

FORM
2A

Rev
08/19

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:

401994845

Date Received:

06/25/2019

Oil and Gas Location Assessment

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

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:

470863

Expiration Date:

01/15/2023

☒ 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: 8960
Name: BONANZA CREEK ENERGY OPERATING COMPANY LLC
Address: 410 17TH STREET SUITE #1400
City: DENVER State: CO Zip: 80202

Contact Information

Name: Kate Miller
Phone: (720) 4406116
Fax: ()
email: regulatory@bonanzacrk.com

FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20120018 ☐ Gas Facility Surety ID (Rule 711): _____
☐ Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: North Platte Number: T-23 Pad
County: WELD
QuarterQuarter: SESE Section: 23 Township: 5N Range: 63W Meridian: 6 Ground Elevation: 4585
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: 461 feet FSL from North or South section line
589 feet FEL from East or West section line
Latitude: 40.378679 Longitude: -104.395815
PDOP Reading: 1.2 Date of Measurement: 12/22/2018
Instrument Operator's Name: Chad Meiers

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below. ☒ Yes ☐ No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location. ☒

The local government siting permit type is: WOGLA

The local government siting permit was filed on: 07/09/2019

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

WOGLA approved 9/5/2019. WOGLA 19-0167.

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 #

Well Site is served by Production Facilities 434730

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells <u>10</u>	Oil Tanks* <u> </u>	Condensate Tanks* <u> </u>	Water Tanks* <u> </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>10</u>	Separators* <u>21</u>	Injection Pumps* <u> </u>	Cavity Pumps* <u> </u>	Gas Compressors* <u> </u>
Gas or Diesel Motors* <u> </u>	Electric Motors <u> </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> </u>	Pigging Station* <u> </u>

OTHER FACILITIES*

<u>Other Facility Type</u>	<u>Number</u>
Line Heater	1
Automation System	1
Maintenance Tank	1
IA Building	1
Meter Building	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:

One (1) 6"-8" steel gas gathering
One (1) 4"-6" composite plastic oil gathering
Thirteen (13) 2"-4" steel gas lift lines
One (1) 4"-6" composite plastic produced water gathering
Twelve (12) 2"-4" steel three phase flowlines
One (1) 4"-10" temporary layflat fresh water pipelines

CONSTRUCTION

Date planned to commence construction: 01/23/2020 Size of disturbed area during construction in acres: 8.52
Estimated date that interim reclamation will begin: 07/23/2020 Size of location after interim reclamation in acres: 3.78
Estimated post-construction ground elevation: 4582

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: Recycle/reuse

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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: 70 Ranch LLC

Phone: 303-515-5800

Address: 8301 E. Prentice Ave. Suite 100

Fax: _____

Address: _____

Email: _____

City: Greenwood Village State: CO Zip: 80111

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: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

Date of Rule 306 surface owner consultation 10/10/2018

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s): _____

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:	3034 Feet	2874 Feet
Building Unit:	4434 Feet	4145 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:	367 Feet	211 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	361 Feet	199 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5280 Feet	5280 Feet
Child Care Center:	5280 Feet	5280 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

SCHOOL SETBACK INFORMATION

Was Notice required under Rule 305.a.(4)? ☐ Yes ☒ No

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: 70—Valent sand, 3 to 9 percent slopes

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: 01/03/2019

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: 56 Feet

water well: 1669 Feet

Estimated depth to ground water at Oil and Gas Location 19 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest water well is abandoned (Permit #35642-M, 304' southeast of location as shown on attached Hydrology Map); records indicate depth to groundwater at 19'. Distance to nearest active water well is 1669' as measured to permit #81432, east/southeast of the Location.
Downgradient surface water feature is the existing road side ditch.

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 318A

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 The SHL of the North Platte T-23 Pad (K31-O34-26HN, doc# 401994165) was used as the Lat/Long for this pad.

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

Signed: _____ Date: 06/25/2019 Email: ANoonan2@bonanzacrk.com

Print Name: Aubrey Noonan Title: Regulatory Analyst

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  _____ Director of COGCC Date: 1/16/2020

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**

Final Reclamation	This Form 2A has been approved prior to approval of the Wellbore Spacing Units (WSU). If the final agency action is denial of the WSU then the operator shall abandon this Oil and Gas Location by submitting a Form 4 Sundry within 45 days of the agency denial; however, if Location construction has commenced, then the Location will be immediately subject to final reclamation.
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Best Management Practices

No	BMP/COA Type	Description
1	Storm Water/Erosion Control	Storm Water Control - Storm water controls will be constructed around the perimeter of the site prior to construction. Typically, Operator utilizes a ditch and berm system of storm water controls on location. BMPs used are determined just prior to construction by a third party storm water contractor and may vary according to the location. Storm water controls will remain in place until the pad is stabilized or reaches final reclamation.
2	Material Handling and Spill Prevention	Well Pad Construction – Operator constructs its locations with a compacted road base surface. This surface is at least 4 inches thick and compacted to prevent surface degradation from drilling and production activity and traffic. This layer of road base protects shallow groundwater by containing liquids and preventing vertical migration of a potential spill.
3	Material Handling and Spill Prevention	Leak Detection Plan - Operator shall have personnel on location daily conducting routine operations and maintenance activity. If any leaks are to occur on site, they would be quickly identified by operator's personnel. Operator shall use SCADA information systems that have the ability to remotely monitor well production and activate specific valves, which can stop a release on location. In addition to daily operations and maintenance performed at the location, operator shall conduct required inspections for SPCC, Stormwater, and LDAR compliance.
4	Material Handling and Spill Prevention	Separation Equipment Containment - All produced fluids will be routed to separation equipment. To protect shallow groundwater, operator uses separators with built-in containment.
5	Material Handling and Spill Prevention	Waste Management - General housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, permitted facilities. If spills occur, cleanup will be implemented within 24-48 hours, as appropriate, to minimize any commingling of waste materials with storm water runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil.
6	Drilling/Completion Operations	Green Completions - Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, Operator shall not produce the wells without an approved variance per Rule 805.b.(3) C.
7	Drilling/Completion Operations	Drilling Activity Containment – Operator shall utilize a portable containment liner under the drilling rig during drilling activities. This protects shallow groundwater from any potential spills surrounding the rig during drilling. Any liquid release will be vacuumed up from the liner. When drilling activity is completed, the liner is removed and transferred to the next drilling location.
8	Drilling/Completion Operations	Flowback Activity Containment – Operator Shall utilize portable containment beneath temporary produced liquid storage tanks. This will protect shallow groundwater from any potential spills during completions activity. When flowback activity is complete, the containment and temporary produced liquid storage tanks will be removed and transferred to the next location.
9	Drilling/Completion Operations	Closed Loop Drilling - Operator shall utilize a closed loop drilling system.

Total: 9 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1010782	REFERENCE AREA PICTURES
1010783	REFERENCE AREA MAP
1347743	SURFACE AGRMT/SURETY
1347744	OBJECTIVE CRITERIA MEMO
401994845	FORM 2A SUBMITTED
402004017	HYDROLOGY MAP
402004020	LOCATION DRAWING
402004023	LOCATION PICTURES
402004025	MULTI-WELL PLAN
402004035	ACCESS ROAD MAP
402004036	NRCS MAP UNIT DESC
402006583	WASTE MANAGEMENT PLAN

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Final Review	Revised Leak Detection BMP with operator concurrence. Wells will have automated shut-in capabilities. Maintenance tank will not have automation. Final Review task passed.	01/08/2020
Final Review	Final Review Status still Pending - Requested clarification on Leak Detection Plan BMP: the only tank being permitted is a maintenance tank; confirm SCADA/automation on maint. tank; confirm SCADA/automation on wells for remote shut in.	01/07/2020
OGLA	Corrections made with Operator concurrence: - Updated WOGLA disposition. - Updated Construction and Reclamation Dates. - Replaced SUA with revised SUA. - Corrected distance to nearest Building, Property Line and Aboveground Utility. - Updated BMPs as provided by operator.	12/31/2019
OGLA	COGCC staff conducted its technical review of this Form 2A Oil and Gas Location Assessment within the context of SB 19-181 and the required Objective Criteria. This Form 2A met Objective Criteria # 5.c.	12/27/2019
OGLA	Corrections made with Operator concurrence: - Updated WOGLA information per updated info on associated APDs. - Changed depth to groundwater as identified in logs from nearest abandoned water well.	12/27/2019
Final Review	Final Review status PENDING - referred to OGLA staff for additional review: - request approved WOGLA permit number - request updated Construction/Reclamation dates that are in the future - request revised SUA that includes language pertaining to oil and gas operations - request revised distance from nearest well to nearest aboveground utility and property line; current distances shown do not appear to be accurate based on information provided on Location Drawing - request revision of BMP to remove reference to tanks on location, as no tanks are planned for this location	12/27/2019
OGLA	Operator provided clarification that the "Existing Water Well" shown on the Location Drawing and Hydrology Map was a monitoring well that was plugged and abandoned, and that the nearest livestock water supply well was the Allard Cattle Co. well (Permit # 81432) located 1,669 feet to the east-southeast.	12/04/2019
OGLA	Technical Review - Request for information 1) Under the Cultural Setbacks tab, there were no buildings identified that were 2,874 feet from the Production Facilities. The nearest building was 3,154 feet to the east, and the nearest building unit was 4,434 ft to the northwest. Ask for confirmation that these are the same building and BU identified from the reference well. Not shown on Location Map. 2) Confirm the distance to the nearest water well location due to possible discrepancies between the eForm 2A, Hydrology Map, and Location Drawing. Permit #36542-M is abandoned, but appears to be the nearest well to the Location, and livestock well (Permit #81432). 3) Request information on the OBM Group that Bonanza will be using and if there are any odor concerns or control measures needed as a BMP. 4) A BMP is needed stating that Bonanza Creek will install stormwater control measures prior to construction to control stormwater runoff/runon and erosion at the Location. Provide typical BMPs that will be used. Additional information was provided on 11/15/2019.	11/13/2019
Permit	Permitting review passed.	10/17/2019
Permit	Passed Completeness.	07/02/2019

Total: 10 comment(s)