

Oil and Gas Division

Mark F. Bohrer - Assistant Director
North Dakota Industrial Commission
Department of Mineral Resources
www.dmr.nd.gov/oilgas/

August 27, 2024

Allan Chatenay
President
Explor Geoscience USA Inc.
5850 San Felipe St., Ste 500
Houston, TX 77057

RE: BASIN ELECTRIC RESEARCH PROJECT 2-D SEISMIC SURVEY
GEOPHYSICAL EXPLORATION PERMIT #97-0333
MERCER COUNTY
NON-EXPLOSIVE METHODS

Dear Mr. Chatenay:

Be advised that your Geophysical Exploration permit is conditionally approved; effective for one year from August 27, 2024.

PERMIT STIPULATIONS:

- Explor Geoscience USA Inc. must contact seismic inspector Tom Torstenson at (701) 290-1546 72 hours prior, to arrange a start-up meeting. Also, a copy of the entire permit is required for all contractors at the start up meeting.
- Explor Geoscience USA Inc. must contact Tom Torstenson at (701) 290-1546 24 hours prior to conducting any geophysical activities.
- Pursuant to NDAC 43-02-12-05 (DISTANCE RESTRICTION) Non-explosive exploration methods may not be conducted less than 300 feet from water wells, buildings, underground cisterns, pipelines, and flowing springs.
- In addition, pursuant to NDAC 43-02-12-06 (NOTIFICATION OF WORK PERFORMED), "The director is authorized to suspend operations of the entire geophysical project, or any portion thereof, if further activity will cause excessive damage to the surface of the land".

Review the following conditions for your permit:

1. 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.
2. 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. Must provide a GIS layer using NAD83 in an Esri shape file format and an Image file (.img) on a Flash Drive or email: ttorstenson@nd.gov with all source and receiver points,
3. 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.
 4. 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/>
 5. 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 our office.

Sincerely,



Todd L. Holweger
Permit Manager/Geophysical Supervisor

Received

AUG - 8 2024

ND Oil & Gas
Division



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 Explor Geoscience USA Inc.		Address 5850 San Felipe Street, Suite 500, Houston, TX, 77057			
Contact Allan Chatenay		Telephone (832) 217-6466		Fax	
Surety Company (N/A - Cash Bond at Bank of ND)		Bond Amount \$25,000		Bond Number GEO 309	
2) a. Subcontractor(s) n/a		Address n/a		Telephone	
b. Subcontractor(s) n/a		Address n/a		Telephone	
3) Party Manager Daniel Loas		Address (local)		Telephone (local) (832) 537-6959	
4) Project Name or Line Numbers Basin Electric Research Project - 2-D Seismic Survey					
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D, Other) 2D, Accelerated Weight Drop, 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 3-D	Amt of Charge	Depth	Source points per sq. mi.	No. of sq. mi.	
Size of Hole 2-D n/a	Amt of Charge N/A	Depth n/a	Source points per ln. mi. 330	No. of ln. mi. 12	
8) Approximate Start Date August 26, 2024			Approximate Completion Date September 6, 2024		

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

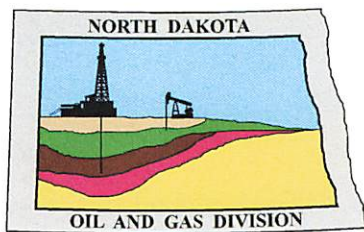
9) Location of Proposed Project - County Mercer County						
Section(s), Township(s) & Range(s)	Section	1, 2, 10, 11, 12, 13, 14	T.	145N	R.	88W
	Section	6, 7	T.	145N	R.	87W
	Section	34, 35, 36	T.	146N	R.	88W
	Section		T.		R.	
	Section		T.		R.	
	Section		T.		R.	

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records. Date **August 4, 2024**

Signature *Allan Chatenay* Printed Name **Allan Chatenay** Title **President**

Email Address(es)
al@explor.net

(This space for State office use)		Permit Conditions	
Permit No. 97-0333	Approval Date 8/27/24	<ul style="list-style-type: none"> * 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. 	
Approved by <i>[Signature]</i>			
Title Mineral Resources Permit Manager			



Oil and Gas Division

Mark F. Bohrer - Assistant Director

North Dakota Industrial Commission

Department of Mineral Resources

www.dmr.nd.gov/oilgas/

August 27, 2024

The Honorable Carmen Reed
Mercer County Auditor
P.O. Box 39
Stanton, ND 58571-0039

RE: Geophysical Exploration
Permit Number 97-0333

Dear Ms. Reed:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that the Explor Geoscience USA Inc. was issued the above captioned permit on August 27, 2024, 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

Permit Manager/Geophysical Supervisor

- ☆ Dakota Gasification
- Sources
- CO₂ Injection Well
- ⋯ 1/2 Mile Buffer
- Station M1227

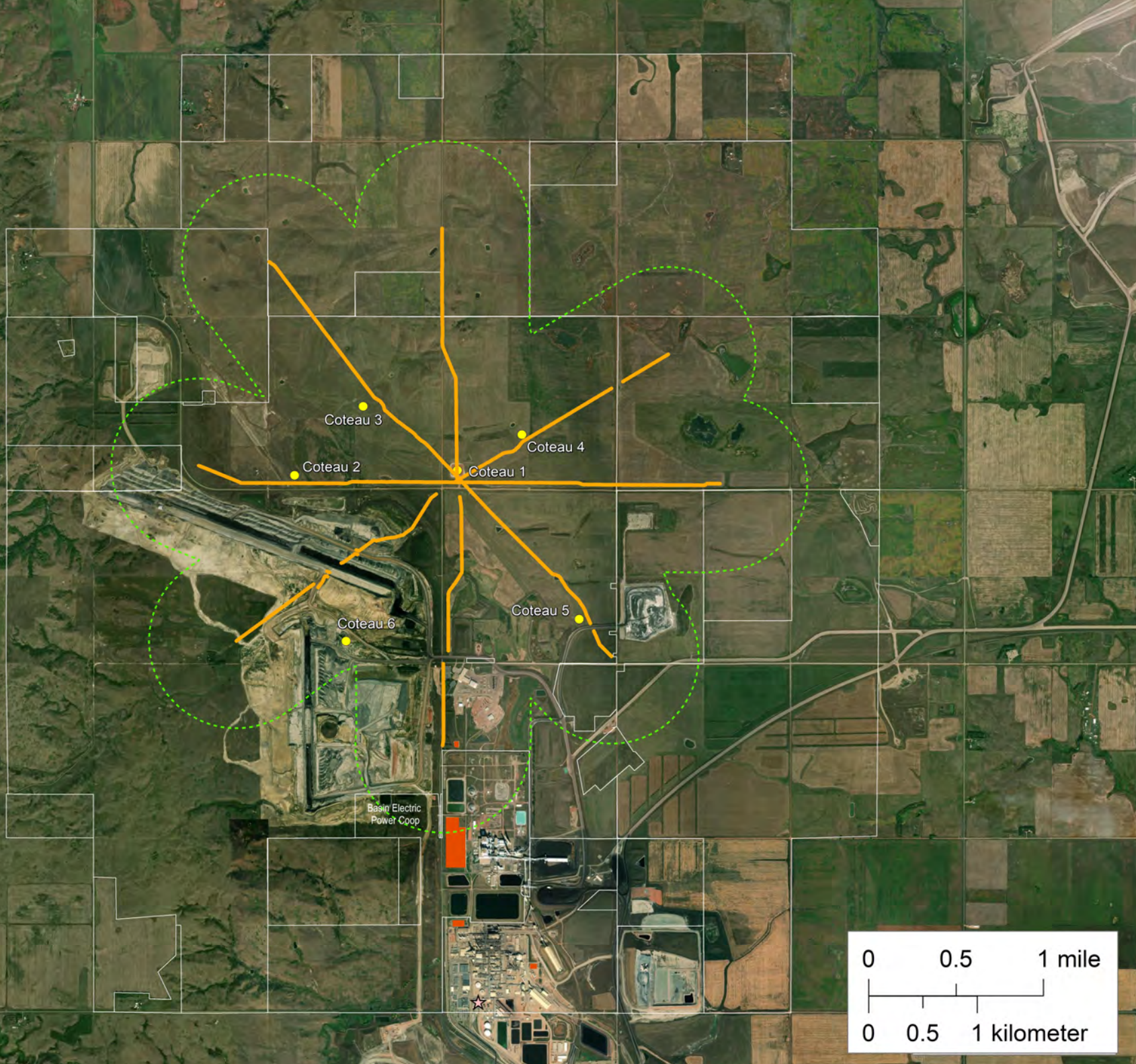
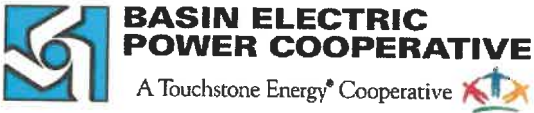




Figure 1. Planned 12 mile 2D seismic survey.



August 8, 2024

Mr. Todd Holweger
Permit Manager/Geophysical Supervisor
ND Industrial Commission Oil & Gas Division
600 East Boulevard Ave, Dept 405
Bismarck ND 58505

Subject: Geophysical Exploration Permits

Dear Mr. Holweger:

All landowners within one-half miles of the proposed 2024 Basin Electric Research Project area have been notified of the schedule and location of the Electromagnetic Magnetotelluric (EM MT) Surveys, Electromagnetic Charged-Well-Casing Surveys (EM CWC), and 2D Active Seismic activities estimated to take place in August and September and have been provided a written copy of the North Dakota Century Code (NDCC) Section 38-08.1-04.1 (Exploration Permit) and NDCC Chapter 38-11.1 (Oil & Gas Production Damage Compensation) as required by NDCC Section 38-08.1-04.1. There was a total of four private landowners, three industry landowners, and Mercer County that were provided the required notification. The permits for the EM MT survey will be submitted by the University of North Dakota Energy and Environmental Research Center. The EM CWC will be submitted by ESG Solutions Group, Inc. The 2D Seismic will be submitted Explor Geoscience USA Inc.

We look forward to collaborating with you further regarding this proposed geophysical project. Please contact me with any questions by phone at 701.557.5454 or by email at mmurray@bepc.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Murray", written over a light blue horizontal line.

Mike Murray, SR/WA, R/W-NAC
Directory of Property & Right of Way



The weight drop is a simple weight drop device that impacts a steel or aluminum base plate. It mounts on the front of a skid steer as shown in the photo below. The weight that drops is ~500 lbs. The specification sheet is here:

<https://industrialtoolsandattachments.com/sites/default/files/pdf/DH%20Drop%20Hammer%20Spec%20Sheet.pdf>. We have added positioning and timing functionality to adapt the device for use as a seismic source.

STANLEY®



MOUNTED DROP HAMMER

FOR EXCAVATORS AND SKID STEER LOADERS

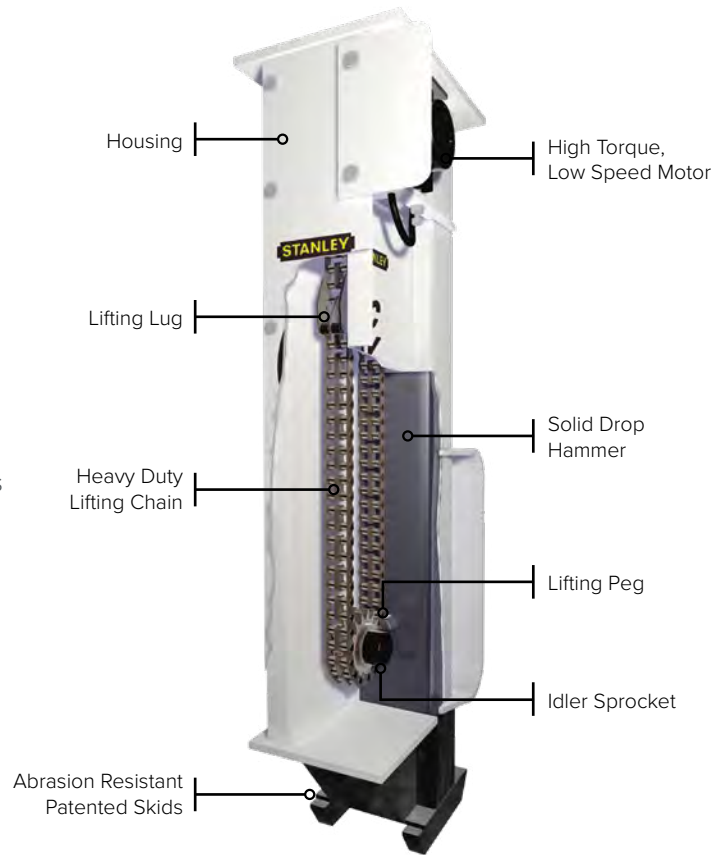
The Cyclone Drop Hammer was developed specifically for the demolition of concrete flat-work for easier removal in smaller and more manageable sizes. This permits reducing the size of the excavator required if pulling up the slab, better compaction for stock-piling and transportation, and simpler material sizing for crusher feed.

MOUNTED DROP HAMMER

FOR EXCAVATORS AND SKID STEER LOADERS

FEATURES

- Shock Free - Patented “skid” system keeps the Cyclone grounded and dissipates the shock as it pulverizes the concrete
- Moveable Hammer Pin - For adjusting impact energy
- Minimal Setup Time - Increased productivity
- Low Maintenance - Field serviceable, no special tools required
- Heavy Duty Buffer System - Absorbs impact of a “mis-hit”
- Easy Operation - Reduces operator error and fatigue
- Compact Design - Makes transport simple
- Simple Hook-Up - Allows for easy change of attachments



SPECIFICATIONS

	DH3500	DH9000
IMPACT ENERGY CLASS	3500 FT LBS / 4746 J	9000 FT LBS / 12200 J
MAX. BLOW PER MINUTE	32	23
PRESSURE RANGE	2350 - 3000 PSI / 162 - 207 BAR	2400 - 3000 PSI / 165 - 207 BAR
FLOW RANGE	10.6 - 20.6 GPM / 40 - 78 LPM	21 - 31 GPM / 79 - 117 LPM
WEIGHT W/ MTG BRACKET	1750 LBS / 784 KG	3150 LBS / 1429 KG
OVERALL WIDTH	18 IN. / 46 CM	32 IN. / 81 CM
OVERALL HEIGHT	65.5 IN. / 166 CM	74 IN. / 188 CM
MAX. FLUID TEMPERATURE	190° F / 88° C	190° F / 88° C
SKID STEER OPERATING LOAD RATING	1250 LBS AND ABOVE	1850 LBS / 839 KG AND ABOVE
EXCAVATOR MACHINE WEIGHT	15400 LBS / 7 MT AND ABOVE	26500 LBS / 12 MT AND ABOVE
CONCRETE THICKNESS	8 - 10 IN. / 20.3 - 25.4 CM	12 - 15 IN / 30.4 - 38 CM
PERFORMANCE	2500 SQ FT PER HOUR	2500 SQ FT PER HOUR

STANLEY

3810 SE Naef Road // Milwaukie, OR 97267 // 833-723-1843 // www.stanleyinfrastructure.com

2024.03.29