



GEOPHYSICAL EXPLORATION SUNDRY NOTICE - FORM GE-54

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 51458 (03-2011)

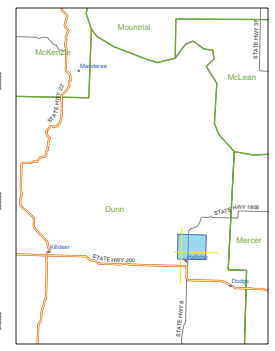


PERMIT # **97-0227**

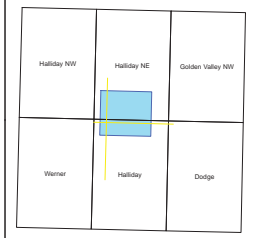
Project Name Halliday 2D
County Dunn County
Supplemental Information Please cancel permit #97-0226. This project has been cancelled and WesternGeco LLC will reapply for a permit if an approval to proceed is received from the client. Thank you for all the support and we hope to work with you and your team again.

Company WesternGeco LLC.		Telephone Number 801.230.1222	
Address 10001 Richmond Ave.			
City Houston		State Tx	Zip Code 77042
Signature 		Printed Name Russ Nielsen	
Title Permit Agent for WesternGeco LLC.		Date August 28, 2013	
Email Address russ.nielsen@stcroixseismic.com			

FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 9/9/13	
By 	
Title Mineral Resources Permit Manager	

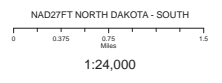


USGS Topo (24k)



HALLIDAY 2D
Schlumberger Carbon Services/C12 Energy
Dunn County, North Dakota

- ▼ Receiver
- Source
- 2D Line (V1)
- Boundary (A2d)



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



APRIL 27, 2012

MR. SCOTT TOTTEN
NAM LAND MANAGER
WESTERNGECO LLC.
10001 RICHMOND AVENUE
HOUSTON, TX 77042

RE: HALLIDAY 2-D
GEOPHYSICAL EXPLORATION PERMIT # 97-0227
DUNN COUNTY
NON EXPLOSIVE METHOD

Dear Mr. TOTTEN:

Please be advised that we are in receipt of your Geophysical Exploration permit application and it is conditionally approved; effective for one year from APRIL 27, 2012. **PURSUANT TO NDAC 43-02-12-05 (DISTANCE RESTRICTION) non-explosive exploration method may not be conducted not less than 300 feet from a water well, building, underground cistern, pipelines, and flowing spring.** Review the following conditions for your permit:

1. A pre-program meeting with state seismic inspector Tom Torstenson is required. You must contact him at 701-290-1546 (cell) or 701-227-7436 at least 24 hours prior to any exploration operations. Also, a copy of the entire permit is required for all contractors at the pre-program meeting.
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. An Image file (.img) on an SD card or email: 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 regarding the location 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
DMR Permit Manager



GEOPHYSICAL EXPLORATION PERMIT - FORM GE 1

INDUSTRIAL COMMISSION OF NORTH DAKOTA
 OIL AND GAS DIVISION
 600 EAST BOULEVARD DEPT 405
 BISMARCK, ND 58505-0840
 SFN 51459 (03-2011)



1) a. Company WesternGeco LLC.		Address 10001 Richmond Avenue, Houston, Texas 77042			
Contact Attn: Scott Totten NAM Land Mgr.		Telephone (713) 689-1062		Fax	
Surety Company Liberty Mutual Insurance Company		Bond Amount \$50,000.00		Bond Number 16-036-767	
2) a. Subcontractor(s)		Address		Telephone	
b. Subcontractor(s)		Address		Telephone	
3) Party Manager William Hancock		Address (local) 10001 Richmond Avenue, Houston, Texas		Telephone (local) (406) 868-2264	
4) Project Name or Line Numbers Halliday 2D					
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D, Other) Vibroseis, 3D Non-Explosive					
6) Distance Restrictions (Must check all that apply)					
<input checked="" type="checkbox"/> 300 feet - NonExplosive - Distance setbacks apply to water wells, buildings, underground cisterns, pipelines, and flowing springs.					
<input type="checkbox"/> 660 feet - Shot Hole - Distance setbacks apply to water wells, buildings, underground cisterns, pipelines, and flowing springs.					
7) Size of Hole	Amt of Charge	Depth	Source points per sq. mi.	No. of sq. mi.	
3-D					
Size of Hole	Amt of Charge	Depth	Source points per In. mi.	No. of In. mi.	
2-D			48 / Linear Mile	14.25	
8) Approximate Start Date May 15, 2012			Approximate Completion Date June 30, 2012		

THE COMMISSION MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF GEOPHYSICAL OPERATIONS

9) Location of Proposed Project - County Dunn County - Halliday					
Section(s), Township(s) & Range(s)	Section	T.	R.		
	35,36	146N	92W		
	Section	T.	R.		
	1,2,11,12,13,14,23,24,25,26,35,36	145N	92W		
	Section	T.	R.		
	4,9	144N	92W		
Section	T.	R.			
3,6,7,10,14,15,16,17,18,19	145N	91W			
Section	T.	R.			
20,21,22,23	145N	91W			
Section	T.	R.			

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.			Date April 26, 2012
Signature 	Printed Name James R Nielsen	Title Permit Agent for WesternGeco LLC.	
Email Address(es) russ.nielsen@stcroixseismic.com		801-230-1222	

(This space for State office use)	
Permit No. 970227	Approval Date 4/27/12
Approved by 	
Title Mineral Resources Permit Manager	

Permit Conditions

- * Permit in hand required at pre-program meeting with field inspector and be aware of all NDIC Rules and Regulations (i.e. distance restrictions).
- * See attached letter.

2D – N/S Line - 8 linear miles
Sources = 384* (48/linear mile)
Detectors = 1,537 (192/linear mile)

2D – E/W Line - 6.25 linear miles
Sources = 300 (48/linear mile)
Detectors = 1,201 (192/linear mile)

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



APRIL 27, 2012

The Honorable Reinhard Hauck
Dunn County Auditor
205 Owens Street
Manning, ND 58642-0105

RE: Geophysical Exploration
Permit #97-0227

Dear Mr. Hauck:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that WESTERNGECO LLC. was issued the above captioned permit on APRIL 27, 2012 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
DMR Permit manager



North Dakota Industrial Commission
 Department of Mineral Resources
 Oil & Gas Division

FORM GE 1
 FILING AUTHORIZATION

COMPANY NAME: WesternGeco LLC.

ADDRESS: 10001 Richmond Ave

CITY: Houston STATE: Tx ZIP: 77042

This form authorizes the person(s) listed below to submit a NDIC Geophysical Exploration Permit – Form GE 1 for approval on behalf of the designated company as listed above.

A new authorization will be required if any changes are to be made to the authorized individuals on the form.

The data submitted from the authorized individuals listed below have been checked and conform to the standards and procedures set forth by the NDIC Department of Mineral Resources.

The authorized individual(s) will ensure that the company, as listed above, and party manager receive a copy of the approved Form GE 1

Authorized Individuals

E-Mail Address

Phone Number

Russ Nielsen

russ.nielsen@

801-230-1222

stcroixseismic.com

Company Authorized Signature: [Signature] Date: 4/4/12

Printed Name: KYLEEN M ROBINSON Title: PRESIDENT

Phone: 713 689-2240 Email Address: Kmrobinson@slb.com

 Witness Signature: [Signature] Date: 4/4/12

Witness Printed Name: Theresa Gomez