

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:

400928415

**(SUBMITTED)**

Date Received:

12/07/2015

## Oil and Gas Location Assessment

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

Submit signed original form. 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: 1050 17TH STREET #2400  
 City: DENVER      State: CO      Zip: 80265

### Contact Information

Name: JENNIFER LIND  
 Phone: (720) 508-8362  
 Fax: ( )  
 email: JLIND@URSARESOURCE.CO  
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### RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20120125       Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

### LOCATION IDENTIFICATION

Name: BMC D PAD      Number: \_\_\_\_\_  
 County: GARFIELD  
 Quarter: NENW    Section: 18    Township: 7S    Range: 95W    Meridian: 6    Ground Elevation: 5270

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: 1268 feet FNL from North or South section line  
2319 feet FWL from East or West section line

Latitude: 39.441460      Longitude: -108.040712

PDOP Reading: 1.3      Date of Measurement: 09/06/2014

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	<u>28</u>	Oil Tanks*	<u>        </u>	Condensate Tanks*	<u>2</u>	Water Tanks*	<u>6</u>	Buried Produced Water Vaults*	<u>        </u>
Drilling Pits	<u>        </u>	Production Pits*	<u>        </u>	Special Purpose Pits	<u>        </u>	Multi-Well Pits*	<u>        </u>	Modular Large Volume Tanks	<u>        </u>
Pump Jacks	<u>        </u>	Separators*	<u>28</u>	Injection Pumps*	<u>        </u>	Cavity Pumps*	<u>        </u>	Gas Compressors*	<u>        </u>
Gas or Diesel Motors*	<u>        </u>	Electric Motors	<u>        </u>	Electric Generators*	<u>        </u>	Fuel Tanks*	<u>        </u>	LACT Unit*	<u>        </u>
Dehydrator Units*	<u>        </u>	Vapor Recovery Unit*	<u>        </u>	VOC Combustor*	<u>1</u>	Flare*	<u>        </u>	Pigging Station*	<u>1</u>

## OTHER FACILITIES\*

Other Facility Type

Number

<u>Other Facility Type</u>	<u>Number</u>

\*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:

28 buried flow-lines from well head to separators and to water and oil tanks  
1 buried Gas Pipeline to connect with gas gathering network

## CONSTRUCTION

Date planned to commence construction: 09/01/2016 Size of disturbed area during construction in acres: 4.80  
Estimated date that interim reclamation will begin: 06/01/2018 Size of location after interim reclamation in acres: 4.80  
Estimated post-construction ground elevation: 5265

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

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: OFFSITE Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Please see Attachment J(2) Waste Management Plan.

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

Phone:

Address: 73 G Sipprelle Drive

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

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

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

City: PARACHUTE State: CO Zip: 81635

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: Yes

The right to construct this Oil and Gas Location is granted by: oil and gas lease

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

Date of Rule 306 surface owner consultation \_\_\_\_\_

### 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:	884 Feet	726 Feet
Building Unit:	884 Feet	726 Feet
High Occupancy Building Unit:	4607 Feet	4626 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	249 Feet	306 Feet
Above Ground Utility:	218 Feet	311 Feet
Railroad:	4430 Feet	4493 Feet
Property Line:	212 Feet	301 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.

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: 09/12/2015

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 09/24/2015

## 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 (onl 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.

Please see attached alternatives analysis.

## 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 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: 56 - POTTS LOAM (6-12% SLOPES)

NRCS Map Unit Name: 58 - POTTS-ILDEFONSO COMPLEX (12-25 % SLOPES)

NRCS Map Unit Name: \_\_\_\_\_

**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: 07/10/2014

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: 785 Feet

water well: 1671 Feet

Estimated depth to ground water at Oil and Gas Location 130 Feet

Basis for depth to groundwater and sensitive area determination:

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 501-2640 zone:

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

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

**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)

**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 Pre-Application Notice / Buffer Zone Notice was sent to building unit owners within 1000' of the location on 9/24 and the LGD on 9/12/15, certification attached. Final Garfield County Conditions of Approval for the BMC D pad Special Use Permit are attached for your review.

Reference area photos will be provided during the 2016 growing season.

This location falls within a 317B external buffer zone. Notification to downstream Public Water Systems within 15 miles was provided on 12/21/15 - a copy of the notification letter is attached for your reference.

Ursa requests approval of a Rule 604.a.(2) exception location in accordance with Rule 604.b.(2). Exception location request letter is attached.

Should the LGD request, Ursa concurs with a comment period extension as allowed per Rule 305.d.(2).

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.  
 Signed: \_\_\_\_\_ Date: 12/07/2015 Email: JLIND@URSARESOURCES.COM

Print Name: JENNIFER LIND Title: REGULATORY ANALYST

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.**

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

**Best Management Practices**

No	BMP/COA Type	Description
1	Planning	<ul style="list-style-type: none"> <li>• Prior to initiation of the Form 2A permitting process, internal onsite are held to determine the feasibility of the location (based on the SUA and landowner preferences), topographic constraints, proximity to building units, and public and environmental concerns including surface waters, traffic/haul routes, 317B applicability, wildlife RSOs and SWH areas, noise potential, soil stability, etc.</li> <li>• Planning and permitting information relevant to the location based on Federal, state and county regulations, guidance and policies is documented as appropriate in Ursa's "Site Assessment Checklist/Map".</li> <li>• The best management practices (BMPs) incorporated herein also considered other Federal, state and county agency requirements and guidance, including those under the jurisdiction of the Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (ACOE), Federal Emergency Management Agency (FEMA), Colorado Department of Public Health and Environmental (CDPHE), Colorado Parks and Wildlife (CPW), and Garfield County (GARCO), among others.</li> <li>• Upon approval of the Form 2A, Ursa holds Pre-Construction, Pre-Spud, Pre-Completions and Pre-Production meetings with contractors performing work at the location as determined necessary by the responsible Ursa Operations Manager or Supervisor. As a BMP, Ursa has developed checklists for these meetings to review COAs, NTOs and related issues.</li> <li>• 604.c.(2)V. - Development from existing well pads • Please refer to the alternatives analysis provided as an attachment to this form 2A.</li> <li>• Ursa typically holds weekly meetings to address new, expanded, or additional wells at an Oil and Gas locations. Once a location is determined feasible, preliminary notifications are made to affected surface owners (see below) as a best management practice (BMP).</li> <li>• Ursa has developed and implemented processes and systems to track all agency inspections and concerns (e.g. COGCC, CDPHE, BLM...). Corrective actions are typically implemented with 24 hours of discovery.</li> <li>• Ursa will comply with CDPHE regulations regarding air permits, including the application for general permits, including compliance monitoring. In addition, Ursa is required to track, monitor and report Greenhouse Gas (GHG) emissions to EPA. All air sources will be assigned AIRS ID numbers and tracked for compliance and reporting purposes.</li> <li>• In addition, Ursa submitted permit applications to Garfield County and received Planning Commission approval with Conditions of Approval on October 28, 2015. The Board of County Commissioners decision is anticipated by Dec 17, 2015.</li> <li>• AGENCY INSPECTIONS AND CORRECTIVE ACTIONS - Ursa will implement corrective actions necessary in response to all Federal and state agency inspections in a timely manner. Inspections resulting in the potential for immediate or significant environmental impacts will be addressed immediately, subject to safety and weather considerations.</li> <li>• URSA VOLUNTARY INSPECTIONS - 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>• AIR PERMITTING AND COMPLIANCE - 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>• 604.c.(2)W. - Site-specific measures • SETBACK MITIGATION REQUIREMENTS - Ursa has incorporated the mitigation requirements identified in COGCC Rule 604, as applicable on a site-specific basis into its Operations Checklists, voluntary and mandatory Site Inspections, and Environmental Programs plans, status monitoring, and policies and procedures.</li> <li>• SAFETY - 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> </ul>

2	Community Outreach and Notification	<ul style="list-style-type: none"> <li>• 305.a.(1) - Pre-application Notifications • Once the Form 2A permitting process was initiated the LGD was notified by letter with an invitation to meet or discuss the proposal (certification attached). Communication with Kirby Wynn and municipal LGDs are also held routinely in addition to communication required by COGCC regulations. Please note that this location was negotiated under the 2009 SUA with Battlement Mesa Partners, LLC, which is prior to the Aug 2013; and therefore qualifies for exemption from the setback (hence UMA) rules per 604.b.(2) and 604.a. However, Ursa has voluntarily elected to follow the notification requirements under the 300 and 604.c. rules for setback locations.</li> <li>• 305.a.(2) - Pre-application Notifications • Once the Form 2A permitting process was initiated all surface owners and owners of building units within 1000 feet of the location were notified by letter with an invitation to meet or discuss the proposal (certification attached).</li> <li>• Ursa has voluntarily conducted a series of five (6) stakeholder meetings between June 2015 and December 2015 which focused on development of this location. Approximately 50 community citizens and 25 oil and gas contractors and employees attended these meetings. All meetings were recorded and published on a website made available to the public. The meetings covered all operations phases, potential impacts, and proposed BMPs. Mass mailings and newspaper articles and notices were published on a voluntary basis and also in accordance with Garfield County noticing requirements.</li> <li>• An SUA has been signed with the landowner allowing this location to be constructed, drilled and operated in accordance with the Form 2A submitted.</li> <li>• Unless waivers are received from surface and building unit owners regarding COGCC required notifications to include: Pre-application notifications, statutory notifications, drilling and completions notifications, Ursa will complete the notifications in accordance with COGCC regulations.</li> <li>• Ursa routinely communicates proposed plans and operations schedules with Community Counts, the GARCO Energy Advisory Board, and Battlement Mesa Concerned Citizens (BMCC), if the proposal or work may affect Battlement Mesa. In addition, periodic stakeholder meetings are held with landowners and affected parties.</li> <li>• Voluntary Notifications - Once a new or expanded location, or additional wells are proposed, Ursa's land department contacts the landowner to get an initial approval, prior to formal Pre-application notifications to all affected stakeholders.</li> </ul>
3	Pre-Construction	<ul style="list-style-type: none"> <li>• 604.c.(2)E.ii. - Multi-well Pads &amp; 604.c.(2)N. - Control of fire hazards" • For safety purposes, the location and site layout has been designed to accommodate all operations, including drilling and completions, within the limits of disturbance while meeting Federal and state safety regulations, including required buffers and distances between operating components and combustion sources in accordance with COGCC Section 600 Rules.</li> <li>• Water pipeline infrastructure will be installed concurrently with the gas pipeline infrastructure where possible. No water infrastructure currently exists.</li> <li>• FLOODPLAIN IMPACTS - Ursa completed a floodplain assessment and found that this location did not meet criteria to be designated within the 100 year floodplain.</li> </ul>
4	Traffic control	<ul style="list-style-type: none"> <li>• 604.c.(2)D. - Traffic Plan • 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.</li> </ul>
5	General Housekeeping	<ul style="list-style-type: none"> <li>• NOXIOUS WEEDS - 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).</li> <li>• 604.c.(2)P. - Removal of surface trash • WASTE - 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>

6	Wildlife	<ul style="list-style-type: none"> <li>• WILDLIFE - All separators/dehydrators and heater –treater equipment are outfitted with bird cones.</li> <li>• 1200 Series Rules • WILDLIFE - A Wildlife Mitigation Plan (2011) is in place that allows for up to 15 well pads in the Battlement Mesa area (including within the PUD). Once COGCC and Garfield County Permits are approved, additional mitigation will be required provided that CPW approves Ursa's draft Wildlife Management Plan Revisions (pending). Annual meetings (quarterly as deemed appropriate by Colorado Parks and Wildlife) will be held with Colorado Parks and Wildlife (CPW) to determine the status of, and any outstanding commitments.</li> </ul>
7	Storm Water/Erosion Control	<ul style="list-style-type: none"> <li>• STORMWATER - The location will be constructed / maintained in accordance with the CDPHE and COGCC 1002.f. (1) and (2) stormwater regulations as implemented by Ursa's Stormwater Management Plan, so as to control sediment and potential pollutant run-off. Stormwater BMPs will also serve as secondary or tertiary containment in the event of a spill. Site specific plans (i.e. diagrams) will be developed and inspected against at the frequency required by CDPHE regulations, to include 14 day, 30 day, and major storm event inspections until 70% reclamation is achieved. Corrective actions and maintenance will be tracked and implemented. The post-construction stormwater program will be managed in accordance with COGCC Rule 1002.f. (3). Inspections and corrective actions will be conducted through 80% interim reclamation and annually thereafter. These inspections are also tracked and corrective actions implemented. Native soils will be used whenever available to construct stormwater BMPs, supplemented by non-native materials based on site-specific conditions.</li> </ul>
8	Material Handling and Spill Prevention	<ul style="list-style-type: none"> <li>• CHEMICAL AND MATERIAL HANDLING - All materials and chemicals will be managed to minimize environmental contamination in accordance with MSDS sheets and EPA, COGCC and CDPHE regulations. Materials and chemicals that are not a waste may be reused or recycled.</li> <li>• 604.c.(2)F. - Leak Detection Plan • SPILLS / INCIDENTS - Spill prevention and response are addressed in Ursa's Spill Prevention and Management Plan. This includes training of employees and contractors personnel on at least an annual basis. Spill response includes notifications, reporting, response actions, remediation and corrective actions. The spill criteria in Ursa's plan requires that waste be properly classified as E&amp;P or non-E&amp;P wastes. For E&amp;P waste, all spills greater than 1 barrel (outside containment) or greater than 5 barrels (inside containment) will be reported to the COGCC using a Form 19. Should remediation be required, a Form 27 will be submitted as well. Spills related to non-E&amp;P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. As a BMP, Ursa tracks and cleans up all spills, including those that are not reportable.</li> <li>• SPILLS / INCIDENTS - Spills will be managed in accordance with Ursa's SPCC plan, COGCC rules 317b and 604 including prevention, spill containment and monthly inspections. High level alarms will be installed on production tanks.</li> </ul>
9	Dust control	<ul style="list-style-type: none"> <li>• 604.c.(2)S. - Access roads • DUST CONTROL - The pad and access road will be graveled to reduce fugitive dust and maintained as required by COGCC rules. In addition, water and other dust suppressants are used as required, dependent upon the level of activity, moisture conditions, etc. throughout all phases of operations</li> <li>• REMOTE MONITORING - Remote monitoring will be used to reduce truck traffic, fugitive dust to the extent practical.</li> </ul>

10	Construction	<ul style="list-style-type: none"> <li>• CONSTRUCTION (General) - The location will be constructed and maintained in accordance with COGCC 1002 Rules regarding soil and stormwater management, and surface disturbance minimization as incorporated into Ursa's plans, policies and procedures.</li> <li>• 609. - Statewide groundwater baseline sampling and monitoring • WATER WELL SAMPLING - Water well sampling will be conducted prior to setting conductors; followed by post-sampling requirements and reporting the landowner and COGCC.</li> <li>• 317B. - Public water system protection - PUBLIC WATER SUPPLY SAMPLING - The location falls within a 317B Public Water Supply area, however is located outside of the 100 year floodplain. For 317B classification, the location falls within the external buffer zone in relation to the Colorado River. Notifications to Battlement Mesa and water sampling will be completed prior to construction. BMPs will be implemented regarding spill containment of 150% of the largest tank in accordance with Rule 604.c. Post baseline sampling will be conducted within the timeframes established under the COGCC rules.</li> <li>• 604.c.(2)E.iii. - Multi-well Pads • Access road will be maintained as an all-weather access route for operator and emergency response.</li> <li>• 604.c.(2)M. - Fencing requirements • Fencing will be installed per the surface use agreement.</li> <li>• 604.c.(2)G. - Berm construction (Buffer Zone) • All production equipment to include separators, produced water and condensate tanks, pipelines and flowlines will be constructed and managed in accordance with COGCC 604 c.(2).G, 605 and 1100 Series Rules.</li> <li>• 604.c.(2)R. - Tank specifications • VISUAL IMPACTS - Above-ground facilities (e.g. production tanks) will be managed to minimize visual effects (e.g. painted to blend with environment) and Native vegetation planted in accordance with the SUA.</li> <li>• 604.c.(2)R. - Tank specifications • SPCC / CONTAINMENT All production tanks and tanks used for completions activities will be installed, labeled, contained, operated, and decommissioned in accordance with Ursa's SPCC/Containment Plan, which is required by EPA regulations (40 CFR 112). The plan, in combination with Ursa's Spill Prevention and Management plan, addresses COGCC 600 and 900 Series Rules, among others, regarding the management of tanks.</li> </ul>
11	Noise mitigation	<ul style="list-style-type: none"> <li>• 604.c.(2)A. - Noise • AESTHETICS AND NOISE - 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.</li> <li>• 604.c.(2)A. - Noise • AESTHETICS AND NOISE - Sound walls will be installed during drilling and completion operations on the BMC D pad. Location of sound walls TBD per the 12/15/15 Garfield County Board of County Commissioners hearing.</li> </ul>
12	Odor mitigation	<ul style="list-style-type: none"> <li>• 604.c.(2)C. - Green Completions – Emission Control Systems • AIR &amp; ODORS - Combustor controls will be used to mitigate odors from production tanks. Ursa will perform inspections on at least a monthly basis to ensure potential emissions sources are properly managed. In addition, Ursa's pumper crew inspects each location on a daily basis.</li> </ul>
13	Drilling/Completion Operations	<ul style="list-style-type: none"> <li>•604.c.(2)E.i. - Multi-well Pads • Drilling multiple wells from this location using directional / horizontal drilling will be implemented to avoid the need for additional well pads; reducing potential environmental impacts to include habitat loss and fragmentation, noise, traffic concerns, and related impacts to air, land and water.</li> <li>•305.h. - Buffer Zone Move-in, Rig-up Notice • MIRU - Unless waived, Notice to all Building Unit owners will be sent at least 30 days, but no more than 90 days within the 1000' Buffer Zone prior to the Move-In, Rig-Up of the drilling rig when more than 1 year has elapsed since previous notice or since drilling activity last occurred, or if no notice had previously been required in accordance with the four examples provided in the COGCC MIRU policy.</li> <li>•604.c.(2)B.ii-v. - Closed Loop Drilling Systems – Pit Restrictions • No stimulation or flowback pits will be constructed.</li> <li>•604.c.(2)B.i. - Closed Loop Drilling Systems – Pit Restrictions • A closed-loop (pitless) drilling system will be used; No cuttings pit will be constructed; cuttings will be hauled to an approved waste facility (see Waste Management Plan Summary – Attachment J(1)).</li> <li>•604.c.(2)H.ii. - Blowout preventer equipment (“BOPE”) • BOPE will meet minimum requirements per Rule 604.c.(2)H.ii.</li> <li>•604.c.(2)I. - BOPE testing for drilling operations • BOPE testing will be completed in</li> </ul>

		<p>accordance with Rule 604.c.(2)I.</p> <ul style="list-style-type: none"> <li>•604.c.(2)J.i. - BOPE for well servicing operations • Adequate blowout prevention equipment will be used on all well servicing operations.</li> <li>•604.c.(2)J.ii. - BOPE for well servicing operations • Backup stabbing valves will be used on well servicing operations during reverse circulation. Valves will be pressure tested before each well servicing operation in accordance with Rule 604.c.(2)J.ii.</li> <li>•604.c.(2)L. - Drill stem tests • Closed chamber drill stem tests will be completed unless prior approval for another method is received.</li> <li>•604.c.(2)O. - Loadlines • All loadlines will be bullplugged or capped.</li> <li>•604.c.(2)Q. - Guy line anchors • All guy line anchors left buried for future use will be identified as required per Rule 604.c.(2)Q.</li> <li>• TEMPORARY COMPLETIONS FACILITIES - Completions at the location may be supported by staging temporary tanks / water pumping station at adjacent existing location(s). At the time of application support facilities are anticipated at the BMC B well pad. This will support lease operation as authorized under COGCC regulations. This will eliminate the need for additional surface disturbance. Water will be transferred between the locations via buried waterline (or temporary surface line). Buried water pipeline infrastructure is used to transport flowback water where water lines exist in close proximity to the well pad will be installed concurrently with the gas pipeline infrastructure where possible. No waterline infrastructure currently exists, but is planned to be installed prior to completing at the location.</li> <li>•604.c.(2)C.i. - Green Completions – Emission Control Systems • AIR &amp; ODORS - Well completions will utilize flowback completion technologies and/or flares to reduce odors from plug drillout, and venting of salable and non-salable gas. No stimulation or flowback pits will be constructed. Green completions will be used for this well.</li> <li>• CHEMICAL USE - All chemicals used will be tracked and reported in accordance with COGCC rules and submitted through FracFocus within 120 days of initiating well stimulation.</li> <li>•604.c.(2)C.ii. - Green Completions – Emission Control Systems • WASTE MANAGEMENT OF WATER - Flowback water used for well completions will be recycled and treated to the maximum extent practical at the location. Water that can't be recycled will be injected through the use of wells approved by COGCC and Garfield County, or transported via truck to the COGCC and Garfield County approved Wasatch E&amp;P Facility.</li> <li>•604.c.(2)K. - Pit level indicators • WASTE - No stimulation or flowback pits will be constructed.</li> <li>•604.c.(2)C.iii.aa. - Green Completions – Emission Control Systems • Flowback tanks will be adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a ten (10) mile radius</li> <li>•604.c.(2)C.iii.bb. - Green Completions – Emission Control Systems • Flowback tanks will employ valves and porting available to divert gas to temporary equipment or to permanent flaring and oxidizing equipment</li> <li>•604.c.(2)C.iii.cc. - Green Completions – Emission Control Systems • Flowback tanks will be equipped with auxiliary fuel with sufficient supply and heat to sustain combustion or oxidation of the gas mixture when the mixture includes non-combustible gases</li> <li>• Completions will typically be conducted during daylight hours.</li> <li>• 604.c.(2)C.ii. - Green Completions – Emission Control Systems • WATER RECYCLING - Produced / flowback water used for well completions will be recycled and treated to the maximum extent practical at the location. Water that can't be recycled will be injected through the use of wells approved by COGCC and Garfield County, or transported via truck to the COGCC and Garfield County approved Wasatch E&amp;P Facility.</li> </ul>
14	Interim Reclamation	<ul style="list-style-type: none"> <li>• RECLAMATION (Interim) - Ursa will request a variance from Rule 1003 interim reclamation requirements based on SUA provisions. The SUA requires mounding around the well pad and planting of native vegetation to include trees, shrubs and grasses. Therefore, the pad will not be pulled back in after drilling and completions. The purpose is to shield production tanks during production phase of operations. Irrigation water will be applied until vegetation is established (also a requirement under the Garfield County Special Use Permit).</li> </ul>

15	Final Reclamation	<ul style="list-style-type: none"> <li>• 604.c.(2)T. - Well site cleared • RECLAMATION (Final) - Within 90 days of plugging and abandonment, the well site will be cleared of all non-essential equipment, trash, and debris.</li> <li>• 604.c.(2)U. - Identification of plugged and abandoned wells • RECLAMATION (Final) - Upon plugging and abandonment, the location of the wellbore will be marked per Rule 319.a.</li> </ul>
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Total: 15 comment(s)

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400928415	FORM 2A SUBMITTED
400934359	LOCATION PICTURES
400934361	EQUIPMENT LIST
400934362	LOCATION DRAWING
400934364	HYDROLOGY MAP
400934365	ACCESS ROAD MAP
400934368	NRCS MAP UNIT DESC
400934369	CONST. LAYOUT DRAWINGS
400934371	CONST. LAYOUT DRAWINGS
400934377	MULTI-WELL PLAN
400934382	SURFACE AGRMT/SURETY
400947658	REFERENCE AREA MAP
400947673	OTHER
400948631	OTHER
400949311	EXCEPTION LOC REQUEST
400955151	PROPOSED BMPS
400959341	317B NOTIFICATION
400961334	OTHER
400963674	MULTI-WELL PLAN
400964727	WASTE MANAGEMENT PLAN
400964728	OTHER

Total Attach: 21 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>

Total: 0 comment(s)