

FORM
2A

Rev
02/20

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:

402328162

(SUBMITTED)

Date Received:

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: 422674

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 <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

422674

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: 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) 440-6116
 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: Crow Valley Number: 44-32 Pad
 County: WELD
 Quarter: SESE Section: 32 Township: 7N Range: 62W Meridian: 6 Ground Elevation: 4915

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: 448 feet FSL from North or South section line
428 feet FEL from East or West section line
 Latitude: 40.524389 Longitude: -104.338529

GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 11/21/2019

Instrument Operator's Name: Jared Christopher

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: 1041 WOGLA _____

The local government siting permit was filed on: _____

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

Additional explanation of local process:

1041WOGLA20-0023

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	2	Oil Tanks*	4	Condensate Tanks*	_____	Water Tanks*	2	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	1
Pump Jacks	2	Separators*	8	Injection Pumps*	_____	Cavity Pumps*	2	Gas Compressors*	1
Gas or Diesel Motors*	2	Electric Motors	2	Electric Generators*	1	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	1	Vapor Recovery Unit*	_____	VOC Combustor*	2	Flare*	_____	Pigging Station*	2

OTHER FACILITIES*

Other Facility Type	Number
Automation System	1
GL Meter Building	1
Line Heater	1
Radio Tower	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:

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

CONSTRUCTION

Date planned to commence construction: 08/13/2020 Size of disturbed area during construction in acres: 7.72
Estimated date that interim reclamation will begin: 03/13/2021 Size of location after interim reclamation in acres: 5.56
Estimated post-construction ground elevation: 4915

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: DIROME Land Trust Phone: _____

Address: 607 S. Gum Street Fax: _____

Address: _____ Email: _____

City: Yuma State: CO Zip: 80759

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 02/10/2020

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:	4607 Feet	4604 Feet
Building Unit:	4607 Feet	4604 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	280 Feet	193 Feet
Above Ground Utility:	312 Feet	230 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	291 Feet	198 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: 44- Olney fine sandy loam

NRCS Map Unit Name: 72-Vona loamy sand

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: 11/21/2019

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: 90 Feet

water well: 3710 Feet

Estimated depth to ground water at Oil and Gas Location 30 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest downgradient water feature is the roadside drainage ditches along CR 74 to the South of the location. Nearest water well is DWR Permit# 40417 (Receipt# 9064183) located NE of the location. This well was used as basis for depth to ground water and sensitive area determination, static water level was 30'. The elevation of this well is approx. 4875'.

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 _____

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

The name for this location is being updated to Crow Valley 44-32 Pad from Crow Valley 7-62-32 /1A.

The SHL of the CROW VALLEY Y44-32-31XRLNB was used as the Location information for this pad.

Reference Area photos were not taken in the growing season, they will be updated via sundry notice within (12) months of the Form 2A submittal date.

This MLVT is for fresh water storage and to assist with completion operations. The MLVT will be set on the existing Oil and Gas Location (Location ID 422674). Additional surface disturbance will not be needed for the MLVT construction and operation. MLVT will be placed greater than 1,000' of a Building Unit Owner. MLVT will be greater than seventy-five (75) feet from a wellhead, fired vessel, heater-treater, or a compressor with a rating of 200 horsepower or more. MLVT will be greater than fifty (50) feet from a separator, well test unit, or other non-fired equipment.

Bonanza Creek requests approval to add one (1) MLVT to the Crow Valley 44-32 Pad Location.
 Manufacturer/Vendor: Thinktank Products Inc.
 Installation: Shalestone
 Number & Size of tank: One (1) MLVT, 49' diameter, 10,000 bbl tank
 Anticipated timeframe MLVT will be on location: 4 months
 Location/ Placement: East side of pad, SE of the wellheads

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

Signed: _____ Date: _____ Email: anoonan@bonanzacrk.net

Print Name: Ashley Noonan Title: Sr. 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: _____

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	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. BMP's 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	Storm Water/Erosion Control	Site Specific Storm Water Control - Operator will install a stormwater retention and release structure in compliance with local government regulations.
3	Material Handling and Spill Prevention	Pipeline Protection- Operator Shall use protective barriers at pipeline risers when they are adjacent to areas with onsite traffic.

4	Material Handling and Spill Prevention	Separation Equipment Containment - To protect shallow groundwater, Operator shall use a separator for the proposed well with built-in containment.
5	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 will be quickly identified by Operator personnel. Operator shall utilize SCADA information systems that have the ability to remotely monitor production tank levels onsite 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.
6	Material Handling and Spill Prevention	Tank Battery Containment –To protect shallow groundwater, produced fluid storage will be conducted within lined containment.
7	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.
8	Material Handling and Spill Prevention	Operator acknowledges and will comply with the ""COGCC Policy on the Use of Modular Large Volume Tanks in Colorado"" dated June 13, 2014.
9	Construction	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.
10	Drilling/Completion Operations	Closed Loop Drilling - Operator shall utilize a closed loop drilling system
11	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.
12	Drilling/Completion Operations	Development from Existing Well Pads - Operator shall develop by drilling on an existing pad. Operator shall utilize the existing pad and production facility to minimize potential impacts to neighbors and the environment.
13	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.
14	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. A liquid release would simply be vacuumed up from the liner. When drilling activity is completed, the liner is removed and transferred to the next drilling location.

15	Drilling/Completion Operations	Pigging Activity– Operator shall conduct closed loop pigging to maintain flowlines. This practice removes deposits in flowlines without open-ended liquid collection. The deposits are flushed through the active flowlines to the production equipment. This practice reduces the potential for releases and emissions related to open loop methods. Operator shall use a small containment under the receiver when removing the pig to reduce the potential for spills.
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Total: 15 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402329923	NRCS MAP UNIT DESC
402330060	ACCESS ROAD MAP
402330063	HYDROLOGY MAP
402330065	MULTI-WELL PLAN
402330069	REFERENCE AREA MAP
402330070	REFERENCE AREA PICTURES
402335515	LOCATION PICTURES
402335516	WASTE MANAGEMENT PLAN
402351332	SURFACE AGRMT/SURETY
402362281	CORRESPONDENCE
402370815	LOCATION DRAWING

Total Attach: 11 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.

