

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____	Refiling <input type="checkbox"/>
ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>

Date Received:
12/15/2014

Well Name: CSF E Well Number: 41B-16-07-91

Name of Operator: URSA OPERATING COMPANY LLC COGCC Operator Number: 10447

Address: 1050 17TH STREET #2400

City: DENVER State: CO Zip: 80265

Contact Name: JENNIFER LIND Phone: (720)508-8362 Fax: ()

Email: JLIND@URSARESOURCES.COM

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20120125

WELL LOCATION INFORMATION

QtrQtr: NESW Sec: 9 Twp: 7S Rng: 91W Meridian: 6

Latitude: 39.458649 Longitude: -107.558706

Footage at Surface: 1489 feet ^{FNL/FSL} FSL 2553 feet ^{FEL/FWL} FWL

Field Name: MAMM CREEK Field Number: 52500

Ground Elevation: 6807 County: GARFIELD

GPS Data:
Date of Measurement: 08/12/2014 PDOP Reading: 1.8 Instrument Operator's Name: AIBNER

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}
<u>427</u>	<u>FNL</u>	<u>709</u>	<u>427</u>	<u>FNL</u>	<u>709</u>
	<u>FEL</u>			<u>FEL</u>	
Sec: <u>16</u>	Twp: <u>7S</u>	Rng: <u>91W</u>	Sec: <u>16</u>	Twp: <u>7S</u>	Rng: <u>91W</u>

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: 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.)

PORTIONS OF SEC.15 & SEC.18, ALL OF SEC.16 & 17-T7S-R91W. PLEASE SEE ATTACHED MINERAL LEASE MAP

Total Acres in Described Lease: 2288 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COC66579

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 427 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: 221 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 5280 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 Wellbore to Nearest 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.)
WILLIAMS FORK	WMFK	191-32		

DRILLING PROGRAM

Proposed Total Measured Depth: 8115 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 330 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H₂S 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:

If cuttings meet Table 910 they will be beneficially reused. WMP submitted with 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	84	0	60	111	60	0
SURF	12+1/4	8+5/8	32	0	1100	232	1100	0
1ST	7+7/8	4+1/2	11.6	0	8115	1020	8115	

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 Amended Form 2A approved 05/12/2014. First String / Production cement will be > 500 feet above TOG. Distance to nearest well completed in the same formation / permitted or existing well penetrating objective formation was measured to the proposed CSF E 41C-16-07-91.

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

Location ID: 418828

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: JENNIFER LIND

Title: REGULATORY ANALYST Date: 12/15/2014 Email: JLIND@URSARESOURCES.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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 2/25/2015

Expiration Date: 02/24/2017

API NUMBER
05 045 22815 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

	<p>(1) Operator shall comply with the most current revision of the Northwest Notification Policy. See attached notice.</p> <p>(2) Operator shall comply with the most current revision of the Garfield County Rulison Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1). See attached notice.</p> <p>(3) Operator shall comply with the most current revision of the Mamm Creek Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1). See attached notice.</p> <p>(4) Operator shall comply with the Notice to Operators Drilling Wells in the Buzzard, Mamm Creek, and Rulison fields, Garfield County and Mesa County – Procedures and Submittal Requirements for Compliance with COGCC Order Nos. 1-107, 139-56, 191-22, and 369-2 (July 8, 2010). See attached notice.</p> <p>(5) Operator shall provide cement coverage from the production casing shoe to a minimum of 200' above all Mesa Verde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log. This requirement shall supersede the top of cement requirements in the Mamm Creek Field Notice to Operators.</p>
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Best Management Practices

No BMP/COA Type

Description

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Applicable Policies and Notices to Operators

Mamm Creek Field Area Notice to Operators.
Piceance Rulison Field - Notice to Operators.
NW Colorado Notification Policy.
Bradenhead Pressure Reporting-Garfield County (Mamm Creek & Rulison Fields) Mesa County (Buzzard Field).
Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num

Name

400746231	FORM 2 SUBMITTED
400746405	MINERAL LEASE MAP
400746410	WELL LOCATION PLAT
400746412	DEVIATED DRILLING PLAN
400746413	DIRECTIONAL DATA

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	<p>Removed unit acreage and unit description from spacing order as per opr. As per opr: The distance to Public Road differs from the 5280' reported on the previously permitted 2A because when the 2A was approved the determination on the road being open for public use hadn't been made official. Removed distance to unit boundary (427') as per opr. Corrected cuttings disposal to Onsite to match previously filed 2A, as per opr. Changed answer from form being submitted with a Oil & Gas Assesment Application from yes to no as per opr. Removed related form 2A from Related Forms tab as per opr. Final review complete.</p>	2/2/2015 2:41:08 PM
LGD	<p>KHW Pass: Please note any location with greater than 5,000 barrels of total storage capacity (pits/tanks) would require a Garfield County land use change permit.</p>	1/19/2015 2:07:22 PM
Permit	<p>Ready to pass pending public comment 1/6/15.</p>	12/31/2014 12:25:46 PM
Engineer	<p>Evaluated existing offset oil and gas wells within 1,500 feet of this wellbore. No mitigation required.</p> <p>Offset water well check: There are no permitted water wells within 1 mile of this proposed surface hole location.</p> <p>Conducted analysis of separation distances from offset wells, particularly with respect to proposed pad further to the SouthEast of Section 9 (T7S R91W). The proposed borehole trajectory of this well (CSF E 41B-16-07-91) passes almost directly beneath that pad -- but the distance to any of the four proposed well's borehole trajectories is greater than 1000'.</p>	12/16/2014 2:45:24 PM
Agency	<p>Passed completeness.</p>	12/16/2014 11:56:01 AM

Total: 5 comment(s)