

FORM  
2

Rev  
08/16

## 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:

400885424

#### APPLICATION FOR PERMIT TO:

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

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

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

07/25/2016

Well Name: TC AIMS

Well Number: C4-9-11

Name of Operator: EXTRACTION OIL & GAS LLC

COGCC Operator Number: 10459

Address: 370 17TH STREET SUITE 5300

City: DENVER State: CO Zip: 80202

Contact Name: Alyssa Andrews

Phone: (720)481-2379

Fax: ( )

Email: aandrews@extractionog.com

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130028

#### WELL LOCATION INFORMATION

QtrQtr: SENE Sec: 8 Twp: 5N Rng: 66W Meridian: 6

Latitude: 40.414380

Longitude: -104.798680

Footage at Surface: 2558 Feet FNL/FSL FNL 1193 Feet FEL/FWL FEL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4789

County: WELD

GPS Data:

Date of Measurement: 07/30/2014 PDOP Reading: 0.9 Instrument Operator's Name: C. HOLMES

If well is ☐ Directional ☒ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FNL/FWL

2495 FNL 460 FWL 2740 FNL 2489 FWL  
Sec: 9 Twp: 5N Rng: 66W Sec: 11 Twp: 5N Rng: 66W

#### LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: ☐ is the mineral owner beneath the location.

(check all that apply)

☐ is committed to an Oil and Gas Lease.

☐ has signed the Oil and Gas Lease.

☐ is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: Surface Surety ID:

## LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Please see the attached lease map.

Total Acres in Described Lease: 3 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

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

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 147 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 912 Feet  
Building Unit: 1048 Feet  
High Occupancy Building Unit: 2300 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 1172 Feet  
Above Ground Utility: 1214 Feet  
Railroad: 5280 Feet  
Property Line: 476 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: ☐ Buffer Zone  
☐ Exception Zone  
☒ Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: 05/21/2014

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

## SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 165 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

Spacing Unit:  
Sec. 9-5N-66W: S/2N/2 & N/2S/2  
Sec. 10-5N-66W: S/2N/2 & N/2S/2  
Sec. 11-5N-66W: S/2NW/4 & N/2SW/4

## OBJECTIVE FORMATIONS

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| CODELL                 | CODL           |                         | 800                           | GWA                                  |

## DRILLING PROGRAM

Proposed Total Measured Depth: 20380 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: 478 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 Operations Plan)

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

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID:  or Document Number:

## CASING PROGRAM

| Casing Type | Size of Hole | Size of Casing | Wt/Ft | Csg/Liner Top | Setting Depth | Sacks Cmt | Cmt Btm | Cmt Top |
|-------------|--------------|----------------|-------|---------------|---------------|-----------|---------|---------|
| CONDUCTOR   | 24           | 16             | 42    | 0             | 80            | 100       | 80      | 0       |
| SURF        | 12+1/4       | 9+5/8          | 36    | 0             | 1500          | 400       | 1500    | 0       |
| 1ST         | 7+7/8        | 5+1/2          | 20    | 0             | 20380         | 1900      | 20380   | 0       |

☐ Conductor Casing is NOT planned

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☒ Rule 318A.a. Exception Location (GWA Windows).
- ☒ Rule 318A.c. Exception Location (GWA Twinning).

## RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

## OTHER LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_

☐ Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

## OPERATOR COMMENTS AND SUBMITTAL

Comments Distance to nearest wellbore permitted/completed in the same formation: 165' (TC Aims 1-9-11)  
Distance to nearest wellbore from another operator: 478' (Austyn J #9-5)

The proposed APD is on a Large UMA Location. Please see the related 2A doc #401040773 for details.

The surface owner has waived Rules 318A.a. & 318A.c. in the SUA which is highlighted on p.4 of the SUA attached to the APD.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 436824

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: \_\_\_\_\_ Print Name: Alyssa Andrews

Title: Regulatory Analyst Date: 7/25/2016 Email: aandrews@extractionog.com

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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 10/14/2016

Expiration Date: 10/13/2018

### API NUMBER

05 123 43743 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.

### COA Type

### Description

|  |   |
|--|---|
|  | This Permit to Drill is approved subject to all the BMPs and COAs on the most recently approved Form 2A and any subsequently approved Form 4 for the Oil and Gas Location. The most recently approved Form 2A (DOC # 401040773) and any subsequent Form 4s containing applicable COAs for this location shall be posted onsite during construction, drilling, and completions operations. |
|  | 1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 48 hour spud notice for all subsequent wells drilled on the pad.<br>2) Comply with Rule 317.j and provide cement coverage from the end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.                         |
|  | Bradenhead tests shall be performed and reported 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.<br>2) 6 months after rig release, prior to stimulation.<br>3) Within 30 days of first production, as reported on Form 5A.   |

## Best Management Practices

| <b>No</b> | <b>BMP/COA Type</b>            | <b>Description</b>   |
|-----------|--------------------------------|--|
| 1         | Planning                       | 604.c.(2)J.i Blowout Prevention Equipment ("BOPE"): A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.  |
| 2         | Planning                       | 604.c.(2)J.ii Backup stabbing valves will be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.   |
| 3         | Drilling/Completion Operations | 604.c.(2)L. Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director. None planned for this well.   |
| 4         | Drilling/Completion Operations | Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.  |
| 5         | Drilling/Completion Operations | Operator acknowledges and will comply with COGCC policy for Bradenhead Monitoring during Hydraulic Fracturing treatments in the Greater Wattenberg Area dated May 29, 2012.  |
| 6         | Drilling/Completion Operations | 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 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 measured-while-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 open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run. |

Total: 6 comment(s)

## Applicable Policies and Notices to Operators

|  |
|--|
| Policy   |
| Notice Concerning Operating Requirements for Wildlife Protection.<br><a href="http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf">http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf</a>   |
| Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.<br><a href="http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf">http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf</a> |

## Attachment Check List

| <b>Att Doc Num</b> | <b>Name</b>                |
|--------------------|----------------------------|
| 400885424          | FORM 2 SUBMITTED           |
| 400885616          | WELL LOCATION PLAT         |
| 400886076          | DIRECTIONAL DATA           |
| 400886077          | DEVIATED DRILLING PLAN     |
| 401032368          | SURFACE AGRMT/SURETY       |
| 401035507          | EXCEPTION LOC REQUEST      |
| 401063740          | MINERAL LEASE MAP          |
| 401075562          | PROPOSED SPACING UNIT      |
| 401076406          | OffsetWellEvaluations Data |

Total Attach: 9 Files

## General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u>      |
|-------------------|--|--------------------------|
| Permit            | Removed all BMP's not related to Drilling/Completions. Final Review Completed.   | 10/14/2016<br>9:34:59 AM |
| Permit            | Permitting Review Complete.  | 9/9/2016<br>11:37:31 AM  |
| Permit            | Open Hole Logging BMP submitted by operator.   | 9/9/2016<br>11:37:30 AM  |
| Permit            | Surface Use Agreement has waivers for Rule 318A.a & 318A.c. See page 4.  | 9/9/2016<br>11:37:29 AM  |
| Engineer          | Offset Wells Evaluated   | 9/6/2016<br>12:44:54 PM  |
| Engineer          | Changed "1st Liner" to "First String" on the Casing tab.   | 9/6/2016<br>12:44:46 PM  |
| LGD               | The City of Greeley has received notice of the Form 2 applications for the Triple Creek site. This proposed oil and gas facility was reviewed under local land use laws through the Use by Special Review process (Greeley Planning File Number USR 6:14) and approved on March 8, 2016. All design elements, conditions of operation, and Agreements associated with the approved Use by Special Review must be built and adhered to per approval of the Use by Special Review, unless the Use by Special Review approval is formally amended. Any amendments would be reviewed separately, and would be determined, per Greeley Code criteria, to be minor (reviewed administrative) or major (reviewed through hearing). City staff is available to answer any questions from the State, operator, or public about the approved City documents at 970-350-9780. | 9/2/2016<br>10:09:57 AM  |
| Permit            | Public comment period has been extended from 8/17/2016 to 9/3/2016 at the request of the Greeley LGD.  | 8/8/2016<br>12:01:41 PM  |
| Permit            | Passed completeness.   | 7/28/2016<br>3:46:09 PM  |
| Permit            | Corrected date of GPS measurement and relabeled attached Exception Location Request per operator request.  | 7/28/2016<br>3:40:56 PM  |

Total: 10 comment(s)