

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:

402342785

(SUBMITTED)

Date Received:

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 316591

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:

316591

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: 96850
Name: TEP ROCKY MOUNTAIN LLC
Address: PO BOX 370
City: PARACHUTE State: CO Zip: 81635

Contact Information

Name: Vicki Schoeber
Phone: (970) 263-2721
Fax: ()
email: vschoeber@terraep.com

FINANCIAL ASSURANCE

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

LOCATION IDENTIFICATION

Name: FEDERAL Number: RG 41-18-297
County: RIO BLANCO
Quarter: NWNE Section: 18 Township: 2S Range: 97W Meridian: 6 Ground Elevation: 6621

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: 648 feet FNL from North or South section line
2087 feet FEL from East or West section line

Latitude: 39.881847 Longitude: -108.322678

GPS Quality Value: 3.2 Type of GPS Quality Value: PDOP Date of Measurement: 08/23/2019

Instrument Operator's Name: J. KIRKPATRICK

LOCAL GOVERNMENT INFORMATION

County: RIO BLANCO 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: Oil or Gas Well Pad Special Use/Building Permit

The local government siting permit was filed on: 04/20/2020

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

Additional explanation of local process:

Rio Blanco County approved the Oil or Gas Well Pad Special Use/Building Permit #COGW-0002-20 on 4/20/2020.

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 #

Well Site is served by Production Facilities 335602

FACILITIES

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

Wells	<u>17</u>	Oil Tanks*	<u> </u>	Condensate Tanks*	<u>6</u>	Water Tanks*	<u>1</u>	Buried Produced Water Vaults*	<u> </u>
Drilling Pits	<u>1</u>	Production Pits*	<u> </u>	Special Purpose Pits	<u> </u>	Multi-Well Pits*	<u> </u>	Modular Large Volume Tanks	<u> </u>
Pump Jacks	<u> </u>	Separators*	<u>20</u>	Injection Pumps*	<u> </u>	Cavity Pumps*	<u> </u>	Gas Compressors*	<u> </u>
Gas or Diesel Motors*	<u> </u>	Electric Motors	<u> </u>	Electric Generators*	<u> </u>	Fuel Tanks*	<u> </u>	LACT Unit*	<u> </u>
Dehydrator Units*	<u> </u>	Vapor Recovery Unit*	<u> </u>	VOC Combustor*	<u>3</u>	Flare*	<u> </u>	Pigging Station*	<u> </u>

OTHER FACILITIES*

Other Facility Type **Number**

Natural Gas Meter(Bargath/Williams) 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:

New pipeline installations will include:
1 - 8" steel gas pipeline (approx. 1397') installed by Bargath between the meter and existing 16" Bargath gas gathering line
1- 6" flexsteel water pipeline (approx. 1502') between separators
17 - 2" steel wellhead flowlines
1 - 2" fuel gas line
3 - 2" flexpipe condensate dump lines
1 - 2" flexpipe produced water dump line
1 - 1" steel natural gas supply line
1 - 4" aluminum surface line from the tank battery to ECDs
An 80 bbl vent tank will be located in the pipeline ROW and will be used for venting the pipeline.
See attached Plan of Development Summary for details on the proposed temporary surface pipelines to be used to support remote frac operations.

CONSTRUCTION

Date planned to commence construction: 09/01/2020 Size of disturbed area during construction in acres: 6.09
Estimated date that interim reclamation will begin: 05/01/2022 Size of location after interim reclamation in acres: 1.35
Estimated post-construction ground elevation: 6621

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: Drilling pit

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: Bureau of Land Management

Phone: 970-878-3800

Address: White River Field Office

Fax: _____

Address: 220 East Market Street

Email: _____

City: Meeker State: CO Zip: 81641

Surface Owner: ☐ Fee ☐ State ☒ Federal ☐ Indian

Check all that apply. The Surface Owner: ☒ is the mineral owner

☒ is committed to an oil and Gas Lease

☒ has signed the Oil and Gas Lease

☐ is the applicant

The Mineral Owner beneath this Oil and Gas Location is: ☐ Fee ☐ State ☒ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: oil and gas lease

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

Date of Rule 306 surface owner consultation _____

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

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:	2454 Feet	2289 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:	2447 Feet	2270 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	5181 Feet	5145 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: 70—Redcreek-Rentsac complex, 5 to 30 percent slopes

NRCS Map Unit Name: 73—Rentsac channery loam, 5 to 50 percent slopes

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: 07/12/2019

List individual species: Bull Thistle

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: 454 Feet

water well: 5220 Feet

Estimated depth to ground water at Oil and Gas Location 500 Feet

Basis for depth to groundwater and sensitive area determination:

Attached Sensitive area determination map

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: No

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 07/15/2019

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	Black Bear	Wildlife - Avoidance	The operator agrees to report bear conflicts immediately to CPW staff.
2	Black Bear	Wildlife - Minimization	The operator will implement Rule 1204.a.1 (also see General Operating Recommendations).
3	Deer and Elk	Wildlife - Minimization	The operator agrees to preclude the use of aggressive CPW-identified non-native grasses and shrubs in mule deer and elk habitat restoration.
4	Deer and Elk	Wildlife - Minimization	To minimize the potential for wildlife related traffic accidents, TEP has implemented speed restrictions for all lease roads and requires that all TEP employees and contractors adhere to the posted speed restrictions.
5	Deer and Elk	Wildlife - Minimization	The operator agrees to use certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife. TEP will use certified weed free grass hay, straw, hay, or other mulch materials used for the reseeded and reclamation of disturbed areas.

6	RAPTORS	Wildlife - Minimization	Exclusionary devices will be installed to prevent bird and other wildlife from accessing equipment stacks , vents, and openings.
7	Deer and Elk	Wildlife - Minimization	The operator and its contractors agree to restrict well site visitations to portions of the day between 10:00 a.m. and 3:00 p.m. when possible, during winter season (Dec 1 through April 15) within CPW-identified mule deer critical winter range and elk winter concentration areas.

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 TEP Rocky Mountain LLC (TEP) is proposing to drill, complete and operate 16 new wells from this existing location which currently has 1 producing well.

The Federal RGU 23-7-297 pad (Loc ID #316408) will be utilized for remote completions operations for the Federal RG 41-18-297 pad. Produced water will be stored at the RG 23-6-297 pad (Loc ID #335602).

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

Signed: _____ Date: _____ Email: vschoeber@terraep.com

Print Name: Vicki Schoeber Title: 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

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<p>Prior to submittal of the Application for Permit to Drill (BLM-APD/Form 2) and the Oil and Gas Location Assessment (Form 2A), TEP conducted onsite and meetings with the Bureau of Land Management (BLM), Colorado Parks and Wildlife, and the associated private landowners. These onsite and meetings were held to discuss TEP's proposed development plan for the RG 41-18-297 pad and associated support facilities (RGU 23-7-297 Pad, RGU 23-6-297 Pad, Love Ranch Centralized Waste Management Facility). Changes were made to the proposed development plan based on feedback received from all stakeholders and included in the APD/Form 2A.</p> <p>The development plan for the RG 41-18-297 pad was prepared to minimize surface impacts to the greatest extent possible through the development of multiple wells from one location by utilizing directional drilling technology, collocating access road and utility corridors within the same area, and through the transportation of produced water to centralized storage facilities on the RGU 23-6-297 pad, thus minimizing the surface area needed to conduct operations on the RG 41-18-297 pad location.</p>
2	Pre-Construction	<p>Prior to commencement of construction activities, TEP will hold a pre-construction meeting with contractors to review proposed site construction and installation of stormwater control measures. The site will be staked for construction prior to pre-construction meeting. Staking will identify the boundaries of the proposed site to protect existing vegetation in areas that should not be disturbed.</p>
3	General Housekeeping	<p>Storage of material and fluids on location during construction, drilling, completion, and production operations will be conducted in a neat and orderly manner with regards to potential fire hazards on site. The well site and access road will be kept free of trash and debris at all time. Disposal of garbage and trash will occur approximately once per week during drilling and completions operations</p>
4	Storm Water/Erosion Control	<p>Stormwater BMPs will be in place during all phases of development to control stormwater runoff in a manner that minimizes erosion, transportation of sediment offsite, and site degradation. Stormwater BMPs will include perimeter controls such as sediment traps, diversion ditches, check dams, waddles, and other control measures necessary to control stormwater run-on and run-off and minimized offsite movement of sediment. Stormwater BMPs will also include site degradation control measures such as grading, slope stabilization methods (i.e. seeding, mulching, surface roughening), perimeter berms, surfacing materials (i.e. gravel), and others necessary to minimize site degradation. Stormwater controls will be installed with consideration given to worker safety, wildlife, and site access. A post-construction stormwater program will be developed for the facility as required per Rule 1002.f.(3). Stormwater is also addressed under a field-wide Stormwater Management Plan (CDPHE Certification COR404628). Please see the construction layout for the planned stormwater BMPs proposed for installation at the site for further details.</p>
5	Dust control	<p>Fugitive dust control measures will be employed during all phase of development to minimize dust pollution. Dust control measures include but are not limited to the application of fresh water via water trucks along access roads during construction, drilling, and completion operations, speed restrictions, periodic road maintenance, road surfacing (i.e. gravel), and automation of wells to reduce truck traffic. Dust control measures will be employed on an as needed based during all phases of development</p>
6	Construction	<p>All construction equipment and materials will be contained within the proposed limits of the oil and gas location, access roads, or pipeline corridors. Topsoil will be stripped from the site and segregated from subsoil for reuse during pad reclamation. Fugitive dust control measures will be implemented as described in the dust control section.</p>
7	Drilling/Completion Operations	<p>Closed loop drilling system will be utilized during drilling of all wells at this location, which eliminates the need for a fluid-containing reserve pit. TEP will utilized remote centralized hydraulic fracturing operations during well completion operations minimizing un-necessary traffic and activities at the pad location. Water used for remote completions operations will be transported through existing pipelines minimizing vehicle traffic on existing roadways. TEP will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completions operations.</p>

8	Interim Reclamation	<p>TEP is proposing to install a produced water pipeline between the RG 41-18-297 pad and TEP's existing water management system, which will minimize the long-term operational activities on the oil and gas location, reduce truck traffic to the location, and minimize the overall disturbance footprint at the RG 41-18-297 pad. TEP will be upgrading facilities at the RG 23-6-297 pad to support centralized storage and management of produced water from the RG 41-18-297 pad. These upgrades are necessary to surface disturbance and reduce operational activities on the RG 41-18-297 pad. Remote telemetry equipment will be installed on location to minimize site visits and truck traffic.</p> <p>Soil samples may be taken following site reclamation to analyze soil characteristics and determine if soil amendments should be added to topsoil during reclamation activities to promote vegetation growth. TEP will conduct period monitoring of reclamation success as required by Federal and State regulations.</p>
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Total: 8 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402398673	ACCESS ROAD MAP
402398674	CONST. LAYOUT DRAWINGS
402398677	HYDROLOGY MAP
402398678	OTHER
402398680	LOCATION DRAWING
402398681	MULTI-WELL PLAN
402398684	REFERENCE AREA MAP
402398687	SENSITIVE AREA DATA
402398689	WASTE MANAGEMENT PLAN
402398708	LOCATION PICTURES
402398710	NRCS MAP UNIT DESC
402398711	NRCS MAP UNIT DESC
402398712	REFERENCE AREA PICTURES
402399285	FACILITY LAYOUT DRAWING
402399295	OTHER
402399745	OTHER
402406244	DOW CONSULTATION

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.

