

FORM  
2

Rev  
12/20

## State of Colorado

### Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

402858895

Date Received:

12/21/2021

### APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

Amend ☐

Refile ☒

Sidetrack ☐

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: \_\_\_\_\_

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Well Name: Helen Well Number: 2536-09H  
Name of Operator: VERDAD RESOURCES LLC COGCC Operator Number: 10651  
Address: 1125 17TH STREET SUITE 550  
City: DENVER State: CO Zip: 80202  
Contact Name: Heather Mitchell Phone: (720)845-6917 Fax: ( )  
Email: regulatory@verdadresources.com

### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170009

### WELL LOCATION INFORMATION

#### Surface Location

QtrQtr: SESW Sec: 24 Twp: 2N Rng: 64W Meridian: 6

Footage at Surface: 1243 Feet FSL 2153 Feet FWL

Latitude: 40.120058 Longitude: -104.501433

GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 10/14/2021

Ground Elevation: 4924

Field Name: WATTENBERG Field Number: 90750

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

#### Subsurface Locations

##### Top of Productive Zone (TPZ)

Sec: 25 Twp: 2N Rng: 64W Footage at TPZ: 460 FNL 1954 FEL  
Measured Depth of TPZ: 7418 True Vertical Depth of TPZ: 6850 FNL/FSL FEL/FWL

##### Base of Productive Zone (BPZ)

Sec: 36 Twp: 2N Rng: 64W Footage at BPZ: 460 FSL 1954 FEL  
Measured Depth of BPZ: 17069 True Vertical Depth of BPZ: 6850 FNL/FSL FEL/FWL

##### Bottom Hole Location (BHL)

Sec: 36 Twp: 2N Rng: 64W Footage at BHL: 370 FSL 1954 FEL  
FNL/FSL FEL/FWL

### LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? Yes

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☒ Yes ☐ No

☒ If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 01/19/2018

Comments: WOGLA18-0001

## SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Mineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Surface Owner Protection Financial Assurance (if applicable): \_\_\_\_\_ Surety ID Number (if applicable): \_\_\_\_\_

## MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

☒ Fee

☒ State

☐ Federal

☐ Indian

☐ N/A

## LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

\* If this Well is within a unit, describe a lease that will be developed by the Well.

\* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

Township 2 North, Range 64 West, 6th P.M. Section 25: All

Total Acres in Described Lease: 640 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 806 Feet

Building Unit: 883 Feet

Public Road: 390 Feet

Above Ground Utility: 1145 Feet

Railroad: 1343 Feet

### INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit – as defined in 100 Series Rules.

Property Line: 324 Feet

## OBJECTIVE FORMATIONS

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| NIOBRARA               | NBRR           | 407-2427                | 1280                          | Sec 25 & 36: All                     |

Federal or State Unit Name (if appl):

Unit Number:

## SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 460 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 491 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: Feet

## Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers.

## SPACING & FORMATIONS COMMENTS

T2N, R64W: Sec. 25 All, Sec. 36 All

## DRILLING PROGRAM

Proposed Total Measured Depth: 17159 Feet

TVD at Proposed Total Measured Depth 6850 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 502 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H<sub>2</sub>S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

**CASING PROGRAM**

| <u>Casing Type</u> | <u>Size of Hole</u> | <u>Size of Casing</u> | <u>Grade</u> | <u>Wt/Ft</u> | <u>Csg/Liner Top</u> | <u>Setting Depth</u> | <u>Sacks Cmt</u> | <u>Cmt Btm</u> | <u>Cmt Top</u> |
|--------------------|---------------------|-----------------------|--------------|--------------|----------------------|----------------------|------------------|----------------|----------------|
| CONDUCTOR          | 26                  | 16                    | ASTM         | 65           | 0                    | 80                   | 70               | 80             | 0              |
| SURF               | 13+1/2              | 9+5/8                 | J55          | 36           | 0                    | 1948                 | 529              | 1948           | 0              |
| 1ST                | 8+1/2               | 5+1/2                 | P110         | 20           | 0                    | 17159                | 2155             | 17159          |                |

☐ Conductor Casing is NOT planned

**POTENTIAL FLOW AND CONFINING FORMATIONS**

| <u>Zone Type</u> | <u>Formation /Hazard</u> | <u>Top M.D.</u> | <u>Top T.V.D.</u> | <u>Bottom M.D.</u> | <u>Bottom T.V.D.</u> | <u>TDS (mg/L)</u> | <u>Data Source</u> | <u>Comment</u>                                      |
|------------------|--------------------------|-----------------|-------------------|--------------------|----------------------|-------------------|--------------------|-----------------------------------------------------|
| Groundwater      | Denver                   | 0               | 0                 | 297                | 297                  | 501-1000          | USGS               | USGS (USGS-400753104251501 4060mg/L) - NO ZONE HERE |
| Groundwater      | Fox Hill                 | 297             | 297               | 836                | 832                  | 501-1000          | USGS               | USGS (USGS-400702104313701 626mg/L)                 |
| Confining Layer  | Pierre                   | 836             | 832               | 1397               | 1366                 |                   |                    |                                                     |
| Groundwater      | Upper Pierre Porosity    | 1397            | 1366              | 1914               | 1849                 | 1001-10000        | Other              | CO DNR Report Project Number 2141                   |
| Confining Layer  | Pierre                   | 1914            | 1849              | 4056               | 3852                 |                   |                    |                                                     |
| Hydrocarbon      | Parkman                  | 4056            | 3852              | 4377               | 4152                 |                   |                    | Non-productive horizon                              |
| Hydrocarbon      | Sussex                   | 4377            | 4152              | 4694               | 4449                 |                   |                    | Non-productive horizon                              |
| Hydrocarbon      | Shannon                  | 4694            | 4449              | 5505               | 5207                 |                   |                    | Non-productive horizon                              |
| Confining Layer  | Pierre                   | 5505            | 5207              | 7084               | 6650                 |                   |                    |                                                     |
| Hydrocarbon      | Sharon Springs           | 7084            | 6650              | 7113               | 6670                 |                   |                    | Non-productive horizon                              |
| Hydrocarbon      | Niobrara                 | 7113            | 6670              | 17159              | 6850                 |                   |                    |                                                     |

**OPERATOR COMMENTS AND SUBMITTAL**

Comments Verdad is refiling this application for permit to drill, original permit expiration was on 05/10/2020. Verdad is changing the well name, SHL, TPZ and BHL from the original permit.  
 The nearest well completed or permitted in the same formation is the Helen 2536-08H, measured is 2D using GIS mapping.  
 The nearest existing or proposed well belonging to another operator is the LE. Gerkin 11H API# 05-123-44073 operated by Red Hawk Petroleum LLC, DG well status. This distance was measured in 3D using an anti collision report, attached as "other".  
 This well has a bottom hole location beyond the unit boundary setback. The bottom of the completed interval will be within the unit boundary setback 460'FSL and 1954' FEL of section 36. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.

This application is in a Comprehensive Area Plan No CAP #: \_\_\_\_\_

OGDP ID#: \_\_\_\_\_ OGDP Name: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Location ID: 454529 Location Name: ARNOLD 02N-64W-24

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Heather Mitchell

Title: Regulatory Manager Date: 12/21/2021 Email: regulatory@verdadresources.c

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: \_\_\_\_\_

Director of COGCC

Date: 1/30/2022

Expiration Date: 01/29/2025

**API NUMBER**

05 123 46833 00

**Conditions Of Approval**

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

**Condition of Approval**

**COA Type**

**Description**

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Construction                   | Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Drilling/Completion Operations | COGCC COA: Operator will ensure the wellbore beyond the unit boundary setback is physically isolated and is not completed. In the Operator Comments on the Form 5A the operator will (1) report the footages from the section lines of the bottom of the completed interval (2) describe how the wellbore beyond the unit boundary setback is physically isolated and (3) certify that none of the wellbore beyond the setback was completed.                                                                                                                                                                                                                                                                                   |
| Drilling/Completion Operations | Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:<br>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.<br>2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation.<br>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance. |
| Drilling/Completion Operations | Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document Operator using Option 3. Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.<br>05-123-08561, UPRR-ANCELL 11-1<br>05-123-10541, STATE C 41-36                                                                                                                                                                                                                       |
| Drilling/Completion Operations | Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.<br>05-123-10517, State C14-36                                                                                                                                                                                 |
| Drilling/Completion Operations | 1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad.<br>2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log.                                                                                                                                                                                                                                                                                                                                          |

6 COAs

## Best Management Practices

| <b>No</b> | <b>BMP/COA Type</b>            | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1         | Drilling/Completion Operations | Operator will perform anti-collision evaluation of all active (producing, shut-in, of temporarily abandoned) offset wellbores that have the potential of being within 150' feet of the proposed well prior to drilling operations. Notice shall be given to all offset operators prior to drilling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2         | Drilling/Completion Operations | Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.                                                                                                                                                                  |
| 3         | Drilling/Completion Operations | Alternative Logging Program - One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point to into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measuredwhile-drilling gamma-ray log. The form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without openhole logs shall clearly state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which openhole logs were run. |

Total: 3 comment(s)

## Attachment List

| <b>Att Doc Num</b> | <b>Name</b>                |
|--------------------|----------------------------|
| 402858895          | FORM 2 SUBMITTED           |
| 402894457          | WELL LOCATION PLAT         |
| 402902539          | DEVIATED DRILLING PLAN     |
| 402902540          | DIRECTIONAL DATA           |
| 402904805          | OTHER                      |
| 402905679          | OffsetWellEvaluations Data |
| 402941535          | OFFSET WELL EVALUATION     |

Total Attach: 7 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>                                                                                                                                                                                                                                                                                                                                                               | <u>Comment Date</u> |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Permit            | Final Review Completed.                                                                                                                                                                                                                                                                                                                                                      | 01/21/2022          |
| OGLA              | This Location and its associated materials was fully reviewed in the review of this APD in accordance with current Rules. See Sundry doc # 402869013 in Location # 454529 file for additional information. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. OGLA task passed. | 01/20/2022          |
| Permit            | SLB has no concerns with this application.                                                                                                                                                                                                                                                                                                                                   | 01/20/2022          |
| Permit            | Received confirmation from the operator for the following changes:<br>1.Adding the drilling beyond the setback COA<br>2.Checking state minerals since the APD is producing from state minerals<br>3.Adding the refile comment<br>4.Adding the built location COA                                                                                                             | 01/18/2022          |
| Permit            | -Requesting the following from the operator:<br>1. Confirming that state minerals are being produced<br>2. Adding the drilling beyond the setback COA<br>3. Missing the refile comment                                                                                                                                                                                       | 01/13/2022          |
| Permit            | Sent back to draft per operator's request                                                                                                                                                                                                                                                                                                                                    | 11/18/2021          |

Total: 6 comment(s)