

FORM
2A

Rev
08/19

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:

402204028

(SUBMITTED)

Date Received:

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 335937

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:

335937

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: 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

FINANCIAL ASSURANCE

- ☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20130021 ☐ Gas Facility Surety ID (Rule 711): _____
- ☐ Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: NPM Number: M33-496 Pad
County: GARFIELD
Quarter: SWSW Section: 33 Township: 4S Range: 96W Meridian: 6 Ground Elevation: 8404

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: 748 feet FSL from North or South section line
1237 feet FWL from East or West section line

Latitude: 39.653324 Longitude: -108.178458

PDOP Reading: 1.4 Date of Measurement: 09/17/2019

Instrument Operator's Name: Dayton Slaugh

LOCAL GOVERNMENT INFORMATION

County: GARFIELD 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: _____

The local government siting permit was filed on: _____

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

Additional explanation of local process:

Caerus Piceance LLC has contacted Garfield County, the local government with jurisdiction over the siting of this proposed oil and gas location and determined that per the Garfield County Land Use and Development Code, Table 3-403, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use by right or Exempt from Land Use Regulation at this site. Garfield County's disposition is not required for the purposes of this submittal.

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 <u>20</u>	Oil Tanks* _____	Condensate Tanks* _____	Water Tanks* _____	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* _____	Pigging Station* _____

OTHER FACILITIES*

<u>Other Facility Type</u>	<u>Number</u>
3-Phase Production Meter Skids	5
Blowdown Water Tank	1
Chemical Pumps	5
Gas Lift Meter Skids	5

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:

A new 3-phase gathering line will be constructed that will carry gas, water and oil from the NPM M33-496 to an existing location, the production pad, where new gathering facilities will be constructed. This new pipeline will be buried and up to 12" in diameter. The new gathering facility will consist of water pumps, bulk 3-phase separators, a custody transfer gas meter, a tank battery for oil storage and sales point, and water tanks for storage. The facility may include a generator and one or more liquid coolers.

The existing Frac Support Pad is 3.614 acres and will be reclaimed.

CONSTRUCTION

Date planned to commence construction: 07/15/2020 Size of disturbed area during construction in acres: 7.87
Estimated date that interim reclamation will begin: 10/15/2021 Size of location after interim reclamation in acres: 1.44
Estimated post-construction ground elevation: 8401

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: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

The cuttings will be put through shakers to minimize moisture and analyzed for Table 910-1 constituents. Cuttings that meet 910-1 levels will be backfilled into the cuttings management area along the southeastern cut portion of the pad (see WMP).

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: Reuben-Stephanie Oldland

Phone: 970-878-4711

Address: 14667 CR 5

Fax:

Address:

Email:

City: Rifle State: CO Zip: 81650

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 10/17/2019

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): Existing Pad

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): Existing Pad

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

SUBMITTED

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:	897 Feet	551 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	871 Feet	511 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: 55—Parachute-Irigul complex, 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, 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: 628 Feet

water well: 2664 Feet

Estimated depth to ground water at Oil and Gas Location 155 Feet

Basis for depth to groundwater and sensitive area determination:

Existing water well Permit # 305811. Permit to construct well. This permit expired June 2019.

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 10/14/2019

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	GREATER SAGE-GROUSE	Wildlife - Minimization	The operator has agreed to utilize a third party to monitor noise during completions activities to satisfy the BLM condition of approval regarding sound impacts.
2	GREATER SAGE-GROUSE	Wildlife - Avoidance	Caerus has agreed to avoid development north of M33 496 along the top of Barnes Ridge. CPW communicated that this ridge is an important resource for the PPR Sage Grouse population and Caerus will continue to respect this request by avoiding the ridgetop.
3	GREATER SAGE-GROUSE	Wildlife - Mitigation	Caerus will continue to provide access to CPW research personnel for ongoing GrSG population research on the NPR.
4	GREATER SAGE-GROUSE	Wildlife - Minimization	Only essential traffic will be permitted to access sites throughout the NPR where no active operations are occurring.
5	GREATER SAGE-GROUSE	Wildlife - Minimization	Caerus will implement three-phase-gathering on existing locations, where applicable, to reduce onsite facilities and increase the acreage put into interim reclamation.

6	GREATER SAGE-GROUSE	Wildlife - Minimization	Caerus will restrict commercial and residential development on the NPR.
7	GREATER SAGE-GROUSE	Wildlife - Mitigation	Caerus will implement an Integrated Vegetation and Weed Management Plan on the NPR. Annual Weed Management Program dedicates \$100,000 to off-site weed treatment (Well pad, facility, road and access roads spend an additional \$200,000 on weed treatments annually).
8	GREATER SAGE-GROUSE	Wildlife - Mitigation	Caerus will strategically apply fugitive dust control measures on the NPR to reduce coating of vegetation and deposition in water sources, including enforcing established speed limits on private Caerus roads.
9	GREATER SAGE-GROUSE	Wildlife - Avoidance	Caerus plans to avoid new disturbance by reoccupying the existing M33 Pad and support area.
10	GREATER SAGE-GROUSE	Wildlife - Avoidance	Caerus will avoid new disturbance by reoccupying existing ROWs
11	GREATER SAGE-GROUSE	Wildlife - Avoidance	Caerus will complete pad expansion and D&C prep construction between 7/15/2020 and 12/15/2020. (Avoid Sage Grouse Winter, Breeding and Nesting periods (12/15/2020 – 7/15/2020)
12	GREATER SAGE-GROUSE	Wildlife - Avoidance	Caerus will complete Interim and Final reclamation activities between 7/15/20xx and 12/15/20xx. (Avoid Sage Grouse Winter, Breeding and Nesting periods (12/15/20xx – 7/15/20xx).
13	GREATER SAGE-GROUSE	Wildlife - Avoidance	Caerus will apply a timing limitation for all activity on the M33 from March 15, 2021 to May 15, 2021 to avoid the GrSG breeding season.
14	GREATER SAGE-GROUSE	Wildlife - Mitigation	Caerus will build up the North-west perimeter berm on the support pad to mitigate sound levels.
15	Deer and Elk	Wildlife - Mitigation	Prior to construction of new surface structures within CPW-identified big game migration corridors, Caerus will consult with CPW consistent with the Wildlife Resources Matrix in the NPR Wildlife Mitigation Plan.
16	Deer and Elk	Wildlife - Mitigation	Caerus will continue to provide access to CPW research personnel for ongoing mule deer research. Caerus will continue to provide access to CPW research personnel for ongoing predator research.
17	Deer and Elk	Wildlife - Minimization	Only essential traffic will be permitted to access sites throughout the NPR where no active operations are occurring.
18	Deer and Elk	Wildlife - Minimization	Caerus will implement three-phase-gathering on existing locations, where applicable, to reduce onsite facilities and increase the acreage put into interim reclamation.
19	Deer and Elk	Wildlife - Mitigation	Caerus will implement an Integrated Vegetation and Weed Management Plan on the NPR. Annual Weed Management Program dedicates \$100,000 to off-site weed treatment (Well pad, facility, road and access roads spend an additional \$200,000 on weed treatments annually).
20	Deer and Elk	Wildlife - Mitigation	Caerus will manage all grazing lease agreements for the NPR under a consistent monitoring program to ensure livestock utilization does not negatively impact other natural resources. Monitoring will include fence inspections, periodic range checks for trespass cattle or unexpected issues, and grazing utilization baskets to determine percentage of use so that livestock may be timely removed from an area. ? Existing and new lease agreements include provisions to: 1) limit animal unit months; 2) prevent overgrazing; 3) manage the use of salt blocks to protect vegetation; 4) conduct any weed treatment operations consistent with the North Parachute Ranch Integrated Vegetation Management Guidance Document; and 6) utilize sound animal management practices. ? The grazing management guideline includes grazing lease deferrals as a habitat protection strategy.

21	Deer and Elk	Wildlife - Mitigation	Caerus will continue to develop and maintain water sources. Two new water wells were drilled in 2017 to supply water to impoundments for wildlife consumption. Those sources and others are maintained annually.
22	Deer and Elk	Wildlife - Minimization	Pets will be prohibited on Caerus property.
23	Deer and Elk	Wildlife - Avoidance	Caerus will complete pad expansion and D&C prep construction between 7/15/2020 and 12/15/2020. (Avoid Elk Production period (4/15/2020 – 7/15/2020)).
24	Deer and Elk	Wildlife - Avoidance	Caerus will complete Interim and Final reclamation activities between 7/15/20xx and 12/15/20xx. (Avoid Elk Production period (4/15/20xx – 7/15/20xx)).
25	Deer and Elk	Wildlife - Avoidance	Caerus will reoccupy existing locations and limit all activity to the pad surface and existing access road during the Elk winter production period.
26	Deer and Elk	Wildlife - Mitigation	Caerus will maintain open space (no permanent surface structures) on 20 acres of the Parachute Creek Property.
27	GREATER SAGE-GROUSE	Wildlife - Minimization	Caerus will utilize the BLM suggested seed mix containing native species recommended for Sage Grouse Habitat.
28	GREATER SAGE-GROUSE	Wildlife - Minimization	Caerus will utilize remote telemetry , where possible, to reduce the need for daily well site visitation.
29	GREATER SAGE-GROUSE	Wildlife - Minimization	Caerus will utilize solar panels, where possible, to reduce the need for additional powerlines.
30	GREATER SAGE-GROUSE	Wildlife - Minimization	To reduce truck traffic, Caerus will utilize three-phase gathering pipelines to pump water to the centralized collection point, at the existing, Divide Road Water Treatment Facility.
31	GREATER SAGE-GROUSE	Wildlife - Minimization	Caerus will utilize the existing Divide Road Water Treatment Facility to treat and recycle water.

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 is a an existing pad that will be expanded. Caerus Piceance LLC plans to drill 16 wells. There currently are 4 wells on this pad.

During the on-site with BLM and CPW it was discussed starting construction as early as July 15th to allow for the maximum amount of time that Caerus Piceance LLC can construct, drill and possibly complete. Caerus verbally agreed to no activity between March 1 and July 15th due to the proximity of the active lek to the north of the M33 Frac Support Pad.

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

Signed: _____ Date: _____ Email: rhaddock@caerusoilandgas.com

Print Name: Reed Haddock Title: Sr. Regulatory Specialist

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

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Best Management Practices

No BMP/COA Type

Description

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. 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.
2	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.

3	Wildlife	<p>Standard Best Management Practices (BMPs) for Locations in 'Restricted Surface Occupancy (RSO)' and 'Sensitive Wildlife Habitat (SWH)' Areas within North Parachute Ranch (NPR) Wildlife Mitigation Plan Agreement (WMPA) and Adjacent Site-Wide Development Areas.</p> <p>June 2019 - Caerus and CPW reviewed and updated the practices listed below as best management practices (BMPs) for permits issued by the Colorado Oil and Gas Conservation Commission (COGCC) for Caerus operations in the geographic area referenced in the North Parachute Ranch (NPR) WMPA. The following BMPs shall apply to all permits.</p> <p>Use solar panels as an alternative energy source for on-location production equipment.</p> <p>Use multiple gathering lines placed in a single trench to minimize disturbance and construction.</p> <p>Install trench plugs (sloped to allow wildlife or livestock to exit the trench should they enter) at known wildlife or livestock trails to allow safe crossing on long spans of open trench, when renches are left open longer than 48 hours.</p> <p>Install pipeline crossings at right angles to the drainages, wetlands, and perennial water bodies, at locations where sufficient available working area and existing topography will allow for the use of such construction design measures.</p> <p>Limit in-stream construction activity to 24-hours for water bodies less than ten feet wide and to 48-hours for water bodies greater than ten feet wide at locations where horizontal boring is not feasible.</p> <p>Maintain a minimum of five feet of soil cover between the pipeline and the lowest point of the drainage or water body channel.</p> <p>Perform biological surveys (on-site) for each new development, using the most recent data sets for wildlife and aquatic resources.</p> <p>Perform pre-disturbance surveys when the on-site inspection and commencement of disturbance occur in different field seasons using the most recent data sets for wildlife and aquatic resources.</p> <p>Utilize the Caerus Wildlife Resources Matrix to identify and document potential impacts or concerns during the project planning phase for proposed drilling operations and construction of roads, pads and pipelines.</p> <p>Prohibit Caerus employees and contractors from carrying projectile weapons on Caerus property, except during company organized events.</p> <p>Prohibit pets on Caerus property.</p> <p>Strategically apply fugitive dust control measures, including enforcing established speed limits on Caerus private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.</p> <p>Use engineering controls at all water draw points from Parachute Creek (i.e., overhead loading, one-way valves, install stationary draw hoses with screened intakes) to prevent contamination of the Parachute Creek drainage.</p> <p>Use enclosed, locking garbage receptacles or implement a strict daily trash removal regime on each temporary or permanent work location.</p>	
4	Storm Water/Erosion Control	<p>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.</p>	

5	Construction	<p>The pad will be built as designed and shown on the Construction Layout Drawings. During construction only the minimum amount of vegetation necessary for the construction of roads and facilities will be removed. Topsoil will be conserved during excavation and will be reused as cover on disturbed areas and perimeter berms. No construction or routine maintenance activities are performed during periods when the soil is too wet to adequately support construction equipment. 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.</p> <p>Stormwater BMPs will be installed per details in the Stormwater Management Plan (SWMP) and as shown on the Construction Layout Drawings. Disturbed areas of site will be left in a surface roughened condition.</p> <p>BMPs will be protected, inspected, and repaired as necessary.</p> <p>Active measures to prevent fugitive dust emissions from the well pad, well pad access entrance, and other connecting dirt roads during drilling, completion, and production operations will be implemented. Fugitive dust control measures to reduce dust and coating of vegetation and deposition in water sources include the use of water/fluid dust suppression application, the use of speed restrictions, and regular road maintenance.</p> <p>All new flowline installations will be performed in accordance with new flowline guidance provided by the COGCC concerning the 1100 Series Rules. All new offsite pipelines will be registered in accordance with the 1100 Series Rules.</p> <p>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.</p>	
6	Drilling/Completion Operations	<p>Closed loop system will be used. No pits will be built. An enclosed flare stack will be used.</p> <p>Caerus will ensure 110 percent secondary containment for any potential volume of fluids that may be released.</p> <p>Caerus utilizes a portable containment liner under the substructure of 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.</p> <p>The moisture content of all drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts.</p> <p>All cuttings generated during drilling will be placed in a bermed portion of the well pad prior to beneficial reuse or disposition; the surface where the cuttings will be placed will be constructed to be sufficiently impervious (or temporarily lined) to keep any material from migrating into the subsurface.</p> <p>Flowback and stimulation fluids will be sent to enclosed tanks, separators, or other containment or filtering equipment before the fluids are placed into the offsite (take away) pipeline; no open top tanks can be used for initial flowback fluids containment; and secondary containment for flowback storage tanks will meet the requirements of Rule 906.d.(1).</p>	
7	Interim Reclamation	<p>Once all topsoil has been distributed across the site where interim reclamation is planned, 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.</p> <p>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.</p> <p>Re-countouring to help control run-on and run-off will be done in areas where it will not impede ongoing production operations.</p>	

8	Final Reclamation	<p>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.</p> <p>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. Previously existing drainages will be re-established.</p> <p>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 and county weed management requirements.</p>
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Total: 8 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402204094	NRCS MAP UNIT DESC
402280799	ACCESS ROAD MAP
402280800	CONST. LAYOUT DRAWINGS
402280801	LOCATION DRAWING
402280802	LOCATION PICTURES
402280803	MULTI-WELL PLAN
402280805	REFERENCE AREA MAP
402280806	REFERENCE AREA PICTURES
402280807	HYDROLOGY MAP
402280810	FACILITY LAYOUT DRAWING
402280811	TOPO MAP
402280818	OTHER
402285835	WASTE MANAGEMENT PLAN
402290542	SURFACE AGRMT/SURETY
402290558	CONST. LAYOUT DRAWINGS
402290560	OTHER
402290570	OTHER

Total Attach: 17 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.

