

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:

401553173

Date Received:

03/14/2018

Oil and Gas Location Assessment

New Location  Refile  Amend Existing Location Location#: 433770

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:

**433770**

Expiration Date:

**05/03/2021**

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: 10456  
 Name: CAERUS PICEANCE LLC  
 Address: 1001 17TH STREET #1600  
 City: DENVER State: CO Zip: 80202

Contact Information

Name: Jason Eckman  
 Phone: (970) 285-2656  
 Fax: ( )  
 email: jeckman@caerusoilandgas.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20130021  Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: North Parachute Number: UWF D03 596  
 County: GARFIELD  
 Quarter: NWNW Section: 3 Township: 5S Range: 96W Meridian: 6 Ground Elevation: 8348

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: 357 feet FNL from North or South section line  
 691 feet FWL from East or West section line

Latitude: 39.650347 Longitude: -108.162383

PDOP Reading: 1.3 Date of Measurement: 11/29/2017

Instrument Operator's Name: Bart Hunting



## 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: Caerus Oil and Gas LLC

Phone: 303-565-4600

Address: 1001 17th Street, Suite 1600

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Denver State: CO Zip: 80202

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: applicant is owner

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

Date of Rule 306 surface owner consultation \_\_\_\_\_

## 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	5280 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	5280 Feet
Railroad:	_____ Feet	5280 Feet
Property Line:	_____ Feet	3025 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

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: \_\_\_\_\_

- 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.

## 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: 53. Parachute Rhone Loams, 5 to 30 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: \_\_\_\_\_

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, Chokeycherry)
- 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:  Feet

water well:  Feet

Estimated depth to ground water at Oil and Gas Location  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  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

**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: This Form 2A is for a remote frac pad for wells on the UWF H04 596 well pad (Loc ID 335907). It was originally approved in 2013. The location is an active, permitted gravel pit. There will be no new additional disturbance beyond what has been disturbed in the gravel pit operations.

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

Signed: \_\_\_\_\_ Date: 03/14/2018 Email: jeckman@caerusoilandgas.com

Print Name: Jason Eckman Title: Sr. 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: 5/4/2018

### 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
	<p>In addition to the notifications required by COGCC listed in the Northwest Notification Policy (Notice of Intent to Construct a New Location and Notice of Intent to Commence Hydraulic Fracturing Operations) and Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (a. Notice of Intent to Conduct Hydraulic Fracturing Treatment and c. Notice of Construction or Major Change); operator shall notify the COGCC 48 hours prior to onsite and offsite pipeline testing (temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions). The appropriate COGCC individuals will automatically be email notified.</p> <p>Prior to first use, operator shall submit a preliminary Site Drawing showing the location of the temporary frac tanks and any transfer pumps on this oil and gas location and a map showing the locations of all temporary surface and/or permanent buried flowlines / pipelines that will be used during water storage and water transfer operations.</p> <p>The temporary remote frac pad facility shall be in operation for no longer than three (3) years. The three year time clock will start from the date of first use based on submittal of the Form 42 providing that date.</p> <p>The approved Form 2A #401553173 for this location will be posted onsite during re-construction, temporary surface pipeline placement and operations, remote frac pad water storage and transfer operations, and demobilization.</p>
	<p>Operator must ensure secondary containment for any volume of fluids contained at the 'temporary remote frac pad facility' during water storage and water transfer operations at the nearby well pad; including, but not limited to, re-construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site re-grading, or other comparable measures (i.e., best management practices [BMPs] associated with fluid containment/control as well as stormwater management for the control of run-on and run-off) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals, and maintained in good condition.</p> <p>The access road will be maintained to prevent sediment migration from the access road to nearby surface water or any drainages leading to other nearby surface waters.</p> <p>Strategically apply fugitive dust control measures to access roads to reduce fugitive dust and coating of vegetation and deposition in water sources. Operator shall employ practices for control of fugitive dust caused by other operations, including, but not limited to the use of speed restrictions, regular road maintenance, and restriction of re-construction activity during high wind days. Additional management practices such as road surfacing, wind breaks and barriers may be used.</p> <p>Additional containment shall be required where temporary or permanent pumps and other necessary equipment or chemicals are located on the frac pad site.</p> <p>Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location (if applicable).</p>
	<p>No open top tanks can be used for water transfer or initial flowback fluids containment. During water transfer operations, the site will be manned 24-hours per day so that any leak or spill can be quickly identified and dealt with. Tanks will be set on compacted earth to decrease the permeability of the soil.</p>
	<p>Potential odors associated with the water storage and water transfer operations (including any flowback operations associated with completion operations) must be controlled/mitigated.</p>

Material Handling and Spill Prevention: The following COAs will apply to this Form 4 if any temporary surface (COAs 1, 2, 3, 4, and 5) or buried permanent offsite pipelines (poly or steel, COA 1) are used during completion operations at this temporary remote frac pad facility:

COA 1 - Operator shall pressure test pipelines (any temporary surface lines used for hydraulic stimulation and/or flowback operations) in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network, and tested annually, unless agreed to by both parties that the flowlines can be managed under an approved COGCC variance.

COA 2 - Operator will design their infrastructure and utilize pipeline materials to exceed required pressures and flow rates. Under normal operating conditions, poly lines will be used at no greater than 80% of all manufacturer suggested maximum pressure and flowrates. Pumps used in this project will operate at pressures 20 percent below the maximum operating pressure of the poly pipeline at all times.

COA 3 - Operator will utilize, to the extent practical, all existing pipeline infrastructure for the storage and transfer of water for use in the temporary remote frac pad facility operations at this location . If temporary surface pipelines are needed, operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area. Operator will provide COGCC with a plan view drawing of the proposed temporary surface poly pipeline route via a Form 4 Sundry Notice.

COA 4 - Operator must implement best management practices to contain any unintentional release of fluids along all portions of the surface pipeline route where temporary pumps and other necessary equipment are located. Prior to operation, pipelines will be air and/or hydro tested for integrity. When in operation, pump stations will be manned continuously to ensure immediate response to pressure changes or pump issues. Qualified personnel, interconnected via 2-way radio, manning each booster pump will carefully synchronize pump turn-on and shut-down according to written and practiced procedure. The entire line will be monitored, where feasible, during pumping and flowback operations. Operator will endeavor to minimize surface disturbance during pipeline monitoring.

COA 5 - Operator must utilize appropriate secondary containment for any volume of fluids that may be released before pump shut down from the surface pipeline at all stream, intermittent stream, ditch, and drainage crossings. For stream or intermittent stream crossings, operator will ensure appropriate containment by potentially installing over-sized pipe "sleeves" which extend the length of the crossing and beyond to a distance deemed adequate to capture and/or divert any possible release of fluids and prevent infusion into the stream water; constructing catchment basins (if necessary and would be sized to contain this volume of fluid); or other comparable containment measures.

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	Use or modify existing roads where possible. Maximize the use of directional drilling to minimize habitat loss/fragmentation. Maximize use of remote telemetry for well monitoring to minimize traffic.
2	General Housekeeping	Caerus will comply with Rule 609 Statewide Groundwater Baseline Sampling and Monitoring. Caerus will comply with Rule 603.f. statewide equipment, weeds, waste, and trash requirements.
3	Wildlife	September 2017 - Caerus Piceance LLC (Caerus) agreed to the Amended and Restated Wildlife Mitigation Plan (WMP) for Encana's proposed oil and gas operations on the North Parachute Ranch (NPR) property. Caerus received authorization from Colorado Parks and Wildlife (CPW) to transfer the EnCana Wildlife Mitigation Plan Agreement (WMPA) to Caerus' existing WMPA. Caerus is currently adhering to all aspects of both WMPAs through Caerus' current best management practices.
4	Storm Water/Erosion Control	Stormwater is addressed under a field-wide Stormwater Management Plan (CDPHE Certification #COR037689). Run-on protection and run-off controls will be installed prior to the beginning of construction activities, with consideration given to worker safety, wildlife, and site access.
5	Construction	The location was approved in 2013. This refile location is less than 1/2 the size originally approved. Any stockpile(s) for topsoil and excess cut material will be located in work areas surrounded by the BMPs as shown on the Construction Layout Drawings. Stormwater BMPs will be installed per details in the Stormwater Management Plan (SWMP) and as shown on the Construction Layout Drawings. Disturbed area of site will be left in a surface roughened condition when feasible. BMPs will be protected, inspected and repaired as necessary. Dust mitigation practices will be utilized. Existing buried flow and water lines in place. Any new flowline installations will be performed in accordance with new flowline guidance provided by the COGCC concerning Rules 1101 and 1102. Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with synthetic liner) to adequately contain any spilled or released material around crude oil, condensate, and produced water storage tanks, while also ensuring the adequate prevention of significant adverse environmental impacts.
6	Interim Reclamation	Once all topsoil has been distributed across the site, the location is then seeded by drill seeding methods or broadcast seeding. Re-vegetation is accomplished as soon as practical following the preparation of a site for final stabilization. Seeding will be done when seasonal or weather conditions are most favorable. On terrain where drill seeding is appropriate, seed may be planted using a drill equipped with a depth regulator to ensure proper depth of planting. Where possible, recountouring to help control run-on and run-off will be done.
7	Final Reclamation	Re-contouring: The disturbed areas surrounding the well location, including the access road will be re-contoured to blend as nearly possible with the natural topography. Final grading of back-filled and cut slopes will be done to prevent erosion and encourage establishment of vegetation. Existing drainages will be re-established. Re-vegetation: The long term objective is to establish a self-perpetuating plant community that is compatible with and capable of supporting the identified land use. Noxious weeds will be treated in accordance with applicable COGCC rules.

Total: 7 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401553173	FORM 2A SUBMITTED
401574640	CONST. LAYOUT DRAWINGS
401574661	HYDROLOGY MAP
401574664	LOCATION DRAWING
401574665	NRCS MAP UNIT DESC
401574666	ACCESS ROAD MAP
401574669	LOCATION PICTURES

Total Attach: 7 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Corrected date of construction from 3/19/18 to 4/30 /18 and notified operator. Final review complete.	04/24/2018
OGLA	03/26/18 - passed by CPW with North Parachute Ranch Wildlife Mitigation Plan BMPs adequately minimize impacts to wildlife and habitats; 04/03/18 - initiated/completed Form 2A review by Dave Kubeczko; placed the following COAs on the Form 2A (including previous Form 2A #400439151 [approved on 08-04-13] COAs) notification, Form 2A posting, temporary surface line map, site drawing, 3-year time frame, additional secondary containment pumps and chemical storage, sediment and dust control access road, odor control, and pipeline placement / inspection / testing; 03/26/18 - passed by CPW with North Parachute Ranch Wildlife Mitigation Plan BMPs adequately minimize impacts to wildlife and habitats; 04/12/18 - passed OGLA Form 2A review by Dave Kubeczko; notification, Form 2A posting, temporary surface line map, site drawing, 3-year time frame, additional secondary containment pumps and chemical storage, sediment and dust control access road, odor control, and pipeline placement / inspection / testing COAs.	04/03/2018
Permit	Added location ID to first page of permit with operator concurrence. Removed surface bond with operator concurrence. Preliminary review complete.	03/28/2018
DOW	This existing location is within the renewed Caerus North Parachute Ranch Wildlife Mitigation Plan. BMPs within the plan are being implemented to adequately minimize impacts to wildlife and habitats. There are no additional BMPs being recommended at this time.  By: Taylor Elm, March 26, 2018, 10:47 a.m.	03/26/2018
Permit	Passed Completeness. Review "Surface & Minerals" tab during technical review. Review "Water Resources" tab during technical review.	03/22/2018

Total: 5 comment(s)