

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:

401352756

(SUBMITTED)

Date Received:

08/25/2017

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 434248

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:

434248

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: 10633
Name: CRESTONE PEAK RESOURCES OPERATING LLC
Address: 1801 CALIFORNIA STREET #2500
City: DENVER State: CO Zip: 80202

Contact Information

Name: Chris McRickard
Phone: (720) 410-8487
Fax: ()
email: chris.mcrickard@crestonepr.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20160104 ☐ Gas Facility Surety ID: _____
☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: File Number: 32H-K268
County: WELD
QuarterQuarter: NESW Section: 32 Township: 2N Range: 68W Meridian: 6 Ground Elevation: 4958
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: 1757 feet FSL from North or South section line
1653 feet FWL from East or West section line
Latitude: 40.092570 Longitude: -105.031000
PDOP Reading: 2.4 Date of Measurement: 06/13/2013
Instrument Operator's Name: John Rice

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	20	Oil Tanks*		Condensate Tanks*		Water Tanks*		Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks		Separators*	20	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*		Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*		Flare*		Pigging Station*	4

OTHER FACILITIES*

Other Facility Type

Number

Gas Cooler	1
Gas Meter	1
Instrument Air Skid	1
Oil pump	2
Surge Drum	2
Transformer	2
Water Cooler	1

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:

All produced water and oil will flow from these wells through our pipeline system to our liquids handling hub #435499. There will be no storage of produced oil or water on location.

CONSTRUCTION

Date planned to commence construction: 02/01/2015

Size of disturbed area during construction in acres: 10.50

Estimated date that interim reclamation will begin: 10/01/2018

Size of location after interim reclamation in acres: 5.50

Estimated post-construction ground elevation: 4958

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? Yes

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: Farfrumwurking LLLP

Phone: _____

Address: PO Box 983

Fax: _____

Address: _____

Email: _____

City: Broomfield State: CO Zip: 80038

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 05/08/2013

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

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	460 Feet	809 Feet
Building Unit:	489 Feet	626 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	270 Feet	658 Feet
Above Ground Utility:	249 Feet	641 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	255 Feet	124 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: 07/25/2017

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.

The original Form 2A was approved 9/16/2013 and the pad has already been constructed by the previous operator. The surface owner is also the owner of the home that is southwest of the drill pad and facilities pad. Per our Surface Use Agreement, this is where the landowner designated our facilities to be located to maximize future use of his land. No other buildings or building units are within 1000' of the disturbed location.

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: 46: Olney fine sandy loam, 0 to 1 percent slopes

NRCS Map Unit Name: 47: Olney fine sandy loam, 1 to 3 percent 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: _____

List individual species: _____

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
☐ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
☐ Alpine (above timberline)
☐ Other (describe): _____

WATER RESOURCES

Is this a sensitive area: ☐ No ☒ Yes

Distance to nearest

downgradient surface water feature: 44 Feet

water well: 483 Feet

Estimated depth to ground water at Oil and Gas Location 25 Feet

Basis for depth to groundwater and sensitive area determination:

1) Closet Permit 0045592A has no depth to GW on DWR website (44'). 2) Next Closest Permit 0531886A has no depth to GW on DWR website (913'). 3) Permit 0045595A has no depth to GW on DWR website. 4) Permit 0508393 has a depth of 25'.

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 zone: No

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 318A

WILDLIFE

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

Operator Proposed Wildlife BMPs

No BMP

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 location has been permitted and built by the previous operator.
-This amended Form 2A is being submitted because we are adding 4 additional wells to the existing disturbed surface.
-The additional 4 wells will be located in line with the current wells. No additional surface disturbance is required.
-Additional Wells in a Buffer Zone: File 3S-32H-K268 & File 3T-32H-K268
-Additional Wells in a Exception Zone: File 3A-32H-K268 & File 3B-32H-K268
-It is intended that this location will connect by pipeline to Crestone Peak's central gathering facility located in Erie. The location has federal wells involved and requires the approval of a variance by the BLM in order to commingle oil. Crestone is currently seeking that approval. If the commingling request is denied, separate oil tanks will need to be set on location to comply with federal measurement rules. A sundry notice will be submitted to COGCC in the event our request is denied and the facility plan changes.
-Oil Storage Tank BMPs are listed in the event we need to set tanks on location due to federal regulations.

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

Signed: _____ Date: 08/25/2017 Email: chris.mcrickard@crestonepr.com

Print Name: Chris McRickard Title: Regulatory Analyst

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: _____ Director of COGCC Date: _____

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

COA Type	Description
Best Management Practices	
No BMP/COA Type	Description
1 Traffic control	An access route from the highway or county road to the proposed oil and gas location has been prearranged. Required access road permits will be obtained before construction begins and any special requirements outlined by the municipality will be followed. Emergency routes will be chosen prior to the commencement of operations and will be clearly marked and maintained throughout drilling, completion and production activities.
2 General Housekeeping	Any material not in use that might constitute a fire hazard will be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area will comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.
3 General Housekeeping	The well site will be cleared of all non-essential equipment, trash and debris after ninety days of a well P&A.
4 General Housekeeping	Crestone will identify plugged and abandoned wellbores according to Rule 319.a.(5). including the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). Crestone will also inscribe or imbed the well number and date of plugging upon the permanent monument.
5 Material Handling and Spill Prevention	All loadlines will be capped for every location in the DJ.
6 Material Handling and Spill Prevention	Well effluent containing more than ten (10) barrels per day of condensate or within two (2) hours after first encountering hydrocarbon gas of salable quality will be directed to a combination of sand traps, separators, surge vessels, and tanks as needed to ensure safe separation of sand, hydrocarbon liquids, water, and gas and to ensure salable products are efficiently recovered for sale or conserved and that non-salable products are disposed of in a safe and environmentally responsible manner.
7 Material Handling and Spill Prevention	<p>Leak Detection Program</p> <ul style="list-style-type: none"> • Annual hydrostatic test on the oil dump line from the separator to the tank battery. • Annual hydrostatic "static" tests on our oil tanks. • Annual hydrostatic "static" tests on our produced water tank and water dump line from the separator to the produced water tank. • Lease Operator inspections of all equipment not to exceed 48 hours. • Monthly documented inspections (EU). • Annual environmental inspections of all battery and well equipment and pads. • Annual UT inspections of the pressure vessels and input into Crestone's RIPL Predictive Integrity Maintenance Program. (HLP separators and fuel gas separators)"
8 Construction	The pad will be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping.
9 Construction	Subject pad will have all weather access roads to allow for operator and emergency response.
10 Construction	Crestone utilizes 24" tall corrugated galvanized metal berm walls with a capacity in excess of 150% of the largest tank contained within the wall. In addition, Crestone best practices mandates the use of impervious liners that extends under each storage tank and up the walls, permanently affixed to the top of the metal berm wall. Protrusions of piping that come through the liner include a fully sealed "boot" to prevent leakage.

11	Construction	Crestone will install fencing to restrict access to wellheads and equipment. (If in a town, "Fencing style will be installed as required by the town".)
12	Construction	At the time of construction, all leasehold roads will be constructed to accommodate local emergency vehicle access requirements, and will be maintained in a reasonable condition.
13	Construction	Crestone will comply with COGCC Rule 1002.f.(2). by utilizing BMPs at the oil and gas location to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, site degradation and protects surface waters.
14	Construction	All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). Crestone shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule.
15	Noise mitigation	Crestone will perform a baseline noise survey prior to any operational activity measuring dBA at a distance 350 feet from the noise source or sound levels will be measured at a point twenty-five (25) feet from the structure towards the noise source. In situations where measurement of noise levels at three hundred and fifty (350) feet is impractical or unrepresentative due to topography, the measurement may be taken at a lesser distance and extrapolated to a 350-foot equivalent using the formula stated in Rule 802 of the State of Colorado Oil and Gas Conservation Commission. As necessary, based on the survey, Crestone will install temporary sound walls to minimize noise and light impacts during drilling and completions and will install permanent noise mitigation at the facility location as necessary to meet all COGCC regulations.
16	Emissions mitigation	Flow lines, separators, and sand traps capable of supporting green completions as described in Rule 805 will be installed on subject location at which commercial quantities of gas are reasonably expected to be produced based on existing adjacent wells within 1 mile.
17	Emissions mitigation	Temporary flowback flaring and oxidizing equipment will include: adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a ten mile radius. If there is overrun, Crestone will shut in the well versus freely venting.
18	Emissions mitigation	Crestone will follow and comply with all leak detection and repair and storage tank emission management plan conditions as required by Colorado Air Quality Control Commission Regulation Number 7. This will include at least monthly Audible, Visual and Olfactory (AVO) inspections of the components and tanks at our Production Facilities at most weekly or at least monthly. In addition, Crestone will perform infra-red camera inspections of these components and the storage tanks at most monthly or at least annually.
19	Drilling/Completion Operations	Crestone will employ a rig without kelly that has double ram with blind and pipe ram and an annular preventer. At least one person at the well site during drilling operations will have Mineral Management certification or Director approved training for blowout prevention.
20	Drilling/Completion Operations	Guy line anchors in the DJ Basin are not installed. Crestone will use an engineered base beam that we guy wire anchor the derricks to.
21	Drilling/Completion Operations	Closed-top tanks will utilize backpressure systems that exert a minimum of four (4) ounces of backpressure and a maximum that does not exceed the pressure rating of the tank to facilitate gathering and combustion of tank.
22	Drilling/Completion Operations	Crestone will utilize a closed-loop system for drilling operations at this location.

23	Drilling/Completion Operations	Crestone will not utilize pits.
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Total: 23 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401352756	FORM 2A SUBMITTED
401367959	NRCS MAP UNIT DESC
401367961	NRCS MAP UNIT DESC
401368151	HYDROLOGY MAP
401368152	LOCATION PICTURES
401383163	RULE 305A CERTIFICATION OF COMPLIANCE
401383169	LOCATION DRAWING
401383180	MULTI-WELL PLAN
401383187	SURFACE AGRMT/SURETY
401386429	ACCESS ROAD MAP
401388158	WASTE MANAGEMENT PLAN
401394793	FACILITY LAYOUT DRAWING

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

Public Comments

No public comments were received on this application during the comment period.

