

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:

400739720

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Date Received:

01/12/2016

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:

445393

Expiration Date:

04/03/2019

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: Julie Vigil
 Phone: (303) 803-1718
 Fax: (720) 279-2331
 email: jvigil@bonanzacrk.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20120018 Gas Facility Surety ID: _____
- Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Antelope Number: H23-19 Pad
 County: WELD
 Quarter: SENE Section: 19 Township: 5N Range: 62W Meridian: 6 Ground Elevation: 4617

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: 2610 feet FNL from North or South section line
1954 feet FWL from East or West section line

Latitude: 40.384870 Longitude: -104.367950

PDOP Reading: 1.6 Date of Measurement: 10/24/2015

Instrument Operator's Name: Mike Johnson

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 #
Production Facilities Location serves Well(s)	420769	_____
	418240	_____
	418232	_____
	418233	_____

FACILITIES

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

Wells _____	Oil Tanks* _____	Condensate Tanks* _____	8	Water Tanks* _____	Buried Produced Water Vaults* _____	2
Drilling Pits _____	Production Pits* _____	Special Purpose Pits _____		Multi-Well Pits* _____	Modular Large Volume Tanks _____	
Pump Jacks _____	Separators* _____	8	Injection Pumps* _____	Cavity Pumps* _____	Gas Compressors* _____	1
Gas or Diesel Motors* _____	Electric Motors _____	Electric Generators* _____		Fuel Tanks* _____	LACT Unit* _____	
Dehydrator Units* _____	Vapor Recovery Unit* _____	VOC Combustor* _____	3	Flare* _____	Pigging Station* _____	

OTHER FACILITIES*

Other Facility Type	Number
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_____	_____
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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) gas sale lines connection: 8" coated steel
Seven (7) Flow lines: 3"
Seven (7) Gas lift lines

CONSTRUCTION

Date planned to commence construction: 03/25/2016 Size of disturbed area during construction in acres: 2.10
Estimated date that interim reclamation will begin: 03/25/2016 Size of location after interim reclamation in acres: 2.10
Estimated post-construction ground elevation: 4617

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: _____

Is H₂S anticipated? _____

Will salt sections be encountered during drilling: _____

Will salt based mud (>15,000 ppm Cl) be used? _____

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: _____ Drilling Fluids Disposal Method: _____

Cutting Disposal: _____ Cuttings Disposal Method: _____

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: 303-880-9812

Address: 8301 E. Prentice Ave., Suite #100

Fax: _____

Address: _____

Email: _____

City: Greenwood State: CO Zip: 80111
Village

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 08/01/2010

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:	_____ Feet	2290 Feet
Building Unit:	_____ Feet	5280 Feet
High Occupancy Building Unit:	_____ Feet	5280 Feet
Designated Outside Activity Area:	_____ Feet	5280 Feet
Public Road:	_____ Feet	5280 Feet
Above Ground Utility:	_____ Feet	720 Feet
Railroad:	_____ Feet	5280 Feet
Property Line:	_____ Feet	2485 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 (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 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: 69, Valent sand, 0 to 3 percent slopes
 NRCS Map Unit Name: 70, Valent sand, 3 to 9 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: 5280 Feet

water well: 2283 Feet

Estimated depth to ground water at Oil and Gas Location 35 Feet

Basis for depth to groundwater and sensitive area determination:

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

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 This location was constructed in August 2010 inadvertently without an approved Form 2A. Upon discovering this existing location without an assigned Location ID number, the COGCC was informed that Bonanza would submit the required Form 2A. This location is an adjacent tank battery/ compressor station for 4 locations in Section 19-T5N-R62W and the disturbed area was not permitted in 2010. In order to be in compliance with all applicable COGCC rules and regulations Bonanza is requesting approval be granted for this existing Oil and Gas Location.

Reclamation: As this is an older and active production facility, size of the total disturbance and size of the location interim reclamation in acres remain the same; as requested interim reclamation date entered 30 days after submission.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.
 Signed: _____ Date: 01/12/2016 Email: jvigil@bonanzacr.com

Print Name: Julie Vigil Title: Sr. Regulatory Specialist

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: 4/4/2016

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.

<u>COA Type</u>	<u>Description</u>
	Operator shall submit an As-Built Survey for all facilities at this Location via Form 4 Sundry, within 30 days of approval of this Form 2A.
	Location ID #420769, 418232 and 418233 have production facilities permitted onsite, however, production has been built on the remote Location to be permitted through this Form 2A (Document #400739720). Production facilities lists shall be updated for Location ID #420769, 418232 and 418233 via Form 4 Sundry within 30 days of approval of this Form 2A.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Construction	The following procedure describes BCEI standard construction practices for setting a partially buried pre-cast cement water vault and new tank battery construction. 1) The excavation will first be lined with 4" of clay or other low permeability soil. 2) A 30 mil liner will be installed on top of the low permeability soil. The 30 mil liner will be a contiguous liner which will underlay the entire tank battery. 3) The tank battery / water vault liner will be keyed into a galvanized steel containment ring installed surrounding the tank battery. 4) Sand bedding will be installed to protect the synthetic liner prior to placing equipment in the containment area.

Total: 1 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400739720	FORM 2A SUBMITTED
400965529	NRCS MAP UNIT DESC
400965530	NRCS MAP UNIT DESC
400966755	WASTE MANAGEMENT PLAN
400967730	SURFACE AGRMT/SURETY
400967731	HYDROLOGY MAP
400967733	ACCESS ROAD MAP
400967736	LOCATION PICTURES
400967737	REFERENCE AREA PICTURES
400967738	REFERENCE AREA MAP
400969905	LOCATION DRAWING

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review complete.	3/29/2016 9:43:33 AM
OGLA	Per Operator request, added the following: 2 Buried Produced Water Vaults 1 Gas Compressor And deleted the following: 3 Water Tanks	3/21/2016 4:45:34 PM
OGLA	Changed Estimated Date of Construction to 03/25/2016 as this is an already constructed Location that was not permitted at the date of construction in 2010. Updated 03/21/2016 - MMH	3/7/2016 7:59:10 AM
OGLA	Per Operator request, removed Facility Layout Drawing (Attachment Document #400967739) as it differed from the Facilities list. Per Operator request, changed the number of facilities for the Condensate Tanks, Water Tanks, Separators and Buried Water Vaults.	2/3/2016 12:14:41 PM
LGD	This proposed oil and gas facility is located in unincorporated Weld County. Oil and Gas Exploration and Production activities are currently considered a Use by Right in the Agricultural Zoned District and no land use permitting is required by the County. A building permit is required for the production facilities (tank battery, separators, and pump jacks) from the Department of Planning Services. A new or expanded access from a county road or the use of a right-of-way requires a permit from the Department of Public Works. Troy Swain, Weld Oil and Gas Liaison and LGD (970) 353-6100, ext. 3579.	2/1/2016 10:47:30 AM
OGLA	Per Operator request, changed Distance to the Nearest Water Well to 2283 feet. Changed Distance to the Nearest Surface Water feature to 5280 based on the Hydrology Map submitted by the Operator and the COGIS Map. Facilities Layout Drawing differs from the facilities list.	1/14/2016 3:27:34 PM
Permit	Passed completeness.	1/13/2016 12:39:25 PM

Total: 7 comment(s)