledge that it was acting unlawfully are found in committee notes set forth below.

2. FISCAL NOTE – THE STATE SET ASIDE THIS MONEY KNOWING ITS CLAIM TO THE OIL AND GAS INTERESTS WAS SUSPECT

Even while unlawfully laying claim to its citizen's private mineral interests, the State suspected the proceeds received by its improper actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the

historic Missouri River – like those owned by the Wilkinson and Vohs families. As Chairman Porter pointed out during his questioning, the State is a stranger to title of these privately held mineral interests. This is noted in the attached September 2010 Memorandum prepared by the Land Board. This Land Board Memorandum shows that Mr. Gaebe and Mr. Heiser, who testified before the Committee, were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, **"There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."**

All of the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – has been set aside in anticipation of the day the State would be required to make them whole again. That day is today. The money set aside by the State in anticipation of what this legislative body or the courts would inevitably do speaks volumes of the State's dubious action. Stated another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State of North Dakota's right to retain in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, the State claimed oil and gas interests held by private landowners while acknowledging it had absolutely no legal authority to support its unlawful taking.

In our State, where private property and mineral interests are passed from generation to generation and valued to the point they are sacrosanct, the Land Board nevertheless proceeded to take these privately held oil and gas interests because they "felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development." This was done despite Mr. Patch and others expressing grave concerns about the legality of what the State was doing. The August 2011 minutes from the Land Board meeting notes the presence of Mr. Patch and the fact Mr. Patch made a presentation defending his family's title to the oil and gas interests. The memorandum goes on to explain that, "Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a 'Designated Fund Balance' that should not be transferred out of the LMTF (Land and Minerals Trust Fund) until such time that any potential title disputes related to these leases have been resolved."

The Land Board's meeting minutes from July 2014 indicate the State has claimed 668 tracts of land with questionable acres. The proceeds received by the State from these tracts have been placed in the Designated Fund Balance until ownership is rightfully determined. While these tracts are definite and can be determined with certainty by the Land Board, the State has continued to refuse to identify the location of these tracts when asked by the Wilkinsons.

HB 1199 will resolve these title disputes in favor of the rightful landowners who reserved the oil and gas interests over 60 years ago when the United States acquired their property for Garrison Dam and Lake Sakakawea.

Mr. Patch raised this issue to the Land Board over five years ago. Yet, the State has forced his family to spend over $300,000 to fight them in court. The fact our client has had to exhaust his private resourced to defend the private property rights their grandparents reserved in 1958 – while the State stockpiled the ill-gotten gains from its unlawful action – is shameful.

3. REP. HEINERT'S QUESTION REGARDING THE BLACKED-OUT LANGUAGE ON THE FIRST PAGE OF THE WILKINSON'S WARRANTY DEED

During the hearing, Rep. Heinert asked about the blacked-out language on the first page of the Wilkinson's Warranty Deed to the United States. The blacked-out language is restated on the second page of the deed, and says the Wilkinson's interests did not include public highways or utilities. If you review the sentence before the blacked-out language, it reads: " ... containing, exclusive of said exception, 228.95 acres, more of less; subject to existing easements for public roads and highways, ..." After the blacked-out language, the deed resumes, stating, "... ner of any interest therein, ..." Turning to the second page of the same deed, you will see the blacked-out language restated in full, beginning towards the end of the first paragraph, which provides:

> " ... containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipelines.
>
> Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..."

This underlined language is what was, for unknown reasons, blacked-out on the first page of the Wilkinson's Warranty Deed when it was drafted in the late 1950s, likely explaining why the exact same language was repeated on the second page of the deed. This language does not alter, in any manner, the fact the Wilkinson's grandparents reserved the oil and gas interests subject only to the United States acquiring the property for Garrison Dam and Lake Sakakawea. Similar language is found in the Warranty Deed where the United States acquired the Vohs' property. The Vohs' deed is also part of Exhibit 3. If you go up 12 lines from the bottom of the first page of the Vohs' deed, it contains the same language as the Wilkinson's deed, providing "... subject to existing easements for public roads and highways, public utilities, railroads and pipelines, ..." If you turn to page 3 of the Vohs' deed, you'll see it contains the same language regarding the reservation of oil and gas interests that was blacked-out on the first page of the Wilkinson's deed, stating, "[R]eserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..." This same language was used in the hundreds of warranty deeds and condemnation orders whereby the United States acquired the property from private landowners for Garrison Dam and Lake Sakakawea.

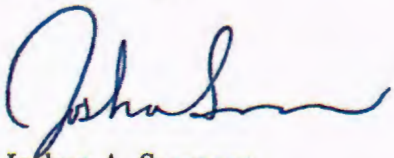
4. DIFFERENCES BETWEEN HB 1199 AND SB 2134

Both HB 1199 and SB 2134 address the State's unconstitutional taking of oil and gas interests rightfully belonging to private landowners who lost their property and surface rights to the United States for Garrison Dam and Lake Sakakawea.

We are concerned however that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in SB 2134. There is no rational reason to exclude the landowners in these 15 sections from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea. As such, HB 1199 is the preferred bill because it does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push this bill across the finish line for *all* affected property owners; not most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they are grateful for HB 1199. If you have any additional questions, I'd be glad to visit. I can be reached at 701.356.6369, via e-mail at jswanson@vogellaw.com, or would be glad to visit in person at your convenience.

Respectfully,



Joshua A. Swanson

BRIGHAM
Oil & Gas, L.P.

15202

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Phone (512) 427-3300 ✣ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: Nominations for the August 3, 2010, State Lease Sale
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES	
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(1) ✓
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(2) ✓
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	Prev. Nom.
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04		Prev. Nom.

DTL002576

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 #

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

DTL002577

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: Designated Fund Balance for Land and Minerals Trust
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the
Board of University and School Lands
August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: **Designated Fund Balance for the Lands and Minerals Trust Fund**
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

Exhibit G-3 – Mar. 10, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
House Energy and Natural Resources Committee
March 10, 2017, 9:00 AM

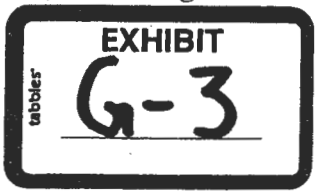
Chairman Porter and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. I'd like to also thank you for your work thus far on this issue, and for the Committee and House's support for HB 1199. As I testified previously to this Committee with regards to House Bill 1199, and to the Senate Energy and Natural Resources Committee with regards to Senate Bill 2134, I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea.

I will try not to repeat my testimony previously submitted to this Committee and to its counterpart in the Senate considering SB 2134. Instead, I'd like to address some of the questions asked by this Committee during the February 2 hearing on HB 1199, which are relevant to SB 2134, and were discussed in the February 9 letter I sent to the members of this Committee.

First, the Committee asked if SB 2134 and HB 1199 would resolve the lawsuits my clients have filed against the State. While my clients would abide by the legislation in its current form, the answer to this question is, essentially, up to the State. The State has not yet indicated whether they will continue pursuing their claims if legislation passes recognizing that the State does not own the oil and gas interests, which private land owners like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, reserved when the United States acquired their property for Lake Sakakawea.

Second, as to what exactly the State is claiming, contrary to the testimony previously offered by the State, in the lawsuit with the Wilkinson family, the State is claiming all the oil and gas interests under Lake Sakakawea. The State's position in the Wilkinson lawsuit is that Lake Sakakawea is one-and-the-same-thing as the Missouri River, and Lake Sakakawea does not exist as a separate body of water. The State's claim is not limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. The State has taken the position in the Wilkinson case that it can flood private property – like my clients' property and all the other acres flooded by Garrison Dam and Lake Sakakawea – and then claim title to that property. The State saying otherwise is simply not true, and flies in the face of the pleadings the State submitted to the court. SB 2134 addresses most of those acres.

As noted during this Committee's hearing on HB 1199, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony I submitted in support of HB 1199, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing



57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Additionally, contrary to the State's previous testimony, the State's claim to these private oil and gas interests only goes back to the beginning of our most recent oil boom. In 2010, the State placed thousands of acres up for auction that it had never before claimed – including the Wilkinson and Vohs' minerals – without notifying the private mineral owners of its actions. The July 2010 letter from Brigham Oil and Gas to the State, attached to my February 9 letter and included with this testimony as Exhibit 1, while requesting to lease the Wilkinson's property from the State, expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

(emphasis added). The State's wholesale deviation from its practice of claiming only those oil and gas interests within the "historic Missouri River" as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the "historic Missouri River" as it existed before Garrison Dam.

Even while laying claim to its citizen's private mineral interests, the State suspected the proceeds received from its actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the "historic Missouri River" – like those owned by the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank. As this Committee noted during its questioning on HB 1199, the State is a stranger to title of these privately held mineral interests. The State says as much in a September 2010 Memorandum prepared by the Land Board, also included with the February 9 letter, and attached to this testimony as Exhibit 2. This Memorandum shows that Mr. Gaebe and Mr. Heiser were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, "There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."

SB 2134 is necessary to restore the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – which was set aside in anticipation of the day the State would be required to make these private landowners whole again. That day is here. Stated

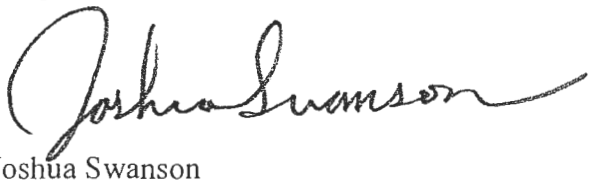
another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State's to claim in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, take first, sort out actual ownership later.

Finally, while both SB 2134 and HB 1199 address the State's unconstitutional taking of oil and gas interests, we are concerned that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in the amendment to SB 2134. There is no reason to exclude the landowners from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea.

Conversely, HB 1199 does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push a form of this legislation across the finish line for all affected property owners; not just most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they, and myself, are grateful for your efforts. Mr. Chairman, I'll stand for any questions the Committee may have.

Respectfully,



Joshua Swanson

BRIGHAM
Oil & Gas, L.P.

15202

Brigham Oil & Gas, L.P. ◆ 6300 Bridge Point Parkway, Bldg. 2, Suite 500 ◆ Austin, Texas 78730
Phone (512) 427-3300 ◆ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: **Nominations for the August 3, 2010, State Lease Sale**
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04	

① ✓
② ✓
Prev. Nom.
Prev. Nom.

EXHIBIT
tabbies 1

DTL002576

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 #

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

EXHIBIT 2

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: **Designated Fund Balance for Land and Minerals Trust**
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the Board of University and School Lands August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: **Designated Fund Balance for the Lands and Minerals Trust Fund**
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

DTL001520

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

From:	Karen M. Haugen
To:	Kadrmas, Bethany R.
Cc:	Joshua A. Swanson
Subject:	Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03 (1 of 3)
Date:	Monday, May 07, 2018 10:43:54 AM
Attachments:	VOGEL-#3241940-v2-Comment_Letter_to_State_(Chpt__61-33_1-03).DOCX VOGEL-#3245887-v1-Exhibit_A_-_Corps_Segment_Map_for_Property__KK_3371_.PDF VOGEL-#3245899-v1-Exhibit_D_- _July_1957_Warranty_Deed_between_US_&_Lynch_&_Vohs__predecessors_in_interest.PDF VOGEL-#3245897-v1-Exhibit_C_- _aerial_photographs_of_Property_before_closure_of_Garrison_Dam_and_inundation_by_Lake_Sakakawea.PDF VOGEL-#3245889-v1-Exhibit_B_-_township_atlas_map_for_the_property.PDF

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Please find attached correspondence from Joshua Swanson re the above-referenced matter and Exhibits A-D.

Karen M. Haugen | Senior Legal Administrative Assistant

VOGEL Law Firm

218 NP Avenue
P.O. Box 1389 | Fargo, ND 58107-1389
Tel: 701.237.6983 | Dir: 701.356.6374 | Fax: 701.476.7676

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Joshua A. Swanson

jswanson@vogellaw.com

May 4, 2018

North Dakota Industrial Commission
Department of Mineral Resources, Oil & Gas Division
1016 E. Calgary Ave.
Bismarck, ND 58503-5512

e-mail to: brkadrmas@nd.gov

Re: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03
Case No. 26584
Our File No.: 047390.14001

Dear Department of Mineral Resources:

I represent EEE Minerals, LLC, Edward Lynch ("Lynch"), and Suzanne Vohs as Trustee for The Vohs Family Revocable Living Trust ("Vohs"). They are the undivided owners of the oil, gas, and other minerals in, on, or underlying the following property in McKenzie County:

Township 153 North, Range 101 West
Section 6: Lot 10
Section 7: Portions of Lots 1, 4, and 5, described on a deed recorded in Book 87, page 505, in the office of the McKenzie County Register of Deeds

(the "Property"). EEE Minerals is a limited liability company registered with the North Dakota Secretary of State, and Lynch, who grew up in Williston, N.D., is a resident of South Carolina. Vohs is a resident of the State of California.

1. Lynch and Vohs' predecessor reserved the minerals under the Property when the surface was acquired by the United States for Lake Sakakawea

The surface of the Property was acquired by the United States Army Corps of Engineers ("Corps"), under the authority of the Flood Control Act of 1944, Public Law 534, 78th Congress, 2nd session. The Corps acquired fee title to all land that would be inundated when Lake Sakakawea reached full pool at 1,854 feet msl. The Property is within the 1,854 msl elevation. The United States acquired title to the surface of the Property because it was within the operational pool of Lake Sakakawea, and as such, the lake would inundate the Property as stated in the deed whereby the United States acquired its interest. A copy of the Corps' Segment Map showing the Property acquired by the United States for the Garrison Project is enclosed as Exhibit A. The Property is Tract KK 3371.

In a March 2016 decision rejecting the State's previous position regarding the location of the OHWM of the historic Missouri River riverbed, the United States Department of Interior described

these Segment Maps as the "most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea," stating:

> "The [Corps] Segment Maps were the basis for land title acquisition by the [Corps] for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea."

See March 23, 2016 decision by the United States Department of Interior, Bureau of Land Management ("2016 United States Report"). The 2016 United States Report is provided at Exhibit 5 to the February 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee, infra, attached as Exhibit G-2. The 2016 United States Report concluded that the Segment Maps, like Exhibit A, were the basis of appropriating millions of dollars by the United States Congress to acquire land, like the Property, for Garrison Dam and Lake Sakakawea.

> "The [Corps] Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM [Bureau of Land Management], and involvement from the BLM, and ND SLD [North Dakota Land Board], and have gone uncontested for over 60 years."

See Exhibit G-2 at p 66. The Corps' Segment Map indicates the United States acquired 276.80 acres from Henry Vohs, Lynch and Vohs' predecessor in interest, for the Garrison Project. A copy of the atlas map showing the Property is enclosed as Exhibit B. An aerial photograph taken in 1958 shows the Property was used for agricultural purposes and is above the historical OHWM of the Missouri River before the closure of Garrison Dam. Additional aerial photographs taken by the United States Department of Agriculture, submitted during Lynch's testimony to the Legislature on SB 2134, show the Property was used for agricultural purposes going back to at least 1939. These aerial photographs are enclosed as Exhibit C. According to Lynch, after the closure of Garrison Dam, the United States has leased the surface of the Property with the tenants growing hay and alfalfa.

Lynch and Vohs' predecessor reserved the mineral rights in the Property when the surface was acquired by the United States for the Garrison Project as evidenced by the Warranty Deed dated July 24, 1957, recorded at McKenzie County document no. 155142 (book 87, page 505). A copy of the Warranty Deed is enclosed as Exhibit D. In 2009, Lynch and Vohs entered into oil and gas leases with Golden Eye Resources, LLC, recorded at McKenzie County document nos. 396124

and 395827, with the latter lease being ratified in 2013 as evidenced by McKenzie County document no. 445704. Subsequently, in November 2016, Golden Eye Resources, LLC, assigned its interest in the leases to GREP William LLC and GREP Wolverine LLC as evidenced by McKenzie County document no. 497135. Prior to 2009, the minerals were also leased by Lynch, Vohs, and their predecessor. A copy of the 2009 leases are attached as Exhibit E.

2. The State has no interest in Lynch and Vohs' Property, and any attempt by the State to claim an interest is an unconstitutional taking according to the Supreme Court's decision in *Wilkinson v. Board of University and School Lands*

The government cannot flood a private citizen's land and then claim it owns the valuable, yet inundated, mineral interests reserved by the private landowner. The State has no right, title, or interest in the Property owned by Lynch and Vohs. As explained by the United States Court of Claims, such a claim by the State epitomizes the very definition of an impermissible and unlawful taking by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). In 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. [1]

In Wilkinson v. Board of University and School Lands, the Supreme Court held that any outcome resulting in the State having title to Lynch and Vohs' mineral interests would be an unconstitutional taking.

> Mineral interests in Williams County, in the oil-producing Bakken formation, have value. *See Jacobs-Raak v. Raak*, 2016 ND 240, ¶ 12, 888 N.W.2d 770 (stating it would be disingenuous to believe mineral interests in a county in the Bakken formation have little or no value). There is undisputed evidence the plaintiffs have leased the minerals numerous

[1] Any attempt by the State to "take" the Property via eminent domain would still fail as such a taking cannot withstand the scrutiny of the public use requirement under the Constitution's Fifth Amendment. See Kelo v. City of New London, Conn., 545 U.S. 469, 477, 125 S.Ct. 2655 (2005) (stating, "As for the first proposition, the City would no doubt be forbidden from taking petitioners' land for the purpose of conferring a private benefit on a particular private party. A purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.") (internal quotations omitted).

> times since they conveyed the surface property to the United States. **If the district court determines the State owns the minerals, the plaintiffs will be deprived of the mineral interests. The federal government compensated the plaintiffs for the surface property, but the plaintiffs have not been compensated for the mineral interests. The plaintiffs are entitled to compensation if the government's actions result in a "taking" of the mineral interests.** *See Arkansas Game & Fish Comm'n v. United States*, 568 U.S. 23, 31-34, 133 S.Ct. 511, 184 L.Ed.2d 417 (2012) (stating permanent physical occupation of property authorized by government is a taking, and government-induced flooding can constitute a taking); *Tarrant Reg'l Water Dist. v. Gragg*, 43 S.W.3d 609, 620-21 (Tex. Ct. App. 2001) (holding flooding of property will be considered a taking if the flooding after the construction of a reservoir was greater than it previously had been).
>
> The district court erred in determining there was no taking because the plaintiffs leased the minerals during the period before the State claimed ownership of the mineral interests. We reverse the district court's dismissal of the plaintiffs' takings claims. The court must reconsider this issue on remand if it decides the State owns the disputed minerals.

Wilkinson v. Bd. of Univ. & Sch. Lands, 2017 ND 231, ¶¶ 24-25, 903 N.W.2d 51, 58–59 (emphasis added). [2] As many legislators noted during the committee hearings on SB 2134 and HB 1199 during the 2017 legislative session, landowners like Lynch and Vohs specifically reserved the oil and gas interests when the United States acquired their property for Lake Sakakawea. Rep. George Keiser appropriately summarized the impetus for SB 2134 when describing the legislative efforts that culminated in the codification of Chpt. 61-33.1, N.D.C.C. During his testimony, Rep. Keiser noted that the State's attempt to claim these valuable mineral interests in the Wilkinson case was the greatest taking of property that North Dakota has ever seen. Lynch, along with counsel, testified before the Legislature on SB 2134 and HB 1199. Copies of that testimony provided to the Legislature are enclosed as Exhibit F (Lynch & Vohs testimony) and Exhibits G-1, G-2, and G-3. (Swanson testimony). [3]

---

[2] After the decision in Wilkinson, the State concedes that landowners like Lynch, Vohs, and the Wilkinsons are the rightful owners of the minerals they reserved when the United States acquired their surface lands for Lake Sakakawea in the 1950s. As such, it appears the State has relinquished any claim or interest in the Property. See Sorum et al. v. Bd. of Univ. & Sch. Lands et al., case no. 09-2018-cv-00089, State Defendants Response to Plaintiffs' Motion for Preliminary Injunction (Doc. ID #120).

[3] Swanson testified at the Legislature on at least three occasions: (1) Senate Energy and Natural Resources Committee on January 12, 2017, see Exhibit G-1; (2) House Energy and Natural Resources Committee on February 2, 2017, see Exhibit G-2; and (3) House Energy and Natural Resources Committee on March 10, 2017, see Exhibit G-3.

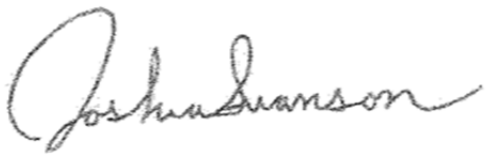
Fortunately, Chpt. 61-33.1, N.D.C.C., recognizes that landowners like Lynch and Vohs were, and are, the rightful owners of the mineral interests that their predecessors reserved decades ago when their land was acquired by the United States for the Garrison Project and flooded by Lake Sakakawea. So too, in Sorum, see supra at n. 2, the State now recognizes that landowners like Lynch, Vohs, and the Wilkinsons are the rightful mineral owners of their respective mineral interests, and that the State does not have any claim to minerals laying outside the historic Missouri River riverbed.

3. **Wenck Associates Survey concludes that the Property is above the historical OHWM of the Missouri River**

The survey completed by Wenck Associates as provided for by Chpt. 61-33.1, N.D.C.C., concluded that the Property is above the OHWM of the historical Missouri River riverbed. The Property is shown on Map 16 of 18 at page 63 of Wenck Associates' Report. Lynch and Vohs support any conclusion by the Department of Mineral Resources that results in the State immediately disclaiming and releasing any and all claims to their Property. Likewise, the "Phase II survey" previously commissioned by the State, and completed by Bartlett and West, determined the Property was above the OHWM of the historic Missouri River riverbed. Chpt. 61-33.1, N.D.C.C., requires that within six months after the Industrial Commission's action, any royalty proceeds held by the Land Board that are attributable to oil and gas mineral tracts above the OHWM under both the Corps survey and the Phase II delineation – being the non-contested acreage – must be distributed by the Board to the owners of such tracts.

Given the fact that Lynch and Vohs have been forced to fight this battle to keep the State from taking their Property, which has been rightfully theirs' all along, and have expended hundreds of thousands of dollars in doing so, we respectfully ask the State see that the proceeds related to their interests are released as soon as possible to offset the losses they have incurred as a result of being deprived of their Property for the better part of a decade. We appreciate your attention to this, and my clients particularly are looking forward to resolution and the State releasing and disclaiming its claim to their Property. If you have any questions, I would be glad to visit. I can be reached via phone at 701.237.6983 or e-mail at jswanson@vogellaw.com. I will be in Bismarck on June 26 to testify at the public hearing in this matter.

Respectfully,



Joshua A. Swanson
enc:

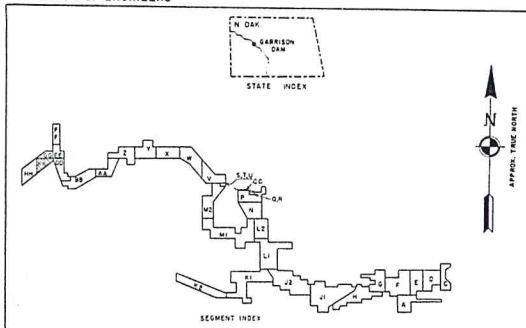
Exhibit List

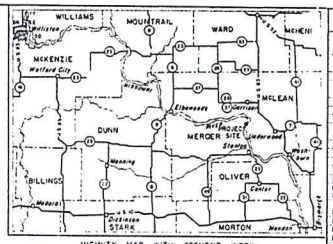
Exhibit A	United States Army Corps of Engineers Segment Map for Property (KK 3371)
Exhibit B	Atlas map of the Property
Exhibit C	1958 aerial images of the Property
Exhibit D	Warranty Deed whereby United States acquired Property subject only to Lynch and Vohs' predecessor's reservation of mineral interests
Exhibit E	Lynch and Vohs oil and gas leases
Exhibit F	Lynch and Vohs testimony on SB 2134 to North Dakota Legislature
Exhibit G-1	Swanson January 12, 2017 testimony to North Dakota Legislature
Exhibit G-2	Swanson February 2, 2017 testimony to North Dakota Legislature
Exhibit G-3	Swanson March 10, 2017 testimony to North Dakota Legislature

Exhibit A- Corps Segment Map for Property
"KK 3371"

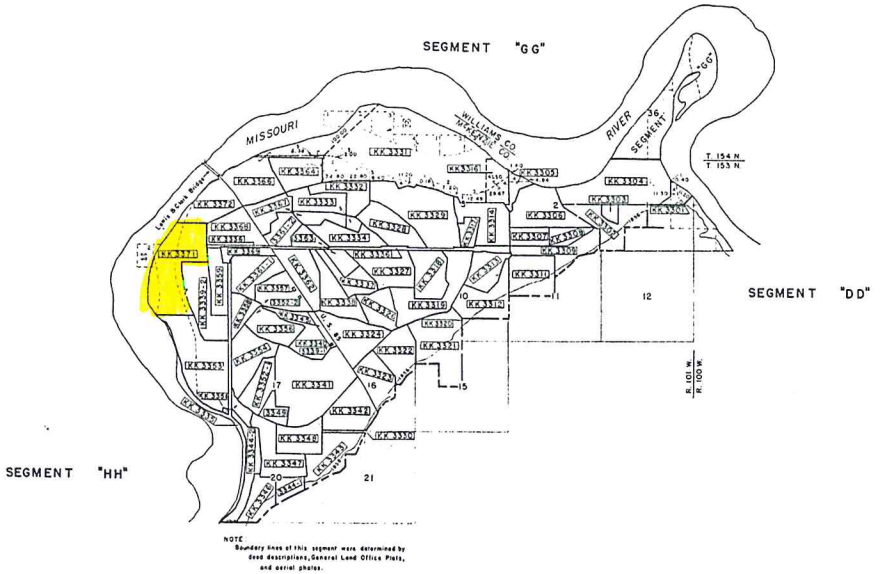
CORPS OF ENGINEERS

U.S. ARMY





VICINITY MAP WITH SEGMENT INDEX



NOTE:
Boundary lines of this segment were determined by deed descriptions, General Land Office Plats, and aerial photos.

ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS. EASM'T	REMARKS
	McKENZIE COUNTY			
KK 3301	HENRY T. BACON ET AL	27.20		
KK 3302	WILLIAM NELSON ET UX	142.28		
KK 3303	HANSEL MONSON	20.00		
KK 3304	NO. DAK. RURAL REHABIL. CORP. ET AL	285.63		Formerly known as Tract No. KK 3304-1
KK 3305	NO. DAK. RURAL REHABIL. CORP. ET AL	37.52		Formerly known as Tract No. KK 3304-2
KK 3306	KRISTIAN HOVDE ET UX	169.24		
KK 3307	JOSEPH E. MATHISTAD ET UX	59.39		
KK 3308	BEN G. RISSER	49.45		
KK 3309	AUGUST ESTHENBACHER ET UX	108.68		
KK 3311	EVERETT E. PALMER ET UX	139.79		
KK 3312	DONALD A. NOVAK ET UX	134.15		
KK 3313	LYLE E. SAFELY ET AL	93.30		
KK 3314	WALTER O. BURK ET UX	130.85		
KK 3316	HJALMER HOVDE ET UX	71.17		
KK 3317	KERMIT I. HEEN ET UX	36.08		
KK 3318	JAMES B. SKAARE ET UX	123.06		
KK 3319	JOHN P. SCHMITZ ET UX	172.95		
KK 3320	NO. DAK. RURAL REHABIL. CORP. ET AL	5.00		
KK 3321	LEONARD ZIMMER ET AL	219.45		
KK 3322	ALBERT R. ZIMMER ET UX	116.58		
KK 3323	CARRIE ANSETH ET AL	102.49		
KK 3324	RAYMOND L. BROWN ET UX	156.46		
KK 3325	DELETED			
KK 3326	GEORGE NOVAK ET UX	66.01		
KK 3327	JOHN ZAGURSKI ET UX	144.76		
KK 3328	CHARLES H. VIZINA ET UX	131.16		
KK 3329	LEONARD H. GREEN ET UX	264.41		
KK 3330	NO. DAK. RURAL REHABIL. CORP. ET AL	3.97		
KK 3331	NO. DAK. RURAL REHABIL. CORP. ET AL	796.02		Formerly known as Tract No. KK 3336-2
KK 3332	HAROLD N. GAUTHIER ET UX	89.67		
KK 3333	FRED FALSTAD ET AL	100.83		
KK 3334	ARCHIE D. MACMASTER ET UX	102.30		
KK 3335	NO. DAK. RURAL REHABIL. CORP. ET AL	77.60		Includes area formerly known as Tract No. KK 3336-3
KK 3336	NO. DAK. RURAL REHABIL. CORP. ET AL	46.09		Formerly known as Tracts Nos. KK 3336-1 & KK 3336-4, now combined
KK 3337	ANTON P. NELSON ET UX	74.87		
KK 3338	ALBERT ARNEGARD ET UX	113.79		
KK 3339-1	HENRY T. BACON ET AL	106.24		
KK 3339-2	HENRY T. BACON ET AL	152.84		
KK 3340	JOSEPH R. LANDWEHR ET UX	0.16		
KK 3341	HUGH PATTERSON ET UX	346.78		
KK 3342	LYNN LEE ET UX	140.84		
KK 3343	REUBEN E. BRAATEN ET UX	138.30		
KK 3344-1	CLOYD J. WEDLEY ET UX	43.51		
KK 3344-2	CLOYD J. WEDLEY ET UX	105.84		
KK 3345	HENRY T. BACON ET AL	10.59		
KK 3346	LARS LEE	83.21		
KK 3347	EMERY N. PAPINEAU ET UX	118.06		
KK 3348	ALOIS STEPANEK ET UX	100.68		
KK 3349	FRED R. PAPINEAU	43.55		
KK 3351	LEWIS & CLARK IRRIGATION DIST.	31.72		
KK 3352-1	WILLIAM J. NASNER ET UX	90.10		
KK 3352-2	WILLIAM J. NASNER ET UX	0.54		
KK 3353	PAUL STEPANEK ET UX	286.91		
KK 3354	ALFRED I. OSSING ET AL	144.76		
KK 3356	DONALD S. SATHE ET AL	216.63		
KK 3357	ANDREW SATHE, SR. ET UX	0.69		
KK 3358	EVELYN ALICE PAULSON ET VIR	56.49		
KK 3359	LORENZ SCHITCH ET UX	93.10		
KK 3361-1	JOSEPH C. PAULSON ET UX	118.29		
KK 3361-2	JOSEPH C. PAULSON ET UX	62.14		
KK 3362	EDWIN M. DAHL ET UX	124.92		
KK 3363	DENNIS GEORGE ET UX	80.12		
KK 3364	HENRY I. SOVIG	104.01		
KK 3366	WAYNE S. BOYCE ET UX	254.11		
KK 3367	CLIFFORD I. SOVIG ET UX	116.55		
KK 3368	PHILANDER A. HODGSON ET UX	123.19		
KK 3369	STATE OF NORTH DAKOTA	41.01		
KK 3371	HENRY P. VOHS ET AL	176.80		
KK 3372	LEONARD M. EIKEN ET UX	119.67		

NOTE:
Oil and gas reserved in all fee tracts.

NOTE:
Distances from S.L.O. meanders cross described aggregate approx. 930.36 acres with easements, resulting in 0.27 acres. Net average reduction, 2.2 PC. Net figure for tracts average 1.91 % of gross. All tracts have been acquired from riparian owners.

ACQUISITION AUTHORIZATION

Public Law No. 534, 22 Dec. 1944
Public Law No. 163, 15 July 1955
Public Law No. 641, dated 2 July 1956
4th Ind. O.C.E. to M.R.D., dated 25 Sept. 1957

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED
INSTALLATION OR PROJECT NO. C2-2-1895

FINAL PROJECT MAP

STATE NORTH DAKOTA
COUNTY McKENZIE
DIVISION MISSOURI RIVER
DISTRICT GARRISON
LOCATION OF DAM SEC 5 T 146 N R 84 W OF 5TH P.M.
10 MILES S OF GARRISON
15 MILES N OF STANTON

SEGMENT KK — LAND AREA —

TOTAL ACRES IN SEGMENT 8,168.25
ACRES FEE
ACRES EASEMENT
ACRES TRANSFERRED TO W.D.
ACRES PERMITS OR LICENSES

— DISPOSALS —

TOTAL ACRES DISPOSED OF
ACRES TRANSFERRED
ACRES LEASED FROM W.D.
ACRES OTHERWISE

— LEGEND —

TAKING LINE FOR DAM SITE
TAKING LINE FOR RESERVOIR
PERTINENT CONTOUR LINES
CEMETERY
STATE OR PROVINCE LINES
COUNTY LINE
TOWNSHIP LINE
SECTION LINE
PROPERTY LINE
STREAMS
RAILROADS
POWER LINES
TELEPHONE LINES
IMPROVED ROADS
UNIMPROVED ROADS

— SCALE —

DEPARTMENT OF THE ARMY
OFFICE OF THE DISTRICT ENGINEER
GARRISON DISTRICT
MISSOURI RIVER DIVISION
REAL ESTATE

GARRISON DAM & LAKE SAKAKAWEA

SEGMENT KK

RECOMMENDED _____ DATE 2 Sept 1958
APPROVED _____ DATE 4 Sept 1958
COL. CORPS OF ENGINEERS

COMPILED: JSH TRACED: WAS CHECKED: RH

DATE	BY	REVISIONS	APPROVED
7-1-76	WEH	Added Tr. KK 3373	
7-23-59	MWB	Name of Project Rev. to Garrison	
3-20-64	HAZ	Due to Final Audit	
3-13-64	HAZ	Tract KK 3335A, 56.29 Ac. was deleted and increase from adjacent tracts abutting highway as shown on	
1-20-1958	MWB	Added Tract No. KK 3335E 56.29 acres	

SHEET: 36 OF 36 DRAWING NO.

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

tabbies
EXHIBIT A

Exhibit B- township atlas map for the Property

TOWNSHIP 153 NORTH RANGE 101 WEST OF THE 5th PRINCIPAL MERIDIAN, NORTH DAKOTA

WILLIAMS COUNTY 105

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES AND ACQUIRED LANDS

MT PLAT

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS, WITHDRAWN FOR CLASSIFICATION, MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

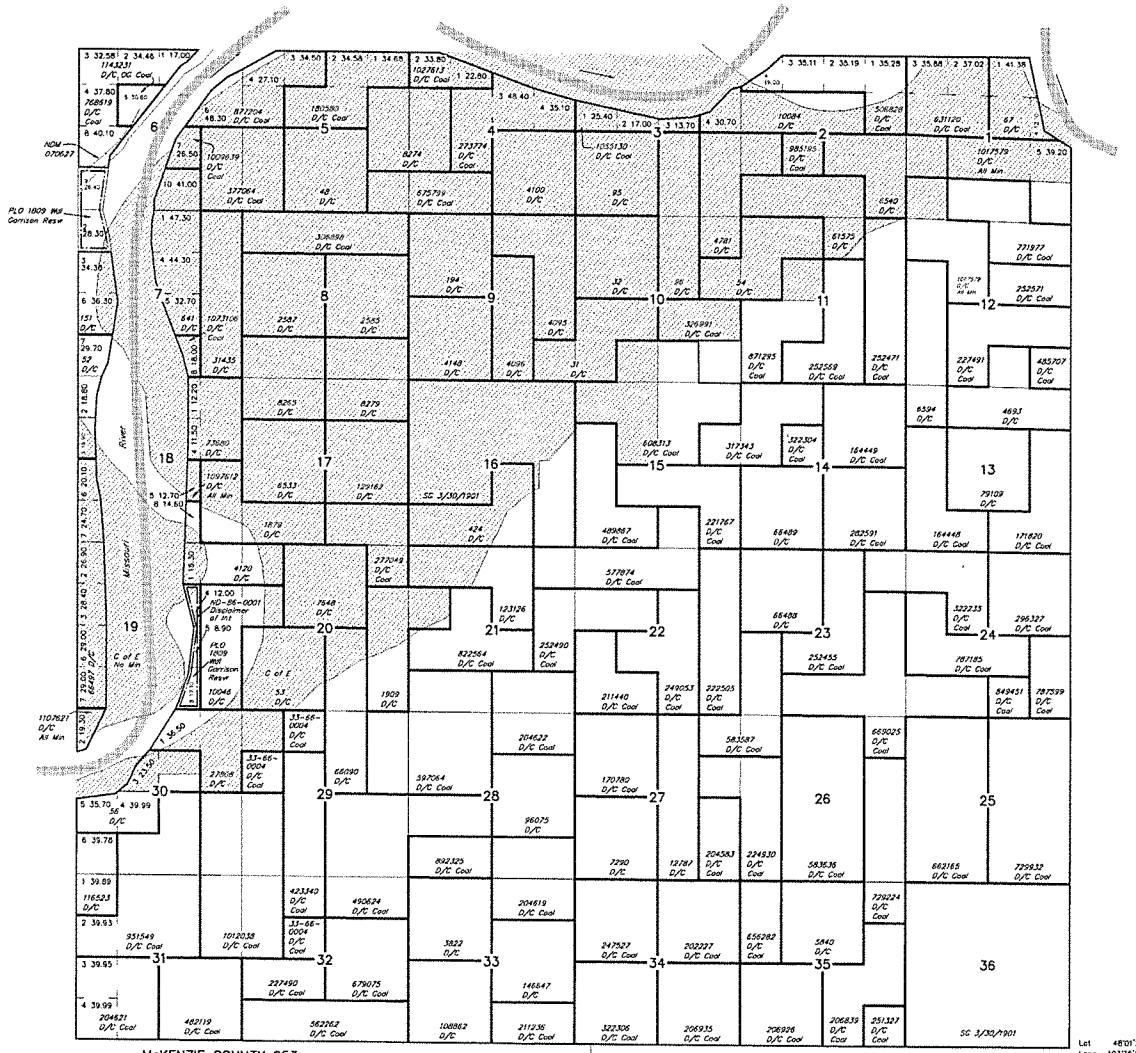
11/28/1917 subject to all prior existing rights or claims

PLO 1809 Wdl Garrison Resvr includes unsurveyed accretion in lots 4, 5, 8 of Sec 19

NDM 44120 (99.0) Acreage Info C of E Secs 18, 19, 30

NDM 48445 (99.0) C of E Acquisition Info

NDM 18100 (99.0) Status Info Secs 3, 6, 19



WARNING STATEMENT

This plat is the Bureau's Record of Title and should be used only as a graphic display of land ownership status. Records hereon do not reflect title changes that may have been effected by natural movements of rivers or other bodies of water. Refer to the cadastral survey for official survey information.

CURRENT TO				
10-22-2013	PDS-GR	LK	T	153 N
		GG	R	101 W

tabbies

EXHIBIT B

Exhibit C- aerial photographs of Property before closure of Garrison Dam and inundation by Lake Sakakawea

FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA

Scale:	Drawn By:	Checked By:	Project No.:	Date:
AS SHOWN	MJF	CMO	7799-001	6/10/2013

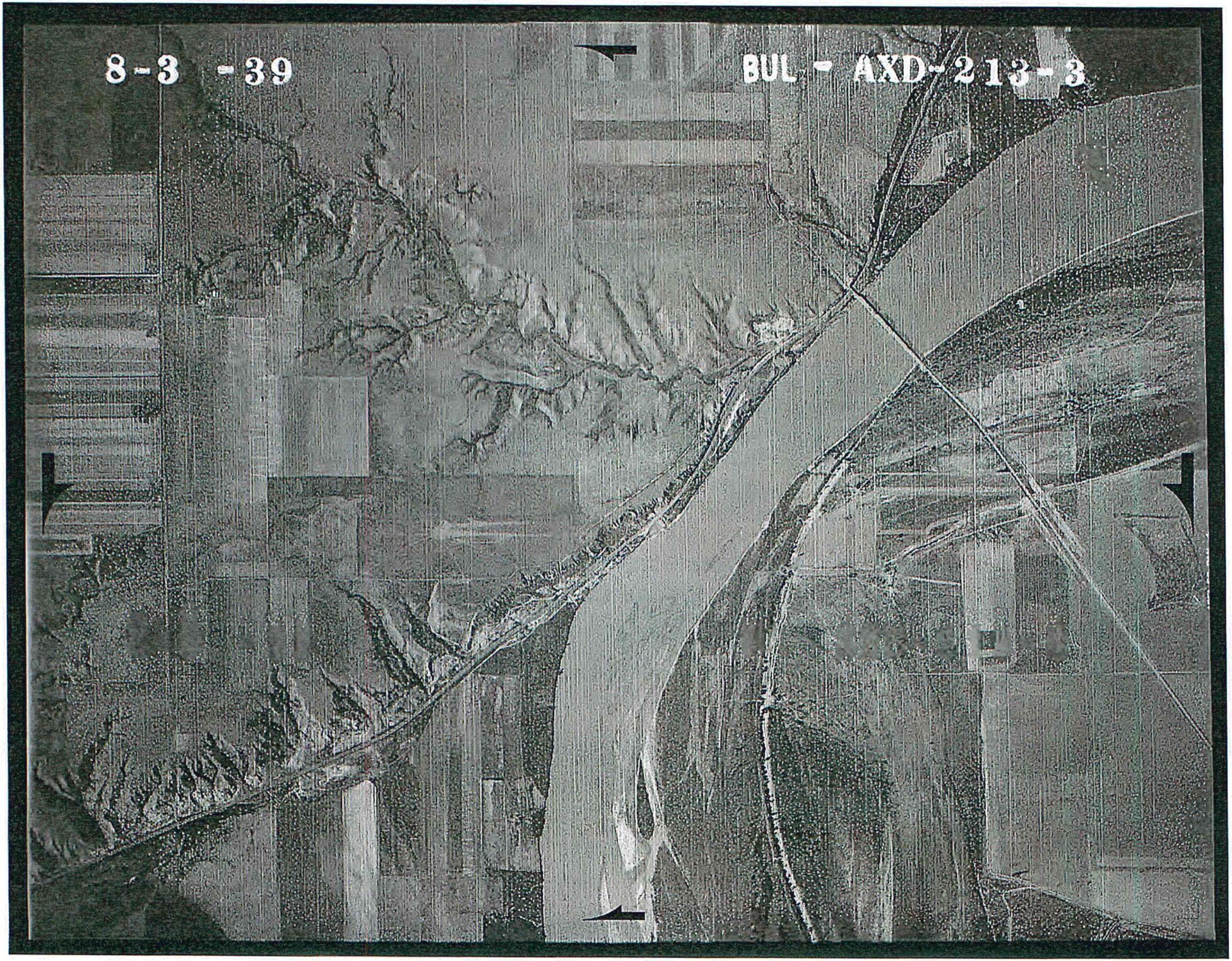
Houston Engineering Inc.

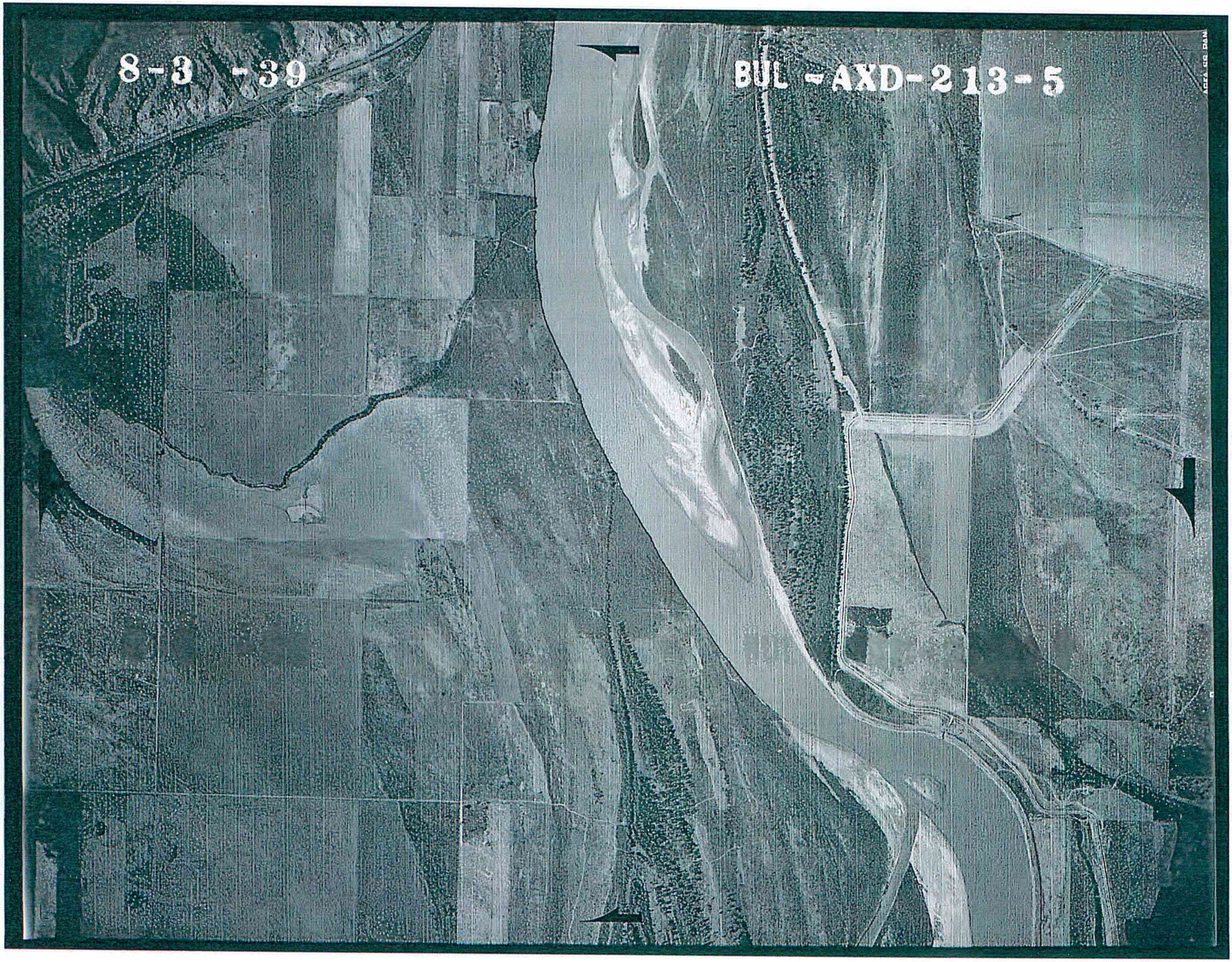
Bismarck

P: 701.323.0200
F: 701.323.0300

Path: T:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 3 - 1958 Aerial Imagery.mxd

EXHIBIT
C
tabbies


8-3 -39
BUL - AXD-213-3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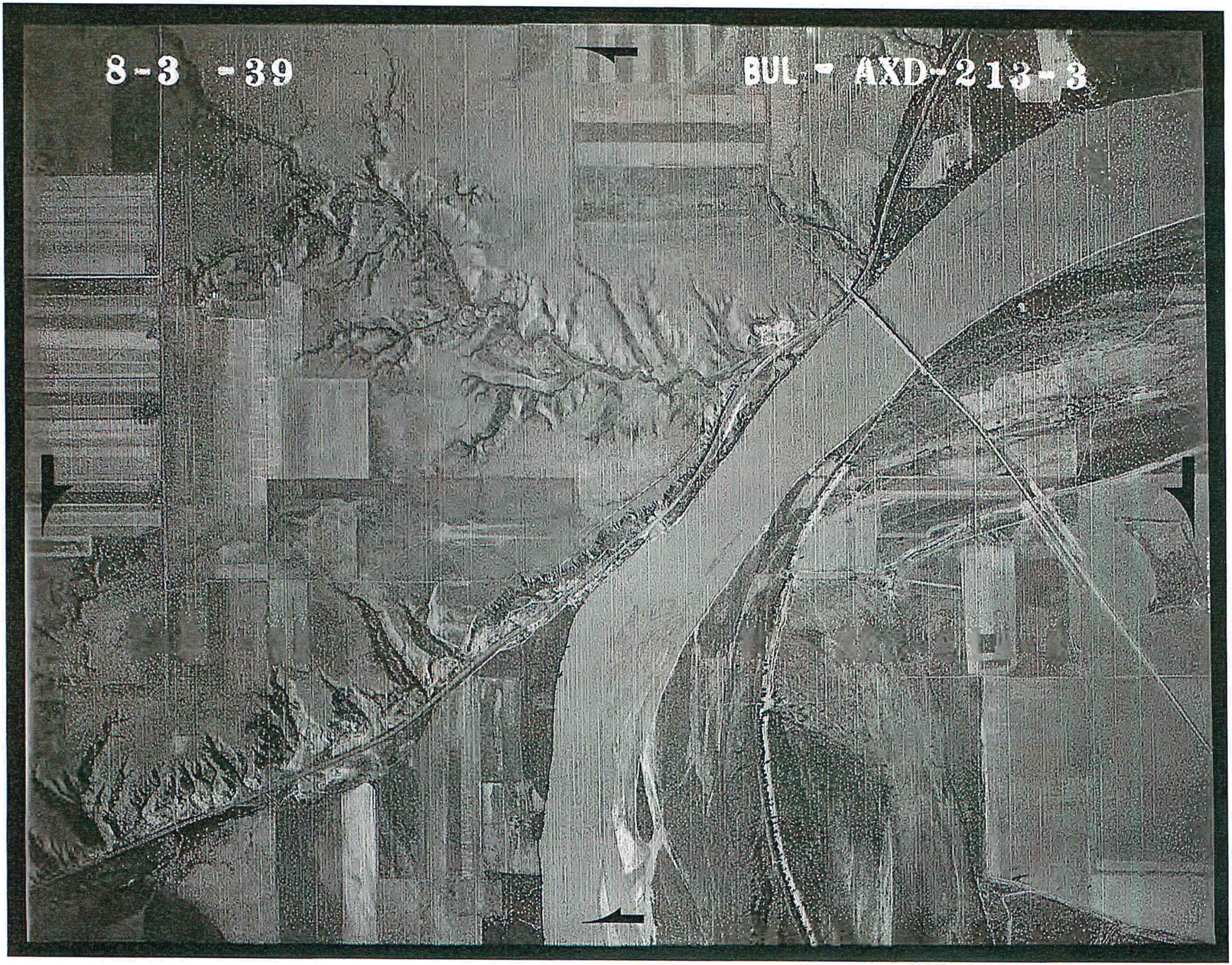
BUL -AXD-213-5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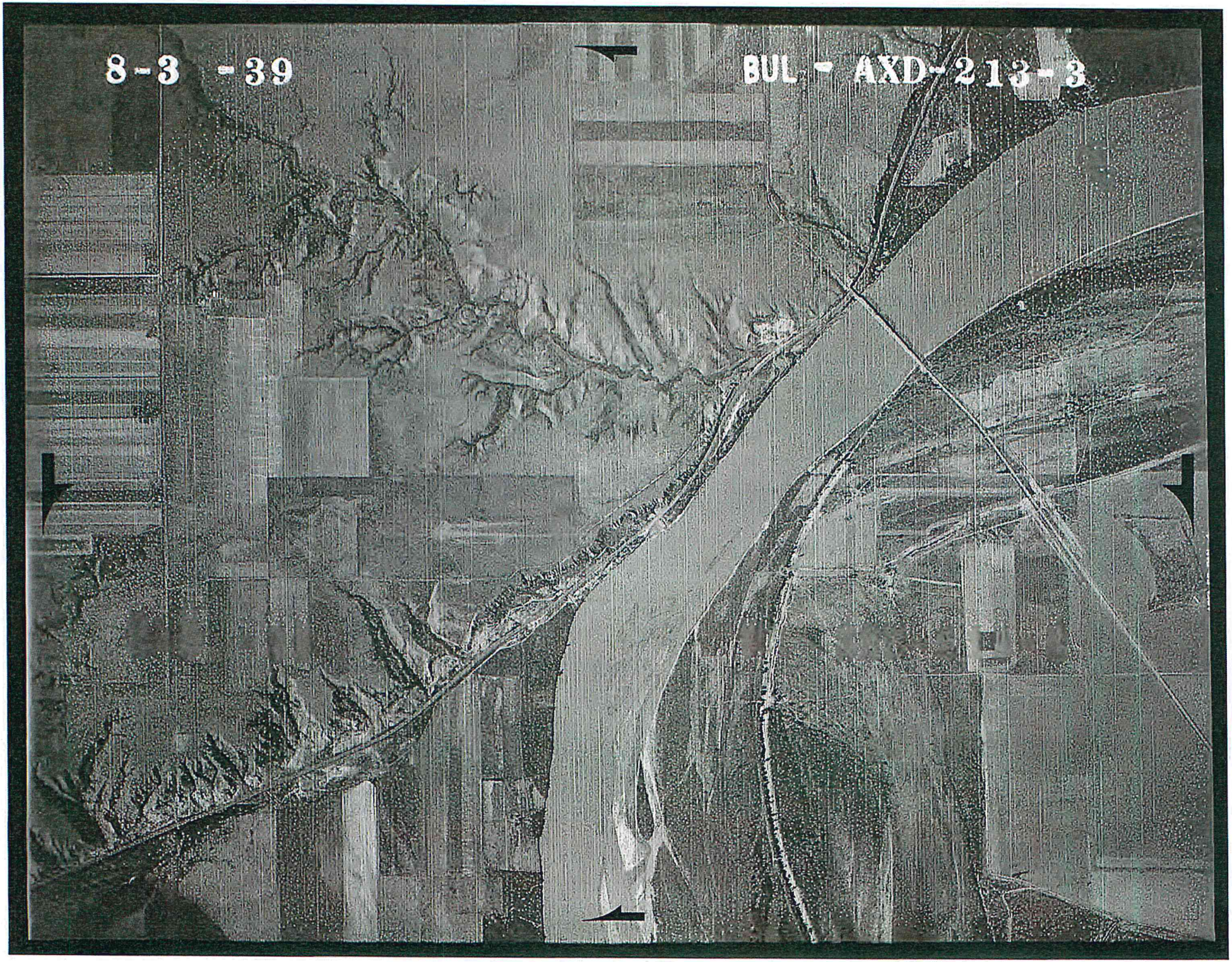
BUL - AXD-213-3

8-3 -39
BUL -AXD-213-5

8-28-49
AXD-13F- 17


8-3 -39
BUL - AXD-213-3

8-3 -39
BUL -AXD-213-5

8-28-49
AXD-13F- 17

Exhibit D- July 1957 Warranty Deed between United States and Lynch and Vohs' predecessors in interest

KK-3371 ← KK-3371

BOOK 87 PAGE 505

Document No. 155142

WARRANTY DEED

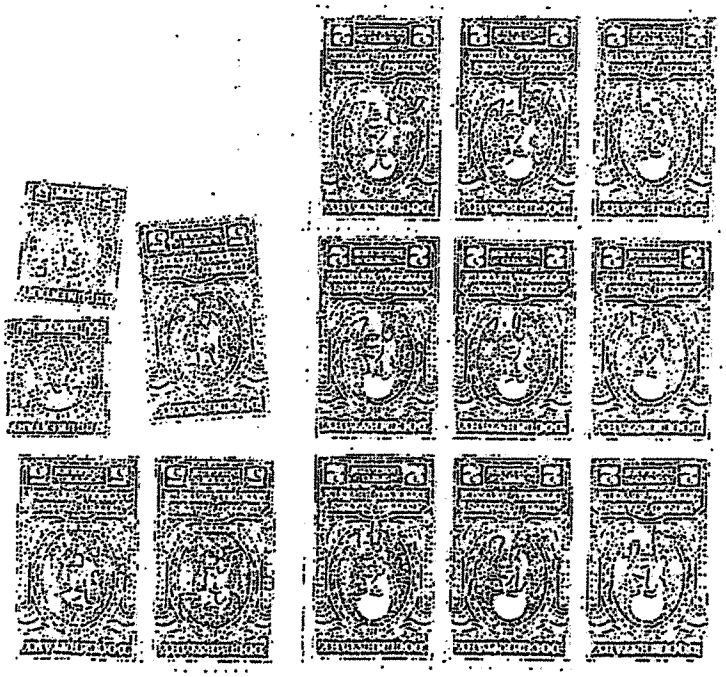
THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for

EXHIBIT tabbies D

BOOK 57 PAGE 506



said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil & gas ownership reserved by Vohs Family subject only to right of United States to flood the property for Lake Sakakawea

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER. And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
STATE OF NORTH DAKOTA

My commission expires
April 11, 1959

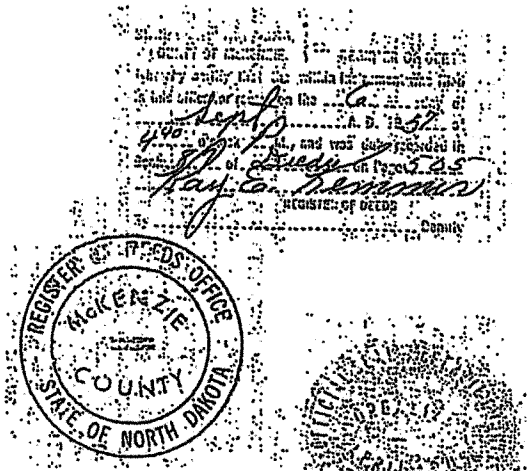
F. A. Wenstrom

Notary Public for the County of Williams, State of North Dakota

F. A. WENSTROM,
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JUNE 11, 1959.

Document No. 155142

BOOK 87 PAGE 508



Corps of Engineers
Riverdale, N. D.

From: Karen M. Haugen
To: Kadrmas, Bethany R.
Subject: FW: Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03 (2 of 3)
Date: Monday, May 07, 2018 10:47:55 AM
Attachments: VOGEL-#3245910-v1-Exhibit_F_-_testimony_of_Edward_Lynch_&_Suzanne_Vohs_to_the_ND_Legislature_on_SB_2134.PDF
VOGEL-#3245900-v1-Exhibit_E_-_2009_Lynch_and_Vohs_oil_and_gas_leases.PDF

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Please find attached correspondence from Joshua Swanson re the above-referenced matter and Exhibits E-F.

Karen M. Haugen | Senior Legal Administrative Assistant

VOGEL Law Firm

218 NP Avenue
P.O. Box 1389 | Fargo, ND 58107-1389
Tel: 701.237.6983 | Dir: 701.356.6374 | Fax: 701.476.7676

e-mail | vogellaw.com

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This message has been scanned for malware by Websense. www.websense.com

Exhibit E- 2009 Lynch and Vohs oil and gas leases

PAID UP OIL AND GAS LEASE

OIL AND GAS LEASE

PROD 88

THIS LEASE AGREEMENT is made as of the 19th day of December, 2009 between Edward Patrick Lynch, a married man dealing in his sole and separate property, whose post office address is 694 Hamlet Circle, Goose Creek, SC 29445, hereinafter called Lessor (whether one or more) and Golden Eye Resources, LLC, whose post office address is P. O. Box 2270, Littleton, CO 80161 hereinafter called Lessee. All printed portions of this lease were prepared by the party hereinabove named as Lessee, but all other provisions (including the completion of blank spaces) were prepared jointly by Lessor and Lessee.

Grant of Leased Premises. In consideration of a cash bonus in hand paid and the covenants herein contained, Lessor hereby grants, leases and lets exclusively to Lessee the following described land, hereinafter called leased premises :

Township 153 North, Range 101 West, of the 5th P.M.
Section 6: Lot 10 (41.00)
Section 7: Parts of Lots 1, 4 & 5 more fully described in Book 87 of Deeds-Page 505.
Including any and all accretions or riparian rights thereto.

in the County of McKenzie, State of North Dakota, containing 276.80 gross acres, more or less (including any interests therein which Lessor may hereafter acquire by reversion, prescription or otherwise), for the purpose of exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith ("Oil and Gas Substances"). The term "gas" as used herein includes helium, carbon dioxide, gaseous sulfur compounds, methane produced from coal formations and other commercial gases, as well as normal hydrocarbon gases. In addition to the above-described land, this lease and the term "leased premises" also covers accretions and any small strips or parcels of land now or hereafter owned by Lessor which are contiguous or adjacent to the above-described land, and, in consideration of the aforementioned cash bonus, Lessor agrees to execute at Lessee's request any additional or supplemental instruments for a more complete or accurate description of the land so covered. For the purpose of determining the amount of any payments based on acreage hereunder, the number of gross acres above specified shall be deemed correct, whether actually more or less.

1. **Ancillary Rights.** The rights granted to Lessee hereunder shall include the right of ingress and egress on the leased premises or lands pooled or unitized therewith, along with such rights as may be reasonably necessary or beneficial to conduct operations for exploring, developing, producing and marketing Oil and Gas Substances, including but not limited to geophysical operations, the drilling of wells, and the construction and use of roads, canals, pipelines, tanks, water wells, disposal wells, injection wells, pits, electric and telephone lines, power stations, and other facilities for Lessee to explore, discover, produce, store, treat and/or transport Oil and Gas Substances and water produced from the leased premises or other lands that share central facilities and are jointly operated with the leased premises for gathering, treating, compression, transporting, processing and water disposal. Lessee may use in such operations, free of cost, any oil, gas, water and/or other substances produced on the leased premises, except water from Lessor's wells or ponds. In exploring, developing, producing or marketing from the leased premises or lands pooled or unitized therewith, the ancillary rights granted herein shall apply (a) to the entire leased premises, notwithstanding any partial release or other partial termination of this lease; and (b) to any other lands in which Lessor now or hereafter has authority to grant such rights in the vicinity of the leased premises or lands pooled or unitized therewith. When requested by Lessor in writing, Lessee shall bury its pipelines below ordinary plow depth on cultivated lands. No well shall be located less than 200 feet from any house or barn now on the leased premises or other lands of Lessor used by Lessee hereunder, without Lessor's consent, and Lessee shall pay for damage caused by its operations to buildings and other improvements now on the leased premises or such other lands, and to commercial timber and growing crops thereon. Lessee shall have the right at any time to remove its fixtures, equipment and materials, including well casing, from the leased premises or such other lands during the term of this lease or within a reasonable time thereafter.

2. **Term of Lease.** This lease shall be in force for a primary term of three (3) years from the date hereof, and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from lands pooled or unitized therewith or this lease is otherwise maintained in effect pursuant to the provisions hereof.

3. **Operations.** If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled or unitized therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of this lease or the action of any governmental authority, then in the event this lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences further operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled or unitized therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If after the primary term this lease is not otherwise being maintained in force, but Lessee is then engaged in Operations, as defined below, this lease shall remain in force so long as any one or more of such Operations are prosecuted with no interruption of more than 90 consecutive days, and if any such Operations result in the production of Oil and Gas Substances, as long thereafter as there is production in paying quantities from the leased premises or lands pooled or unitized therewith. After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled or unitized therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to reservoirs then capable of producing in paying quantities on the leased premises or lands pooled or unitized therewith, or (b) protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled or unitized therewith. There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein. As used herein, the term Operations shall mean any activity conducted on or off the leased premises that is reasonably calculated to obtain or restore production, including without limitation, (i) drilling or any act preparatory to drilling (such as obtaining permits, surveying a drill site, staking a drill site, building roads, clearing a drill site, or hauling equipment or supplies); (ii) reworking, plugging back, deepening, treating, stimulating, refitting, installing any artificial lift or production-enhancement equipment or technique; (iii) constructing facilities related to the production, treatment, transportation and marketing of substances produced from the lease premises; (iv) contracting for marketing services and sale of Oil and Gas Substances; and (v) construction of water disposal facilities and the physical movement of water produced from the leased premises.

4. **Shut-In Royalty.** If after the primary term one or more wells on the leased premises or lands pooled or unitized therewith are capable of producing Oil and Gas Substances in paying quantities, but such well or wells are either shut in or production therefrom

396124

Return to:

TRANSCONTINENT OIL CO
621 17TH ST STE 1555

DENVER CO 80293-1201

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 4

tabbies

EXHIBIT
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is not being sold by Lessee, such well or wells shall nevertheless be deemed to be producing in paying quantities for the purpose of maintaining this lease. If for a period of 90 consecutive days such well or wells are shut in or production therefrom is not sold by Lessee, then Lessee shall pay an aggregate shut-in royalty of one dollar per acre then covered by this lease. The payment shall be made to Lessor on or before the first anniversary date of the lease following the end of the 90-day period and thereafter on or before each anniversary while the well or wells are shut in or production therefrom is not being sold by Lessee; provided that if this lease is otherwise being maintained by operations under this lease, or if production is being sold by Lessee from another well or wells on the leased premises or lands pooled or unitized therewith, no shut-in royalty shall be due until the first anniversary date of the lease following the end of the 90-day period after the end of the period next following the cessation of such operations or production, as the case may be. Lessee's failure to properly pay shut-in royalty shall render Lessee liable for the amount due, but shall not operate to terminate this lease. It is agreed, however, that no well may be shut-in and perpetuate this lease for more than three (3) years beyond the primary term; actual production and payment on production is required to perpetuate this lease beyond such period.

5. **Royalty Payment.** For all Oil and Gas Substances that are physically produced from the leased premises, or lands pooled, unitized or communitized therewith, and sold, lessor shall receive as its royalty **three sixteenths (3/16ths)** of the sales proceeds actually received by lessee or, if applicable, its affiliate, as a result of the first sale of the affected production to an unaffiliated party, less this same percentage share of all Post Production Costs and this same percentage share of all production, severance, ad valorem and other taxes. As used in this provision, Post Production Costs shall mean all costs actually incurred by lessee or its affiliate and all losses of produced volumes whether by use as fuel, line loss, flaring, venting or otherwise from and after the wellhead to the point of sale. These costs include without limitation, all costs of gathering, marketing, compression, dehydration, transportation, removal of liquid or gaseous substances or impurities from the affected production, and any other treatment or processing required by the first unaffiliated party who purchases the affected production. For royalty calculation purposes, lessee shall never be required to adjust the sales proceeds to account for the purchaser's costs or charges downstream of the point of sale.

Lessee or its affiliate shall have the right to construct, maintain and operate any facilities providing some or all of the services identified as Post Production Costs. If this occurs, the actual costs of such facilities shall be included in the Post Production Costs as a per barrel or per mcf charge, as appropriate, calculated by spreading the construction, maintenance and operating costs for such facilities over the reasonably estimated total production volumes attributable to the well or wells using such facilities.

If Lessee uses the Oil and Gas Substances (other than as fuel in connection with the production and sale thereof) in lieu of receiving sale proceeds, the price to be used under this provision shall be based upon arm's-length sale(s) to unaffiliated parties for the applicable month that are obtainable, comparable in terms of quality and quantity, and in closest proximity to the leased premises. Such comparable arm's-length sales price shall be less any Post Production Costs applicable to the specific arms-length transaction that is utilized.

6. **Pooling.** Lessee shall have the right but not the obligation to pool all or any part of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all substances covered by this lease, either before or after the commencement of drilling or production, whenever Lessee deems it necessary or proper to do so in order to prudently develop or operate the leased premises, whether or not similar pooling authority exists with respect to such other lands or interests. The creation of a unit by such pooling shall be based on the following criteria (hereinafter called "pooling criteria"): A unit for an oil well (other than a horizontal completion) shall not exceed 40 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on a 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means a well in which the horizontal component of the completion interval in the reservoir exceeds the vertical component in such interval. In exercising its pooling rights hereunder, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this lease and included in the unit bears to the total acreage in the unit, but only to the extent such proportion of unit production is sold by Lessee. In the event a unit is formed hereunder before the unit well is drilled and completed, so that the applicable pooling criteria are not yet known, the unit shall be based on the pooling criteria Lessee expects in good faith to apply upon completion of the well; provided that within a reasonable time after completion of the well, the unit shall be revised if necessary to conform to the pooling criteria that actually exist. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. To revise a unit hereunder, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly.

7. **Unitization.** Lessee shall have the right but not the obligation to commit all or any part of the leased premises or interest therein to one or more unit plans or agreements for the cooperative development or operation of one or more oil and/or gas reservoirs or portions thereof, if in lessee's judgment such plan or agreement will prevent waste and protect correlative rights, and if such plan or agreement is approved by the federal, state or local governmental authority having jurisdiction. When such a commitment is made, this lease shall be subject to the terms and conditions of the unit plan or agreement, including any formula prescribed therein for the allocation of production from a unit. Upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Pooling hereunder shall not constitute a cross-conveyance of interests.

8. **Payment Reductions.** If Lessor owns less than the full mineral estate in all or any part of the leased premises, payment of royalties and shut-in royalties hereunder shall be reduced as follows: royalties and shut-in royalties for any well on any part of the leased premises or lands pooled therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises. To the extent any royalty or other payment attributable

to the mineral estate covered by this lease is payable to someone other than Lessor, such royalty or other payment shall be deducted from the corresponding amount otherwise payable to Lessor hereunder.

9. **Ownership Changes.** The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this lease, the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this lease then held by each

10. **Release of Lease.** Lessee may, at any time and from time to time, deliver to Lessor or file of record a written release of this lease as to a full or undivided interest in all or any portion of the area covered by this lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases less than all of the interest or area covered hereby, Lessee's obligation to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder.

11. **Regulation and Delay.** Lessee's obligations under this lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders, governmental action or inaction of any governmental authority having jurisdiction, including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby. When drilling, reworking, production or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this lease shall not terminate because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any provisions or implied covenants of this lease when drilling, production or other operations are so prevented or delayed.

12. **Breach or Default.** No litigation shall be initiated by Lessor for damages, forfeiture or cancellation with respect to any breach or default by Lessee hereunder, for a period of at least 60 days after Lessor has given Lessee written notice fully describing the breach or default, and then only if Lessee fails to remedy the breach or default within such period.

13. **Warranty of Title.** Lessor Lessee at Lessee's option may pay and discharge any taxes, mortgages or liens existing, levied or assessed on or against the leased premises. If Lessee exercises such option, Lessee shall be subrogated to the rights of the party to whom payment is made, and, in addition to its other rights, may reimburse itself out of any royalties or shut-in royalties otherwise payable to Lessor hereunder. In the event Lessee is made aware of any claim inconsistent with Lessor's title, Lessee may suspend the payment of royalties and shut-in royalties hereunder, without interest, until Lessee has been furnished satisfactory evidence that such claim has been resolved.

14. **Pugh Clause.** Notwithstanding any provisions of this lease to the contrary, upon expiration of the primary term, or upon cessation of "continuous drilling operations" (as hereinafter defined), whichever is later, this lease shall terminate as to all the lands covered hereby except lands within a production or a spacing unit prescribed by law or administrative authority, on which is located a well producing, or capable of producing, oil and/or gas. Lessee shall be considered to be engaged in "continuous drilling operations" for the purposes hereof if (I) Lessee is engaged in drilling, reworking or completion operations on a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, or (II) Lessee has completed or abandoned a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, within 180 days prior to the end of the primary term. Lessee shall be deemed to be engaged in continuous drilling operations for as long thereafter as Lessee conducts drilling, reworking or completion operations on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, with not more than 180 days elapsing between the completion or abandonment of one well and the beginning of operations for the drilling of an additional well or reworking an existing well.

IN WITNESS WHEREOF, this lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this lease has been executed by all parties hereinabove named as Lessor.

LESSOR(S)

Edward Patrick Lynch

Edward Patrick Lynch

ACKNOWLEDGEMENTS

STATE OF ND)
) ss.
COUNTY OF WILLIAMS)

On this 20th day of DECEMBER, 2009, before me, the undersigned Notary Public in and for said county and state, personally appeared Edward Patrick Lynch, a married man dealing in his sole and separate property known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 11/3/2012

Kent M Lynch
Notary Public
Williston, ND

KENT M LYNCH
NOTARY PUBLIC
STATE OF NORTH DAKOTA
My Commission Expires November 3, 2012

COUNTY RECORDER
McKENZIE COUNTY
STATE OF NORTH DAKOTA

County Recorder 396124

McKenzie County
Watford City ND 58854 Page 4 of 4
COUNTY RECORDER, MCKENZIE COUNTY, ND

I certify that this instrument was filed and recorded, 396124

Ann M Johnsrud, County Recorder Fee $19.00

By Ann M. Johnsrud Jan 07, 2010 03:59 PM

Return to:

POULSON ODELL & PETERSON LLC
1775 SHERMAN ST #4100

DENVER CO 80203

445704

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 4

RATIFICATION OF OIL AND GAS LEASE

KNOW ALL BY THESE PRESENTS:

COMES NOW, Suzanne Vohs, A/K/A Dorothee S. Vohs, F/K/A Suzanne Green and Dorothee S. Green, individually and as Trustee of the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs, A/K/A Donald K. Vohs Trust, A/K/A Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 and hereby sets forth the following:

WHEREAS, by Oil and Gas Lease dated December 18, 2009, recorded on December 30, 2009 at Reception No. 395827 of the records of McKenzie County, North Dakota, executed and delivered by Suzanne Vohs, as Trustee of the Vohs Family Revocable Living Trust, dated November 19, 2009, as Lessor, leased to Golden Eye Resources, LLC as Lessee, the following described lands located in McKenzie County, North Dakota, referred to herein as the "Subject Lands," to wit:

Township 153 North, Range 101 West, 5th P.M.
Section 6: Lot 10
Section 7: Parts of Lots 1, 4 and 5 more fully described in Book 87 of Deeds, Page 505, including any and all accretions or riparian rights thereto

containing 276.80 gross acres, more or less, said lease being referred to herein as the "Lease."

WHEREAS, the Lease remains valid and in force and effect as to the Subject Lands;

WHEREAS, the intent of the Lease was to lease unto Golden Eye the entire interest previously held by Donald K. Vohs in the Subject Lands, and such other interests that may hereafter be acquired by the Lessor or the undersigneds, according to the terms of the Lease;

WHEREAS, Suzanne Vohs, and/or the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs, is the successor in interest to the entire mineral interest in the Subject Lands previously held by Donald K. Vohs to the extent such mineral interest is not already in the name of Suzanne Vohs or her successor, the Vohs Family Revocable Living Trust, dated November 19, 2009;

WHEREAS, it is the intent of the undersigneds to ratify the Lease;

NOW, THEREFORE, in consideration of the premises, the mutual advantages to be derived hereunder, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigneds agree that the Lease is valid and in full force and effect, and do hereby ratify, adopt and confirm said Lease, and for such purposes, the undersigneds do hereby grant, lease and let unto Lessee, its successors and assigns, all of its interests in the above described lands upon the same terms, conditions and provisions as are contained in the Lease.

4
19

EXECUTED the 9 day of January, 2012.

Suzanne Vohs

Suzanne Vohs, as Trustee of the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs

STATE OF California)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2013, by Suzanne Vohs.

Witness my hand and official seal.

My commission expires: _____

Loose certificate attached

Notary Public

STATE OF _____)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2013, by Suzanne Vohs, as Trustee of the Donald K. Vohs Trust Under Declaration of Trust Dated January 23, 1992 For the Benefit of Donald K. Vohs.

Witness my hand and official seal.

My commission expires: _____

Loose certificate attached

Notary Public

ACKNOWLEDGMENT

State of California
County of Riverside)

On January 9, 2013 before me, Linda E. Keeney, notary public
(insert name and title of the officer)

personally appeared Suzanne Vohs,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Linda E Keeney (Seal)

LINDA E. KEENEY
Commission # 1954071
Notary Public - California
Riverside County
My Comm. Expires Sep 26, 2015

ACKNOWLEDGMENT

State of California
County of Riverside)

On January 9, 2013 before me, Linda E. Keeney, notary public
(insert name and title of the officer)

personally appeared Suzanne Vohs,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Linda E Keeney (Seal)

LINDA E. KEENEY
Commission # 1954071
Notary Public - California
Riverside County
My Comm. Expires Sep 26, 2015

445704

County Recorder
McKenzie County
Watford City ND 58854

COUNTY RECORDER, MCKENZIE COUNTY, ND

I certify that this instrument was filed and recorded, 445704

Ann M Johnsrud, County Recorder Fee $19.00

By Ann M. Johnsrud Jan 15, 2013 11:03 AM

Exhibit F- testimony of Edward Lynch and Suzanne Vohs to the North Dakota Legislature on SB 2134

Testimony of Edward Lynch

Concerning SB2134

Senate Energy and Natural Resources Committee

January 12, 2017, 9:00 AM

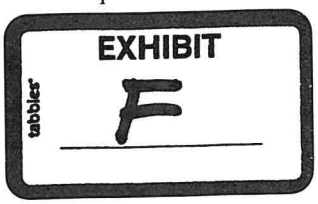
Madam Chair, my name is Edward P. Lynch. I was born and raised in Williston North Dakota.

I am here representing myself and my family as well as the Lynch family and members of the Vohs Family past and present. The Vohs family of Williston has a very long and storied history in Western, ND. The Patriarch of this family Adolph Vohs migrated from South St.Paul, MN with wife Helen Sackett, in the early years after ND was granted Statehood to a small town called Inkster, ND in order to operate and manage a meat market / Butcher shop. Adolph Vohs hired by JD Sears of Swift and Company was by all accounts a success in this venture. So much so that he was once yet again tasked with migrating to Williston in 1904 to do the same, open a butcher shop meat market on main street Williston, ND in the original location of Vohs Meat Market known now as the Grand Theater. The original Vohs homestead located about 7 miles NW of Williston, and also the cattle line ranch located next to the Missouri River approximately 5 miles or so SW of Williston, directly across the Hwy 85 bridge on the west side (township 153 Range 101 sections 6 and 7.)

For many years through trial and hardship, through fires and thievery the Vohs Family endured for 60 or more years. The Vohs Family served and contributed through public service in more ways than one to the community, the city of Williston, Williams County and moreover to the history of State of North Dakota. In 1952 under public Land Order 1809 and Executive order 10355 dated May 26, 1952 The Vohs Family was required to abandon the land they owned and operated due to the building of Garrison Dam which would inundate that area. The Public Land Notice 1809 *(See attached)* describes in detail the lands effected by township, range and sections. At that time, the surface land was being withdrawn from public use, the Vohs Family like so many others at that time were able to reserve the mineral interests.

In 1989 upon the death and passing of my great Aunt Esther Vohs, she bequeathed to me, Grand Nephew and God Son, her portion of mineral acreage located at the former Vohs cattle ranch. There are a total of approximately 276 mineral acers which are owned by the three surviving members of the Vohs Family, Suzanne Vohs, John Vohs and Marge Vohs and myself. The minerals were leased in whole once prior mid 1980's and then again in 2010. At this point the State of ND and the State Land board had never indicated any interest in this property.

In 2012, drilling permits were issued for the Continental Resources Atlanta Super Pad, Continental Resources of course being required to perform due diligence hired Lear and Lear a professional title search and research company to document a detailed historical document of title /chain ownership for the 2560 acre spacing area. It was July of 2014 that I as well as the other Vohs members received from Continental Resources a division order for these Atlanta Wells for the entire 276 + mineral acers as were documented in the official title of ownership



record used by Continental Resources. It was several months later that we also received an amended division order stating that we did not own all of the minerals as was stated in the official title of ownership, and then it was again in January 0f 2015 we received yet another amended division order stating again that we all owned even less than before.

At that time I then wanted to find out and investigate what was going on but I could not get any straight answers from Continental. I was able to find out later that The ND Department of School Trust Lands (The ND Land Board had also leased our minerals to Continental Resources and was thus claiming ownership of 2/3rd's of the original 276 + mineral acreage.

The title record of ownership of these minerals have mineral deeds and chain of title deeds filed in Williams County as well as McKenzie County and all of these title records go back many years. Despite the fact that Continentals own official record of title and ownership specifically states that these minerals are owned in fact by myself and the Vohs family, the State of ND Land Board ignores this fact and by the use of some clever legal maneuvering and clever legalese albeit through a legal disclaimer, they have successfully taken private property from myself as well as numerous others. Without so much as a simple phone call, a simple letter or any type of notification, the rightful owners of record for these minerals have had their constitutional rights to private property and due process trampled upon.

The ND Land Board claims and has assumed ownership but then in the same breath use this disclaimer.

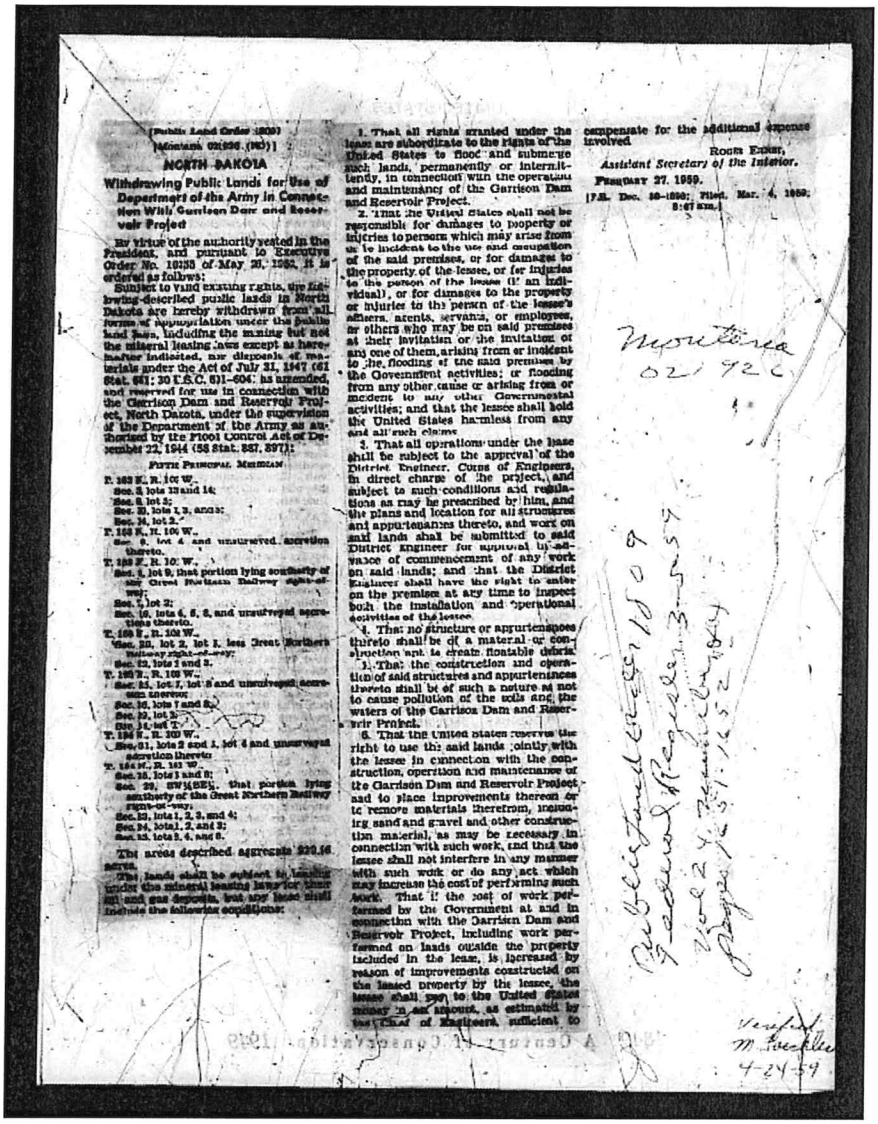
Disclaimer: The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land".

I have read and understand the above disclaimer. ☐

Please note Honorable members of this Committee, I am not a wealthy individual, I have worked hard all these years to be somewhat successful and to raise two wonderful children who were also born in the State of North Dakota. I have always had a very strong connection to this State as well, I have tried to instill pride in my children. I have to say I am deeply disappointed at this time. The State of ND gave no notification of this unconstitutional taking of private property as required under the ND Constitution and also the US Constitution.

I respectfully request that the State of ND by and through legislation or any other means return the private property which was wrongfully taken from myself and others. The State of ND was granted title to the riverbed of the Historical Missouri River and other lakes and such when granted Statehood. Now because of a huge Oil Boom we are witnessing crony capitalism at its finest and the manufacturing of a massive land grab of private property by the land board.

As I previously e-mailed a concern regarding the draft legislation of Senate Bill 2134, my concern is the language of the bill which delineates the highway 85 bridge as the end of Lake Sakakawea. Clearly all of the lands and property as listed in Public Land Order 1809 prior to Garrison Dam are effected, it is just that simple.



[Public Land Order 1809]
[Montana 021936 (ND)]

NORTH DAKOTA

Withdrawing Public Lands for Use of Department of the Army in Connection With Garrison Dam and Reservoir Project

By virtue of the authority vested in the President, and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

Subject to valid existing rights, the following-described public lands in North Dakota are hereby withdrawn from all forms of appropriation under the public land laws, including the mining but not the mineral leasing laws except as hereinafter indicated, and disposals of materials under the Act of July 31, 1947 (61 Stat. 681; 30 U.S.C. 601–604), as amended, and reserved for use in connection with the Garrison Dam and Reservoir Project, North Dakota, under the supervision of the Department of the Army as authorized by the Flood Control Act of December 22, 1944 (58 Stat. 887, 897):

FIFTH PRINCIPAL MERIDIAN

T. 153 N., R. 101 W.,
Sec. 2, lots 13 and 14;
Sec. 8, lot 5;
Sec. 33, lots 1, 2, and 3;
Sec. 34, lot 2.
T. 154 N., R. 101 W.,
Sec. 6, lot 4 and unsurveyed accretion thereto.
T. 155 N., R. 101 W.,
Sec. 4, lot 9, that portion lying southerly of the Great Northern Railway right-of-way;
Sec. 7, lot 2;
Sec. 16, lots 4, 5, 6, and unsurveyed accretions thereto.
T. 155 N., R. 102 W.,
Sec. 32, lot 2, lot 3, less Great Northern Railway right-of-way;
Sec. 33, lots 1 and 2.
T. 153 N., R. 103 W.,
Sec. 24, lot 7, lot 8 and unsurveyed accretion thereto;
Sec. 26, lots 7 and 8;
Sec. 32, lot 3;
Sec. 34, lot 1.
T. 154 N., R. 103 W.,
Sec. 31, lots 2 and 3, lot 4 and unsurveyed accretion thereto;
T. 154 N., R. 103 W.,
Sec. 25, lots 3 and 8;
Sec. 29, SW¼SE¼, that portion lying southerly of the Great Northern Railway right-of-way;
Sec. 32, lots 1, 2, 3, and 4;
Sec. 34, lots 1, 2, and 3;
Sec. 35, lots 3, 4, and 6.

The areas described aggregate 820.16 acres.

The lands shall be subject to leasing under the mineral leasing laws for their oil and gas deposits, but any lease shall include the following conditions:

1. That all rights granted under the lease are subordinate to the rights of the United States to flood and submerge such lands, permanently or intermittently, in connection with the operation and maintenance of the Garrison Dam and Reservoir Project.

2. That the United States shall not be responsible for damages to property or injuries to persons which may arise from or be incident to the use and occupation of the said premises, or for damages to the property of the lessee, or for injuries to the person of the lessee (if an individual), or for damages to the property or injuries to the person of the lessee's officers, agents, servants, or employees, or others who may be on said premises at their invitation or the invitation of any one of them, arising from or incident to the flooding of the said premises by the Government activities; or flooding from any other cause or arising from or incident to any other Governmental activities; and that the lessee shall hold the United States harmless from any and all such claims.

3. That all operations under the lease shall be subject to the approval of the District Engineer, Corps of Engineers, in direct charge of the project, and subject to such conditions and regulations as may be prescribed by him, and the plans and location for all structures and appurtenances thereto, and work on said lands shall be submitted to said District Engineer for approval in advance of commencement of any work on said lands; and that the District Engineer shall have the right to enter on the premises at any time to inspect both the installation and operational activities of the lessee.

4. That no structure or appurtenances thereto shall be of a material or construction apt to create floatable debris.

5. That the construction and operation of said structures and appurtenances thereto shall be of such a nature as not to cause pollution of the soils and the waters of the Garrison Dam and Reservoir Project.

6. That the United States reserves the right to use the said lands jointly with the lessee in connection with the construction, operation and maintenance of the Garrison Dam and Reservoir Project and to place improvements thereon or to remove materials therefrom, including sand and gravel and other construction material, as may be necessary in connection with such work, and that the lessee shall not interfere in any manner with such work or do any act which may increase the cost of performing such work. That if the cost of work performed by the Government at and in connection with the Garrison Dam and Reservoir Project, including work performed on lands outside the property included in the lease, is increased by reason of improvements constructed on the leased property by the lessee, the lessee shall pay to the United States money in an amount, as estimated by the Chief of Engineers, sufficient to compensate for the additional expense involved.

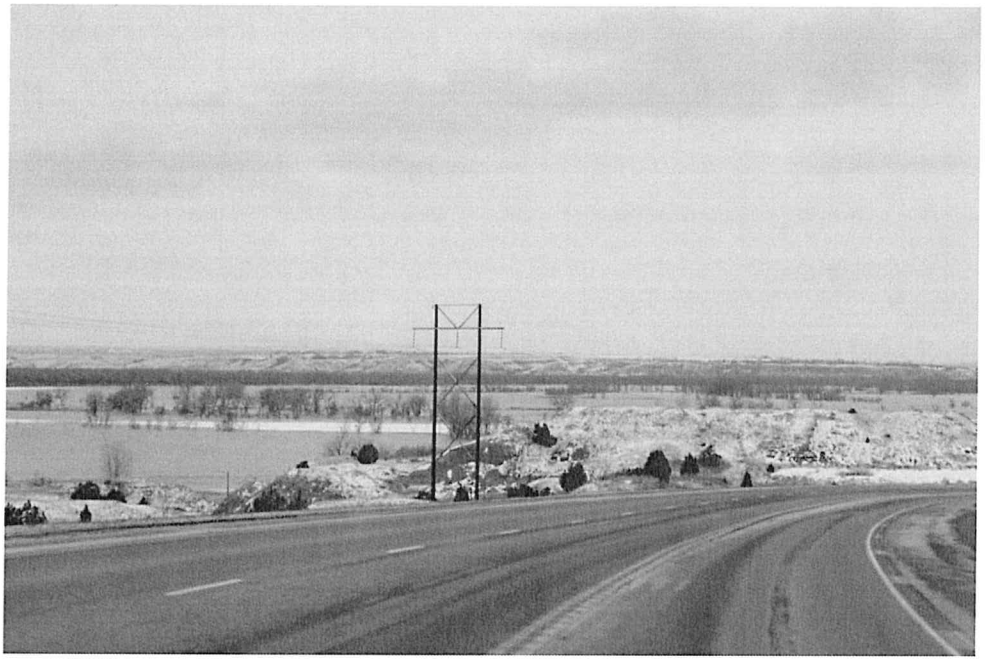
ROGER ERNST,
Assistant Secretary of the Interior.

FEBRUARY 27, 1959.

[F.R. Doc. 59-1890; Filed, Mar. 4, 1959; 8:47 a.m.]

Montana
021936 (ND)

But, since the Garrison dam was built, the land has flooded regularly, most recently in 2011 and 2014 when the reservoir was operated at maximum capacity. Please see attached photos the historical photos all the way through current day.



This photograph was taken April of 2014 driving west from atop Indian Hill SE of Williston, the area inundated by flood waters is West of Hwy 85 Bridge.

Hwy 85 West roughly 2.5 miles from Hwy 85 Lewis & Clark Bridge, the entire 2560 acre spacing unit is flooded

Groups ask for higher releases through Garrison Dam ASAP

APRIL 09, 2014 12:34 PM • BY BRIAN GEPHRNC

BISMARCK, N.D. _ Despite the U.S. Army Corps of Engineers' forecast that the risk of flooding along the upper Missouri River Basin is minimal this spring, some groups want stepped up releases through Garrison Dam to begin as soon as possible.

The corps hosted a public meeting in Bismarck on Wednesday night on plans for reservoir management in 2014, one of five such meetings conducted along river cities from Missouri to Montana.

Col. Bill Leady, deputy commander for the corps' northwest division, said he believes there is enough storage in the system to handle runoff this spring

The corps' April 1 runoff forecast was for 32 million acre-feet of water to enter the system through July.

He said average runoff is about 26 million acre-feet. An acre-foot of water is roughly the size of a football field covered with a foot of water.

Still, the North Dakota State Water Commission and other groups urged the corps to crank up releases sooner rather than later to avoid a repeat of 2011 flooding.

According to the corps, current reservoir levels are well below 2011 levels; Fort Peck is 14.5 feet lower, Lake Sakakawea is 5.2 feet lower and Lake Oahe 10.4 feet lower.

Bruce Engelhardt of the State Water Commission's water development division, said conditions in the upper basin have been "more volatile" in recent decade.

Engelhardt said releases can be increased while still maintaining balance on the upper three reservoirs - Fort Peck, Lake Sakakawea and Lake Oahe — which contain about 90 percent of the water storage for the basin.

"Consistent variation should be maintained," he said, to avoid flooding like in 2011.

Mountain snowpack above Fort Peck is 133 percent of normal and 139 percent of normal between Fort Peck and Garrison.

Jody Farnet, water management chief for the corps, said plans are to step up releases through Garrison Dam from the current 18,000 cubic feet per second to 24,000 cfs by April 15 and 25,000 cfs by the end of the month.

Farnet said May average releases should be around 27,000 cfs and 30,000 cfs for June.

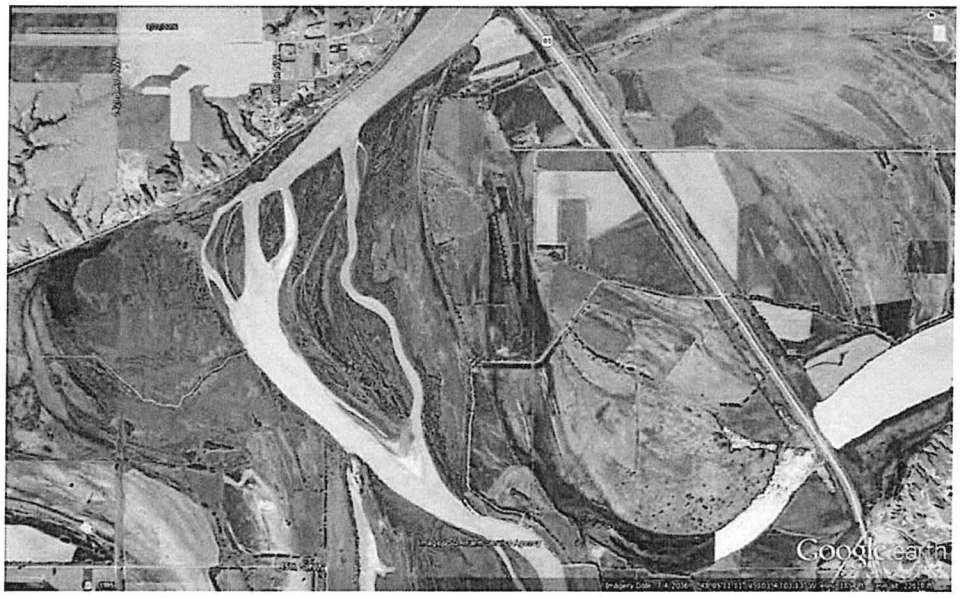
Press Release in the Bismarck Tribune Requesting higher releases from Garrison Dam, April 2014

Historical Photographs of 153 / 101 Sec 6 & 7

August 1995

August 23rd 2003

July 29th 2005



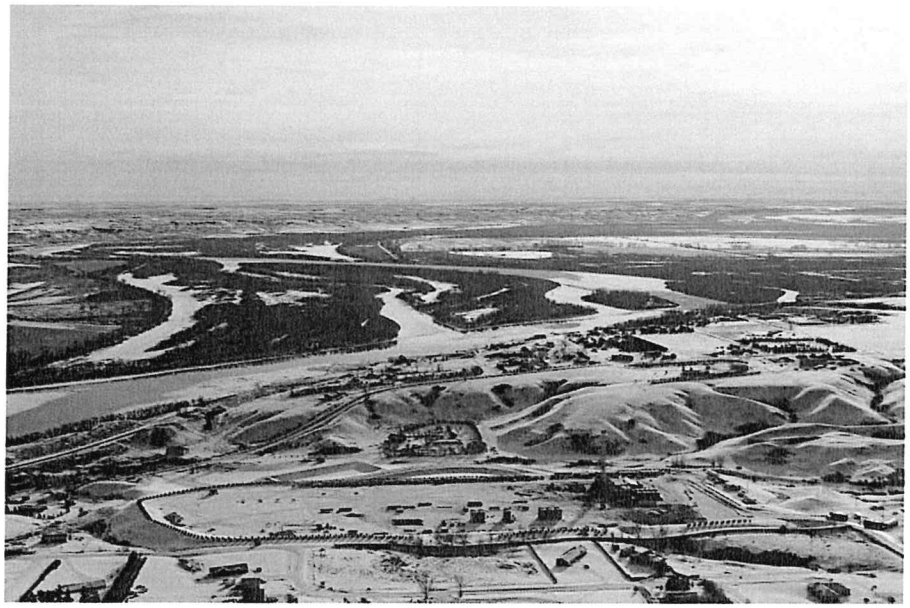
August 8th 2006

August 31st 2009

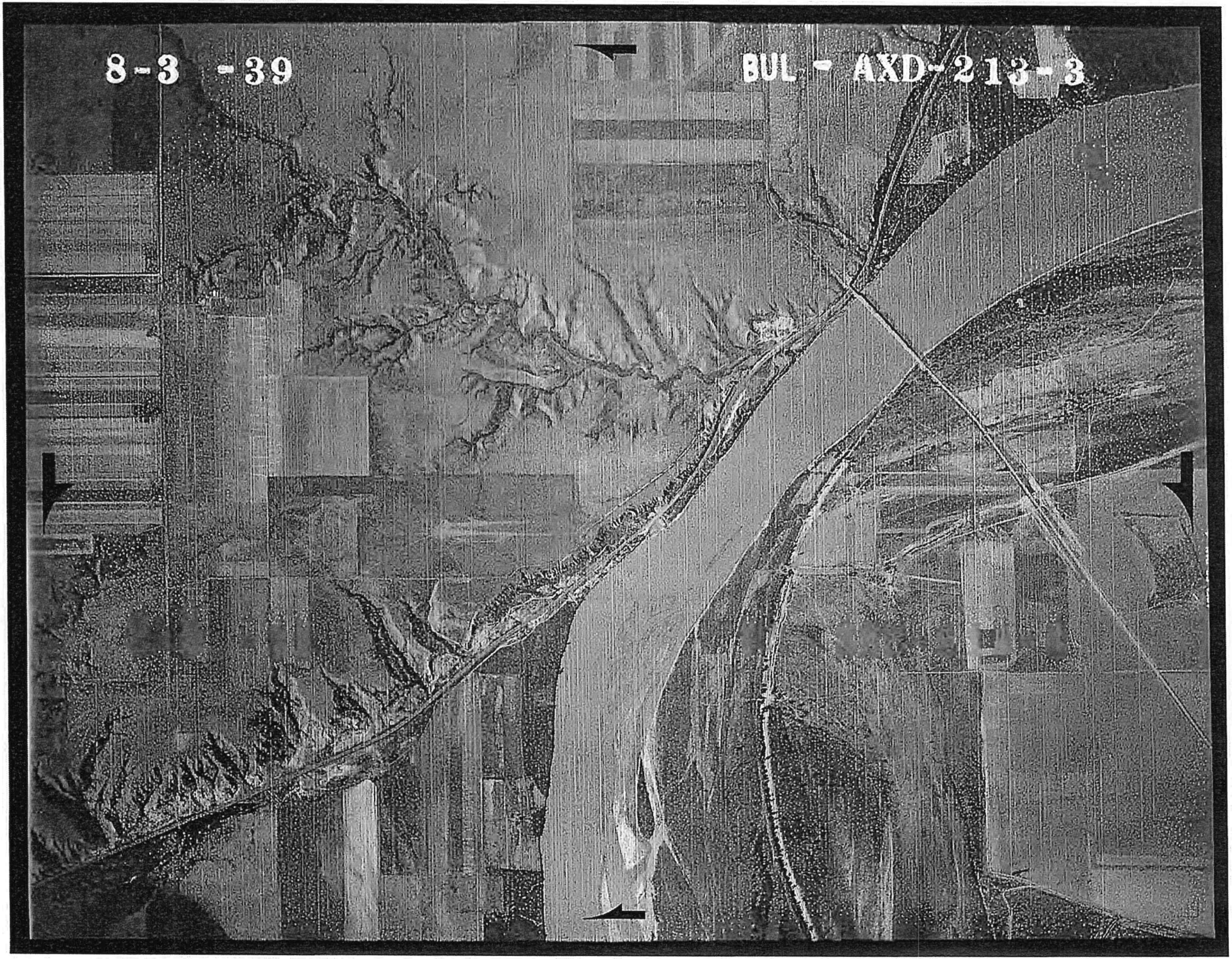
December 30th 2010

December 9th 2011

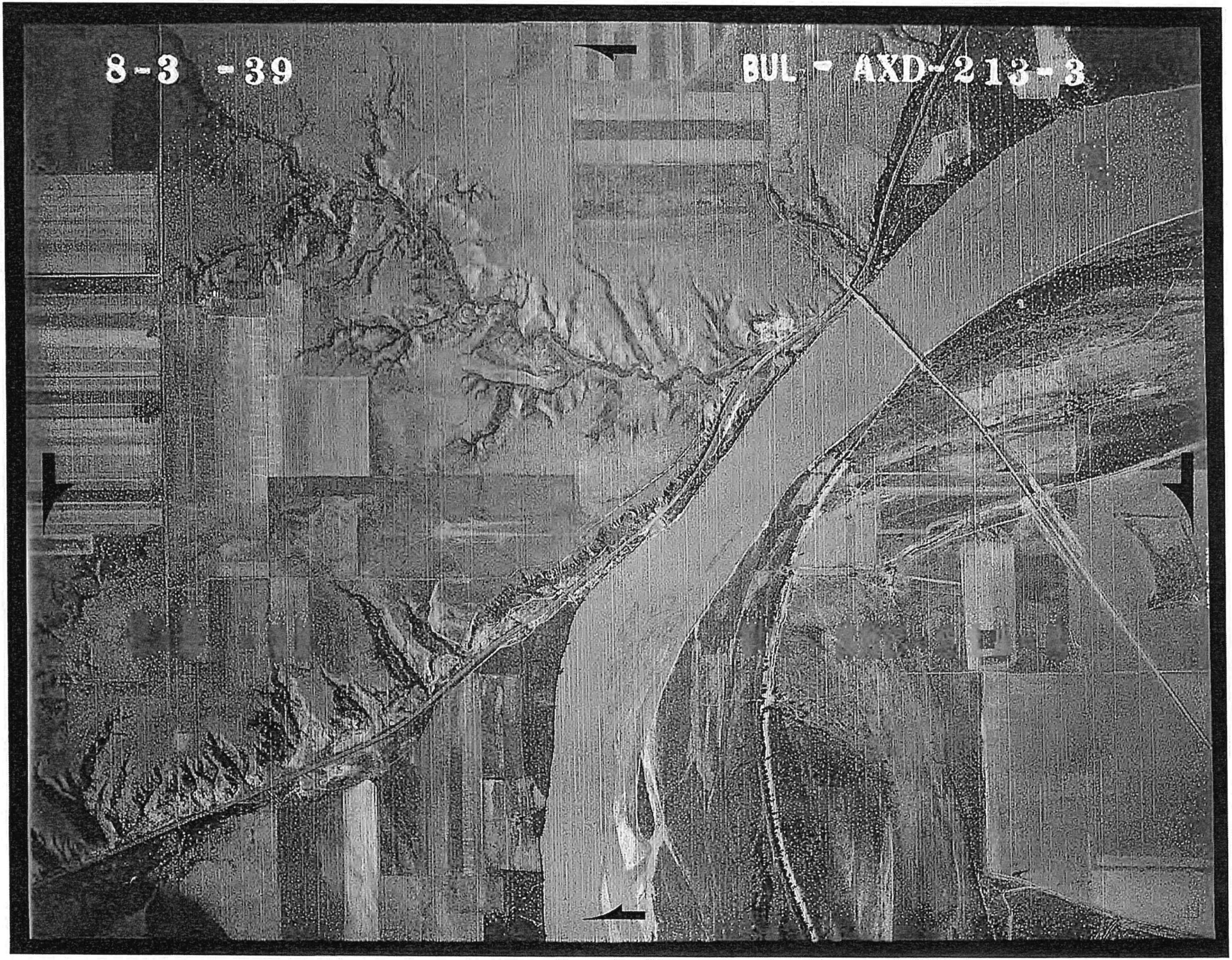
August 15th 2013



Aerial view above the Atlanta Well Pad December 2012


8-3 -39
BUL - AXD-213-3

8-3-39
BUL - AXD-213-5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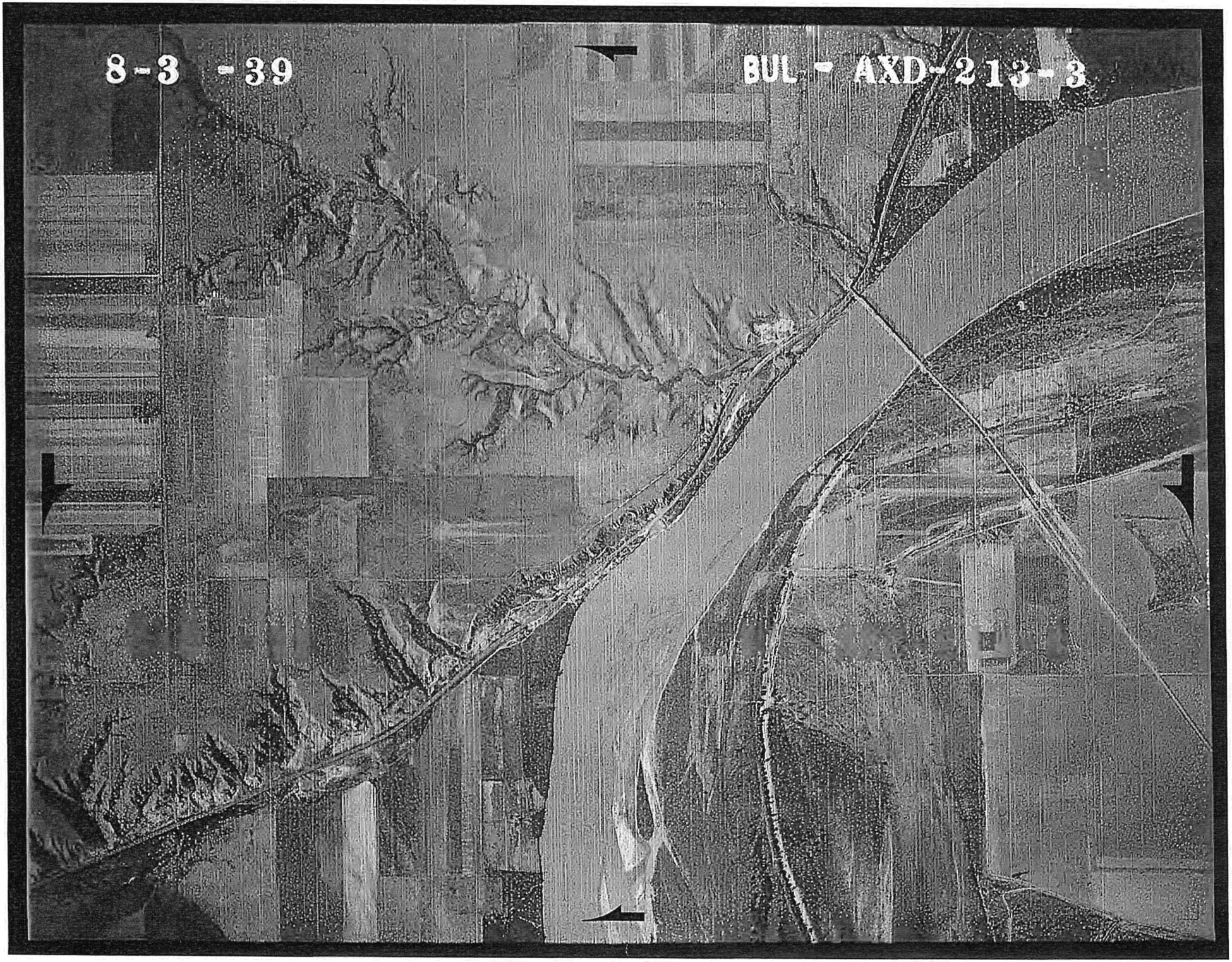
BUL - AXD-213-3

8-3 -39
BUL -AXD-213-5

8-28-49
AXD-13F- 17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BUL - AXD-213-3

8-3 -39
BUL -AXD-213-5

8-28-49
AXD-13F- 17

527305

STATE OF NORTH DAKOTA
RELEASE OF ESTATE TAX LIEN

Re: Estate of Esther A. Vohs, Deceased.

I, M.K. Heidi Heitkamp, duly qualified and acting Tax Commissioner for the State of North Dakota, do hereby certify that:

1. The decedent at the time of her death on October 9, 1989, was a resident of the City of Williston, County of Williams, and State of North Dakota and was owner of certain real property in North Dakota described as follows (specify type of ownership as sole ownership, joint tenancy, life estate, etc., and specify joint tenants where applicable):

(SOLE OWNERSHIP)

WILLIAMS COUNTY, NORTH DAKOTA:

An undivided 6.4/160ths of the oil, gas and other minerals in and under the following:

Township 157 North, Range 96 West
Section 33: SE¼

An undivided 2/160ths of the oil, gas and other minerals in and under the following:

Township 156 North, Range 96 West
Section 20: E½NE¼
Section 21: W½NW¼

MCKENZIE COUNTY, NORTH DAKOTA:

An undivided 92.27/276.80ths interest in and to the oil, gas and other minerals in and under the following:

Township 153 North, Range 101 West
Section 6: Lot 10
Section 7: Portions of Lots 1, 4, and 5, described on a deed recorded in Book 87, Page 505 in the office of the McKenzie County Register of Deeds.

2. Pursuant to Chapter 57-37.1 of the North Dakota Century Code there is no estate tax liability with respect to the estate of the above-named decedent, and as such, no estate tax lien exists on the estate of said decedent.

Dated this 10th day of January, 1990, at Bismarck, ND.

M.K. Heidi Heitkamp
TAX COMMISSIONER

Estate Tax Examiner

RECORD THIS INSTRUMENT FOR RELEASE OF ESTATE TAX LIENS

STATE OF NORTH DAKOTA)
ss.
COUNTY OF WILLIAMS)

I hereby certify that with this office on the _____ day o'clock _____.M., and was duly _____ on page _____ _____.

Register of Deeds
Williams County, N.D.
I hereby certify that the within instrument was filed in this state for record the 17 day of January A.D. 1990 at 08:57:51 o'clock AM., and was duly recorded as microfilm document No. 527305

Register of Deeds
Recording Fee 5.00

(Submit in Duplicate)

1 Dec 19 2010
2 Dec 19 2011
3 Dec 19 2012

~~PAID UP~~ OIL AND GAS LEASE

LEASE - 100K plus -

COPY

OIL AND GAS LEASE

PROD 88

THIS LEASE AGREEMENT is made as of the 19th day of December, 2009 between Edward Patrick Lynch, a married man dealing in his sole and separate property, whose post office address is 694 Hamlet Circle, Goose Creek, SC 29445, hereinafter called Lessor (whether one or more) and Golden Eye Resources, LLC, whose post office address is P. O. Box 2270, Littleton, CO 80161 hereinafter called Lessee. All printed portions of this lease were prepared by the party hereinabove named as Lessee, but all other provisions (including the completion of blank spaces) were prepared jointly by Lessor and Lessee.

Grant of Leased Premises. In consideration of a cash bonus in hand paid and the covenants herein contained, Lessor hereby grants, leases and lets exclusively to Lessee the following described land, hereinafter called leased premises :

Township 153 North, Range 101 West, of the 5th P.M.
Section 6: Lot 10 (41.00)
Section 7: Parts of Lots 1, 4 & 5 more fully described in Book 87 of Deeds-Page 505.
Including any and all accretions or riparian rights thereto.

in the County of McKenzie, State of North Dakota, containing 276.80 gross acres, more or less (including any interests therein which Lessor may hereafter acquire by reversion, prescription or otherwise), for the purpose of exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith ("Oil and Gas Substances"). The term "gas" as used herein includes helium, carbon dioxide, gaseous sulfur compounds, methane produced from coal formations and other commercial gases, as well as normal hydrocarbon gases. In addition to the above-described land, this lease and the term "leased premises" also covers accretions and any small strips or parcels of land now or hereafter owned by Lessor which are contiguous or adjacent to the above-described land, and, in consideration of the aforementioned cash bonus, Lessor agrees to execute at Lessee's request any additional or supplemental instruments for a more complete or accurate description of the land so covered. For the purpose of determining the amount of any payments based on acreage hereunder, the number of gross acres above specified shall be deemed correct, whether actually more or less.

1. **Ancillary Rights.** The rights granted to Lessee hereunder shall include the right of ingress and egress on the leased premises or lands pooled or unitized therewith, along with such rights as may be reasonably necessary or beneficial to conduct operations for exploring, developing, producing and marketing Oil and Gas Substances, including but not limited to geophysical operations, the drilling of wells, and the construction and use of roads, canals, pipelines, tanks, water wells, disposal wells, injection wells, pits, electric and telephone lines, power stations, and other facilities for Lessee to explore, discover, produce, store, treat and/or transport Oil and Gas Substances and water produced from the leased premises or other lands that share central facilities and are jointly operated with the leased premises for gathering, treating, compression, transporting, processing and water disposal. Lessee may use in such operations, free of cost, any oil, gas, water and/or other substances produced on the leased premises, except water from Lessor's wells or ponds. In exploring, developing, producing or marketing from the leased premises or lands pooled or unitized therewith, the ancillary rights granted herein shall apply (a) to the entire leased premises, notwithstanding any partial release or other partial termination of this lease; and (b) to any other lands in which Lessor now or hereafter has authority to grant such rights in the vicinity of the leased premises or lands pooled or unitized therewith. When requested by Lessor in writing, Lessee shall bury its pipelines below ordinary plow depth on cultivated lands. No well shall be located less than 200 feet from any house or barn now on the leased premises or other lands of Lessor used by Lessee hereunder, without Lessor's consent, and Lessee shall pay for damage caused by its operations to buildings and other improvements now on the leased premises or such other lands, and to commercial timber and growing crops thereon. Lessee shall have the right at any time to remove its fixtures, equipment and materials, including well casing, from the leased premises or such other lands during the term of this lease or within a reasonable time thereafter.

2. **Term of Lease.** This lease shall be in force for a primary term of three (3) years from the date hereof, and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from lands pooled or unitized therewith or this lease is otherwise maintained in effect pursuant to the provisions hereof.

3. **Operations.** If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled or unitized therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of this lease or the action of any governmental authority, then in the event this lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences further operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled or unitized therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If after the primary term this lease is not otherwise being maintained in force, but Lessee is then engaged in Operations, as defined below, this lease shall remain in force so long as any one or more of such Operations are prosecuted with no interruption of more than 90 consecutive days, and if any such Operations result in the production of Oil and Gas Substances, as long thereafter as there is production in paying quantities from the leased premises or lands pooled or unitized therewith. After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled or unitized therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to reservoirs then capable of producing in paying quantities on the leased premises or lands pooled or unitized therewith, or (b) protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled or unitized therewith. There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein. As used herein, the term Operations shall mean any activity conducted on or off the leased premises that is reasonably calculated to obtain or restore production, including without limitation, (i) drilling or any act preparatory to drilling (such as obtaining permits, surveying a drill site, staking a drill site, building roads, clearing a drill site, or hauling equipment or supplies); (ii) reworking, plugging back, deepening, treating, stimulating, refitting, installing any artificial lift or production-enhancement equipment or technique; (iii) constructing facilities related to the production, treatment, transportation and marketing of substances produced from the lease premises; (iv) contracting for marketing services and sale of Oil and Gas Substances; and (v) construction of water disposal facilities and the physical movement of water produced from the leased premises.

4. **Shut-in Royalty.** If after the primary term one or more wells on the leased premises or lands pooled or unitized therewith are capable of producing Oil and Gas Substances in paying quantities, but such well or wells are either shut in or production therefrom

is not being sold by Lessee, such well or wells shall nevertheless be deemed to be producing in paying quantities for the purpose of maintaining this lease. If for a period of 90 consecutive days such well or wells are shut in or production therefrom is not sold by Lessee, then Lessee shall pay an aggregate shut-in royalty of one dollar per acre then covered by this lease. The payment shall be made to Lessor on or before the first anniversary date of the lease following the end of the 90-day period and thereafter on or before each anniversary while the well or wells are shut in or production therefrom is not being sold by Lessee; provided that if this lease is otherwise being maintained by operations under this lease, or if production is being sold by Lessee from another well or wells on the leased premises or lands pooled or unitized therewith, no shut-in royalty shall be due until the first anniversary date of the lease following the end of the 90-day period after the end of the period next following the cessation of such operations or production, as the case may be. Lessee's failure to properly pay shut-in royalty shall render Lessee liable for the amount due, but shall not operate to terminate this lease. It is agreed, however, that no well may be shut-in and perpetuate this lease for more than three (3) years beyond the primary term; actual production and payment on production is required to perpetuate this lease beyond such period.

5. **Royalty Payment**. For all Oil and Gas Substances that are physically produced from the leased premises, or lands pooled, unitized or communitized therewith, and sold, lessor shall receive as its royalty **three sixteenths (3/16ths)** of the sales proceeds actually received by lessee or, if applicable, its affiliate, as a result of the first sale of the affected production to an unaffiliated party, less this same percentage share of all Post Production Costs and this same percentage share of all production, severance, ad valorem and other taxes. As used in this provision, Post Production Costs shall mean all costs actually incurred by lessee or its affiliate and all losses of produced volumes whether by use as fuel, line loss, flaring, venting or otherwise from and after the wellhead to the point of sale. These costs include without limitation, all costs of gathering, marketing, compression, dehydration, transportation, removal of liquid or gaseous substances or impurities from the affected production, and any other treatment or processing required by the first unaffiliated party who purchases the affected production. For royalty calculation purposes, lessee shall never be required to adjust the sales proceeds to account for the purchaser's costs or charges downstream of the point of sale.

Lessee or its affiliate shall have the right to construct, maintain and operate any facilities providing some or all of the services identified as Post Production Costs. If this occurs, the actual costs of such facilities shall be included in the Post Production Costs as a per barrel or per mcf charge, as appropriate, calculated by spreading the construction, maintenance and operating costs for such facilities over the reasonably estimated total production volumes attributable to the well or wells using such facilities.

If Lessee uses the Oil and Gas Substances (other than as fuel in connection with the production and sale thereof) in lieu of receiving sale proceeds, the price to be used under this provision shall be based upon arm's-length sale(s) to unaffiliated parties for the applicable month that are obtainable, comparable in terms of quality and quantity, and in closest proximity to the leased premises. Such comparable arm's-length sales price shall be less any Post Production Costs applicable to the specific arms-length transaction that is utilized.

6. **Pooling.** Lessee shall have the right but not the obligation to pool all or any part of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all substances covered by this lease, either before or after the commencement of drilling or production, whenever Lessee deems it necessary or proper to do so in order to prudently develop or operate the leased premises, whether or not similar pooling authority exists with respect to such other lands or interests. The creation of a unit by such pooling shall be based on the following criteria (hereinafter called "pooling criteria"): A unit for an oil well (other than a horizontal completion) shall not exceed 40 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on a 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means a well in which the horizontal component of the completion interval in the reservoir exceeds the vertical component in such interval. In exercising its pooling rights hereunder, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this lease and included in the unit bears to the total acreage in the unit, but only to the extent such proportion of unit production is sold by Lessee. In the event a unit is formed hereunder before the unit well is drilled and completed, so that the applicable pooling criteria are not yet known, the unit shall be based on the pooling criteria Lessee expects in good faith to apply upon completion of the well; provided that within a reasonable time after completion of the well, the unit shall be revised if necessary to conform to the pooling criteria that actually exist. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. To revise a unit hereunder, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly.

7. **Unitization.** Lessee shall have the right but not the obligation to commit all or any part of the leased premises or interest therein to one or more unit plans or agreements for the cooperative development or operation of one or more oil and/or gas reservoirs or portions thereof, if in lessee's judgment such plan or agreement will prevent waste and protect correlative rights, and if such plan or agreement is approved by the federal, state or local governmental authority having jurisdiction. When such a commitment is made, this lease shall be subject to the terms and conditions of the unit plan or agreement, including any formula prescribed therein for the allocation of production from a unit. Upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Pooling hereunder shall not constitute a cross-conveyance of interests.

8. **Payment Reductions.** If Lessor owns less than the full mineral estate in all or any part of the leased premises, payment of royalties and shut-in royalties hereunder shall be reduced as follows: royalties and shut-in royalties for any well on any part of the leased premises or lands pooled therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises. To the extent any royalty or other payment attributable

to the mineral estate covered by this lease is payable to someone other than Lessor, such royalty or other payment shall be deducted from the corresponding amount otherwise payable to Lessor hereunder.

9. **Ownership Changes.** The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this lease, the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this lease then held by each

10. **Release of Lease.** Lessee may, at any time and from time to time, deliver to Lessor or file of record a written release of this lease as to a full or undivided interest in all or any portion of the area covered by this lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases less than all of the interest or area covered hereby, Lessee's obligation to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder.

11. **Regulation and Delay.** Lessee's obligations under this lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders, governmental action or inaction of any governmental authority having jurisdiction, including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby. When drilling, reworking, production or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this lease shall not terminate because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any provisions or implied covenants of this lease when drilling, production or other operations are so prevented or delayed.

12. **Breach or Default.** No litigation shall be initiated by Lessor for damages, forfeiture or cancellation with respect to any breach or default by Lessee hereunder, for a period of at least 60 days after Lessor has given Lessee written notice fully describing the breach or default, and then only if Lessee fails to remedy the breach or default within such period.

13. **Warranty of Title.** Lessor Lessee at Lessee's option may pay and discharge any taxes, mortgages or liens existing, levied or assessed on or against the leased premises. If Lessee exercises such option, Lessee shall be subrogated to the rights of the party to whom payment is made, and, in addition to its other rights, may reimburse itself out of any royalties or shut-in royalties otherwise payable to Lessor hereunder. In the event Lessee is made aware of any claim inconsistent with Lessor's title, Lessee may suspend the payment of royalties and shut-in royalties hereunder, without interest, until Lessee has been furnished satisfactory evidence that such claim has been resolved.

14. **Pugh Clause.** Notwithstanding any provisions of this lease to the contrary, upon expiration of the primary term, or upon cessation of "continuous drilling operations" (as hereinafter defined), whichever is later, this lease shall terminate as to all the lands covered hereby except lands within a production or a spacing unit prescribed by law or administrative authority, on which is located a well producing, or capable of producing, oil and/or gas. Lessee shall be considered to be engaged in "continuous drilling operations" for the purposes hereof if (I) Lessee is engaged in drilling, reworking or completion operations on a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, or (II) Lessee has completed or abandoned a well located on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, within 180 days prior to the end of the primary term. Lessee shall be deemed to be engaged in continuous drilling operations for as long thereafter as Lessee conducts drilling, reworking or completion operations on the leased lands, or on lands included in a production or a spacing unit which contains a portion of the leased lands, with not more than 180 days elapsing between the completion or abandonment of one well and the beginning of operations for the drilling of an additional well or reworking an existing well.

IN WITNESS WHEREOF, this lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this lease has been executed by all parties hereinabove named as Lessor.

LESSOR(S)

Edward Patrick Lynch

Edward Patrick Lynch

PAID UP OIL AND GAS LEASE

OIL AND GAS LEASE

PROD 88

THIS LEASE AGREEMENT is made as of the 19th day of December, 2009 between Edward Patrick Lynch, a married man dealing in his sole and separate property, whose post office address is 694 Hamlet Circle, Goose Creek, SC 29445, hereinafter called Lessor (whether one or more) and Golden Eye Resources, LLC, whose post office address is P. O. Box 2270, Littleton, CO 80161 hereinafter called Lessee. All printed portions of this lease were prepared by the party hereinabove named as Lessee, but all other provisions (including the completion of blank spaces) were prepared jointly by Lessor and Lessee.

Grant of Leased Premises. In consideration of a cash bonus in hand paid and the covenants herein contained, Lessor hereby grants, leases and lets exclusively to Lessee the following described land, hereinafter called leased premises :

Township 153 North, Range 101 West, of the 5th P.M.
Section 6: Lot 10 (41.00)
Section 7: Parts of Lots 1, 4 & 5 more fully described in Book 87 of Deeds-Page 505.
Including any and all accretions or riparian rights thereto.

in the County of McKenzie, State of North Dakota, containing 276.80 gross acres, more or less (including any interests therein which Lessor may hereafter acquire by reversion, prescription or otherwise), for the purpose of exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith ("Oil and Gas Substances"). The term "gas" as used herein includes helium, carbon dioxide, gaseous sulfur compounds, methane produced from coal formations and other commercial gases, as well as normal hydrocarbon gases. In addition to the above-described land, this lease and the term "leased premises" also covers accretions and any small strips or parcels of land now or hereafter owned by Lessor which are contiguous or adjacent to the above-described land, and, in consideration of the aforementioned cash bonus, Lessor agrees to execute at Lessee's request any additional or supplemental instruments for a more complete or accurate description of the land so covered. For the purpose of determining the amount of any payments based on acreage hereunder, the number of gross acres above specified shall be deemed correct, whether actually more or less.

1. **Ancillary Rights.** The rights granted to Lessee hereunder shall include the right of ingress and egress on the leased premises or lands pooled or unitized therewith, along with such rights as may be reasonably necessary or beneficial to conduct operations for exploring, developing, producing and marketing Oil and Gas Substances, including but not limited to geophysical operations, the drilling of wells, and the construction and use of roads, canals, pipelines, tanks, water wells, disposal wells, injection wells, pits, electric and telephone lines, power stations, and other facilities for Lessee to explore, discover, produce, store, treat and/or transport Oil and Gas Substances and water produced from the leased premises or other lands that share central facilities and are jointly operated with the leased premises for gathering, treating, compression, transporting, processing and water disposal. Lessee may use in such operations, free of cost, any oil, gas, water and/or other substances produced on the leased premises, except water from Lessor's wells or ponds. In exploring, developing, producing or marketing from the leased premises or lands pooled or unitized therewith, the ancillary rights granted herein shall apply (a) to the entire leased premises, notwithstanding any partial release or other partial termination of this lease; and (b) to any other lands in which Lessor now or hereafter has authority to grant such rights in the vicinity of the leased premises or lands pooled or unitized therewith. When requested by Lessor in writing, Lessee shall bury its pipelines below ordinary plow depth on cultivated lands. No well shall be located less than 200 feet from any house or barn now on the leased premises or other lands of Lessor used by Lessee hereunder, without Lessor's consent, and Lessee shall pay for damage caused by its operations to buildings and other improvements now on the leased premises or such other lands, and to commercial timber and growing crops thereon. Lessee shall have the right at any time to remove its fixtures, equipment and materials, including well casing, from the leased premises or such other lands during the term of this lease or within a reasonable time thereafter.

2. **Term of Lease.** This lease shall be in force for a primary term of three (3) years from the date hereof, and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from lands pooled or unitized therewith or this lease is otherwise maintained in effect pursuant to the provisions hereof.

3. **Operations.** If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled or unitized therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of this lease or the action of any governmental authority, then in the event this lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences further operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled or unitized therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If after the primary term this lease is not otherwise being maintained in force, but Lessee is then engaged in Operations, as defined below, this lease shall remain in force so long as any one or more of such Operations are prosecuted with no interruption of more than 90 consecutive days, and if any such Operations result in the production of Oil and Gas Substances, as long thereafter as there is production in paying quantities from the leased premises or lands pooled or unitized therewith. After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled or unitized therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to reservoirs then capable of producing in paying quantities on the leased premises or lands pooled or unitized therewith, or (b) protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled or unitized therewith. There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein. As used herein, the term Operations shall mean any activity conducted on or off the leased premises that is reasonably calculated to obtain or restore production, including without limitation, (i) drilling or any act preparatory to drilling (such as obtaining permits, surveying a drill site, staking a drill site, building roads, clearing a drill site, or hauling equipment or supplies); (ii) reworking, plugging back, deepening, treating, stimulating, refitting, installing any artificial lift or production-enhancement equipment or technique; (iii) constructing facilities related to the production, treatment, transportation and marketing of substances produced from the lease premises; (iv) contracting for marketing services and sale of Oil and Gas Substances; and (v) construction of water disposal facilities and the physical movement of water produced from the leased premises.

4. **Shut-In Royalty.** If after the primary term one or more wells on the leased premises or lands pooled or unitized therewith are capable of producing Oil and Gas Substances in paying quantities, but such well or wells are either shut in or production therefrom

396124

Return to:

TRANSCONTINENT OIL CO
621 17TH ST STE 1555

DENVER CO 80293-1201

County Recorder
McKenzie County
Watford City ND 58854
Page 1 of 4

is not being sold by Lessee, such well or wells shall nevertheless be deemed to be producing in paying quantities for the purpose of maintaining this lease. If for a period of 90 consecutive days such well or wells are shut in or production therefrom is not sold by Lessee, then Lessee shall pay an aggregate shut-in royalty of one dollar per acre then covered by this lease. The payment shall be made to Lessor on or before the first anniversary date of the lease following the end of the 90-day period and thereafter on or before each anniversary while the well or wells are shut in or production therefrom is not being sold by Lessee; provided that if this lease is otherwise being maintained by operations under this lease, or if production is being sold by Lessee from another well or wells on the leased premises or lands pooled or unitized therewith, no shut-in royalty shall be due until the first anniversary date of the lease following the end of the 90-day period after the end of the period next following the cessation of such operations or production, as the case may be. Lessee's failure to properly pay shut-in royalty shall render Lessee liable for the amount due, but shall not operate to terminate this lease. It is agreed, however, that no well may be shut-in and perpetuate this lease for more than three (3) years beyond the primary term; actual production and payment on production is required to perpetuate this lease beyond such period.

5. **Royalty Payment.** For all Oil and Gas Substances that are physically produced from the leased premises, or lands pooled, unitized or communitized therewith, and sold, lessor shall receive as its royalty **three sixteenths (3/16ths)** of the sales proceeds actually received by lessee or, if applicable, its affiliate, as a result of the first sale of the affected production to an unaffiliated party, less this same percentage share of all Post Production Costs and this same percentage share of all production, severance, ad valorem and other taxes. As used in this provision, Post Production Costs shall mean all costs actually incurred by lessee or its affiliate and all losses of produced volumes whether by use as fuel, line loss, flaring, venting or otherwise from and after the wellhead to the point of sale. These costs include without limitation, all costs of gathering, marketing, compression, dehydration, transportation, removal of liquid or gaseous substances or impurities from the affected production, and any other treatment or processing required by the first unaffiliated party who purchases the affected production. For royalty calculation purposes, lessee shall never be required to adjust the sales proceeds to account for the purchaser's costs or charges downstream of the point of sale.

Lessee or its affiliate shall have the right to construct, maintain and operate any facilities providing some or all of the services identified as Post Production Costs. If this occurs, the actual costs of such facilities shall be included in the Post Production Costs as a per barrel or per mcf charge, as appropriate, calculated by spreading the construction, maintenance and operating costs for such facilities over the reasonably estimated total production volumes attributable to the well or wells using such facilities.

If Lessee uses the Oil and Gas Substances (other than as fuel in connection with the production and sale thereof) in lieu of receiving sale proceeds, the price to be used under this provision shall be based upon arm's-length sale(s) to unaffiliated parties for the applicable month that are obtainable, comparable in terms of quality and quantity, and in closest proximity to the leased premises. Such comparable arm's-length sales price shall be less any Post Production Costs applicable to the specific arms-length transaction that is utilized.

6. **Pooling.** Lessee shall have the right but not the obligation to pool all or any part of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all substances covered by this lease, either before or after the commencement of drilling or production, whenever Lessee deems it necessary or proper to do so in order to prudently develop or operate the leased premises, whether or not similar pooling authority exists with respect to such other lands or interests. The creation of a unit by such pooling shall be based on the following criteria (hereinafter called "pooling criteria"): A unit for an oil well (other than a horizontal completion) shall not exceed 40 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on a 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means a well in which the horizontal component of the completion interval in the reservoir exceeds the vertical component in such interval. In exercising its pooling rights hereunder, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this lease and included in the unit bears to the total acreage in the unit, but only to the extent such proportion of unit production is sold by Lessee. In the event a unit is formed hereunder before the unit well is drilled and completed, so that the applicable pooling criteria are not yet known, the unit shall be based on the pooling criteria Lessee expects in good faith to apply upon completion of the well; provided that within a reasonable time after completion of the well, the unit shall be revised if necessary to conform to the pooling criteria that actually exist. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. To revise a unit hereunder, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly.

7. **Unitization.** Lessee shall have the right but not the obligation to commit all or any part of the leased premises or interest therein to one or more unit plans or agreements for the cooperative development or operation of one or more oil and/or gas reservoirs or portions thereof, if in lessee's judgment such plan or agreement will prevent waste and protect correlative rights, and if such plan or agreement is approved by the federal, state or local governmental authority having jurisdiction. When such a commitment is made, this lease shall be subject to the terms and conditions of the unit plan or agreement, including any formula prescribed therein for the allocation of production from a unit. Upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Pooling hereunder shall not constitute a cross-conveyance of interests.

8. **Payment Reductions.** If Lessor owns less than the full mineral estate in all or any part of the leased premises, payment of royalties and shut-in royalties hereunder shall be reduced as follows: royalties and shut-in royalties for any well on any part of the leased premises or lands pooled therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises. To the extent any royalty or other payment attributable

to the mineral estate covered by this lease is payable to someone other than Lessor, such royalty or other payment shall be deducted from the corresponding amount otherwise payable to Lessor hereunder.

9. **Ownership Changes.** The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this lease, the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this lease then held by each

10. **Release of Lease.** Lessee may, at any time and from time to time, deliver to Lessor or file of record a written release of this lease as to a full or undivided interest in all or any portion of the area covered by this lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases less than all of the interest or area covered hereby, Lessee's obligation to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder.

11. **Regulation and Delay.** Lessee's obligations under this lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders, governmental action or inaction of any governmental authority having jurisdiction, including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby. When drilling, reworking, production or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this lease shall not terminate because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any provisions or implied covenants of this lease when drilling, production or other operations are so prevented or delayed.

12. **Breach or Default.** No litigation shall be initiated by Lessor for damages, forfeiture or cancellation with respect to any breach or default by Lessee hereunder, for a period of at least 60 days after Lessor has given Lessee written notice fully describing the breach or default, and then only if Lessee fails to remedy the breach or default within such period.

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IN WITNESS WHEREOF, this lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this lease has been executed by all parties hereinabove named as Lessor.

LESSOR(S)

Edward Patrick Lynch

Edward Patrick Lynch

ACKNOWLEDGEMENTS

STATE OF ND)
) ss.
COUNTY OF WILLIAMS)

On this 20th day of DECEMBER, 2009, before me, the undersigned Notary Public in and for said county and state, personally appeared Edward Patrick Lynch, a married man dealing in his sole and separate property known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 11/3/2012

Kent M Lynch
Notary Public
Williston, ND

KENT M LYNCH
NOTARY PUBLIC
STATE OF NORTH DAKOTA
My Commission Expires November 3, 2012

COUNTY RECORDER
McKENZIE COUNTY
STATE OF NORTH DAKOTA

County Recorder 396124
McKenzie County
Watford City ND 58854 Page 4 of 4
COUNTY RECORDER, MCKENZIE COUNTY, ND
I certify that this instrument was filed and recorded, 396124
Ann M Johnsrud, County Recorder Fee $19.00
By Ann M. Johnsrud Jan 07, 2010 03:59 PM

Testimony of Suzanne Vohs
Concerning SB2134

Senate Energy and Natural Resources Committee
January 12, 2017, 9:00 AM

Honorable Senators and Representatives:

In regards to SB 2134. I am deeply troubled by the unlawful taking of a great many of my families mineral rights. I hope you have the courage to do what is right and pass legislation to correct this terribly unjust and illegal taking of not only my family's legacy of mineral rights, but many other family's mineral right legacies in addition to ours. Let me tell you my family's story.

In 1904 my Great Grandfather Adolph Vohs brought his family to North Dakota. He and the family worked hard to to eke out an existence in harsh conditions in the early days of Williston, North Dakota. Words echo through my mind from a recording his son, my Grandfather A.J. Vohs, recorded for the the oral history project at the North Dakota Historical Society. Those words related how they built a 'tar paper shack' to live in for a family of eight. Five children and their parents. A tar paper shack in the harsh weather of North Dakota!! They were determined to make a life there. Sadly, three of those children did not survive to adulthood, and yet the family persevered. Over several years they were able to establish a cattle ranch on the river. It was good planning to position the cattle near the river. One of those ranches was exactly west of where the highway 85 bridge now spans that water source. They supplied Williston and much of the surrounding area with meat. Subsequently, they opened Vohs' City Market. Eventually the ranch and the store passed to my Grandfather, A.J. Vohs and his two brothers Addie and Heinrich Vohs. While the brothers worked the ranches and the City Market they were proud of their town and Williston and helped it grow into the city it is today. My Grandfather, A.J. Vohs, was the first fire chief of Williston. His brother Heinie was also with the fire department. My grandfather was instrumental in creating and making Williston's first food pantry successful in reaching out to those who were suffering through the very difficult times of the dust bowl in the early 1930's. I want you to know they gave of themselves to their community. They were good and honorable citizens. They gave of themselves so their fledgling town and state could thrive. And then,in the early 1950's, the brothers agreed to let the waters from the Garrison Dam occupy some of their precious land. What they did not agree to was giving up any of their mineral rights. They specifically and knowingly reserved the mineral rights and did not relinquish them. The three Vohs brothers all lived on the same street within blocks of each other. My father Donald K. Vohs was able to grow up directly across the street from his two cousins, John Vohs and Margery Vohs. They were 3rd generation North Dakotans. My father married my mother, Florence H. Grover in Williston. Both my parents were born and raised there. My father worked for the Great Northern Railroad for 35 years with his run between Williston and Glasgow. My cousin Eleanor Wallace married Jack Snyder who would eventually become mayor of Williston. My ancestors gave themselves to that community and had the utmost faith in the government of North Dakota. I always have fondly revered the people of North Dakota for their ethics and moral fiber. My ancestors believed in and trusted their state and local government. They worked for their town and they worked for the betterment of their state. Now we come to the 4th generation. As my ancestors before me I worked and worked and worked my whole life. My first job was an entire summer at the age of twelve. I, and my disabled brother, are the

last of my dad's line. I have struggled to make ends meet most of my life. I got married straight out of high school at the age of seventeen. With no college, wages weren't so good. Although I worked and took college courses throughout my life, it just seemed the financial struggling and juggling was ever present. When my parents passed away within three months of each other, I chose to rearrange my life in order to care for my brother, who has brain damage from birth. I have taken care of him for 13 years now. I don't get a break. Sometimes I just wish I could have a day for me but, really I am happy knowing my brother is cared for by someone who loves him and I know he is safe. It seems like I was always juggling dollars just to get by. My father left the family mineral rights to me. I didn't know exactly what that meant or what it would hold for us. A few years later I started getting what I thought was junk mail from people wanting to discuss my minerals with me. They all went in the trash until one day when I got a call from my Dad's cousin John Vohs inquiring as to why I hadn't responded to those perceived 'junk mails'. I then actually spoke to one of them. He called himself a landman. Unfamiliar term to me. Oh my goodness!! Suddenly there was light at end of a very long tunnel. They were offering me money to lease those minerals. It seemed our existence would no longer be a struggle. What a massive relief that would be. I read everything I could in an effort to understand this new world. It was very complicated to sort out. On December 18, 2009, I, as Trustee, signed a lease indicating '276.80 gross acres more less for the purpose of developing and producing oil and gas' !! This would lead any reasonable person to rely on a contract. An offer and acceptance had taken place. What my agreement states and what actually happened are not the same. I was grossly misled. When I learned Continental Oil was building a much publicized and acclaimed 14 well super pad, I was relieved all the years of struggle would come to an end. As the super pad was completed, I set out for North Dakota to see it. I was so proud of North Dakota and my 14 well super pad. Imagine my confusion when I was contacted, while on the road in North Dakota, and told not to go near that super pad. I was told there was a guard and I was not even to go near there and definitely not to take pictures. This was strange since I had already reached North Dakota and driven by many oil wells. They were not fenced in and they definitely didn't have guards. Well, I did drive by the super pad anyway. I hadn't driven thousands of miles just to turn around a go home. They were fenced in with a fence that may have been 10 or 12 feet high. I couldn't see in. The fence was solid. Imagine my further consternation when, within days, the press was indicating Heidi Heitkamp would be touring the super pad. What was secret from me, a mineral owner whose oil would soon be extracted from the earth, that wasn't secret from a North Dakota Senator? It just seemed so cloak and dagger kind of weird to me. I can only wonder, as I look back on that, if they had already stolen my minerals from me. I was heartbroken and shocked to eventually learn the State of North Dakota had used some illegal creative angle to steal (yes Steal!) property that had been in my family for over 125 years. They took what had been worked so hard for, over the course of 125 years, without any due process, compensation or even notice so that I could voice my protest. It is my understanding they were given a dollar amount in the millions just for the lease! North Dakota and Big Oil picking on the little guy. Me. Someone without the dollars to fight back. I'm sure they know all of us little guys they stole from can't possibly have the kind of financial resources to fight back. I'm certain I am not their only victim. The highway 85 bridge does not stop the Garrison Dam from changing the flow of water that inundated my family's land and changed the High water mark that was the historic high water mark when my Grandfather signed his agreement which did not include relinquishing his mineral rights.

How does that bridge become come some arbitrary point to determine where North Dakota can and cannot steal mineral rights? What basis of fact is there that suddenly, West of that bridge, the high water mark is determined differently than East of that bridge????? Are you kidding me? That's nonsensical. The state of North Dakota should be ashamed of their failure to recognize and follow the North Dakota State Constitution. I feel as if I was preyed upon. This has created in me gut wrenching emotions and mind boggling

thoughts attempting to sort through all of this injustice. My thoughts question how could something so egregious could be happening in this country? And in North Dakota? The state I have heretofore thought so highly of. I was grateful the 3 generations of my family before me had the foresight to retain those mineral rights. I was relieved that in the later years of my life to finally be getting a break from my financial hardships and experience the benefits the legacy my beloved ancestors had the foresight to preserve and hang onto all the way to me, the fourth generation from my family's beginnings in North Dakota 125 years ago. I just wanted you to know who I am. I am a descendant of hard working North Dakota citizens who trusted the agreements they made would be honored. They have not been honored. I ask that you please right this injustice. I ask you to please recognize those mineral owners West of the highway 85 bridge have been victims of an unlawful taking also. Please pass legislation to correct this huge wrong done to many trusting North Dakota citizens.

Suzanne Vohs

From:	Karen M. Haugen
To:	Kadrmas, Bethany R.
Cc:	Joshua A. Swanson
Subject:	Comments on Wenck Associates Survey pursuant to N.D.C.C. § 61-33.1-03 (3 of 3)
Date:	Monday, May 07, 2018 10:53:30 AM
Attachments:	VOGEL-#3245925-v1-Exhibit_G-3_-_Mar__10__2017_testimony_of_Joshua_Swanson_to_the_House_Energy_and_Natural_Resources_Committee.PDF VOGEL-#3245919-v1-Exhibit_G-2_-_Feb__2__2017_testimony_of_Joshua_Swanson_to_House_Energy_and_Natural_Resources_Committee.PDF VOGEL-#3245918-v1-Exhibit_G-1_-_Jan_12__2017_testimony_of_Joshua_Swanson_to_the_Senate_Energy_&_Natural_Resources_Committee.PDF

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Please find attached correspondence from Joshua Swanson re the above-referenced matter and Exhibits G1-G3.

Karen M. Haugen | Senior Legal Administrative Assistant

VOGEL Law Firm

218 NP Avenue
P.O. Box 1389 | Fargo, ND 58107-1389
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Exhibit G-1 – Jan. 12, 2017 testimony of Joshua Swanson to the Senate Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
Senate Energy and Natural Resources Committee
January 12, 2017, 9:00 AM

Chairman Schaible and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. My remarks focus on the problem caused by using river mile 1552.4, the location of the Highway 85 Bridge, as the dividing line in the Bill that arbitrarily distinguishes between lands east of the Bridge versus lands west of the Bridge that were also acquired as part of the Pick-Sloan Missouri basin project – commonly referred to as the Garrison Project – by the United States because such lands would be affected and inundated by Lake Sakakawea.

BACKGROUND

Historically, the State of North Dakota claimed an interest in only the original 30,000 acres of the Missouri River riverbed as it existed before the existence of Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 13, 2007, letter that the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims title to all the oil and gas under Lake Sakakawea. The State made this massive land grab despite the fact this property, including property west of the Highway 85 Bridge, was undisputedly acquired by the United States for the Garrison Project because of the flooding that would be caused by Lake Sakakawea. In the warranty deeds dating back to the 1950s whereby the United States acquired this property from North Dakota citizens like Ed Lynch and Jon Patch's predecessors, the oil and gas rights were unquestionably reserved in the private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in said warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 1 and 2.

This has been the subject of litigation in William S. Wilkinson, et al. v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038, and EEE Minerals, LLC et al. v. The Board of University and School Lands of the State of North Dakota, et al. (the latter case filed this week in McKenzie County). The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that, regardless of how or when land came to lie within the ordinary high water mark ("OHWM") of Lake Sakakawea, the State automatically acquired ownership of that land as soon as it was flooded. This view is legally erroneous. With the exception of using river mile 1554.2, which is the location of the Highway 85 Bridge, as the boundary for the effect of Garrison Dam and western reach of Lake Sakakawea, the Bill addresses the issues raised in this litigation.

The use of the Highway 85 Bridge as the western reach of Lake Sakakawea and delineating the impacts of Garrison Dam, and in distinguishing between what the State owns versus what it does not own as currently provided for in SB 2134, is lacking in any scientific support and makes the Bill problematic. The fact that property located west of the Highway 85 Bridge – like that owned by the Wilkinson and Vohs families – was and remains affected by and subject to flooding from Lake

EXHIBIT
tabbies
G-1

Sakakawea is discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 3. Point #3 to Dr. Woodbury's report explains why using the Highway 85 Bridge as a dividing line is arbitrary. The arbitrary nature of using the Highway 85 Bridge as the dividing line for what the State owns, as Mr. Patch notes in his testimony, was acknowledged by several individuals employed by the State who were deposed in the Wilkinson case. These individuals, including John Paczkowski, Todd Sando, Gerald Heiser, Lance Gaebe, Mike Brand, Gary Preszler, and Tom Feeney, each testified they were unaware of any scientific or technical basis for using the Highway 85 Bridge as the western reach of Lake Sakakawea and its impacts. Mr. Preszler, the former Land Commission for the State, summarized the problematic nature of using the Highway 85 Bridge as the dividing line when he stated, "It [Highway 85 Bridge] just represented a recognizable landmark that we all knew and we used that as a basis, ... ," and it "represented no scientific analysis or basis whatsoever."

The use of the Highway 85 Bridge as the dividing line in SB 2134 also ignores the undisputed fact that the United States acquired property west of the Highway 85 Bridge for the Garrison Project and flooding that would be caused by Lake Sakakawea. This is illustrated by the United States' maps for the Garrison Project showing dozens of tracts and many acres west of the Bridge – like the property belonging to the Wilkinson and Vohs families – that were acquired by the United States because of the flooding that would be caused by Lake Sakakawea. Similarly, the clear and unambiguous language in the warranty deeds whereby the United States acquired property west of the Highway 85 Bridge for the Garrison Project, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the Wilkinsons' reservation of the oil and gas rights were "[s]ubordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, ..."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and their government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017, adding insult to that long-ago injury, this great State seeking to further deprive them of their property by claiming their oil and gas rights – rights they had previously leased to oil companies for nearly sixty years before the State claimed ownership of them.

NORTH DAKOTA'S TITLE TO THE RIVERBED OF THE HISTORIC MISSOURI RIVER

At the time of Statehood, North Dakota took title to the bed of navigable bodies of water as those bodies of water existed at the moment of statehood. (See, e.g., Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co., 429 U.S. 363, 371 (1977)). The legal mechanism that gave North Dakota this title is known as the "Equal Footing Doctrine," which grants each State in our Union title to the bed of all navigable bodies of water, including underlying minerals, as of the moment of Statehood. (Id.) After the moment of Statehood, the Equal Footing Doctrine has run its course and is of no further effect. (Id.) The Equal Footing Doctrine does not grant the State title to the bed of any body of water that later becomes navigable, like Lake Sakakawea, whether by natural or artificial means. (Id.) While the State can also acquire property by purchase, the State cannot arbitrarily claim title to property that it does not own. That is the textbook definition of an unconstitutional taking under this State and our United States constitutions.

The State cannot validly designate the Highway 85 Bridge as the cutoff of the effect of Garrison Dam and western reach of Lake Sakakawea. Garrison Dam's effect and the reaches of Lake Sakakawea go beyond this point. Using an artificial cutoff like the Highway 85 Bridge defeats the purpose of the Bill by effectively granting the State title to private land that the State does not own.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the OHWM of the Missouri River in the Garrison Dam area. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam. The first study shares a common flaw with the proposed Bill – the Highway 85 Bridge is not the end of Lake Sakakawea and its impacts as detailed in Dr. Woodbury's report. As Dr. Woodbury explained, "The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge." (Woodbury Report at p. 21). Dr. Woodbury also noted that property belonging to the Wilkinson family, lying to the west of the Highway 85 Bridge, was suitable for agricultural purposes prior to the construction of Garrison Dam. (Id.) Further, as noted by Dr. Woodbury, the United States purchased property extending well beyond the Highway 85 Bridge for the Garrison Project, which demonstrates that Lake Sakakawea was always anticipated to affect areas beyond the Highway 85 Bridge. Moreover, the pre-dam streambed elevation at the Highway 85 Bridge was approximately 1823.0 feet; any time the reservoir impounds water that exceeds that water surface elevation, as it does 95% of the time, the reservoir is impounding water upstream or beyond the Highway 85 Bridge. (Id.)

COMMENTS ON BILL DRAFT

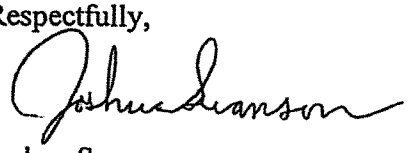
Effectively, SB 2134 recognizes that the State has title to the bed of the historic Missouri River as it existed prior to the Garrison Dam. However, the Bill legislatively mandates that, as a matter of North Dakota law, Garrison Dam's effect and the western reach of Lake Sakakawea ceases at the Highway 85 Bridge. This limitation is arbitrary, unsupported by any scientific or technical grounds, and would lead to unconstitutional results and additional legal challenges.

The State does not need to use an artificial limit on the extent of the effect of Lake Sakakawea. As the Bill notes, the historical Missouri riverbed channel can be determined by prior Army Corps of Engineering surveys, and, if necessary, by studies of historical aerial photos as the State has already done for large parts of Lake Sakakawea. Thus, there is little risk of the State encountering protracted issues with determining the extent of the State's interest absent the artificial cutoff. The artificial cutoff undermines what can be a just and right Bill for people like the Wilkinson and Vohs families that have already been deprived of their property once by the Garrison Project and Lake Sakakawea. The artificial cutoff is a state-sanctioned taking without compensation for all property west of the Highway 85 Bridge that was acquired by the United States for the Garrison Project and, as noted by Dr. Woodbury, clearly affected by Lake Sakakawea.

The artificial cutoff for the effect of Lake Sakakawea is a proverbial line in the sand; on one side of the line, the State recognizes that it has no automatic legal right to artificially flooded property, but on the other side of the line the State claims an automatic legal right regardless of whether it is actually affected by Lake Sakakawea. The State can prevent this unfair and unconstitutional treatment by removing the artificial cutoff from the proposed Bill.

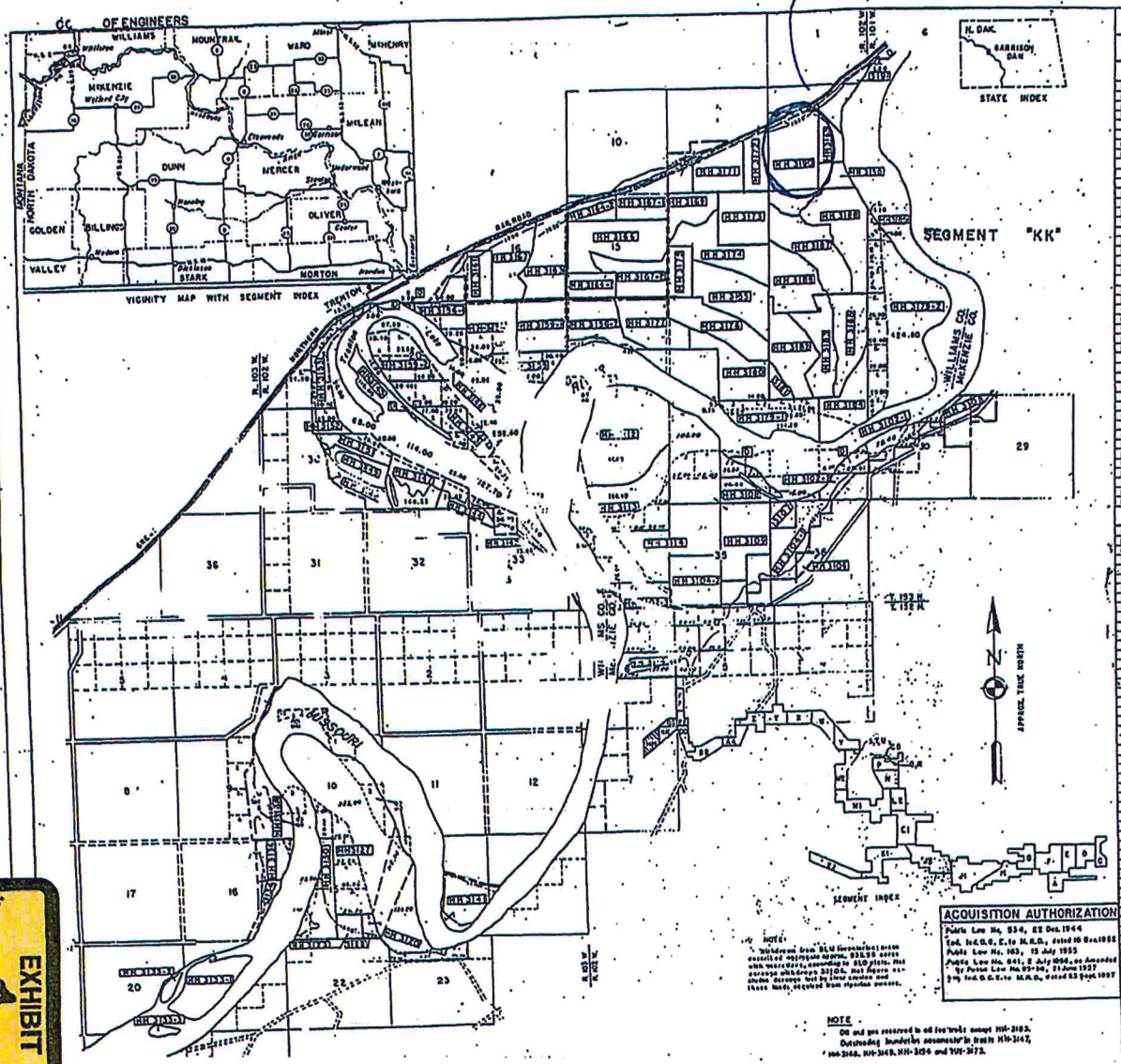
Thank you again for the opportunity to present this testimony. I urge you not to pass the proposed Bill without first removing the artificial cutoff point at river mile 1552.4, which is the location of the Highway 85 Bridge.

Respectfully,



Joshua Swanson

HH 3190 (Wilkinson Family)



ACQUISITION TRACT REGISTER

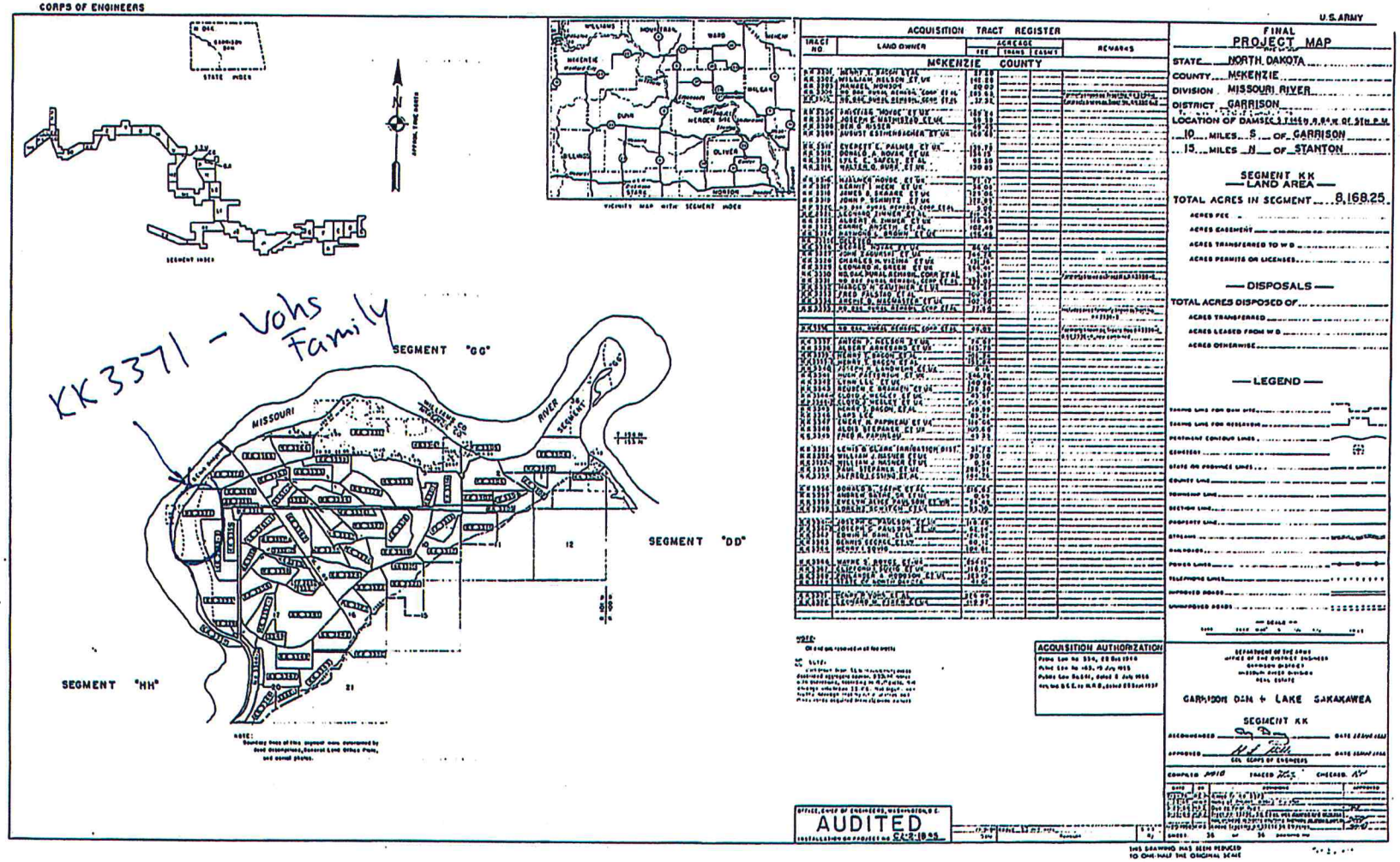
TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS.	ACREAGE EASM'T.	REMARKS
McKENZIE COUNTY					
HH 3101	MIRIAM DEH PAGE	120.90			
HH 3102-E	ARTHUR WOOD	97.10			
HH 3102-F	ARTHUR WOOD	30.40			
HH 3102-S	ARTHUR WOOD	401.23			
HH 3104-E	JOHN W. SLATOR ET UX	216.00			
HH 3104-S	JOHN W. SLATOR ET UX	160.00			
0	U.S.A. DEP'T. OF INTERIOR		see remarks		Transferred 27 February 1922, Public Land Order No 1809, acreage included in tract register of segment GG
HH 3105	STATE OF NORTH DAKOTA	20.00			
HH 3107	HARRY O. NELSEN ET AL	40.00			
HH 3108	FRED A. NELSEN ET UX	78.40			
HH 3109	JOSEPH HACKENBERG, SR.	483.00			
HH 3111	DELETED				
HH 3112	CLINTON A. TIBBITS	441.60			
HH 3113	CLINTON A. TIBBITS	272.93			
HH 3114	MARY A. TIBBITS ET AL	491.44			
HH 3116	HENRY H. REHBERG	175.00			
HH 3117	DELETED				
HH 3118	DELETED				
HH 3119	DELETED				
HH 3120	FRANK W. ERICKSON ET AL	192.43			Formerly Tract No. HH3123-1
HH 3121	DELETED				
HH 3122	DELETED				
HH 3123	FRANK W. ERICKSON ET AL	40.00			Formerly Tract No. HH3123-2
HH 3124	DELETED				Included in Tract No. HH3187
HH 3124-E	DELETED				Included in Tract No. HH3188
HH 3126	DELETED				
HH 3127	EMERY H. PAPINEAU ET UX	740.72			
HH 3128	NORMAN PAPINEAU ET UX	131.20			Formerly Tract No. HH3128-2
HH 3129	DELETED				
HH 3130	NORMAN PAPINEAU ET UX	43.40			Formerly Tract No. HH3128-1
HH 3131	DELETED				
HH 3132	DELETED				
HH 3132-E	STATE OF NORTH DAKOTA	156.80			
HH 3132-S	STATE OF NORTH DAKOTA	19.20			
HH 3132-T	STATE OF NORTH DAKOTA	16.00			
WILLIAMS COUNTY					
HH 3134	JOHN OYLER ET UX	44.81			
HH 3136	ROBERT P. BECHTOLD	83.18			
HH 3137	DELETED				
HH 3138	MARGARET E. KEAR	140.00			
HH 3139	DELETED				
HH 3140	CARL T. BAUSTE ET UX	19.20			
HH 3141	IVER BORLAUG ET UX	153.67			
HH 3142	RAYMOND A. HOFFMAN ET UX	328.68			
HH 3143	A. L. MORGAN	677.39			
HH 3144	JOHN IRWIN	90.02			
0	U.S.A. DEP'T. OF INTERIOR		see remarks		Transferred 27 February 1939, Public Land Order No 1809, acreage included in tract register of segment GG
HH 3145	STATE OF NORTH DAKOTA	119.00			Formerly known as Tract No. HH3166-1
HH 3145-E	STATE OF NORTH DAKOTA	19.00			" " " " HH3166-2
HH 3147	CRAIG A. JACOBSON ET UX	660.23			
HH 3148	JOHN TOFTE	75.44			
HH 3149	ROBERT O. BERG ET UX	77.37			
HH 3150	LEO PIPPIN, DECEASED ESTATE ET AL	81.60			Formerly known as Tract No. HH3182-2
HH 3151	LESTER A. LARSON ET UX	100.19			
HH 3152	JOHN DEJARLAIS	108.00			
HH 3153	DONALD H. KNUDTSON ET UX	151.42			
HH 3154	HENRY A. BOWEN ET UX	237.02			
HH 3155	CHARLES W. PATCH ET UX	81.33			Formerly known as Tract No. HH3145-1
HH 3156-E	FRANCIS F. MARTIN ET UX	169.00			
HH 3156-S	JAMES F. F. MARTIN ET UX	169.53			
HH 3158	MILES G. GADSETH ET UX	159.60			
HH 3159-1	CHARLES A. BOWEN ET UX	160.00			
HH 3159-2	CHARLES A. BOWEN ET UX	307.90			
HH 3161	AGNES MORIN GARFIELD ET AL	94.98			
HH 3162	JOHN G. GOVIG ET UX	166.17			
HH 3163	H. W. ANDERSON ET UX	159.48			
HH 3164-E	MAUD MARTIN	80.00			
HH 3164-S	MAUD MARTIN	64.86			
HH 3165	CHARLES W. PATCH ET UX	81.30			Formerly known as Tract No. HH3155-2
HH 3166	CHARLES W. PATCH ET UX	841.90			
HH 3167-1	FRED T. MARTIN ET UX	108.47			
HH 3167-2	FRED T. MARTIN ET UX	139.98			
HH 3168	DELETED				
HH 3169	CHARLES W. PATCH ET UX	173.15			
HH 3170	DELETED				
HH 3171	ADRIAN L. REMER ET UX	121.35			
HH 3172	FRANCES JACKSON BLINDBURY ET VIR	80.72			
HH 3173	FRANCES JACKSON ET UX	160.00			
HH 3174	WALTER A. FASCHING ET UX	158.20			
HH 3175	MAUD MARTIN	80.00			
HH 3176	THEODORE TOFTE	177.93			
HH 3177	LEONARD A. TIMMERMAN ET UX	118.05			
HH 3178-E	DELETED				
HH 3178-S	DELETED				
HH 3179-1	OLETA L. METTGER	348.33			
HH 3179-2	OLETA L. METTGER	320.00			
HH 3180	LESTER A. LOMSE ET UX	171.11			

NOTE
- OG and gas reserved in all tracts except HH-3183.
- Outstanding boundary easements in tracts HH-3147, HH-3166, HH-3169, HH-3174 and HH-3173.

tabbies EXHIBIT 1

CORPS OF ENGINEERS

U.S. ARMY



KK337I - Vohs Family

ACQUISITION TRACT REGISTER

TRACT NO	LAND OWNER	ACREAGE FEE	ACREAGE TRANS EASMT	REMARKS
	McKENZIE COUNTY			

FINAL PROJECT MAP

STATE NORTH DAKOTA

COUNTY McKENZIE

DIVISION MISSOURI RIVER

DISTRICT GARRISON

LOCATION OF DAM SEC. 3 T 144 N, R 84 W OF 5TH P.M.

10 MILES S OF GARRISON

15 MILES N OF STANTON

SEGMENT KK — LAND AREA —

TOTAL ACRES IN SEGMENT 8,168.25

ACRES FEE

ACRES EASEMENT

ACRES TRANSFERRED TO W D

ACRES PERMITS OR LICENSES

— DISPOSALS —

TOTAL ACRES DISPOSED OF

ACRES TRANSFERRED

ACRES LEASED FROM W D

ACRES OTHERWISE

— LEGEND —

ACQUISITION AUTHORIZATION

DEPARTMENT OF THE ARMY
OFFICE OF THE DISTRICT ENGINEER
GARRISON DIVISION
MISSOURI RIVER DIVISION
REAL ESTATE

GARRISON DAM + LAKE SAKAKAWEA

SEGMENT KK

RECOMMENDED _____ DATE 20 JUNE 1956

APPROVED _____ DATE 20 JUNE 1956
CHIEF OF ENGINEERS

COMPILED JMH TRACED JCS CHECKED AV

AUDITED
OCT-18-55

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SCALE

Tract No. HR-3190. ← HM-3190

WARRANTY DEED: [illegible] To: [illegible]

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 ---------- DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL and CONVEY unto the said party of the second part, and its heirs and assigns FOREVER, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter (SW¼) and the South half of the Northwest quarter (S½NW¼) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter (S½NW¼) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less; subject to existing easements for public roads and highways, [illegible]

[illegible] whether of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil + gas reserved to Wilkinsons subject only to right of United States to flood property for Lake Sakakawea

his assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances,

and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its heirs and assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Signed and Delivered in Presence of

J. T. Wilkinson

Evelyn M. Wilkinson, his wife

EXHIBIT 2 tabbies

Filed - Clerk of District Court
7/1/2014 2:37:29 PM
Williams County, ND

12

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easments for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

(N. P. Seal)

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

My commission expires Nov. 19, 1958.

STATE OF NORTH DAKOTA,
County of Williams } ss.

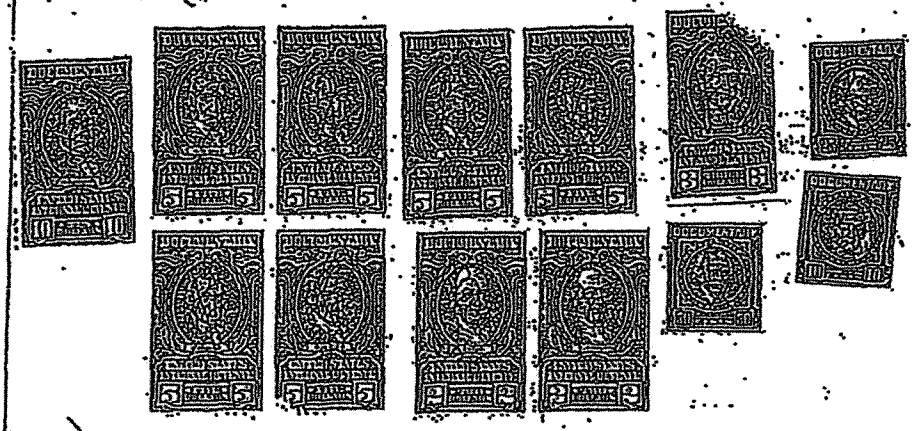
On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

Teimar E. Rolfstad

TEIMAR E. ROLFSTAD
Notary Public for the County of Williams
State of North Dakota

My commission expires Nov. 19, 1958.



Jan. Deed 3 1/2 in 1958

153-182

288165

DOC. NO.
INDEXED
COMPARED
MAILED

Quitclaim Deed

TRANSFER FEE $.25
TO
RECORDING FEE $1.50

OFFICE OF REGISTER OF DEEDS
STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the 7 day of JUN 1958 A. D. 19 at 4:45 o'clock P. M. and was duly recorded in Book 134 of Warranty Deeds on page 182

Register of Deeds
By Deputy

Delinquent taxes and special assessments, installments of special assessments, and penalties and interest thereon

County Auditor
By

Subject to easements, restrictions and reservations of record, if any, and to any adverse claims, boundary disputes, encroachments and matters which a correct survey would disclose.

KK-3371 ← KK-3371

BOOK 87 PAGE 505

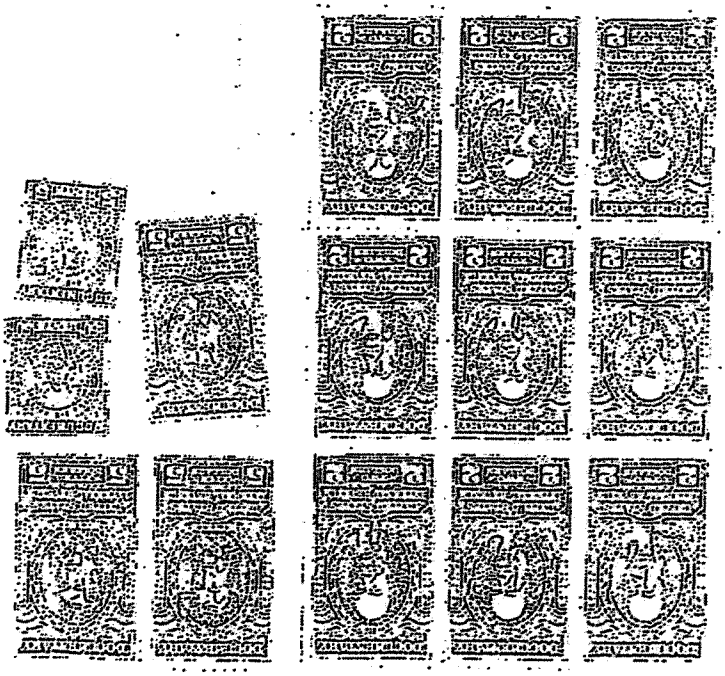
Document No. 155142

WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs, and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty-hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for



said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

oil & gas ownership reserved by Vohs Family subject only to right of United States to flood the property for Lake Sakakawea

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER. And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
STATE OF NORTH DAKOTA

My commission expires
July 11, 1959

Notary Public for the County of
Williams, State of North Dakota

F. A. WENSTROM,
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

Document No. 155142

BOOK 87 PAGE 508

REGISTER OF DEEDS OFFICE
McKENZIE
COUNTY
STATE OF NORTH DAKOTA

COUNTY AUDITOR

Corps of Engineers
Riverdale, N. D.

June 19, 2013

HoustonEngineering Inc.

Wilkinson Trust Estate

Ordinary High Water Mark

EXHIBIT

tabbies

3

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E. P.H.
North Dakota Reg. No. 1729

Date: June 20, 2013

HoustonEngineering Inc.

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The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1554.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

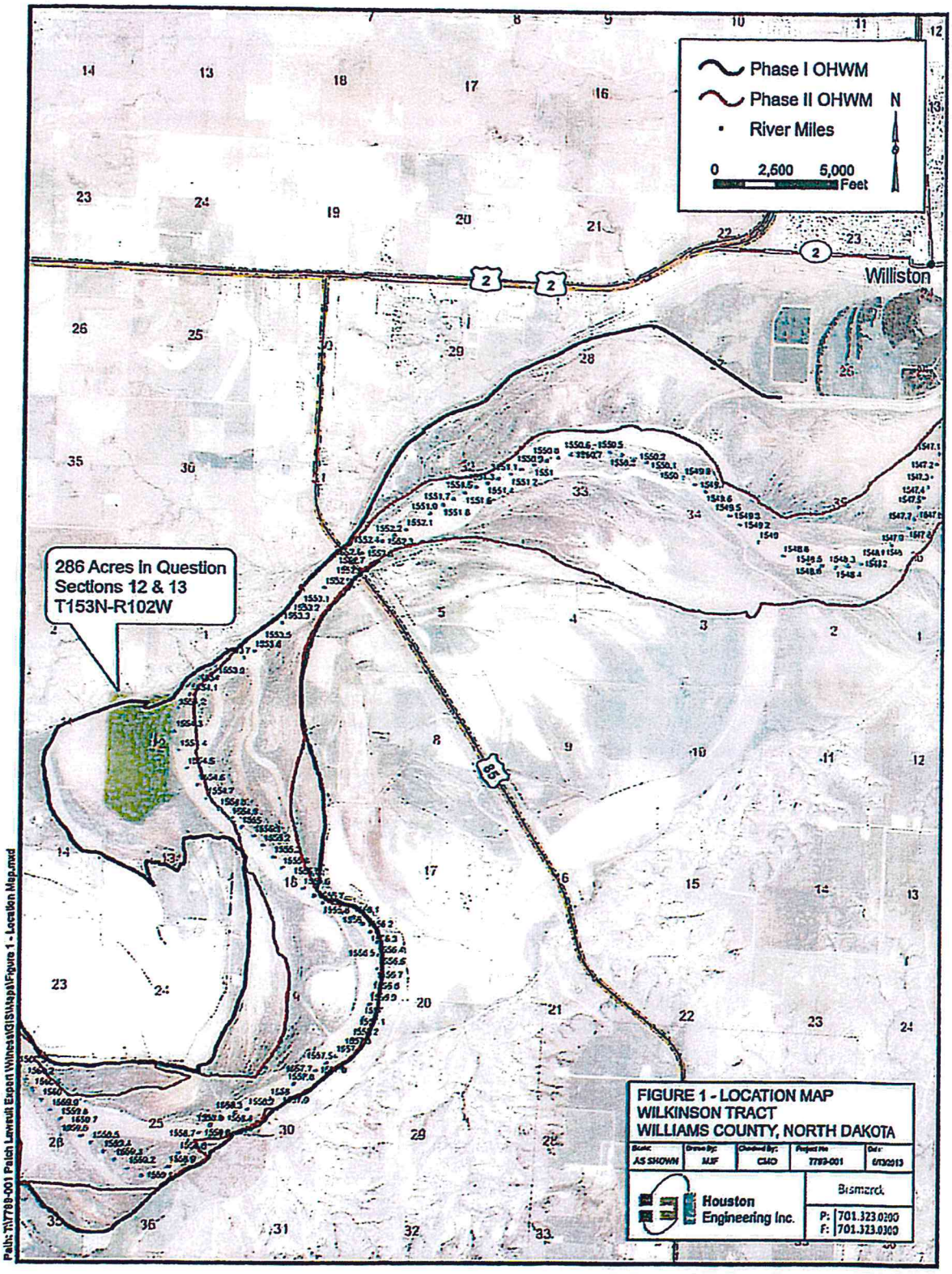
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

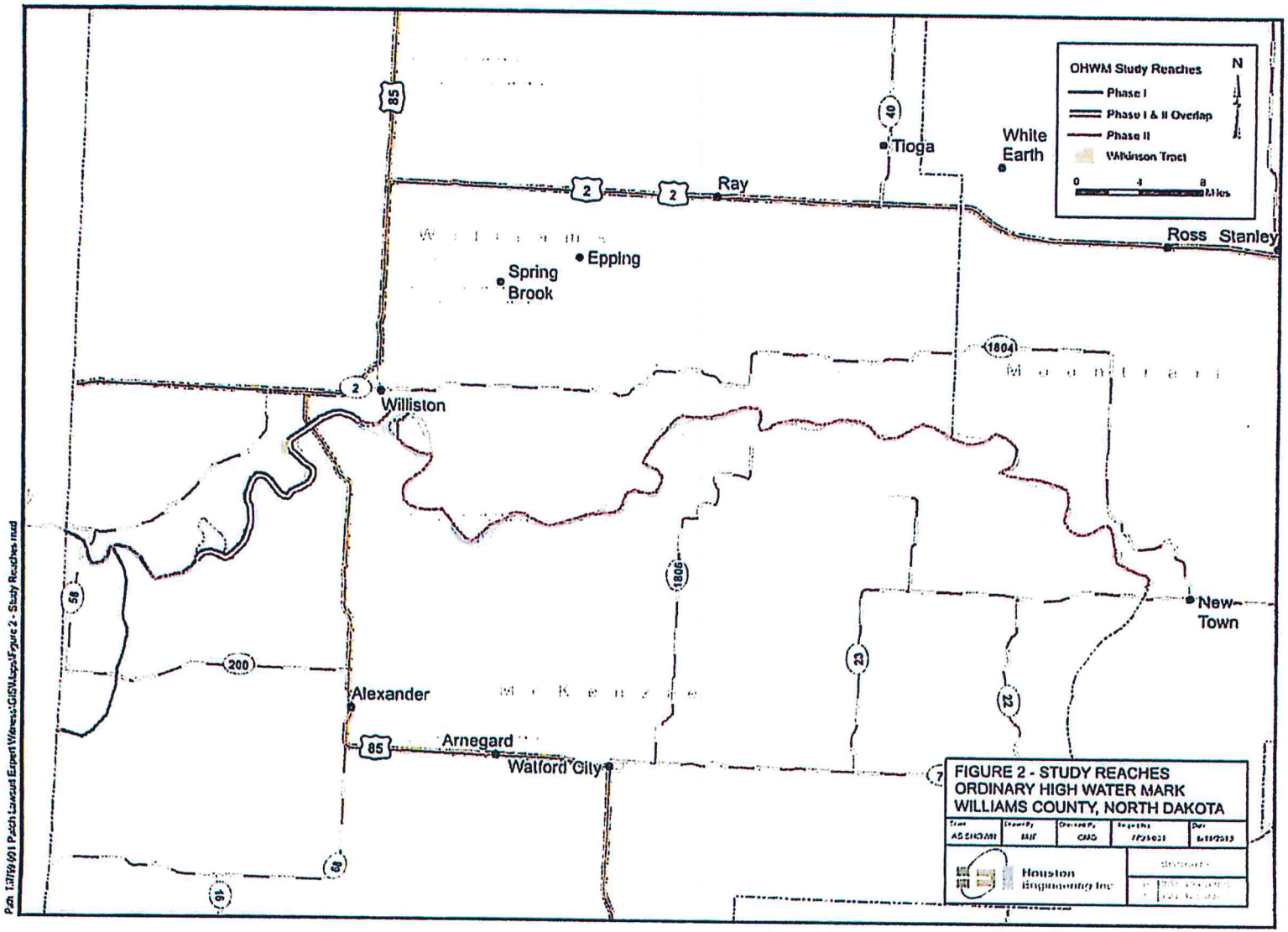
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.5. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,600 5,000
Feet
Williston
286 Acres In Question
Sections 12 & 13
T153N-R102W
2
85
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300
Path: N:\7789-001 Palen Lawsuit Expert Witness\GIS\Maps\Figure 1 - Location Map.mxd


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Wilkinson Tract
N
0
4
8
Miles
Tioga
White Earth
Ray
Ross
Stanley
Epping
Spring Brook
Williston
New Town
Alexander
Arnegard
Watford City
85
40
2
1804
1806
58
200
23
22
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: I:\Projects\Patch Lawsuit Expert Witness\GIS\Mxds\Figure 2 - Study Reaches.mxd

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

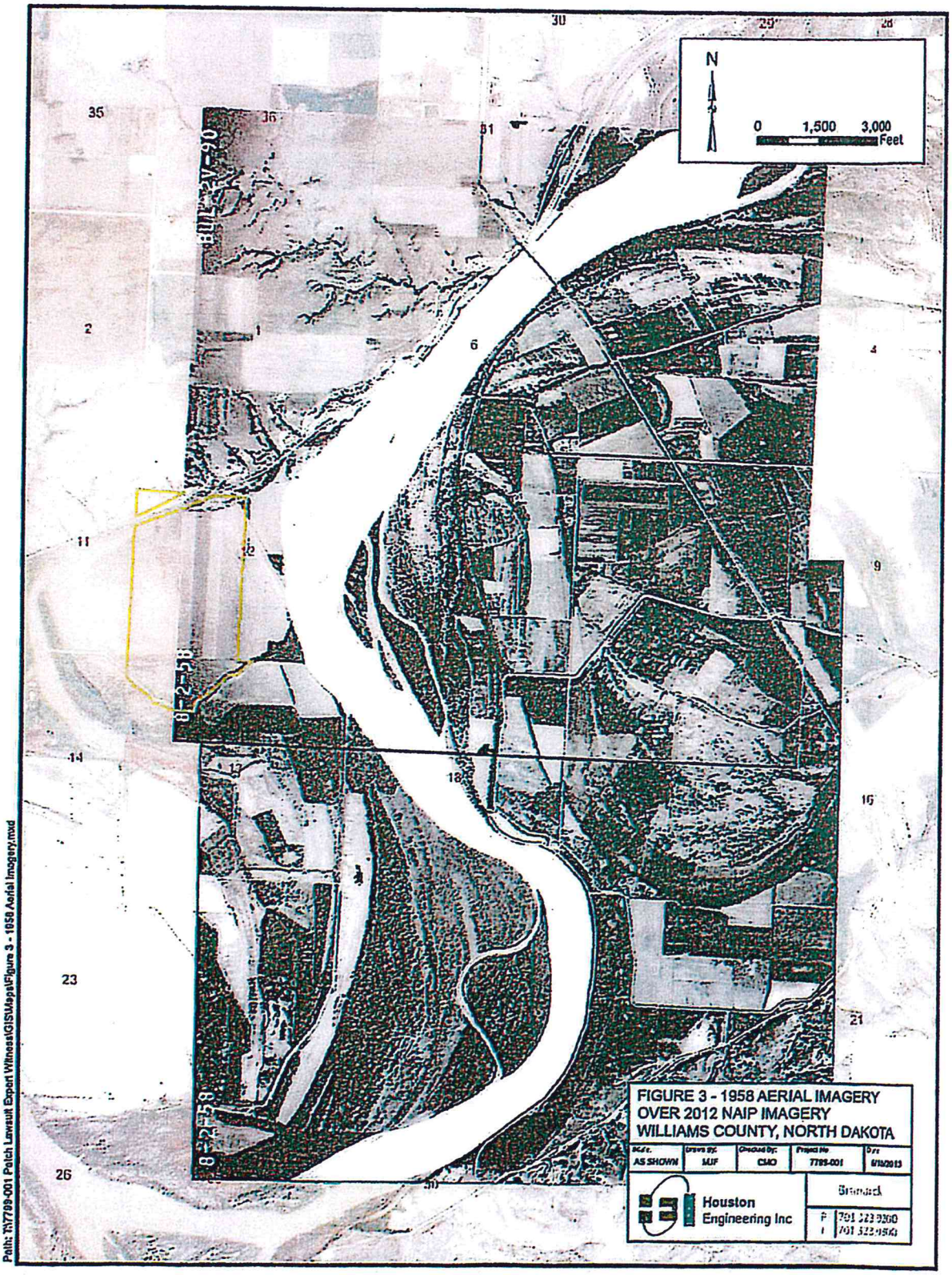
Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6.** With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.


N
0 1,500 3,000
Feet
30
29
28
35
36
31
2
1
6
4
11
12
9
14
13
18
16
23
21
26
25
T153N-R97W
T153N-R96W
FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Scale: AS SHOWN
Drawn By: MJF
Checked By: CMO
Project No: 7789-001
Date: 6/19/2013
Houston Engineering Inc
Bismarck
P 701 323 9360
F 701 323 9362
Path: N:\7789-001 Patch Lawsuit Expert Witness\GIS\Apps\Figure 3 - 1958 Aerial Imagery.mxd

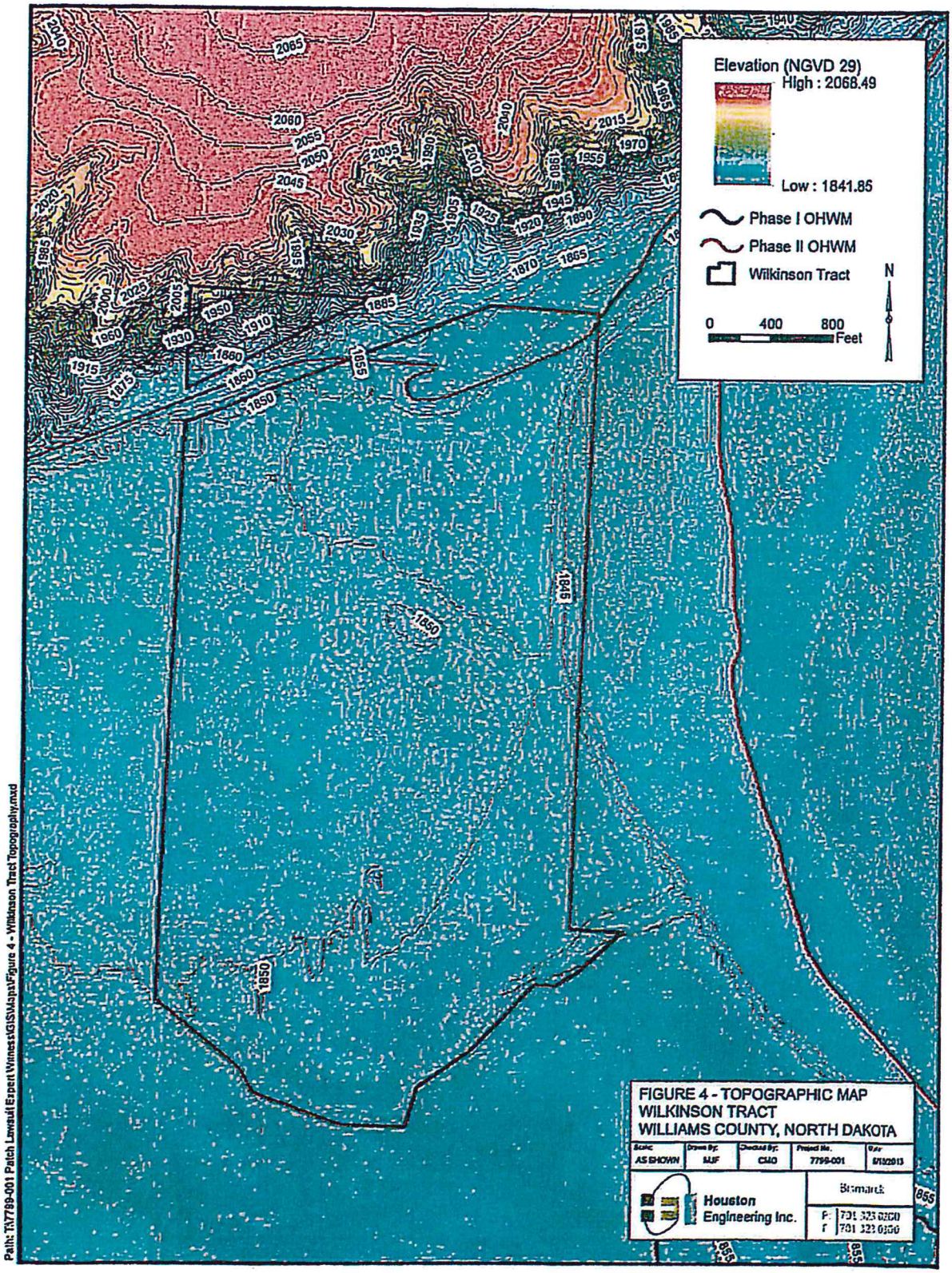

Elevation (NGVD 29)
High : 2068.49
Low : 1841.85
Phase I OHWM
Phase II OHWM
Wilkinson Tract
N
0 400 800
Feet
FIGURE 4 - TOPOGRAPHIC MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck
Path: T:\7799-001 Patch Lawsuit\Expert Witness\GIS\Maps\Figure 4 - Wilkinson Tract Topography.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

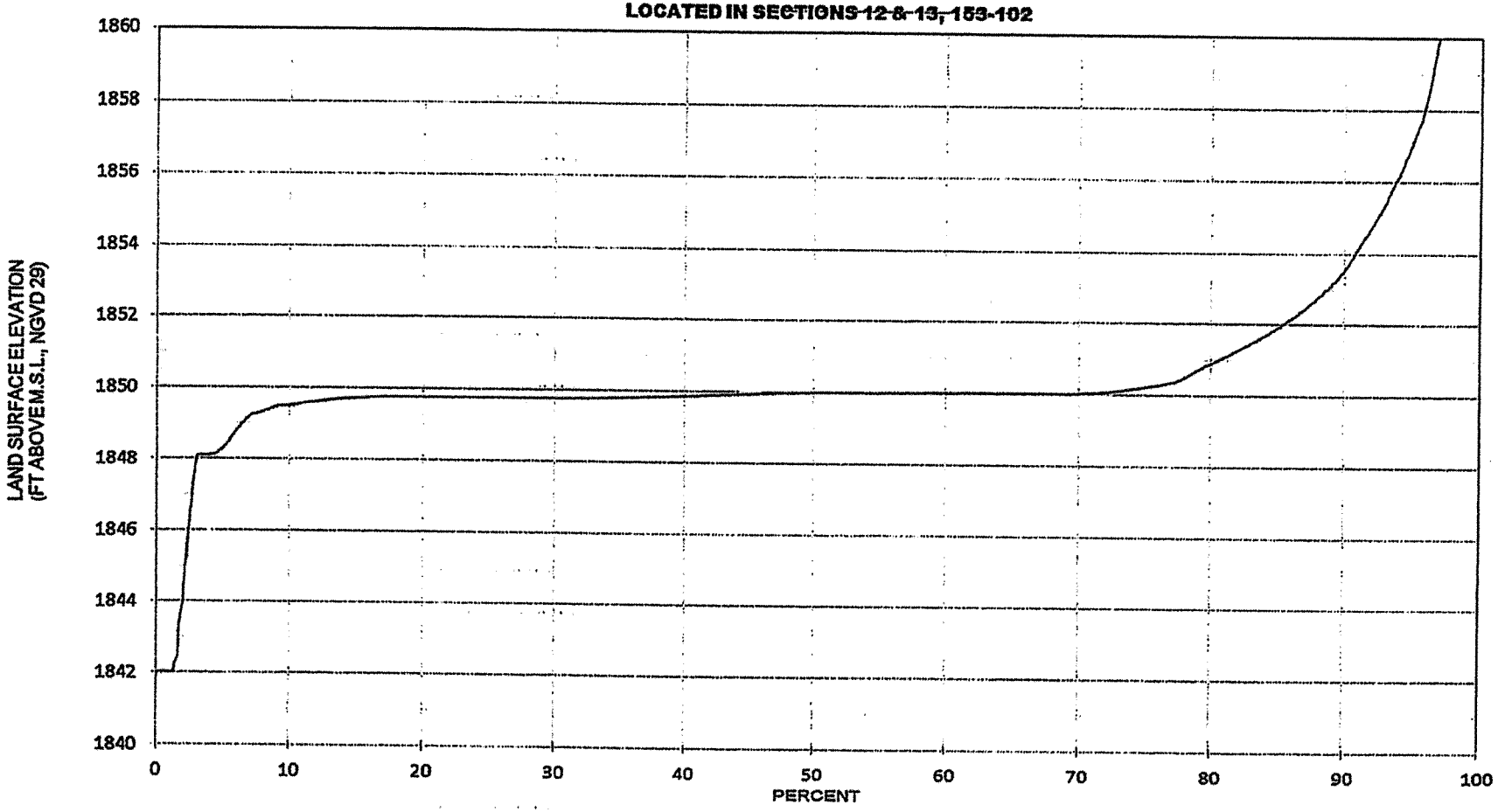


FIGURE 6

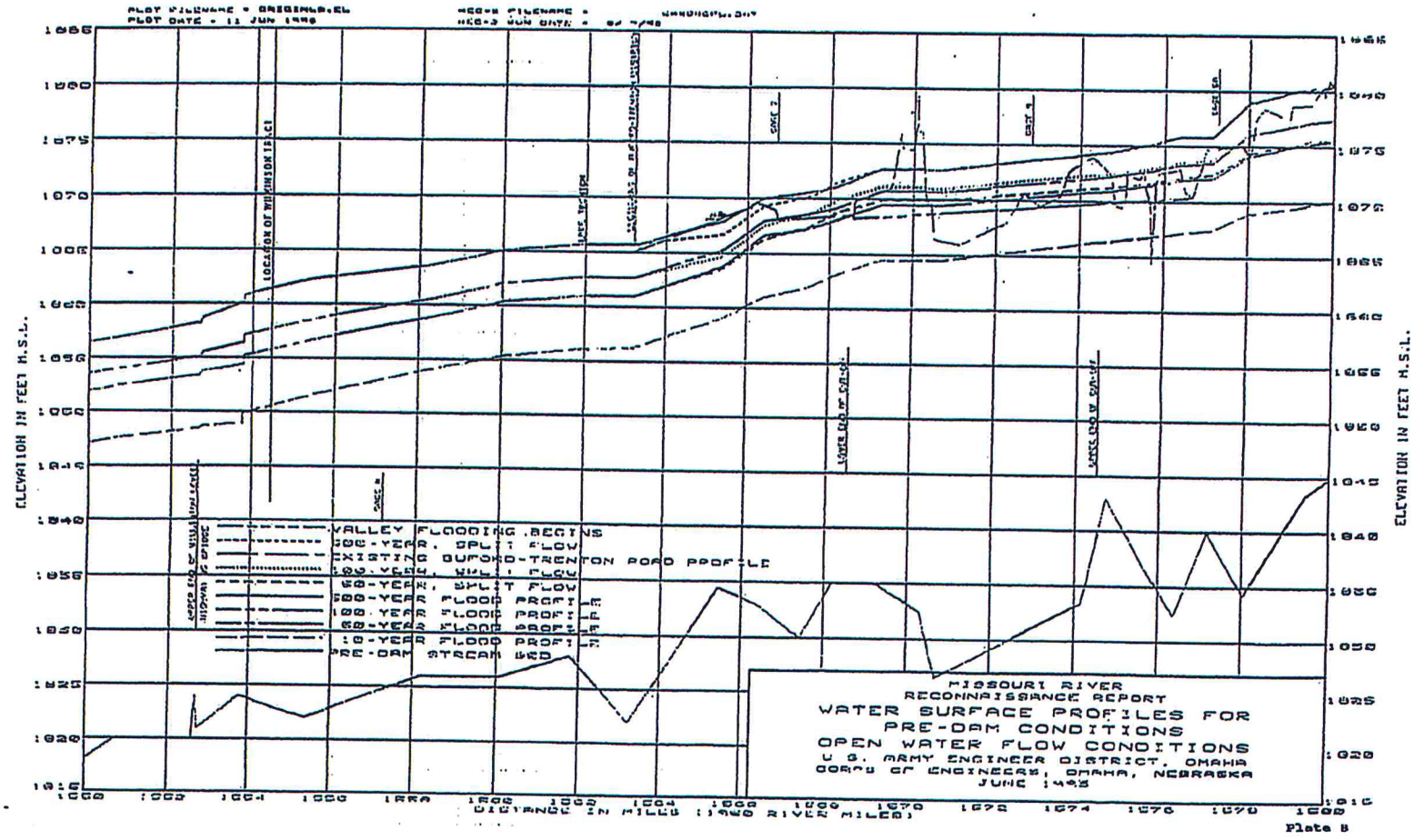
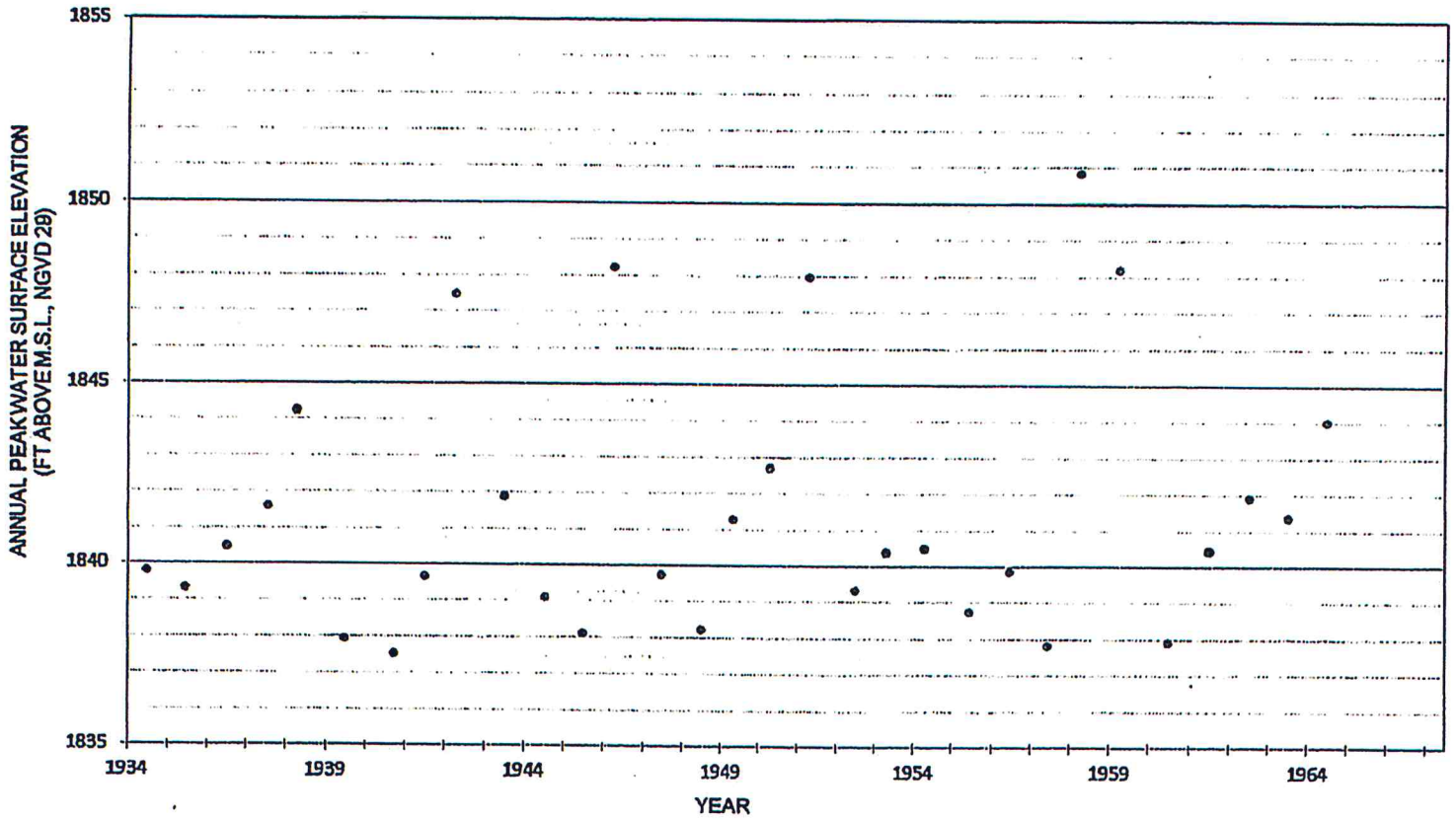

ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (1940 RIVER MILES)
VALLEY FLOODING BEGINS
100-YEAR, SPLIT FLOW
EXISTING BUFORD-TRENTON POOL PROFILE
50-YEAR, SPLIT FLOW
500-YEAR FLOOD PROFILE
100-YEAR FLOOD PROFILE
50-YEAR FLOOD PROFILE
10-YEAR FLOOD PROFILE
PRE-DAM STREAM BED
MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1945
Plate 8

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

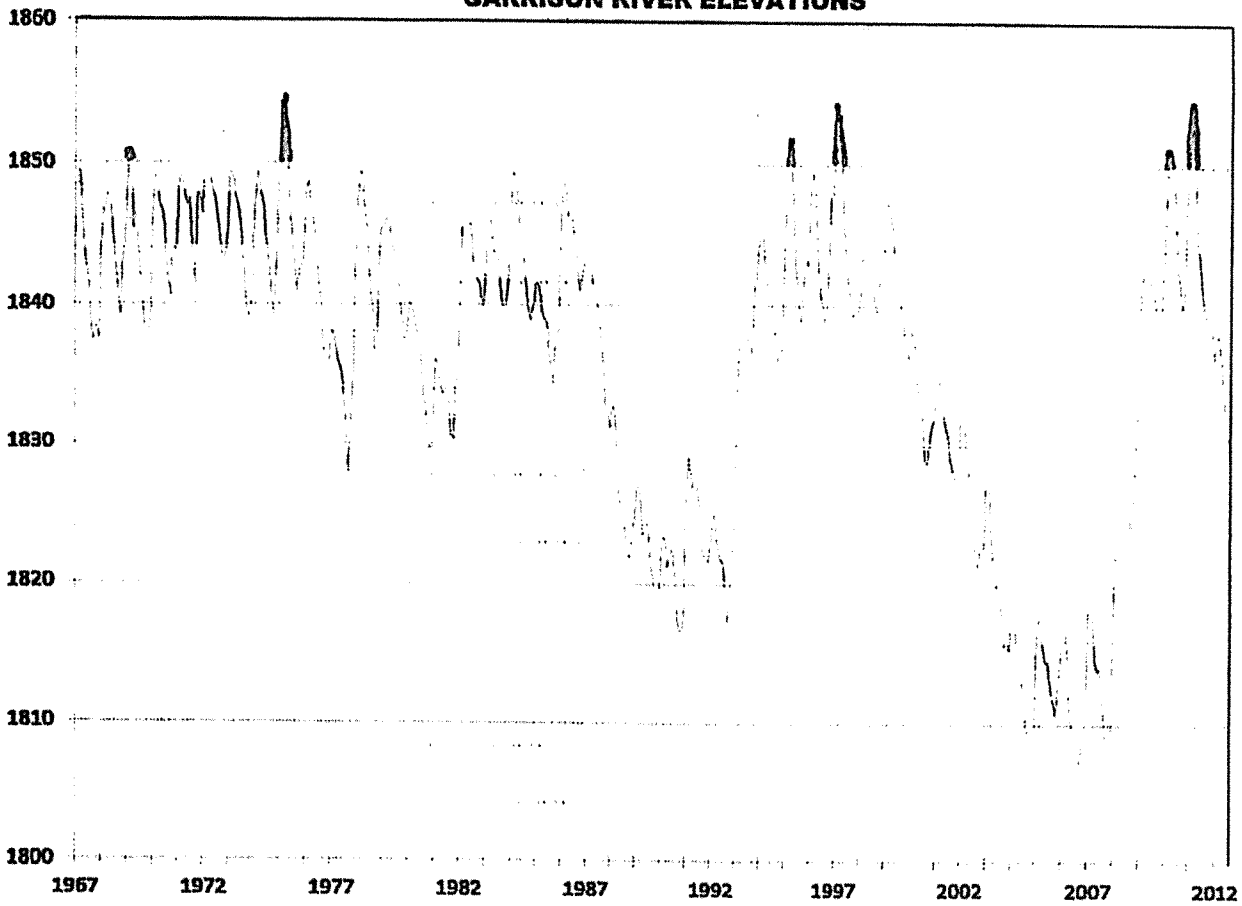
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

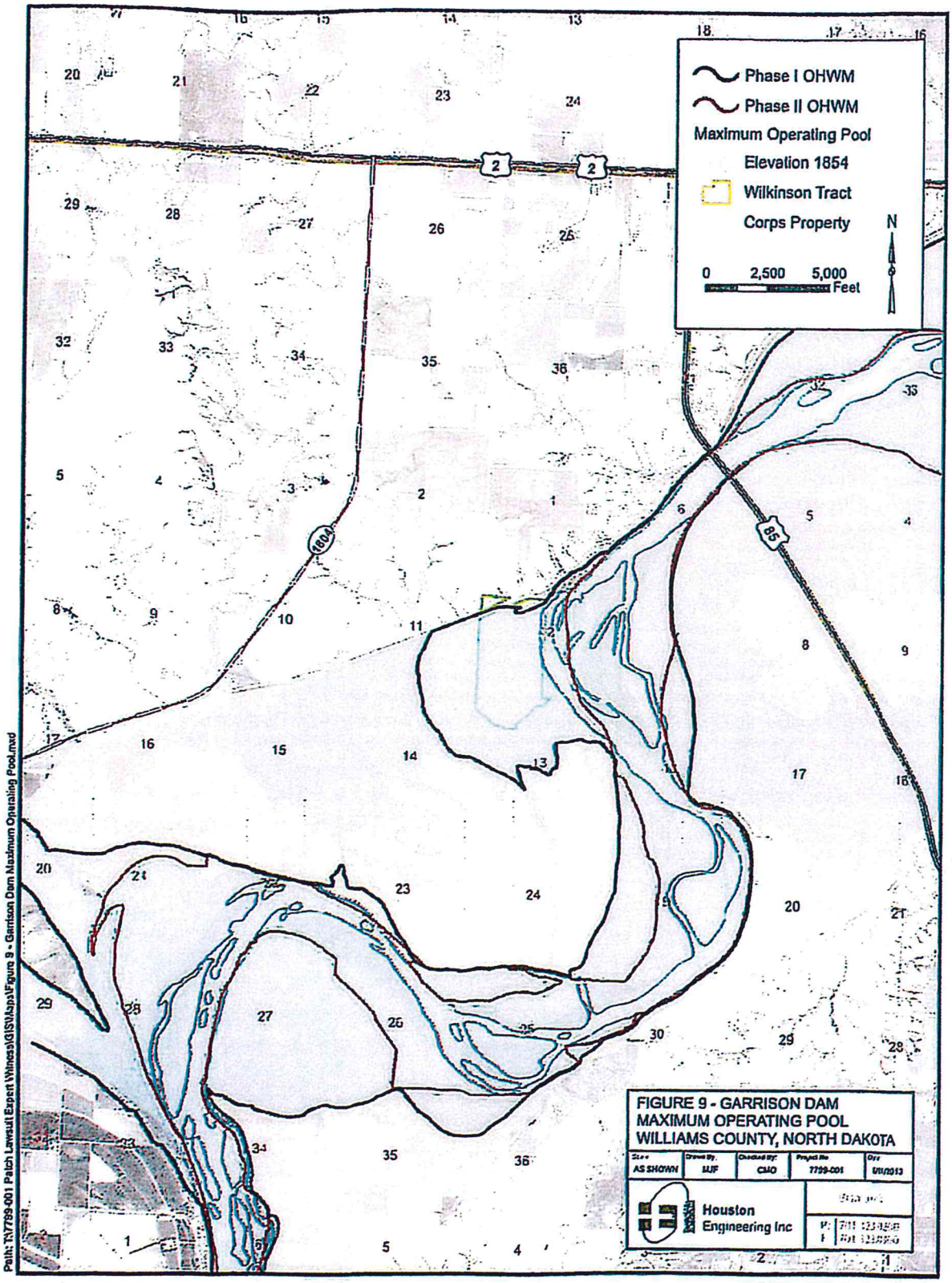
Point #2 Summary

The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool Elevation 1854
Wilkinson Tract
Corps Property
N
0 2,500 5,000 Feet
2
1804
85
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 9 - Garrison Dam Maximum Operating Pool.mxd

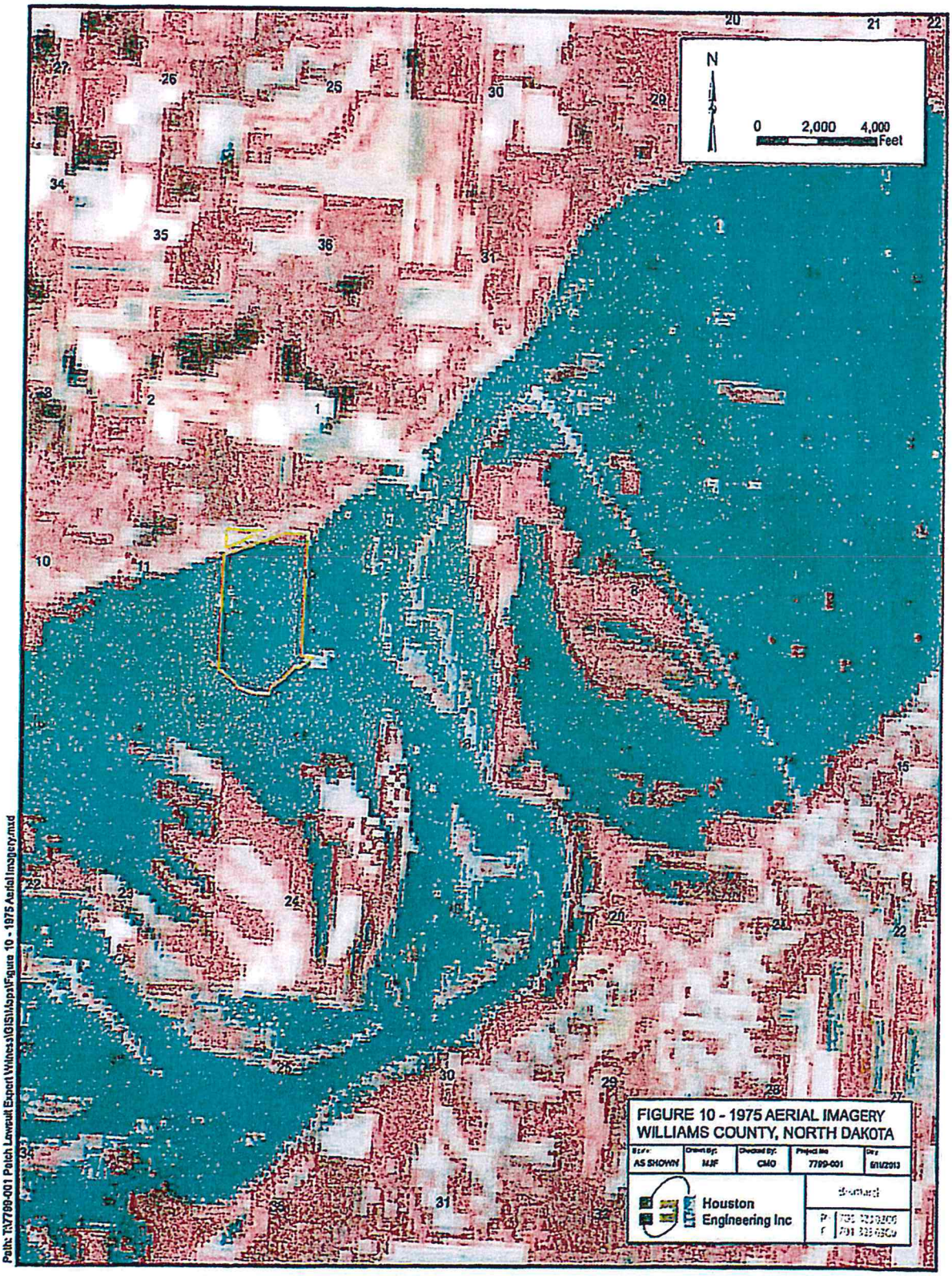

N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 10 - 1975 Aerial Imagery.mxd

FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA

Size	Drawn by	Checked by	Project No	Date
AS SHOWN	MJF	CMO	7792-001	8/1/2013

Houston Engineering Inc.

Path: N:\7792-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 11 - 1997 Aerial Imagery.mxd

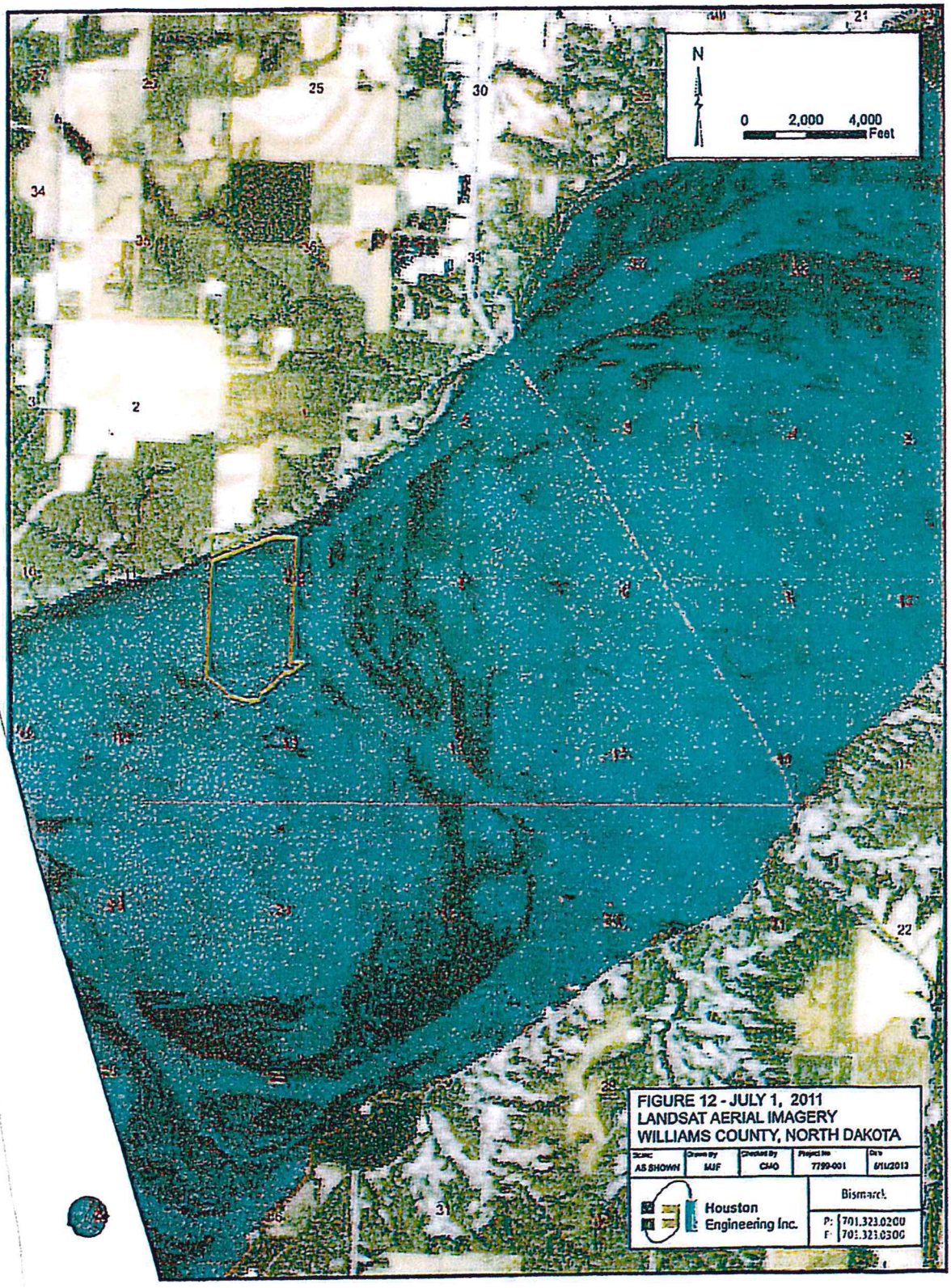
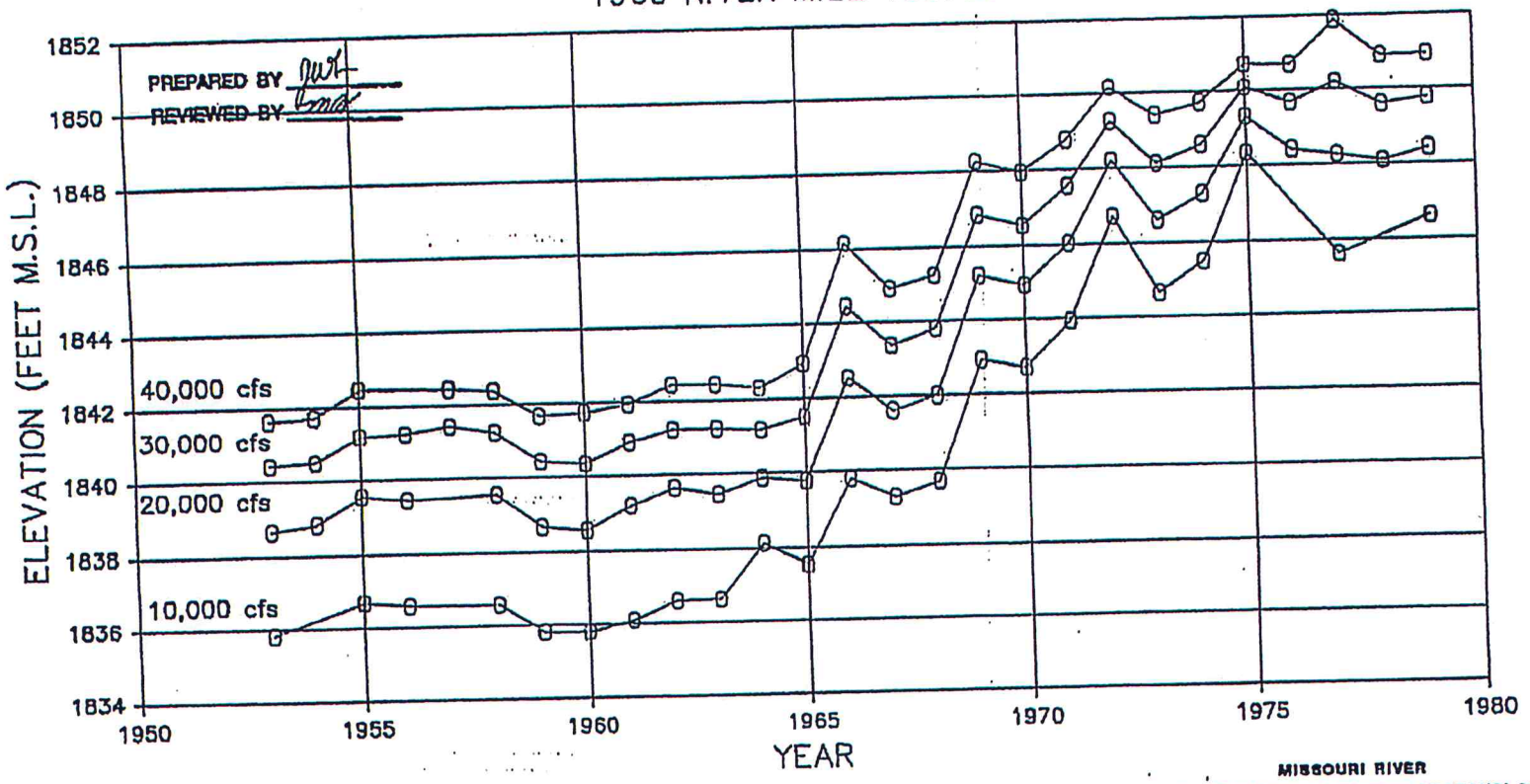

N
0 2,000 4,000
Feet
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT
Stage Trends - Gage 8
U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

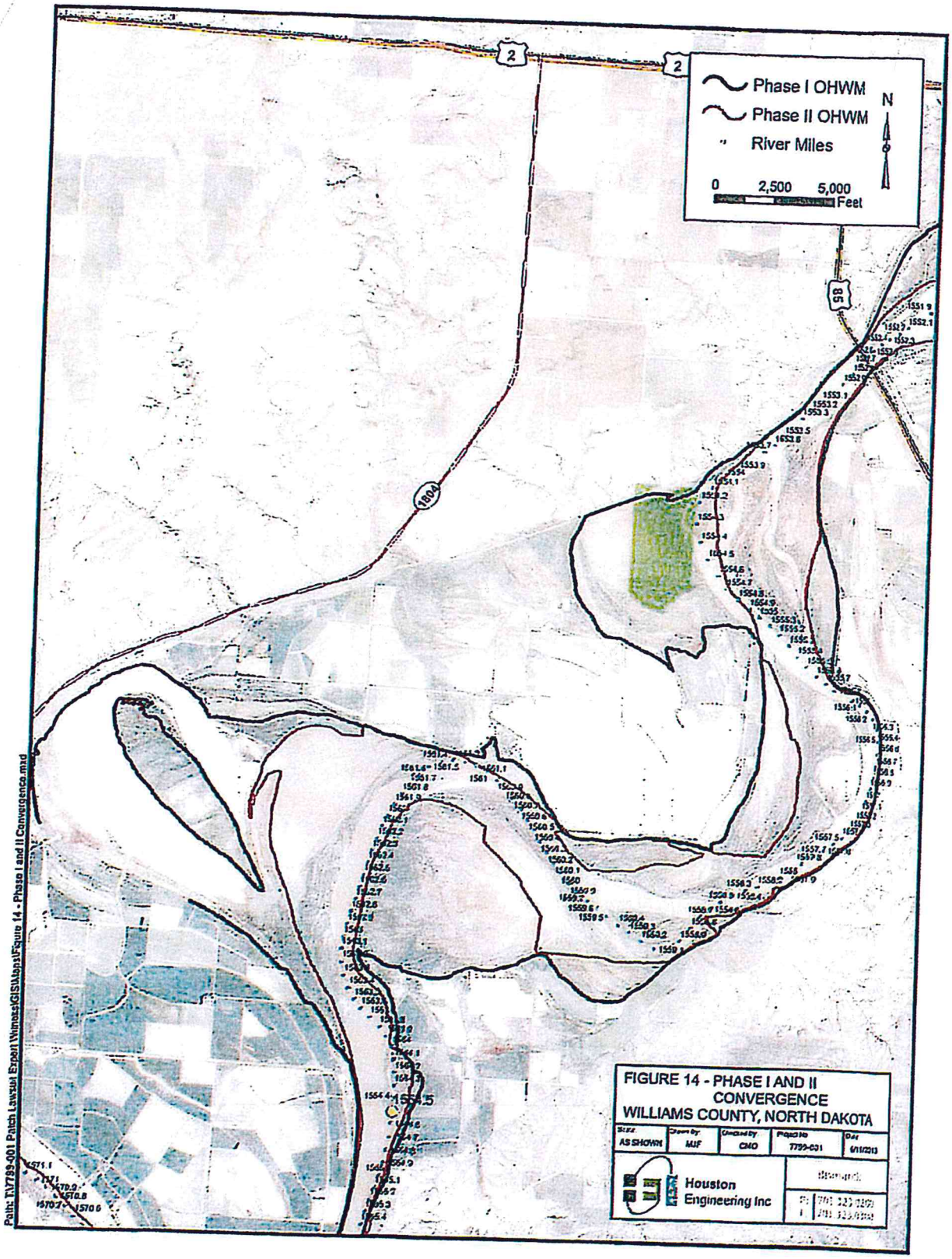
The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

he use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no ientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson ict. The OHWM as delineated using the historic aerial imagery in the Phase II Study is more appropriate indication of the boundary between the riparian and the public rests in the area of the Wilkinson Tract.


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
2
85
1804
FIGURE 14 - PHASE I AND II CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Epoch Wineas\GIS\Mxd\Figure 14 - Phase I and II Convergence.mxd

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

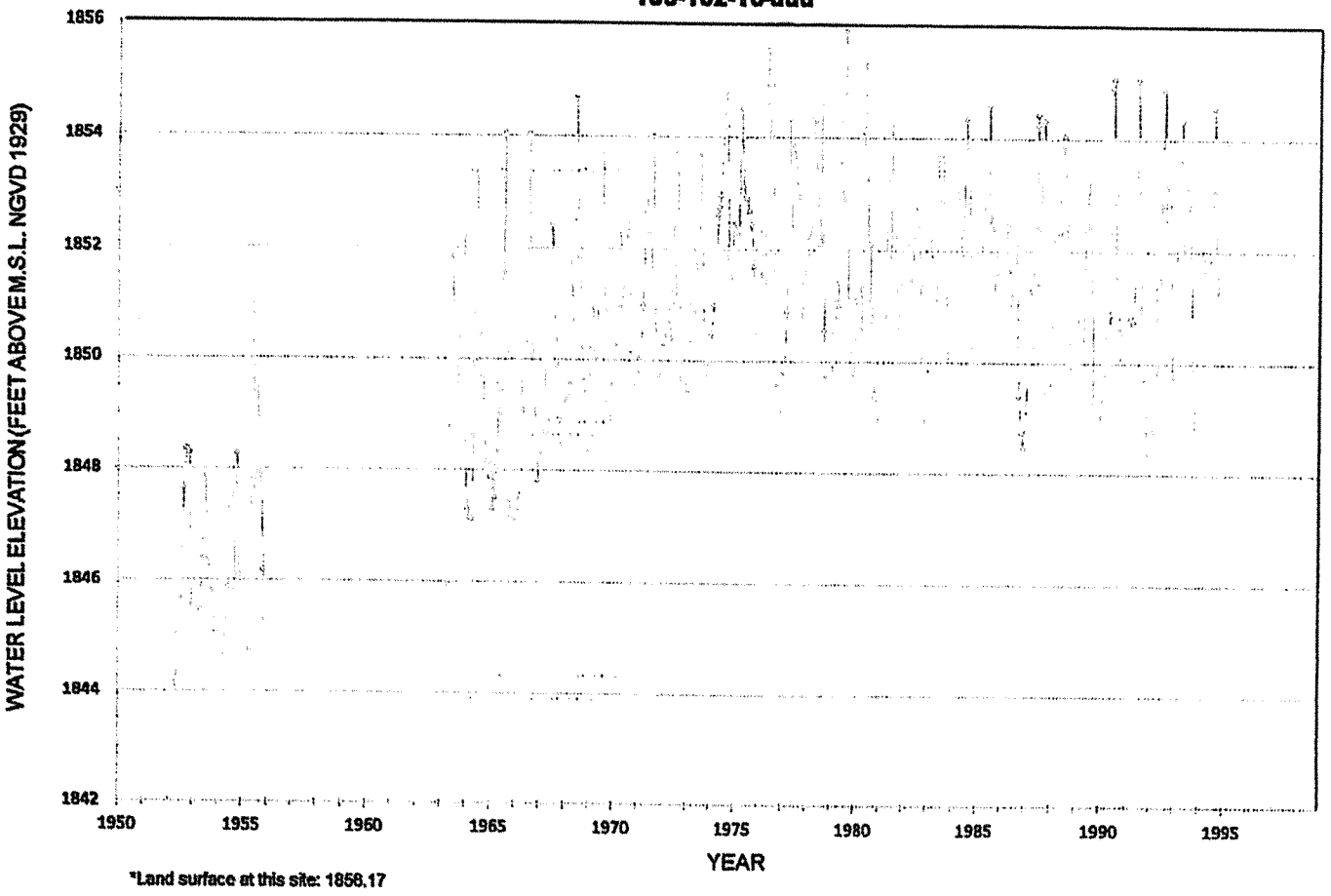
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16.** As illustrated in **Figure 17,** the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 15
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



*Land surface at this site: 1858.17

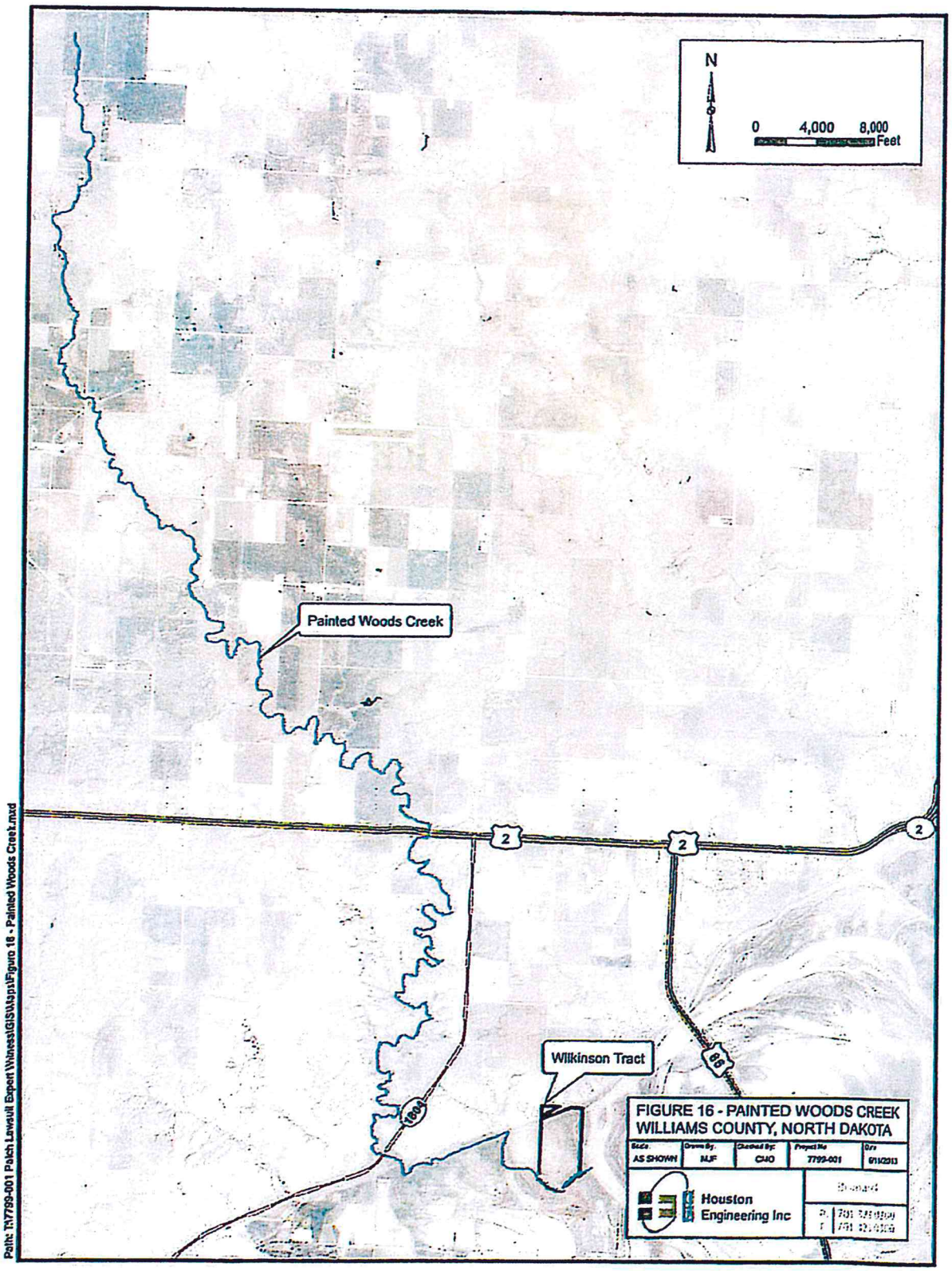

N
0
4,000
8,000
Feet
Painted Woods Creek
Wilkinson Tract
2
2
2
1804
85
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
6/11/2013
Houston Engineering Inc
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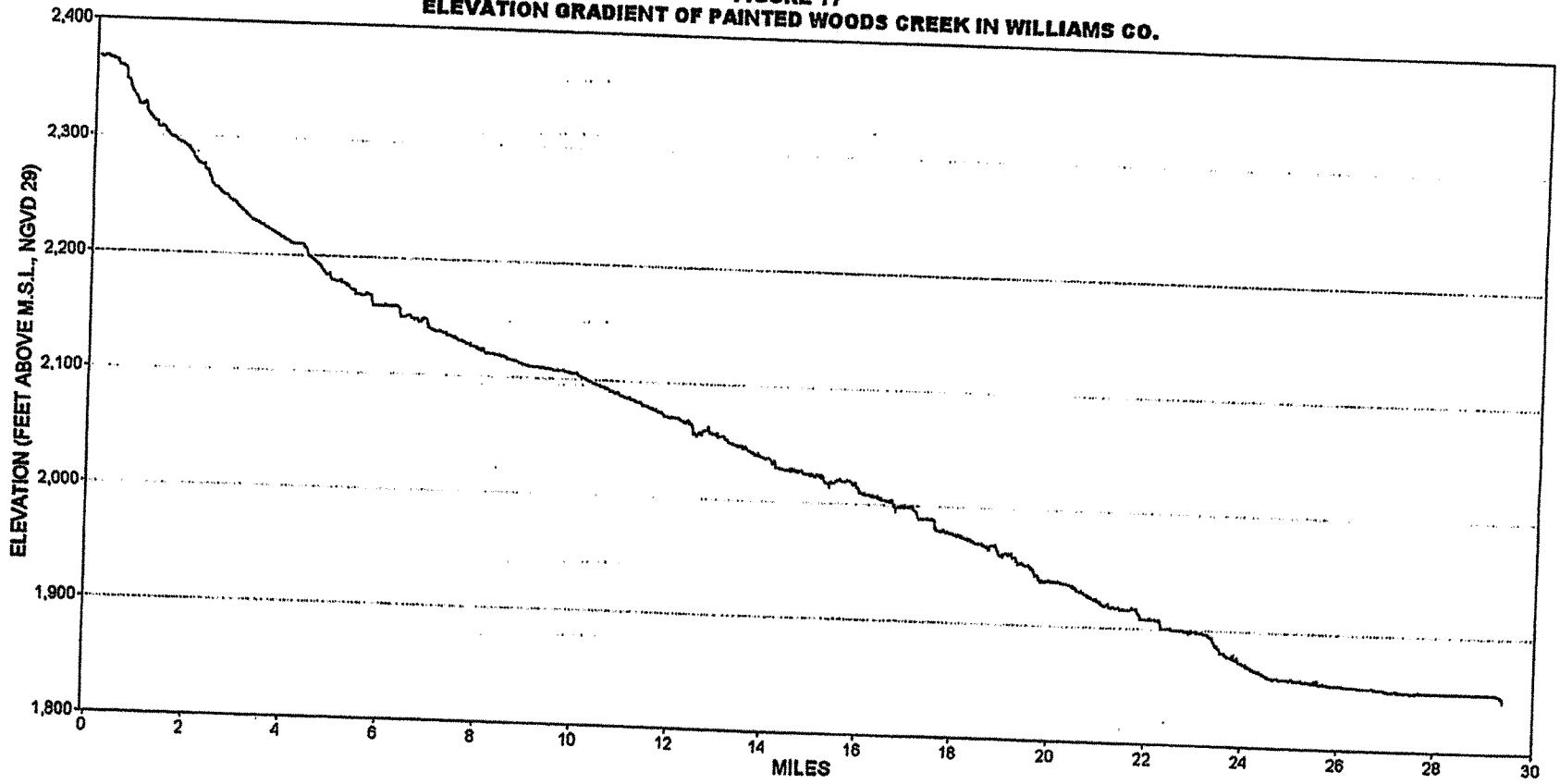
FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.

2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.

3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.

4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.

5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.

6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx

7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.

State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

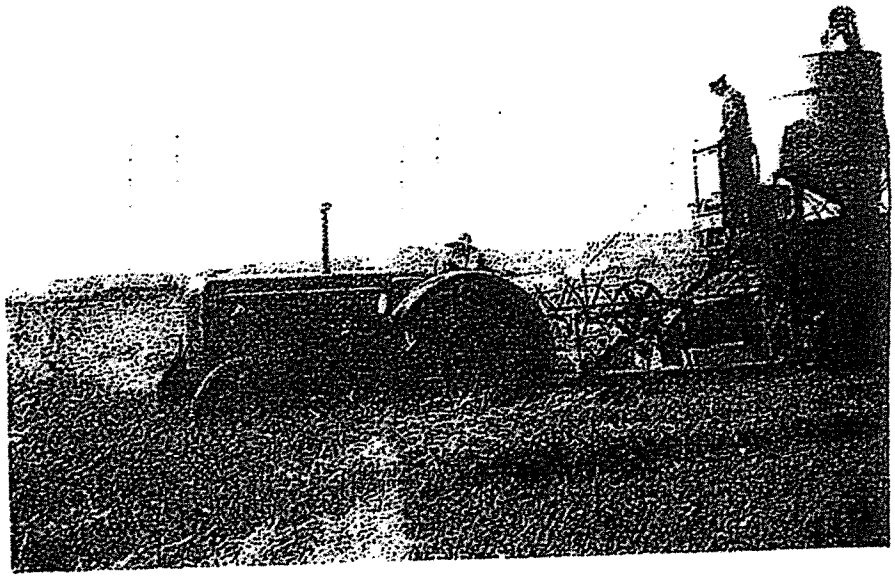
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan

ss.

County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E. Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: 2-14-2014

OFFICIAL SEAL
TAMMY WIEMAN
NOTARY PUBLIC State of New Mexico
My Commission Expires

Hi Jan -
thought you'd like
this interesting

Trenton Farmer Has Splendid Wheat Crop

Tom Williamson, farmer on the Missouri bottoms in the country near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 225 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

1940 s 41

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John L. BURGUM, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. HR-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right of interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

_____ (Name)

_____ (Title)

John L. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter ($SW\frac{1}{4}$) and the South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.

which sum is in full satisfaction and discharge of the interest of the undersigned in the premises conveyed.

(Payee or Payees) J. T. Wilkinson

Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. HH-3190

Exhibit G-2 – Feb. 2, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning House Bill No. 1199
House Energy and Natural Resources Committee
February 2, 2017, 8:30 AM

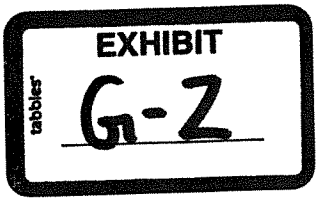
Chairman Porter and members of the Committee, thank you for the opportunity to comment on House Bill 1199. I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea. Private land owners like the Wilkinson family and Vohs family reserved these oil and gas rights when the United States acquired their property for Lake Sakakawea. The oil and gas interests we're talking about have been with these families for generations. The fact these families reserved the oil and gas interests is undisputed. The fact the United States acquired their property because it would be flooded by Lake Sakakawea is undisputed.

Notwithstanding – old wounds have been reopened by the State. Incredibly, the State claims it owns all the oil and gas that was reserved by private property owners when the United States flooded hundreds of thousands of acres of land for Lake Sakakawea. In essence, the State claims the government – federal or state – can flood private property and then claim that they, the government, owns the property. That is offensive, and it's the textbook definition of an unconstitutional taking. I urge you to support HB 1199 as it addresses this wrong.

BACKGROUND

Historically, the State claimed only the original 30,000 acres of the Missouri River riverbed as it existed before Garrison Dam. This is the "historical Missouri riverbed channel." This is noted in an August 2007 letter the North Dakota State Water Commission submitted to the Army Corps of Engineers in response to the Corps' request for comments on the Garrison Dam/Lake Sakakawea Master Plan. A copy of the letter is included with this testimony as Exhibit 1. However, departing from decades of policy and practice, the State, through the office of State Engineer and the Land Commissioner, now claims ownership of all the oil and gas under Lake Sakakawea. This runs roughshod over, and ignores, private property rights as memorialized by warranty deeds going back to the 1950s where the United States acquired this property from North Dakota citizens – like the Wilkinson and Vohs families. The oil and gas interests were reserved by these private landowners. This is shown by the United States maps for the Garrison Project and the clear and unambiguous language in the warranty deeds. A copy of these maps and warranty deeds are included with this testimony as Exhibits 2 and 3.

This has been the subject of litigation in Wilkinson v. The Board of University and School Lands of the State of North Dakota, et al., Case No. 53-2012-CV-00038. The Wilkinson case is pending before the North Dakota Supreme Court. The State claims that regardless of how or when thousands of acres were flooded by the United States government for Lake Sakakawea, the State somehow acquired ownership of that land as soon as it was flooded.



HB 1199 addresses the issues raised in that litigation, recognizing that the oil and gas interests owned by the Wilkinson and Vohs families, was affected by and subject to flooding from Lake Sakakawea as discussed in detail in the expert report prepared by Dr. Lawrence Woodbury in the Wilkinson case. A copy of that report is included with this testimony at Exhibit 4. Likewise, and more importantly, the United States' maps for the Garrison Project show dozens of tracts and thousands of acres west of the Highway 85 Bridge – like the land belonging to the Wilkinson and Vohs families – was acquired by the United States because of the flooding that would be caused by Garrison Dam. Similarly, the clear and unambiguous language in the warranty deeds where the United States acquired the property, like the 1958 Warranty Deed from the Wilkinson family to the United States, provided that the reservation of the oil and gas rights were subject only to "[t]he right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation, and maintenance of the Garrison Dam and Reservoir, ..."

These families should not be made to suffer the indignity of losing their property twice at the hands of Lake Sakakawea and the government. The first time some sixty-odd years ago when the federal government took their land, and for a second time in 2017 – adding insult to that long-ago injury, our great State seeking to further deprive private owners of their oil and gas interests, interests these private land owners had previously leased to oil companies for nearly sixty years before the State wrongfully claimed ownership of them.

NORTH DAKOTA'S ATTEMPTS TO DETERMINE THE STATE'S INTEREST TO THE BED OF LAKE SAKAKAWEA

The State has conducted two studies to determine the ordinary high watermark ("OHWM") of the Missouri River in the Garrison Dam area to justify its massive land grab. The first study, which began at the Highway 85 Bridge and moved west, used the OHWM as it now sits, without regard for the effect of Lake Sakakawea. The second of these studies, which included the area from Garrison Dam to the Highway 85 Bridge, used the OHWM of the historic Missouri River as it existed prior to Garrison Dam.

The United States Department of Interior ("DOI") has already rejected both of the State's surveys because of their flawed methodology, and because the studies are unsupported by law or the facts. A copy of the DOI's decision from last March rejecting the State's surveys is included with this testimony as Exhibit 5. On page six of its decision, the DOI explains that the State's surveys , "[d]o not comport with federal law and cannot be used to determine riverbed title under the equal footing doctrine." In rejecting the State's surveys, the DOI points out that the State's surveys depict the riverbed to be three times the width of the General Land Office's original surveys. Also of significance, on page 8 of its decision, the DOI affirms the position taken by the Wilkinson family in the litigation – specifically, that the United States' maps were the basis for land title acquisition by the Corps of Engineers for those lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea.

The DOI held that the segment maps are the most comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea, stating:

"The Corps of Engineers Segment Maps are firmly grounded in guidance, methodology and contemporaneous field investigations of the land prior to the effects of flooding. The segment maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with the determinations from in the field investigations by BLM and involvement from the BLM and North Dakota State Land Department and have gone uncontested for over 60 years."

The DOI concluded its decision rejecting the State's surveys by finding the surveys: 1) did not comply with the federal definition of the OHWM; 2) did not honor chain of title or previous involvement by both the State and private landowners with the United States during the course of the Garrison Project; and 3) are an overreaching delineation that impairs the mineral rights of private owners.

HB 1199 addresses this with its language that the OHWM must be located as close as possible to the OHWM of the riverbed channel as it existed before the inundation of the channel that created the lake based on historical records. Effectively, HB 1199 recognizes that the State has title only to the bed of the historic Missouri River as it existed prior to the Garrison Dam, and remedies the State's unconstitutional taking that has deprived private property owners of their oil and gas interests.

As far as the fiscal note prepared by the State, and the State's claims that passing this legislation or SB 2134 will result in the loss of millions in revenue for the State, that's like a bank robber complaining they will have to forfeit the loot they stole from the bank. The money never belonged to the bank robber, they took it from someone else. Likewise, the money being held in suspense in the Strategic Investment and Improvements Fund (SIIF) never belonged to the State in the first place – it belongs to private property owners like the Wilkinson and Vohs families. It's being held in suspense because of the title disputes and legal challenges the State knew would occur as a result of its massive and unconstitutional land grab.

Thank you again for the opportunity to present this testimony. I urge you to pass HB 1199.

Respectfully,

Joshua Swanson

Exhibits Nos. 1 – 5

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: http://swc.nd.gov

2007 AUG 17 AM 8:50

August 13, 2007

Army Corps of Engineers, Omaha District
Attention: District Commander
106 South 15th Street
Omaha, NE 68102-1618

Dear District Commander:

The purpose of this letter is to respond to the Corps' request for comments on the recently released Draft Garrison Dam/Lake Sakakawea Master Plan (Master Plan).

In our May 16, 2007, letter regarding the preliminary draft Master Plan, we provided a number of general comments that were not included in the re-write, such as contingency plans to address the loss of water supply intakes, an analysis of projected recreation demands/needs, and a prioritization of recommendations. We respectfully request that you reconsider those comments in your development of the final report.

As you are aware, the Office of the State Engineer and the State Water Commission believe that the development, maintenance, and protection of water supply intakes should be an important consideration in any planning scenario for Lake Sakakawea. Thus, it is encouraging to see that the Corps has included an inventory of community water supply intakes that draw water from the reservoir, and the elevations at which they anticipate potential problems from low water levels. However, if contingency planning efforts will not be included in the Master Plan as requested in our May 16, 2007, letter; it would be advantageous to at least include a discussion of the Corps' role in correcting problems with community water supply intakes when reservoir levels are at dangerously low elevations. This might include discussions about cost-sharing opportunities for modifications or the availability of technical assistance.

Under EOP #2 it is suggested, "The Master Plan/EA includes information regarding the issuing of intake permits through the Corps regulatory process and aiding municipal and rural systems to ensure functionality of intakes during drought conditions." But that information was not readily apparent, and in fact, seems to be absent all together with the exception of a brief discussion of Section 10 requirements under Public Law 90-483 (82 Stat. 731) on page 2-135.

9/5

On page 1-11, it is stated that 30,000 of the 493,000 project acres did not need to be purchased because they were part of the original "riverbed." Further explanation might be appropriate to outline the fact the those 30,000 riverbed acres were, and are, sovereign lands, which are owned and managed by the State of North Dakota, through the Office of the State Engineer (N.D.C.C. 61-33-05) and the State Land Department (N.D.C.C. 61-33-03).

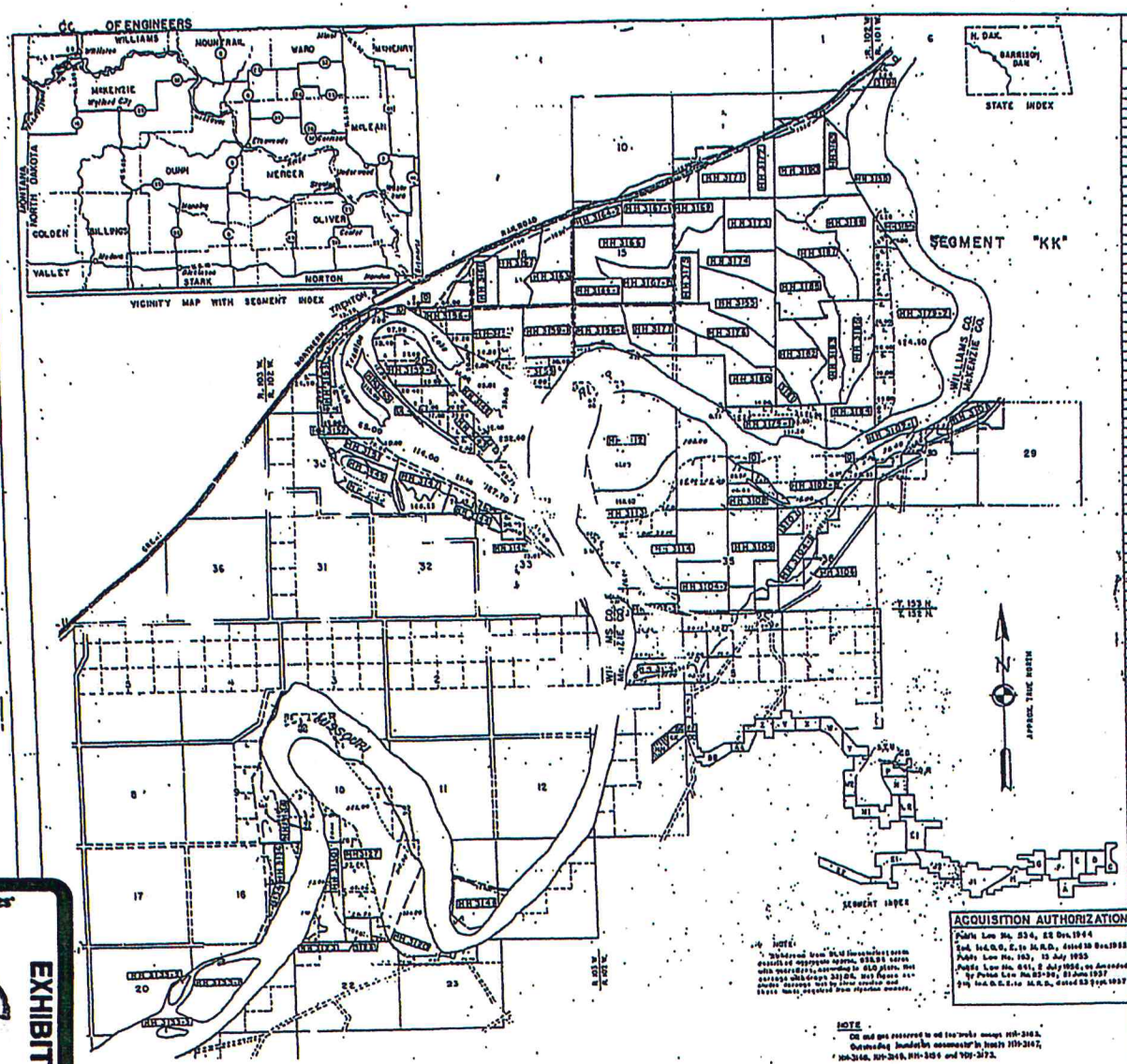
EXHIBIT 1

As a general comment, the Office of the State Engineer and the State Water Commission applaud the development of the updated Garrison Dam/Lake Sakakawea Master Plan. Lake Sakakawea is one of North Dakota's most precious and valuable natural resources. As such, a new Master Plan that considers input from other agencies and members of the general public is long overdue.

We appreciate your consideration of the above comments, and thank you for the opportunity to comment on this important planning process.

Sincerely,

Dale L. Frink, P.E.
State Engineer



ACQUISITION TRACT REGISTER

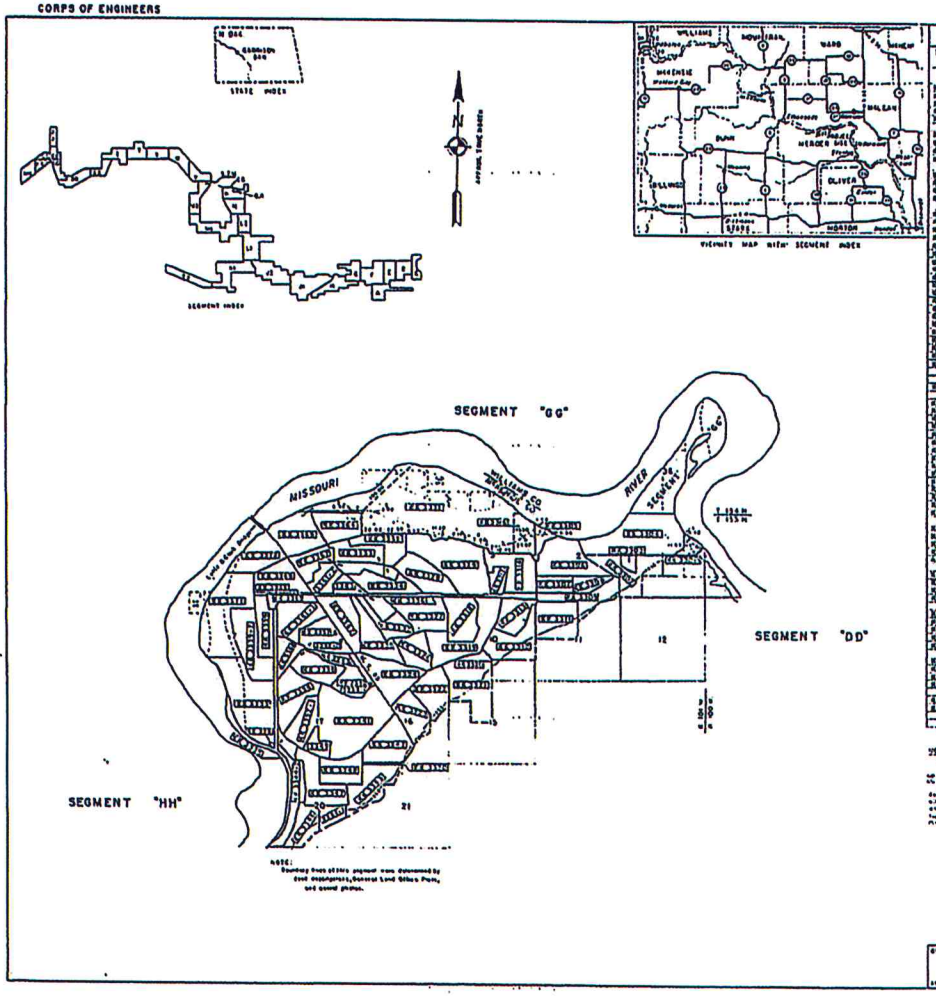
TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE TRANS.	ACREAGE EASM'T.	REMARKS
McKENZIE COUNTY					
HH 3101	MIRIAM OFH. PAGE	139.90			
HH 3101-A	ARTHUR WOOD	97.10			
HH 3101-B	ARTHUR WOOD	30.40			
HH 3101-C	ARTHUR WOOD	401.23			
HH 3104-A	JOHN W. SLATER ET UX	115.00			
HH 3104-B	JOHN W. SLATER ET UX	160.00			
0	U.S.A. DEPT. OF INTERIOR		see remarks		Transferred 27 February 1959, Public Land Order No 1809, acreage included in tract register of segment KK
HH 3106	STATE OF NORTH DAKOTA	80.00			
HH 3107	HARRY G. NELSEN ET AL	40.00			
HH 3108	FRED A. NELSEN ET UX	76.80			
HH 3109	JOSEPH HACKENBERG, SR.	483.00			
HH 3111	DELETED				
HH 3112	CLINTON A. TIBBITS	441.60			
HH 3113	CLINTON A. TIBBITS	272.92			
HH 3114	MARY A. TIBBITS ET AL	481.44			
HH 3116	HENRY H. REHBERG	173.00			
HH 3117	DELETED				
HH 3118	DELETED				
HH 3119	DELETED				
HH 3120	FRANK W. ERICKSON ET AL	121.63			Formerly Tract No. HH 3123-1
HH 3121	DELETED				
HH 3122	DELETED				
HH 3123	FRANK W. ERICKSON ET AL	40.00			Formerly Tract No. HH 3123-2
HH 3124-A	DELETED				Included in Tract No. HH 3127
HH 3124-B	DELETED				Included in Tract No. HH 3128
HH 3126	DELETED				
HH 3127	JERRY H. PAPINEAU ET UX	749.78			
HH 3128	NORMAN PAPINEAU ET UX	131.20			Formerly Tract No. HH 3128-2
HH 3129	DELETED				
HH 3130	NORMAN PAPINEAU ET UX	43.40			Formerly Tract No. HH 3128-1
HH 3131	DELETED				
HH 3132	DELETED				
HH 3133-A	STATE OF NORTH DAKOTA	155.80			
HH 3133-B	STATE OF NORTH DAKOTA	19.20			
HH 3133-C	STATE OF NORTH DAKOTA	15.00			
WILLIAMS COUNTY					
HH 3134	JOHN OSTER ET UX	44.81			
HH 3136	ROBERT P. SACHTJEN	83.10			
HH 3137	DELETED				
HH 3138	MARGARET E. KEAR	160.00			
HH 3139	DELETED				
HH 3140	EARL L. BAUSTE ET UX	19.20			
HH 3141	IVER BOHN AUST ET UX	153.87			
HH 3142	RAYMOND E. HOFFMAN ET UX	58.68			
HH 3143	CARL BRUCH	477.39			
HH 3144	JOHN IRWIN	98.02			
0	U.S.A. DEPT. OF INTERIOR		see remarks		Transferred 27 February 1959, Public Land Order No. 1809, acreage included in tract register of segment GG
HH 3145	STATE OF NORTH DAKOTA	118.80			Formerly known as Tract No. HH 3146-1
HH 3146	STATE OF NORTH DAKOTA	14.00			" " " " " HH 3146-2
HH 3147	ORRIN JACOBSON ET UX	640.13			
HH 3148	JOHN TOFTE	75.44			
HH 3149	ROBERT G. BYAM ET UX	77.37			
HH 3150	J. D. PIPPENGER ESTATE ET AL	91.20			Formerly known as Tract No. HH 3150-2
HH 3151	LESTER A. LARSON ET UX	100.78			
HH 3152	JOHN BRIAN ALS	108.00			
HH 3153	DONALD W. STADSTAD ET UX	151.42			
HH 3154	HENRY A. BOWEN ET UX	317.02			
HH 3155	CHARLES W. PATCH ET UX	21.38			Formerly known as Tract No. HH 3156-1
HH 3156-A	JAMES F. MARTIN ET UX	149.00			
HH 3156-B	JAMES F. MARTIN ET UX	162.93			
HH 3158	MILES C. BADSTAD ET UX	138.68			
HH 3159	CHARLES A. BOWEN ET UX	160.00			
HH 3159-A	CHARLES A. BOWEN ET UX	307.90			
HH 3161	AGNES MORIN GARFIELD ET AL	94.38			
HH 3162	JOHN C. GOURY ET UX	160.17			
HH 3163	H. W. ANDERSON ET UX	158.48			
HH 3164-A	MAUD MARTIN	80.00			
HH 3164-B	MAUD MARTIN	64.86			
HH 3165	CHARLES W. PATCH ET UX	83.50			Formerly known as Tract No. HH 3165-1
HH 3166	H. AUSTIN MARTIN ET UX	841.90			
HH 3167-1	FRED T. MARTIN ET UX	108.47			
HH 3167-2	FRED T. MARTIN ET UX	139.98			
HH 3169	CHARLES W. PATCH ET UX	173.15			
HH 3170	DELETED				
HH 3171	ADELAIDE L. REDING ET UX	157.75			
HH 3172	FRANCES JACKSON GILMORE ET UX	80.72			
HH 3173	HENRY A. BOWEN ET UX	160.00			
HH 3174	DANIEL P. FASCHING ET UX	80.00			
HH 3175	MAUD MARTIN	80.00			
HH 3176	THRONDUR OLAFSON	157.93			
HH 3177	HAROLD E. ZIMMERMAN ET UX	118.64			
HH 3178-A	DELETED				
HH 3178-B	DELETED				
HH 3178-C	OLETA L. METZGER	349.13			
HH 3178-D	OLETA L. METZGER	340.70			
HH 3181	LESTER A. LONSE ET UX	171.11			

tabbies

EXHIBIT 2

CORPS OF ENGINEERS

U.S. ARMY



ACQUISITION TRACT REGISTER

TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE EASMTS	REMARKS
	McKENZIE COUNTY			

NOTE:

ACQUISITION AUTHORIZATION

AUDITED

FINAL PROJECT MAP

STATE NORTH DAKOTA

COUNTY MCKENZIE

DIVISION MISSOURI RIVER

DISTRICT GARRISON

LOCATION OF DAM SEC 3 T 145 N R 84 W OF 5TH P.M.

19 MILES S OF GARRISON

13 MILES N OF STANTON

SEGMENT KK — LAND AREA

TOTAL ACRES IN SEGMENT 8,168.25

ACRES FEE

ACRES EASEMENT

ACRES TRANSFERRED TO W.D.

ACRES PERMITS OR LICENSES

DISPOSALS

TOTAL ACRES DISPOSED OF

ACRES TRANSFERRED

ACRES LEASED FROM W.D.

ACRES OTHERWISE

LEGEND

SCALE

DEPARTMENT OF THE ARMY
OFFICE OF THE DISTRICT ENGINEER
GARRISON DISTRICT
MISSOURI RIVER DIVISION
CORPS OF ENGINEERS

GARRISON DAM & LAKE SAKAKAWEA

SEGMENT KK

RECOMMENDED DATE APPROVED

APPROVED DATE APPROVED

CHIEF, CORPS OF ENGINEERS

DRAWN JOHN TRACED JCS CHECKED AW

NO.	REVISION	BY	DATE

SHEET 36 OF 36 SHEETS

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
INSTALLATION OR PROJECT GARRISON DAM
DATE 24 OCT 1955

THIS DRAWING HAS BEEN REDUCED TO ONE HALF THE ORIGINAL SIZE

Tract No. HR-3190

1. WARRANTY DEED: 3M-2-57 To: Bell Line-Level Blanks Bismarck, N. D.

411

THIS INDENTURE, Made this 9th day of June in the year of our Lord one thousand nine hundred and fifty-eight between J. T. Wilkinson and Evelyn M. Wilkinson, his wife whose postoffice address is Trenton, North Dakota part ies of the first part, and United States of America whose postoffice address is Washington, D. C. ~~the~~ party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FORTY-THREE THOUSAND THREE HUNDRED TWENTY-SEVEN AND NO/100 - - -

19

J. T. Wilkinson and Evelyn M. Wilkinson, his wife, Trenton, North Dakota

to

WARRANTY DEED DOC. # 288165
Book 131 Deeds page 411
Filed June 10, 1958, 4:50 P.M.
Dated June 9, 1958

United States of America
Address: Washington, D. C.

In consideration of $ 43,327.00 Grant, Bargain, Sell and Convey unto second party and its assigns, all that tract or parcel of land lying and being in the County of Williams and State of North Dakota, and described as follows, to-wit: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in Deed Book 101, Page 413, being a part of Sec. 13, Twp. 153, Rge. 102 and containing 57.09 acres, more or less, also the SW¼ and S½NW¼ of Sec. 12, Twp. and Rge. aforesaid, excepting that portion of said S½NW¼ which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception 228.95 acres, more or less, subject to existing easments for public roads and highways, public utilities, railroads and pipe lines.

Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

Free from all encumbrances.

$47.85 R. S. Cancelled

On this 9th day of June A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

Telmar B. Rolfstad /s/
Notary Public, Williams County, State of North Dakota

(N. P. Seal)

My commission expires Nov. 19, 1958.

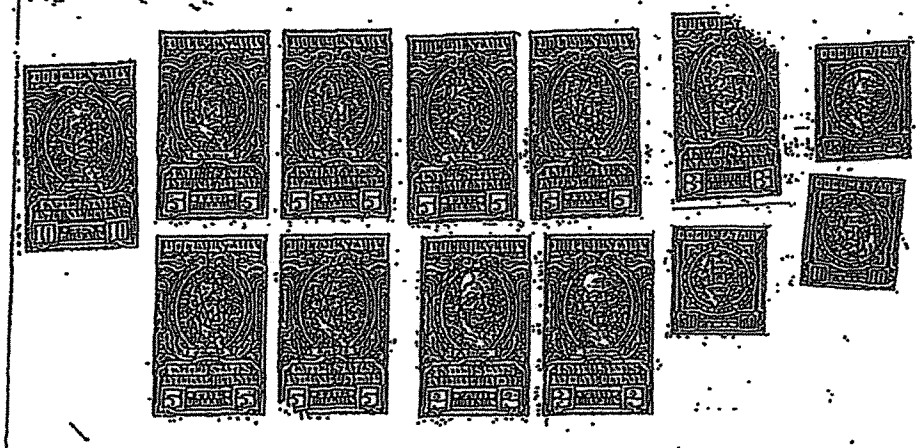
STATE OF NORTH DAKOTA,
County of Williams } ss.

On this 9th day of June, A. D. 19 58, before me personally appeared J. T. Wilkinson and Evelyn M. Wilkinson, his wife

known to me to be the same person s described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

THELMAR E. ROLFSTAD
Notary Public for the County of Williams
State of North Dakota

My commission expires Nov. 19, 1958.



Sec. 2 Twp 153 Rge 102

288165

DOC. NO.
ABSTRACT
GRANTOR
GRANTEE
RUNNING
TAXES
EXAMINED
Warranty Deed

TRANSFER FEE $ .25
TO
RECORDING FEE $1.50

STATE OF NORTH DAKOTA, } ss.
County of WILLIAMS

I hereby certify that the within Warranty Deed was filed in this office for record on the 10 day of JUN 1958 A. D. 19 at 4 o'clock P. M. and was duly recorded in Book 123 of Warranty Deeds on page 112

Register of Deeds
By Deputy

Delinquent taxes, special assessments, if any, unpaid at date hereof, and general taxes for the year 19 are paid in the sum of $

County Auditor
By Deputy

KK-3371

BOOK 87 PAGE 505

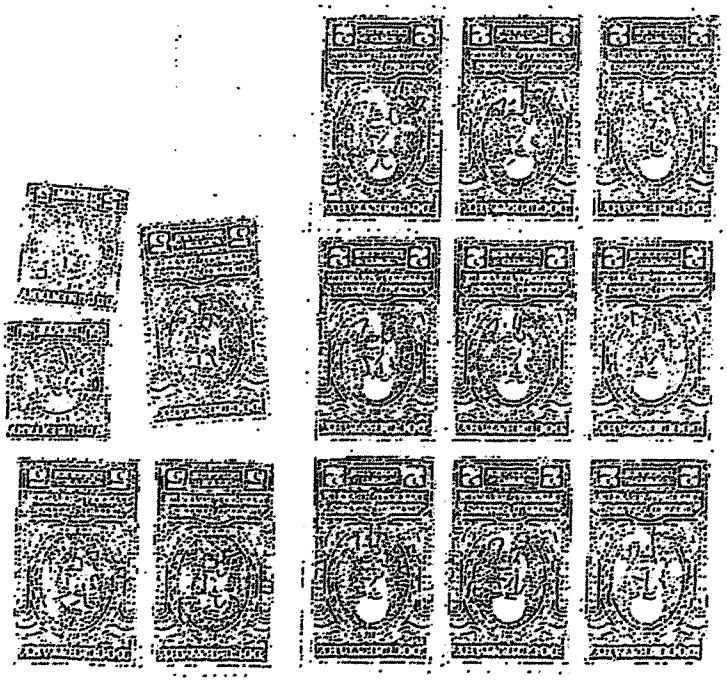
Document No. 155142

WARRANTY DEED

THIS INDENTURE, Made this 24th day of July in the year of our Lord one thousand nine hundred and fifty-seven between Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, whose postoffice addresses are Williston, North Dakota, parties of the first part, and United States of America, whose postoffice address is Washington, D. C., party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of THIRTY THOUSAND ONE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS, to them in hand paid by said party of the second part, the receipt whereof is hereby acknowledged, do by these presents GRANT, BARGAIN, SELL AND CONVEY unto the said party of the second part, and its assigns FOREVER, all that tract or parcel of land lying and being in the County of McKenzie and State of North Dakota, and described as follows, to-wit:

Lot Ten (10) of Section Six (6), and those portions of Lots One, Four and Five (1, 4, 5) of Section Seven (7), in Township One Hundred Fifty-three (153) North, Range One Hundred One (101) West of the Fifth Principal Meridian, McKenzie County, North Dakota, together with all lands accreted to said Lots, containing in all Two hundred Seventy-six and Eighty hundredths (276.80) acres, more or less, bounded and described as follows: Beginning at the northeast corner of Lot Ten (10) of Section Six (6), in Township One Hundred Fifty-three North, Range One Hundred One West of the Fifth Principal Meridian, McKenzie County, North Dakota, which said corner is marked by a two (2) inch iron pipe with brass cap, thence westerly along the south line of Unit Number Twenty (20) of "Lewis and Clark Irrigated Farms" according to the plat thereof on file in the Register of Deeds office in and for said County, on the following courses: South 89 degrees 53.5 minutes west a distance of 1101.00 feet, thence South 89 degrees 37 minutes west a distance of 625 feet, more or less, to the right bank of the Missouri River, as the same traverses said Section Six (6), thence southerly along said right river bank a distance of 5900 feet, more or less, to an iron pipe with brass cap on said bank which constitutes the northwest corner of Unit Number Twenty-two (22) of said "Lewis & Clark Irrigated Farms" thence North Eighty-nine degrees Fifty-four and Five hundredths minutes (89° 54.05') east along the north boundary line of said Unit Number Twenty-two (22) a distance of Two thousand One Hundred Sixty-five and Sixty-five hundredths feet, to an iron pipe with brass cap on the westerly boundary line of Unit Number Twenty-three (23) of said "Lewis & Clark Irrigated Farms," thence northwesterly and easterly along the westerly and northerly boundary lines of said Unit Number Twenty-three (23) on the following courses: North 22 degrees 58.4 minutes west a distance of 484.75 feet, thence north 20 degrees 24 minutes west a distance of 553.3 feet, thence north 18 degrees 31 minutes west a distance of 590.8 feet, thence north 12 degrees west a distance of 504.4 feet, thence north 6 degrees 53 minutes west a distance of 777.5 feet, thence north zero degrees 57 minutes west a distance of 247.8 feet, thence north 89 degrees 53 minutes east a distance of 1467.41 feet to an iron pipe with brass cap on the west boundary line of Unit Number Twenty-four West (24-W) of said "Lewis & Clark Farms" last said iron pipe being also the northeast corner of said Unit Number Twenty-three (23), thence north zero degrees 7 minutes west along the west boundary line of said Unit Number Twenty-four West (24-W) a distance of 886.82 feet to the northwest corner thereof, thence northerly a distance of 100 feet, more or less, to a 2 inch iron pipe with brass cap at the southwest corner of Unit Number Twenty-one (21) of said "Lewis & Clark Irrigated Farms" thence north zero degrees 3.5 minutes west along the boundary line common to said Unit Number Twenty-one (21) and said Lot Ten (10) a distance of 1287.5 feet to the point of beginning, subject to existing easements for public roads and highways, public utilities, railroads and pipe lines, excepting and reserving to the grantor all buildings and improvements now situated on these premises, said buildings and improvements to be removed on or before 1 April 1958. In the event that said buildings and improvements are not removed on or before said date, the right of removal shall terminate automatically, and the United States shall have a good and indefeasible title to said buildings or improvements without notice to grantor. It is further understood that, so long as the said buildings and improvements remain in place, no responsibility will lie with the United States for their maintenance or safety. It is further understood that the consideration for this reservation and right to remove said buildings and improvements is the sum of $385.00 which has been deducted from the total agreed purchase price of $30,520.00, and that the purchase price set forth above is exclusive of the consideration for



said buildings and improvement reservation; reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, their heirs, successors and assigns, all oil and gas rights therein, on or under said described lands, with full rights of ingress and egress for exploration, development, production and removal of oil and gas; upon condition that the oil and gas rights so reserved are subordinated to the right of the United States to flood and submerge the said lands permanently or intermittently in the construction, operation and maintenance of the Garrison Dam and Reservoir, and that any exploration or development of such rights shall be subject to federal or state laws with respect to pollution of waters of the reservoir; provided further that the District Engineer, Corps of Engineers, Garrison District, or his duly authorized representative shall approve, in furtherance of the exploration and/or development of such reserved interests, the type of any structure and/or appurtenances thereto now existing or to be erected or constructed in connection with such exploration and/or development, said structures and/or appurtenances thereto not to be of a material determined to create floatable debris.

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereunto belonging or in anywise appertaining, to the said party of the second part, and its assigns FOREVER. And the said Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, said parties of the first part, for themselves, their heirs, executors and administrators, do covenant with the said party of the second part, and its assigns, that they are well seized in fee of the land and premises aforesaid, and have good right to sell and convey the same in manner and form aforesaid; that the same are free from all incumbrances, and the above bargained and granted land and premises in the quiet and peaceable possession of said party of the second part, and its assigns, against all persons lawfully claiming or to claim the whole or any part thereof, the said parties of the first part will warrant and defend.

IN WITNESS WHEREOF, The said parties of the first part hereunto set their hands the day and year first above written.

Henry P. Vohs

Esther Vohs, his wife

Adolph S. Vohs

Ivy Vohs, his wife

Alfred J. Vohs

Iva Vohs, his wife

STATE OF NORTH DAKOTA)
) ss.
County of Williams)

On this 24th day of July A.D. 1957, before me personally appeared Henry P. Vohs and Esther Vohs, his wife, Adolph S. Vohs and Ivy Vohs, his wife, and Alfred J. Vohs and Iva Vohs, his wife, known to me to be the same persons described in and who executed the within and foregoing instrument, and severally acknowledged to me that they executed the same.

F. A. WENSTROM
NOTARY PUBLIC
STATE OF NORTH DAKOTA

My commission expires
July 11, 1959

F. A. Wenstrom

Notary Public for the County of
Williams, State of North Dakota

F. A. WENSTROM
Notary Public, WILLIAMS CO., N. DAK.
My commission expires JULY 11, 1959.

Document No. 155142

BOOK 87 PAGE 508

REGISTER OF DEEDS OFFICE
McKENZIE
COUNTY
STATE OF NORTH DAKOTA

COUNTY AUDITOR

Corps of Engineers
Riverdale, N. D.

June 19, 2013

HoustonEngineering Inc.

Wilkinson Trust Estate

Ordinary High Water Mark

EXHIBIT
tabbies 4

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Lawrence H. Woodbury, PhD, P.E. ~~P.H.~~
North Dakota Reg. No. 1729

Date: June 20, 2013

HoustonEngineering Inc.

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The Problem

The State of North Dakota holds the beds of navigable lakes and streams in public trust. The surface interests are managed by the ND State Engineer, and the mineral interests are managed by the ND Land Commissioner as head of the ND Department of Trust Lands. The State of North Dakota asserts that the Ordinary High Water Mark serves as the boundary between the public's mineral interests and the interests of the riparian owner.

The surface interests in the Wilkinson Tract were sold to the US Army Corps of Engineers in 1958 in anticipation of flooding resulting from the construction of Garrison Dam, and the mineral interests were explicitly retained. The ND Department of Trust Lands sponsored a study to identify the Ordinary High Water Mark along the Missouri River from the North Dakota/Montana border to a location downstream of US Highway 85 in 2010. That delineation process was based largely on current vegetative indicators as observed in the field at that time. Subsequently, the ND Department of Trust Lands sponsored another study in 2011 to identify the Ordinary High Water Mark of the Missouri River under Lake Sakakawea as it would have existed at the time the lake initially filled. The boundary as delineated by this second study was apparently intended to serve as the boundary between the public and private mineral interests as though the filling of Lake Sakakawea froze that boundary in time. The lineal extent of this second delineation extended upstream of US Highway 85 to include the area of the Wilkinson Tract. There is a significant overlap between the two studies, and the Wilkinson Tract is located within the overlap area.

Thus two separate delineations of the Ordinary High Water Mark (OHWM) have been completed for the area in question, using two distinctly different processes and yielding two distinctly different results. The ND Department of Trust Lands has asserted that the boundary delineated using the vegetative indicators observed in the field is a more applicable approximation of the boundary between the private and public interests in the area of the Wilkinson Tract, a subjective decision that maximizes the state's interests at the expense of the riparian owner, even though they had enough doubt in their own mind that they sponsored a second study that provided another delineation for this area. The state's position suggests that US Highway 85 is somehow the boundary between the applicability of using current vegetative indicators and the applicability of recognizing that Lake Sakakawea has artificially altered the vegetative markers in this reach to an extent that they are no longer indicative of the Ordinary High Water Mark of the Missouri River and are instead direct indicators of the effect of water levels in Lake Sakakawea.

Figure 1 illustrates the location of the property in question as well as the results of the two OHWM delineations. It also includes the river mile designations assigned by the US Army Corps of Engineers for this reach. The property in question is located between river mile 1554.0 and 1554.5.

History

The property in question is located in Sections 12 and 13, Township 153 North, Range 102 West, as illustrated in **Figure 1**. These lands were actively farmed by J.T. Wilkinson starting in the 1930's until he and Evelyn M. Wilkinson sold the surface interests to the United States of America in 1958, explicitly reserving the mineral interests. These lands, excluding the mineral interests, have since become part of the Trenton State Wildlife Management Area. Affidavits support the fact that, prior to the construction of Garrison Dam, the land was used extensively for agricultural purposes and was not subject to any frequent flooding from the Missouri River.

In 2006, the State Engineer developed Ordinary High Water Mark Delineation Guidelines (Reference 1).

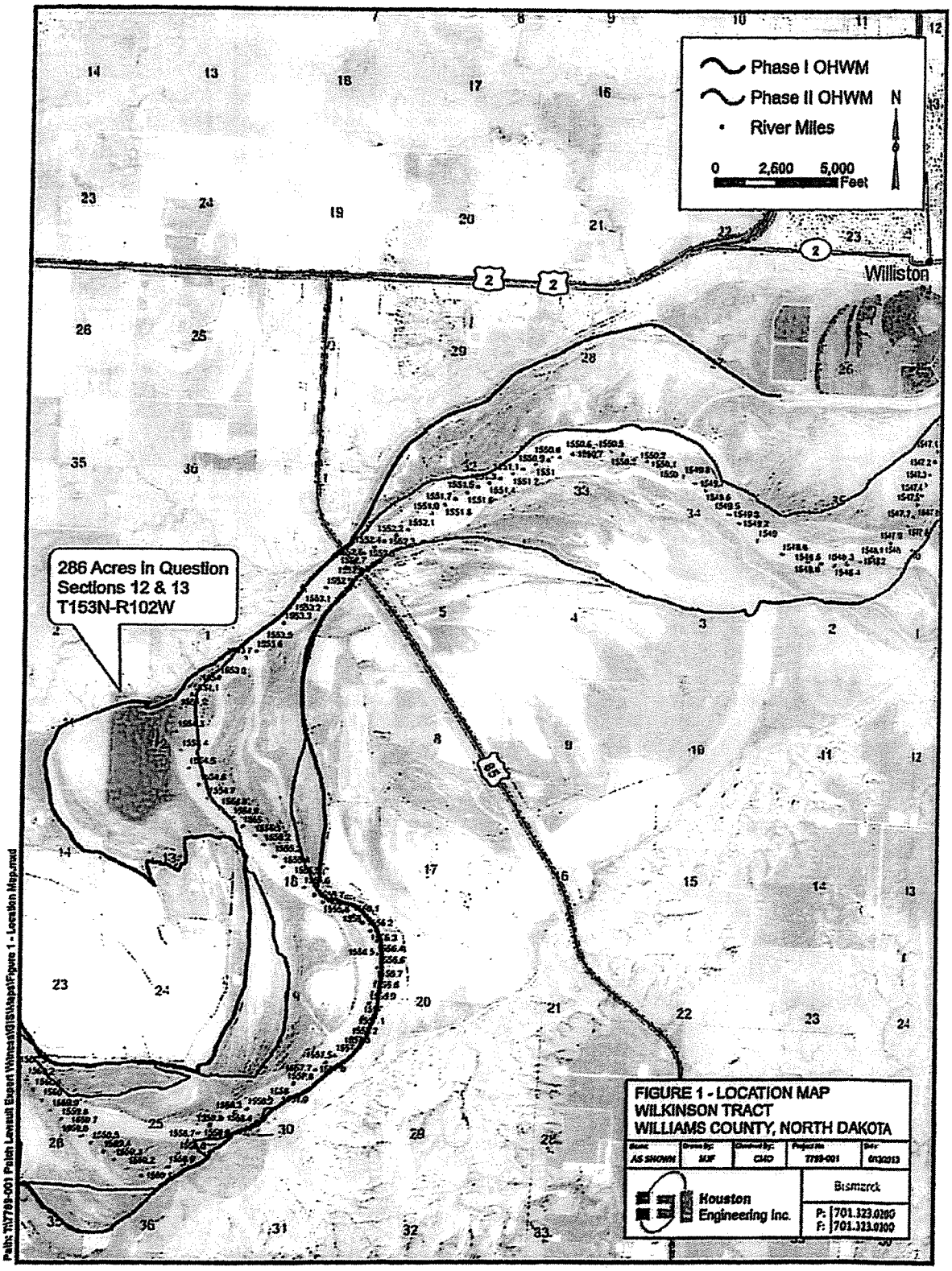
In 2008, the North Dakota Board of University and School Lands issued a Request for Proposals for delineation of the Ordinary High Water Mark along the Yellowstone and Missouri Rivers from the Montana/North Dakota border to River Mile Marker 1549.0, which is located approximately five to six miles downstream of the Highway 85 Bridge. This has become known as the Phase I study and was completed with a Technical Report dated November 2010 (Reference 2).

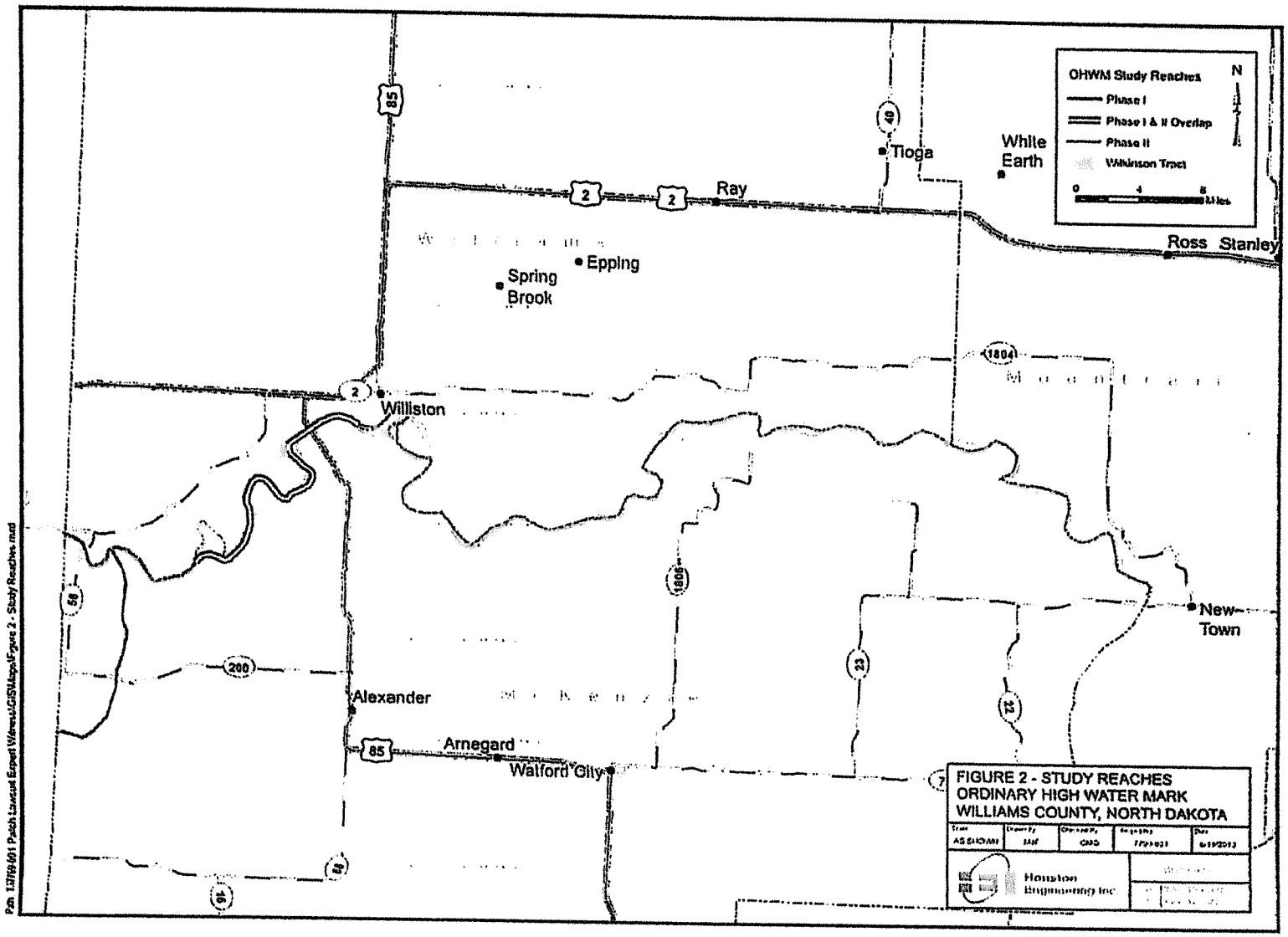
In 2009, the North Dakota Board of University and School Lands issued another Request for Proposals, this time for delineation of the Ordinary High Water Mark of the Missouri River Bed under Lake Sakakawea, specifically from mile marker 1482, at the approximate northern boundary of the Fort Berthold Reservation upstream to mile marker 1574.5. This study culminated with a Technical Report dated March 2011 (Reference 3). This resulted in a 25.5 river mile overlap between the two studies, and the Wilkinson estate is included in that overlap. This has been referred to as their Phase II study. The second RFP noted:

> Because the area to be delineated for the OHWM has been inundated or potentially inundated, the contractor may not rely on observations of the current location of the OHWM where it may be exposed in making the determination. Determination of the OHWM must be made using historical information and current technology to interpret this historic information.

The objective of the study contractor for both the Phase I and Phase II studies was to identify the OHWM. They were not charged with making any determinations as to ownership or shared interests. However, the State of North Dakota has subsequently refused to release their claim to the mineral interests for the property in the Wilkinson Tract found to be below the OHWM in the Phase I study, even though their own Phase II analysis contradicts the Phase I findings. They have asserted that US Highway 85 is the boundary between where the Phase I findings are an appropriate delineation of the boundary between the public and the riparian interests and where the Phase II findings are appropriately applied.

Figure 2 illustrates the Phase I and Phase II study reaches, their overlap, and the location of the Wilkinson property (Reference 2,3).


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,600 5,000 Feet
Williston
286 Acres in Question
Sections 12 & 13
T153N-R102W
FIGURE 1 - LOCATION MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMD
7789-001
6/13/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300
Paths:TH7789-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 1 - Location Map.mxd


OHWM Study Reaches
Phase I
Phase I & II Overlap
Phase II
Wilkinson Tract
N
0
4
8
Miles
Tioga
White Earth
Ray
Ross
Stanley
Epping
Spring Brook
Williston
New Town
Alexander
Arnegard
Watford City
85
49
2
1804
1806
58
200
23
22
16
FIGURE 2 - STUDY REACHES
ORDINARY HIGH WATER MARK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc

Ordinary High Water Mark Delineation

North Dakota Administrative Code Section 89-10-01-03 defines Ordinary High Water Mark as:

> That line below which the action of the water is frequent enough either to prevent the growth of vegetation or to restrict its growth to predominantly wetland species...

The North Dakota Supreme Court has defined Ordinary High Water Mark as:

> ....a water mark. It is co-ordinate with the limit of the bed of water, and that only is to be considered the bed which the water occupies sufficiently long and continuously to wrest it from vegetation, and destroy its value for agricultural purposes. In some places, however, where the banks are low and flat, the water does not impress on the soil any well-defined line of demarcation between the bed and the banks. In such cases the effect of the water upon vegetation must be the principal test in determining the location of high water mark as a line between the riparian owner and the public. It is the point up to which the presence of action of the water is so continuous as to destroy the value of the land for agricultural purposes by preventing the growth of vegetation, constituting what may be termed an ordinary agricultural crop.

The North Dakota State Engineer developed Ordinary High Water Mark Delineation Guidelines in 2006 (Reference 1). These guidelines established and defined a consistent approach for completing delineations in North Dakota taking into account North Dakota statutory and case law guidance as well as common scientific principles. These guidelines documented the importance of vegetative and soil indicators but also recognized the potential applicability of hydrology and an assessment of the suitability of the lands for agricultural purposes. These guidelines noted:

> A review of long term and recent hydrology may indicate whether physical indicators evident in the field are truly indicative of the ordinary high water mark or whether they reflect an extraordinary event.

The guidelines also recognized research completed by the State of Washington that suggested the Ordinary High Water Mark has been shown to be equivalent to the water surface elevation generally equivalent to a 1.0 to 1.75 year peak flow (Reference 4).

Point #1 The Wilkinson Tract was Above OHWM Prior to Construction of Garrison Dam

One important indicator of the Ordinary High Water Mark is whether or not the land is suitable for agricultural production. If the land is located below the OHWM, the frequency of inundation would destroy its suitability for agricultural production. There is an abundance of information clearly demonstrating that the Wilkinson property was used extensively for agricultural production up to the time the property was sold to the US Government in 1958. Affidavits provided by Lois Jean Patch, William Wilkinson and Vanessa Blaine all document the property's historic use for agricultural production and the fact that those familiar with the farming operation

throughout that period had no memory of the property being flooded by the Missouri River. Copies of these affidavits are included in **Appendix A.**

Figure 3 is 1958 aerial photography that includes the lands in question. The Wilkinson Tract has been identified on the photograph, and it is clear that the land was used for agricultural purposes in 1958. The field lines are readily apparent.

Figure 4 illustrates the topographical information available for the Wilkinson Tract. **Figure 5** is a distribution plot of the land surface elevation (NGVD 29) for the 286 acres in question in Sections 12 & 13, Township 153 North, Range 102 West. The distribution plot was developed from the 10-meter digital elevation model (DEM) created by the US Geological Survey (USGS) based on their 1:24,000 scale 7.5 minute quadrangle topographic maps. The lands in question fall into the Trenton, N. Dak. quadrangle, published in 1969 and the Williston SW, N. Dak. quadrangle published in 1979. The Trenton quad was created from 1968 aerial photography and 1969 plane-table surveys and the Williston SW quad was created from topography and photometric methods from aerial photographs taken in 1973 and 1977.

Less than 10% of the property within the Wilkinson Tract is below an elevation of 1849.5 (NGVD 29) with a majority of the property at an elevation of approximately 1850.0. In 1993 the US Army Corps of Engineers published a Reconnaissance Report (Reference 5) which included water surface profiles for various events throughout the headwaters of Lake Sakakawea including a plot of pre-dam water surface elevations which has been reproduced in **Figure 6.** With pre-dam conditions, the streambed is shown to be at an elevation of 1824.0 (NGVD 29), and the 10-year peak flow water surface elevation is shown to be about 1850.0 (NGVD 29) at river mile 1854.0 which is adjacent to the Wilkinson Tract. Thus, before the construction of Garrison Dam, it took approximately a 10-year event to flood the formerly cultivated portions of the Wilkinson Tract. Research completed by the State of Washington has shown that the OHWM is typically equivalent to approximately a 1.75 year peak, which is much less than a 10-year peak (Reference 4).

Figure 7 illustrates the annual peak water surface elevations for the Missouri River Near Williston Gage for the period of 1928 through 1965. This gage is located at the Highway 85 bridge at river mile 1552.7, approximately 1.3 miles downstream of the Wilkinson Tract. Based on this record, the water surface elevation only exceeded 1850.0 (NGVD 29) on one occasion in 1959 throughout this 37 year period of record.

Point #1 Summary

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD 29) and historic stage records show that the Missouri River only reached that level at this location on a very infrequent basis, actually only once in 37 years of record.

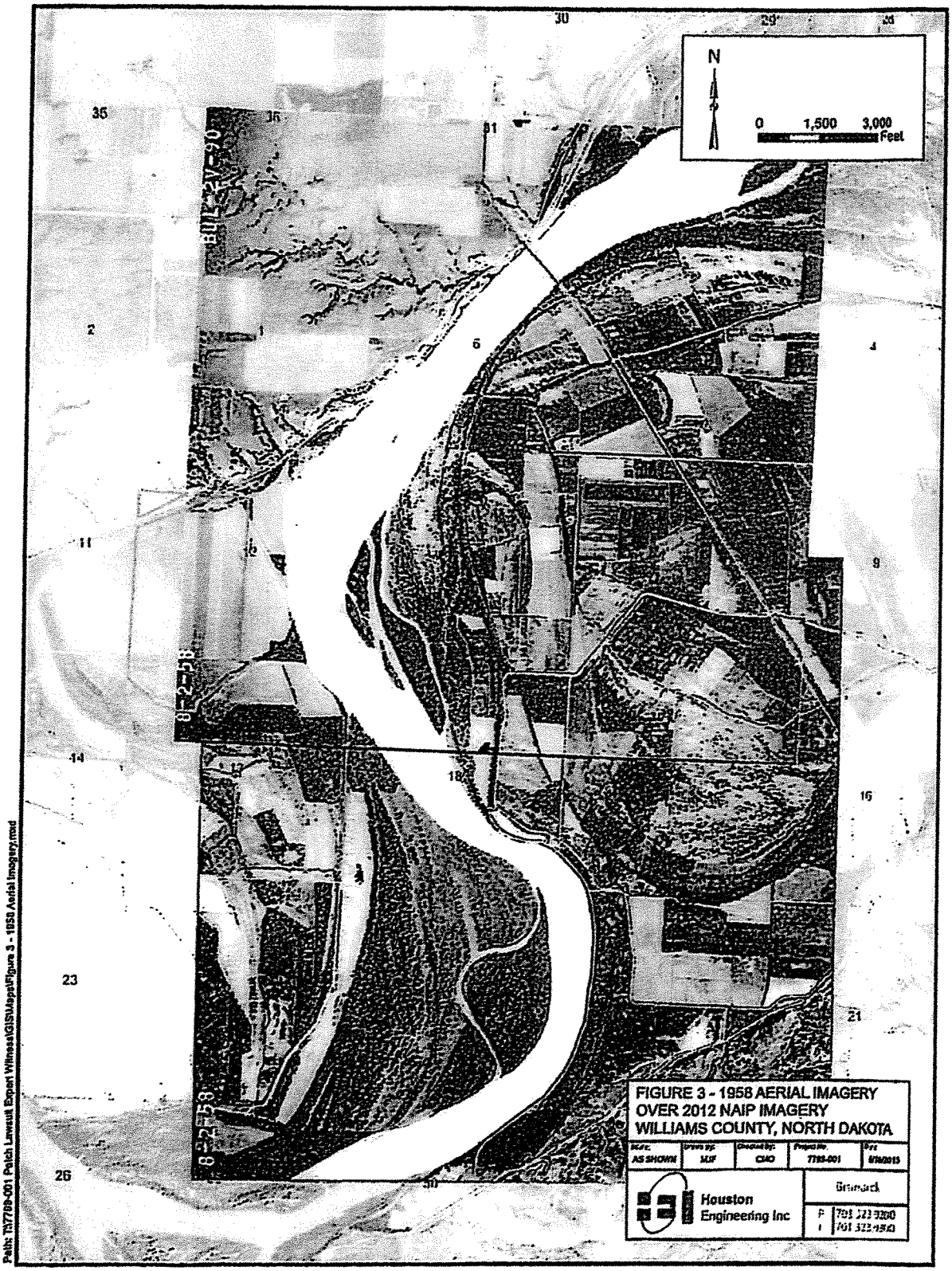


FIGURE 3 - 1958 AERIAL IMAGERY
OVER 2012 NAIP IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA

Scale:	Drawn By:	Checked By:	Project No:	Date:
AS SHOWN	MJF	CMO	7789-001	6/16/2015

Houston Engineering Inc

Bismarck

P 701 323 9200
F 701 323 9240

Path: N:\7789-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 3 - 1958 Aerial Imagery.mxd

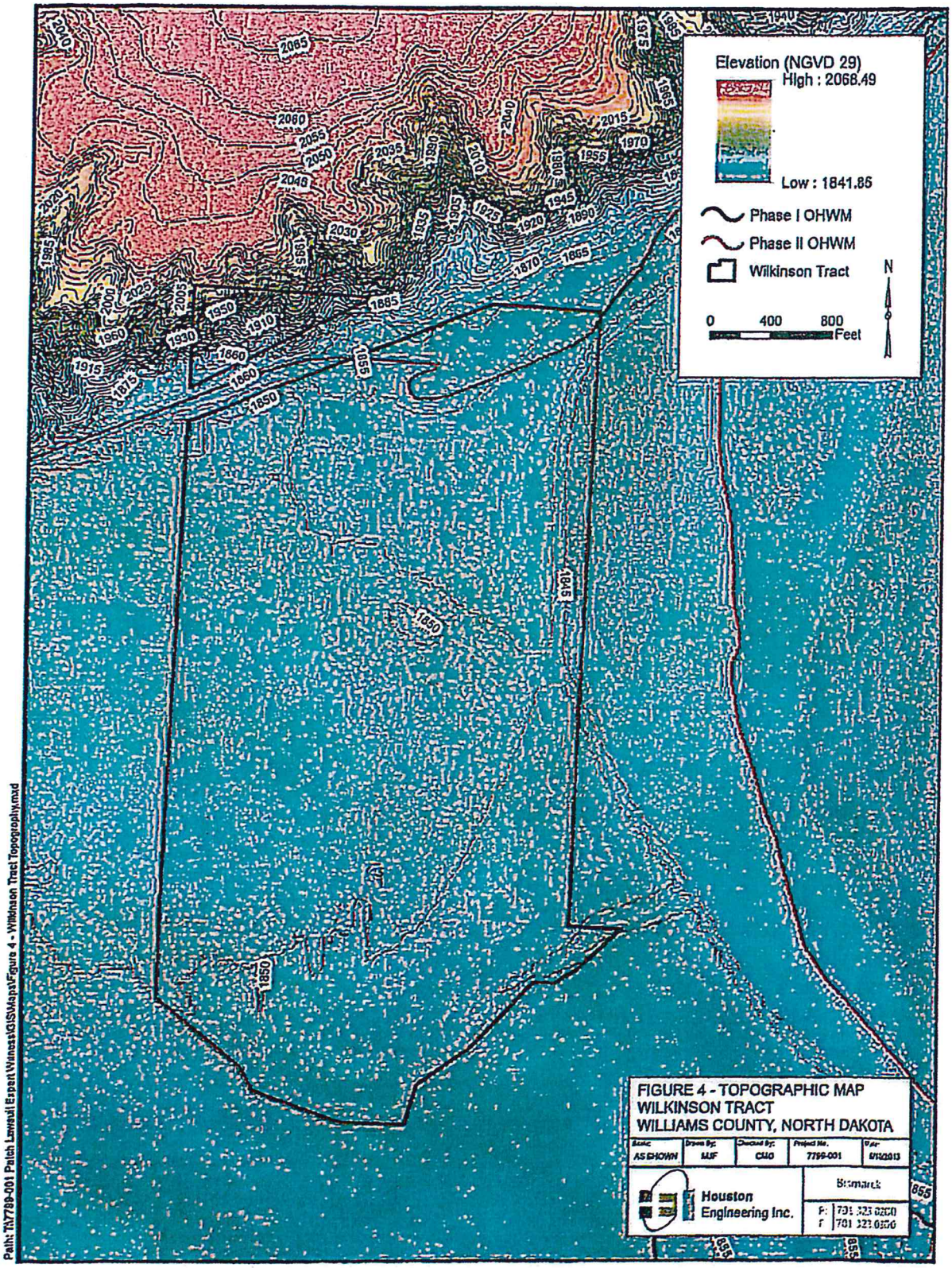

Elevation (NGVD 29)
High : 2068.49
Low : 1841.86
Phase I OHWM
Phase II OHWM
Wilkinson Tract
N
0
400
800
Feet
FIGURE 4 - TOPOGRAPHIC MAP
WILKINSON TRACT
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
6/5/2013
Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0530
Path: T:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 4 - Wilkinson Tract Topography.mxd

FIGURE 5
DISTRIBUTION PLOT OF LAND SURFACE ELEVATION (NGVD 29)
OF THE 286 ACRES IN QUESTION
LOCATED IN SECTIONS 12 & 13, 153-102

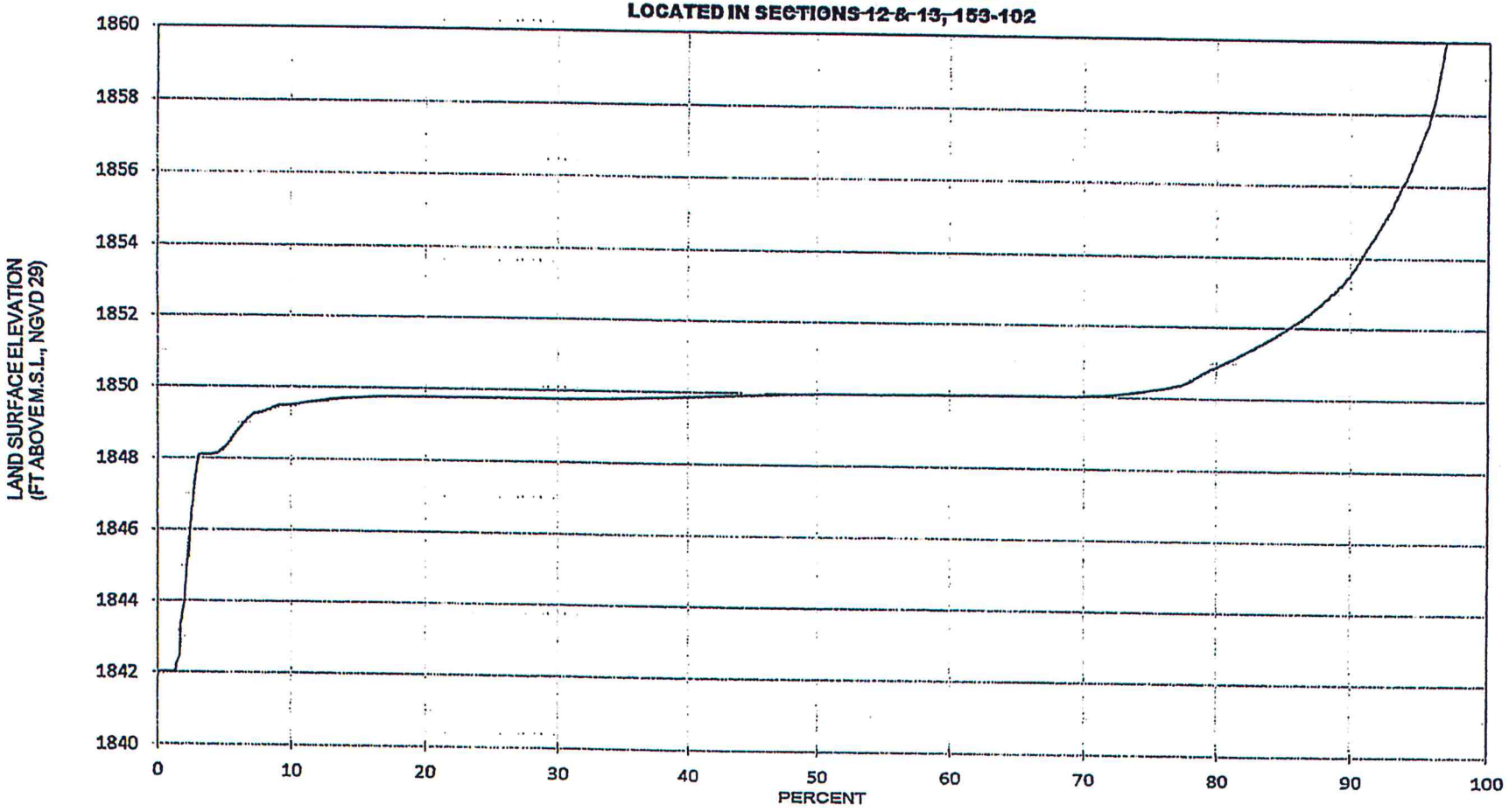


FIGURE 6

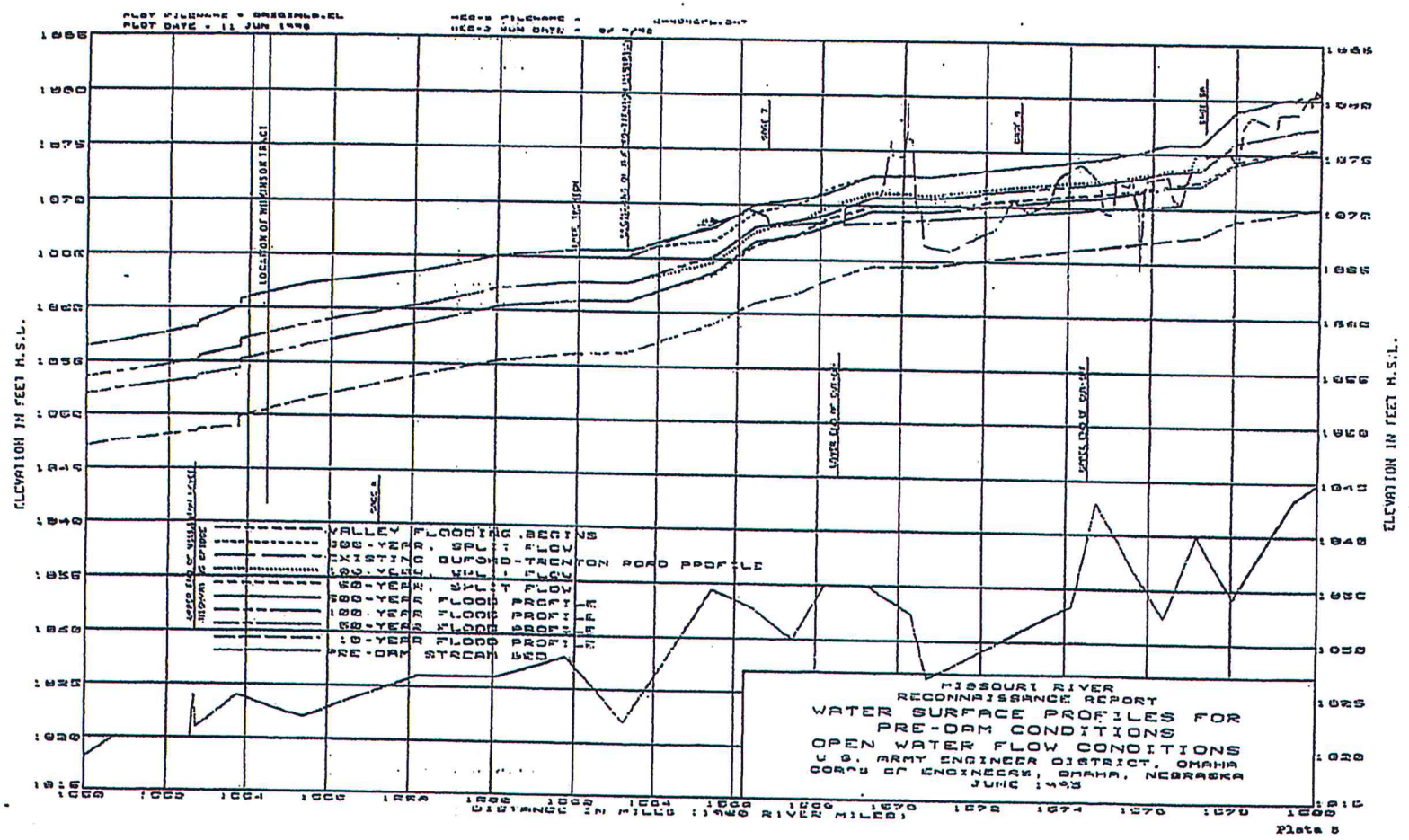
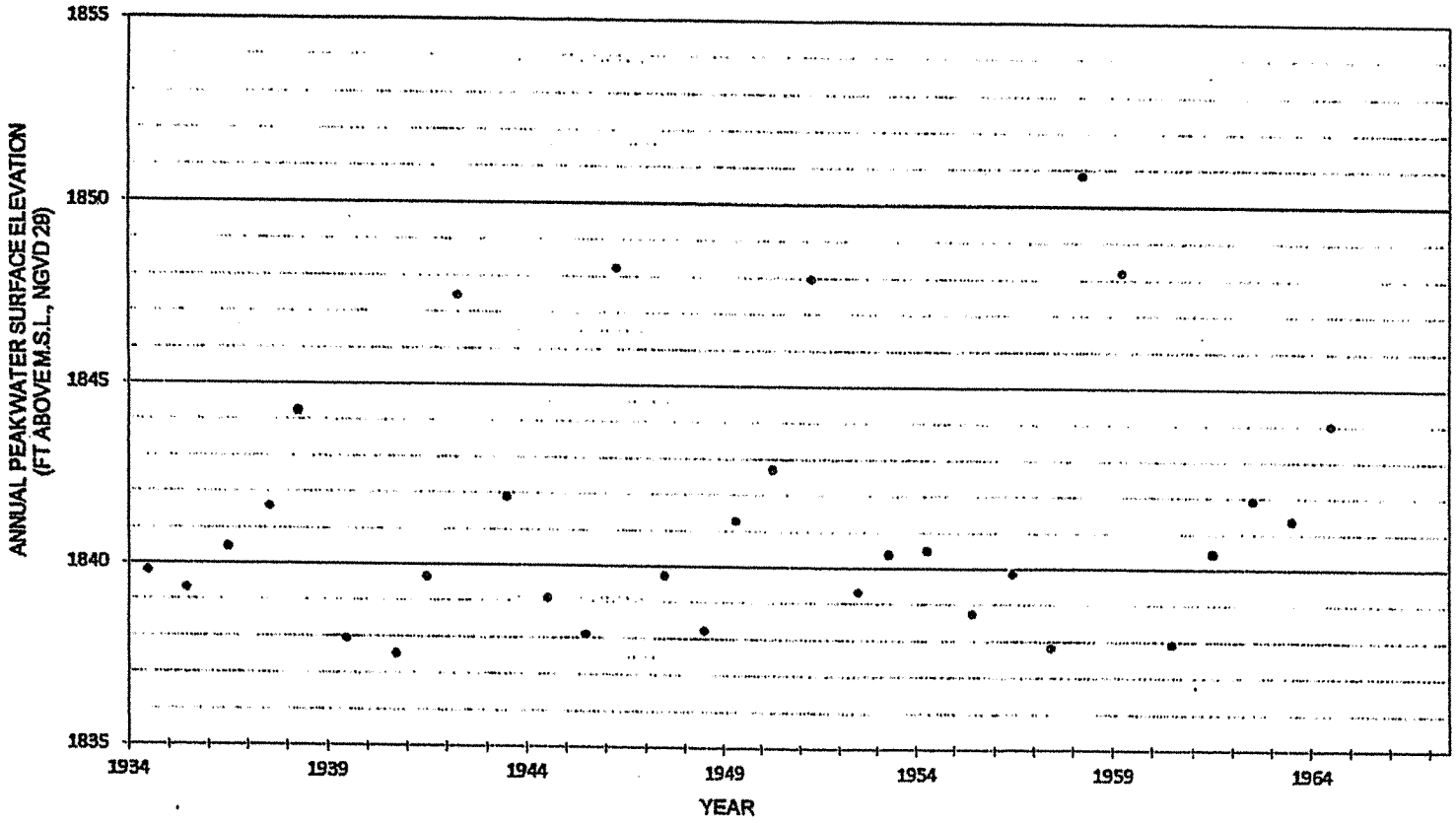

MISSOURI RIVER
RECONNAISSANCE REPORT
WATER SURFACE PROFILES FOR
PRE-DAM CONDITIONS
OPEN WATER FLOW CONDITIONS
U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA
JUNE 1963
ELEVATION IN FEET M.S.L.
DISTANCE IN MILES (1960 RIVER MILES)
Plate 5

FIGURE 7
PRE-GARRISION DAM PEAK GAGE HEIGHTS



Point #2 Garrison Dam/Lake Sakakawea Directly Affects Property

The fact that the US Government chose to purchase this property as part of the Garrison Dam and Reservoir project, as evidenced in the Certificate of Inspection and Possession (Appendix B), is an indication of the US Government's acknowledgment that the construction of Garrison Dam would increase the frequency with which this property is flooded.

Garrison Dam was designed and constructed with the following target pool elevations (NGVD 29):

Maximum Operating Pool:	1854.0
Maximum Normal Pool	1850.0
Base Flood Control	1837.5
Minimum Operating Pool	1775.0

As noted in **Figure 5**, more than 80% of the Wilkinson Tract is situated below an elevation of 1851.0 (NGVD 29), and approximately 70% is at or below an elevation of 1850.0. **Figure 8** is a reproduction of monthly reservoir levels for Garrison Dam/Lake Sakakawea with those readings above elevation 1850.0 highlighted (Reference 6). Since 1967, the reservoir has exceeded an elevation of 1850.0 six years out of 45 years of record. This is a significant increase in frequency with which a majority of the Wilkinson Tract is flooded compared to the one occurrence that occurred in 37 years of record prior to the construction of Garrison Dam.

The US Army Corps of Engineers Master Manual for Garrison Dam (Reference 7) projects a 20% chance of the reservoir pool exceeding an elevation of 1850.0 in any one year which correlates to a 5-year recurrence interval.

Figure 9 illustrates the location of the Wilkinson Tract along with the area that would be inundated with a pool elevation of 1854.0. Clearly, most of the property is within the operational pool of Lake Sakakawea with more than 90% of the tract being situated below the full pool elevation of 1854.0.

Figures 10, 11, and 12 illustrate the Wilkinson Tract in aerial imagery collected during high reservoir levels in 1975, 1997, and 2011. These figures again show that the Wilkinson Tract is located within the pool of Lake Sakakawea.

The direct inundation associated with being located within the operating pool of Lake Sakakawea is not the only impact resulting from the construction of Garrison Dam. When the water level in Lake Sakakawea is just below 1850.0, most of the land in the Wilkinson Tract would not be directly flooded by the static pool elevation. However, the pool elevation will alter the hydraulics of the Missouri River in this headwater area resulting in a higher water surface elevation for a given rate of discharge. Thus, even when the level of water in Lake Sakakawea is lower than 1850.0, it could still contribute to the inundation of the Wilkinson Tract.

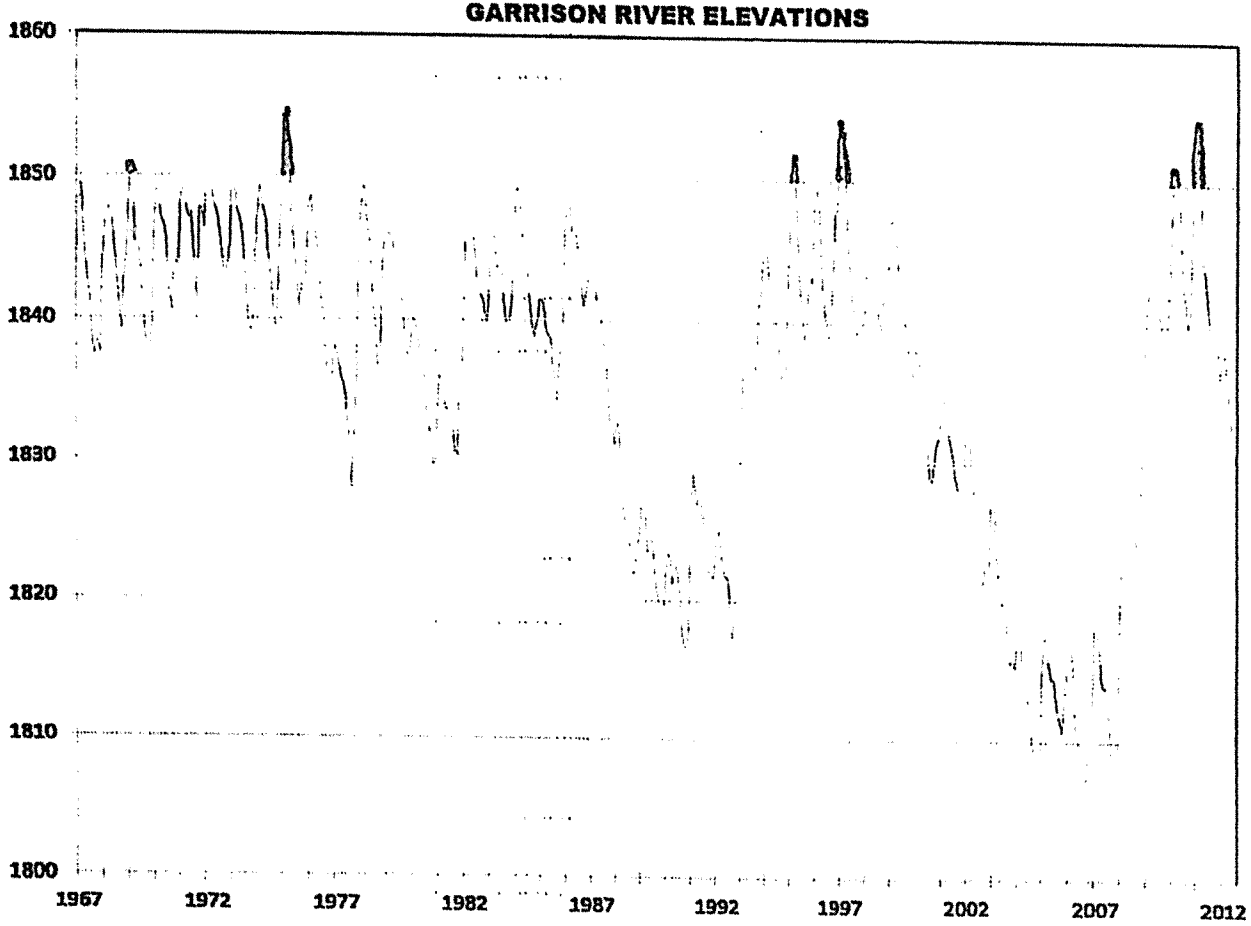
In addition to this hydraulic impact resulting from high reservoir levels, the development of a depositional delta in this location is well documented. **Figure 13** is a reproduction of a plate from the USACE Reconnaissance Report (Reference 5) documenting the increase in stage for a given discharge over time. Gage 8 is located approximately three miles upstream of Section 12. The stage associated with a 10,000 cfs flow increased by more than 10 feet from 1960 to 1979.

All post-1953 maps published by the USGS, US Army Corps of Engineers, and the US Bureau of Reclamation identify the area of the Wilkinson Tract as being "Subject to controlled inundation".

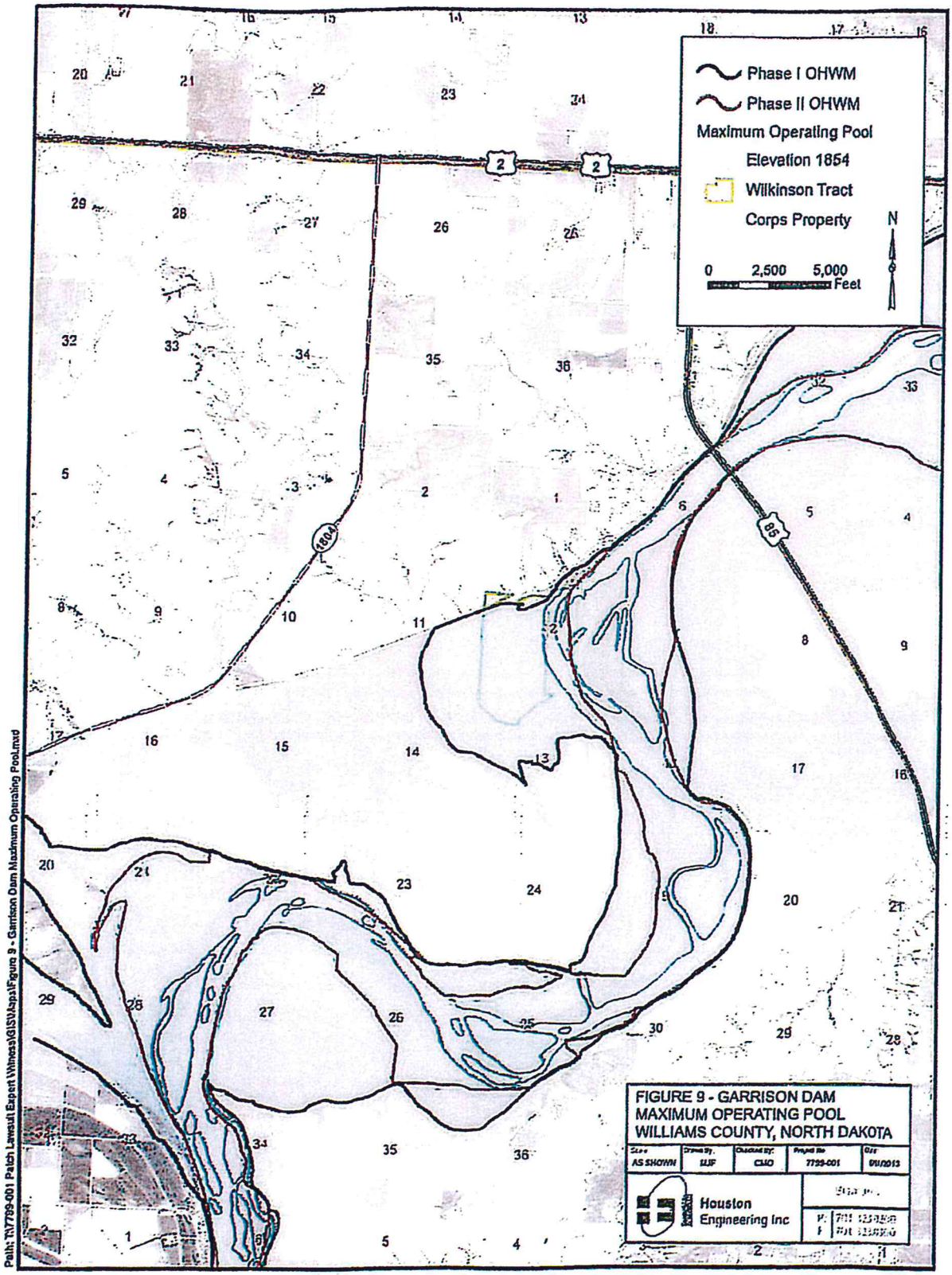
Point #2 Summary

The Wilkinson Tract is located within the pool of Lake Sakakawea and the frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. Aerial imagery illustrates the property's inundation from Lake Sakakawea.

FIGURE 8
GARRISON RIVER ELEVATIONS



*End of Month - Midnight Observations


Phase I OHWM
Phase II OHWM
Maximum Operating Pool Elevation 1854
Wilkinson Tract
Corps Property
N
0 2,500 5,000 Feet
2
1804
85
FIGURE 9 - GARRISON DAM
MAXIMUM OPERATING POOL
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
ELF
CMO
7799-001
09/2013
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 9 - Garrison Dam Maximum Operating Pool.mxd

N
0 2,000 4,000
Feet
FIGURE 10 - 1975 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Scale: AS SHOWN
Drawn By: MJF
Checked By: CMO
Project No: 7799-001
Date: 6/11/2015
Houston Engineering Inc
Bismarck
P 701 323-0405
F 701 323-0540
Path: N:\7799-001 Petch Lowell Export Wilnes\GIS\Maps\Figure 10 - 1975 Aerial Imagery.mxd

N
0 2,000 4,000
Feet
21
25
30
32
6
1
25
35
36
3
27
FIGURE 11 - 1997 AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
AS SHOWN
MJF
CMO
7799-001
Houston Engineering Inc.
Path: T:\7799-001 Patch Lawsuit Expert Witness\GIS\Mxd\Figure 11 - 1997 Aerial Imagery.mxd

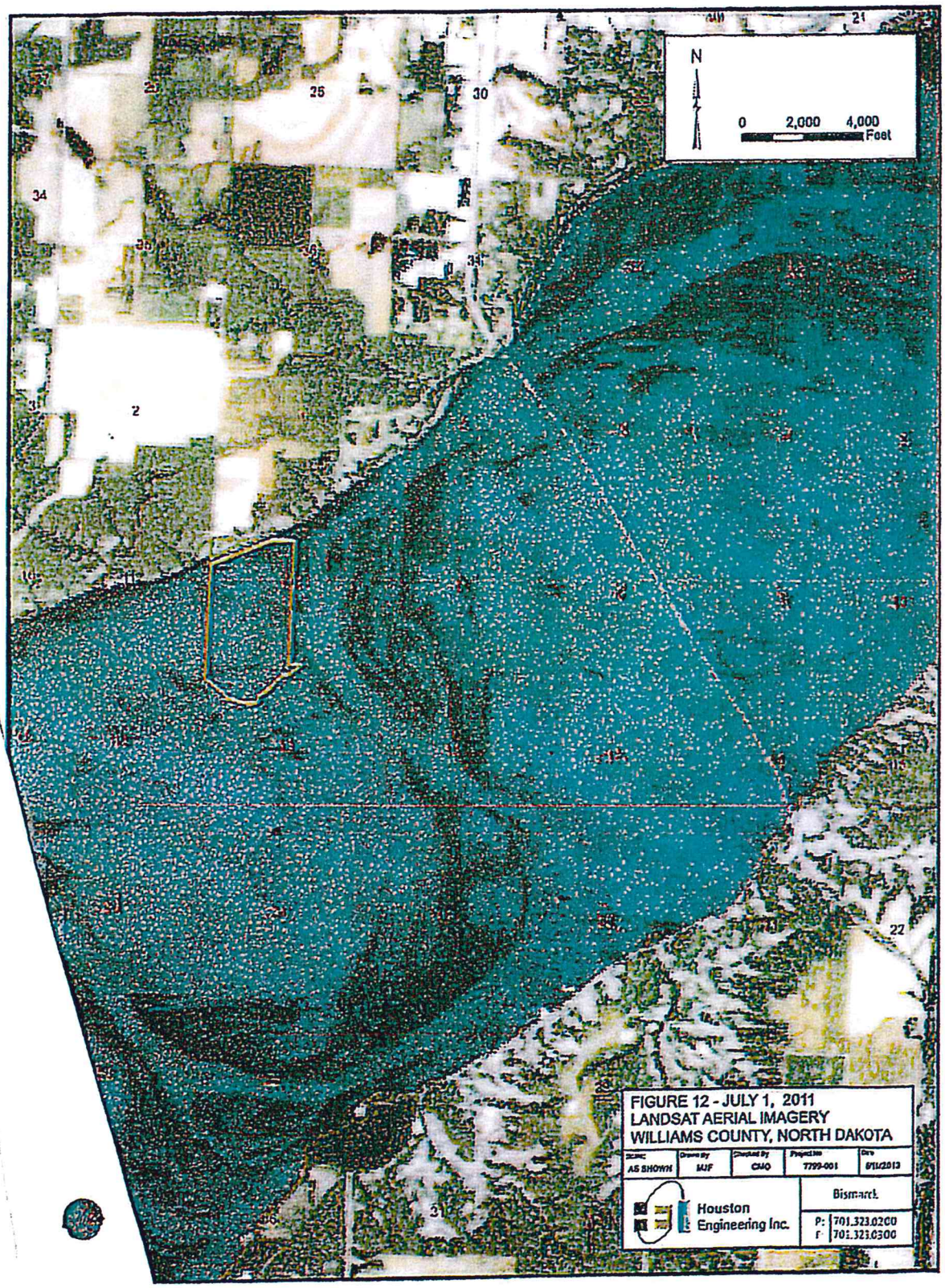
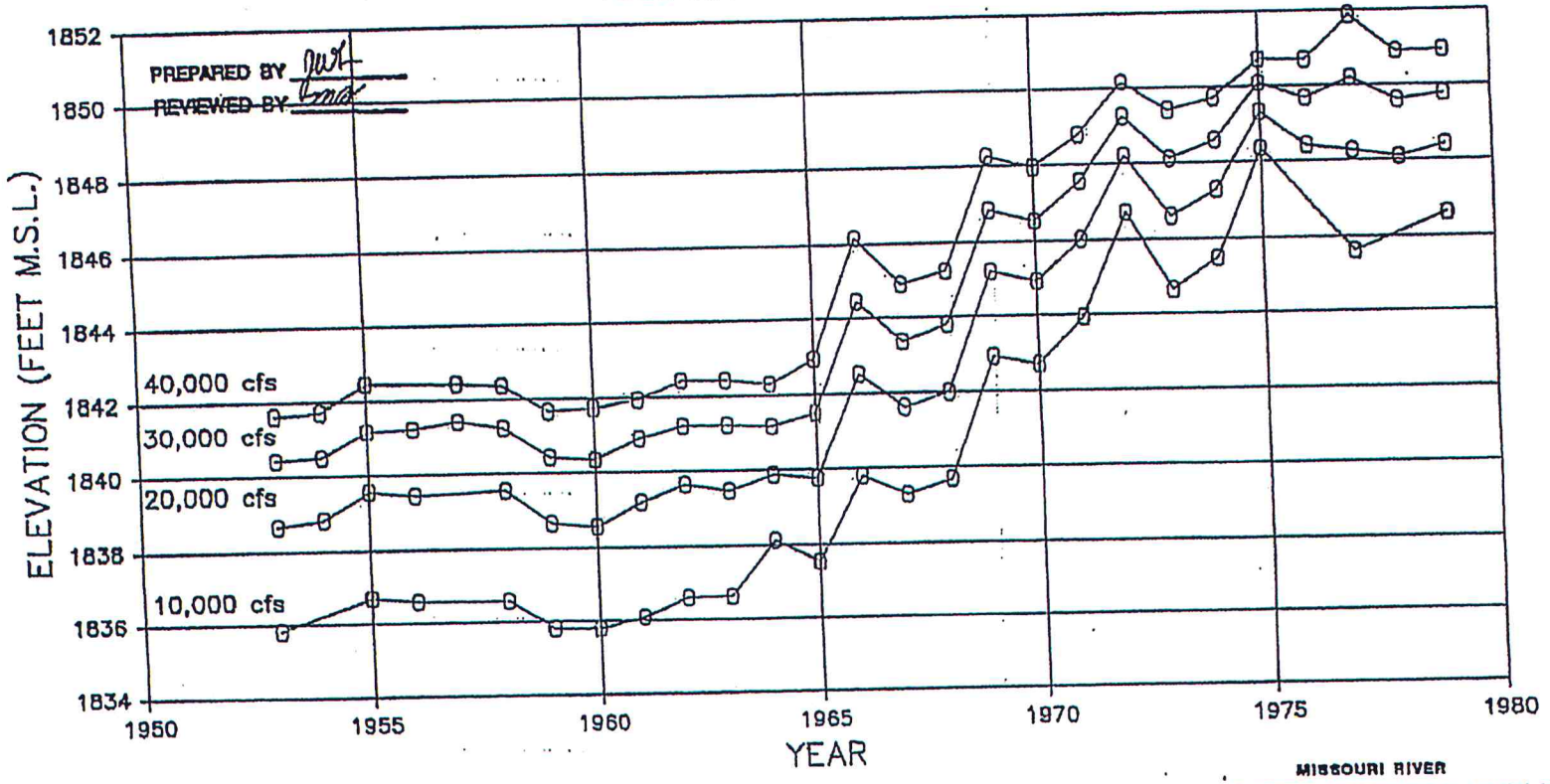

N
0 2,000 4,000
Feet
FIGURE 12 - JULY 1, 2011
LANDSAT AERIAL IMAGERY
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc.
Bismarck

FIGURE 13

MISSOURI RIVER
GAGE 8
1960 RIVER MILE 1557.2



MISSOURI RIVER
LAKE SAKAKAWEA HEADWATER/MISSOURI RIVER
RECONNAISSANCE REPORT

Stage Trends - Gage 8

U.S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS, OMAHA, NEBRASKA

PLATE 12

Point #3 Use of Highway 85 as Dividing Line is Arbitrary

The State of North Dakota has apparently taken the position that the OHWM delineation based on vegetative indicators observed in the field (Phase I) is appropriate to define the boundary between the riparian and public interests upstream of the Highway 85 bridge. At the same time, the State decided to use historical records to ascertain the apparent OHWM as it existed prior to the construction of Garrison Dam accepting it as an appropriate indicator of the boundary between the riparian and public interests downstream of the Highway 85 bridge (Phase II). This is an arbitrary line of demarcation that has no scientific basis.

There are no water control structures located at the Highway 85 crossing. The crossing does not limit the impacts of the reservoir upstream of the highway. The pre-dam streambed elevation at the crossing was approximately 1823.0 (NGVD 29). Thus any time the reservoir exceeds that water surface elevation, it is impounding water upstream of the bridge. This occurs more than 95% of the time. **Figure 9** illustrates the extent to which Garrison Dam is capable of inundating properties upstream of the Highway 85 Bridge simply by storing water up to its maximum operation pool elevation of 1854.0.

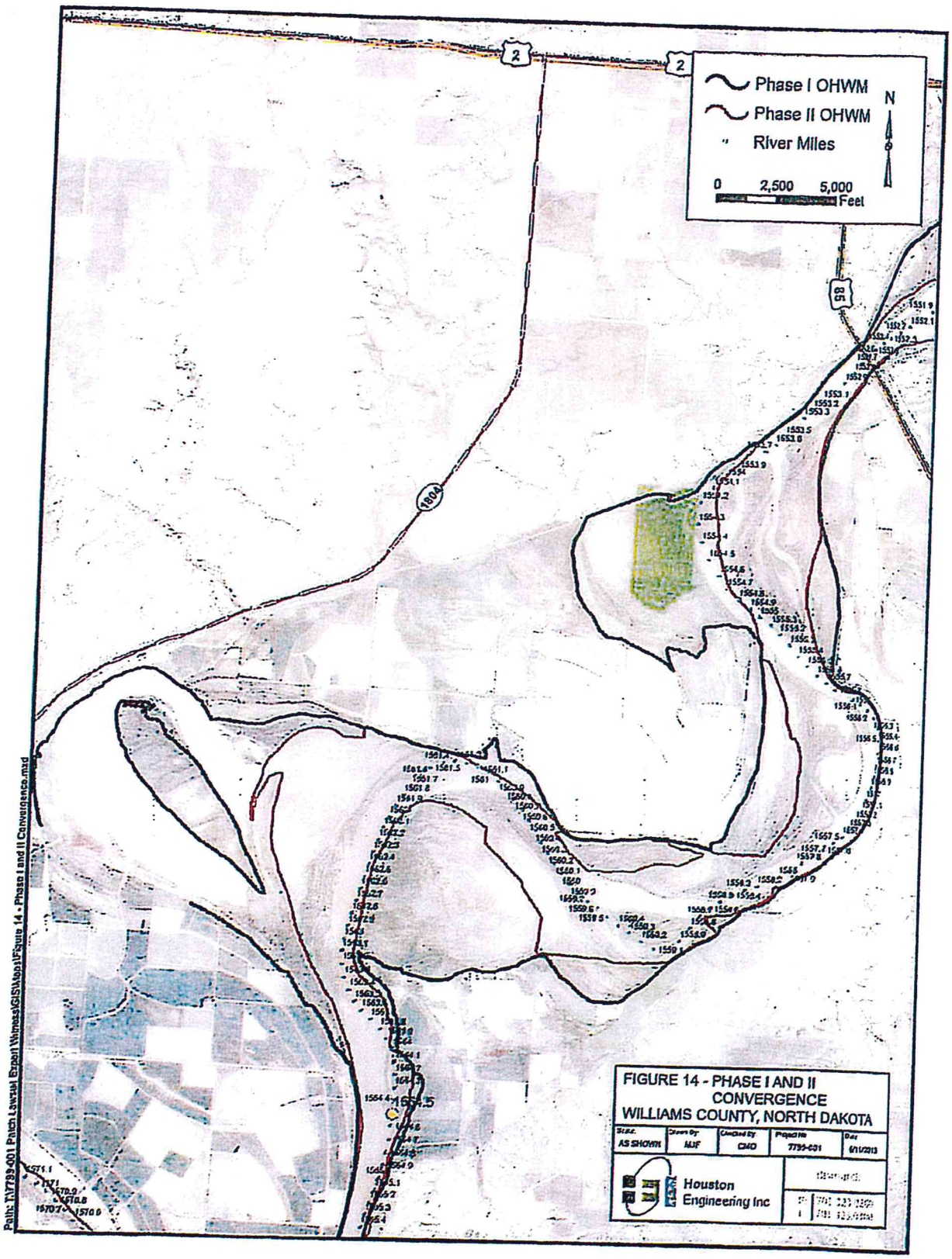
The fact that the ND Board of Trust Lands opted to delineate this area using two different methods suggest their own uncertainty as to the applicability of the Phase I results for this area.

The fact that the Wilkinson Tract was suitable for agricultural purposes before the construction of Garrison Dam is well documented and is discussed as Point #1 of this report. Prior to the construction of Garrison Dam, the property in question was part of the East Bottom of the Fort Buford-Trenton Irrigation District. In 1958 the Corps of Engineers purchased this East Bottom for the project even though it is upstream of the Highway 85 bridge. Thus the impacts of the project have always been anticipated to extend upstream of the Highway 85 Bridge.

It is interesting to note that the results obtained from the Phase I and Phase II delineations do tend to converge in the area of river mile 1564.5, as illustrated in **Figure 14**. This convergence can be expected to occur once the impacts of periodic inundation from Lake Sakakawea are no longer present. Interestingly enough, the 1993 Reconnaissance Report indicates that prior to the construction of Garrison Dam, the valley in this reach would begin to flood with a water surface elevation of 1857 (NDVD 29), so this area is just beyond the upper extent of the influence of Lake Sakakawea.

Point #3 Summary

The use of Highway 85 as the upstream limit of the reservoir is arbitrary and has no scientific basis. Lake Sakakawea extends west of the bridge including the Wilkinson Tract. The OHWM as delineated using the historic aerial imagery in the Phase II Study is more appropriate indication of the boundary between the riparian and the public rests in the area of the Wilkinson Tract.


Phase I OHWM
Phase II OHWM
River Miles
N
0 2,500 5,000
Feet
2
2
83
1804
FIGURE 14 - PHASE I AND II CONVERGENCE
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: N:\7799-001 Patch Lawsuit Expert Witness\GIS\Mxds\Figure 14 - Phase I and II Convergence.mxd

Point #4 Phase I OWHM Delineation Failed to Adequately Account for Hydrology

Missouri River Mainstream Hydrology

The methodology detailed in the *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone and Missouri River in Western North Dakota* (Reference 2) included the use of statistical hydrology as a guide and a frame of reference for the vegetative indicators observed in the field. The authors noted that the OHWM is typically between the "high average daily flow" and the peak but closer to the high average daily flow. For the Missouri River at Williston Gage, they estimated the high average daily stage to be 1849.6 (NGVD 29) and the peak stage to be 1856.1 (NGVD 29). They noted that the OHWM at the gage was determined to be between 1850.3 and 1851.3. So they noted that the OHWM as delineated was between the high average daily flow and the peak but much closer to the high average daily flow, thus confirming the reasonableness of their result. Yet upstream only 1.5 miles near the Wilkinson Tract, they found the OHWM along the left bank (looking downstream) to be as high as 1855.0 (NGVD 29). With a general slope of 0.6 feet per mile, taken from the profile included in their report (20 feet over 33 river miles), one would expect the OHWM at the Wilkinson Tract to be between 1850.9 and 1851.9 (NGVD 29).

One would also expect the elevation of the OHWM delineated on the right bank (looking downstream) to generally correspond to the elevation of the OHWM delineated on the left bank. However, in the area of the Wilkinson Tract, the elevation of the OHWM delineation is much higher than that found on the right bank, 1855 vs 1850. The fact that the OHWM delineation is much higher in elevation than that found on the right bank and much higher than the statistical hydrology would suggest for this area is because there are several other factors that influence the vegetative indicators and should have been considered for this location. These include the effect of Lake Sakakawea water levels, the local ground water gradient, and the fact that Painted Woods Creek discharges to the Missouri River at this location.

The degree to which Garrison Dam and Lake Sakakawea impact the area in question is discussed in greater detail under the discussion of Point #2. The vegetative indicators noted in the field should have been considered in their overall context which includes the effects of inundation from Lake Sakakawea. Because this area is within the pool of Lake Sakakawea and is subject to periodic flooding by Lake Sakakawea, those vegetative indicators are no longer directly and solely indicative of the Missouri River when it is normally high.

Ground Water Levels

There is one observation well in the Trenton East Bottom in Section 16, Township 153 North, Range 102 West, about 4 miles from the Wilkinson Tract. The observed water levels are plotted in **Figure 15**. The record from this well clearly illustrates the fact that local ground water levels in the East Bottom have been rising since Garrison Dam was first constructed in 1953 and first filled in 1965. Water levels have risen 6 to 8 feet in this area due to the filling of Lake Sakakawea and the resulting reduction in ground water gradient toward the Missouri River. This phenomenon was noted in the 1993 USACE Reconnaissance Report (Reference 5):

> In addition to the impacts on crop production, the ground water has caused obvious, serious impacts to farmer's residences. During the late 1960's and early 1970's, the rising ground water resulted in numerous flooded basements. Many of the residents have installed sump pumps in their basements or pervious drains around their houses, and at least two families have had to abandon their homes.

The filling of Lake Sakakawea, created by Garrison Dam on the Missouri River, has resulted in the formation of a delta at the headwaters of the reservoir. The resulting aggradation of the Missouri River channel has reduced the former groundwater gradient to the river and restricted the natural drainage from the area.

These raising ground water levels, which have commonly risen to ground surface, will greatly impact the vegetation occurring in this area. The wetland vegetation that results from these ground water levels is not indicative of the OHWM of the Missouri River.

Painted Woods Creek Influences

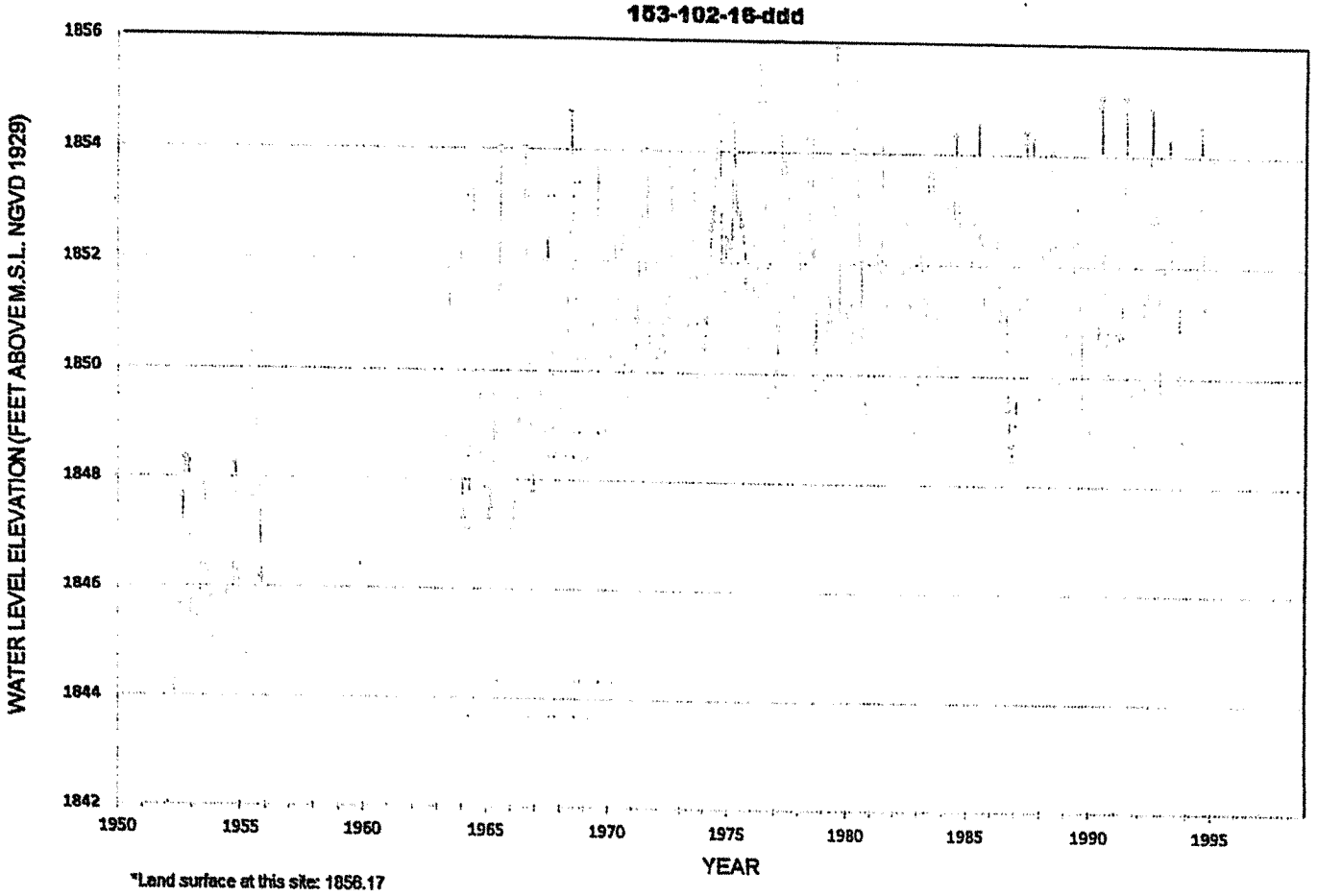
Another factor that influences the vegetative indicators in the area of the Wilkinson Tract is the fact that Painted Woods Creek discharges to the Missouri River just south of the property. Painted Woods Creek has a drainage area of 95 square miles. It's alignment, in relation to the Wilkinson Tract, is illustrated in **Figure 16**. As illustrated in **Figure 17**, the gradient of this tributary flattens significantly when the creek crosses the flats of the Missouri River Valley. This sharp reduction in gradient would increase the likelihood of overbank flooding during significant flow events on Painted Woods Creek. This overbank flooding from the tributary will also influence vegetation in this area, and there is no record of this having been considered during the Phase I delineation. The riparian owner holds all interests in the bed of non-navigable streams, like Painted Woods Creek, and the public's interest in the bed of the Missouri River does not extend up its non-navigable tributaries.

Point #4 Summary

The Phase I OHWM Delineation for this area was based largely on the vegetative indicators noted in the field without taking into account the other factors that influenced those vegetative transitions. Those other factors include the influence of the periodic inundation of this area by Lake Sakakawea, the influence of a well-documented rise in ground water levels in the area, and the influence of periodic flooding from Painted Woods Creek.

The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank, using vegetative indicators observed in the field in the area of the Wilkinson Tract, were largely influenced by the local ground water and by Painted Woods Creek.

FIGURE 15
OBSERVATION WELL HYDROGRAPH
153-102-16-ddd



*Land surface at this site: 1856.17

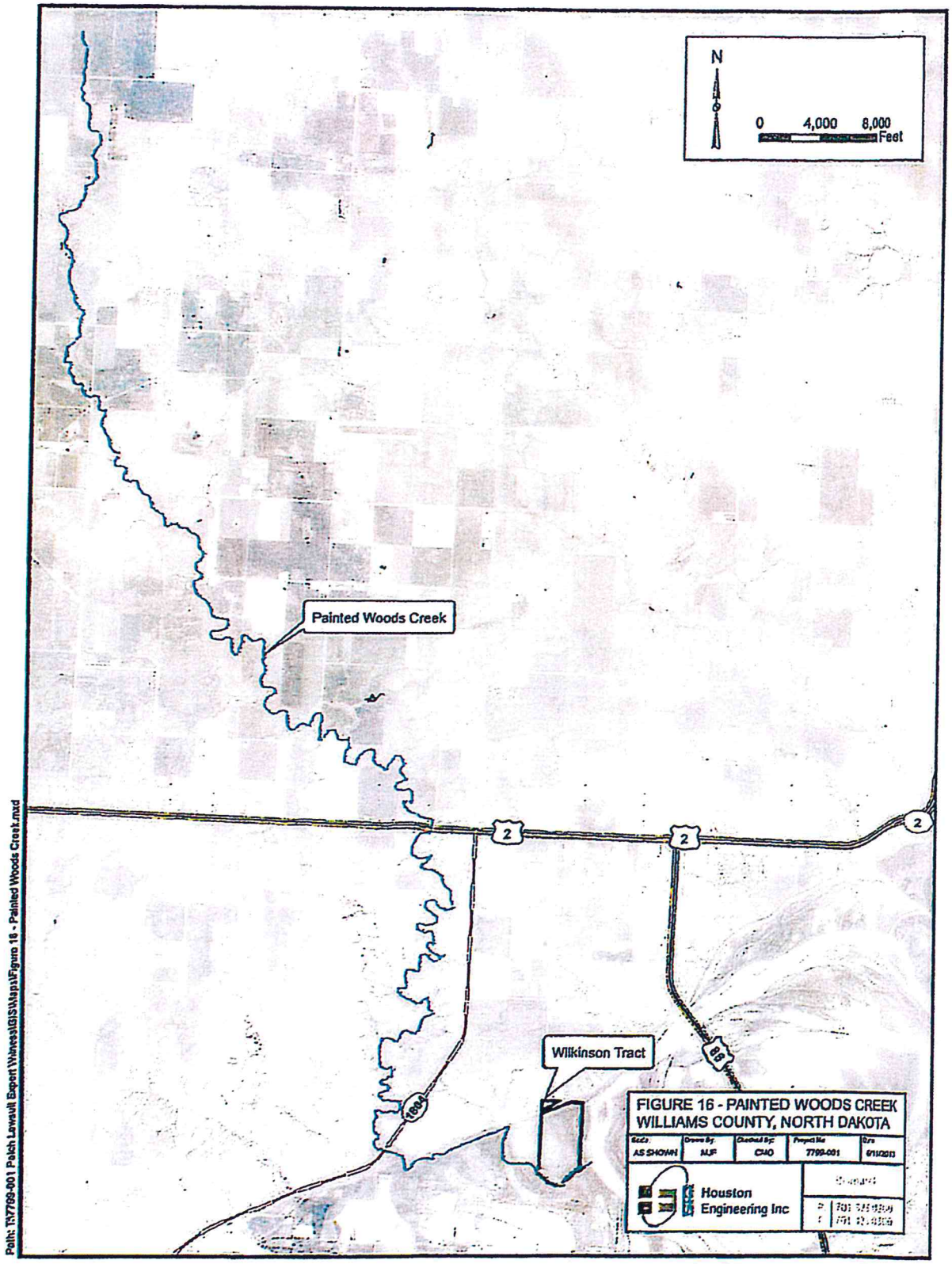
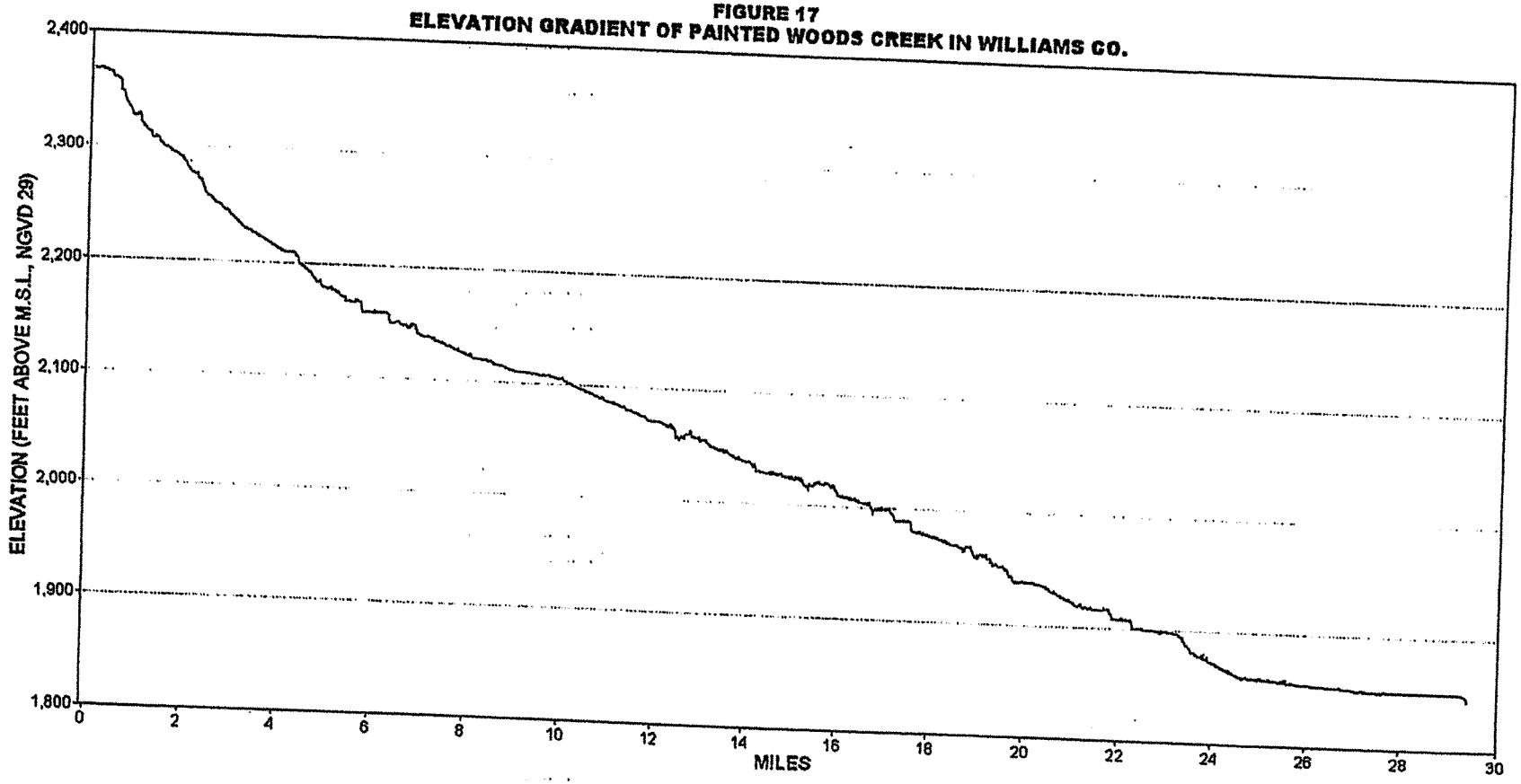

N
0 4,000 8,000
Feet
Painted Woods Creek
2
2
2
1804
68
Wilkinson Tract
FIGURE 16 - PAINTED WOODS CREEK
WILLIAMS COUNTY, NORTH DAKOTA
Houston Engineering Inc
Path: I:\7709-001 Patch Lawsuit Expert Witness\GIS\Maps\Figure 16 - Painted Woods Creek.mxd

FIGURE 17
ELEVATION GRADIENT OF PAINTED WOODS CREEK IN WILLIAMS CO.



Summary and Conclusions

A review of the available data strongly supports the position that the boundary between the riparian and the public's interests along the Missouri River in the area of Sections 12 & 13, Township 153 North, Range 102 West lies along the line delineated as the OHWM in the Phase II study.

The majority of the Wilkinson Tract was clearly above the OHWM before the construction of Garrison Dam. The affidavits and aerial imagery clearly show that the land was used for typical agricultural production. Most of the tract is at an elevation of approximately 1850.0 (NGVD29), and historic stage records show that the Missouri River only reached that level on a very infrequent basis, actually only once in the 37 years of record prior to the construction of Garrison Dam.

The Wilkinson Tract is located within the pool of Lake Sakakawea as evidenced by the fact that the USACE purchased the property as part of the Garrison Dam Project. The frequency with which the property is flooded has increased significantly since the construction of Garrison Dam. The pool of Lake Sakakawea has exceeded an elevation of 1850.0 (NGVD29) six years in 45 years of records. Aerial imagery from high water years 1975, 1997, and 2011 clearly show that the property is directly inundated by Lake Sakakawea.

Because it is clearly shown that the Wilkinson Tract, located upstream of the Highway 85 crossing, is a part of the bed of Lake Sakakawea, the use of Highway 85 as a line of demarcation between the applicability of the Phase I study results and the Phase II study results is arbitrary and has no scientific basis. Because this area is subject to direct inundation by Lake Sakakawea, it is in fact part of the lakebed, and the approach used to delineate the OHWM for the rest of the bed of Lake Sakakawea in the Phase II study yielded the appropriate delineation of the OHWM for this property. The report prepared for the Phase II study noted that for the area in Section 12, "the left bank of the OHWM follows along a cut bank with fields on the adjacent upland." Those upland fields are the same fields that were used extensively for agricultural production before the construction of Garrison Dam.

The results obtained in the Phase I OHWM Delineation for the area of the Wilkinson Tract failed to account for all pertinent hydrologic indicators. There was no recognition of the influence that the periodic inundation by Lake Sakakawea had on the transition between upland and wetland vegetation in this area. There was no consideration given to the vegetative influence of the high ground water levels in this area. There was no consideration given to the impacts of Painted Woods Creek and its periodic flooding on the vegetative indicators in this location. The fact that the elevation of the OHWM boundary along the left bank is significantly higher in elevation than the OHWM noted in the field for the right bank supports the fact that the OHWM as delineated for the left bank using vegetative indicators was significantly influenced by the local ground water levels, periodic inundation by Lake Sakakawea and by flooding from Painted Woods Creek. The vegetative indicators in this location are not indicative of those periods when the Missouri River itself is normally high.

References

1. *Ordinary High Water Mark Delineation Guidelines*, ND State Water Commission, prepared by Houston Engineering, November, 2006.

2. *Technical Report for the Ordinary High Water Mark Delineation of the Yellowstone River and Missouri River in Western North Dakota*, prepared for State of North Dakota by Bartlett West & McCain and Associates, Inc., November, 2010.

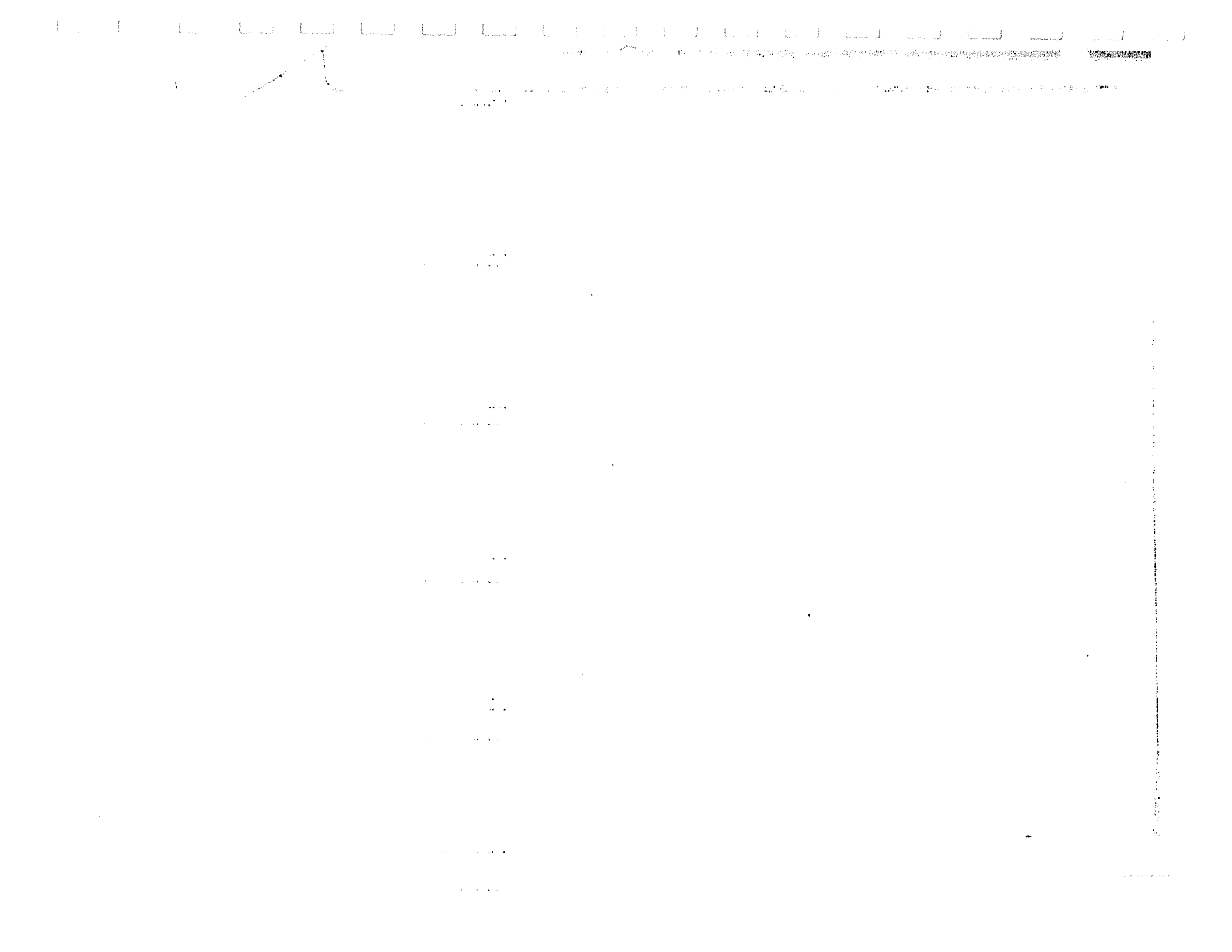
3. *Technical Report for the Ordinary High Water Mark Investigation for the Missouri River under Lake Sakakawea*, prepared for ND State Land Department by Bartlett & West & McCain and Associates, Inc., March, 2011.

4. *Methods for Delineation of Ordinary High Water Lines (OHWL) and Ordinary High Water Marks (OHWM) for Natural Resources Plans and Permits (Draft Copy)*, Washington Department of Ecology, Washington Department of Fish and Wildlife, June, 2006.

5. *Reconnaissance Report, Missouri River Buford-Trenton Irrigation District, North Dakota*, US Army Corps of Engineers, Omaha District, Missouri River Division, August, 1993.

6. Garrison Dam Reservoir Elevations, Website: http://www.nwo.usace.army.mil/Missions/DamandLakeProjects/MissouriRiverDams/Garrison.aspx

7. *Missouri River Mainstream Reservoir System Master Water Control Manual*, Reservoir Control Center, US Army Corps of Engineers, Omaha, NE, Revised March, 2006.



State of North Dakota
ss.
County of Burleigh

Affidavit of Lois Jean Patch

I, Lois Jean Patch, of Bismarck, North Dakota, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Trenton, North Dakota on February 20, 1924 in my parents home. I lived with my parents in Trenton, North Dakota until I was a late teenager when I went away to college in Fargo, ND. I returned to Williams County and was married in 1944. We settled in Williston where I and my husband raised 8 children. We moved to Bismarck, ND in 1959.

2. During my growing up years in my parent's home, I spent much of my time assisting with the family farming operation, my dad was a wheat farmer. I recall doing a variety of tasks like driving grain trucks or delivering lunch to my dad and brothers in the field. One of the fields where he grew wheat was in the east Trenton valley near the Missouri River. We called that the "big field." I recall working in that field in the spring and fall clearing old roots that would come to the surface every year. We called these "grubs" and would gather them to burn in our furnace as a source of fuel. The attached photo was taken by my brother James Wilkinson and shows my brother Tom Wilkinson driving the tractor pulling the swather and combine being operated by my father John Thomas (Tom sr.) Wilkinson. The exact location of the photo is not known but it is in the east Trenton valley and could be in the "big field" in sections 12 and 13.

3. In my married years while living in Williston, we would often take our kids for a relaxing summer evening drive down to that area to show them the fields where their mother worked with their grandfather and other family members in the fields. Many times their grandfather would comment that it looked like there was going to be another bumper crop from those fields.

4. My father, John Thomas Wilkinson, sold that land to the U.S. government in 1958 because they said Garrison Dam was likely to cause it to be flooded someday.

5. My father reserved the mineral rights when the title of the land was transferred to the U.S. government.

6. I have no recollection or knowledge of flooding occurring on this land in the years I lived in Trenton or Williston. However, I possess a letter from my father where he describes the joys and hardships of life in the Trenton Valley. He mentions the occasional flooding from Painted Woods Creek that might wash away his seed or lodge his wheat. Painted Woods creek passes through the fields in Section 12 and 13. I have fond memories of play along the dry

creek banks with my sisters as my dad and brothers worked in the fields.

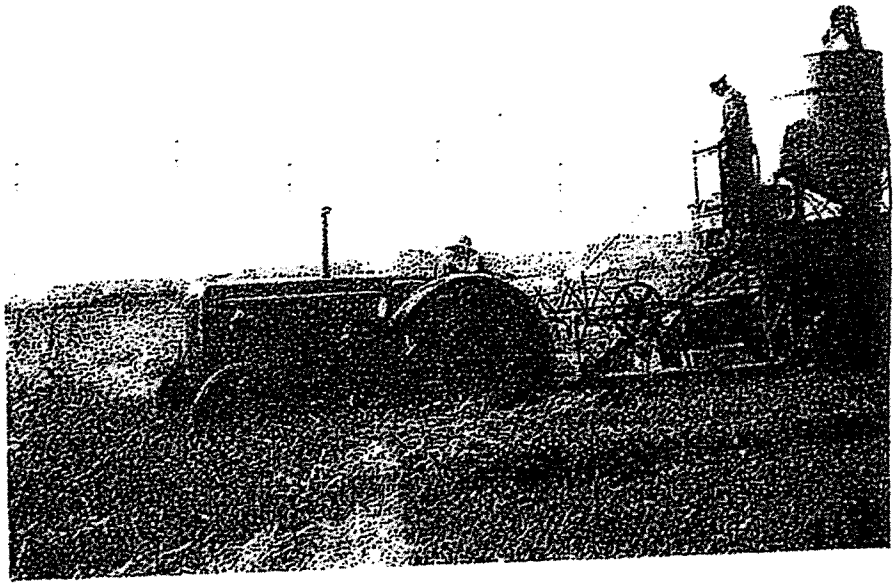
RACHAEL CASPERS
Notary Public
State of North Dakota
My Commission Expires Sept. 15, 2015

Lois Jean Patch
Lois Jean Patch

Subscribed and sworn to before me this 20 day of April, 2011.

Rachael Caspers
Notary Public

My commission expires: Sept 15, 2015.



AFFIDAVIT

State of Michigan
ss.
County of Ingham

I, William S. Wilkinson, of East Lansing, Michigan, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. That I was born in Williston, North Dakota on September 6, 1933 and lived with my parents, John T. and Evelyn Wilkinson, in Trenton, North Dakota until approximately 1955.

2. That during these years, my parents owned and farmed various parcels of land in the Trenton area, growing mainly spring wheat, along with some barley and flax.

3. That two of these parcels were in the Missouri River valley east of Trenton, described as the Southwest Quarter and the South Half of the Northwest Quarter, except that portion which constitutes the Great Northern Railway Company right of way, in Section 12; and Farm Unit No. 312 in the Buford-Trenton Project, according to the recorded plat thereof, in Section 13; all being located in Township 153 North, Range 102 West, Williams County, North Dakota.

4. That during my teenage years, I assisted my father each year in growing and harvesting mainly spring wheat on these parcels of land.

5. That in 1958, the United States of America purchased these parcels from my parents because, as it was stated to me, it was necessary because the parcels were subject to flooding from the lake created by the construction of the Garrison Dam downstream on the Missouri River. The deed reserved the oil and gas rights to my parents. These rights are presently owned by my siblings and me.

6. That during the years that I lived with my parents and to and including the year the parcels were sold to the United States of America, I have no recollection or knowledge of there being any flooding associated with these parcels.

William S. Wilkinson

Subscribed and sworn to before me this 15th day of April, 2011

K Doyle
Notary Public

My commission expires: 8/14/17

K DOYLE
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF EATON
My Commission Expires: August 14, 2017
Acting in the County of Ingham

AFFIDAVIT

I, Vanessa E. Blaine of 12801 Deer Dancer TRAIL NE, Albuquerque, New Mexico, 87112, being duly sworn, depose and say, to the best of my knowledge, information and belief, as follows:

1. I was born in Trenton, North Dakota on February 8, 1928. I am the daughter of John T. and Evelyn M. Wilkinson and lived in Trenton until the fall of 1945. I then lived in Williston, North Dakota until January 1948.
2. During the WW II years my two older brothers enlisted in AAF and Navy respectively. In preparing my being able to help in the fields and with farm work, my mother took me before Judge Owens to obtain a driver's license at twelve years of age. I was fifteen when my brother Tom entered the Navy and I began driving a ¾ ton truck hauling grain from the harvested fields to the local grain elevator.
3. During these years my parents farmed land along the Missouri River in what was known as the Trenton Valley. My father planted spring wheat, barley, and flax on many parcels of land, totaling 1,100 acres at one point in time. The parcels I remember well were known as the Purcell, Mitchell, Macklemerry, Karels, and the field most easterly was known to me as the Big Field.
4. It is my belief that the Big Field was in the SW1/4, S1/2 NW1/4, of Section 12. One parcel was also in Section 13 known as Farm Unit 312 of the Buford-Trenton Project all being located in Township 153 North, Range 102 West, Williams County, North Dakota.
5. The mineral rights were reserved when the parcels in Section 12 and 13 were sold to the Corps of Engineers as it was reported that the construction of the Garrison Dam would subject them to flooding.
6. I have no recollection or knowledge of any flooding of the parcels farmed by my father and no knowledge of any flooding whatsoever in the Trenton Valley.

Vanessa E Blaine

Vanessa E. Blaine

Subscribed and sworn before me this 14 day of April 2011

Tammy Wieman

Notary Public

My commission expires: OFFICIAL SEAL TAMMY WIEMAN NOTARY PUBLIC-State of New Mexico My Commission Expires 2.11.2014

Hi Jan -
Thought you'd find this interesting.

Trenton Farmer Has Splendid Wheat Crop

Tom Williamson, farmer on the Missouri bottoms in the county near Trenton, is believed to have the best wheat crop harvested this year in Williams county, friends said Tuesday. He has harvested and threshed 255 acres which gave an average yield of 25 bushels of No. 1 wheat. The quality and average yield are the best so far reported this season here.

19400241

APPENDIX B

Eng Form 798-R
1 Jan 46

CERTIFICATE OF INSPECTION AND POSSESSION
(Lands other than Federal Building Sites)

I, John L. BURGUM, a representative of the Department of the Army hereby certify that on the 10 day of June, 1958, I made a personal examination and inspection of land situated in the County of Williams, State of North Dakota, designated as Tract No. HR-3190 and containing 286.04 acres, (proposed to be) acquired by the United States of America in connection with the Garrison Dam and Reservoir Project, from J. T. Wilkinson and Evelyn M. Wilkinson, his wife

1. That I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done or about said premises within the past 3 months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That to the best of my knowledge and belief, and after actual and diligent inquiry and physical inspection of said premises, there are no unrecorded visible easements which are not covered by proper releases or which have not been waived in writing by the acquiring agency.

3. That I also made inquiry of all occupant (s) of said land as to his (their) rights of possession and of the vendor and such occupants as to the rights of possession of any person or persons known to him (them) and neither found any evidence nor obtained any information showing or tending to show that any persons had any rights of possession or other interest in said premises adverse to the rights of the above-named owner or the United States of America, except such mineral right, roads, rights-of-way and public utility easements as have been administratively waived by the Department of the Army and the following: (1) (Insert names and addresses together with statement of right or interest claimed.)

NAME	ADDRESS	STATEMENT OF INTEREST CLAIMED

APPROVED:

_____ (Name)

_____ (Title)

John L. Burgum (Name)

Attorney (Title)

This certificate will be executed by a representative of the Department of the Army.)

(1) In purchase cases the rights of all persons in possession or claiming a right of possession exclusive of mineral rights, roads, rights-of-way and public utility easements which have been administratively waived by the Department of the Army, must be eliminated by a proper release, quitclaim deed or disclaimer. However, if the Department of the Army has determined to acquire title subject to outstanding mineral rights, roads, rights-of-way or public utility easements, it will not be necessary to obtain a release, quitclaim deed or disclaimer for such mineral rights, roads, rights-of-way or public utility easements as have been administratively waived in writing by the Department of the Army.

RECEIPT FOR UNITED STATES TREASURER'S CHECK

Receipt is acknowledged this 10 day of June, 1958, of Treasury Check of the United States No. 10,107, dated May 23, 1958, in the amount of $ 43,327.00, payable to the order of J. T. Wilkinson and Evelyn M. Wilkinson, his wife issued in connection with the acquisition by the United States of America of premises situated in Township 153 North, Range 102 West of the 5th P.M. County of Williams, State of North Dakota, and more particularly described as follows: Farm Unit No. 312 in Buford-Trenton Project, according to the plat thereof recorded in the office of the Register of Deeds of Williams County, North Dakota, in Deed Book 101, Page 413, being a part of Section 13, in Township 153 North, Range 102 West of the Fifth Principal Meridian, and containing 57.09 acres, more or less; also the Southwest quarter ($SW\frac{1}{4}$) and the South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) of Section 12, Township and Range aforesaid, excepting that portion of said South half of the Northwest quarter ($S\frac{1}{2}NW\frac{1}{4}$) which constitutes right-of-way of the Great Northern Railway Company, containing, exclusive of said exception, 228.95 acres, more or less.

which sum is in full satisfaction and discharge of the interest of the undersigned in the premises conveyed.

(Payee or Payees) J. T. Wilkinson

J. T. Wilkinson

Evelyn M. Wilkinson

Evelyn M. Wilkinson

Address: Trenton, North Dakota

Project: Garrison Dam & Reservoir

Tract No. HH-3190

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Montana State Office
5001 Southgate Drive
Billings, Montana 59101-4669
www.blm.gov/mt

In Reply Refer To:
9661 (MT926)

March 23, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Lance D. Gaebe
Commissioner of University and School Lands
North Dakota Department of Trust Lands
P.O. Box 5523
Bismarck, ND 58506-5523

Mr. Todd Sando
State Engineer
North Dakota State Water Commission
900 East Boulevard Ave.
Bismarck, ND 58505-0850

Dear Messrs. Gaebe and Sando:

We are in receipt of your statement of reasons received on December 10, 2014, supporting the two letters of intent to protest the official filing of Supplemental Plats by the Branch of Cadastral Survey. The letters of intent to protest were received on August 6, 2014, from the North Dakota Department of Trust Lands and August 7, 2014, from the Office of the State Engineer (OSE).

In your statement of reasons, you assert two reasons why the Bureau of Land Management (BLM) should not officially file the Supplemental Plats, approved April 9, 2014, and May 8, 2014, representing the geographic limits of the Public Domain interests. Your reasons are:

1) The BLM's Supplemental Plats should utilize the Ordinary High Water Mark (OHWM) survey initiated by North Dakota in 2009 that follows the OSE's 2007 guidelines; and
2) The Army Corp of Engineer's (COE) Acquisition Segment Maps (Segment Maps), upon which the Supplemental Plats are based, are not an accurate reflection of the OHWM.

The State of North Dakota's (State) OHWM delineation, as depicted on Enclosure 1, claims approximately 1,140 acres of Public Domain[1] subsurface estate and 896 acres of Public Domain surface estate on the Supplemental Plats to be State sovereign land. In addition, the State also claims approximately 2,637 acres of fee subsurface estate and 2,881 acres of COE-acquired surface estate as State sovereign land, which are not addressed on the Supplemental Plats.

[1] For clarification, Public Domain interests in the State of North Dakota refer to land interests (surface and subsurface) where title has never left the Federal Government.

EXHIBIT
5

Your protest points are focused on the location of the OHWM line, depicted on the Supplemental Plats, which is the boundary between upland ownership and State riverbed title under the Equal Footing Doctrine.

Riverbed Title Under the Equal Footing Doctrine

Your protest concerns riverbed title and not public trust issues. This distinction is important because it controls the source of law to be applied in defining the OHWM. A recent United States Supreme Court decision distinguishes the two in *PPL Montana, LLC v. Montana* 132 S. Ct. 1215, 1235 (2012):

> *"Under accepted rules of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine."*

Thus, federal law determines riverbed title under the equal footing doctrine. The following leading federal court cases provide the controlling definitions of the OHWM.

In *Howard v. Ingersoll*, 54 U.S. 381, ___ (1851), the United States Supreme Court's ruling focused on a line impressed upon the bank by the action of water as the primary indicator of the OHWM and marking the permanent bed of the river. The court also found that the bed of a river does not encompass lands outside of the banks that are subject to periodic overflow nor does it include those lands that are viable for agriculture or grazing:

> *"It neither takes in overflowed land beyond the bank, nor includes swamps or low grounds liable to be overflowed, but reclaimable for meadows or agriculture, or which, being to low for reclamation, though not always covered with water, may be used for cattle to range upon, as natural or uninclosed pasture. 54 U.S. at 415-16."*

The concurring opinions provide more clarification and established the importance of an examination of vegetation that separates the riverbed from upland, and help provide basis for subsequent federal court case definitions.

Approximately 50 years later, the Eighth Circuit reiterated *Howard v. Ingersoll* in slightly different wording:

> *"The bed of the river is that soil so usually covered by water that it is wrested from vegetation . . . and does not extend to or include that upon which grasses, shrubs, and trees grow, though covered by the great annual rises."*

Harrison v. Fite, 148 F. 781, 783 (8th Cir.1906).

A more recent federal district court case addressed the OHWM of a lake but lends guidance that transitional marshlands are not enough evidence for inclusion within the OHWM:

> *"At most the evidence shows that the dike stands on property that has historically served as marshland for Lake Harney periodically absorbing the lake's high waters*

and periodically serving as productive agricultural land for its owners. This is not enough to infer that the dike stands below the ordinary high water mark the point at which the bed of the lake ends and the fast lands begin."

United States v. Cameron, 466 F. Supp. 1099, 1114 (M.D. Fla. 1978)

And, finally, *United States v. Claridge*, 416 F. 2d 933, 934 (9th Cir.1969) references the definition in *Howard v. Ingersoll* and calls for a natural feature and further explains that the OHWM does not include the floodplain from bluff to bluff due to spring floods:

"The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river and does not extend to the peak flow or flood stage so as to include overflow on the flood plain, nor is it confined to the lowest stages of the river flow."

The BLM's Manual of Surveying Instructions, 2009 (Manual) has interpreted these leading cases on OHWM and summarized them into a contemporary definition of the OHWM for the surveyor in section 3-164:

"For inland waters, the OHWM normally used is the line below which the water impresses on the soil by covering it for sufficient periods to deprive it of terrestrial vegetation, and the soil loses its value for agriculture, including the grazing of livestock."

The Manual provides guidance in section 3-167 on locating the OHWM by utilizing the vegetation examination:

"A small pocket of an aquatic type plant growing in low places not in the riverbed is also not an indicator of the OHWM and does not indicate that the OHWM should be moved toward upland to include that pocket of aquatics. It is the most water-ward location of the terrestrial species that is determinative."

Rivers and OHWMs have been moving on the earth's surface for thousands of years and remnants of those movements are evidenced on virtually every aerial photo. However, we concern ourselves with the date on which rights were established, such as date of statehood and subsequent river movements for riverbed title under the Equal Footing Doctrine and entry dates for patents. The original surveys by the General Land Office classified upland of the Public Domain for patenting and created survey plats; generating the first representation of all of the rights within a township in relationship to one another. Since you are not challenging the validity of the original surveys, in this case we concern ourselves with the location of the OHWM prior to the artificial rising of the Missouri River to form Lake Sakakawea.[2]

[2] Serving as background timeline information, the construction of Garrison Dam was authorized by the Flood Waters Control Act of 1946 and caused the artificial rising of the Missouri River to form Lake Sakakawea. Construction began in 1946 with reservoir filling initiated in December of 1953 and reaching minimum operating pool on August 7, 1955. http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487634/garrison-project-statistics.aspx

To resolve your protest, we will address locating the line of ordinary high water, both legally and factually. It must be accepted that the OHWM along a river is an ambulatory boundary that migrates through the normal actions of accretion and erosion and has moved since rights were bounded by it. While we agree there will be some differences in location based on dates of aerial photography and dates of field work due to accretion and erosion, it appears that your OHWM guidelines do not comport with federal law and cannot be used to determine riverbed title under the Equal Footing Doctrine.

Discussion of State Reason No. 1

A) OSE's OHWM Delineation Guidelines of 2007

The BLM's Branch of Cadastral Survey has reviewed the OSE's OHWM Delineation Guidelines of 2007 and finds it mostly in conformity with the federal definition except for defining grazing of livestock and certain agriculture as being below the OHWM, as outlined in the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea which states:

> *"Areas below the OHWM may have vegetation suitable for grazing but wetland vegetation capable of being grazed is not an "ordinary agricultural crop."*
>
> *Another complicated area included the low lying hayfields. For this study, the term "field" refers to hayed or mowed areas, and does not imply that the area has been cultivated or seeded. Farming practices along the river during drier, low water periods often extended into the lower floodplain areas, closer to the water's edge. These "fields" may be cut for hay, or cultivated for a short time, but rapid colonization of wetland species on these hay fields likely occurred when the wetter period and subsequent higher water levels returned."*

The grazing statement is in direct contradiction to the *Howard v. Ingersoll* reference of *natural or uninclosed* pasture and the Manual definition of OHWM. *United States v. Cameron* references marshland that periodically absorbs the high waters and periodically serves as productive agriculture which was directly tied to the grazing of livestock and was found not enough to infer the lands were below the OHWM.

The hay field statement is in direct contradiction to the *Howard v. Ingersoll* reference to lands liable to overflow but reclaimable for meadows or agriculture. It also contradicts *Harrison v. Fite* in that the bed does not extend to land which grasses grow although covered by rises in the water. The implication is that the land can ordinarily be utilized for agriculture, even though the remnants of water in low areas of the floodplain caused by rises in the river allow for pockets of aquatic vegetation to grow periodically, which is also addressed in the aforementioned cases.

The BLM's Branch of Cadastral Survey has reviewed the State's OHWM survey Task Order No. 2 and finds the intent to locate the OHWM of the Missouri River prior to the artificial rising of the Missouri River to form Lake Sakakawea to be correct and does not believe the State is attempting to claim the pooled lakebed of Lake Sakakawea as a navigable waterway under the Equal Footing Doctrine.

Cultivation and seeding are not prerequisites for *productive agriculture*[3] which would thereby exclude *natural or uninclosed*[4] pasture suitable for grazing or natural grass haying. Specifically the upland extends towards the river to the lowest extent of upland vegetation and not the landward extent of aquatic vegetation.

These deviations from the Federal definition of OHWM allow the State's delineation of OHWM, which is visually represented on Enclosure 2 hatched in blue and overlaid on the 1958 aerial photo, to impermissibly encompass upland with terrestrial vegetation, hay fields, and cultivated fields.

Likewise, the State's OHWM delineation, depicted on Enclosure 3 hatched in blue and overlaid onto the 1952 aerial photo, spans from *bluff to bluff*[5] taking in uplands temporarily overflowed by *freshets*[6] which is in direct contradiction to all Federal case law and moreover, the State's delineation, which does not reference utilizing the 1952 aerial photo follows the extent of water on the 1952 photo very closely. But, this photo is a representation of one of the highest recorded flows, which is not characterized as "ordinary." The date of the aerial photo, April 5, 1952, has been correlated to United States Geological Survey (USGS) flow data obtained at: http://waterdata.usgs.gov/usa/nwis/inventory/?site_no=06330000&agency_cd=USGS. Thirty-seven years of flow data from 1928-1965 shows that only 21 days had higher flows than the aerial photo date (April 5, 1952), of which 4 days were also in 1952. Enclosure 4a is the mean daily discharges for 1952; 4b is the highest daily means from 1928-1965; 4c is a graph of the 37 year discharges.

Therefore, BLM believes the State's OHWM delineation is skewed due to the aforementioned deviations from the Federal definition of OHWM and residual flood waters from an extraordinary event onto the floodplain. The State's OHWM delineation depicts the riverbed to be three times the width of the General Land Office's originally surveyed meanders. Originally surveyed meanders are typically landward of the actual OHWM, and while it is acknowledged that OHWMs move laterally, no evidence shows why the riverbed has widened, up to triple in size, to encompass lands classified as upland in the original survey.

The sheer width of the State's OHWM delineation, as depicted on Enclosure 1, clearly shows that it ignores the *natural physical characteristic*[7] of the OHWM which is a *natural object*[8] and extends *beyond the banks*[6] to encompass significant portions of the floodplain. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

B) Chain of Title

At the meeting on July 22, 2014, in Bismarck, ND, Josh Alexander, BLM's Acting Chief Cadastral Surveyor for public lands in North Dakota, specifically asked if the State's OHWM delineation was to determine surface rights, subsurface rights, or both. The verbal response was

[3] *United States v. Cameron*, 466 F. Supp. 1099 (M.D. Fla. 1978)
[4] *Howard v. Ingersoll*, 54 U.S. 381 (1851)
[5] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[6] *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991)
[7] *United States v. Claridge*, 416 F. 2d 933 (9th Cir.1969)
[8] *Howard v. Ingersoll*, 54 U.S. 381 (1851)

that it determined the boundary of State Sovereign land encompassing both surface and subsurface rights.

But, the State's delineation did not consider previous conveyances, as evidenced by chain of title research. Enclosures 5a, 5b, and 5c are the State's OHWM delineation, which is hatched in blue and overlaid onto the COE Segment maps, in which the State's delineation encompasses:

1) 188.66 acre island, Y2250 (Enclosure 5a)
2) 228 acres within Y2289 (Enclosure 5b)
3) 71.07 acres within Z2382 (Enclosure 5c)

These parcels were conveyed to the United States by the State as upland (see Enclosure 6 for conveyance documents). The magnitude of acquisitions by the COE clearly shows the intent was to purchase displaced uplands. The chain of title clearly shows that the State agreeably conveyed upland and islands, which is now being depicted and claimed as riverbed. An island must exist above the OHWM to be considered an island; otherwise it is a part of the bed (sandbar). At the time of the conveyance, an OHWM determination was made to facilitate the conveyance of the island and the upland. These conveyances were for upland surface only. The State's new OHWM delineation must omit these areas as they have previously been classified as upland, not below the OHWM, and are not part of surface Sovereign Lands of the State. Thus, BLM's Supplemental Plats should not utilize North Dakota's 2009 OHWM survey.

C) Sovereign Lands

In its protest, the State is utilizing its delineation as a basis for claim to sovereign land and to require mineral lease and royalty payments from oil and gas operators. However, prior to viewing the delineations at https://land.nd.gov/minerals/mineralapps/OHWM2/OHWM2Disclaimer.aspx, there is a caveat:

> *"The work completed under this contract is to delineate the ordinary high water mark (OHWM) and is not a final legal determination as to whether any specific property is "sovereign land.""*

Thus, it is unclear how much weight to give to the State's OHWM delineation even though the State's Statement of Reasons infers that we should honor it wholly. Instead, BLM's Supplemental Plats are without limitation and provide the better evidence of riverbed title.

For the foregoing reasons, the State's first protest point is denied.

Discussion of State Reason No. 2

A) BLM Field Investigations Prior to Flooding

The COE Segment Maps were the basis for land title acquisition by the COE for those upland lands that would be affected by the artificial rising of the Missouri River to create Lake Sakakawea. The Segment Maps depict the Missouri River OHWM and are the most

comprehensive evidence of the Missouri River OHWM just prior to the formation of Lake Sakakawea.

To determine what lands were classified as public lands, the COE engaged BLM's Branch of Cadastral Engineering (now Branch of Cadastral Survey) to execute field investigations prior to flooding. BLM surveyors were guided by Special Instructions dated October 24, 1952 (Enclosure 7). Importantly, there is no evidence that the State of North Dakota raised concerns about the Special Instructions or subsequent acquisitions.

The Special Instructions stated the following regarding the lot or legal subdivision listed:

> *"Ascertain whether any or all of it is above mean high water at the present time*
>
> *If it is found to be above water at present, determine whether any or all of it has been in existence above mean high water continuously since the original survey was made*
>
> *Show what part of the tract has been in existence since the date of the original survey*
>
> *If the land has been entirely washed away and has re-appeared, determine the date it was submerged and when it re-appeared*
>
> *If accretion to a tract of public domain land has formed, show the extent of such accretion*
>
> *If substantial accretion appears to have formed in front of riparian privately-owned lands prior to the date of entry, show the extent of such accretion and the date a substantial amount had formed in front of the original tract*
>
> *Where changes have taken place in the river channel, determine whether the change was due to avulsive action, or to the slow and imperceptible process of reliction and accretion*
>
> *To determine the above facts, you will study all plats, charts, maps, aerial photographs and records found that may have a bearing on the case at hand. You will determine the age of timber growing on the land and obtain such other information as is available including the interviewing of old settlers who may be familiar with the river changes at those places."*

BLM officers were operating under the BLM's Manual of Surveying Instructions, 1947 (1947 Manual), and the term "mean high water" for inland waters carries the same determination principles and conformance to law as the OHWM, as evidenced by guidelines in the 1947 Manual.

The BLM conducted extensive field investigations to determine what lands existed above the OHWM, made a determination on river movement, its effect on land title, and compiled this information in an investigative report. These reports were utilized to determine public lands above the OHWM, addressing both accretion and erosion to public lands. Those determinations

were depicted on the Segment Maps. In other words, the COE Segment maps are based on BLM field work, analysis, and standard practices. See Enclosures 8, 9, and 10 for the progression from BLM field investigation report map (8) to Segment Map (9) to Supplemental Plat (10), all of which depict the same findings from the field investigations.

B) North Dakota State Lands Department (SLD)'s Previous OHWM Delineation

1) Land acquisition documents show that SLD participated in the COE survey process.

A conveyance document in Enclosure 6 infers that the SLD performed an OHWM determination prior to the conveyance. The last page of Enclosure 6 states:

"The above is based on Survey Report furnished by the State School Land Department."

The SLD Survey Report was requested by the BLM's Branch of Cadastral Survey. However, its whereabouts are unknown and remains unfurnished. But, based on the subsequent conveyance, the referenced SLD Survey Report likely made a determination that Y2250 was an island existing above the OHWM, thereby necessitating the need for purchase by the COE as uplands that would be displaced by the artificial rising of the Missouri River to create Lake Sakakawea.

Although the Final Technical Report for the OHWM Investigation for the Missouri River Under Lake Sakakawea states that the SLD was unaware of any previous OHWM determinations, we believe that the land acquisition documents establish that the SLD participated in the OHWM determinations upon which the COE segment maps are based.

2) Documents show that SLD participated in the condemnation process for uplands.

To further outline the SLD's involvement and conclude that the State was aware of upland acquisitions, we obtained correspondence documents (Enclosure 11) showing that SLD and COE deliberations led to a formal and friendly condemnation process, which was followed by the SLD and the COE.

Despite legislation being passed to convey State lands without mineral reservation, the condemnation process was instituted due to the reluctance of then SLD Commissioner, John O. Lyngstad. Mr. Lyngstad was reluctant to sell State lands and supported the condemnation process for fear of political repercussions of selling State land. Mr. Lyngstad relays his reluctance by predicting accusations from farmers that they would be willing to pay the State more money than was being offered by the Federal Government. It is certain that farmers would not be willing to pay for these uplands if they were not productive for agriculture indicating the lands existed as upland above the OHWM. The State's OHWM delineation incorrectly classifies these same uplands as riverbed.

Revisit Enclosure 6 showing the execution of this process whereby the COE sent appraisals for displaced state uplands asking for consideration by the Board of University and School Lands, execution by the Land Commissioner, and condemnation.

C) Appraisals

Full appraisals were conducted for acquisition of displaced uplands to justify and provide basis for the expenditure of appropriated funds. These appraisals quantify upland area and quantify the uses of the upland, including agricultural production, timber, brush, etc. While utilized for appraisal values, these quantifications provide significant documentation with regard to the acquired displaced uplands, depicted on the COE Segment maps, existing above the OHWM. See Enclosure 12, which is the same area as Enclosure 2 showing the State's OHWM delineation encompassing brush and productive agriculture as identified by the land appraisal. The State's delineation does not follow Federal case law or OHWM definitions with the inclusion of these uplands.

For the reasons outlined above, we reject the State's assertion that the COE Segment Maps are not an accurate reflection of the OHWM. The OHWM was established by BLM-led field investigations using Special Instructions that were not disputed by the State. In fact, there is ample evidence showing that the SLD participated in the establishment of the OHWM determination. The second protest point is denied.

Conclusion

The COE Segment Maps are firmly grounded in guidance, methodology, and contemporaneous field investigations of the land prior to the effects of flooding. These Segment Maps are the most comprehensive evidence of the OHWM prior to the artificial rising to create Lake Sakakawea. The Segment Maps were the basis for millions of dollars of appropriated funds being spent to acquire displaced uplands and were generated with determinations from in-the-field investigations by BLM, and involvement from the BLM and ND SLD, and have gone uncontested for over 60 years.

Moreover, the BLM's Branch of Cadastral Survey performed a quality check prior to incorporating them into the Supplemental Plats. The COE Segment Maps were overlaid onto aerial photography and evaluated for OHWM determination and riparian movement effects on land title. Miniscule differences were identified due to difference in dates of aerial photography compared to the dates of the field investigations and the constant movement of rivers. In these areas, deference was given to the Segment Maps due to the field-based reports and techniques and the fact that chain of land title was based upon them and were determined to have been executed in accordance with federal guidelines.

Based on the aforementioned analysis, the BLM finds the State's OHWM delineation:

1) does not comply with the federal definition of the OHWM
2) does not honor chain of title or previous involvement with the COE
3) is an overreaching delineation that impairs:
   a) the mineral rights of private owners as vested from original patents from the Federal Government
   b) the Federal Government's acquired rights in land, and
   c) the rights of all in the Public Domain interests in land.

Your protest to the official filing of plats of survey posted in the *Federal Register* on July 8, 2014, is hereby dismissed. The Supplemental Plats shall be officially filed in this office.

You have the right to appeal this decision to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of the Interior, Board of Land Appeals (Board), in accordance with the regulations contained in 43 CFR Part 4 and the enclosed Form 1842-1 (Enclosure 13). In taking an appeal, there must be strict compliance with the regulations. If you choose to appeal, a notice of appeal must be filed in this office within thirty (30) days of receipt of this letter for transmittal to the Board. If your notice of appeal does not include a statement of reasons, one must be filed with the Board within thirty (30) days after the notice of appeal was filed. A copy of your notice of appeal and any statement of reasons, written arguments, or briefs, must also be served upon the Office of the Solicitor, Rocky Mountain Region, 2021 Fourth Avenue N., Suite 112, Billings MT 59101. Service must be accomplished within fifteen (15) days after filing in order to be in compliance with appeal regulations.

As provided by 43 CFR Part 4, you have the right to petition the Office of Hearings and Appeals to stay implementation of the decision; however, you must show standing and present reasons for requesting a stay of the decision that address your interests and the manner by which they would be harmed. A petition for stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) The relative harm to the parties if the stay is granted or denied; (2) The likelihood of the appellant's success on the merits; (3) The likelihood of immediate and irreparable harm if the stay is not granted; and (4) Whether the public interest favors granting the stay. Should you choose to file one, your stay request must accompany your notice of appeal. A notice of appeal with petition for stay must be served upon the Board, Regional Solicitor, and adverse parties at the same time such documents are served on the deciding official at this office. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR 1.3.

Sincerely,

Aden L. Seidlitz

Aden L. Seidlitz
Acting State Director

13 Enclosures
1- Overall comparison of OHWM delineations in protested area
2- OHWM comparison overlaid onto 1958 aerial photography
3- OHWM comparison overlaid onto 1952 flood aerial photography
4- USGS flow data
5- State OHWM delineation overlaid onto Segment Maps
6- State land conveyance correspondence and execution documents
7- BLM Special Instructions
8- BLM field investigation report map
9- Portion of Segment Map

10- Portion of BLM Supplemental Plat
11- COE and SLD correspondence
12- Land appraisal map
13- Form 1842-1

cc: Karan Dunnigan
Office of the Solicitor
Billings, MT

Joshua A. Swanson

jswanson@vogellaw.com

February 9, 2017

Rep. Todd Porter
Chairman
House Energy and Natural Resources Committee

e-mail only at: tkporter@nd.gov

Re: HB 1199

Dear Chairman Porter:

I wanted to thank you for allowing me to testify in support of HB 1199 last Thursday before the House Energy and Natural Resources Committee, and for the "do pass" recommendation from the Committee. HB 1199 is a landmark bill that corrects the wrongs done by the State and rectifies one of the greatest takings in the history of American jurisprudence. HB 1199 will make clear that ownership of the mineral interests reserved by my clients and thousands of other present and former North Dakota citizens will remain theirs to lease as they had for decades between the formation of Lake Sakakawea and the wrongful taking by the State. During the course of testimony Thursday, several questions were asked by Committee members ranging from:

- the number of acres the State has taken from private property owners that were previously acquired by the United States for the purpose of Garrison Dam and Lake Sakakawea;
- HB 1199's fiscal note and the State's claim that it would be "surrendering" revenue if the legislature recognized that the oil and gas interests vested in landowners – like the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank – who lost their property when the United States acquired it for the Garrison Dam and Lake Sakakawea;
- Rep. Heinert's question regarding the blacked-out language on the first page of the Wilkinson's Warranty Deed; and
- the differences between HB 1199 and a similar bill in the Senate, SB 2134.

Given the importance of this legislation for all the landowners who seek restoration of their private property rights, I wanted to address these questions.

1. NUMBER OF ACRES AFFECTED

When the United States began acquiring property in the 1950s for Garrison Dam and Lake Sakakawea, it was recognized by the United States and State of North Dakota that the State's interest was limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. This is noted in Exhibit 1 to the written testimony that was

submitted to the Committee. According to the Master Plan for the Garrison/Lake Sakakawea Project, the United States acquired 463,000 acres for Lake Sakakawea. Of the land acquired, approximately 300,000 acres were from private landowners outside of the Fort Berthold reservation. When the United States acquired the surface rights for Lake Sakakawea, the oil and gas interests under those 300,000 acres were largely reserved by the private landowners. From approximately 1950 to 2010, the Wilkinson and Vohs family and other private landowners, like the beneficiaries of the property managed by First National Bank, leased those mineral interests to interested parties. In approximately 2010, the Wilkinson family and others learned that the State had secretly begun to claim ownership of their private mineral interests and were leasing them out to interested companies.

Contrary to the State's testimony during the Committee hearing, in the lawsuit with the Wilkinson family, the State is claiming ***all*** the oil and gas interests under Lake Sakakawea. The State's claim is *not* limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. In the Wilkinson suit, the State argues that it can flood private property and then claim title to that property. While the exact number of acres claimed by the State is unknown, HB 1199 is written in such a way that it will correct this wrong for all affected private landowners who reserved their oil and gas interests because of Garrison Dam and Lake Sakakawea.

The language of HB 1199 includes over 4,000 acres west of the Highway 85 Bridge – where the Wilkinson and Vohs' oil and gas interests are located – that were acquired by the United States for Lake Sakakawea. As noted by Rep. Roers Jones during the hearing, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing 57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Stated bluntly, the State of North Dakota cannot flood a citizen's land and then claim it also owns all the valuable underwater mineral interests specifically reserved by the private landowner. As stated by the United States Supreme Court, such an action epitomizes the definition of an impermissible and unlawful "taking" by the government. "As we have said, the Government built its public improvement [a dam and resulting reservoir]. The plaintiffs lost their land. The loss resulted from the improvement. We hold that the plaintiffs are entitled, under the Constitution, to be compensated." Cotton Land Co. v. United States, 109 Ct. Cl. 816, 832, 75 F.Supp. 232 (1948). More recently, in 2012, the United States Supreme Court ruled that when the government floods property – like it did with Garrison Dam and Lake Sakakawea – it cannot claim title to the property without first compensating the private property owner for their loss. "[W]hen the government physically takes possession of an interest in property for some public purpose, it has a

categorical duty to compensate the former owner. These guides are fundamental in our Takings Clause jurisprudence." Arkansas Game & Fish Com'n v. United States, 133 S.Ct. 511, 518, 184 L.Ed.2d 417. As many of the Committee members noted during the hearing on HB 1199, landowners like the Wilkinson and Vohs families, and the beneficiaries of the land managed by First National Bank, specifically reserved the oil and gas interests when the United States took their property for Garrison Dam and Lake Sakakawea. As Rep. Keiser appropriately stated when introducing the bill, what has been attempted by the State of North Dakota is the greatest taking of property he has ever seen.

Also contrary to the State's testimony, the state's claim to these private oil and gas interests only goes back to the beginning of North Dakota's most recent oil boom. As testified to by Mr. Patch, in 2010 the State placed thousands of mineral acres up for auction that it had never before claimed – including the Wilkinson's mineral interests – without notifying the private mineral owners of its actions. We have attached a July 2010 letter from Brigham Oil and Gas where, while it requested to lease the Wilkinson's property from the State, it expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

The handwritten notes on this letter were present when the State disclosed it in discovery during the Wilkinson's lawsuit. The State's wholesale deviation from its lawful practice of claiming only those oil and gas interests within the historic Missouri River as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the historic Missouri River as it existed before Garrison Dam. The only explanation for the State's decision in 2010 to suddenly claim thousands of acres outside of the historical Missouri River that it had never previously claimed is greed. The State's knowledge that it was acting unlawfully are found in committee notes set forth below.

2. FISCAL NOTE – THE STATE SET ASIDE THIS MONEY KNOWING ITS CLAIM TO THE OIL AND GAS INTERESTS WAS SUSPECT

Even while unlawfully laying claim to its citizen's private mineral interests, the State suspected the proceeds received by its improper actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the

historic Missouri River – like those owned by the Wilkinson and Vohs families. As Chairman Porter pointed out during his questioning, the State is a stranger to title of these privately held mineral interests. This is noted in the attached September 2010 Memorandum prepared by the Land Board. This Land Board Memorandum shows that Mr. Gaebe and Mr. Heiser, who testified before the Committee, were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, **"There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."**

All of the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – has been set aside in anticipation of the day the State would be required to make them whole again. That day is today. The money set aside by the State in anticipation of what this legislative body or the courts would inevitably do speaks volumes of the State's dubious action. Stated another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State of North Dakota's right to retain in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, the State claimed oil and gas interests held by private landowners while acknowledging it had absolutely no legal authority to support its unlawful taking.

In our State, where private property and mineral interests are passed from generation to generation and valued to the point they are sacrosanct, the Land Board nevertheless proceeded to take these privately held oil and gas interests because they "felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development." This was done despite Mr. Patch and others expressing grave concerns about the legality of what the State was doing. The August 2011 minutes from the Land Board meeting notes the presence of Mr. Patch and the fact Mr. Patch made a presentation defending his family's title to the oil and gas interests. The memorandum goes on to explain that, "Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a 'Designated Fund Balance' that should not be transferred out of the LMTF (Land and Minerals Trust Fund) until such time that any potential title disputes related to these leases have been resolved."

The Land Board's meeting minutes from July 2014 indicate the State has claimed 668 tracts of land with questionable acres. The proceeds received by the State from these tracts have been placed in the Designated Fund Balance until ownership is rightfully determined. While these tracts are definite and can be determined with certainty by the Land Board, the State has continued to refuse to identify the location of these tracts when asked by the Wilkinsons.

HB 1199 will resolve these title disputes in favor of the rightful landowners who reserved the oil and gas interests over 60 years ago when the United States acquired their property for Garrison Dam and Lake Sakakawea.

Mr. Patch raised this issue to the Land Board over five years ago. Yet, the State has forced his family to spend over $300,000 to fight them in court. The fact our client has had to exhaust his private resourced to defend the private property rights their grandparents reserved in 1958 – while the State stockpiled the ill-gotten gains from its unlawful action – is shameful.

3. REP. HEINERT'S QUESTION REGARDING THE BLACKED-OUT LANGUAGE ON THE FIRST PAGE OF THE WILKINSON'S WARRANTY DEED

During the hearing, Rep. Heinert asked about the blacked-out language on the first page of the Wilkinson's Warranty Deed to the United States. The blacked-out language is restated on the second page of the deed, and says the Wilkinson's interests did not include public highways or utilities. If you review the sentence before the blacked-out language, it reads: " ... containing, exclusive of said exception, 228.95 acres, more of less; subject to existing easements for public roads and highways, ..." After the blacked-out language, the deed resumes, stating, "... ner of any interest therein, ..." Turning to the second page of the same deed, you will see the blacked-out language restated in full, beginning towards the end of the first paragraph, which provides:

> " ... containing, exclusive of said exception 228.95 acres, more or less, subject to existing easements for public roads and highways, public utilities, railroads and pipelines.
>
> Reserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..."

This underlined language is what was, for unknown reasons, blacked-out on the first page of the Wilkinson's Warranty Deed when it was drafted in the late 1950s, likely explaining why the exact same language was repeated on the second page of the deed. This language does not alter, in any manner, the fact the Wilkinson's grandparents reserved the oil and gas interests subject only to the United States acquiring the property for Garrison Dam and Lake Sakakawea. Similar language is found in the Warranty Deed where the United States acquired the Vohs' property. The Vohs' deed is also part of Exhibit 3. If you go up 12 lines from the bottom of the first page of the Vohs' deed, it contains the same language as the Wilkinson's deed, providing "... subject to existing easements for public roads and highways, public utilities, railroads and pipelines, ..." If you turn to page 3 of the Vohs' deed, you'll see it contains the same language regarding the reservation of oil and gas interests that was blacked-out on the first page of the Wilkinson's deed, stating, "[R]eserving, however, to the owner of the land or the owner of any interest therein, including third party lessees, ..." This same language was used in the hundreds of warranty deeds and condemnation orders whereby the United States acquired the property from private landowners for Garrison Dam and Lake Sakakawea.

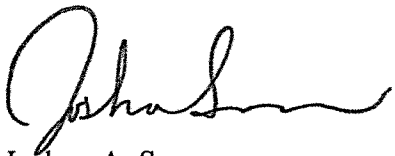
4. DIFFERENCES BETWEEN HB 1199 AND SB 2134

Both HB 1199 and SB 2134 address the State's unconstitutional taking of oil and gas interests rightfully belonging to private landowners who lost their property and surface rights to the United States for Garrison Dam and Lake Sakakawea.

We are concerned however that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in SB 2134. There is no rational reason to exclude the landowners in these 15 sections from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea. As such, HB 1199 is the preferred bill because it does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push this bill across the finish line for *all* affected property owners; not most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they are grateful for HB 1199. If you have any additional questions, I'd be glad to visit. I can be reached at 701.356.6369, via e-mail at jswanson@vogellaw.com, or would be glad to visit in person at your convenience.

Respectfully,



Joshua A. Swanson

BRIGHAM
Oil & Gas, L.P.

15202

Brigham Oil & Gas, L.P. ◆ 6300 Bridge Point Parkway, Bldg. 2, Suite 500 ◆ Austin, Texas 78730
Phone (512) 427-3300 ◆ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: Nominations for the August 3, 2010, State Lease Sale
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES	
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(1) ✓
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(2) ✓
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	Prev. Nom.
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04		Prev. Nom.

DTL002576

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 H

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: Designated Fund Balance for Land and Minerals Trust
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the
Board of University and School Lands
August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: Designated Fund Balance for the Lands and Minerals Trust Fund
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

Exhibit G-3 – Mar. 10, 2017 testimony of Joshua Swanson to the House Energy and Natural Resources Committee

Testimony of Joshua Swanson
Concerning Senate Bill No. 2134
House Energy and Natural Resources Committee
March 10, 2017, 9:00 AM

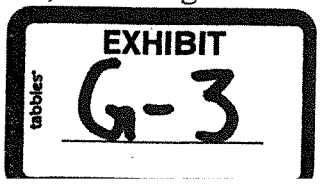
Chairman Porter and members of the Committee, thank you for the opportunity to comment on Senate Bill 2134. I'd like to also thank you for your work thus far on this issue, and for the Committee and House's support for HB 1199. As I testified previously to this Committee with regards to House Bill 1199, and to the Senate Energy and Natural Resources Committee with regards to Senate Bill 2134, I represent clients that have been affected by the State's unconstitutional taking of private oil and gas interests under property that was acquired by the United States back in the 1950s because of the flooding that would result from Garrison Dam and its man-made reservoir, Lake Sakakawea.

I will try not to repeat my testimony previously submitted to this Committee and to its counterpart in the Senate considering SB 2134. Instead, I'd like to address some of the questions asked by this Committee during the February 2 hearing on HB 1199, which are relevant to SB 2134, and were discussed in the February 9 letter I sent to the members of this Committee.

First, the Committee asked if SB 2134 and HB 1199 would resolve the lawsuits my clients have filed against the State. While my clients would abide by the legislation in its current form, the answer to this question is, essentially, up to the State. The State has not yet indicated whether they will continue pursuing their claims if legislation passes recognizing that the State does not own the oil and gas interests, which private land owners like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, reserved when the United States acquired their property for Lake Sakakawea.

Second, as to what exactly the State is claiming, contrary to the testimony previously offered by the State, in the lawsuit with the Wilkinson family, the State is claiming all the oil and gas interests under Lake Sakakawea. The State's position in the Wilkinson lawsuit is that Lake Sakakawea is one-and-the-same-thing as the Missouri River, and Lake Sakakawea does not exist as a separate body of water. The State's claim is not limited to the 30,000 acres under the "historic Missouri River" as it existed before Garrison Dam and Lake Sakakawea. The State has taken the position in the Wilkinson case that it can flood private property – like my clients' property and all the other acres flooded by Garrison Dam and Lake Sakakawea – and then claim title to that property. The State saying otherwise is simply not true, and flies in the face of the pleadings the State submitted to the court. SB 2134 addresses most of those acres.

As noted during this Committee's hearing on HB 1199, the location of these interests can be determined from the deeds and condemnation orders whereby the United States acquired the property subject only to the reservation of the oil and gas interests by private landowners. For example, if you look at Exhibit 3 to the written testimony I submitted in support of HB 1199, you will see the legal description for the property the United States acquired from the Wilkinson family as Farm Unit 312 in the Buford-Trenton Project, being part of Section 13, containing



57.09 acres; and the SW/4, S/2NW/4 of Section 12, containing 228.95 acres (excepting that portion which constitutes the right-of-way of the Great Northern Railway Company) all in Township 153 North, Range 102 West.

Additionally, contrary to the State's previous testimony, the State's claim to these private oil and gas interests only goes back to the beginning of our most recent oil boom. In 2010, the State placed thousands of acres up for auction that it had never before claimed – including the Wilkinson and Vohs' minerals – without notifying the private mineral owners of its actions. The July 2010 letter from Brigham Oil and Gas to the State, attached to my February 9 letter and included with this testimony as Exhibit 1, while requesting to lease the Wilkinson's property from the State, expressed serious doubts about the State's newfound claim, writing:

> "Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid."

(emphasis added). The State's wholesale deviation from its practice of claiming only those oil and gas interests within the "historic Missouri River" as it existed prior to Garrison Dam and Lake Sakakawea was confirmed during the deposition of Gary Preszler. Mr. Preszler was the acting Land Commissioner who preceded Mr. Gaebe. Mr. Preszler testified that between the time Lake Sakakawea was formed and approximately 2010, the State only claimed those minerals within the "historic Missouri River" as it existed before Garrison Dam.

Even while laying claim to its citizen's private mineral interests, the State suspected the proceeds received from its actions would likely be restored to the rightful owners one day. The State has set aside the bonus and royalty payments from the oil and gas interests outside of the "historic Missouri River" – like those owned by the Wilkinson and Vohs families, and beneficiaries of the property managed by First National Bank. As this Committee noted during its questioning on HB 1199, the State is a stranger to title of these privately held mineral interests. The State says as much in a September 2010 Memorandum prepared by the Land Board, also included with the February 9 letter, and attached to this testimony as Exhibit 2. This Memorandum shows that Mr. Gaebe and Mr. Heiser were both present at the September 2010 meeting where the Land Board stated in unmistakable terms that, "There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. ... In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so."

SB 2134 is necessary to restore the money wrongfully received by the State at the expense of private landowners – like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank – which was set aside in anticipation of the day the State would be required to make these private landowners whole again. That day is here. Stated

another way, doing the right thing and correcting the wrong rendered upon the citizens of North Dakota will not cost the State anything. The money required to right this wrong has been set aside and was not the State's to claim in the first place. A review of the Land Board Memorandum also discloses that despite its actions, the Land Board admitted it did not know what interests the State legally owned. To put a finer point on it, take first, sort out actual ownership later.

Finally, while both SB 2134 and HB 1199 address the State's unconstitutional taking of oil and gas interests, we are concerned that SB 2134 arbitrarily draws a dividing line where Lake Sakakawea ends and will continue to deprive some of the private property rights it seeks to protect. There are 15 sections of land in Township 152 North, Range 103 West, and Township 152 North, Range 102 West, that contain land acquired by the United States for Garrison Dam and Lake Sakakawea. Just like the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank, the landowners in these 15 sections reserved their oil and gas interests when their property was acquired by the United States for Lake Sakakawea. Nonetheless, these property owners were omitted in the amendment to SB 2134. There is no reason to exclude the landowners from the protections afforded the mineral owners to the east of the dividing line in SB 2134. They are in the exact same position, having lost their property to the United States because of Garrison Dam and Lake Sakakawea.

Conversely, HB 1199 does not arbitrarily draw a line where property rights are protected and leave potentially thousands of private oil and gas interest owners in the cold. HB 1199 recognizes that all those private landowners that lost their property to the United States because of Lake Sakakawea, but reserved their oil and gas interests, are deserving of protection. This body has taken great strides to protect the interests of it citizens and we urge you to push a form of this legislation across the finish line for all affected property owners; not just most of them.

In sum, I want to thank you again for taking up the mantle to protect private property rights and address the concerns of the Wilkinson and Vohs families, and the beneficiaries of the property managed by First National Bank. It has been a long few years for my clients, and they, and myself, are grateful for your efforts. Mr. Chairman, I'll stand for any questions the Committee may have.

Respectfully,

Joshua Swanson

BRIGHAM
Oil & Gas, L.P.

15207

Brigham Oil & Gas, L.P. ◈ 6300 Bridge Point Parkway, Bldg. 2, Suite 500 ◈ Austin, Texas 78730
Phone (512) 427-3300 ◈ Fax (512) 427-3400

June 10, 2010

Via Email & Overnight Mail
tfeeney@nd.gov

Board of University and School Lands
North Dakota State Land Dept.
Attn: Tom Feeney, Director of Minerals Management
1707 North 9th Street
Bismarck, ND 58506-5523

Checked - Brian ✓

RE: **Nominations for the August 3, 2010, State Lease Sale**
Williams/McKenzie Counties, ND

Dear Mr. Feeney,

Brigham Oil & Gas, L.P. ("Brigham") would like to nominate the following tracts for the August 3, 2010, State Lease Sale:

#	County	TWN	RNG	SEC	SUB-DIVISION	SLD OWN	NET	GROSS	NOTES	
1	WIL	153N	102W	11	MISSOURI RIVER IN NE4	100%	~~159.98~~ 10.90 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(1) ✓
2	WIL	153N	102W	11	MISSOURI RIVER IN SE4	100%	~~159.98~~ 136.84 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	(2) ✓
3	MCK	153N	102W	12	MISSOURI RIVER IN NW4	100%	~~159.98~~ 53.46 BT	159.98	Acreage Calculated from Plat Provided by Tom Feeney - Pending River Survey	Prev. Nom.
4	MCK	153N	102W	12	MISSOURI RIVER IN SW4	100%	160.04	160.04		Prev. Nom.

EXHIBIT
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1

DTL002576

ND State Land Department Lease Sale Nominations
June 10, 2010

Nom. Pending 7-1-10 JF

5	WIL	154N	103W	21	Parcel 16, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of WSW, excepting all that portion lying within 33 feet of the section lines, containing 1.89 acres, more or less.	100%	1.89	1.89	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota
6	WIL	154N	103W	21	Parcel 17, described as A strip of land 97 feet wide lying north of, adjoining and extending along the entire south line of ESW, excepting all that portion lying within 33 feet of the section line; 3.83 acres of SE.	100%	3.83	3.83	This acreage showed up in a partial Title Opinion for Brigham's Abe Owan 21-16 #1-H (NDIC File No. 18796) as unleased being owned by the State of North Dakota

5/23/2010 Spud date

Another tract (#7)

Brigham is aware of the State of North Dakota's recent claim to the high water mark along the Missouri River, and it appears that the State is claiming and is now leasing more acreage than previously leased and/or claimed. In reflecting the nominations above, Brigham is only nominating the tracts listed above and has not approved or verified title to said river tracts. It is Brigham's understanding that in the event the State's claim to the high water mark is not successful, the State will refund or credit the excess bonus monies paid.

If you have any questions, please do not hesitate to contact the undersigned.

Regards,

Heath E. Flowers

Heath E. Flowers
Area Landman
Brigham Oil & Gas, L.P.

Cc via email: Ken Treaccar
Heath Thompson

DTL002577

Minutes of the Meeting of the
Board of University and School Lands
September 30, 2010

The September 2010 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:35 AM by Governor John Hoeven, Chairman.

Members Present:

John Hoeven	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction
Wayne Stenehjem	Attorney General

Members Absent:
None

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Tom Feeney	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Judith F. Schell	Administrative Assistant

Others in Attendance:

Charles Carvell	AG Office
Carolyn Kvislen	AG Office
Les Korgel	McLean County Auditor
Steven Lee	McLean County Commissioner
Julie Hudson-Schenfish	McLean County Commissioner
Christopher Friez	Crowley/Fleck Law Firm
Al Fitterer	Al Fitterer Architect PC, McLean County
Jen Veleger	AG Office
Todd Sattler	AG Office
Gerald Heiser	Office of the State Engineer/State Water Commission
John Paczkowski	Office of the State Engineer/State Water Commission
Dale Wetzel	Associated Press

APPROVAL OF MINUTES

A motion to approve the minutes of the July 29, 2010 meeting was made by Al Jaeger and seconded by Wayne Stehenjem. .Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem	X		
Governor Hoeven	X		

EXHIBIT 2 tabbies

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
September 30, 2010

RE: **Designated Fund Balance for Land and Minerals Trust**
(Action Required)

There are many issues that could lead to potential title disputes related to the State's ownership of the minerals beneath navigable bodies of water. It may be some time before all of these potential title disputes are resolved, by the courts or through negotiations and agreements between the various parties. In the meantime, the Commissioner believes that the Board should take action to ensure that if the State does lose title disputes, the money needed to refund bonuses and other revenues received are still available to do so.

Revenues from sovereign lands are deposited into the Land and Minerals Trust Fund (LMTF). Each budget cycle, the Commissioner estimates the amount of cash that will be available in the LMTF during the following biennium. Historically, the legislature has then appropriated funds and authorized transfers out of the LMTF to the General Fund based on those estimates. The amount transferred at the end of each biennium has usually been less than $7 million, although that amount increased to approximately $15.9 million during the 2007-2009 biennium, and the amount slated to be transferred from the LMTF this biennium is $35 million.

With the current Bakken/Three Forks oil activity, LMTF revenues have skyrocketed. Our most current estimates indicate that the balance in the LMTF at the end of the current biennium, after the $35 million transfer, could be as high as $180 million. Most of that amount is oil and gas lease bonuses related to the beds of the Missouri and Yellowstone Rivers.

Even though there are questions as to exactly how much riverbed the State owns in any given section, the previous Commissioner felt it was important to lease riverbed tracts to interested oil companies as the Department did not want to hinder development. These companies wanted to lease the minerals, despite the knowledge that there is some uncertainty as to exactly what the State owns. Tracts were leased with the understanding that as title issues were resolved, the Land Department would refund overpayments.

In recent weeks, Land Department staff analyzed all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are 322 tracts that could potentially be questioned, with bonuses and rentals collected in the amount of $51,049,169. This amount can be classified into amounts received before and after June 30, 2010.

Received prior to June 30, 2010	$21,026,092
Received after June 30, 2010	$30,023,077
Total	$51,049,169

As part of this process, the Commissioner met with representatives of the Office of Management and Budget, the Legislative Council and the Auditor's Office to seek guidance on

the appropriate treatment of these moneys. The two reasons for this effort were to quantify the total funds involved in riverbed claims and to determine how to disclose this information on our financial statements.

Based on discussions with the agencies, it was decided that the Commissioner should seek Land Board approval to classify these funds as a "Designated Fund Balance" that should not be transferred out of the LMTF until such time that any potential title disputes related to these leases have been resolved.

It is important to note that no lawsuits have been filed related to these tracts and that there is no expectation that the Board will lose any potential title dispute that may arise related to these tracts. The Commissioner is seeking this action because it is possible, not probable, that at least a portion of these funds may need to be refunded.

The Commissioner recommends that the Board classify $21,026,092 as a "Designated Fund Balance" for FY 2010 financial statement purposes as an indication that the funds should not be transferred from the LMTF until title claims related to these leases have been resolved. The Commissioner also recommends that the $30,023,077, along with additional amounts collected on riverbed acreage during the remainder of the FY 2011 be similarly designated for both distribution purposes and financial statement purposes in fiscal year 2011.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Hoeven					

Minutes of the Meeting of the
Board of University and School Lands
August 25, 2011

The August 25, 2011 meeting of the Board of University and School Lands was called to order in the Governor's Conference Room at 9:00 AM by Chairman Jack Dalrymple.

Members Present:

Jack Dalrymple	Governor
Kelly Schmidt	State Treasurer
Alvin A. Jaeger	Secretary of State
Wayne G. Sanstead	Superintendent of Public Instruction

Members Absent:

Wayne Stenehjem	Attorney General

Land Department Personnel:

Lance D. Gaebe	Land Commissioner
Keith Bayley	Land Professional
Michael D. Brand	Director, Surface Management Division
Jeff Engleson	Director, Investment Division
Levi Erdmann	Programmer Analyst
Drew Combs	Director, Minerals Management Division
Linda Fisher	Unclaimed Property Administrator
Peggy Gudvangen	Account/Budget Specialist
Pam Rennich	Director, Revenue Compliance Division
Judith F. Schell	Administrative Assistant

Others in Attendance:

David T. Jenson	Landowner
Jon Patch	Wilkinson Family
Stan Reep	Land/Mineral Owner
John Reep	Land/Mineral Owner
Craig Smith	Crowley/Fleck Law Office
JannelleCombs	Leonard, Street and Deinard
Tony Toepfer	Leonard, Street and Deinard
Tim Kingstad	Fredrickson & Byron
Dwight Wrangham	Landowners Association of ND
Vicky Steiner	ND Oil and Gas Producing Counties
Josh Askvig	North Dakota Education Association
Rebecca Beitsch	Bismarck Tribune

APPROVAL OF MINUTES

A motion to approve the minutes of the July 28, 2011 meeting was made by Al Jaeger and seconded by Kelly Schmidt. Motion carried.

Action Record	Aye	Nay	Absent
Secretary Jaeger	X		
Superintendent Sanstead	X		
Treasurer Schmidt	X		
Attorney General Stenehjem			X
Governor Dalrymple	X		

(08/11)

FEE OWNERS' CLAIMS OF SOVEREIGN MINERALS

Sovereign Minerals. The Board was reminded that for purposes of identifying and leasing sovereign minerals, east of the Highway 85 Bridge, the Department leases the historic channel of the Missouri River as it existed prior to inundation by Lake Sakakawea. West of the bridge, sovereign minerals leasing is based on the location of the existing river channel.

Mr. Jon Patch and Mr. Stan Reep were each provided with an opportunity to address the Board regarding their concerns about the State Land Department's (SLD) leasing of minerals under the Missouri River. Both Mr. Patch and Mr. Reep claim ownership to minerals that the Department has leased as sovereign minerals.

Mr. Patch has met with the Board, with staff of the Attorney General, the State Engineer and the Department. His interests are west of the Hwy 85 bridge, thus within the area where the current river determines what the state leased. Mr. Patch believes that the Department's use of the historic river channel should not stop at the Highway 85 Bridge but should extend farther west and at least to his family's land.

Mr. Reep's interest is in land east of the Highway 85 Bridge. His claim is that the state's use of the historic pre-reservoir channel to determine sovereign minerals is without legal basis. He believes the SLD should take the position that state mineral ownership and leasing should be based on the current location of the river.

Seperately, there is ongoing legal action involving State owned minerals under the Missouri River. Brigham Oil and Gas has filed suit asking that all who assert ownership of minerals within the spacing unit for the Williston 25-36 #1H well present their claims so that Brigham knows who is entitled to royalty payments. The Department is listed in this action as are dozens of other persons, entities and companies. Two separate state interests are involved and may have opposing views, in that the state is the owner of the bed of the Missouri River and its underlying minerals, and there is the Board's interest in land riparian to the Missouri River that the Board manages for the common schools. Mineral ownership issues highlighted by Mr. Patch and Mr. Reep may get addressed within Brigham's suit.

The Board took no action to stipulate or renegotiate mineral settlements on the Missouri or Yellowstone Rivers, citing the legal cases (underway), that when decided will possibly provide a basis for resolving related disputes.

INVESTMENTS DIVISION

Financial Statements. The Board reviewed the Financial Statements as of June 30, 2011. These reports are on file at the Land Department and were for the Board's information; no action was required.

Investment Performance Reports: Quarters Ending March 31, 2011 and June 30, 2011. The investment performance report covered the performance of the Land Board's investment program for the period of March 31, 2011 and June 30, 2011. This report is prepared quarterly by Land Department staff to keep the Board informed on the performance of the investment portfolio as a whole, and the performance of the individual money managers hired to help meet investment goals and objectives. A complete copy of the report is on file at the Land Department and was presented for the Board's information; no action was required.

Designated Fund Balance for the Lands and Minerals Trust Fund. Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board established the Designated Fund Balance within the LMTF to account for potential disputes to the State's ownership of the minerals beneath navigable bodies of water. Until there is a resolution of claims of the minerals, the Board determined it was prudent to set aside potential disputed amounts to be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 for riverbed tracts. The purpose of the analysis was to determine the acreage involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres total an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking an updated amount to place within the designated fund because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Motion: The Board specifed $76,630,216 as the cumulative "Designated Fund Balance" of the Land and Minerals Trust Fund as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to sovereign lands have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger	X		X		
Superintendent Sanstead			X		
Treasurer Schmidt		X	X		
Attorney General Stenehjem					X
Governor Dalrymple			X		

MINERALS MANAGEMENT DIVISION

Willard Burk Settlement Agreement (WIL-155-100-25-SW4). This matter, involves a dispute over title to 50% of the minerals in a quarter section of Williams County.

While there is no dispute that the State owns 50% of the minerals in the tract there is a dispute over title to the other 50%. Mr. Willard Burk asserts that he acquired the disputed 50% in a 1991 transaction with the State, or more particularly with the Bank of North Dakota and the State Treasurer. A few years ago the Land Board issued an oil and gas lease to the quarter section, a lease covering 100% of the minerals. Not long after that, Mr. Burk issued a lease on what he considered to be his 50% ownership.

While the substantive legal issues of the title dispute are somewhat complex the matter became more difficult when the State's lease was assigned and the assignors retained overriding interests in what they considered a lease covering 100% of the minerals; and was further complicated when a successful well producing from the property in question was drilled by Zavanna LLP. Upon learning of the overlapping leases to minerals in the southwest quarter of section twenty-five, Zavanna did not pay royalties attributable to the contested 50% interest, but instead held them in suspense.

At the May 2011 meeting the Board decided not to litigate title to the disputed 50% and directed the Commissioner to seek an agreement that would recognize that Mr. Burk owns 50% of

MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS
August 25, 2011

RE: **Designated Fund Balance for the Lands and Minerals Trust Fund**
(presently known as the Strategic Investment and Improvements Fund)
(Action Requested)

Revenues from sovereign lands are deposited into the Lands and Minerals Trust Fund (LMTF). At its September 30, 2010 meeting, the Land Board classified $21,026,092 of the June 30, 2010 fund balance of the LMTF as a "Designated Fund Balance" that should not be transferred out of the fund until title claims to certain riverbed leases have been resolved. The Board also stipulated that any similar revenues received during the remainder of FY 2011 be included in the Designated Fund Balance. The Commissioner is requesting Board approval of the final "Designated Fund Balance" for the FY 2011 financial statements.

The reason the Board established the Designated Fund Balance relates to potential disputes to the State's ownership of the minerals beneath navigable bodies of water. It will take time for the courts and subsequent negotiations to resolve the ownership issues. Until there is a resolution of claims of the minerals, the Board felt it was prudent to set aside potential disputed amounts so it would be available for refunds if needed.

The Land Department has examined all bonus and other lease payments received since 1999 by the Department for riverbed tracts. The purpose of the analysis was to determine how much acreage is involved within the riverbed ownership question.

The analysis involved two parts:

- Determining the amount of bonus and rent collected on riverbed tracts located within boundaries of the Fort Berthold Reservation.
- Determining the amount of bonus and rents collected on the acreage between the ordinary high water mark and the water's edge (shore zone) for riverbed tracts located outside of the Reservation.

Based on this analysis there are approximately 412 tracts that contain acreage that could potentially be disputed or questioned, with bonuses and rentals associated with these acres totaling an estimated $76,630,216.

Recent legal action has been filed related to sovereign ownership, but there is no specific outcome anticipated related to these tracts. The Commissioner is seeking this action because it is possible, not probable that at least a portion of funds related to riverbed tracts may need to be refunded.

Recommendation: The Board specify $76,630,216 as the cumulative "Designated Fund Balance" of the LMTF as of June 30, 2011. The funds should not be transferred from the LMTF until title claims related to these leases have been resolved. Secondly, any additional amounts collected on potentially disputed riverbed acreage during the remainder of FY 2012 be similarly designated for both distribution and financial statement purposes.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Jaeger					
Superintendent Sanstead					
Treasurer Schmidt					
Attorney General Stenehjem					
Governor Dalrymple					

For the Board's information: Historically, the legislature has appropriated LMTF funds and authorized transfers to the General Fund. The amount transferred was $15.9 million in the 2007-2009 biennium, $35 million during the 2009-2011 biennium and the current biennium budget has a $305 million transfer.

On July 1, 2011 the Lands and Minerals Trust Fund was merged with the Permanent Oil Tax Trust Fund and renamed the Strategic Investment and Improvements Fund by action of the 2011 Legislature in HB 1451. The bill also codified Board's authority to designate a fund balance relating to potential title disputes regarding certain riverbed leases, and thus not available for transfer to the Legacy Fund.

From: Paul van Gulick
To: Kadrmas, Bethany R.
Subject: Public Comment - Case No. 26584 - Review of Ordinary High Water Mark - Wenck Report
Date: Wednesday, May 02, 2018 4:16:48 PM
Attachments: OHWM_Wenck_PublicComment_PvG_20180302.pdf

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Please accept my comments (attached as a pdf file to this email) in the above case regarding the review of the delineation of the ordinary high water mark of the US Army Corps of Engineers survey segments from the northern boundary of the Fort Berthold Indian reservation to the southern border of Sections 33 and 34, Township 153 North, Range 102 West.

Thank you for your consideration.

Paul

Paul van Gulick, PE, PS
(575) 937-0319 (mobile)

van Gulick Surveying, LLC

1031 Monte Largo Drive NE
Albuquerque, NM 87123

To: North Dakota Industrial Commission

From: Paul van Gulick, PE, PS

Date: May 2, 2018

Re: Public Comment on delineation of the OHWM of the US Army Corps of Engineers survey segments from the northern boundary of the Fort Berthold Indian reservation to the southern border of Sections 33 and 34, Township 153 North, Range 102 West.

Dear Commission Members,

This is to submit my comments for consideration during the Commission's review of the delineation of the ordinary high water mark received by the Commission on April 17, 2018, from Wenck Associates, Inc.

I am a Professional Engineer and Professional Surveyor licensed in the State of New Mexico. The Wenck report is of interest to me in my own work in hydrology and hydraulics because of the highly technical and multidisciplinary requirements to objectively delineate a meaningful ordinary high water mark (OHWM). I note the tendency of some to think of it in the same way as drawing a political boundary, or a land-use zone, but an OHWM is not a political or legislative boundary as such, even if it is ultimately the demising line between private and public rights. Rather, it is and must be a physically meaningful boundary and must be determined scientifically in order that private and public interests are both fairly protected.

I have read and reviewed the Wenck report and I find that they have indeed brought multiple relevant disciplines to bear and have employed methods and made assumptions that I consider to be both standard and properly objective. Central to the study is the use of a hydraulic model with cross-sections that were surveyed by the US Army Corps of Engineers prior to the construction of the dam, and with a volume flow based on frequency analysis of USGS streamflow records. This forms a solid foundation on which a physically meaningful analysis can proceed. I note that a prior OHWM delineation by others was made without the benefit of any hydraulic modeling, which renders such a delineation meaningless.

The work that you have commissioned and that Wenck has executed is exemplary and I believe it will be recognized in due course by other western states as a technically sound template for OHWM delineation.

Sincerely,

Paul van Gulick, PE, PS