

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:

401012487

Date Received:

05/04/2016

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: 429485

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:

429485

Expiration Date:

10/11/2019

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 L. 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: Latham Number: 43-1 Pad
 County: WELD
 Quarter: NESE Section: 1 Township: 4N Range: 63W Meridian: 6 Ground Elevation: 4545

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: 1928 feet FSL from North or South section line
 755 feet FEL from East or West section line

Latitude: 40.339600 Longitude: -104.379760

PDOP Reading: 1.2 Date of Measurement: 05/09/2012

Instrument Operator's Name: Wyatt Hall

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 # 434730 **FORM 2A DOC #** _____

Well Site is served by Production Facilities

FACILITIES

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

Wells	<u>6</u>	Oil Tanks*	<u>4</u>	Condensate Tanks*	_____	Water Tanks*	<u>2</u>	Buried Produced Water Vaults*	<u>1</u>
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	<u>1</u>
Pump Jacks	<u>6</u>	Separators*	<u>6</u>	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	<u>10</u>	Electric Motors	<u>10</u>	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	<u>1</u>
Dehydrator Units*	_____	Vapor Recovery Unit*	_____	VOC Combustor*	<u>2</u>	Flare*	_____	Pigging Station*	_____

OTHER FACILITIES*

Other Facility Type

Number

Gas Lift Meter Building	<u>1</u>
Oil Feed Vessel	<u>1</u>
Maintenance Tank	<u>1</u>
Gas Lift Heater	<u>1</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:

Six (6) three phase 3" coated steel flowlines from wellheads to separators
Six (6) 2" coated gas lift lines from gas lift meters to wellheads
One (1) 6" coated steel gas sales line connection
One (1) 6" coated steel oil gathering lines connection
One (1) 4" coated steel produced water gathering connection
One (1) 3" Coated Steel Gas Lift Delivery Line connection

Manufacturer or vendor = HydroLogistics or Rockwater

The MLVT is anticipated to be onsite July 30, 2017 until September 15, 2017

Size of tanks = 30,000 bbl - 135' dia

BMP-Bonanza Creek Energy acknowledges and will comply with the "COGCC Policy On the Use of Modular Large Volume Tanks in Colorado" dated June 13, 2014.

CONSTRUCTION

Date planned to commence construction: 06/01/2017 Size of disturbed area during construction in acres: 4.90

Estimated date that interim reclamation will begin: 09/30/2017 Size of location after interim reclamation in acres: 2.10

Estimated post-construction ground elevation: 4545

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: Recycle/reuse

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: 70 Ranch, LLC

Phone: 303-880-8912

Address: 8301 E. Prentice Ave. Ste 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: 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 12/15/2015

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:	<u>5280</u> Feet	<u>5280</u> 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 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:	354 Feet	166 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	398 Feet	209 Feet

- 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 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: _____
 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: 08/12/2015
 List individual species: Canadian horseweed Sand sagebrush

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: 122 Feet

water well: 265 Feet

Estimated depth to ground water at Oil and Gas Location 32 Feet

Basis for depth to groundwater and sensitive area determination:

Water well permit # 188086 was used to find depth to ground water, Closest well permit number 49678-MH.

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: No

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 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 Current plans are to take the production from the 6 wells on the Latham 43-1 Pad to the State North Platte CPF 42-26. There will be facilities required on this location for production, however our plans are to route the production to a central production facility as noted on the Location Identification Tab. Upon completion of interim reclamation, a sundry will be submitted to verify the actual equipment installed on this location.

The Location is being amended to add two additional wells on the subject location

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

Signed: _____ Date: 05/04/2016 Email: jvigil@bonanzacrk.com
Print Name: Julie L. 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: 10/12/2016

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>
	Approval of this Amended 2A does not provide relief from compliance with COGCC Reclamation Rules.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	Operator shall submit a Form 42 to the COGCC 48 hours prior to commencement of construction activities.
2	Drilling/Completion Operations	Bonanza Creek Energy acknowledges and will comply with the "COGCC Policy On the Use of Modular Large Volume Tanks in Colorado" dated June 13, 2014.

Total: 2 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401012487	FORM 2A SUBMITTED
401040920	SURFACE AGRMT/SURETY
401040970	HYDROLOGY MAP
401040974	ACCESS ROAD MAP
401040976	LOCATION DRAWING
401041016	NRCS MAP UNIT DESC
401041017	LOCATION PICTURES
401041019	REFERENCE AREA MAP
401041020	MULTI-WELL PLAN
401041026	REFERENCE AREA PICTURES
401041588	CONST. LAYOUT DRAWINGS
401047634	WASTE MANAGEMENT PLAN

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review complete.	10/10/2016 7:35:12 PM
OGLA	Per Operator request, changed the estimated date of construction to 06/01/2017 and the date of interim reclamation to 09/30/2017. Per Operator request, added "The MLVT is anticipated to be onsite July 30, 2017 until September 15, 2017" Per Operator request, added "The Location is being amended to add two additional wells on the subject location" to the Submit Tab.	8/31/2016 2:28:47 PM
OGLA	Removed Kochia from the plant community list. The COGCC treats Kochia as a weed and, as such, is required to be adequately controlled.	8/23/2016 11:44:45 AM
OGLA	Per Operator request, changed the distance from the well to the nearest above-ground utility to 354 feet and to the nearest property line to 398 feet.	8/23/2016 9:48:51 AM
LGD	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, pump jacks, generators, compressors, etc.) 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.	5/20/2016 3:03:05 PM
Permit	Operator corrected right to construct to oil & gas lease.	5/16/2016 3:14:50 PM
Permit	Passes completeness.	5/16/2016 11:59:27 AM
Permit	Returned to draft: --operator advised WMP needs updating	5/15/2016 1:45:10 PM
Permit	Req'd operator to review WMP. Is it current?	5/13/2016 11:57:01 AM

Total: 9 comment(s)