

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:  
401645741

APPLICATION FOR PERMIT TO:

Drill       Deepen       Re-enter       Recomplete and Operate

Date Received:  
05/30/2018

TYPE OF WELL    OIL     GAS     COALBED     OTHER \_\_\_\_\_  
ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Refiling   
Sidetrack

Well Name: Boies Ranch B-30H      Well Number: 41D-30-2-97  
Name of Operator: URSA OPERATING COMPANY LLC      COGCC Operator Number: 10447  
Address: 1600 BROADWAY ST STE 2600  
City: DENVER      State: CO      Zip: 80202  
Contact Name: Chris McRickard      Phone: (720)508-8362      Fax: ( )  
Email: cmcrickard@ursaresources.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120125

WELL LOCATION INFORMATION

QtrQtr: NESE      Sec: 30      Twp: 2S      Rng: 97W      Meridian: 6  
Latitude: 39.846136      Longitude: -108.319069

Footage at Surface: 2226 Feet      FNL/FSL FSL 1095 Feet      FEL/FWL FEL

Field Name: SULPHUR CREEK      Field Number: 80090  
Ground Elevation: 6272      County: RIO BLANCO

GPS Data:  
Date of Measurement: 12/06/2016    PDOP Reading: 1.1    Instrument Operator's Name: P. Hoffman

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

Footage at Top of Prod Zone:    FNL/FSL      FEL/FWL      Bottom Hole:    FNL/FSL      FEL/FWL  
1051    FNL    759    FEL      1051    FNL    759    FEL  
Sec: 30    Twp: 2s    Rng: 97w      Sec: 30    Twp: 2s    Rng: 97w

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: Yes

The right to construct the Oil and Gas Location is granted by: applicant is owner

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.)

T2S R97W Sec 30: E2NE, NESE – (120 acres). Mineral Lease Map attached.

Total Acres in Described Lease: 120 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: 575 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 3855 Feet  
 Building Unit: 4237 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 156 Feet  
 Above Ground Utility: 347 Feet  
 Railroad: 5280 Feet  
 Property Line: 471 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: \_\_\_\_\_

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: 237 Feet

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

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

**SPACING & FORMATIONS COMMENTS**

Spacing Order doesn't create a unit, but creates 10 acres density.

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
ILES	ILES	527-21		
WILLIAMS FORK	WMFK	527-20		

## DRILLING PROGRAM

Proposed Total Measured Depth: 11753 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: \_\_\_\_\_ 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? No

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 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

PLEASE SEE WASTE MANAGEMENT PLAN ATTACHED TO ASSOCIATED FORM 2A.

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	18	47.4	0	60	87	60	0
SURF	13+1/2	9+5/8	36	0	3695	450	3695	2418
1ST	8+3/4	4+1/2	11.6	0	11753	1424	11753	
		9+5/8	Stage Tool		2418	724	2418	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 603.a.(1)

**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 well completed in the same formation / permitted or existing well penetrating objective formation was measured to Ursa's to BOIES #B-19P-30A3 (05-103-11035) at 237'.
- No well belonging to another operator completed in the same formation permitted or existing well belonging to another operator was within 1500'.
- Spacing Order doesn't create a unit, but creates 10 acres density.
- Requesting 502.b. variance to rule 603.a.(1) for wellhead being less than 200' from a public road. Previous conductors were set, plugged and abandoned on the pad. Letter attached along with waivers.
- Ursa is the surface owner and well will be drilled from an existing pad.

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

Location ID: 336040

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: Chris McRickard

Title: Regulator Manager Date: 5/30/2018 Email: cmcrickard@ursaresources.co

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: 8/30/2018

Expiration Date: 08/29/2020

<b>API NUMBER</b>
05 103 11412 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

	1)Operator shall comply with the most current revision of the Northwest Colorado Notification Policy.  2)Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to above total vertical depth of 4100'. Isolation is required due to offset Wasatch sand injection. Verify production casing cement coverage with a cement bond log.
	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).

## Best Management Practices

### No BMP/COA Type

### Description

1	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 TD 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 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: 1 comment(s)

## Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

[http://cogcc.state.co.us/documents/reg/Policies/nw\\_notification\\_procedures.pdf](http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf)

Notice Concerning Operating Requirements for Wildlife Protection.

[http://cogcc.state.co.us/documents/reg/Policies/Wildlife\\_Notice.pdf](http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf)

## Attachment Check List

### Att Doc Num

### Name

2168319	VARIANCE REQUEST
401645741	FORM 2 SUBMITTED
401649271	WELL LOCATION PLAT
401649286	DIRECTIONAL DATA
401649368	DEVIATED DRILLING PLAN
401653134	MINERAL LEASE MAP
401654058	WAIVERS

Total Attach: 7 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	08/27/2018
Engineer	<p>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required.</p> <p>Offset well B-19N #SWD #1 API#103-11000 reportedly injects into the Wasatch G and Fort Union formations. The shallowest perforation is at 4330' and the Wasatch G top is possibly incorrectly reported at 3795'. The sand being injected into shows a top at 4300'. Cement coverage is to be 200' above this sand at a total vertical depth of 4100'. See Condition of Approval #2 for cement isolation requirements.</p> <p>Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest permitted water well within one mile is shown at a depth of 35 feet.</p> <p>Changed surface string cement top to the setting depth of the DV tool.</p>	07/10/2018
Permit	Replaced variance request as per operator.	07/06/2018
Permit	<p>Removed operator comment in spacing section stating that total lease is 1601.51 acres with operator concurrence.</p> <p>Preliminary review complete.</p> <p>Waiting on Spacing Order.</p>	07/04/2018
Permit	Form passes completeness.	06/06/2018

Total: 5 comment(s)