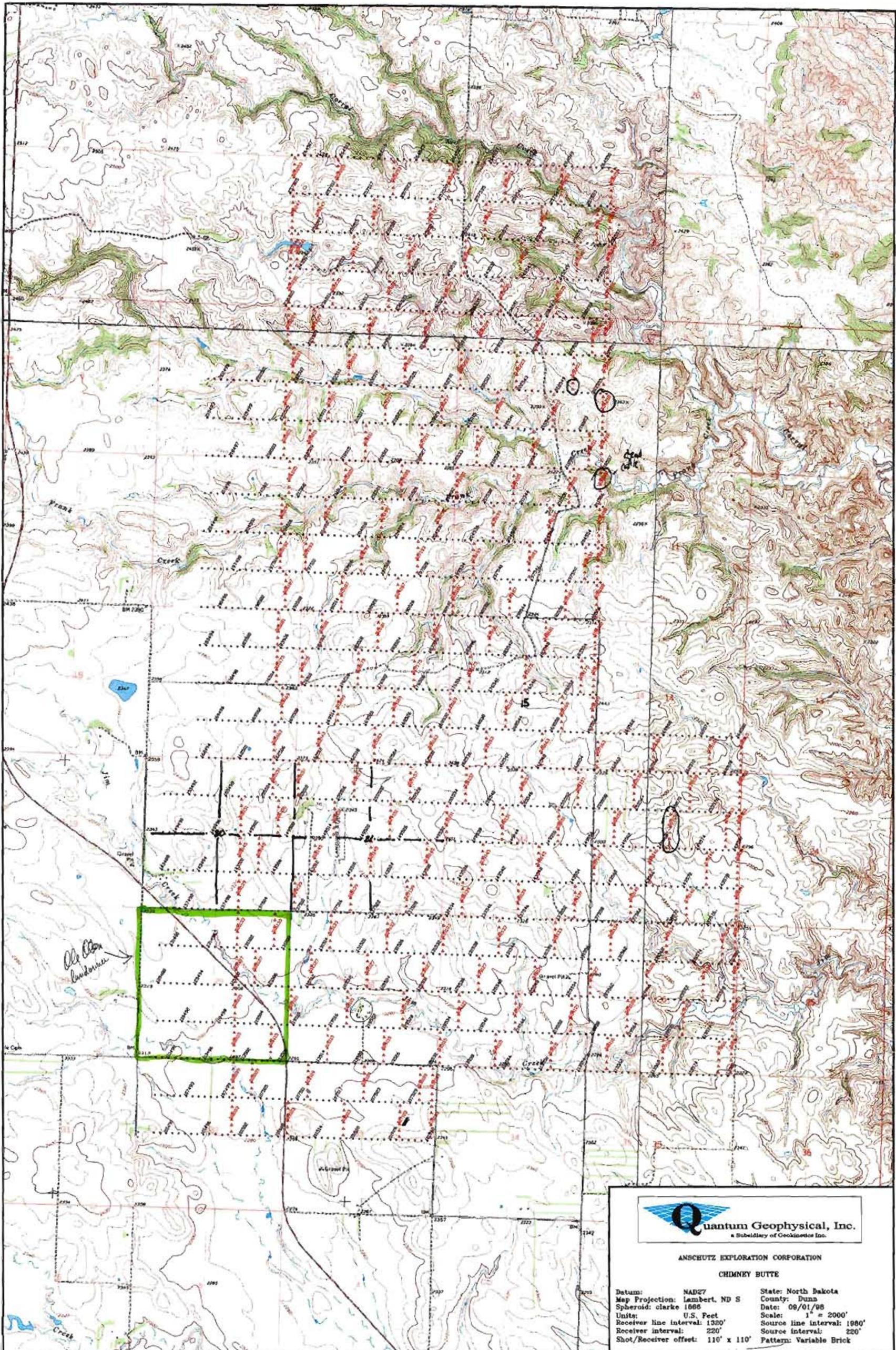



Quantum Geophysical, Inc.
 a Subsidiary of Geokinetics Inc.

ANSCHUTZ EXPLORATION CORPORATION
CHIMNEY BUTTE

Datum: NAD27	State: North Dakota
Map Projection: Lambert, ND S	County: Dunn
Spheroid: Clarke 1866	Date: 09/23/98
Units: U.S. Feet	Scale: 1" = 2000'
Receiver line interval: 1320'	Source line interval: 1980'
Receiver interval: 220'	Source interval: 220'
Shot/Receiver offset: 110' x 110'	Pattern: Triple Brick



16000

Old Ben Anderson →



Quantum Geophysical, Inc.
 a Subsidiary of Geokinetics Inc.

ANSCHUTZ EXPLORATION CORPORATION
 CHIMNEY BUTTE

Datum:	NAD87	State:	North Dakota
Map Projection:	Lambert, ND S	County:	Dunn
Spheroid:	Clarke 1866	Date:	08/01/98
Units:	U.S. Feet	Scale:	1" = 2000'
Receiver line interval:	1320'	Source line interval:	1980'
Receiver interval:	220'	Source interval:	220'
Shot/Receiver offset:	110' x 110'	Pattern:	Variable Brick



PERMIT NO.: 97-0041	
SHOT HOLE OPERATIONS: Shot Hole	*NON-EXPLOSIVE OPERATIONS:

SECTION 1

GEOPHYSICAL CONTRACTOR: Quantum Geophysical Inc.		5555 San Felipe Ste 550 Houston, Texas 77056	
PROJECT NAME AND NUMBER: Chimney Butte 3-D		COUNTY(S): Dunn	
TOWNSHIP(S): 146-147 North		RANGE(S): 95 West	
PERMITTED BY: Empire Oil Company P.O. Box 1835 Williston, ND 58802			
DATE COMMENCED: 9-18-98		DATE COMPLETED: 10-8-98	

SECTION 2

FIRST S.P. #: 500-101				LAST S.P. #: 580-166			
LOADED HOLES (UNDETONATED SHOT POINTS)							
S.P. #'s:	515188	572139	580135				
CHARGE SIZE::	10#	10#	10#				
DEPTH:	60'	100'	80'				
REASONS HOLES WERE NOT SHOT:				S.P. #			
Bad Caps				Charge Size			
				Depth			

SECTION 3

FLOWING HOLES S.P.#'s <p style="text-align:center;">**NONE**</p>
--

PROCEDURE FOR PLUGGING FLOWING HOLES: <p style="text-align:center;">**N/A**</p>
--

Include a 7.5 minute USGS topographic quadrangle map or a computer generated post-plot facsimile of the approximate scale displaying each individual shot hole, SP #, line #, and legal location.

*Non-Explosive Operations - Complete Section 1 and Affidavit.

97-0041

AFFIDAVIT OF PLUGGING (HOLE PLUGGER)



STATE OF NORTH DAKOTA)
)
COUNTY OF Ward)

Before me, Kathryn E. Allers, a Notary Public in and for the said County and State, this day personally appeared Sharilyn Bohe who being first duly sworn, deposes and says that (s)he is employed by Dave Bohe Drilling & Hole Plugging, that (s)he has read North Dakota Century Code Section 38-08.1 and that the foregoing seismic project has been plugged in accordance with North Dakota Administrative Code Rule 43-02-12 and that the statements on the attached documents are true.

Sharilyn Bohe
Hole Plugger Representative

Subscribed in my presence and sworn before me this 2nd day of October, 1998.

Notary Public Kathryn E. Allers

My Commission Expires KATHRYN E. ALLERS
Notary Public, State of North Dakota
My Commission Expires May 19, 2001

PERMIT NUMBER:

AFFIDAVIT OF PLUGGING (HOLE PLUGGER)



Montana
STATE OF ~~NORTH DAKOTA~~)
)
COUNTY OF Richland)

Before me, Douglas A. Lang, a Notary Public in and for the said County and State, this day personally appeared Danna Swenson who being first duly sworn, deposes and says that (s)he is employed by Swenson Drilling Inc., that (s)he has read North Dakota Century Code Section 38-08.1 and that the foregoing seismic project has been plugged in accordance with North Dakota Administrative Code Rule 43-02-12 and that the statements on the attached documents are true.

Danna Swenson
Hole Plugger Representative

Subscribed in my presence and sworn before me this 29th day of September, 98.

Notary Public Douglas A. Lang

NOTARY PUBLIC for the State of Montana
Douglas A. Lang, Notary Public
My Commission Expires April 19, 1999

My Commission Expires 4-19-99



SUNDRY NOTICE
INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
 SFN 61468 (11-87)

PERMIT # _____
 600 E BOULEVARD AVE
 BISMARCK, ND 58506

Project Name

CHIMNEY BUTTE -- ANSHUTZ

County

DUNN CO., ND

Supplemental Information:

BUCKSKIN STARTED PLUGGING ON THE CHIMNEY BUTTE PROSPECT ON
 SEPT. 20, 1998 AND FINISHED PLUGGING ON SEPT. 26, 1998. BUCKSKIN
 PLUGGED 797 HOLES AND USED 2610 BAGS OF BENTONITE. THERE WERE
 NO BLOWOUTS AND SHOTPOINT NUMBERS WITH BAD CAPS WERE 515188,
 572139, & 580135.

Company:

Address:

City:

State

Zip Code:

Date Received

By:

Date

By

Title:

Telephone Number

Title

FOR OFFICE USE ONLY



GEOPHYSICAL EXPLORATION PERMIT
INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
 SFN 51459 (11-97)



600 E BOULEVARD AVE
 BISMARCK, ND 58505

1) a. Company: Quantum Geophysical Inc.		Address: 5555 San Felipe Ste 550 Houston, TX 77056	
Contact: Bruce Fulker		Telephone: (713) 850-9799	Fax: (713) 850-7783
Surety Company: Bank of North Dakota		Bond Amount: \$50,000.00	Bond Number: GEO300
2) a. Subcontractor(s): TCS Drilling		Address: Box 574 Sidney, MT. 59270	
b. Subcontractor(s): Swenson Drilling		Address: Box 693 Sidney, MT 59270	
c. Subcontractor(s): Bohe Drilling		Address: 715 4th St SE Minot, ND 58701	
3) Party Manager: Billy Flippo		Address: Trapper's Inn Belfield, ND	
4) Project Name or Line Numbers: Chimney Butte 3-D			
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D): Shot Hole 3-D			
6) Approximate Drilling Start Date: 9-15-98		Approximate Completion Date: 9-30-98	

THE COMMISSION MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF DRILL/PLUG OPERATIONS

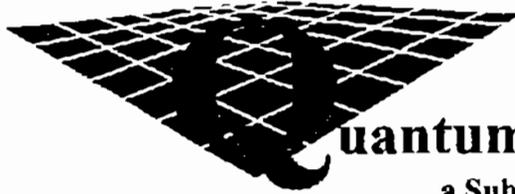
7) Location of Proposed Project - County Dunn County North Dakota								
Section(s), Township(s) & Range(s)	Sec. 32,33,34	T 147 N	R 95 W					
	Sec. 3,4,5,8,9,10,15	T 146 N	R 95 W					
	Sec. 16,17,20,21,22,	T	R					
	Sec. 23,26,27,28,29,32,33	T	R					
8) Size of Hole	Amt. of Charge	Depth	Shots per Mi.(sq.mi.)	No. of Mi. (sq. mi.)	Identifying Marks Used on Nonmetallic Plug			
2.25"	15#	60'	78.4	16.6	Geophysical ID	a. Plugger ID	b. Plugger ID	c. Plugger ID
					*	*	*	*

9) Anticipated special drilling and plugging procedures?
N/A

10) Enclose a pre-plot map with proposed location of seismic program lines and powder mag.

Signed: *[Signature]* Title: **Permit Agent** Date: **9-8-98**

(This space for State office use)		* Conditions of Approval if any: <i>contact surface owner and county prior to commencement of drilling, surface plugs must be identified w/ permit #41 and plugger ID</i> <i>Sept 9/9/98</i>
Permit No.: 97-0041	Approval Date: 9/9/98	
Approved By: <i>David E. Huch</i>		
Title: <i>Geophysical Regulation Supervisor</i>		
County Approval Sent: <i>Dunn</i>		



Quantum Geophysical, Inc.

a Subsidiary of Geokinetics Inc.

**North Dakota Industrial Commission
Chimney Butte 3-D**

**Additional Sub-contractors: Buckskin Services
919 12th St SW
Sidney, MT 59270**

(406) 482-4092

NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Lynn D. Helms
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

September 9, 1998

Bruce Fulker
Quantum Geophysical
5555 San Felipe, Ste. 550
Houston, TX 77478

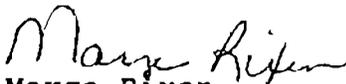
**RE: GEOPHYSICAL EXPLORATION PERMIT NO. 97-0041
Chimney Butte 3-D
Dunn County**

Dear Mr. Fulker:

This letter will verify the approval of the above-captioned Geophysical Permit effective September 9, 1998.

Please feel free to contact Mr. David Hvinden, Geophysical Regulation Supervisor if you should have any questions.

Sincerely,


Marge Rixen
Legal Assistant

/mr

NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Lynn D. Helms
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

September 9, 1998

The Honorable Reinhard Hauck
Dunn County Auditor
P.O. Box 105
Manning, ND 58642

RE: Geophysical Exploration
Permit #97-0041

Dear Mr. Hauck:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Quantum Geophysical, Inc. was issued the above captioned permit on September 9, 1998 and will remain in effect for a period of one year.

Should you have any question, please contact our office.

Sincerely,



David C. Hvinden
Geophysical Regulation Supervisor

DCH/dh