FORM 2 Rev 08/16

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER ____ Refiling ☐

ZONE TYPE SINGLE ZONE ☐ MULTIPLE ZONES ☒ COMMINGLE ZONES ☐ Sidetrack ☐

Well Name: JIMMY GULCH 3G Well Number: 12C-3-3-97

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: CARI MASCIOLI Phone: (970)284-3244 Fax: ( )

Email: cmascioli@ursaresources.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: ____

WELL LOCATION INFORMATION

QtrQtr: SWNE Sec: 3 Twp: 3S Rng: 97W Meridian: 6

Latitude: 39.820116 Longitude: -108.265305

Footage at Surface: 2019 Feet FNL/FSL FNL 2604 Feet FEL/FWL FEL

Field Name: SULPHUR CREEK Field Number: 80090

Ground Elevation: 6661 County: RIO BLANCO

GPS Data:

Date of Measurement: 05/15/2017 PDOP Reading: 1.2 Instrument Operator's Name: HOFFMANN

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

Footage at Top of Prod Zone: 2075 FNL/FSL FNL 747 FEL/FWL FWL

Sec: 3 Twp: 3S Rng: 97W

Bottom Hole: 2075 FNL/FSL FNL 747 FEL/FWL FWL

Sec: 3 Twp: 3S Rng: 97W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☐ Fee ☐ State ☒ Federal ☐ Indian

The Surface Owner is: (check all that apply)

☒ is the mineral owner beneath the location.

☒ 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: oil and gas lease

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 ATTACHED MINERAL LEASE MAP.

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

Federal or State Lease # COC14302

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 747 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building:	5280	Feet
Building Unit:	5280	Feet
High Occupancy Building Unit:	5280	Feet
Designated Outside Activity Area:	5280	Feet
Public Road:	5280	Feet
Above Ground Utility:	2598	Feet
Railroad:	5280	Feet
Property Line:	2867	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: 330 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

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	528-2		
WILLIAMS FORK	WMFK	528-1		

DRILLING PROGRAM

Proposed Total Measured Depth: 13274 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_2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H2S 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: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

PLEASE SEE WASTE MANAGEMENT PLAN ATTACHED TO FORM 2A.

Beneficial reuse or land application plan submitted? No

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	55	0	60	111	60	0
SURF	13+1/2	9+5/8	36	0	4164	678	4164	2243
1ST	8+3/4	4+1/2	13.5	0	13274	1605	13274	
		9+5/8	Stage Tool		2243	671	2243	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 well completed in the same formation / permitted or existing well penetrating objective formation was measured to Ursa's proposed JIMMY GULCH 3G 12B-3-3-97. Distance to the nearest well completed in the same formation / permitted or existing well belonging to another operator was measured at 4950' to the XTO Energy Inc - Freedom Unit #297-33A5 (API 05-103-11295).

This well is being proposed from an existing pad on Fed-owned surface. The proposed well will BHL on federal minerals. Pre-application notifications were not required as all surface owners within 1000' are Federal and there are no building units located within 1000' of the pad location. Ursa will be pursuing Federal APDs for the proposed Jimmy Gulch 3G wells concurrently with this application.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 335974

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: CARI MASCIOLI

Title: REGULATORY ANALYST Date: 11/15/2017 Email: cmascioli@ursaresources.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: Matthew Lee **Director of COGCC** Date: 2/15/2018

Expiration Date: 02/14/2020

API NUMBER

05 103 12327 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
	The moisture content of water/bentonite based mud (WBM) generated drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. The operator has indicated in the 'DRILLING WASTE MANAGEMENT PROGRAM SECTION' of the Form 2; that 'Cuttings Disposal' will be "OFFSITE" and that the 'Cuttings Disposal Method' will be "Beneficial reuse", 'Other Disposal Description' as "PLEASE SEE WASTE MANAGEMENT PLAN ATTACHED TO FORM 2A." Any proposed offsite disposal or beneficial reuse of cuttings to another oil and gas location shall not occur until approval of a Form 4 Sundry Notice specifying disposal or beneficial reuse location and cuttings material sampling and characterization methods. A Form 4 Sundry Notice must also be submitted for any of the WBM drill cuttings that will remain on the well pad location and must be sampled and meet the applicable standards of Table 910-1.
	1)Operator shall comply with the most current revision of the Northwest Colorado Notification Policy. 2)Operator shall provide cement coverage for the production casing (4+1/2" FIRST STRING) to 200' above the Wasatch G sand. Isolation is required for offset Wasatch G UIC injection. Addition of a stage tool to the production casing requires prior approval on a sundry notice, Form 4. Verify production casing cement coverage with a cement bond log.

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	One of the first wells that Ursa Operating Company drills 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
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

Att Doc Num	Name
2108363	WELL LOCATION PLAT
401357978	FORM 2 SUBMITTED
401387658	DEVIATED DRILLING PLAN
401387659	LEASE MAP
401387661	DIRECTIONAL DATA

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
Permit	Final review complete.	02/14/2018
OGLA	01/05/18 - with operator's verbal concurrence - attached revised 'Well Location Plat'; revised the Distance to the nearest cultural feature: from Well to Building from 527' to 5280' (same as Building Unit since the original distance was measured to an 'oil and gas' operations building, not owned or accessible by any public or private entity); and from Well to Public Road from 244' to 5280' (distance to Rio Blanco County Road 5 since the original distance was measured to the 'oil and gas' lease road that is gated and is not accessible by any public or private entity) - based on review of COGCC's Online GIS Map Aerial Photo for 2015 layer, Roads & Railroads (CDOT) layer, and the operator's indication that the buildings are oil and gas operations buildings and that the lease road is gated.	01/08/2018
Permit	Replaced 317.p logging BMP as directed by operator. The drilled well on this pad was done by previous operator. Preliminary review complete.	12/13/2017
Permit	Spacing order doesn't create a unit. Removed distanct to unit boundary, unit acreage, and unit configuration.	12/08/2017
Engineer	Geologic prognosis for planned well Jimmy Gulch 3G 32C-3-3-97 has TVD 5122.0 for the Ft Union. Vertical well Federal #397 3-1 API#103-08817 (formerly operated by Whiting) reportedly injects into the Wasatch G (reported at 5131'). Perforation depths are 5648' to 5708'. Emailed operator to see if some revision to the injection well formation reporting needs to be made. 2/13: Operator responded that the offset well does inject into the Wasatch G sand package. See Condition of Approval #2 for cement coverage requirement. Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. Federal #397 3-1 API#103-08817 injects into the Wasatch G. 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 1,752 feet but is operated for commercial and industrial uses.	11/30/2017
Permit	Passed Completeness.	11/27/2017

Total: 6 comment(s)