

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:

401445444

Date Received:

04/17/2018

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:

**455049**

Expiration Date:

**05/16/2021**

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: Reed Haddock

Phone: (720) 880-6369

Fax: (303) 565-4606

email: rhaddock@caerusoilandgas.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130021

Gas Facility Surety ID: \_\_\_\_\_

Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: NPR

Number: K08 Pad

County: GARFIELD

Quarter: SENE    Section: 8    Township: 5S    Range: 96W    Meridian: 6    Ground Elevation: 7768

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: 2634 feet FNL from North or South section line

2619 feet FWL from East or West section line

Latitude: 39.629586    Longitude: -108.192911

PDOP Reading: 1.4    Date of Measurement: 12/20/2017

Instrument Operator's Name: Bart Hunting

## 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 #** 454238 **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>34</u>	Oil Tanks*	_____	Condensate Tanks*	_____	Water Tanks*	<u>1</u>	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	_____	Separators*	_____	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	_____	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	_____	VOC Combustor*	_____	Flare*	<u>1</u>	Pigging Station*	_____

## OTHER FACILITIES\*

### Other Facility Type

### Number

Gas Lift Meter Skids	<u>0</u>
3-Phase Production Meter Skids	<u>6</u>
Chemical Pumps	<u>11</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:

Sub-surface flow lines for new wells from wellhead to the production meter skids will be 3" steel. A 10" steel 3-phase flowline will be installed from the skid to the F09 CDP. 2" steel lines will be run from the gas lift meter skids to the wellheads.

## CONSTRUCTION

Date planned to commence construction: 08/01/2018 Size of disturbed area during construction in acres: 9.10

Estimated date that interim reclamation will begin: 07/15/2019 Size of location after interim reclamation in acres: 2.30

Estimated post-construction ground elevation: 7676

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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: ONSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Waste Management Plan attached to Form 2A.

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: Caerus Piceance LLC

Phone: 303-565-4600

Address: 1001 17th St., 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: Yes

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:	5280 Feet	5280 Feet
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:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	2545 Feet	2438 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: 56—Parachute-Irigul-Rhone association, 25 to 50 percent \_\_\_\_\_

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, 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: 110 Feet

water well: 5602 Feet

Estimated depth to ground water at Oil and Gas Location 130 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 609

**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 pad will be new construction. Caerus Piceance LLC plans to drill 34 wells.

KO8 3-PHASE GATHERING OPERATIONS

Gas and liquids will flow from the KO8 pad North/Northwest approximately 500 feet to the FO9 CDP via a 10" pipeline. From the CDP, gas will flow to Story Gulch Compressor station where it will be compressed and dehydrate and discharged to third party gathering. Water will be pumped from the FO9 CDP to Divide Road Water Treatment Facility where it will be treated and then pumped to injection or reused in completion operations. Oil will be separated at the FO9 CDP where it will then be discharged to tanks and trucked off location to be sold. The FO9 CDP is located in the SENW, Sec. 9, T5S- R96W.

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

Signed: \_\_\_\_\_ Date: 04/17/2018 Email: rhaddock@caerusoilandgas.com

Print Name: Reed Haddock 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:  Director of COGCC Date: 5/17/2018

**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.

<b>COA Type</b>	<b>Description</b>
	<p>In addition to the notifications required by COGCC listed in the Northwest Notification Policy (Notice of Intent to Construct a New Location, Notice of Intent to Spud Surface Casing, 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 pipeline testing (flowlines from wellheads to separators to tanks; permanent buried take away pipelines; and/or any 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>The access road will be maintained as to not allow sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.</p>
	<p>Due to the highly fractured nature of the surface and shallow subsurface geologic materials (within the Uinta Formation), the nearby hillsides below the well pad shall be monitored for any day-lighting of drilling fluids throughout the drilling of the surface casing intervals for all wells.</p>
	<p>Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.</p>
	<p>Operator shall pressure test pipelines (flowlines from wellheads to separators to tanks; and 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.</p>

## 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	Pad is already built. Minimal expansion required. 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	Drilling/Completion Operations	Closed loop system will be used. No pits will be built. An enclosed flare stack will be used. Caerus will ensure 110 percent secondary containment for any potential volume of fluids that may be released.
7	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.
8	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: 8 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401445444	FORM 2A RESUBMITTED
401610942	FORM 2A SUBMITTED
401610943	FORM 2A REJECTED
401611730	ACCESS ROAD MAP
401611732	ACCESS ROAD MAP
401611733	CONST. LAYOUT DRAWINGS
401611736	FACILITY LAYOUT DRAWING
401611737	HYDROLOGY MAP
401611739	OTHER
401611741	LOCATION PICTURES
401611743	LOCATION DRAWING
401611746	MULTI-WELL PLAN
401611749	REFERENCE AREA PICTURES
401611751	REFERENCE AREA MAP
401611753	NRCS MAP UNIT DESC
401611758	WASTE MANAGEMENT PLAN
401611765	FORM 2A SUBMITTED

Total Attach: 17 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	05/14/2018
OGLA	04/19/2018 - passed by CPW with North Parachute Ranch Wildlife Mitigation Plan BMPs adequately minimize impacts to wildlife and habitats - additionally, is implementing timing measures to avoid sensitive periods for greater sage grouse reproduction and elk calving; 05/07/2018 - Re-Initiated / Re-Completed Form 2A review by Dave Kubeczko; placed the following COAs on the Form 2A - notification, sediment control access road, downgradient hillside monitoring, odor control, and pipeline testing; 05/08/2018 - Re-passed OGLA Form 2A review by Dave Kubeczko; notification, sediment control access road, downgradient hillside monitoring, odor control, and pipeline testing COAs.	05/07/2018
Permit	Preliminary review complete.	04/25/2018
Permit	Form passes completeness.	04/17/2018
Permit	REJECTION COMMENT: This APD is being rejected per the Rejection Process criteria that a Form 2A requiring a total of four or more attachments to be changed will be rejected. This pad requires a complete and accurate description of the location and the associated 34 APD's. The Operator and COGCC staff have been consulted.	04/17/2018
Permit	Multi-well plan and our maps don't show the BHL's in the same place. Operator notified.	04/16/2018
OGLA	03/08/18 - passed by CPW with North Parachute Ranch Wildlife Mitigation Plan BMPs adequately minimize impacts to wildlife and habitats - additionally, is implementing timing measures to avoid sensitive periods for greater sage grouse reproduction and elk calving; 03/26/18 - Initiated/Completed Form 2A review by Dave Kubeczko; placed the following COAs on the Form 2A - notification, sediment control access road, downgradient hillside monitoring, odor and VOC control, and pipeline testing; 03/26/18 - added greater sage grouse timing BMPs received from operator on 03-26-18; 03/27/18 - passed OGLA Form 2A review by Dave Kubeczko; notification, sediment control access road, downgradient hillside monitoring, odor and VOC control, and pipeline testing COAs.	03/26/2018
DOW	This 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. Additionally, Caerus is coordinating the timing of this development to avoid sensitive periods for greater sage-grouse reproduction and elk calving. There are no additional BMPs being recommended at this time.  By: Taylor Elm, March 8, 2018, 15:13	03/08/2018
Permit	Passed Completeness.	03/06/2018

Total: 9 comment(s)