

FORM  
2A

Rev  
08/13

# 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:

401235025

**(SUBMITTED)**

Date Received:

06/08/2017

## Oil and Gas Location Assessment

New Location     Refile     Amend Existing Location    Location#: \_\_\_\_\_

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

Expiration Date:

This location assessment is included as part of a permit application.

### CONSULTATION

This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_

This location is in a sensitive wildlife habitat area.

This location is in a wildlife restricted surface occupancy area.

This location includes a Rule 306.d.(1)A.ii. variance request.

### Operator

Operator Number: 10447

Name: URSA OPERATING COMPANY LLC

Address: 792 BUCKHORN DR

City: RIFLE    State: CO    Zip: 81650

### Contact Information

Name: CARI MASCIOLO

Phone: (970) 284-3244

Fax: ( )

email: cmascioli@ursaresources.com

### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120125

Gas Facility Surety ID: \_\_\_\_\_

Waste Management Surety ID: \_\_\_\_\_

### LOCATION IDENTIFICATION

Name: BMC F Pad

Number: \_\_\_\_\_

County: GARFIELD

Quarter: SWSW Section: 16 Township: 7S Range: 95W Meridian: 6 Ground Elevation: 5858

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 371 feet FSL from North or South section line

649 feet FWL from East or West section line

Latitude: 39.432282 Longitude: -108.010296

PDOP Reading: 1.1 Date of Measurement: 11/09/2016

Instrument Operator's Name: HOFFMANN

## RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

## FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	Oil Tanks*	Condensate Tanks*	Water Tanks*	Buried Produced Water Vaults*
Drilling Pits	Production Pits*	Special Purpose Pits	Multi-Well Pits*	Modular Large Volume Tanks
Pump Jacks	Separators*	Injection Pumps*	Cavity Pumps*	Gas Compressors*
Gas or Diesel Motors*	Electric Motors	Electric Generators*	Fuel Tanks*	LACT Unit*
Dehydrator Units*	Vapor Recovery Unit*	VOC Combustor*	Flare*	Pigging Station*

## OTHER FACILITIES\*

Other Facility Type

Number

100 - 600 Bbl temporary tanks

1

\*Those facilities indicated by an asterisk (\*) shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

## CONSTRUCTION

Date planned to commence construction: 11/15/2017 Size of disturbed area during construction in acres: 5.40

Estimated date that interim reclamation will begin: 11/15/2021 Size of location after interim reclamation in acres: 5.40

Estimated post-construction ground elevation: 5856

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: No

Is H<sub>2</sub>S anticipated? No

Will salt sections be encountered during drilling: No

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

Will oil based drilling fluids be used? No

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: \_\_\_\_\_ Drilling Fluids Disposal Method: \_\_\_\_\_

Cutting Disposal: \_\_\_\_\_ Cuttings Disposal Method: \_\_\_\_\_

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

Centralized E&P Waste Management Facility ID, if applicable: \_\_\_\_\_

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: BM Land Investments LLC Phone: \_\_\_\_\_

Address: PO Box 6000

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Parachute State: CO Zip: 81636

Surface Owner:  Fee  State  Federal  Indian

Check all that apply. The Surface Owner:  is the mineral owner  
 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 from or produced to this Oil and Gas Location: No

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

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

Date of Rule 306 surface owner consultation 02/28/2017

### CURRENT AND FUTURE LAND USE

#### Current Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP  
Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_  
Subdivided:  Industrial  Commercial  Residential

#### Future Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP  
Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_  
Subdivided:  Industrial  Commercial  Residential

## CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	_____ Feet	1500 Feet
Building Unit:	_____ Feet	1500 Feet
High Occupancy Building Unit:	_____ Feet	5055 Feet
Designated Outside Activity Area:	_____ Feet	5280 Feet
Public Road:	_____ Feet	625 Feet
Above Ground Utility:	_____ Feet	3463 Feet
Railroad:	_____ Feet	5280 Feet
Property Line:	_____ Feet	500 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- 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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(\*) on the Facilities Tab.

## 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.
- Large UMA Facility - 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: \_\_\_\_\_

## FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

## SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 33 Ildefonso stony loam, 6 to 25 percent slopes

NRCS Map Unit Name: 56 Potts Loam, 6 to 12 percent slopes

NRCS Map Unit Name: 58 Potts-Ildefonso complex, 12 to 25 percent slopes

## PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes  No

Plant species from:  NRCS or,  field observation Date of observation: 09/14/2016

List individual species:

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)  
 Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)  
 Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)  
 Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)  
 Mountain Riparian (Cottonwood, Willow, Blue Spruce)  
 Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)  
 Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)  
 Alpine (above timberline)  
 Other (describe):

## WATER RESOURCES

Is this a sensitive area:  No  Yes

Distance to nearest

downgradient surface water feature: 133 Feet

water well: 1000 Feet

Estimated depth to ground water at Oil and Gas Location 120 Feet

Basis for depth to groundwater and sensitive area determination:

Static water level from existing well (permit #9114487)

Is the location in a riparian area:  No  Yes

Was an Army Corps of Engineers Section 404 permit filed  No  Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer zone: No

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified:

Is the Location within a Floodplain?  No  Yes Floodplain Data Sources Reviewed (check all that apply)

Federal (FEMA)

State

County

Local

Other

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

## WILDLIFE

This location is included in a Wildlife Mitigation Plan

This location was subject to a pre-consultation meeting with CPW held on 04/27/2017

## Operator Proposed Wildlife BMPs

No BMP

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area
- 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)

## RULE 502.b VARIANCE REQUEST

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

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

THIS PAD LOCATION WILL HOLD UP TO 100 600BBLs FRAC TANKS TO SUPPORT COMPLETIONS IN THE BATTLEMENT MESA AREA, WHICH WILL SIGNIFICANTLY REDUCE TRUCK TRAFFIC. THE TANKS WILL BE IN PLACE UP TO THREE YEARS FROM WHEN THE TANKS ARE FIRST USED. NO INTERIM RECLAMATION WILL OCCUR DUE TO THE TEMPORARY NATURE OF THE PAD. THIS SITE IS ANTICIPATED TO BE IN USE FOR LESS THAN 3 YEARS FROM DATE OF FIRST USE TO BEGINNING OF DECOMMISSIONING AND FINAL RECLAMATION OF THE LOCATION.

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

Signed: \_\_\_\_\_ Date: 06/08/2017 Email: cmascioli@ursaresources.com

Print Name: CARI MASCIOLI Title: REGULATORY TECH

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: \_\_\_\_\_

## Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

COA Type

Description

<u>COA Type</u>	<u>Description</u>

## Best Management Practices

No	BMP/COA Type	Description
1	Planning	<ul style="list-style-type: none"> <li>• Ursa conducts voluntary inspections and corrective actions of all locations at least monthly using a self-implemented checklist of key actions (including environmental) that require compliance with COGCC, Federal, and other state and county requirements.</li> <li>• Ursa will comply with CDPHE regulations regarding air permitting, compliance monitoring, inspections and reporting. All air sources will be assigned AIRS ID numbers by the CDPHE and tracked for compliance and reporting purposes. In addition, Ursa is required to track, monitor and report Greenhouse Gas (GHG) emissions to EPA annually.</li> <li>• Safety requirements and buffers as required by the COGCC 602, 603, and 606A and 606B Series Rules, among others, and the Office of Safety and Health Administration (OSHA) will be observed at all time. Daily safety briefings and Job Safety Assessments (JSA's) are routinely conducted in all phases of operations. In addition, Ursa employees a full-time safety manager to oversee all field contractors.</li> <li>• As part of the siting rationale and alternatives analysis, Ursa has developed a comprehensive fly-over tool allowing for viewshed analysis from selected points of interest proximate to the pad location in an effort to better illustrate proposed operations impacts to the surrounding community. The fly-over tool for the BMC F temporary water facility can be accessed through this link: BMC F Temp Water Facility: <a href="https://skfb.ly/6nUHW">https://skfb.ly/6nUHW</a></li> <li>• Ursa held a LUMA consultation site visit in February, 2017. The following BMPs have been adopted as a direct result of the LUMA consultation process and are included and site-specific mitigation measures:  Per request of Garfield County Vegetation Manager: <ul style="list-style-type: none"> <li>• Prior to delivery to site, equipment will be cleaned of soils and other materials remaining from previous construction sites.</li> <li>• Equipment and material handling will be done on established sites to reduce the area and extent of soil compaction.</li> <li>• Ursa commits to use only weed free straw or mulch and weed-free wattles for sediment retention work.</li> <li>• Reclaimed areas will be stable and will be free from large rills and gullies, perceptible soil movement or head-cutting in drainages, slope instability on or adjacent to the reclaimed area</li> <li>• Slopes will be stabilized using appropriate reshaping and earthwork measures, including proper placement of soils and materials.</li> <li>• Topsoil will be salvaged from areas to be disturbed and managed for later use in reclamation. Topsoil stockpiles will be seeded to prevent erosion.</li> </ul> </li> </ul>
2	Community Outreach and Notification	<ul style="list-style-type: none"> <li>• Ursa has a dedicated phone line to address complaints and responds 24 hours per day, 7 days a week. All complaints received by Ursa are documented, investigated, responded to immediately with appropriate corrective actions and communicated to the complainant, landowner, county LGD and appropriate state agency officials. Coordination with Kirby Wynn, Garfield County LGD, will be ongoing to ensure the effectiveness of our complaint management process. The following phone numbers and websites are available to the community members to report complaints: <ul style="list-style-type: none"> <li>- Ursa complaint / 24 hr hotline: 970-620-2787</li> <li>- Ursa emergency / 24 hotline: 855-625-9922</li> <li>- Community Counts: 866-442-9034</li> <li>- Garfield County (Kirby Wynn): 970-987-2557</li> <li>- Colorado Oil &amp; Gas Conservation Commission: <a href="http://cogcc.state.co.us/complaints.html#/complaints">http://cogcc.state.co.us/complaints.html#/complaints</a></li> </ul> </li> </ul>
3	Traffic control	<ul style="list-style-type: none"> <li>• In consultation with Garfield County and the local emergency response agencies (Fire/police), Ursa has developed a site-specific Emergency Response Plan and Haul Route Map which is communicated to local emergency response agencies and stakeholders, as well as contractors performing work at the location. The preferred/primary haul route for this location is the Upper Route (I-70 exit 75). The Lower Route (I-70 exit 72) shall be a secondary route.</li> </ul>

4	Construction	<ul style="list-style-type: none"> <li>• The construction of the BMC F Pad shall be limited to the hours of 7:00AM to 7:00PM, with the exception of emergencies and episodic events beyond Ursa's control.</li> <li>• Access road will be maintained as an all-weather access route for operator and emergency response. Accumulations of snow that prevent or limit access to the location will be removed within 24 hours or as soon as conditions allow after a weather event. The road will be timely maintained to prevent ruts, potholes and other damage.</li> <li>• An earthen berm will be constructed around the pad location as secondary containment and will be sized to hold 150% of the volume of the largest single tank in the containment. Black base will be used for areas where tanks will be placed to help alleviate permeability into soil should a leak occur.</li> </ul>
5	Dust control	<ul style="list-style-type: none"> <li>• The pad and access road will be graveled to reduce fugitive dust and maintained as required by COGCC rules. In addition, Operator will have water trucks onsite for dust abatement during construction. Water and other dust suppressants are used as required, dependent upon the level of activity, moisture conditions, etc. throughout all phases of operations. Ursa commits to ensuring truckloads of dirt, sand, aggregate materials, and similar materials are covered to reduce dust and PM emissions during transport.</li> </ul>
6	Noise mitigation	<ul style="list-style-type: none"> <li>• Volume of the sound generated: Every use shall be so operated that the volume of sound inherently and recurrently generated does not exceed 70 dB(A) from 7:00 AM to 7:00 PM and 65 dB(A) from 7:00 PM to 7:00 AM, measured 350 feet from the edge of the pad. As set forth in COGCC Regulation 802(b), the noise levels shall be subject to an increase by 10 dB(A) for a period not to exceed 15 minutes in any one (1) hour period and cannot exceed 65 dB(A) for shrill or periodic impulsive noise. Complaint protocols shall be governed by COGCC Rule 802(c).</li> <li>• Lighting, noise, odors, dust and related nuisances are managed in accordance with COGCC 600 and 802, 803, 804 and 805 Series Rules, and in accordance with Ursa policies, procedures and checklists. Additional noise monitoring above and beyond COGCC regulations may be conducted by Ursa on a voluntary basis. If conditions warrant further mitigation at the time of operations, Ursa will request approval as necessary from the COGCC to implement additional measures.</li> </ul>
7	Material Handling and Spill Prevention	<ul style="list-style-type: none"> <li>• BMC F temporary water storage facility will be manned 24 hours a day while the facility is in use.</li> <li>• MAINTENANCE - Corrective actions relating to the tanks will have effected equipment repaired or replaced as necessary.</li> <li>• TANK INSPECTIONS - will be formally inspected quarterly under the Spill Prevention Control and Countermeasures (SPCC) plan.</li> <li>• TANK INSPECTIONS - will be formally inspected quarterly under the Spill Prevention Control and Countermeasures (SPCC) plan.</li> </ul>

8	Wildlife	<ul style="list-style-type: none"> <li>• Ursa will operate in accordance with the Wildlife Mitigation Plan (signed with CPW in 2011) that allows for up to 15 well pads in the Battlement Mesa area (including within the PUD). Ursa has met with CPW to determine the appropriate BMP implementation and has completed all wildlife mitigation commitments required per the 2011 Wildlife Mitigation Plan in the Battlement Mesa area.</li> <li>• The Ursa BMC A, L and F Pad locations were provided to CPW and analyzed as part of the Antero (now Ursa) Battlement Mesa Wildlife Mitigation Plan (WMP). The terms and conditions agreed upon within the WMP document are still adequate to avoid, minimize, and mitigate any impacts to wildlife from the proposed actions. Agreed upon BMPs from the WMP document have been sent for inclusion as an attachment to the Form 2A permit and are listed below:</li> <li>• Annual raptor and other bird surveys will be conducted in accordance with protocols provided by CPW.</li> <li>• Location visits during the production phase of operations (post drilling and completion for all wells on a well pad location) will be restricted when/where possible to between the hours of 10am and 3pm to minimize impacts to wildlife unless operational concerns warrant pad visits outside this timeframe.</li> <li>• Buried water and gas pipelines will be utilized as means to reduce truck traffic and impacts to wildlife.</li> <li>• Maintaining a ¼ mile no surface occupancy buffer around active bald eagle nests.</li> <li>• Bury all gas and water pipelines adjacent to roads whenever possible.</li> <li>• A weed management plan will be developed and implemented to monitor and control noxious and invasive weeds.</li> <li>• Noxious weed control includes three treatments per year.</li> <li>• Existing weed infestations will be mapped prior to the development of each pad, access road and pipeline when practicable.</li> <li>• Ursa has completed all habitat restoration contributions contained within the WMP.</li> </ul>
9	General Housekeeping	<ul style="list-style-type: none"> <li>• Weeds will be managed in accordance COGCC Rule 1003.f. and 1004.e. as incorporated into Ursa's Noxious Weed plan; to include up to three treatments per year depending upon the species being managed and mapping as needed, throughout the life cycle of the location (construction – final reclamation). Additionally, once construction begins, the Operator shall treat all List A, B, C noxious weeds within pad site perimeter and along access road according to Ursa's noxious weed management plan. This shall include up to three treatments annually by a licensed and certified herbicide applicator.</li> <li>• The location will be managed in accordance with COGCC 907 and 907A Rules, which are incorporated into Ursa's Waste Management Plan, which addresses both E&amp;P and non-E&amp;P waste, including those under the jurisdiction of the CDPHE and EPA. The plan, in combination with Ursa's Spill Prevention and Management Plan, minimizes the potential for any exploration and production wastes, chemicals, fluids, etc. from leaving the location, using BMPs including berms, barriers, and use of spill control materials.</li> </ul>

Total: 9 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401235025	FORM 2A SUBMITTED
401302760	LOCATION DRAWING
401302762	HYDROLOGY MAP
401302764	ACCESS ROAD MAP
401302765	NRCS MAP UNIT DESC
401302766	CONST. LAYOUT DRAWINGS
401302768	FACILITY LAYOUT DRAWING
401302770	EQUIPMENT LIST
401302773	LOCATION PICTURES
401302777	WASTE MANAGEMENT PLAN
401314317	REFERENCE AREA PICTURES
401315375	SURFACE AGRMT/SURETY
401315376	REFERENCE AREA MAP
401323408	PROPOSED BMPS

Total Attach: 14 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

**Public Comments**

No public comments were received on this application during the comment period.

