

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:

400786875

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Date Received:

03/10/2015

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:

442188

Expiration Date:

06/24/2018

☒ 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: 10450

Name: EE3 LLC

Address: 4410 ARAPAHOE AVENUE #100

City: BOULDER State: CO Zip: 80303

Contact Information

Name: Kimberly Rodell

Phone: (303) 942-0506

Fax: ()

email: krodell@upstreampm.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20130007

☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Grizzly

Number: 3-36H

County: JACKSON

QuarterQuarter: NWNW Section: 36 Township: 8N Range: 81W Meridian: 6 Ground Elevation: 8188

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: 215 feet FNL from North or South section line

1213 feet FWL from East or West section line

Latitude: 40.628724 Longitude: -106.439683

PDOP Reading: 0.8 Date of Measurement: 12/11/2014

Instrument Operator's Name: Randall Miller

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	2	Oil Tanks*	4	Condensate Tanks*		Water Tanks*	2	Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks		Separators*	2	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*		Electric Motors	1	Electric Generators*		Fuel Tanks*		LACT Unit*	
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*		Flare*	1	Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

Heater Treater	2
Meter	2

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:

Buried flowlines/pipelines between wellheads, separators, heater treaters, and tanks will be 2-1/2 inch, Schedule 40, steel.

CONSTRUCTION

Date planned to commence construction: 05/01/2015 Size of disturbed area during construction in acres: 2.63
Estimated date that interim reclamation will begin: 08/20/2015 Size of location after interim reclamation in acres: 1.87
Estimated post-construction ground elevation: 8188

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: Commercial Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Other

Other Disposal Description:

Cuttings will be remediated onsite with Ecosponge. They will then either be sent offsite for commercial disposal, or used onsite for reclamation and recontouring.

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: Grizzly Land LLC

Phone: _____

Address: PO Box 670

Fax: _____

Address: _____

Email: _____

City: Windsor State: CO Zip: 80550

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:	5280 Feet	5280 Feet
Building Unit:	5280 Feet	5280 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	5280 Feet	5280 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	1213 Feet	1081 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: _____

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

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

SOIL

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

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

NRCS Map Unit Name: Bs-Bosler Sandy Loam

NRCS Map Unit Name: _____

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: _____

List individual species: Big Sagebrush, Streambank Wheatgrass, Prairie Junegrass, Pine Needlegrass, Muttongrass, Blue Grama, Needleandthread, Yellow Rabbitbrush, Bluebunch Wheatgrass, Bottlebrush squirreltail, Buckwheat.

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: 1215 Feet

water well: 5280 Feet

Estimated depth to ground water at Oil and Gas Location 15 Feet

Basis for depth to groundwater and sensitive area determination:

The location was checked as sensitive due to potential shallow depth of groundwater. Depth to groundwater was determined from the water well Permit No. 263373. Actual depth to first water bearing zone is 40 feet below the ground surface which is more indicative of the depth at which groundwater could be encountered if any water could infiltrate/percolate through and past the cuttings and through the minimum thickness of 20 feet of clay/shale.

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: _____

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

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

Signed: _____ Date: 03/10/2015 Email: krodell@upstreampm.com

Print Name: Kimberly Rodell Title: Permit Agent

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: Matthew Lee Director of COGCC Date: 6/25/2015

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.
	<p>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. After drilling and completion operations have been completed, the drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must meet the applicable standards of Table 910-1. After the drill cuttings have been amended (if necessary) and placed on the well pad, sampling frequency of the drill cuttings (to be determined by the operator) shall be representative of the material left on location. No offsite disposal of cuttings to another oil and gas location shall occur without prior approval of a Waste Management Plan (submitted via a Form 4 Sundry Notice) specifying disposal location and waste characterization method. Commercial disposal of drill cuttings will only require notification to COGCC via a Form 4 Sundry Notice.</p> <p>If the wells are be hydraulically stimulated, 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.</p> <p>Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.</p>
	<p>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 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 [per CDPHE requirements] and after significant precipitation events), and maintained in good condition.</p> <p>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 leading to surface water.</p> <p>Strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.</p> <p>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 crude oil, condensate, and produced water storage tanks.</p>
	Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, pipeline testing, start of hydraulic stimulation operations, start of flowback operations (if different than start of hydraulic stimulation operations), and pipeline testing using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Wildlife	<p>1. Where oil and gas activities (construction, drilling, and completions) must occur within 4 miles of greater sage-grouse leks or within other mapped greater sage-grouse breeding or summer habitat, conduct these activities outside the period between March 1 and June 30.</p> <p>2. Restrict well site visitations (excluding emergency situations) to portions of the day between 9:00 a.m. and 4:00 p.m. during the lekking season (March 1 to May 15).</p> <p>3. Restore appropriate sagebrush species or subspecies on disturbed sagebrush sites, if agreeable by the landowner. Use locally collected seed for reseeding where possible.</p> <p>4. Utilize internal combustors/flaring devices to minimize the noise and light impacts associated with traditional flaring techniques.</p> <p>5. Establish company guidelines to minimize wildlife mortality from vehicle collisions on roadways.</p> <p>6. Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204 a-1.</p> <p>7. Relocate the access road to avoid fragmentation of existing GrSG habitat. Coordinate with local CPW personnel while surveying new route.</p>
2	Storm Water/Erosion Control	EE3 LLC will implement a stormwater and erosion plan to prevent sedimentation and erosion.

Total: 2 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2056131	CPW CORRESPONDENCE AND PROPOSED BMPs
2107340	CORRESPONDENCE
2107341	MULTI-WELL PLAN
2107342	OPERATOR EXTENSION OF CPW CONSULTATION
400786875	FORM 2A SUBMITTED
400806217	ACCESS ROAD MAP
400806218	CONST. LAYOUT DRAWINGS
400806227	HYDROLOGY MAP
400806229	LOCATION DRAWING
400806231	LOCATION PICTURES
400806233	NRCS MAP UNIT DESC
400806235	REFERENCE AREA PICTURES
400806239	WASTE MANAGEMENT PLAN
400810224	REFERENCE AREA MAP

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	6/24/2015 9:19:02 AM

DOW	<p>This location is within mapped and field verified greater sage-grouse production habitat and within two miles of an active lekking location. CPW personnel conducted an onsite wildlife consultation of the proposed location on April 21, 2015. During the onsite consultation with the operator, the following wildlife BMPs were recommended by CPW staff and were agreed to by the operator:</p> <ol style="list-style-type: none"> 1. Where oil and gas activities (construction, drilling, and completions) must occur within 4 miles of greater sage-grouse leks or within other mapped greater sage-grouse breeding or summer habitat, conduct these activities outside the period between March 1 and June 30. 2. Restrict well site visitations (excluding emergency situations) to portions of the day between 9:00 a.m. and 4:00 p.m. during the lekking season (March 1 to May 15). 3. Restore appropriate sagebrush species or subspecies on disturbed sagebrush sites, if agreeable by the landowner. Use locally collected seed for reseeded where possible. 4. Utilize internal combustors/flaring devices to minimize the noise and light impacts associated with traditional flaring techniques. 5. Establish company guidelines to minimize wildlife mortality from vehicle collisions on roadways. Slow speeds and increased awareness among employees and contractors help to reduce impacts. 6. Install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204 a-1. <p>Additionally, the operator will reroute the access road for this pad to minimize impacts on greater sage-grouse (GrSG) habitat and reduce fragmentation. CPWs Area 10 Biologist and/or District Wildlife Managers have requested to be present during surveying for the new access road.</p> <p>During the onsite consultation it was recommended that the operator relocate the pad due to an abundance of GrSG sign and use in the area of the proposed pad. Additional time was granted for CPW and the operator to explore alternative locations to reduce impacts. After these discussions, it was determined that relocating the pad far enough to significantly reduce impacts to GrSG was not feasible for the operator. Slight shifts to the pad's location, as proposed by the operator, would have had no reduction in overall impacts to wildlife and surrounding habitats, and therefore no change in location has been requested.</p> <p>By: Taylor Elm, May 19, 2015, 9:38 a.m.</p>	5/19/2015 9:39:53 AM
OGLA	Initiated/Completed OGLA Form 2A review on 03-20-15 by Dave Kubeczko, requested multi-well plan and acknowledgement of notification, fluid containment, sediment control, dust control, spill/release BMPs, flowback to tanks, odor control, cuttings low moisture content, pipeline testing, and tank berming COAs from operator on 3-20-15; received multi-well plan and acknowledgement of COAs from operator on 03-31-15; conducted CPW/COGCC/operator onsite on 04-21-15; operator extended CPW consultation period 21 days on 04-22-15 from 04-28-15 to 05-19-15; passed by CPW on 05-19-15 with operator agreed to BMPs acceptable; passed OGLA Form 2A review on 06-23-15 by Dave Kubeczko; notification, fluid containment, sediment control, dust control, spill/release BMPs, flowback to tanks, odor control, cuttings low moisture content, pipeline testing, and tank berming COAs.	3/20/2015 5:00:16 PM
Permit	Passed completeness.	3/19/2015 1:38:42 PM
Permit	Reference area map does not meet 303.b.(3)G.ii.aa. Return to draft.	3/12/2015 8:56:52 AM
Total: 5 comment(s)		