

**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:

400564479

Date Received:

Oil and Gas Location Assessment☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 418828

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:

418828

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: Cari Chelewski

Phone: (970) 284-3244

Fax: (970) 625-9929

email: cchelewski@ursaresources.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20120125 ☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Castle Springs Federal Number: E Pad

County: GARFIELD

Quarter: NESW Section: 9 Township: 7S Range: 91W Meridian: 6 Ground Elevation: 6806

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: 1430 feet FSL from North or South section line

2485 feet FWL from East or West section line

Latitude: 39.458620 Longitude: -107.558814

PDOP Reading: 1.8 Date of Measurement: 11/05/2010

Instrument Operator's Name: SCOTT E. AIBNER

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	12	Oil Tanks		Condensate Tanks	2	Water Tanks	2	Buried Produced Water Vaults	
Drilling Pits		Production Pits		Special Purpose Pits		Multi-Well Pits		Temporary Large Volume Above Ground Tanks	
Pump Jacks		Separators	12	Injection Pumps		Cavity Pumps			
Gas or Diesel Motors		Electric Motors		Electric Generators		Fuel Tanks		Gas Compressors	
Dehydrator Units		Vapor Recovery Unit		VOC Combustor	1	Flare		LACT Unit	
								Pigging Station	1

OTHER FACILITIES

Other Facility Type

Number

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

Please refer to Attachment C - List of Facilities for a complete list of equipment/ facilities and Attachment J - Facility Layout Drawing for more details

CONSTRUCTION

Date planned to commence construction: 08/10/2014 Size of disturbed area during construction in acres: 2.90
Estimated date that interim reclamation will begin: 02/10/2015 Size of location after interim reclamation in acres: 1.90
Estimated post-construction ground elevation: 6806

DRILLING PROGRAM

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

Is H₂S 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: Beneficial reuse

Other Disposal Description:

See Attachment J(1) - Waste Management Plan

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Bureau of Land Management Phone:

Address: 2300 River Frontage Road

Fax: _____

Address: _____

Email: _____

City: Silt State: CO Zip: 81652

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 10/10/2013

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

Distance to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 1290 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 5280 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.

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: _____

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: 12: Bucklon-Inchou Loam (25 - 50% Slopes)

NRCS Map Unit Name: 45: Morval-Tridell, complex (6 to 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: 02/14/2014

List individual species: Please see Attachment H - NRCS Soil Survey

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): Please see Attachment B - Location Photos

WATER RESOURCES

Is this a sensitive area: ☒ No ☐ Yes

Distance to nearest

downgradient surface water feature: 630 Feet

water well: 5280 Feet

Estimated depth to ground water at Oil and Gas Location 75 Feet

Basis for depth to groundwater and sensitive area determination:

Please refer to Attachment P, Q, S and Attachment O. The depth to ground water determined by using static water level data of Colorado Division of Water Resources nearest active water well located in Section 20-T7S-R91W (Permit#90723/Receipt#9114462).

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 No 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: _____

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 This Form 2A Amendment is being submitted to propose the addition of 9 wells to be permitted at the subject pad for a total of 12 wellheads on location. This pad is built. There will be no additional surface disturbance or pad expansion. Four APDs were submitted simultaneously with this Form 2A (see related Form DOC#s). The remaining Form 2 APDs will be submitted at a later date. Since this pad will not be expanded, the date planned to commence construction and date interim reclamation will begin are not applicable. The dates listed in these fields are based on current rig schedule well spud dates. Rule 306 surface owner consultation was conducted October 10, 2013. Consultation occurred between Ursa Operating Company LLC and the Bureau of Land Management regarding the existing pad location. The consultation with the BLM has been and will remain ongoing throughout the planning process. The proposed CSF 22D-09-07-91 (DOC#400543251) well location was used as the reference point for footages. Distance to downgradient surface water feature was measured to the intermittent stream north of the pad. Please see attachment A and D (Visible Improvements) for cultural setback distance information. The estimated size of location after interim reclamation is based on temporary reclamation and dependent upon Ursa's plans to return to the location at a later date. For any regulatory questions, please contact Cari Chelewski at 970-284-3244.

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

Signed: _____ Date: _____ Email: sdemattee@ursaresources.com

Print Name: Shauna DeMattee Title: Permit Representative

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

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Best Management Practices

No BMP/COA Type

Description

1	Planning	<p>BACKGROUND</p> <ul style="list-style-type: none">• Surface ownership for this location is under the jurisdiction of the Bureau and Land Management (BLM) and is therefore subject to Federal regulations related to surface protection and mitigation in accordance with the BLM Resource Management Plan and site-specific NEPA documents.• This location is constructed and producing gas and is subject to the BMPs and COAs in the previously approved Form 2A.• No new additional surface disturbance will occur. The addition of wells to the Facility Layout Diagram is therefore the focus of the BMPs described herein.• The need for BLM meetings and site visits prior to approval of the Federal location/pad and well permits are subject to BLM discretion under their regulations.
2	Planning	<p>GENERAL – PLANNING</p> <ul style="list-style-type: none">• Prior to initiation of the COGCC Form 2A and BLM permitting processes, Ursa held internal meetings and/or onsite are held to determine the feasibility of the location, and topographic constraints, proximity to building units, potential public and environmental concerns including surface waters, traffic/haul routes, 317B applicability, wildlife RSOs and SWH areas, noise potential, soil stability, and environmentally sensitive areas, plants, and wildlife. All information that may affect the location is documented as appropriate in Ursa's "Site Assessment Checklist / Map. A copy of these internal practices was provided to the COGCC at the Setback Training on August 30, 2013 held in Grand Junction.• Upon approval of the Form 2A, Ursa will hold Pre-Construction, Pre-Spud, Pre-Completions and Pre-Production meetings with contractors performing work at the location, as applicable to the proposed activity. As a BMP, Ursa has developed checklists for these meetings to review COAs, NTOs and related issues.• Traffic and Public Safety – Ursa 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.

3	Community Outreach and Notification	<p>GENERAL - COMMUNITY OUTREACH AND NOTIFICATIONS</p> <ul style="list-style-type: none"> • Ursa has notified the BLM of intended plans as the surface ownership is under Federal jurisdiction. BLM has waived all COGCC notifications to include Pre-application notifications, statutory notifications, MIRU notifications and construction, drilling and completions notifications related to Federal surface, as they are intimately involved in with all phases of permitting the location and associated wells. • Ursa routinely communicates proposed plans and operations schedules to stakeholders to through Community Counts, the GARCO Energy Advisory Board, and others. In addition, periodic stakeholder meetings are held with landowners and affected parties. • Communication with Kirby Wynn and municipal LGDs are also held routinely in addition to communication required by COGCC regulations.
4	General Housekeeping	<p>ENVIRONMENTAL STEWARDSHIP AND COMPLIANCE</p> <p>OPERATIONS (GENERAL/ALL OPERATIONS PHASES)</p> <ul style="list-style-type: none"> • AGENCY INSPECTIONS AND CORRECTIVE ACTIONS – Ursa will implement corrective actions necessary in response to all 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. • AIR PERMITTING AND COMPLIANCE – Ursa will comply with CDPHE regulations regarding air permitting, compliance monitoring and inspections and reporting. All air sources will be assigned AIRS ID numbers and tracked for compliance and reporting purposes. In addition, Ursa is required to track, monitor and report Greenhouse Gas (GHG) emissions to EPA. • CHEMICAL & 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. • NOXIOUS WEEDS – Weeds will be managed in accordance with 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). • 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. Spills 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&P or non-E&P wastes. For E&P waste, all spills greater than 1 barrel the COGCC 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&P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. • WASTE - The location will be managed in accordance with Ursa's Waste Management Plan as summarized in Attachment J (1) of this application. Ursa's Waste Management Plan complies with and incorporates COGCC 900 rules regarding E&P waste, and CDPHE rules regarding hazardous wastes. The plan minimizes the potential for any exploration and production wastes, chemicals, fluids, etc. from leaving the location, including berms, barriers, and use of spill control materials. • WILDLIFE - A Wildlife Mitigation Plan (March 24, 2010) is in place that was agreed to by Ursa (previously Antero). The plan allows for 90+ well pads. Currently, Ursa has 62 well pads. Ursa is current on all obligations under the plan. <p>CONSTRUCTION OPERATIONS</p> <ul style="list-style-type: none"> • 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 • RECLAMATION (Temporary and Interim) - The site will stabilized using seed mixes and materials compatible with soil types, moisture, and local climate conditions as specified by the appropriate agency and/or in landowner surface use agreements, or locally acceptable industry practices. Temporary seeding / stabilizations will be completed during optimum conditions to achieve best results for plant growth. Once all wells at the location are drilled, Ursa will complete interim reclamation in accordance with COGCC 1000 rules; and stabilize/seed the location as soon as practical subject to seasonal/weather constraints.

- **STORMWATER** - The location will be constructed in accordance with the CDPHE AND COGCC stormwater regulations as implemented by Ursa's Stormwater Management Plan, so as to control sediment 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 will be tracked and implemented. COGCC inspections 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.
- **WATER WELL SAMPLING** (COGCC Rule 609) – No water wells exist within ½ mile of the locations under this Form 2A.

DRILLING OPERATIONS

- **WATER SAMPLING** (Public Water Supply) – the location is not located within a COGCC 317B designated area.

COMPLETIONS OPERATIONS

- **AIR & 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
- **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.
- **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 or pipeline to the COGCC and Garfield County approved Wasatch E&P Facility.
- **WATER LINES** – Buried water pipeline infrastructure will be used to transport flowback water where water lines exist in close proximity to the well pad ad described above.
- **WASTE** - No stimulation or flowback pits will be constructed.

PRODUCTION OPERATIONS

- **AIR & 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.
- **REMOTE MONITORING** - Remote monitoring will be used to reduce truck traffic, fugitive dust to the extent practical.
- **VISUAL IMPACTS** - Above-ground facilities (e.g. production tanks) will be managed to minimize visual effects (e.g. painted to blend with environment)
- **WILDLIFE** – All separators/dehydrators and heater –treater equipment are outfitted with bird cones.
- **WATER RECYCLING** – Produced water used for well completions will be recycled and treated to the maximum extent practical. Water that can't be recycled will be injected through the use of wells approved by COGCC and Garfield County, or transported via truck or pipeline to the COGCC and Garfield County approved Wasatch E&P Facility.

5	Construction	<p>CONSTRUCTION AND SITE STABILIZATION</p> <ul style="list-style-type: none"> • The location is already constructed and there will be no further surface disturbance. Use of the existing location will eliminate the need for an additional well pad and access roads; hence a reduction in surface disturbance, traffic, and impacts to the environment and wildlife habitat. • The BMPs entitled “Environmental Stewardship and Compliance” provided more detailed information regarding environmental protection applicable to construction and site stabilization activities. • For safety purposes, the location and site layout has been designed to accommodate all operations within the limits of disturbance while meeting Federal and state safety regulations, including required buffers and distances between operating components and combustion sources.
6	Drilling/Completion Operations	<p>DRILLING</p> <ul style="list-style-type: none"> • 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. • The CSF Compressor Station and CSF T would be used as support locations, but would not host temporary tank batteries, and would be used only for parking and rig moves. • The BMPs entitled “Environmental Stewardship and Compliance” provided more detailed information regarding environmental protection applicable to drilling activities.
7	Drilling/Completion Operations	<p>COMPLETIONS</p> <ul style="list-style-type: none"> • Completions at the location will be supported by staging a temporary tank battery / water pumping station at an adjacent existing location also on BLM surface managed property. The pad locations selected are permitted by both the COGCC and BLM as oil and gas locations. • For the Castle Springs E completions, it is anticipated that the Castle Springs CSF B, D and W locations may be used for temporary tank batteries. This will eliminate the need for additional surface disturbance. Water will be transferred between the locations via buried waterline. If needed, a temporary surface line may also be used. • The BMPs entitled “Environmental Stewardship and Compliance” provided more detailed information regarding environmental protection applicable to completion activities.
8	Drilling/Completion Operations	<p>PRODUCTION</p> <ul style="list-style-type: none"> • All production equipment to include separators and tanks will be placed onsite in accordance with the Facility Layout Diagram and appropriate secondary containment. • The BMPs entitled “Environmental Stewardship and Compliance” provided more detailed information regarding environmental protection applicable to production activities.

Total: 8 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400564509	LOCATION DRAWING
400564510	LOCATION PICTURES
400564513	EQUIPMENT LIST
400564515	HYDROLOGY MAP
400564518	TOPO MAP
400564522	ACCESS ROAD MAP
400564524	NRCS MAP UNIT DESC
400564527	CONST. LAYOUT DRAWINGS
400564528	CONST. LAYOUT DRAWINGS
400564535	WASTE MANAGEMENT PLAN
400564537	MULTI-WELL PLAN
400564538	SENSITIVE AREA MAP
400565718	FACILITY LAYOUT DRAWING

Total Attach: 13 Files

General Comments

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

Total: 0 comment(s)