

FORM NO. 22 R 10/09      SUBMIT IN QUADRUPLICATE TO:      ARM 36.22.307  
 ARM 36.22.601

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

Lease Name: \_\_\_\_\_  
 Unit \_\_\_\_\_

Lease Type (Private/State/Federal): \_\_\_\_\_  
 Fee \_\_\_\_\_

Application for Permit To:

Drill     Deepen     Re-enter   
 Oil     Gas     Other \_\_\_\_\_

Well Number: \_\_\_\_\_  
 12-15H

Operator: Denbury Onshore, LLC  
 Address: 5851 Legacy Circle, Suite 1200  
 City: Plano                      State: TX                      Zip: 75024  
 Telephone Number: 972-673-2000

Field Name or Wildcat: \_\_\_\_\_  
 Bell Creek

Unit Name (if applicable): \_\_\_\_\_  
 Bell Creek Consolidated Unit

Surface Location of Well (quarter-quarter and footage measurements):  
 SWSE 779' FEL & 2318' FEL

Objective Formation(s): \_\_\_\_\_  
 Muddy Sandstone

Proposed Total Depth and Bottom-hole Location(s) if directional or horizontal well:  
 8763'  
 BHL: NWSE 1706' FSL & 2005' FEL

Township, Range, and Section: \_\_\_\_\_  
 T8S, R54E, Sec. 12

County: \_\_\_\_\_  
 Powder River

Elevation (indicate GL or KB): \_\_\_\_\_  
 3830' GL 3848' KB

Size and description of drilling/spacing unit and applicable order, if any: \_\_\_\_\_      Formation at total depth: \_\_\_\_\_      Anticipated Spud Date: \_\_\_\_\_  
 71-1991                                      Skull Creek                                      09/15/2022

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| Hole Size | Casing Size | Weight / Foot | Grade (API) | Depth | Sacks of Cement | Type of Cement     |
|-----------|-------------|---------------|-------------|-------|-----------------|--------------------|
| 17-1/2"   | 13-3/8"     | 54.5#         | J-55        | 1000' | 270             | Type III           |
| 12-1/4"   | 9-5/8"      | 36#           | J-55        | 4832' | 270             | Type III - Class G |
| 8-3/4"    | 5-1/2"      | 17#           | L80         | 8763' | 700             | Class G            |

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

Denbury requests approval to drill the horizontal subject well as a producer in the tertiary CO<sub>2</sub>/ Waterflood program. Procedure and additional information have been attached. There are no occupied dwellings or permitted fresh water wells per a GWIC search, located within a 1/2 mile radius of this well.

All the required documents have been included in our proposal to fracture stimulate the subject well.

Sage Grouse notification is not required as this well falls outside the Sage Grouse habitat.

Please find \$75 permit fee attached.

**BOARD USE ONLY**

Approved (date) SEP 12 2022      Permit Fee \$ 75.00  
 By [Signature]      Check Number 0000884859  
 Title Admin/Production Eng      Permit Expires MAR 12 2023  
 Permit Number 32752

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

Signed (Agent) [Signature]  
 Title Regulatory Compliance Specialist

Date 09/07/2022  
 Telephone Number 972-673-2552

THIS PERMIT IS SUBJECT TO THE CONDITIONS OF APPROVAL STATED ON THE BACK      API Number: 25 - 075 - 22475

Samples Required:      NONE X      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

SUPPLEMENTAL INFORMATION

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

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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
  - Stream crossing 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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CAS INFORMATION:

| Additive                  | Max Loading/ 1000 Gal | Specific Gravity | Additive Quantity | Mass (lbs) |
|---------------------------|-----------------------|------------------|-------------------|------------|
| Water (Customer Supplied) | 1,000.00              | 1.00             | 274,500           | 2,290,703  |
| WG-ISLR, GUAR SLURRY      | 5.00                  | 1.04             | 915               | 7,956      |
| BIO-2L, BIOCID            | 0.30                  | 1.00             | 83                | 693        |
| SURF PLUS, CNF            | 2.00                  | 0.94             | 549               | 4,316      |
| XLB-1, CROSSLINKER        | 1.50                  | 1.35             | 275               | 3,098      |
| B-1, BREAKER              | 2.00                  | 2.55             | 549               | 549        |
| B-4LE, ENZYME BREAKER     | 0.15                  | 1.03             | 42                | 361.0      |
| KCI-2SUB, KCI SUBSTITUTE  | 2.00                  | 1.08             | 549               | 4,957      |
| FR-1, FRICTION REDUCER    | 0.50                  | 1.05             | 46                | 403        |
| RESIN COATED SAND         | 5,000.00              | 2.55             | 300,000           | 300,000    |

Total Slurry Mass (Lbs)

2,613,035

| Name                      | Ingredients                                 | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Total Component Mass in IIF Fluid (lbs) | Maximum Ingredient Concentration in IIF Fluid (% by mass)** |
|---------------------------|---|--|--|---|---|
| Water (Customer Supplied) | Water                                       | 7732-18-5                                | 100.00%  | 2,290,703                               | 87.66443%   |
| RESIN COATED SAND         | Silica Quartz                               | 14808-60-7                               | 98.00%   | 294,000                                 | 11.25128%   |
|                           | Phenolic Resin                              | 9001-35-4                                | 5.00%  | 15,000                                  | 0.57405%  |
|                           | Hexamethylenetetramine                      | 100-97-0                                 | 1.00%  | 3,000                                   | 0.11481%  |
| WG-ISLR, GUAR SLURRY      | Solvent Naptha (pet.) heavy aliphatic       | 64742-47-8                               | 60.00%   | 4,774                                   | 0.18269%  |
|                           | Guar Gum                                    | 9000-30-0                                | 50.00%   | 3,978                                   | 0.15224%  |
| SURF PLUS, CNF            | Dipentene; Limonene                         | 138-86-3                                 | 30.00%   | 1,294.7                                 | 0.04955%  |
|                           | Ethoxylated Alcohol                         | 68439-46-3                               | 30.00%   | 1,294.7                                 | 0.04955%  |
|                           | Nonyl Phenol Ethoxylated                    | 127087-87-0                              | 30.00%   | 1,294.7                                 | 0.04955%  |
|                           | Isopropanol                                 | 67-63-0                                  | 15.00%   | 647.4                                   | 0.02477%  |
| KCI-2SUB, KCI SUBSTITUTE  | Choline Chloride                            | 67-48-1                                  | 70.00%   | 3,470.0                                 | 0.13279%  |
|                           | Water                                       | 7732-18-5                                | 30.00%   | 1,487.1                                 | 0.05691%  |
| FR-1, FRICTION REDUCER    | Hydrotreated light distillate               | 064742-47-8                              | 30.00%   | 120.9                                   | 0.00463%  |
|                           | Sodium Chloride                             | 7647-14-5                                | 5.00%  | 20.2                                    | 0.00077%  |
|                           | Oxylalkylated alcohol                       | 69227-21-0                               | 5.00%  | 20.2                                    | 0.00077%  |
| XLB-1, CROSSLINKER        | Water                                       | 7732-18-5                                | 60.00%   | 1,858.8                                 | 0.07114%  |
|                           | Potassium Hydroxide                         | 1310-58-3                                | 30.00%   | 929.4                                   | 0.03557%  |
|                           | Boric Acid                                  | 10043-35-3                               | 30.00%   | 929.4                                   | 0.03557%  |
| B-1, BREAKER              | Ammonium persulfate                         | 7727-54-0                                | 100.00%  | 549.0                                   | 0.02101%  |
| B-4LE, ENZYME BREAKER     | Water                                       | 7732-18-5                                | 90.00%   | 324.9                                   | 0.01243%  |
|                           | Sodium Chloride                             | 7647-14-5                                | 15.00%   | 54.2                                    | 0.00207%  |
|                           | Mannanase Enzymes                           | 37288-54-3                               | 2.00%  | 7.2                                     | 0.00028%  |
| BIO-2L, BIOCID            | Tetrakis(hydroxymethyl) Phosphonium Sulfate | 55566-30-8                               | 20.00%   | 138.5                                   | 0.00530%  |
|                           | Water                                       | 7732-18-5                                | 80.00%   | 554.1                                   | 0.02121%  |

100.00%

Denbury  
Bell Creek 12-15H

Carbon County, MT  
26-Aug-22

**PRODUCT DESCRIPTION**

**WG-1SLR, Slurried Guar Gel**

|                                |  |
|--------------------------------|--|
| <b>Q5451</b>                   |  |
| <b>General Information</b>     | WG-1SLR, Slurried Guar Gel is a preslurried form of a high-yield guar gum for preparing fracturing fluids. It provides exceptionally fast, "fisheye"-free hydration even in cold water.  |
| <b>Uses &amp; Applications</b> | WG-1SLR, Slurried Guar Gel can be used wherever conventional guar is used. The slurry is 4 pounds of guar per gallon of slurry. The rapid hydration allows "on the fly" mixing with fairly low-volume hydration tank in line to the blender. |
| Density in Sp.Gr.              | 1.019  |
| Specs                          | Tan/yellowish slurry liquid-Water soluble  |

**BIO-2L, Liquid Biocide (THPS)**

|                                |   |
|--------------------------------|---|
| <b>Q5281</b>                   |   |
| <b>General Information</b>     | BIO-2L, Liquid is a liquid biocide based on Tetrakis (Hydroxymethyl) Phosphonium Sulfate) (THPS), for use in oilfield water applications such as fracturing fluids. Used as directed, it is a highly effective and economical in controlling most sulfate-reducing and acid-producing bacteria as well as algae and fungi. Biocide, Liquid penetrates biofilms and works synergistically with chlorine- and bromine-based biocides. |
| <b>Uses &amp; Applications</b> | BIO-2L, Liquid is best added to frac or flush water as water is transferred. Loadings as low as .1 gpt have been shown to be effective in relatively clean water. Dosages as high as 1 gpt may be required in badly contaminated waters.  |
| Density in Sp.Gr.              | 0.95  |
| Specs                          | Clear colorless liquid-Water soluble  |

**Surf Plus (Surfactant/N.E./Remediation)**

|                                |   |
|--------------------------------|---|
| <b>Q5701</b>                   |   |
| <b>General Information</b>     | Surf Plus is a nonionic biodegradable stable complex nanofluid (CnF)—a mixture of solvent, co-solvent and surfactants for use as a stimulation additive and especially in CO2 water floods and CO2 assisted fracturing. |
| <b>Uses &amp; Applications</b> | Surf Plus is typically loaded at .5 to 2 gpt in acid or frac fluid.   |
| Density in Sp.Gr.              | 0.935   |
| Specs                          | Light yellow liquid-Water soluble   |

**XLB-1, Self Buffered Borate Crosslinker**

|                                |   |
|--------------------------------|---|
| <b>Q5500</b>                   |   |
| <b>General Information</b>     | XLB-1 is a self buffering, highly concentrated borate crosslinker for fracturing fluids. It requires no pH control additive.  |
| <b>Uses &amp; Applications</b> | Normal loadings for XLB-1 range from .6 to 1.4 gpt when used in 30 to 35 ppt guar based gel. Higher loadings may be needed in cold weather or with "on the fly" liquid gelling agents where incomplete hydration of the guar may be occurring. It can be broken with oxidizing breakers or high pH enzyme breakers. |
| Density in Sp.Gr.              | 1.303   |
| Specs                          | Clear colorless liquid-Water soluble  |

**B-1, Oxidizer Breaker (AP)**

|                                |   |
|--------------------------------|---|
| <b>Q5475</b>                   |   |
| <b>General Information</b>     | B-1, APS is an oxidative breaker for fracturing fluids at low to moderate temperatures.   |
| <b>Uses &amp; Applications</b> | B-1, APS is typically used in fracturing treatments at loadings of .2 to 2 ppt of fluid. Fluid temperatures most appropriate for Ammonium persulfate are from around 80° F to 190° F. |
| Density in Sp.Gr.              | 1.98  |
| Specs                          | White granules-Water soluble  |

**B-4LE, High pH/Low Temp. <140°F Enzyme Breaker**

|                                |  |
|--------------------------------|--|
| <b>Q5478</b>                   |  |
| <b>General Information</b>     | B-4LE is a liquid enzyme breaker designed specifically for borate crosslinked fluid with pH of up to 10. |
| <b>Uses &amp; Applications</b> | B-4LE is typically loaded at .2 to 2 gpt. B-4LE has a shelf life of 90 days.                             |
| Density in Sp.Gr.              | 1.12   |
| Specs                          | Light brown liquid-Water soluble   |

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Bell Creek 12-15H

Carbon County, MT  
26-Aug-22

### PRODUCT DESCRIPTION

#### KCL-2Sub, KCl Substitute (anionic tolerant)

Q5301  
General Information

KCL-2Sub is a slightly cationic highly concentrated liquid potassium chloride substitute for oilfield use. Unlike many other KCl substitutes, KCL Substitute is very low in toxicity and contains no surfactants. KCL-2Sub is a 70% Choline Chloride base clay protection product. KCL-2Sub can be used with an Anionic Friction Reducer with little to no effect on the efficiency of the anionic friction reducer.

Uses & Applications  
Density in Sp.Gr.  
Specs

KCL-2Sub can be used in any application where the stabilization of formation clays are required. KCL Substitute typical loadings of .5 to 1 gpt will give the base fluid the equivalent clay stabilization of 2% dry potassium chloride in most formations.

1.13  
Clear liquid-Water soluble

#### FR-1, Friction Reducer (Cationic) (TDS<250,000)

Q5425  
General Information

FR-1, Friction Reducer, is an highly efficient cationic friction reducer for fresh and higher waters (<250,000). It hydrates very rapidly, even in cold water to give optimal performance.

Uses & Applications  
Density in Sp.Gr.  
Specs

FR-1, Friction Reducer can be used wherever thin fluids are pumped into turbulent flow to drastically reduce friction pressures encountered. The most common applications are in pumping acid and water-based fluids through coil tubing, jointed tubing and casing at particularly high rates. The use of Anionic surfactants, non-emulsifiers and scale inhibitors may interfere with the friction reduction properties of FR-1

1.06  
Creamy white to greenish liquid-Water soluble, limited by viscosity

General Information

Uses & Applications  
Density in Sp.Gr.  
Specs

General Information

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