

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE, BILLINGS, MONTANA 59102

Lease Name:

Butch Cassidy

Lease Type (Private/State/Federal):

Private

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Application for Permit To:

Drill Deepen Re-enter
Oil Gas Other

Well Number:

4H

JAN 29 2020

Operator: Prima Exploration, Inc.
Address: 250 Filmore St, Suite 500
City: Denver State: CO Zip: 80206
Telephone Number:

Field Name or Wildcat: **MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS**
Elm Coulee Northeast

Unit Name (if applicable):

N/A

Surface Location of Well (quarter-quarter and footage measurements):
NW 1/4 NE 1/4 Sec. 18 T25N R59E 325' FNL 1860' FEL

Objective Formation(s):

Bakken

Proposed Total Depth and Bottom-hole Location(s) if directional or horizontal well:
TD - 20,465' MD.
BHL - SE 1/4 SE 1/4 Sec. 19 T25N R59E 200' FSL 500' FEL

Township, Range, and Section:

T25N R59E Section 18

County:

Richland

Elevation (indicate GL or KB):

2001' GL

Size and description of drilling/spacing unit and applicable order, if any:

1280 Acre Section 18/19, MT Docket 118-2019

Formation at total depth:

Bakken

Anticipated Spud Date:

6/10/2020

Hole Size	Casing Size	Weight / Foot	Grade (API)	Depth	Sacks of Cement	Type of Cement
13 1/2"	9 5/8"	36#	J-55 LTC	2,200'	605	See Attached
8 3/4"	7"	29#/32#	P110 BTC	10,645'	660	See Attached
6"	4 1/2"	11.6#/13.5#	P110 BTC	20,465'	545	See Attached

Describe Proposed Operations:

Describe or attach labeled diagram of blowout preventer equipment. Indicate if air drilled or describe mud program.

Please see attached programs.

Prima Exploration, Inc. requests variance to NOT run Open hole logs on the subject well. Offset logs can be found for the Empire North Dakota LLC. , Vanderhoof C-1, Sec. 18 T25N R59E, Richland County, MT.

BOARD USE ONLY *By CMW Consulting, Inc.*

Approved (date) **FEB 14 2020**

Permit Fee **\$150.00**

The undersigned hereby certifies that the information contained on this application is true and correct:

By *[Signature]*

Check Number **5168**

Signed (Agent) *[Signature]*

Title *Petroleum Engineer*

Permit Expires **AUG 14 2020**

Title **Ren Gardner - Agent/Petroleum Engineer**

THIS PERMIT IS SUBJECT TO THE CONDITIONS OF APPROVAL STATED ON THE BACK

API Number: 25 - **083 - 23390**

Date **1/27/2020**

Telephone Number **406-259-4878**

Samples Required: NONE ALL _____ FROM _____ feet to _____ feet
Core chips to address below, full cores to USGS, Core Laboratory, Arvada, CO. Required samples must be washed, dried and delivered prepaid to:

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

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SUPPLEMENTAL INFORMATION

Note: Additional information or attachments may be required by Rule or by special request.

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

1. Attach a survey plat certified by a registered surveyor. The survey plat must show the location of the well with reference to the nearest lines of an established public survey.
2. Attach an 8 1/2 x 11" photocopy of that portion of a topographic map showing the well location, the access route from county or other established roads, residences, and water wells within a 1/2 mile radius of the well.
3. Attach a sketch of the well site showing the dimensions and orientation of the site, the size and location of pits, topsoil stockpile, and the estimated cut/fill at the corners and centerstake. (Note: the diagram need not be done by an engineer or surveyor). Attach a sketch of a top view and two side views of the reserve pit(s), if utilized. The reserve pit sketch must show the length, width, depth, cut and fill, amount of freeboard, area of topsoil stockpile, and the height and width of berms.
4. Describe the type and amount of material or liner, if any, to be used to seal the reserve pit. If a synthetic liner is used, indicate the liner thickness (mils), bursting strength, tensile strength, tear strength, puncture resistance, hydrostatic resistance, or attach the manufacturer's specifications.
5. Describe the proposed plan for the treatment and/or the disposal of reserve pit fluids and solids after the well is drilled. If the operator intends to dispose of or treat the reserve pit contents off-site, specify the location and the method of waste treatment and disposal. (Note: The operator must comply with all applicable federal, state, county, and local laws and regulations with regard to the handling, transportation, treatment, and disposal of solid wastes.)
6. Does construction of the access road or location, or some other aspect of the drilling operation require additional federal, state, or local permits or authorizations? If yes, indicate the type of permit or authorization required:

- No additional permits needed
- 310 Permit (apply through county conservation district)
- Air quality permit (apply through Montana Department of Environmental Quality)
- Water discharge permit (apply through Montana Department of Environmental Quality)
- Water use permit (apply through Montana Department of Natural Resources and Conservation)
- Solid waste disposal permit (apply through Montana Department of Environmental Quality)
- State lands drilling authorization (apply through Montana Department of Natural Resources and Conservation)
- Federal drilling permit (specify agency)
- Other federal, state, county, or local permit or authorization: (specify type) _____

NOTICES:

1. Date and time of spudding must be reported to the Board verbally or in writing within 72 hours after the commencement of drilling operations.
2. The operator must give notice of drilling operations to the surface owner as required by Section 82-10-503, MCA, before the commencement of any surface activity.

BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

WARNING: Failure to comply with conditions of approval may void this permit.

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CELLS WITH BLUE BACKGROUND ARE THE ONLY CELLS TO BE EDITED

Fracture Start Date/Time:
Fracture End Date/Time:
State:
County:
API Number:
Operator Number:
Well Name:
Federal Well:
Infill Well:
Longitude:
Latitude:
Long/Lat Projection:
True Vertical Depth (TVD):
Total Clean Fluid Volume* (gal): 8,344,602



(e.g. AT-XXX-XXXX-0000)



Table with 4 columns: Additive, Specific Gravity, Additive Quantity, Mass (lbs). Rows include Water, DVA-75, FRP-15, HCL-13, Liberty Clean Out Fluid, Bioclear 5000, Surf-Flo 430, Crystalline Silica Quartz / US Silica, DF-365, ACT-300, WA-100, IC-505.

Total Slurry Mass (Lbs)

10,049,954

PRIMA
Prima Exploration, Inc
250 Fillmore Street, Suite 500
Denver, CO 80206

Bulch Cassidy 4H
Lat 47°55'29.075" N Long 104°0'47.461" W
Richland County, MT

Ingredients Section:

Table with 9 columns: Trade Name, Supplier, Purpose, Ingredients, Chemical Abstract Service Number (CAS #), Maximum Ingredient Concentration in Additive (% by mass)**, Mass per Component (LBS), Maximum Ingredient Concentration in HF Fluid (% by mass)**, Comments. Rows include Water, DVA-75, FRP-15, HCL-13, Liberty Clean Out Fluid, Bioclear 5000, Surf-Flo 430, Crystalline Silica Quartz / US Silica, DF-365, ACT-300, WA-100, IC-505, and various additives like Sand, Titanium Oxide, Benzene sulfone Acid, etc.

*Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(g) and Appendix D.