



North Dakota Update

December 1, 2021

NARO



- Statistics
- 2021-2022 Administrative Rules
- Non-core Development
- EOR
- ARPA



- **Statistics**
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Oil Production

August	1,107,359 barrels/day (final)	
September	1,113,410 barrels/day (all-time high 1,519,037 BOPD Nov 2019)	NM = 1,208,863
	1,070,883 barrels/day or 96% from Bakken and Three Forks	
	42,527 barrels/day or 4% from legacy pools	

Gas Production and Capture

August Production	2,961,434 MCF/day	
92% Capture	2,717,801 MCF/day	
September Production	3,015,567 MCF/day	(all-time high 3,145,172 MCFD Nov 2019)
94% Capture	2,831,057 MCF/day	(all-time high 2,899,998 MCFD Mar 2020)

July Gas Capture

Statewide	94%
Statewide Bakken	94%
Non-FBIR Bakken	95%
FBIR Bakken	92%
Trust FBIR Bakken	94%
Fee FBIR	78%

Permits

August 79 drilling and 0 seismic
September 69 drilling and 2 seismic
October 37 drilling and 0 seismic (all-time high 370 in 10/2012)

Rig Count

September 27
October 29 (all-time high 218 on 5/29/12)
Federal surface 0
NM 83

CURRENT ACTIVE DRILLING RIG LIST								
*Data published at dmr.nd.gov/oilgas under the Active Drilling Rigs, Confidential Well List, Well Search, GIS Map Server, and Basic/Premium Services are being impacted by a data migration. This has caused the data to remain temporarily stagnant. Data is accurate up to July 14, 2021. When an estimated date of repair is available, we will update this service notice.								
If you have questions email oilandgasinfo@nd.gov								
11/30/2021 – 32 ACTIVE RIGS								
COLUMN DEFINITIONS: RIG ID – Refers to the name of the rig. Well Operator – Refers to the operator of the well where rig is located. Well name & Number – Well name and number of well where rig is located. Current Location – Quarter Quarter – Section – Township - Range County File Number – NDIC File Number of well where rig is located. API – API Number of well where rig is located. Start Date – The date when the rig started its most recent activity at the well location. This is not the spud date. Watch this video for how to find the spud date of a well .* Next Location - Anticipated Next rig location. These are obtained from rig crews and are subject to changes determined by the operator. (MIRU – Moving in, rigging up)								
RIG ID	WELL OPERATOR	WELL NAME & NUMBER	CURRENT LOCATION	COUNTY	FILE NO.	API	START DATE	NEXT LOCATION
CYCLONE 35	KODA RESOURCES OPERATING, LLC	STOUT 3410-28H	SW SW 34 160N 102W	DIVIDE	37797	3302301446	11/10/2021	
TRUE 40	ENERPLUS RESOURCES USA CORPORATION	MINNOW 149-94-36C-25H	LOT 4 03 148N 94W	DUNN	36991	3302503923	11/20/2021	
NABORS X-10	MARATHON OIL COMPANY	PHILLIP 41-4TFH	LOT 1 04 146N 94W	DUNN	37997	3302504115	11/03/2021	
H & P 454	CONTINENTAL RESOURCES, INC.	FLINT CHIPS FEDERAL 16-5HSL	NW NE 08 147N 96W	DUNN	38151	3302504190	11/08/2021	
CYCLONE 38	CONTINENTAL RESOURCES, INC.	WHITMAN FIU 6-34H2	NW NW 34 147N 96W	DUNN	38500	3302504326	11/24/2021	
NABORS B1	CONTINENTAL RESOURCES, INC.	THORP FEDERAL 7-28H1	SW NW 21 148N 97W	DUNN	38517	3302504334	11/21/2021	
NABORS B6	CONTINENTAL RESOURCES, INC.	WHITMAN FIU 12-34H2	NE NE 34 147N 96W	DUNN	38532	3302504339	11/22/2021	
H & P 640	HUNT OIL COMPANY	HALLIDAY 145-93-15-22H 3	SE SW 10 145N 93W	DUNN	38535	3302504342	11/30/2021	
H & P 535	MARATHON OIL COMPANY	CODY 11-18H	LOT 1 18 146N 93W	DUNN	38587	3302504362	10/24/2021	
H & P 259	MARATHON OIL COMPANY	WEEKES 14-8TFH	NE NE 18 146N 93W	DUNN	38593	3302504367	11/07/2021	
AES 4	CONTINENTAL RESOURCES, INC.	BANG 12-4H	SE SE 04 146N 96W	DUNN	38609	3302504375	11/24/2021	
H & P 515	PETRO-HUNT DAKOTA, LLC	MONGOOSE 149-102-8D-5- 2H	SE SE 08 149N 102W	MCKENZIE	28832	3305306111	11/18/2021	
TRUE DRILLING 39	TRUE OIL LLC	NORTHERN STATE 31-36	NW NE 36 148N 102W	MCKENZIE	37495	3305309378	10/29/2021	
NABORS B27	CONTINENTAL RESOURCES, INC.	CHAROLAIS SOUTH FEDERAL 7-10H2	NE NW 15 153N 94W	MCKENZIE	37905	3305309554	11/14/2021	
NABORS B 13	OASIS PETROLEUM NORTH AMERICA LLC	SOTO 5097 12-3 4B	LOT 3 03 150N 97W	MCKENZIE	38335	3305309721	11/28/2021	
NABORS B18	IRON OIL OPERATING, LLC	ANTELOPE 4-17-20H	NE NW 17 149N 101W	MCKENZIE	38460	3305309746	11/22/2021	
NABORS B26	OASIS PETROLEUM NORTH AMERICA LLC	LINDVIG BECK FEDERAL 5201 41-2 5B	SW SW 02 152N 101W	MCKENZIE	38525	3305309760	MIRU	
H & P 516	OVINTIV PRODUCTION INC.	WISNESS STATE 152-96-16-21-21H	NW NE 16 152N 96W	MCKENZIE	38547	3305309766	11/20/2021	
PATTERSON 611	GRAYSON MILL OPERATING, LLC	JAY 24-13F 6H	NE NE 25 153N 98W	MCKENZIE	38612	3305309777	11/20/2021	
IRON HAND 108	EAGLE OPERATING, INC.	WILLY MIRANDA-STATE 16-4	NW NW 16 150N 102W	MCKENZIE	38630	3305309778	11/22/2021	
T&S DRILLING 1	SUMMIT CARBON SOLUTIONS, LLC	ARCHIE ERICKSON 2	SW SW 12 142N 88W	MERCER	38622	3305700042	11/23/2021	
NABORS X28	HESS BAKKEN INVESTMENTS II, LLC	EN-J HORST- 154-93-1112H-1	SW NW 11 154N 93W	MOUNTRAIL	38397	3306104907	11/16/2021	
UNIT 414	SLAWSON EXPLORATION COMPANY, INC.	COUGAR FEDERAL 1 8LH	SE SE 24 152N 93W	MOUNTRAIL	38457	3306104940	11/25/2021	
PATTERSON 808	WHITING OIL AND GAS CORPORATION	KANNANEN 11-5-2HU	LOT 4 05 153N 91W	MOUNTRAIL	38521	3306104943	11/22/2021	
NABORS X27	HESS BAKKEN INVESTMENTS II, LLC	BL-S RAMBERG- 155-95-0601H-5	NE SE 06 155N 95W	WILLIAMS	36642	3310505237	11/11/2021	
H & P 492	CONTINENTAL RESOURCES, INC.	LCU RALPH 4-27H	SW SW 22 153N 99W	WILLIAMS	37013	3310505350	11/10/2021	
H & P 492	CONTINENTAL RESOURCES, INC.	LCU RALPH 3-27H1	SW SW 22 153N 99W	WILLIAMS	37014	3310505351	11/24/2021	
PATTERSON 806	WHITING OIL AND GAS CORPORATION	MILLER 31-15H	NW NE 15 155N 97W	WILLIAMS	37413	3310505420	11/14/2021	
NABORS X24	HESS BAKKEN INVESTMENTS II, LLC	CA-E BURDICK-LE- 155-95-29H-1	SE SE 20 155N 95W	WILLIAMS	38002	3310505569	11/18/2021	
PATTERSON 901	CONTINENTAL RESOURCES, INC.	ROLF FEDERAL 8-17H1	NW NE 17 155N 98W	WILLIAMS	38298	3310505614	11/24/2021	
NABORS B21	CRESCENT POINT ENERGY U.S. CORP.	OPELUSO PANKAKE 4-6-7-157N-99W-MBH	SW SE 31 158N 99W	WILLIAMS	38555	3310505665	11/22/2021	
H & P 456	CONTINENTAL RESOURCES, INC.	LCU RALPH 10-27H1X	NE SW 22 153N 99W	WILLIAMS	38657	3310505684	11/24/2021	

Wells Waiting on Completion

August	521
September	503

Inactive Wells

August	1,672
September	1,696

Completions

August	47
September	34
October	41

Producing Wells

August	16,956
September	17,041 (preliminary)(NEW all-time high 17,041 September 2021)
	14,758 wells or 87% are now unconventional Bakken – Three Forks wells
	2,283 wells or 13% produce from legacy conventional pools



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Timetable for adopting NDIC Rules

- √ August 24, 2021 – NDIC approved proceeding with rulemaking
- √ September 9, 2021 – notice of rulemaking published
- √ October 11, 2021 – rulemaking hearings Bismarck and Dickinson
- √ October 12, 2021 – rulemaking hearings Williston and Minot
- √ October 22, 2021 – deadline for rulemaking comments
- √ November 30 – NDIC approval of rule amendments
- January 27, 2022 – file rule amendments with Legislative Counsel
- March 2, 2022 – Administrative Rules Committee hearing
- April 1, 2022 – rule amendments become final

NDIC Rules

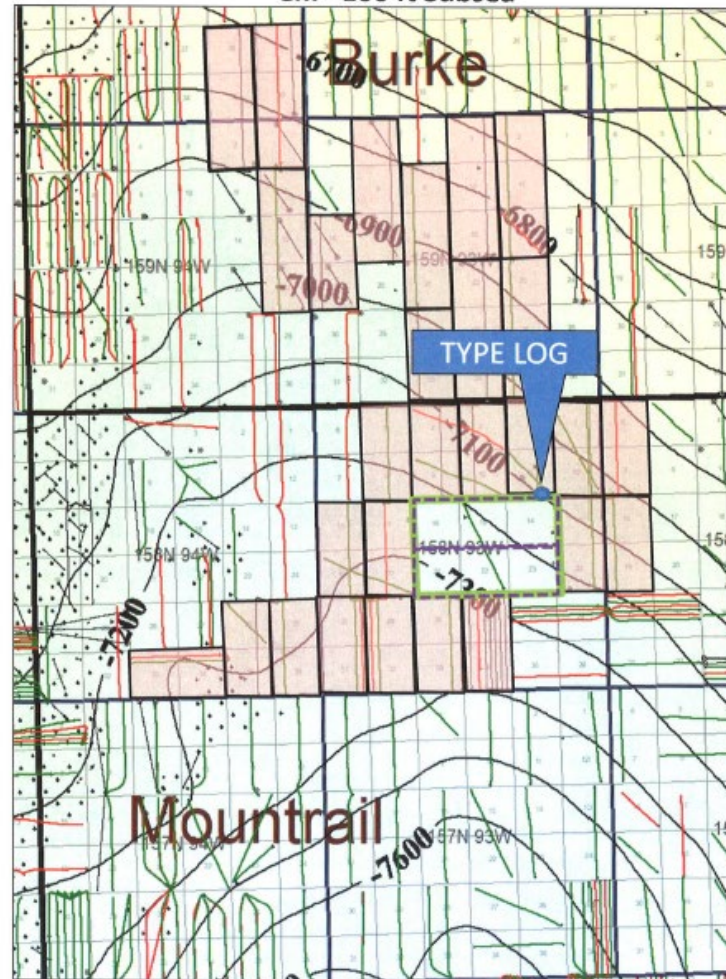
Microsoft Word - Rule Changes.2022.2021-08-31.Final.Filed with LC (nd.gov)

43-02-03-07	United States Government Leases	
43-02-03-09	Forms Upon Request	
43-02-03-14.2	Oil and Gas Metering Systems	
43-02-03-15	Bond and Transfer of Wells	
43-02-03-16	Application for Permit to Drill & Recomplete	
43-02-03-16.1	Designation and Responsibilities of Operator	
43-02-03-21	Casing, Tubing, and Cementing Requirements	
43-02-03-27.1	Hydraulic Fracture Stimulation	
43-02-03-29	Well & Lease Equip & Gas Gathering Pipelines	
43-02-03-29.1	Oil & Prod Water Underground Gathering Pipelines	
43-02-03-30	Notification of Fires, Leaks, Spills, or Blowouts	
43-02-03-34.1	Reclamation of Surface	
43-02-03-38.1	Preservation of Cores and Samples	
43-02-03-55	AB of Wells, TP, Pipeline, SWHF	
43-02-03-88.1	Special Procedures for Wells, CTB, Flaring	
43-02-03-90.2	Official Record	
43-02-03-90.4	Notice of Order by Mail	HB1055
43-02-14	GEOLOGIC STORAGE FACILITIES	SB2065
43-05-01-17	GEOLOCIC STORAGE OF CARBON DIOXIDE Storage Facility Fees	SB2014



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Geologic Structure Map
Top Upper Bakken Shale
C.I.= 100 ft Subsea



- - Existing Middle Bakken Horizontal
- - Existing Three Forks Horizontal
- Existing Liberty Spacing unit
- Existing 1920-acre Spacing Unit
- Proposed 3840-acre Spacing Unit

INDUSTRIAL COMMISSION

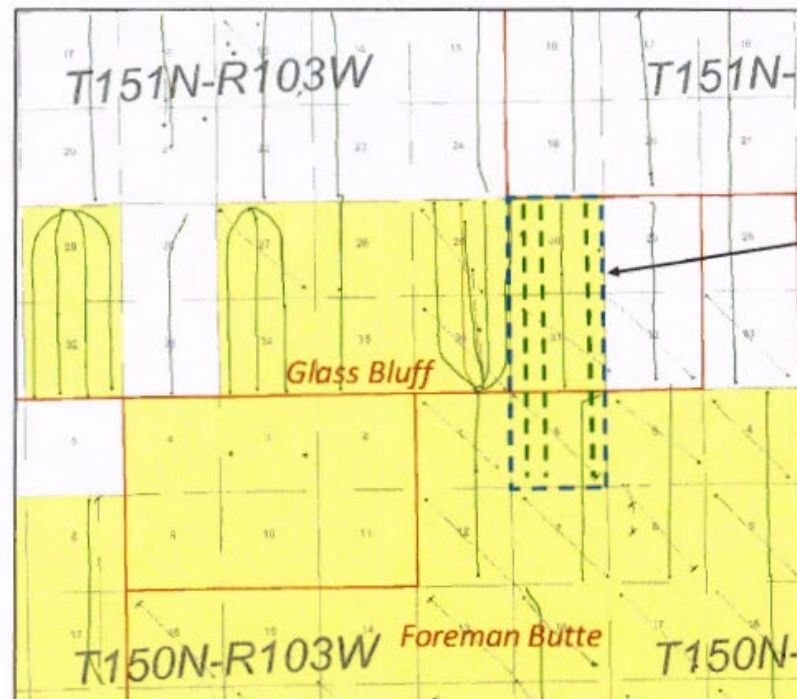
Case No. 28831

Liberty

G-1

McChesney





1920-acre Spacing Unit
Sections 30 & 31 T151N-R102W
and Section 6 T150N-R102W

Whiting's working interest =
56.43%

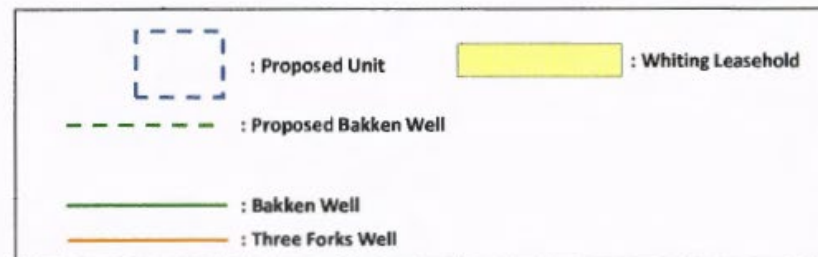
INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA


DATE 7/28/21 CASE NO. 28861

Introduced By Whiting

Exhibit L2

Identified By Mansfield



 Whiting Oil and Gas Corporation	
Land Plat	
Case #28861	Exhibit L2 Page 1
D. Mansfield	July 28, 2021



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Oil and Gas : ArcIMS Viewer

Legend / Layers

Overview Map

View Entire State

Previous View

Clear Selection

Search

Create PDF

Zoom In

Zoom Out

Pan

Rect Identify

Select Object

Buffer

Distance

Find Well

Find Field / Unit

Find Section

Browser Settings
Suggestion

Download Shape Files

ND OIL & GAS LAYERS

- ☒ Oil and Gas
- ☒ Wells
- ☒ Permit Status Before Spud
- ☒ Rig Location
- ☒ Directional Surveys
- ☒ Directional Legs
- ☒ Horizontal Surveys
- ☒ Horizontal Legs
- ☒ Cases Docketed
- ☒ Oil Fields
- ☒ Unit Boundaries
- ☒ Inspector Areas
- ☒ Drilling / Spacing
- ☒ Seismic
- ☒ Gas Plants
- ☒ Other

Refresh Map

☒ Auto Refresh

Help:

- A closed group, click to open.
- An open group, click to close.
- A map layer.
- A hidden group/layer, click to make visible.
- A visible group/layer, click to hide.
- A visible layer, but not at this scale.
- A partially visible group, click to make visible.
- An inactive layer, click to make active.
- The active layer.



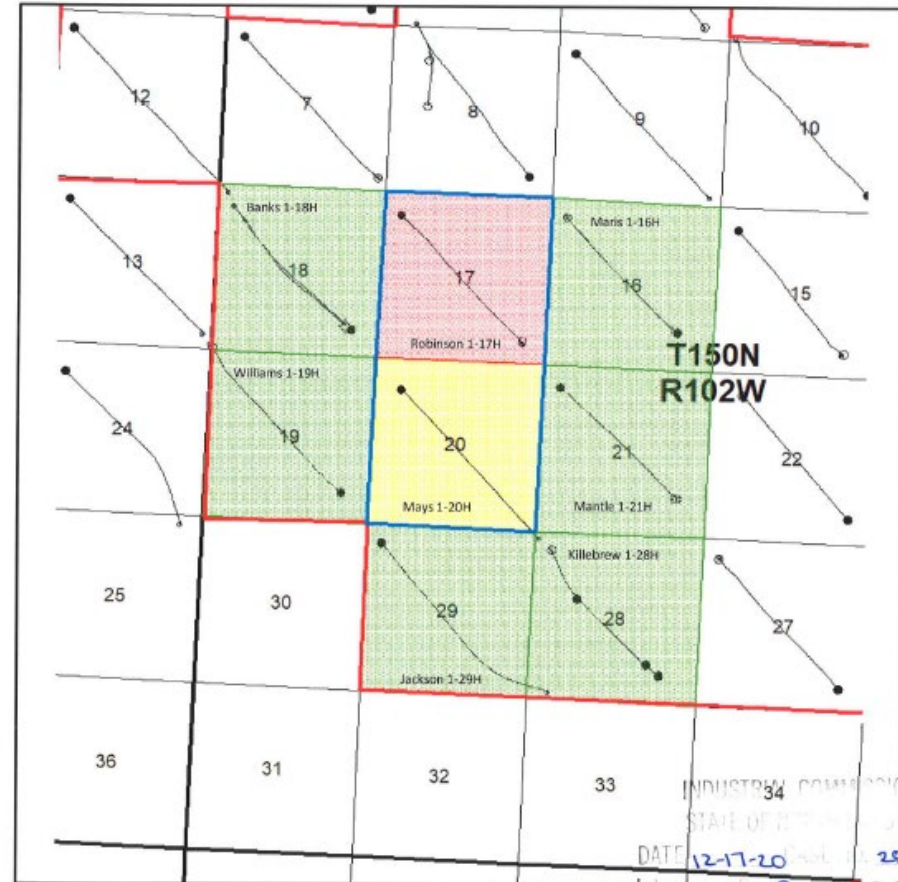
<input checked="" type="radio"/>	CEDAR HILLS	oilGas	Print
<input type="radio"/>	CENTENNIAL	oilGas	Print
<input type="radio"/>	CHAMA	oilGas	Print
<input type="radio"/>	CHARBONNEAU	oilGas	Print
<input type="radio"/>	CHARLIE BOB	oilGas	Print




Find

Map Data Last Updated : 7/19/2021

Mays Waterflood Test Plat

Foreman Butte Field: Madison Pool

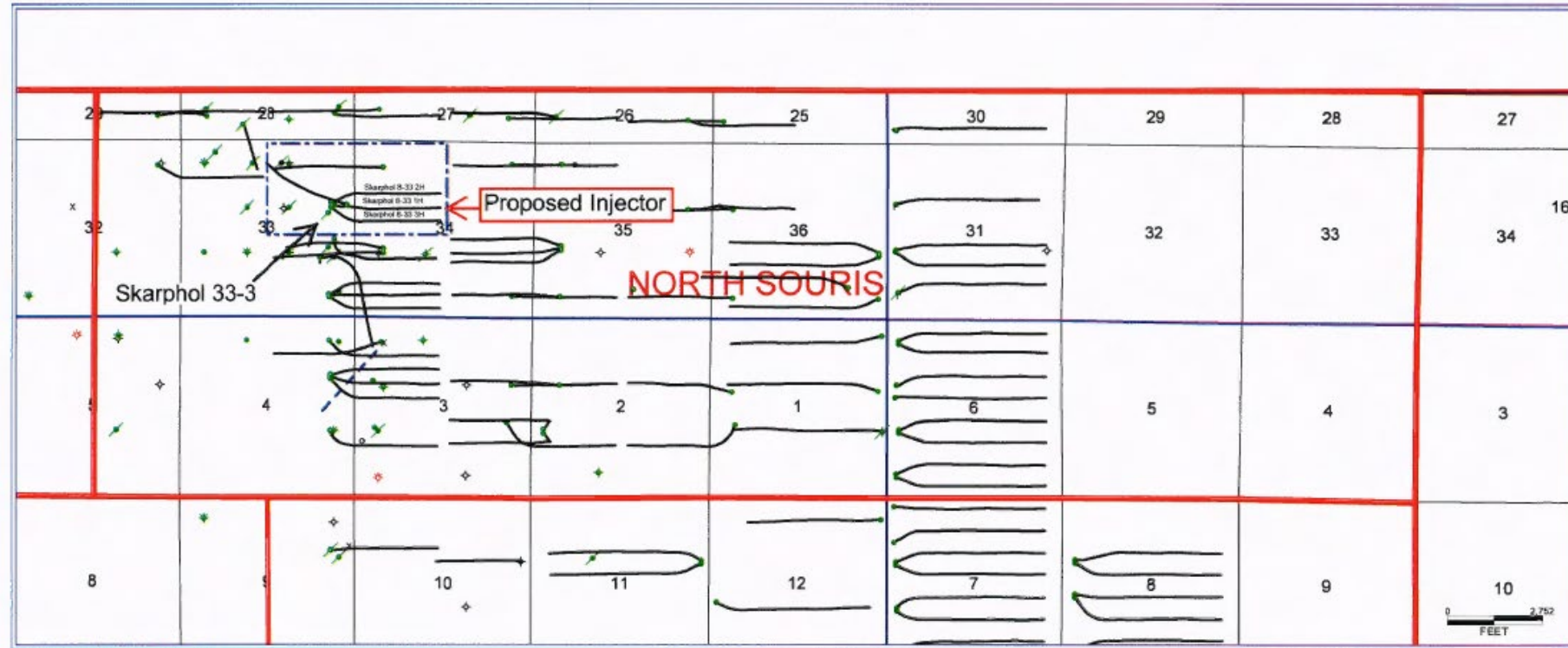


Mays 1-20H – Injector		Mays/Robinson Unit	
Robinson 1-17H – Producer			
6 Monitoring Wells			

INDUSTRIAL COMMISSION
STATE OF OKLAHOMA
DATE 12-17-20
Index Samson
Exhibit 4
Identified by Hatcher

Exhibit: 4
Docket Case No. 28572

Proposed horizontal water injection well location and offset vertical type well



Spacing Unit - Case 21763, Ballantyne Oil, LLC leasehold

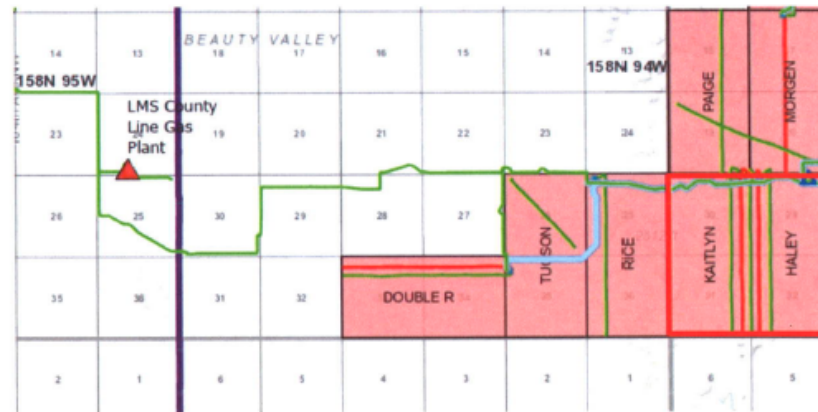


North Souris Field Boundary

INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA
DATE 8/26/21 CASE NO. 28924
Introduced By Ballantyne
Exhibit 2
Identified By Jennings

Ballantyne Oil, LLC
Case No. 27266
Exhibit 2

Features of Project Location



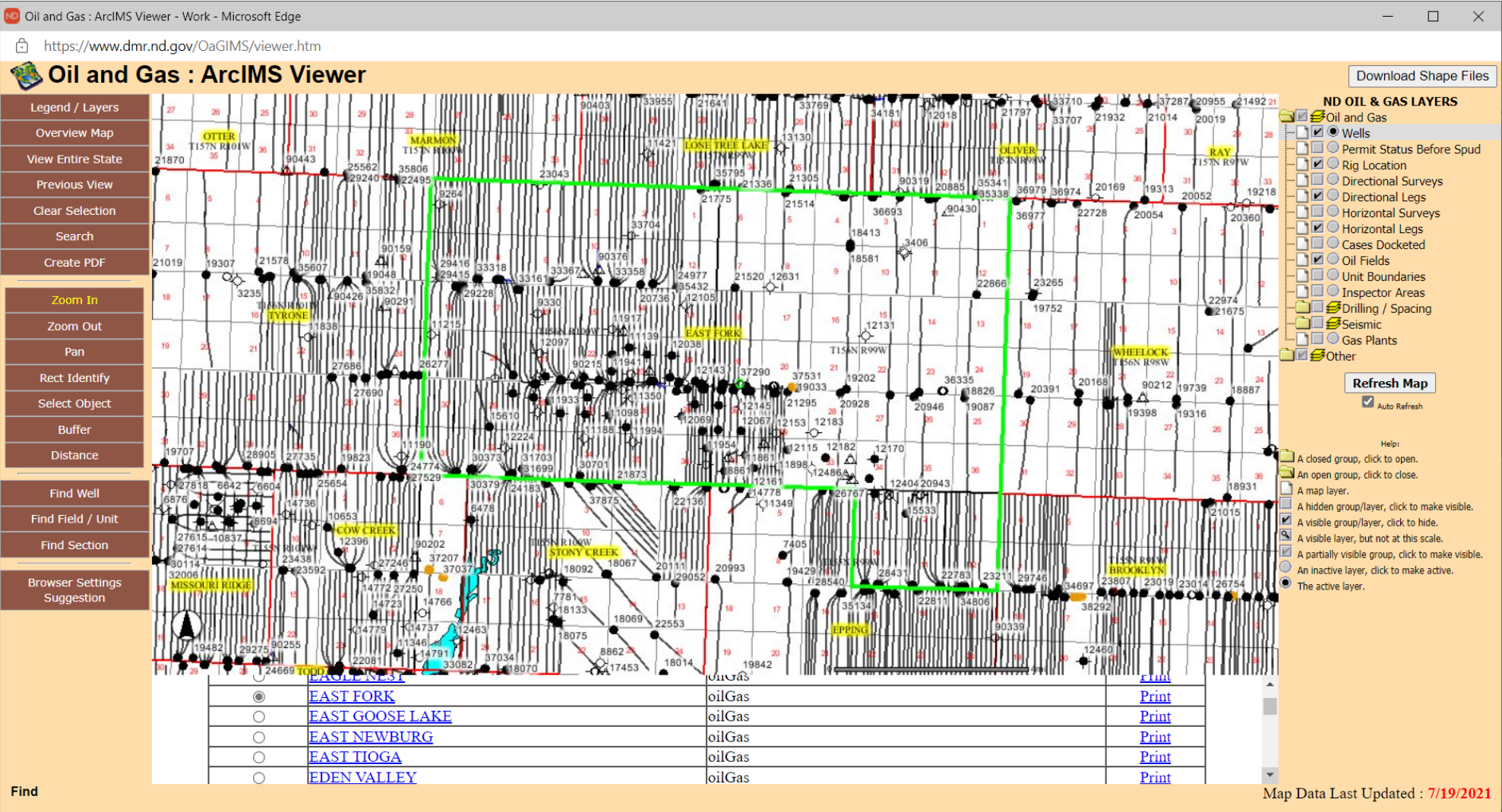
- 2560-acre Spacing Unit of Interest
- Existing Middle Bakken Horizontal
- Existing Three Forks Horizontal
- Existing Gas Pipeline (LMS)
- Existing Water Pipeline (LMS)

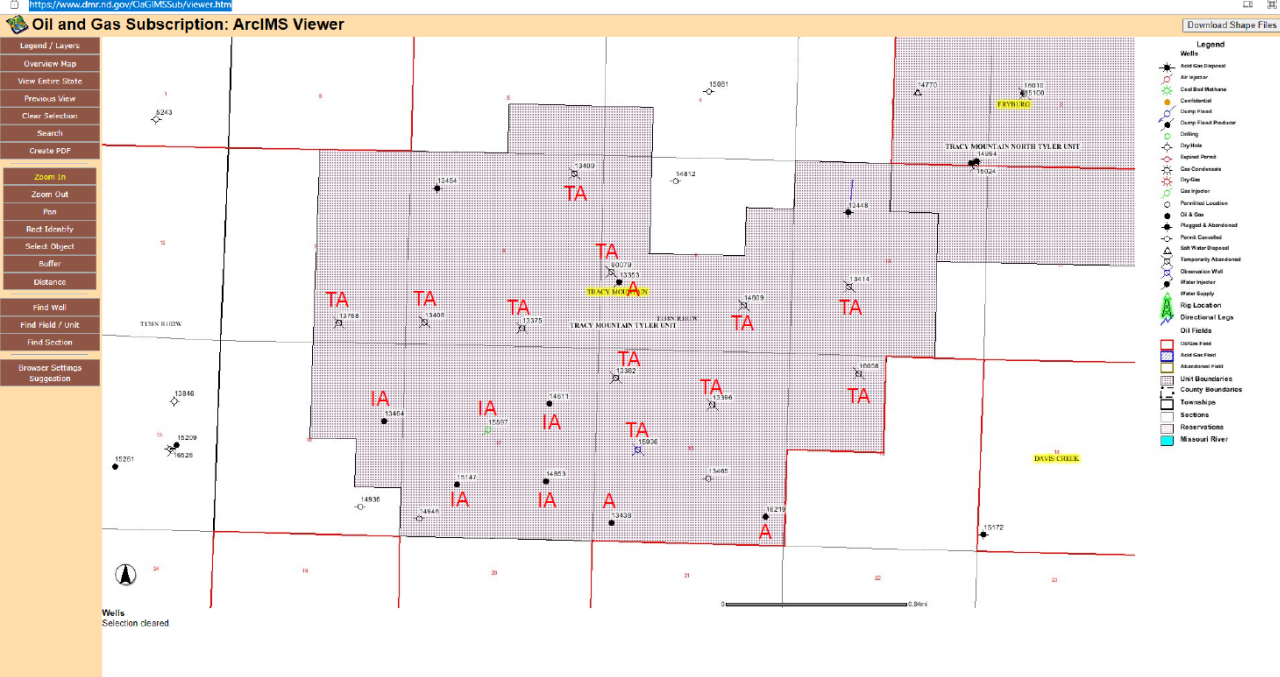
- Location selected based on results and learnings from prior Bakken EOR pilots, specifically the “Stomping Horse” pilot documented in NDIC Case No. 27926.
- Utilizes more recently completed infill wells (August ‘19); limited depletion.
- Accesses rich gas via connection to the gas plant gathering line.
- Liberty operates most of the offsetting DSUs.
- Well & completion design provides for favorable conformance along the horizontal interval using cemented liners with “Plug & Perf” completions.
- Jet pump operations ease well conversion to injection.
- Offset well configuration allows for surveillance and boundaries.

INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA
DATE 10-17-21 CASE NO. 28830
Introduced By Liberty
Exhibit E-2
Identified By Rospigil



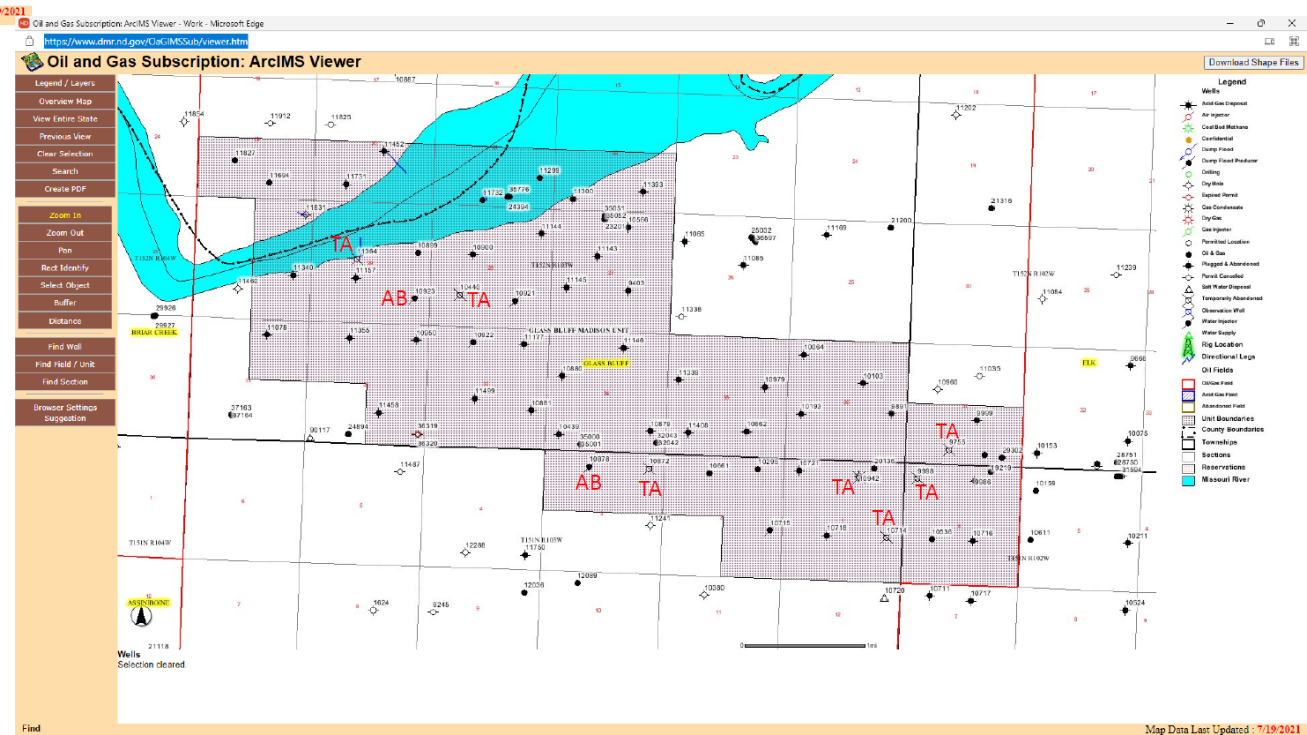
Case No. 28963: Application of Continental Resources, Inc. for an order authorizing the rework of the Buddy 1-27H well (File No. 23180), located in a spacing unit comprised of Sections 27 and 34, T.156N., R.99W., and the Domindgo 1-22H well (File No. 23181) located in a spacing unit comprised of Sections 15 and 22, T.156N., R.99W., Williams County, ND, for the temporary injection of natural gas and possibly other fluids in the East Fork-Bakken Pool pursuant to NDAC Chapter 43 02 05, and Section 43-02-03-88.1, and such other relief as is appropriate.





Unit bond \$1.525 million v v v v v

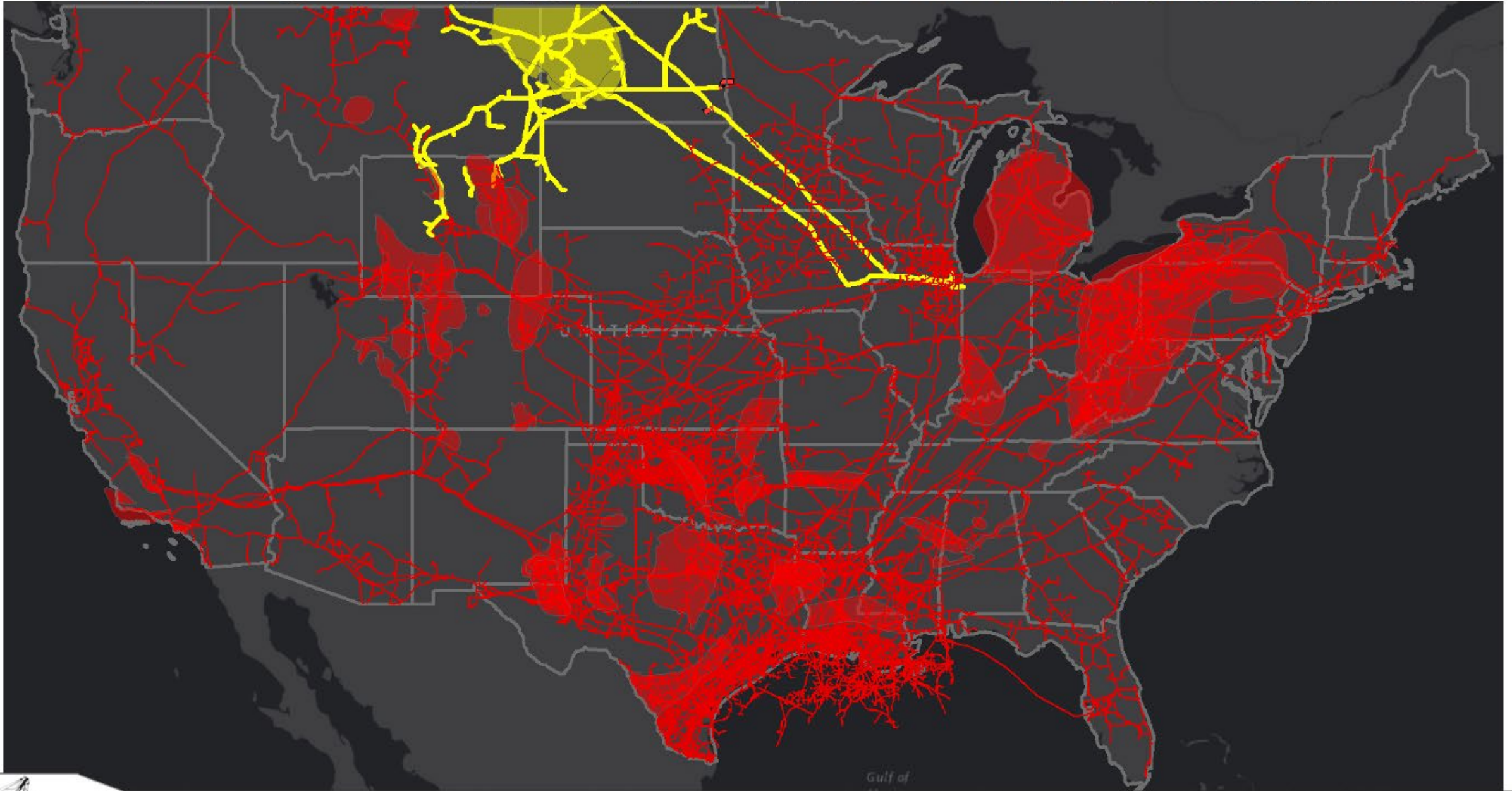
Unit bond \$2.4 million v v v v v



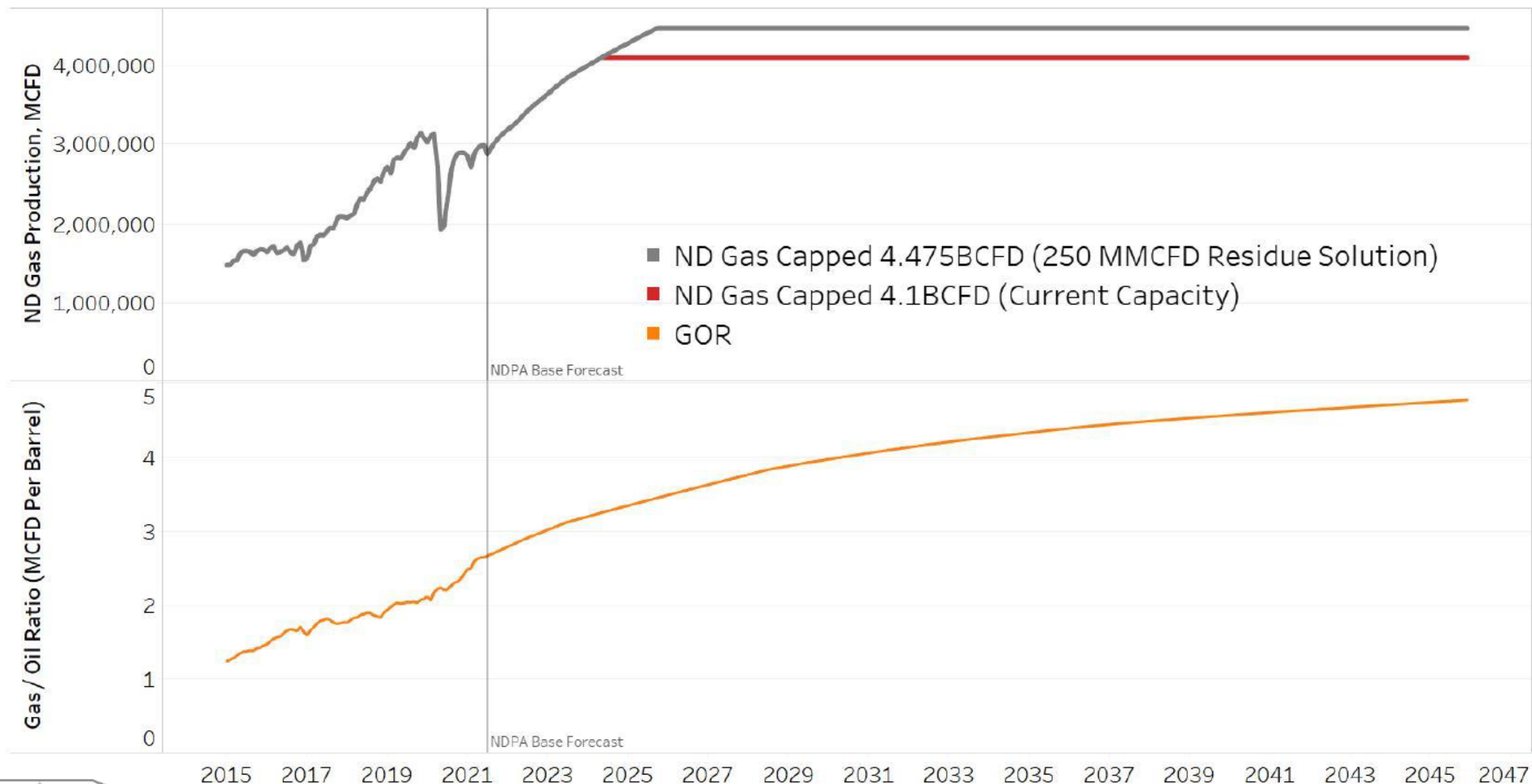


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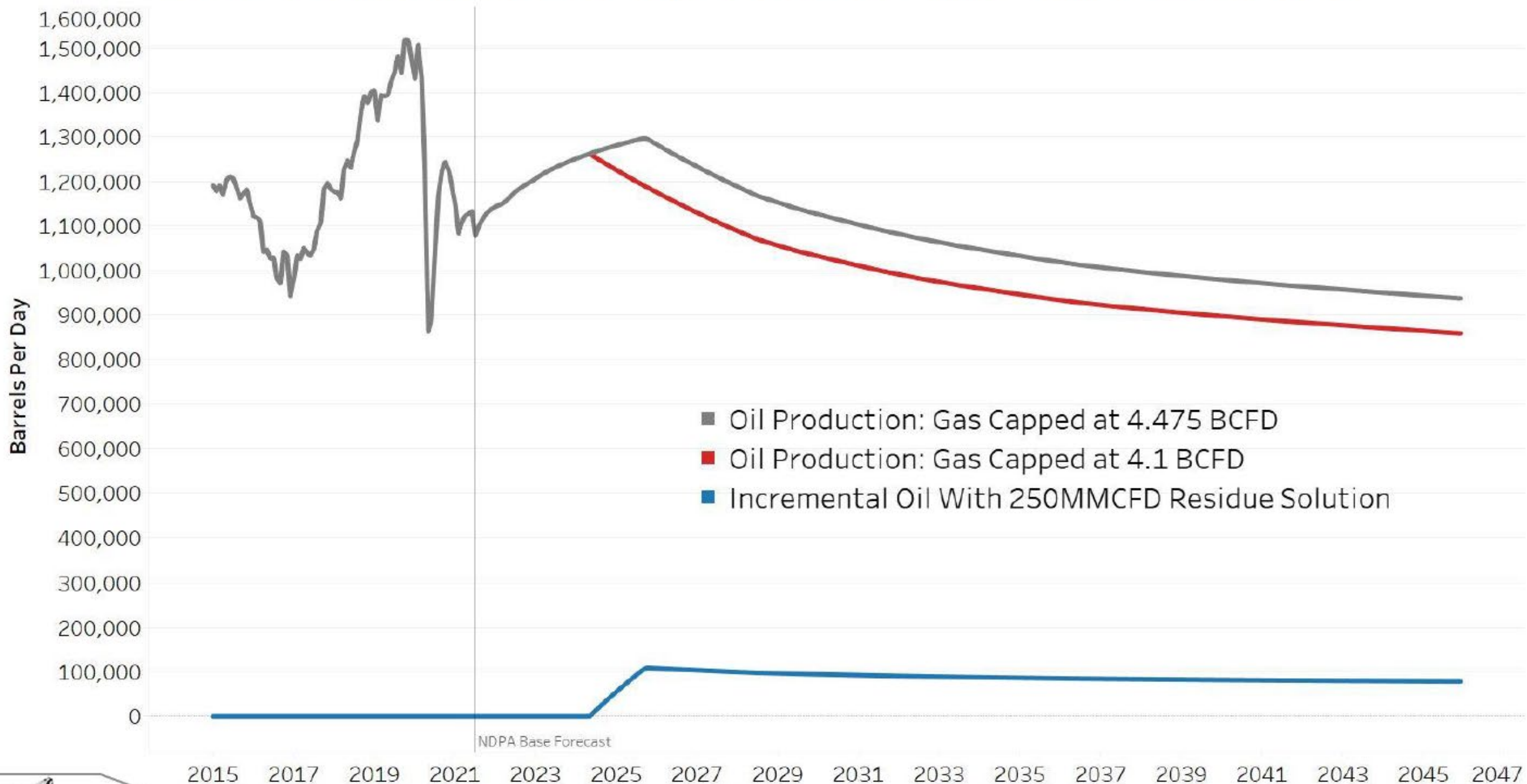
Bakken Natural Gas Infrastructure



Gas Transmission Expected to Limit Oil Production



Gas Transmission Expected to Limit Oil Production



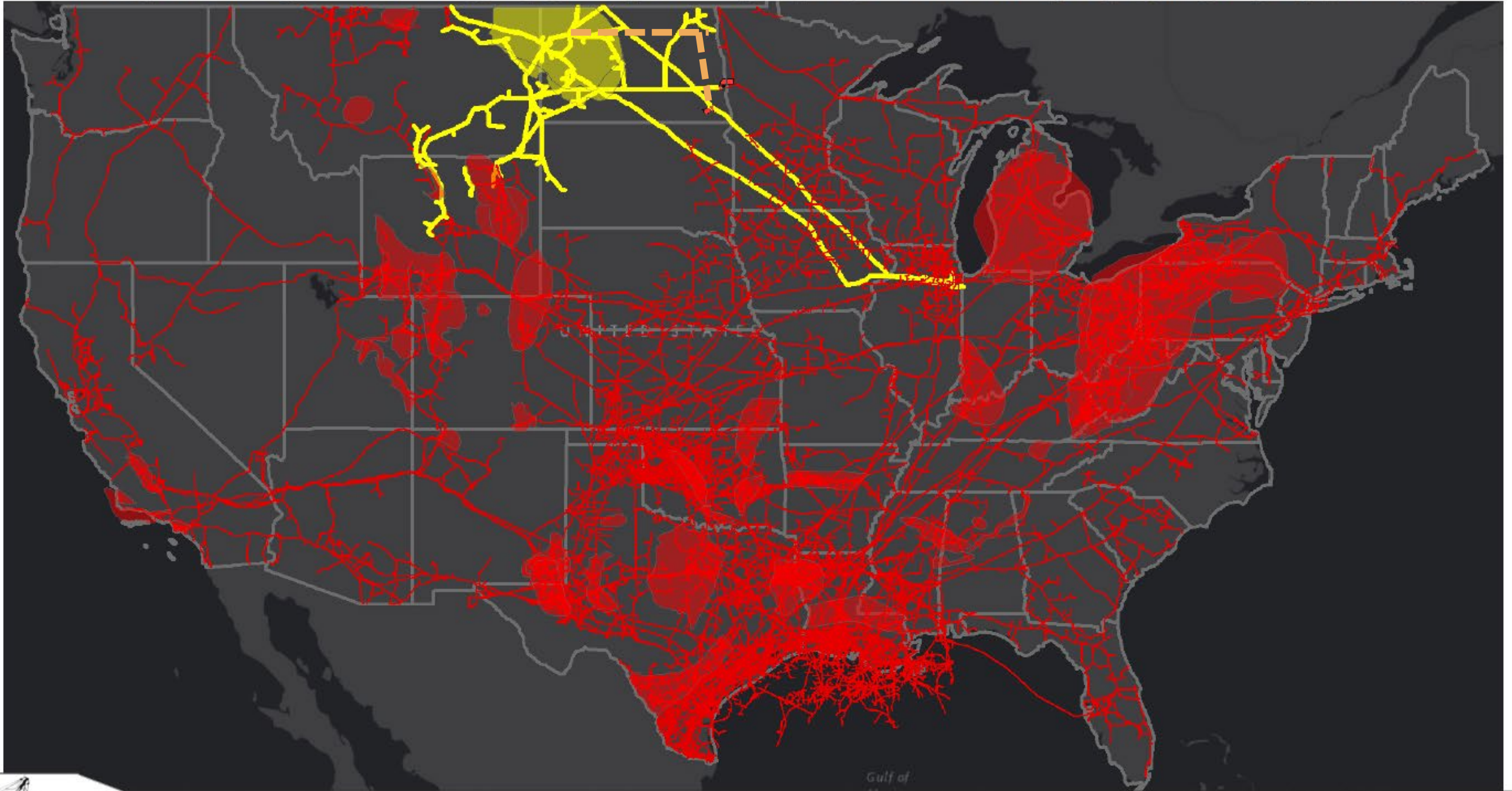
Legislative Appropriation:

Senate Bill 2345 Section 1, subsection 1

There is appropriated from federal funds derived from the state fiscal recovery fund, not otherwise appropriated, the sum of \$150,000,000, or so much of the sum as may be necessary, to the Industrial Commission for the purpose of pipeline infrastructure grants to allow for the transportation of natural gas to eastern North Dakota for the period beginning December 1, 2021 and ending June 30, 2023. Of the funds appropriated in this subsection, at least \$10,000,000 must be used for a project to transport natural gas to areas in Grand Forks County.



Bakken Natural Gas Infrastructure



AB Well Conversion to Water Supply

Proposal: Conversion of up to 32 abandoned oil and gas wells to livestock supply freshwater wells for permanent drought relief. Wells selected would have otherwise been orphaned, plugged, and reclaimed. Proposal would be an extension of the 2020 CARES Act Orphan Well Project – currently funded by AWPSRF.

Total amount of request: \$6,400,000

Timeline: Funds obligated by December 31, 2024 and spent by December 31, 2026

Connection to existing programs:	Connection to relevant ARPA guidelines:	Cost analysis
<p>Is it a new program? No, it is an extension of the 2020 CARES Act Orphan Well Project</p> <p>Is it an expansion of an existing program? Yes</p> <p>If yes, what is the current funding? The Abandoned Oil and Gas Well Plugging and Site Reclamation Fund</p> <p>Has this proposal been previously submitted to the legislature? No</p> <p>If so, describe the legislative response. N/A</p>	<p>The project will use funds and government services for pay-as-you-go spending for building new infrastructure and environmental remediation.</p> <p>The project will use funds for forward looking government services for costs incurred after March 3, 2021.</p> <p>The project will not use of funds and government services directly for pension deposits, contributions to reserve funds, or debt service.</p> <p>The project will not use Fiscal Recovery Funds as non-federal match for other federal programs whose statute or regulations bar the use of federal funds to meet matching requirements.</p>	<p>Positions required = 0</p> <p>Temporary or FTE = 0</p> <p>Required salary funding = \$0</p> <p>Expected operating costs, including grant administration costs = \$0</p>



To whom it may concern,

I am a member of the Medora Grazing Association and I am writing in regards to water development within the Grazing Association allotments.

My family has been ranching for four generations, and I have learned the importance and necessity that water is to nature, wildlife, and cattle. In a year of drought, it has become more and more evident how crucial quality water development and water resources are to strengthening and preserving the National Grasslands.

With the multiple fires occurring around the area during this drought, having more reliable water sources throughout the badlands would greatly benefit our fire departments in their jobs without having to go great distances to find readily available water.

Please take into consideration that improving and expanding water development throughout the area will benefit everyone and every living thing involved.

I appreciate your time.

Sincerely,

Colin Madzo
Medora, ND



North Dakota
Department of Mineral Resources
www.dmr.nd.gov

Phone: 701.328.8020

Email: oilandgasinfo@nd.gov

Mailing Address: 600 East Boulevard Ave. Dept 405; Bismarck, ND 58505