

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:

400725879

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Date Received:

12/03/2014

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:

440705

Expiration Date:

01/26/2018

☒ 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 Mascioli

Phone: (970) 284-3244

Fax: (970) 625-9929

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: Watson Ranch B Pad Number: _____

County: GARFIELD

QuarterQuarter: SESW Section: 17 Township: 7S Range: 95W Meridian: 6 Ground Elevation: 5583

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: 1061 feet FSL from North or South section line

2171 feet FWL from East or West section line

Latitude: 39.433375 Longitude: -108.022682

PDOP Reading: 1.2 Date of Measurement: 10/02/2014

Instrument Operator's Name: P. 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	17	Oil Tanks*		Condensate Tanks*	1	Water Tanks*	7	Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks		Separators*	16	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*		Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	
Dehydrator Units*	1	Vapor Recovery Unit*		VOC Combustor*	2	Flare*		Pigging Station*	1

OTHER FACILITIES*

Other Facility Type

Number

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:

17 buried 2" steel flowlines from well head to separators and to seven (7) produced water tanks and one (1) condensate tank.
1 buried 6" to 8" steel gas pipeline to connect with gas gathering network at the nearby Watson Ranch Pad, located approximately 750' to the west.

CONSTRUCTION

Date planned to commence construction: 03/09/2015 Size of disturbed area during construction in acres: 8.89
Estimated date that interim reclamation will begin: 05/01/2017 Size of location after interim reclamation in acres: 2.50
Estimated post-construction ground elevation: 5585

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: Commercial Disposal

Other Disposal Description:

See Attach J(1) 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: Watson Ranches, LTD

Phone: _____

Address: PO Box 586

Fax: _____

Address: _____

Email: _____

City: Meeker State: CO Zip: 81641

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 10/09/2014

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:	617 Feet	526 Feet
Building Unit:	730 Feet	640 Feet
High Occupancy Building Unit:	2435 Feet	2842 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	1035 Feet	880 Feet
Above Ground Utility:	1065 Feet	908 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	251 Feet	90 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: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 10/09/2014

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.

Per COGCC rule 604.c.(2)E.i, Ursa evaluated alternatives to determine if the production facilities are as far from building units as possible. The evaluation is captured in Ursa's Site Assessment Checklist (provided to D. Kubeczko, OGLA) at the field onsite on October 23, 2014. Production equipment for this location will be placed on the well pad. As such, Ursa evaluated the well pad location/production facilities based on several criteria including topography, pad stability, access, access to bottomhole locations, mineral lease and surface use agreements, established transportation and haul routes per local and community preferences, setbacks identified in the Section 300 and 600 regulations, community concerns, and environmental concerns based on proximity to sensitive areas. Sensitive areas considered include state waters, wetlands, floodplains and key wildlife habitat. It was determined that no other alternatives are feasible based on the criteria described herein.

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: 56. Potts loam, 6-12% slopes.

NRCS Map Unit Name: 58. Potts-Ildesonso 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: 10/07/2014

List individual species: PLEASE SEE ATTACHMENT H - SOILS

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: 139 Feet

water well: 729 Feet

Estimated depth to ground water at Oil and Gas Location 54 Feet

Basis for depth to groundwater and sensitive area determination:

Please refer to Attachment P, Q, S and Attachment E.

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

Ursa requests the approval of a Rule 318.c. exception location – request letter attached.

Pre-Application Notice / Buffer Zone Notice was sent to building unit owners within 1000' of the location on 10/09/14, certification attached.

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

Signed: _____ Date: 12/03/2014 Email: cmascioli@ursaresources.com

Print Name: Cari Mascioli Title: Regulatory Technician

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: 1/27/2015

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

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network.

Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines. This will reduce surface disturbance.

The moisture content of drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts.

Lighting abatement measures beyond the requirements of Rule 803. shall be implemented, including the following, at a minimum: (1) rig oriented to direct light away from nearby residents; (2) install lighting shield devices on all of the more conspicuous lights; and (3) rig shrouded on the west and south sides, as necessary.

For purposes of reducing impacts to nearby residents, flares (such as TCI's portable flare with high combustion rate, low noise, and low visibility flare) will be utilized.

Emissions from condensate, crude oil, and produced water tanks and from glycol dehydrators shall be controlled as described in Rule 805.b.(2), notwithstanding the exceptions for production facilities emitting less than five tons per year (TPY) of volatile organic compounds (VOC).

Air quality and odor controls will be implemented and will include the following : (1) flowback stream to be routed from wellhead to a "four-phase" separator and then to a sealed flowback tank, with non-salable gas sent to a temporary flare or VOC combustor; (2) oil or condensate captured during separation process will be sent to a tank with emissions controls; (3) frac/flowback storage tank hatches shall operate with hydrocarbon absorbing blankets to control odors; and (4) operator will comply with the green completions section under Rule 805.b.(3).

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or storage vessel located on the well pad; or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area constructed to be sufficiently impervious to contain any spilled or released material.

Before hydraulic stimulation of the each well, operator shall collect a groundwater sample from the Iles Formation and analyze for total dissolved solids (TDS); submit laboratory analytical results to COGCC (emails: bob.koehler@state.co.us and arthur.koelspell@state.co.us).

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days and after precipitation events), and maintained in good condition.

Since the proposed access road crosses an intermittent stream, the access road will be constructed and maintained as to not allow any sediment to migrate from the access road to nearby surface water or any drainages or ditches leading to surface water.

Strategically apply fugitive dust control measures, including encouraging established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

Operator has indicated they have prepared a job specific Emergency Management/Response Plan. Operator will provide temporary engineering controls to prevent uncontrolled public access during drilling and completion activities. Site security shall include, but not be limited to, appointing a Health and Safety Officer that will insure the Emergency Management/Response Plan is adhered to and who is authorized to shut down operations at any time when health and safety risk is present.

Temporary perimeter sound walls (consisting of earthen berms and/or metal, synthetic, or wood sheeting) shall be used, at a minimum, on the south perimeter of the location during drilling and completion activities to provide noise relief to nearby residents. Operator shall conduct noise monitoring as described in 802.c. at a minimum once during each phase of activity (pad construction, drilling, completion and production), and submit the results to the COGCC. The COGCC may require additional noise mitigation if measures taken are deemed insufficient.

Operator will take aggressive action to establish vegetation on cut and fill slopes to prevent storm water erosion and the generation of fugitive dust. Operator shall install and maintain native vegetative visual buffering on the west and east sides in conjunction with site stabilization. Visual mitigation may also include the use of low profile tanks.

Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with poly liner) to contain any spilled or released material around permanent crude oil, condensate, and produced water storage tanks.

Operator will use qualified containment devices for all appropriate chemicals/hazardous materials and injection equipment (pumps) used onsite during the operation of the injection well.

All tanks and aboveground vessels containing fluids must have secondary containment structures. All secondary containment structures/areas must be lined. Operator must ensure a minimum of 110 percent secondary containment for the largest structure containing fluids within each bermed area at the facility during operations. The construction and lining of the secondary containment structures/areas shall be supervised by a professional engineer or their agent.

Operator shall equip and maintain on all tanks an electronic level monitoring device.

Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, start of hydraulic stimulation operations, start of flowback operations, and pipeline testing using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

Operator will implement sufficient public notification of proposed oil and gas activities. These may include the following: (1) provide 30 day advance notice and community awareness to neighborhood; (2) schedule changes will be communicated to the community at meetings or emails; (3) notify local emergency response agencies (Fire/Police) of schedule changes; and (4) notify all homes within a ¼-mile radius and local emergency responders (Fire/Police) 7 days prior to mobilization in, rig up (MIRU). If the operator, local emergency response agencies (Fire/Police), and the nearby community have agreed on other means of notification, that will satisfy this COA.

Operator will review local governmental requirements for access from public roads. At a minimum the following traffic requirements will apply: (1) operator will work with the Garfield County Road and Bridge Department to develop and implement a traffic control plan that, at a minimum: a) establishes designated haul routes, b) designates haul routes to avoid school zones and schedules heavy equipment movement to avoid school bus operation hours, c) provides for additional signage on major and/or local roads to be employed during heavy activity periods warning of increased truck traffic, d) restricts all oil and gas related construction, drilling, and operational traffic to access the location from a single point, e) provides for flaggers and/or pilot vehicles as necessary, and f) schedules work to avoid peak traffic flow.

Approval of this Form 2A does not authorize operator the right to inject. Authorization to inject into the selected Formation(s) requires approval of both the Form 31 and the Form 33.

Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>
1 Planning	<p>GENERAL – PLANNING</p> <ul style="list-style-type: none"> • This is a new oil and gas location and will include construction of a well pad and proposed wells. • This is a new oil and gas location and will also include a proposed Salt Water Disposal (SWD well) • Prior to initiation of the COGCC Form 2A permitting process, Ursa held internal meetings and onsites to determine the feasibility of the location, and identified all compliance requirements, guidance and policies needed to permit the location and proposed oil and gas operations. All COGCC permitting requirements under the 200 through 1200 series rules were incorporated, as appropriate into this Form 2A and related attachments. • 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. • 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". A copy of this internal BMP (while not required) was provided to the COGCC at the Setback Training on August 30, 2013 held in Grand Junction. • 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 applicable to the proposed activity. As a BMP, Ursa has developed checklists for these meetings to review regulations, COAs, NTOs and related requirements. • Traffic and Public Safety – Ursa developed a site-specific Emergency Response Plan (SSERP) and Haul Route Map which are communicated to local emergency response agencies, affect communities and stakeholders, as well as contractors performing work at the location.

2	Community Outreach and Notification	<p>COMMUNITY / STAKEHOLDER OUTREACH AND NOTIFICATIONS</p> <ul style="list-style-type: none">• An SUA has been signed with the landowner allowing this location to be constructed, drilled and operated in accordance with the Form 2A submitted.• The landowners have waived all COGCC notifications to include Pre-application notifications, statutory notifications, drilling and completions notifications related to Fee surface, as they have been routinely consulted regarding proposed operations at the location.• Ursa routinely communicates proposed plans and operations schedules to stakeholders through Community Counts, the GARCO Energy Advisory Board, Battlement Mesa Concerned Citizens, NW Colorado Oil & Gas Forum 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, as appropriate.
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3	General Housekeeping	<p>ENVIRONMENTAL STEWARDSHIP AND COMPLIANCE / HOUSEKEEPING</p> <ul style="list-style-type: none"> • 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. • 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. • 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. • 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. • 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. • 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. • 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). • 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. • 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&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. As a BMP, Ursa tracks and cleans up all spills, including those that are not reportable. • 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. • 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&P and non-E&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. • WILDLIFE - A Wildlife Mitigation Plan is in place that allows for 90+ well pads.
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4	Wildlife	<ol style="list-style-type: none"> 1. Closed loop (pitless) drilling systems. 2. Annual raptor and other bird surveys will be conducted in accordance with protocols provided by CPW. 3. Rig shift changes will take place when practical at 6am and 6pm and will utilize one (1) vehicle to minimize impacts to wildlife. 4. Development program is planned to include four phases as a means for mitigating wildlife impacts. These phases will be based on infrastructure construction schedules and will be coordinated with affected land owners, the Battlement Mesa Services Association (BMSA), local municipalities, Garfield County, COGCC, and CDPHE during the Comprehensive Drilling Plan and the Major Land Use Impact Review process. 5. Well pad 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. 6. Buried water and gas pipelines will be utilized as means to reduce truck traffic and impacts to wildlife. 7. Restrict rig operation to no more than 2 rigs per section (or equivalent acreage) within the big-game seclusion areas during the winter. 8. Maintaining a ¼ mile no surface occupancy buffer around active bald eagle nests. 9. New pad construction not to exceed 3 acres of working surface. 10. Pad density not to exceed 1 pad per 160 acres. 11. Bury all gas and water pipelines adjacent to roads whenever possible. 12. A weed management plan will be developed and implemented to monitor and control noxious and invasive weeds. 13. Noxious weed control includes three treatments per year. 14. Existing weed infestations will be mapped prior to the development of each pad, access road and pipeline when practicable. 15. Antero (now Ursa) has completed all habitat restoration contributions contained within the WMP.
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5	Construction	<p>CONSTRUCTION AND SITE STABILIZATION</p> <ul style="list-style-type: none"> • The BMPs below entitled “Environmental Stewardship and Compliance” provide additional information that is applicable to one or more phases of operations. • 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. • 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 (Interim) - The site/soils will be stabilized as soon as practical during and immediately following construction. Once wells at the location are drilled, Ursa will complete interim reclamation in accordance with the COGCC 1003 rules 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. • 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 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. • WATER WELL SAMPLING (COGCC Rule 609) – Water well sampling will be conducted prior to setting conductors; followed by post-sampling requirements and reporting the landowner and COGCC. • PUBLIC WATER SUPPLY SAMPLING (COGCC Rule 317B) – Notification to Public Water Supplies within 317B designated is not required as the location is not within a 317B designated area. • 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. • FLOODPLAIN IMPACTS – Ursa completed a floodplain assessment and found that this location did not meet criteria to be designated within the 100 year floodplain. 	
6	Drilling/Completion Operations	<p>DRILLING</p> <ul style="list-style-type: none"> • 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. • PUBLIC WATER SUPPLY SAMPLING (COGCC Rule 317B) – Pre-drilling and post drilling sampling isn’t required as this location is not within a designated 317B area. • MIRU – Unless waived, Notice to all Building Unit owners will be sent at least 30 days, but no more than 90 days within the 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. • No cuttings pits are proposed. 	

7	Drilling/Completion Operations	<p>COMPLETIONS</p> <ul style="list-style-type: none"> • The BMPs below entitled “Environmental Stewardship and Compliance” provide additional information that is applicable to one or more phases of operations. • TEMPORARY WATER STORAGE FACILITIES - Completions at the location may be supported by staging temporary water tanks / water pumping station at the Watson Ranch location(s), which is immediately adjacent to this location. If needed this would support lease operations as authorized under COGCC regulations. This would eliminate the need for additional surface disturbance. Water will be transferred between the locations via temporary surface line, if needed. • 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. • WASTE - No stimulation or flowback pits will be constructed.
8	Drilling/Completion Operations	<p>PRODUCTION</p> <ul style="list-style-type: none"> • The BMPs below entitled “Environmental Stewardship and Compliance” provided more detailed information regarding environmental protection applicable general operations. • All production equipment to include separators, produced water and condensate tanks, pipelines and flowlines will be constructed and managed in accordance with COGCC 605 and 1100 Series Rules. • 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. • The Salt Water Disposal (SWD) well will be permitted, operated and tested in accordance with COGCC Rule 325 and 326.

Total: 8 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2107261	SITE ASSESSMENT MAP
2107262	RULE 306e CERTIFICATION LETTER
2107273	NRCS MAP UNIT DESCRIPTION
2107274	MULTI-WELL PLAN
2107275	USACE INVESTIGATION REPORT
2107276	CORRESPONDENCE
2167950	SURFACE AGRMT/SURETY
400725879	FORM 2A SUBMITTED
400736043	LOCATION DRAWING
400736049	ACCESS ROAD MAP
400736078	CONST. LAYOUT DRAWINGS
400736090	FACILITY LAYOUT DRAWING
400736439	EQUIPMENT LIST
400739816	HYDROLOGY MAP
400739826	LOCATION PICTURES
400739834	OTHER
400740814	OTHER
400740816	PROPOSED BMPS
400740818	WASTE MANAGEMENT PLAN
400741223	SURFACE AGRMT/SURETY
400741225	EXCEPTION LOC REQUEST
400741230	OTHER
400741238	WAIVERS

Total Attach: 23 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	1/27/2015 11:47:21 AM
Permit	Attached new SUA from opr.	12/30/2014 4:12:48 PM
OGLA	Initiated OGLA Form 2A review on 12-29-14 by Dave Kubeczko; Completed OGLA Form 2A review on 12-30-14 by Dave Kubeczko; requested additional attachments (Reference Area Map and Reference Area Pictures) and acknowledgement of fluid containment, spill/release BMPs, flowback to tanks only, cuttings management, cuttings low moisture content, notification, lighting mitigation, noise mitigation, visual mitigation, emissions and odor control, access road sediment control, dust control, injection well, formation GW sampling, and pipeline testing COAs from operator on 12-29-14; received acknowledgement of COAs from operator on 01-06-15; conducted COGCC/operator onsite on 10-23-14; corrected size of disturbance at construction from 6.43 acres to 8.89 acres per Construction Layout Drawings; corrected depth to GW from 90' bgs to 54' bgs per online water well database; corrected to a "sensitive area" due to close SW (overlying two intermittent streams and distance to intermittent stream of 139' to the south) and close domestic water well (729'); passed by CPW on 12-11-14 with WMP BMPs acceptable; passed OGLA Form 2A review on 01-27-15 by Dave Kubeczko; fluid containment, spill/release BMPs, flowback to tanks only, cuttings management, cuttings low moisture content, notification, lighting mitigation, noise mitigation, visual mitigation, emissions and odor control, access road sediment control, dust control, injection well, formation GW sampling, and pipeline testing COAs.	12/29/2014 3:20:57 PM

LGD	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.	12/22/2014 1:20:16 PM
DOW	<p>The following best management practices are contained within the approved wildlife mitigation plan developed by the operator and CPW, and apply to this location:</p> <ol style="list-style-type: none"> 1.Closed loop (pitless) drilling systems. 2.Annual raptor and other bird surveys will be conducted in accordance with protocols provided by CPW. 3.Rig shift changes will take place when practical at 6am and 6pm and will utilize one (1) vehicle to minimize impacts to wildlife. 4.Development program is planned to include four phases as a means for mitigating wildlife impacts. These phases will be based on infrastructure construction schedules and will be coordinated with affected land owners, the Battlement Mesa Services Association (BMSA), local municipalities, Garfield County, COGCC, and CDPHE during the Comprehensive Drilling Plan and the Major Land Use Impact Review process. 5.Well pad 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. 6.Buried water and gas pipelines will be utilized as means to reduce truck traffic and impacts to wildlife. 7.Restrict rig operation to no more than 2 rigs per section (or equivalent acreage) within the big-game seclusion areas during the winter. 8.Maintaining a ¼ mile no surface occupancy buffer around active bald eagle nests. 9.New pad construction not to exceed 3 acres of working surface. 10.Pad density not to exceed 1 pad per 160 acres. 11.Bury all gas and water pipelines adjacent to roads whenever possible. 12.A weed management plan will be developed and implemented to monitor and control noxious and invasive weeds. 13.Noxious weed control includes three treatments per year. 14.Existing weed infestations will be mapped prior to the development of each pad, access road and pipeline when practicable. 15.Antero (now Ursa) has completed all habitat restoration contributions contained within the WMP. <p>By: Taylor Elm, 12/11/2014, 14:56</p>	12/11/2014 2:57:11 PM
Permit	Passed completeness.	12/10/2014 3:28:50 PM
OGLA	Passed Buffer Zone completeness check	12/9/2014 11:24:50 AM
Permit	Within buffer zone, sent to OGLA for further review.	12/4/2014 7:47:21 AM

Total: 8 comment(s)