



# SEISMIC COMPLETION REPORT

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
OIL AND GAS DIVISION  
600 EAST BOULEVARD DEPT 405  
BISMARCK, ND 58505-0840  
SFN 51456 (03-2005)

970156



Permit No. <b>970156</b>	
Shot Hole Operations	*Non-Explosive Operations <b>Vibroseis</b>

## SECTION 1

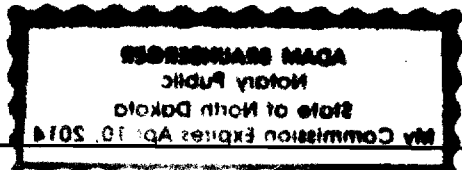
Geophysical Contractor <b>Geokinetics USA Inc.</b>	
Project Name and Number <b>Golden Reef 3-D</b>	County(s) <b>Ward &amp; Renville</b>
Township(s) <b>160 &amp; 161</b>	Range(s) <b>87</b>
Drilling and Plugging Contractors <b>na</b>	
Date Commenced <b>December 23, 2009</b>	Date Completed <b>January 4, 2010</b>

## SECTION 2

First S.P. #	Last S.P. #										
Loaded Holes (Undetonated Shot Points)											
S.P.#s											
Charge Size											
Depth											
Reasons Holes Were Not Shot											

## SECTION 3

Flowing Holes and/or Blowouts S.P.#s <b>no holes were drilled.</b>
Procedure for Plugging Flowing Holes and/or Blowouts



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.

Industrial Commission of North Dakota  
SFN 51456 (03-2005) Page 2

**AFFIDAVIT OF COMPLETION (GEOPHYSICAL CONTRACTOR)**

STATE OF North Dakota )

COUNTY OF Ward )

Before me, Adam Braunberger, a Notary Public in and for the said

County and State, this day personally appeared Jason Lee

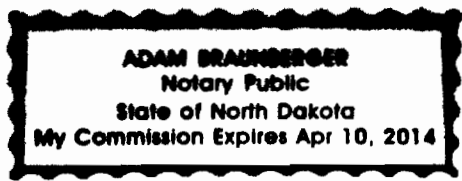
who being first duly sworn, deposes and says that (s)he is employed by \_\_\_\_\_

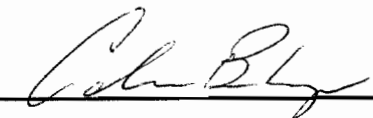
Allstate Permit Services, that (s)he has read North Dakota

Century Code Section 38-08.1, that the foregoing seismic project has been completed in accordance with North Dakota Administrative Code Rule 43-02-12 and that the statements on the reverse side of this document are true.

  
Jason Lee seismic permit agent  
Geophysical Contractor Representative

Subscribed in my presence and sworn before me this 28<sup>th</sup> day of January, 2010



Notary Public 

# Oil and Gas Division

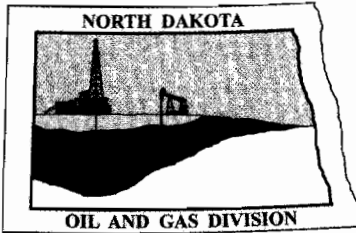
Lynn D. Helms - Director      Bruce E. Hicks - Assistant Director

## Department of Mineral Resources

Lynn D. Helms - Director

## North Dakota Industrial Commission

[www.oilgas.nd.gov](http://www.oilgas.nd.gov)



October 29, 2009

Mr. Trevor Krauss  
Geokinetics USA, Inc  
1500 CityWest Blvd.  
Suite 800  
Houston, TX 77042

RE: Golden Reef 3-D  
Geophysical Exploration Permit #97-0156  
Mountrail County

Dear Mr. Krauss:

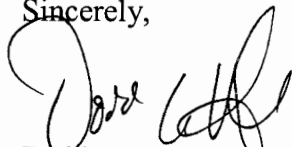
Please be advised that we are in receipt of your Geophysical Exploration permit and it is conditionally **renewed**; effective for one year from October 29, 2009. Review the following conditions for your permit:

1. A pre-program meeting with state seismic inspector Tom Torstenson may be required. You must contact him at 701-290-1546 (cell) or 701-227-7436 at least 24 hours prior to any exploration operations.
2. All variances for distance restrictions are to be furnished, and a pre-plot map displaying any source points that do not comply with the distance restriction rule must be supplied to the inspector.
3. The following information must be submitted within 30 days of the completion of the project by the Geophysical Company:
  - a. Completion Report,
  - b. Completion Affidavit,
  - c. Post Plot Map. It must show all water wells, buildings, underground cisterns, pipelines, and flowing springs that fall within the program area and within one half mile of the perimeter of the program.
  - d. SD card or email: [ttorstenson@nd.gov](mailto:ttorstenson@nd.gov) with all source and receiver points,
  - e. Letter stating that the Geophysical Company has given all surface owner's a copy of the Section and Chapter of the NDCC as stated in paragraph 5.
4. The following information must be submitted within 30 days of the completion of the project by the SUBCONTRACTOR(s) (when applicable):
  - a. Plugging Report
  - b. Plugging Affidavit

5. It is required that within seven days of initial contact between the permitting agent and the operator of the land, the permitting agent shall provide the operator of the land and each landowner owning land within one-half mile of the land on which geophysical exploration activities are to be conducted a written copy of NDCC Section 38-08.1-04.1 (Exploration Permit) and NDCC Chapter 38-11.1 (Oil and Gas Production Damage Compensation). The permitting agent shall file an affidavit with this office confirming compliance with such notification. For your convenience, a copy of both Sections are enclosed.
6. The permit agent shall notify the operator of the land at least seven days before commencement of any geophysical exploration activity, unless waived by mutual agreement of both parties. The notice must include the approximate time schedule and the location of the planned activity.
7. Information for the locations of water wells, springs, etc.; refer to the following ND State Water Commission Mapservice website, at:  
<http://mapservice.swc.state.nd.us/>
8. The entire permit can be viewed, as well as the status of various seismic projects in the state, at: <https://www.dmr.nd.gov/oilgas/seismic/seismicstats.asp>

Should you have any questions regarding this matter, feel free to contact me at 701-328-8020, or Tom Torstenson at the number listed in paragraph 1.

Sincerely,



Todd L. Holweger  
Mineral Resources Permit Manager



# GEOPHYSICAL EXPLORATION PERMIT

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
 OIL AND GAS DIVISION  
 600 EAST BOULEVARD DEPT 405  
 BISMARCK, ND 58505-0840  
 SFN 51459 (02-2008)



1) a. Company <b>Geokinetics USA, Inc.</b>		Address <b>1500 City West, Suite 800, Houston, TX 77042</b>	
Contact <b>Trevor Krauss</b>	Telephone <b>281 484-6800</b>	Fax <b>432 699-4221</b>	
Surety Company <b>U.S. Specialty Insurance Co.</b>	Bond Amount <b>\$50,000</b>	Bond Number <b>B004059</b>	
2) a. Subcontractor(s) <b>Ericson Contract Surveying</b>		Address <b>111 5th SW, Sidney, MT 59270</b>	Telephone <b>406 482-6606</b>
b. Subcontractor(s)		Address	Telephone
c. Subcontractor(s)		Address	Telephone
3) Party Manager <b>Juan Trevino</b>		Address (local)	Telephone (local) <b>281 636-2689</b>
4) Project Name or Line Numbers <b>Golden Reef 3-D</b>			
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D, Other) <b>3-D Vibroseis</b>			
6) Approximate Start Date <b>November 1, 2009</b>		Approximate Completion Date <b>February 15, 2010</b>	

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

7) Location of Proposed Project - County <b>Ward &amp; Renville</b>					
Section(s), Township(s) & Range(s)	Section <b>4, 5, 6, 7, 8 &amp; 9</b>	T. <b>160</b>	R. <b>87</b>		
	Section <b>26, 27, 28, 33, 34 &amp; 35</b>	T. <b>161</b>	R. <b>87</b>		
	Section	T.	R.		
	Section	T.	R.		
8) Size of Hole <b>3-D</b>	Amt of Charge <b>NA</b>	Depth <b>NA</b>	Source points per sq. mi. <b>120</b>	No. of sq. mi. <b>9</b>	9) Must supply latitudes and longitudes of post-plot source and receiver points on an SD card.
Size of Hole <b>2-D</b>	Amt of Charge	Depth	Source points per ln. mi.	No. of ln. mi.	

10) Anticipated special drilling and plugging procedures?

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

Signed <i>Jeff Lund</i>	Title <b>Jeff Lund-Contract Permit Agent</b>	Date <b>October 20, 2009</b>
(This space for State office use)		Conditions of Approval if any  <i>Renewed permit. See Attached letter.</i>
Permit No. <b>970156</b>	Approval Date <b>10/29/09</b>	
Approved by <i>Don Littlewege</i>		
Title <b>Mineral Resources Permit Manager</b>		
County Approval Sent <b>Ward &amp; Renville (sent previously)</b>		



**SUNDRY NOTICE**

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
OIL AND GAS DIVISION  
600 EAST BOULEVARD DEPT 405  
BISMARCK, ND 58505-0840  
SFN 51458 (03-2003)



PERMIT # 970156

Project Name <b>Golden Reef 3-D</b>
County <b>Ward</b>
Supplemental Information <b>The Golden Reef 3-D project has been postponed and will not be conducted in the time-frame of the existing permit.</b>

Company <b>Geokinetics</b>		
Address <b>1500 City West Blvd, Suite 800</b>		
City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77042</b>
By <b>Jeff Lund</b> <i>[Signature]</i>	Date <b>April 14, 2009</b>	
Title <b>Contract Permit Agent</b>	Telephone Number <b>(612) 501-2164</b>	

**FOR OFFICE USE ONLY**

Date Received <b>4/17/2009</b>
By <i>[Signature]</i>
Title <b>Mineral Resources Permit Manager</b>



# Oil and Gas Division

Lynn D. Helms - Director      Bruce E. Hicks - Assistant Director

**Department of Mineral Resources**

Lynn D. Helms - Director

**North Dakota Industrial Commission**

[www.dmr.nd.gov/oilgas](http://www.dmr.nd.gov/oilgas)

March 18, 2009

Mr. David Bush  
Permit Manager  
Geokinetics USA, INC  
1500 City West Suite 800  
Houston, TX 77042

RE: Golden Reef 3-D  
Renville and Ward Counties  
Geophysical Exploration Permit # 970156  
Original Permit Date: 3/12/2008

Dear Mr. Bush,

According to our records the above captioned seismic project has expired. It must be renewed on a Sundry Notice and accompany a \$100 fee. Please note the enclosed Sundry Notice for your convenience. Should you have any questions, feel free to call.

Sincerely,

Todd L. Holweger  
DMR Permit Manager





# GEOPHYSICAL EXPLORATION PERMIT

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
 OIL AND GAS DIVISION  
 600 EAST BOULEVARD DEPT 405  
 BISMARCK, ND 58505-0840  
 SFN 51459 (02-2008)



1) a. Company <b>Geokinetics USA, Inc.</b>		Address <b>1500 City West, Suite 800, Houston, TX 77042</b>	
Contact <b>Trevor Krauss</b>	Telephone <b>432 699-3225</b>	Fax <b>432 699-4221</b>	
Surety Company <b>U.S. Specialty Insurance Co.</b>	Bond Amount <b>\$50,000</b>	Bond Number <b>B004059</b>	
2) a. Subcontractor(s) <b>Ericson Contract Surveying</b>		Address <b>111 5th SW, Sidney, MT 59270</b>	
b. Subcontractor(s)		Telephone <b>406 482-6606</b>	
c. Subcontractor(s)		Telephone	
3) Party Manager <b>Raul Arredondo</b>		Address (local)	
Telephone (local) <b>713 2520-8919</b>			
4) Project Name or Line Numbers <b>Golden Reef 3-D</b>			
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D, Other) <b>3-D Vibroseis</b>			
6) Approximate Start Date <b>March 15, 2008</b>		Approximate Completion Date <b>April 15, 2008</b>	

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

7) Location of Proposed Project - County <b>Ward &amp; Renville</b>					
Section(s), Township(s) & Range(s)	Section <b>4, 5, 6, 7, 8 &amp; 9</b>	T.	<b>160</b>	R.	<b>87</b>
	Section <b>26, 27, 28, 33, 34 &amp; 35</b>	T.	<b>161</b>	R.	<b>87</b>
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	Section	T.		R.	
8) Size of Hole <b>3-D</b>	Amt of Charge <b>NA</b>	Depth <b>NA</b>	Source points per sq. mi. <b>120</b>	No. of sq. mi. <b>9</b>	9) Must supply latitudes and longitudes of post-plot source and receiver points on an SD card.
Size of Hole <b>2-D</b>	Amt of Charge	Depth	Source points per ln. mi.	No. of ln. mi.	

10) Anticipated special drilling and plugging procedures?  
 11) Enclose a pre-plot map with proposed location of seismic program lines and powder mag.

Signed <i>Jeff Lund</i>	Title <b>Jeff Lund-Permit Agent</b>	Date <b>March 10, 2008</b>
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(This space for State office use)		Conditions of Approval if any  <i>See Attached Letter</i>
Permit No <b>970156</b>	Approval Date <b>3/12/2008</b>	
Approved by <i>John L. [Signature]</i>		
Title <b>Mineral Resources Permit Manager</b>		
County Approval Sent <b>Ward &amp; Renville</b>		



# Oil and Gas Division

Lynn D. Helms - Director      Bruce E. Hicks - Assistant Director

**Department of Mineral Resources**

Lynn D. Helms - Director

**North Dakota Industrial Commission**

[www.dmr.nd.gov/oilgas](http://www.dmr.nd.gov/oilgas)

March 12, 2008

Mr. Trevor Krauss  
Geokinetics USA, Inc  
1500 CityWest Blvd.  
Suite 800  
Houston, TX 77042

RE: Golden Reef 3-D  
Geophysical Exploration Permit #97-0156  
Mountrail County

Dear Mr. Krauss:

Please be advised that we are in receipt of your Geophysical Exploration permit and it is conditionally approved; effective for one year from March 12, 2008. Review the following conditions for your permit:

1. A pre-program meeting with state seismic inspector Tom Torstenson may be required. You must contact him at 701-290-1546 (cell) or 701-227-7436 at least 24 hours prior to any exploration operations.
2. All variances for distance restrictions are to be furnished, and a pre-plot map displaying any source points that do not comply with the distance restriction rule must be supplied to the inspector.
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  - a. Completion Report,
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  - d. SD card with all source and receiver points,
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4. The following information must be submitted within 30 days of the completion of the project by the SUBCONTRACTOR(s) (when applicable):
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  - b. Plugging Affidavit

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7. Information for the locations of water wells, springs, etc.; refer to the following ND State Water Commission Mapservice website, at:  
<http://mapservice.swc.state.nd.us/>
8. The entire permit can be viewed, as well as the status of various seismic projects in the state, at: <https://www.dmr.nd.gov/oilgas/scismic/seismicstats.asp>

Should you have any questions regarding this matter, feel free to contact me at 701-328-8020, or Tom Torstenson at the number listed in paragraph 1.

Sincerely,



Todd L. Holweger  
Mineral Resources Permit Manager



# Oil and Gas Division

Lynn D. Helms - Director      Bruce E. Hicks - Assistant Director

**Department of Mineral Resources**

Lynn D. Helms - Director

**North Dakota Industrial Commission**

[www.dmr.nd.gov/oilgas](http://www.dmr.nd.gov/oilgas)

March 12, 2008

The Honorable Devera Smestad  
Ward County Auditor  
315 3rd St SE  
Minot, ND 58701

RE: Geophysical Exploration  
Permit # 97-0156

Dear Ms. Smestad:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Geokinetics USA, Inc. was issued the above captioned permit on March 12, 2008 and will remain in effect for a period of one year. The entire permit can be viewed on our website at: <https://www.dmr.nd.gov/oilgas/seismic/seismicstats.asp>

Should you have any questions, please contact our office.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd L. Holweger", with a long horizontal line extending to the right.

Todd L. Holweger  
Mineral Resources Permit Manager

# Oil and Gas Division

Lynn D. Helms - Director      Bruce E. Hicks - Assistant Director

**Department of Mineral Resources**

Lynn D. Helms - Director

**North Dakota Industrial Commission**

[www.dmr.nd.gov/oilgas](http://www.dmr.nd.gov/oilgas)



March 12, 2008

The Honorable LeAnn Fisher  
Renville County Auditor  
P.O. Box 68  
Mohall, ND 58761

RE: Geophysical Exploration  
Permit # 97-0156

Dear Ms. Fisher:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Geokinetics, USA, Inc. was issued the above captioned permit on March 12, 2008 and will remain in effect for a period of one year. The entire permit can be viewed on our website at: <https://www.dmr.nd.gov/oilgas/seismic/seismicstats.asp>

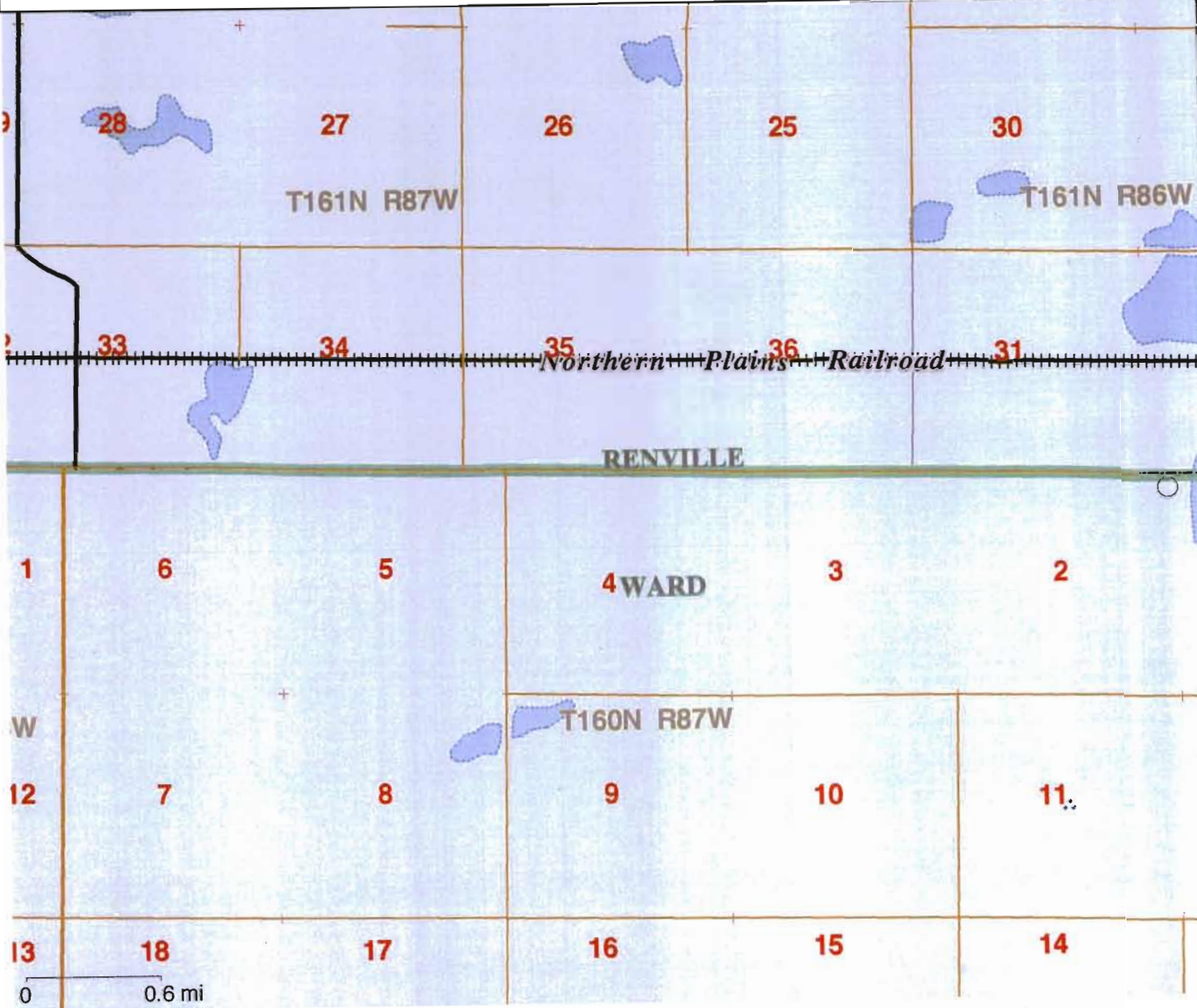
Should you have any questions, please contact our office.

Sincerely,



Todd L. Holweger  
Mineral Resources Permit Manager

# ND STATE WATER COMMISSION MAP



- 50-500 gpm Yield
- Over 500 gpm Yield
- ⊙ Precipitation Observers
- Driller Logs
- Domestic Well
- Domestic Well - Plugged
- Industrial Well
- Industrial Well - Plugged
- Irrigation Well
- Irrigation Well - Plugged
- Multi-Well Sample
- Municipal Well
- Municipal Well - Plugged
- Observation Well
- Observation Well - Destroyed
- Observation Well - Plugged
- Observation Well - Recorder
- Production Well
- Production Well - Plugged
- Rural Water Well
- Stock Well
- Stock Well - Plugged
- Surface Water Monitoring Site
- Test Hole
- Test Well
- ? Unknown
- Dams
- Drains
- Dikes
- Diversion Structures
- Dugouts
- Dams
- Corporate limits
- + Section Corners
- ▭ Townships
- ▭ County Boundaries
- Lakes or Ponds
- River or Stream

Map created using the NDSWC's mapservice at <http://mapservice.swc.nd.gov>.