

FORM
2A

Rev
04/18

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:

401677504

Date Received:

06/19/2018

Oil and Gas Location Assessment

☐ New Location ☒ Refile ☐ Amend Existing Location Location#: 442188

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:

10/25/2021

☐ 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: 10598
Name: SANDRIDGE EXPLORATION & PRODUCTION LLC
Address: 123 ROBERT S KERR AVE
City: OKLAHOMA CITY State: OK Zip: 73102

Contact Information

Name: Spence Laird
Phone: (405) 420-8415
Fax: ()
email: slaird@sandridgeenergy.com

FINANCIAL ASSURANCE

- ☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20170015 ☐ Gas Facility Surety ID (Rule 711): _____
- ☐ Waste Management Surety ID (Rule 704): _____

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

OTHER FACILITIES*

Other Facility Type

Number

Heater Treater	<u>2</u>
Meter	<u>2</u>

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

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

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

CONSTRUCTION

Date planned to commence construction: 01/01/2019 Size of disturbed area during construction in acres: 2.63
Estimated date that interim reclamation will begin: 06/01/2019 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? Yes

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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: Grizzly Land LLC

Phone: _____

Address: P.O. 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.
- Large UMA Facility - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

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

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

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

SOIL

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

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

NRCS Map Unit Name: 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

WILDLIFE

- ☐ This location is included in a Wildlife Mitigation Plan
- ☐ This location was subject to a pre-consultation meeting with CPW held on _____

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

RULE 502.b VARIANCE REQUEST

- ☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments This Form 2A refile is required since the location has not been built.

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

Signed: _____ Date: 06/19/2018 Email: acallaway@upstreampm.com

Print Name: Angela Callaway 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: _____ Director of COGCC Date: 10/26/2018

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
	Keep well site location, road and pipeline easement free of noxious weeds, litter and debris.
	No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.
	Provide Notices as described in the most current version of the Northwest Notification Policy. Light sources will be directed downwards and away from occupied structures.
	All cuttings generated during drilling with oil based mud (OBM) must be kept in tanks or containers or placed on a lined and bermed portion of the well pad prior to disposition. The moisture content of all cuttings managed onsite or transported offsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. Flowback and stimulation fluids must be sent to enclosed tanks, separators, or other containment or filtering equipment before the fluids can be placed into any pipeline, storage vessel, or other open top containment located on the well pad or into tanker trucks for offsite disposal. No open top tanks can be used for initial flowback fluids containment.
	Operator shall comply with COGCC's current NOTICE TO OPERATORS: Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS – STATEWIDE
	Secondary containment for flowback storage tanks shall meet the requirements of Rule 906.d.(1).

Best Management Practices

No	BMP/COA Type	Description
1	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	Operator agrees to limit noise to 10 dBA above pre-development background levels at the margin of leks (0.6 mile) during the lekking and nesting seasons (March 1-June 30).
2	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	If oil and gas operations must occur (with documented justification) within 4.0 miles of greater sage grouse leks, the operator agrees to conduct oil and gas operations outside the period between March 1 and June 30
3	CPW-Wildlife - Minimization-Black Bear	The operator will install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204 a-1. Additionally, the operator will report any black bear incidents immediately to local CPW staff.
4	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	The operator and its contractors agree to restrict well site visitations to portions of the day between 9:00 a.m. and 4:00 p.m. during the lekking, nesting and early brood rearing seasons (March 1 to June 30) within 4.0 miles of a lek
5	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	Restore appropriate sagebrush species or subspecies on disturbed sagebrush sites, if agreeable by the landowner. Use locally collected seed for reseeding where possible.

Attachment Check List

Att Doc Num	Name
401677504	FORM 2A SUBMITTED

Total Attach: 1 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	Removed operator Wildlife BMP which was duplicative of the BMPs placed on the wildlife section of the form and agreed to through the CPW consultation process.	10/26/2018
Final Review	Modified OGLA COAs. Operator provided BMPs restated or conflicted with rules or were otherwise unenforceable and were removed and replaced by COAs.	10/26/2018
Permit	Final review complete.	10/23/2018
Permit	Preliminary review complete.	07/04/2018
OGLA	06/21/2018 - passed by CPW with operator previously agreed to BMPs acceptable; 06/29/2018 – initiated / completed OGLA Form 2A review by Dave Kubeczko; placed notification, fluid containment, spill/release BMPs, sediment control, dust control, flowback to tanks, odor control, cuttings low moisture content and management, tank berming, and pipeline testing COAs on Form 2A based on previously submitted and approved (06-25-15) Form 2A # 400786875; conducted CPW/COGCC/operator onsite on 04-21-15; 07/12/2018 - passed OGLA Form 2A review by Dave Kubeczko; notification, fluid containment, spill/release BMPs, sediment control, dust control, flowback to tanks, odor control, cuttings low moisture content and management, tank berming, and pipeline testing COAs.	06/29/2018
DOW	This is a refile of a previously approved permit. CPW approved the original Form2A with BMPs agreed upon by the operator on May 19, 2015 (Doc#: 400786875). This refilled permit contains all of the originally agreed upon BMPs and there are no additional recommendations from CPW at this time. Taylor Elm, June 21, 2018, 13:57	06/21/2018
Permit	Form passes completeness.	06/21/2018
CPW-Wildlife - Minimization- Black Bear	Operator proposed the following BMP: The operator will install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204 a-1. Additionally, the operator will report any black bear incidents immediately to local CPW staff. CPW commented as follows: The operator will install and utilize bear-proof dumpsters and trash receptacles for all food-related trash on location, following COGCC Rule 1204 a-1. Additionally, the operator will report any black bear incidents immediately to local CPW staff.	Stamp Upon Approval

Total: 8 comment(s)