

FORM
2A
Rev
05/22

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
403135970

Date Received:
12/10/2022

Oil and Gas Location Assessment

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: **322539**
OGDP ID: **483885**
Expiration Date: **08/22/2026**

New Location Refile Amend Existing Location # 322539

If this Location assessment is a component of an Oil and Gas Development Plan (OGDP) application, enter the OGDP docket number(s).

Docket Number	OGDP ID	OGDP Name
220900247		

If this Location assessment is part of an approved Oil and Gas Development Plan, enter the OGDP ID number(s).

OGDP ID Number	OGDP Name
483885	Arco Deep 1-27

CONSULTATION

- This location is included in a Comprehensive Area Plan (CAP). CAP ID # _____
- This Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.
- This Location is within 2,640 feet of a GUDI or Type III Well per Rule 411.b.(4).
- This Location includes a Rule 309.e.(2).E variance request.
- This location includes a Rule 309.f.(1).A.ii. variance request.

Operator

Contact Information

Operator Number: 96850
Name: TEP ROCKY MOUNTAIN LLC
Address: 1058 COUNTY ROAD 215
City: PARACHUTE State: CO Zip: 81635

Name: Jeff Kirtland
Phone: (970) 263-2736
Fax: ()
email: jkirtland@terraep.com

FINANCIAL ASSURANCE FOR THIS LOCATION (check all that apply)

- Plugging, Abandonment, and Reclamation 20160057
- Centralized E&P Waste Management Facility _____
- Gas Gathering, Gas Processing, and Underground Gas Storage Facilities _____
- Surface Owner Protection Bond. _____

Federal Financial Assurance

In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for one or more Wells on this Location.
Amount of Federal Financial Assurance \$ _____

LOCATION IDENTIFICATION

Name: Arco Deep Number: 1-27

Provide the location description and the latitude and longitude of a single point near the center of the Working Pad Surface as a reference for this Location.

Quarter: NESW Section: 27 Township: 6S Range: 97W Meridian: 6 Ground Elevation: 8382
Latitude: 39.492445 Longitude: -108.207885
GPS Quality Value: 2.8 Type of GPS Quality Value: PDOP Date of Measurement: 07/06/2022

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 322524

RELEVANT LOCAL GOVERNMENT SITING INFORMATION

County: GARFIELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "Relevant Local Government approval of the siting of the proposed oil and gas location."

This proposed Oil and Gas Location is in an area designated as one of State interest and subject to the requirements of § 24-65.1-108, C.R.S. No

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this location? No

A siting permit application has been submitted to the Relevant Local Government for this proposed Oil and Gas Location: No

Date Relevant Local Government permit application submitted: _____

Current status or disposition of the Relevant Local Government permit application for this proposed Oil and Gas Location: _____

Status/disposition date: _____

If Relevant Local Government permit has been approved or denied, attach final decision document(s).
Provide the contact information for the Relevant Local Government point of contact for the local permit associated with this proposed Oil and Gas Location:

Contact Name: Kirby Winn Contact Phone: 970-625-5905

Contact Email: kwynn@garfield-county.com

PROXIMATE LOCAL GOVERNMENT INFORMATION

For every Proximate Local Government (PLG) associated with this proposed Oil and Gas Location, provide the PLG's point of contact and their contact information.

< No row provided >

FEDERAL PERMIT INFORMATION

A Federal drilling permit (or related siting application) has been submitted for this proposed Oil and Gas Location: No

Date submitted: _____

Current status or disposition of the Federal drilling permit (or related siting application) for this proposed Oil and Gas Location: _____

Status/disposition Date: _____

If Federal agency permit has been approved or denied, attach the final decision document(s).
Provide the contact information of the Federal point of contact for the Federal permit associated with this proposed Oil and Gas Location.

Contact Name: _____ Contact Phone: _____

Contact Email: _____ Field Office: _____

Additional explanation of local and/or federal process:

RELEVANT LOCAL GOVERNMENT OR FEDERAL PRE-APPLICATION CONSULTATION

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Did a pre-application Formal Consultation Process occur with the Relevant Local Government per Rule 301.f.(3)? No

Date of local government consultation: _____

Did a pre-application Formal Consultation Process occur with the Federal land manager per Rule 301.f.(3)? No

Date of federal consultation: _____

Was an ALA that satisfies Rule 304.b.(2).C (or substantially equivalent information per Rule 304.e) developed during a federal or local government permit application process? If yes, attach the ALA to the Form 2A. No

ALA APPLICABILITY AND CRITERIA

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Does the proposed Oil and Gas Location meet any of the criteria listed in Rule 304.b.(2)B? No

If YES, indicate by checking the box for every Rule 304.b.(2).B criterion met by this proposed Location, and attach an ALA. See Rule 304.b.(2).B.i-x for full text of criteria.

- | | |
|---|--|
| <input type="checkbox"/> i. WPS < 2,000 feet from RBU/HOB | <input type="checkbox"/> vi.aa. WPS within a surface water supply area |
| <input type="checkbox"/> ii. WPS < 2,000 feet from School/Child Care Center | <input type="checkbox"/> vi.bb. WPS < 2,640 feet from Type III or GUDI well |
| <input type="checkbox"/> iii. WPS < 1,500 feet from DOAA | <input type="checkbox"/> vii. WPS within/immediately upgradient of wetland/riparian corridor |
| <input type="checkbox"/> iv. WPS < 2,000 feet from jurisdictional boundary and PLG objects/requests ALA | <input type="checkbox"/> viii. WPS within HPH and CPW did not waive |
| <input type="checkbox"/> v. WPS within a Floodplain | <input type="checkbox"/> ix. Operator using Surface bond |
| | <input type="checkbox"/> x. WPS < 2,000 feet from RBU/HOB/School within a DIC |

Is the proposed Oil and Gas Location within the exterior boundaries of the Southern Ute Indian Reservation, and the Tribe objects to the Location or requests an ALA? If YES, attach an ALA to the Form 2A. No

Operator requests the Director waive the ALA requirement per Rule 304.b.(2).A.i:

Provide an explanation for the waiver request, and attach supporting information (if necessary).

ALTERNATIVE LOCATIONS DASHBOARD

List every alternative location reviewed and included in the ALA. Provide a latitude and longitude for the approximate center of the alternative location, all Rule 304.b.(2).B Criteria met, if a variance would be required to permit the location, and a brief comment on the key points of the alternative location.

304.b.(2).B.i-x Criteria Met:

< No row provided >

SURFACE & MINERAL OWNERSHIP

Surface Owner Info:

Name: Allen Kelton Phone: 303-688-4376
 Address: 574 Mango Drive Fax: _____
 Address: _____ Email: abkelton@gmail.com
 City: Castle Rock State: CO Zip: 80104

Surface Owner at this Oil and Gas Location: Fee State Federal Indian

- Check only one:
- The Operator/Applicant is the surface owner.
 - The Operator has a signed Surface Use Agreement for this Location – attach SUA.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the surface owner owns the minerals beneath this Location and is committed to an oil and gas lease – attach lease map or provide lease description.
 - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the Operator intends to use a surface bond per Rule 703 to secure access to this Location – attach lease map or provide lease description.

Surface Owner protection Financial Assurance type: N/A Surety ID Number: _____

Mineral Owner beneath this Oil and Gas Location: Fee State Federal Indian

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

Lease description if necessary: _____

SITE EQUIPMENT LIST

Indicate the number and type of major equipment components planned for use on this Oil and Gas Location:

Wells	<u>17</u>	Oil Tanks	<u>0</u>	Condensate Tanks	<u>2</u>	Water Tanks	<u>6</u>	Buried Produced Water Vaults	<u>0</u>
Drilling Pits	<u>0</u>	Production Pits	<u>0</u>	Special Purpose Pits	<u>0</u>	Multi-Well Pits	<u>0</u>	Modular Large Volume Tank	<u>0</u>
Pump Jacks	<u>0</u>	Separators	<u>18</u>	Injection Pumps	<u>0</u>	Heater-Treaters	<u>0</u>	Gas Compressors	<u>0</u>
Gas or Diesel Motors	<u>0</u>	Electric Motors	<u>0</u>	Electric Generators	<u>0</u>	Fuel Tanks	<u>0</u>	LACT Unit	<u>0</u>
Dehydrator Units	<u>0</u>	Vapor Recovery Unit	<u>0</u>	VOC Combustor	<u>0</u>	Flare	<u>0</u>	Enclosed Combustion Devices	<u>3</u>
Meter/Sales Building	<u>0</u>	Pigging Station	<u>0</u>	Vapor Recovery Towers	<u>0</u>				

OTHER PERMANENT EQUIPMENT

Permanent Equipment Type	Number
Chemical Tank, 500gal	4
Chemical Pumps	5
Gun Barrel Tank, 500bbl	1
Dual Fuel Generator	1
Produced Water Transfer Pump	1

OTHER TEMPORARY EQUIPMENT

Temporary Equipment Type	Number
Enclosed Water Tanks, 500bbl - FB	3
High Pressure 4 Phase Sep. - FB	2
Emissions Combustion Device(LP)-FB	1
Water Transfer Pump - FB	1
Low Pressure P-Tank, 500bbl - FB	1

GAS GATHERING COMMITMENT

Operator commits to connecting to a gathering system by the Commencement of Production Operations? Yes

If the answer is NO, a Gas Capture Plan consistent with the requirements of Rule 903.e MUST be attached on the Plans tab.

FLOWLINE DESCRIPTION

Per Rule 304.b.(6), provide a description of all onsite and off-location oil, gas, and/or water flowlines.

Off- Location Flowlines:

- 1 - 8" Steel Gas Gathering Line - approx. 8,392'
- 1 - 6" FlexPipe Produced Water Pipeline - approx. 8,298'

Off-Location Flowlines - Temporary:

- 5 - 4.5" Steel Surface Frac Lines - approx. 9,766'
- 2 - 10" HDPE Water Lines - approx. 1,923'

On-Location Flowlines:

- 17- 2" Coated Steel Wellhead flowlines - approx. 120'
- 1- 2" Coated Steel Supply Gas Line Rig Fuel - approx. 120'
- 1- 2" Coated Steel Surface Condensate Dump Lines - approx. 120'
- 1- 2" Coated Steel Produced Water Dump Line - approx. 120'
- 1- 4" Aluminum Surface Process Piping - ECD - approx. 200'
- 1- 2" Coated Steel Blowdown Line - approx. 120'
- 1- 1" Coated Steel Supply Gas Line - ECD - approx. 30'
- 1- 1" Coated Steel Supply Gas Line - Tanks - approx. 120'

CULTURAL DISTANCE AND DIRECTION

Provide the distance and direction to the nearest cultural feature as measured from the edge of the Working Pad Surface.

	Distance	Direction	Rule 604.b Conditions Satisfied (check all that apply):			Details of Condition(s)	604.b. (4)
			604.b. (1)	604.b. (2)	604.b. (3)		
Building:	5280 Feet	NE					
Residential Building Unit (RBU):	5280 Feet	NE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
High Occupancy Building Unit(HOBU)	5280 Feet	SE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Designated Outside Activity Area:	5280 Feet	E					
Public Road:	5280 Feet	SW					
Above Ground Utility:	5280 Feet	E					
Railroad:	5280 Feet	E					
Property Line:	1983 Feet	W					
School Facility:	5280 Feet	SE					
Child Care Center:	5280 Feet	SE					
Disproportionately Impacted (DI) Community:	0 Feet	N					
RBU, HOBU, or School Facility within a DI Community.	5280 Feet	SE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

RULE 604.a.(2). EXCEPTION LOCATION REQUEST

- Operator requests an Exception Location Request from Rule 604.a.(2) [well is less than 150 feet from a property line]. Exception Location Request Letter and Waiver signed by offset Surface Owner(s) must be attached.

CULTURAL FEATURE INFORMATION REQUIRED BY RULE 304.b.(3).B.

Provide the number of each Cultural feature identified within the following distances, as measured from the Working Pad Surface:

	0-500 feet	501-1,000 feet	1,001-2,000 feet
Building Units	<u>0</u>	<u>0</u>	<u>0</u>
Residential Building Units	<u>0</u>	<u>0</u>	<u>0</u>
High Occupancy Building Units	<u>0</u>	<u>0</u>	<u>0</u>
School Properties	<u>0</u>	<u>0</u>	<u>0</u>
School Facilities	<u>0</u>	<u>0</u>	<u>0</u>
Designated Outside Activity Areas	<u>0</u>	<u>0</u>	<u>0</u>

CONSTRUCTION

Size of disturbed area during construction in acres: 6.45

Size of location after interim reclamation in acres: 1.27

Estimated post-construction ground elevation: 8382

DRILLING PROGRAM

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If YES, attach H2S Drilling Operations Plan.

Will salt sections be encountered during drilling: No

Will salt based (>15,000 ppm Cl) drilling fluids 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: Cuttings trench

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: _____

CURRENT LAND USE

Current Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

Describe the current land use:

The current land use for this property is considered rangeland / recreational. The property in the immediate vicinity of the Oil and Gas Location is primarily used for cattle grazing but is also periodically used for recreation, including hunting.

Describe the Relevant Local Government's land use or zoning designation:

Garfield County has a zoning designation of Rural for the property (agricultural resource lands).

Describe any applicable Federal land use designation:

Not applicable since this location is located on private property and is not federal.

FINAL LAND USE

Final Land Use: check all that apply per Rule 304.b.(9).

Crop Land: Irrigated Non-Irrigated Conservation Reserve Program (CRP)

Non-Crop Land: Rangeland Forestry Recreation Other

Subdivided: Industrial Commercial Residential

REFERENCE AREA INFORMATION

If Final Land Use includes Non-Crop Land (as checked above), the following information is required:

Describe landowner's designated final land use(s):

The surface owner does not intend to modify the current land use. Therefore, the final land use designation will remain as rangeland / recreational. The property in the immediate vicinity of the Oil and Gas Location is primarily used for cattle grazing but is also periodically used for recreation, including hunting.

Reference Area Latitude: 39.491615

Reference Area Longitude: -108.207658

Provide a list of plant communities and dominant vegetation found in the Reference Area.

Plant Community	Dominant vegetation
Shrub Land	Utah Serviceberry
Forest Land	Chokecherry
Shrub Land	Mountain Big Sagebrush
Forest Land	Mountain Snowberry
Shrub Land	Gamble Oak
Shrub Land	Mountain Snowberry
Forest Land	Quaking Aspen

Noxious weeds present: Yes

SOILS

List all soil map units that occur within the maximum extent of the proposed Oil and Gas Location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" listing the typical vertical soil profile(s). This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS website at <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/> or from the COGCC website GIS Online map page. Instructions are provided within the COGCC website help section.

NRCS Map Unit Name: 57 - Parachute-Rhone loams, 5 to 30 percent slopes

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

GROUNDWATER AND WATER WELL INFORMATION

Provide the distance and direction, as measured from the Working Pad Surface, to the nearest:

water well: 5280 Feet NE

Spring or Seep: 3048 Feet E

Estimated depth to shallowest groundwater that can be encountered at this Oil and Gas Location: 100 Feet

Basis for estimated depth to and description of shallowest groundwater occurrence:

Hydrogeological indicators do not support the occurrence of shallow groundwater at the site, as depth to groundwater is greater than 50 feet and possibly greater than 100 feet. (Sensitive Area Determination Checklist - WestWater Engineering 09/08/2022)

SURFACE WATER AND WETLANDS

Provide the distance and direction to the nearest downgradient surface Waters of the State, as defined 230 Feet S

in the 100-Series Rules, measured from the Working Pad Surface:

If less than 2,640 feet, is the Waters of the State identified above within 15 stream miles upstream of a Public Water System intake? No

Provide the distance and direction to the nearest downgradient wetland, measured from the Working

Pad Surface: 5280 Feet SW

Provide a description of the nearest downgradient surface Waters of the State:

Unnamed intermittent stream

If the proposed Oil and Gas Location is within a Rule 411.a Surface Water Supply Area buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

If the proposed Oil and Gas Location is within a Rule 411.b GUDI/Type III buffer zone, select the buffer zone type: _____

Public Water System Administrator - Contact Name _____ Email _____

Is a U.S. Army Corps of Engineers Section 404 permit required for the proposed Oil and Gas Location, access road, or associated pipeline corridor? No

If a U.S. Army Corps of Engineers Section 404 permit is required, provide the permit status, and permit number if available:

Is the Location within a Floodplain? No Floodplain Data Sources Reviewed (check all that apply):

Federal (FEMA) State County Local

Other _____

Does this proposed Oil and Gas Location lie within a Sensitive Area for water resources, as defined in the 100-Series Rules? Yes

CONSULTATION, WAIVERS, AND EXCEPTIONS

When Rule 309.e.(2) Consultation must occur, check all that apply:

- This location is included in a Wildlife Mitigation Plan
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within federally designated critical habitat or an area with a known occurrence for a federal or Colorado threatened or endangered species. Provide description in Comments section of Submit tab.
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within an existing conservation easement established wholly or partly for wildlife habitat. Provide description in Comments section of Submit tab.

When Rule 309.e.(3) Consultation is not required, check all that apply:

- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Protection Plan.
- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Mitigation Plan.
- This Oil and Gas Location has been included in a previously approved, applicable conservation plan.

Pre-application Consultation:

- A pre-application consultation with CPW, regarding this Oil and Gas Location, occurred 08/16/2022 on:

CPW Waivers and Exceptions (check all that apply and attach all CPW waivers to this Form 2A):

- The applicant has obtained a Rule 304.b.(2).B.viii CPW waiver for the requirement to complete an ALA.
- The applicant has obtained a Rule 309.e.(2).G CPW waiver and consultation is not required.
- The applicant has obtained a Rule 309.e.(5).D.i CPW waiver and is requesting an exception from Rule 1202.c.(1).R.
- The applicant has obtained a Rule 309.e.(5).D.ii CPW waiver and is requesting an exception from Rule 1202.c.(1).S.
- The applicant has obtained a Rule 309.e.(5).D.iii CPW waiver of Rule 1202.c.(1).T.
- The applicant has obtained a Rule 309.e.(5).D.iv CPW waiver and is requesting an exception from Rule 1202.c.(1) in accordance with an approved CAP.
- The applicant has obtained a Rule 1202.a CPW waiver.
- The applicant has obtained a Rule 1202.b CPW waiver.
- In accordance with Rule 1203.a.(3), the applicant requests an exception from compensatory mitigation Rule(s): _____

HIGH PRIORITY HABITAT AND COMPENSATORY MITIGATION

This Oil and Gas Location, associated access roads, utility, or Pipeline corridor falls wholly or partially within the following High Priority Habitats (Note: dropdown options are abbreviated - see Rule 1202 for full rule text):

High Priority Habitat (list all that apply)	Oil and Gas Location	Access Road	Utility or Pipeline Corridor
1202.c.(1).C - Greater sage-grouse	x	x	x

The following questions are for Oil and Gas Locations that cause the density to exceed one Oil and Gas Location per square mile in Rule 1202.d High Priority Habitat:

Direct Impacts:

Is Compensatory Mitigation required per Rule 1203.a for this Oil and Gas Location? No

Is a Compensatory Mitigation Plan proposed to address direct impacts for this Oil and Gas Location? No

Have all Compensatory Mitigation Plans been approved for this Location? No

If not, what is the current status of each Plan?

NA

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? No

Direct impact habitat mitigation fee amount: \$ _____

Indirect Impacts:

Is Compensatory Mitigation required per Rule 1203.d for this Oil and Gas Location? No

Is a Compensatory Mitigation Plan proposed to address indirect impacts for this Oil and Gas Location? No

Have all Compensatory Mitigation Plans been approved for this Location? No

If not, what is the current status of each Plan?

NA

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? No

Indirect impact habitat mitigation fee amount: \$ _____

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 - Avoidance	TEP will install and utilized bear proof dumpsters and trash receptacles for food- related trash at all facilities that generate trash.
3	RAPTORS	Wildlife - Minimization	Exclusionary devices will be installed to prevent birds and other wildlife from accessing equipment stacks, vents, and openings.
4	RAPTORS	Wildlife - Minimization	TEP will conduct vegetation removal activities outside the migratory bird nesting season (April 1 - August 30). If vegetation removal must occur during the nesting season, TEP will implement hazing or other exclusionary measures prior to April 1 to avoid take of migratory birds. Alternatively, TEP may conduct a migratory bird survey prior to vegetation removal as required by COGCC Rule 1202.a.(8) to avoid take of migratory birds.
5	GREATER SAGE-GROUSE	Wildlife - Minimization	Project construction activities (pad, road, and pipeline) and associated vehicle traffic will be restricted to daylight hours (7 am to 6 pm from July to August and 8 am to 4 pm from September to February).
6	GREATER SAGE-GROUSE	Wildlife - Minimization	Project related vehicles traffic during production operations will be restricted to daylight hours (7 am to 6 pm) except in the event of an emergency.
7	GREATER SAGE-GROUSE	Wildlife - Minimization	A native seed mix beneficial to greater sage-grouse as determined by CPW and approved by the surface owner, will be used during interim reclamation and final reclamation re-seeding activities.
8	GREATER SAGE-GROUSE	Wildlife - Minimization	The operator agrees to reclaim/restore greater sage-grouse habitats with native shrubs, grasses, and forbs identified by CPW that contribute to optimal greater sage-grouse habitat and other wildlife appropriate to the ecological site.
9	GREATER SAGE-GROUSE	Wildlife - Minimization	The operator agrees to make use of tanks and other facilities designed such that they do not provide perches or nest substrates for raptors, crows and ravens.
10	GREATER SAGE-GROUSE	Wildlife - Minimization	The operator agrees to install raptor perch deterrents on equipment, fences, cross arms and pole tops in greater sage-grouse habitat.
11	GREATER SAGE-GROUSE	Wildlife - Minimization	To minimize the potential for impacts to sage-grouse, TEP has implemented speed restrictions for all lease roads and requires that all TEP employees and contractors adhere to these posted speed restrictions.
12	GREATER SAGE-GROUSE	Wildlife - Minimization	Operations involving the use of a drilling rig, workover rig, or fracturing and any equipment used in the drilling, completion or production of a well are subject to and will comply with the Agricultural maximum permissible noise levels described in Rule 423.a.(2).A. of 65 db(A) in the hours between 7:00 a.m. to 7:00 p.m. and 60 db(A) in the hours between 7:00 p.m. to 7:00 a.m.
13	GREATER SAGE-GROUSE	Wildlife - Minimization	Wildlife – Minimization: Site lighting shall be shielded and directed downward, inward, away from the nearby areas where wildlife may be present, and toward operations to avoid glare on nearby roads or wildlife habitat areas
14	GREATER SAGE-GROUSE	Wildlife - Avoidance	Proposed pipeline construction activities within greater sage-grouse Priority Habitat Management Area will be completed outside the CPW recommended timing limitation (March 1 – July 15).

CPW Proposed Wildlife BMPs

No BMP

AIR QUALITY MONITORING PROGRAM

Will the Operator install and administer an air quality monitoring program at this Location? Yes

Operator Proposed BMPs

No BMP

CDPHE Proposed COAs OR BMPs

No BMP

PLANS

Total Plans 11

Uploaded:

- (1) Emergency Spill Response Program consistent with the requirements of Rules 411.a.(4).B, 411.b.(5).B, & 602.j
- (2) Noise Mitigation Plan consistent with the requirements of Rule 423.a
- (3) Light Mitigation Plan consistent with the requirements of Rule 424.a
- (4) Odor Mitigation Plan consistent with the requirements of Rule 426.a
- (5) Dust Mitigation Plan consistent with the requirements of Rule 427.a
- (6) Transportation Plan
- (7) Operations Safety Management Program consistent with the requirements of Rule 602.d
- (8) Emergency Response Plan consistent with the requirements of Rule 602.j
- (9) Flood Shut-In Plan consistent with the requirements of Rule 421.b.(1)
- (10) Hydrogen Sulfide Drilling Operations Plan consistent with the requirements of Rule 612.d
- (11) Waste Management Plan consistent with the requirements of Rule 905.a.(4)
- (12) Gas Capture Plan consistent with the requirements of Rule 903.e
- (13) Fluid Leak Detection Plan
- (14) Topsoil Protection Plan consistent with the requirements of Rule 1002.c
- (15) Stormwater Management Plan consistent with the requirements of Rule 1002.f
- (16) Interim Reclamation Plan consistent with the requirements of Rule 1003
- (17) Wildlife Plan consistent with the requirements of Rule 1201
- (18) Water Plan
- (19) Cumulative Impacts Plan
- (20) Community Outreach Plan
- (21) Geologic Hazard Plan

VARIANCE REQUESTS

Check all that apply:

- This proposed Oil and Gas Location requires the approval of a Rule 502.a variance from COGCC Rule or Commission

Order number: _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

RULE 304.d LESSER IMPACT AREA EXEMPTION REQUESTS

Check the boxes below for all Exemptions being requested. Lesser Impact Area Exemption Request must be attached, and will include all requested exemptions.

- | | |
|--|--|
| <input type="checkbox"/> 304.b.(1). Local Government Siting Information | <input type="checkbox"/> 304.c.(1). Emergency Spill Response Program |
| <input type="checkbox"/> 304.b.(2). Alternative Location Analysis | <input checked="" type="checkbox"/> 304.c.(2). Noise Mitigation Plan |
| <input type="checkbox"/> 304.b.(3). Cultural Distances | <input checked="" type="checkbox"/> 304.c.(3). Light Mitigation Plan |
| <input type="checkbox"/> 304.b.(4). Location Pictures | <input type="checkbox"/> 304.c.(4). Odor Mitigation Plan |
| <input type="checkbox"/> 304.b.(5). Site Equipment List | <input type="checkbox"/> 304.c.(5). Dust Mitigation Plan |
| <input type="checkbox"/> 304.b.(6). Flowline Descriptions | <input type="checkbox"/> 304.c.(6). Transportation Plan |
| <input type="checkbox"/> 304.b.(7). Drawings | <input type="checkbox"/> 304.c.(7). Operations Safety Management Program |
| <input type="checkbox"/> 304.b.(8). Geographic Information System (GIS) Data | <input type="checkbox"/> 304.c.(8). Emergency Response Plan |
| <input type="checkbox"/> 304.b.(9). Land Use Description | <input type="checkbox"/> 304.c.(9). Flood Shut-In Plan |
| <input type="checkbox"/> 304.b.(10). NRCS Map Unit Description | <input type="checkbox"/> 304.c.(10). Hydrogen Sulfide Drilling Operations Plan |
| <input type="checkbox"/> 304.b.(11). Best Management Practices | <input type="checkbox"/> 304.c.(11). Waste Management Plan |
| <input type="checkbox"/> 304.b.(12). Surface Owner Information | <input type="checkbox"/> 304.c.(12). Gas Capture Plan |
| <input type="checkbox"/> 304.b.(13). Proximate Local Government | <input type="checkbox"/> 304.c.(13). Fluid Leak Detection Plan |
| <input type="checkbox"/> 304.b.(14). Wetlands | <input type="checkbox"/> 304.c.(14). Topsoil Protection Plan |
| <input type="checkbox"/> 304.b.(15). Schools and Child Care Centers | <input type="checkbox"/> 304.c.(15). Stormwater Management Plan |
| | <input type="checkbox"/> 304.c.(16). Interim Reclamation Plan |
| | <input type="checkbox"/> 304.c.(17). Wildlife Plan |
| | <input type="checkbox"/> 304.c.(18). Water Plan |
| | <input type="checkbox"/> 304.c.(19). Cumulative Impacts Plan |
| | <input type="checkbox"/> 304.c.(20). Community Outreach Plan |
| | <input type="checkbox"/> 304.c.(21). Geologic Hazard Plan |

OPERATOR COMMENTS AND SUBMITTAL

Comments TEP Rocky Mountain LLC (TEP) is proposing to drill, complete, and operate sixteen (16) directional natural gas wells from the existing Arco Deep 1-27 pad (COGCC Loc ID# 322539) which has one producing well.

The following 304.c Plans are not required for this submittal:

- Emergency Spill Response Program - Location not within 2640' of groundwater under the direct influence of a surface water well or Type III well or surface water that is 15 miles or less upstream from a PWS intake.
- Flood Shut-in Plan - Location is not within a flood plain.
- Hydrogen Sulfide Drilling Plan - Do not expect to encounter H₂S during drilling.
- Community Outreach Plan - Location is not w/in 2000' of a RBU, HOB, or school located w/in a DIC.
- Gas Capture Plan - Will connect to a mid stream gas gathering system prior to commencement of production ops.

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

Signed: _____ Date: 12/10/2022 Email: mlopez@terraep.com

Print Name: Melissa Luke 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: 9/11/2023

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

0 COA

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 reviews and meetings with the Bureau of Land Management (BLM), Colorado Parks and Wildlife, and the associated private landowners. These onsite reviews and meetings were held to discuss TEP's proposed development plan for the Arco Deep 1-27 pad and associated support facilities. Changes were made to the proposed development plan based on feedback received from all stakeholders and included in the APD.</p> <p>The development plan for the Arco Deep 1-27 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 and utilizing existing facilities and infrastructure where possible. This ultimately minimizes the surface area needed to conduct operations on the Arco Deep 1-27 pad.</p> <p>Existing infrastructure operated by Summit and TEP will be utilized for transportation of natural gas and produced water to minimize the surface disturbance required for tying in gathering facilities.</p>
2	Planning	<p>Air Monitoring BMPs: Per APCD requirements, TEP will implement ambient air quality monitoring on site during drilling, completion, and the first six (6) months of production operations; an air monitoring plan will be submitted 60 days prior to start of drilling;</p> <p>TEP will properly maintain vehicles and equipment;</p> <p>Other than safety devices, TEP will use non-emitting pneumatic controllers; and</p> <p>TEP will have adequate and committed pipeline take away capacity for all produced gas and oil.</p>
3	Planning	<p>Pre-Construction: 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.</p> <p>The site will be staked for construction prior to preconstruction meeting. Staking will identify the boundaries of the proposed site to protect existing vegetation in areas that should not be disturbed.</p>

4	General Housekeeping	<p>General Housekeeping BMPs: Vehicular traffic will be minimized as much as possible to reduce nuisance dust and prevent soil erosion;</p> <p>Any trash generated during the project will be disposed of properly at a commercial disposal facility;</p> <p>Any chemicals used will be kept to a minimum;</p> <p>Any chemical or hydrocarbon spills will be cleaned up immediately in accordance with established company procedures;</p> <p>All materials will be stored in a neat and orderly manner in their appropriate containers; and</p> <p>TEP will follow manufacturers' recommendations and company policies for proper use and disposal of products.</p>	
5	General Housekeeping	<p>Site lighting shall be shielded and directed downward, inward, away from the nearby areas where wildlife may be present, and toward operations to avoid glare on nearby roads or wildlife areas.</p>	
6	Wildlife	<p>TEP will inform and educate all employees and contractors on wildlife conservation practices, including no harassment or feeding of wildlife.</p> <p>TEP will install a proposed water pipeline from the Oil and Gas Location to TEP's existing water management system to minimize truck traffic to the location and minimize the potential impacts to wildlife.</p> <p>TEP will minimize direct impact to wildlife habitat by utilizing existing infrastructure and disturbance corridors whenever possible.</p> <p>Well telemetry equipment will be installed to minimize site visitation through remote monitoring of production operations.</p>	
7	Storm Water/Erosion Control	<p>Stormwater control measures 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.</p> <p>Stormwater control measures will include perimeter controls such as sediment traps, diversion ditches, check dams, wattles, and other control measures necessary to control stormwater run-on and run-off and minimize offsite movement of sediment. Control measures will also include site degradation control measure such as grading, slope stabilization methods (i.e., seeding, mulching, surface roughening), perimeter berms, surfacing materials (i.e., gravel), and other necessary controls to minimize site degradation.</p> <p>Topsoil will be stored within a topsoil stockpile south of the proposed pad and will be segregated from all subsurface material. Wattles will be placed around the entire perimeter of the topsoil stockpile to minimize potential for loss of organic materials.</p> <p>Bi-weekly inspection of the pad and stormwater control measures (berms, ditches, sediment basins), and the cuttings trench (berms and precipitation buildup). When necessary, precipitation within the cuttings trench will be pumped out and sent into the TEP proposed produced water management system for disposal.</p>	
8	Storm Water/Erosion Control	<p>All containers will be clearly labeled.</p> <p>Dry materials will be stored on pallets and covered when not in use to avoid contact with precipitation, stormwater, and wind.</p> <p>Potentially hazardous liquid materials in buckets, drums or tanks will be stored within secondary containment, such as soil berms, steel containers or bermed visqueen, to capture accidental spills or leaks. Drums will be kept off the ground within secondary containment and stored under cover, if needed. The berms shall be constructed such that they are sufficiently impervious to prevent the material from being released beyond the confines of the containment system.</p>	

Fuel tanks will be stored within secondary containment.

Container lids will be securely fastened.

In the event of a spill, procedures outlined in TEP's SPRP will be followed. Persons trained in handling spills will be available.

Spill clean-up and containment materials (absorbent, shovels, etc.) will be readily accessible. Spills will be immediately cleaned up and contaminated materials will be properly stored on site until they can be disposed of in accordance with applicable regulations.

Storage areas and containers will be monitored for leaks and repaired or replaced as necessary. Storage areas will be inspected regularly, and any minor spills or leaks will be cleaned up immediately.

As necessary, covers and stormwater diversion structures will be utilized to minimize contact of precipitation and stormwater runoff with materials and wastes with potential to result in discharges causing pollution of surface waters.

TEP's SPRP will be readily available at the field office as a reference to assist in responding to spills at locations where materials are stored or handled.

Material Safety Data Sheets (MSDS) and product labels will be available as per TEP's Hazard Communications (HazCom) program.

Employees will have proper training in materials handling, spill prevention and response.

Stormwater control measures 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 control measures will include perimeter controls and site degradation control measures; these will include a minimum 1.5-foot compacted earthen perimeter berm around the entire working pad surface and around the cuttings trench near the north side of the well pad; topsoil will be stockpiled near the north end of the location within the disturbance area and segregated from all subsurface material; there will be a system of exterior diversion ditches around the entire oil and gas location; these diversion ditches will be fitted with rock check dams and will tie into three (3) sediment catchment basins along the west and south side of oil and gas location; site degradation control measures will include grading, slope stabilization (seeding, mulching, surface roughening of the topsoil stockpile), straw wattles along the toe of all fill slopes, and the use of gravel and road base materials for surfacing; wattles will be placed around the entire perimeter of the topsoil stockpile to minimize potential for loss of organic materials.

Outlet protection should be used when a conveyance discharges onto a disturbed area where there is potential for accelerated erosion due to concentrated flow;

TEP will conduct stormwater inspections immediately after storm events;

Bi-weekly inspection of the pad and stormwater control measures (berms, ditches, sediment basins), and the cuttings trench (berms and precipitation buildup). When necessary, precipitation within the cuttings trench will be pumped out and sent into the TEP proposed produced water management system for disposal.

Documentation / Stormwater Management Plan – if it is infeasible to install or repair a control measure immediately after discovering a deficiency, TEP will document and keep on record in the stormwater management plan: (a) a description of why it is infeasible to initiate the installation or repair immediately; and (b) a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

		<p>A post-construction stormwater program will be developed for the facility as required per Rule 1002.f.(3). Stormwater control is also addressed under a field-wide Stormwater Management Plan.</p>
9	<p>Material Handling and Spill Prevention</p>	<p>Material Handling and Spill Prevention - Water Resource Protection: Informal inspections of all tanks and storage facilities will occur daily during drilling, completions, and production operations;</p> <p>A closed loop drilling system will be employed;</p> <p>The moisture content of drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts;</p> <p>Temporary frac tanks placed on location will have proper secondary containment including a perimeter berm around the Working Pad Surface and containment under the frac tanks;</p> <p>Flowback and stimulation fluids will be sent to enclosed tanks, separators, or other containment/filtering equipment before the fluids are placed into any pipeline storage vessel, other open top containment located on the well pad; or into tanker trucks for offsite disposal; no open top tanks will be used for initial flowback fluids containment;</p> <p>Any temporary surface or permanent surface/buried pipelines (flowlines from wellheads to separators to tanks; and any temporary surface lines used for hydraulic stimulation and/or flowback operations) will be pressure tested in accordance with the 1100-series rules prior to being placed into initial service and following any reconfiguration of the pipeline network; all permanent flowlines from wellheads to separators and from the separators to the tank will also be pressure tested annually;</p> <p>Tank batteries will be placed within engineered, steel secondary containment with an impervious liner system or other secondary containment systems;</p> <p>Pollution control containers (spill boxes) to be used on truck loading lines within the limits of the secondary containment systems;</p> <p>TEP will properly characterize and dispose of all waste streams at facilities approved for acceptance of each waste stream;</p> <p>All wells located on this pad will be equipped with remote shut-in capabilities; and</p> <p>The use of cathodic protection on buried steel lines to mitigate corrosion.</p> <p>If contaminated soils are discovered during the removal and replacement of the existing tank battery, TEP will report, if required, and remediate any contaminated soils per the Waste Management Plan attached to the Form 2A.</p>

10	Material Handling and Spill Prevention	<p>Material Handling and Spill Prevention Fluid Leak Detection: Audio, Visual, and Olfactory (AVO) inspections: AVO inspections will be conducted monthly at the oil and gas location throughout the life of the well pad.</p> <p>Routine inspection of all production equipment, wellheads, temporary equipment, etc.; As described above, routine inspections to be conducted at the oil and gas location will include: Routine physical inspections of production equipment (by TEP production personnel); Air Compliance inspections and monitoring (by TEP Air Compliance staff); SPCC Inspections (by 3rd party contractor), Storm Water Management inspections (by 3rd party contractor), and continuous, dedicated SCADA monitoring of fluid production rates and pressures, and fluid storage volumes (by TEP production personnel).</p> <p>As part of our LDAR, STEM, ooooo inspection / compliance programs, TEP will adhere to the use of Approved Instrument Monitoring Methods (AIMM) for inspecting production equipment and facilities at the oil and gas location.</p> <p>Spill prevention training is provided to all field employees on a monthly basis. The monthly training consists of reviewing past incidents, root causes of the incidents, and what specific actions (lessons-learned) could be taken to prevent the reoccurrence of such incidents in the future.</p> <p>Flowlines will be integrity-tested per the 1100 Series rules.</p> <p>TEP spill response procedures will be adhered to for any spills or releases occurring at the oil and gas location. All spills will be managed in accordance with the COGCC 900 Series rules.</p> <p>Storage Tank Emission Monitoring (STEM) inspections are performed monthly at any location where emissions must be controlled (> 2 tpy).</p> <p>OOOOa inspections are performed semi-annually on any facility constructed after 2015.</p> <p>Flare Logs are completed daily for all locations where active flares and emissions controls are required.</p> <p>Spill prevention training will be provided to all field employees on an annual basis;</p> <p>Any leaks or spills detected during monitoring will be reported within 24 hours in accordance with Rule 912.b;</p> <p>Annual flowline testing will also occur according to COGCC rules 1101 and 1102. Inspection and record retention of flowline testing will be in accordance with COGCC regulation; all records will be made available to the COGCC upon request;</p> <p>All load lines will be bull plugged or capped;</p> <p>All on-location flowlines will be inspected and tested per Rule 1104;</p> <p>All equipment deficiencies will be corrected immediately or as soon as practical (all identified problems and corrections/repairs will be documented and records will be maintained in the TEP's office);</p> <p>TEP will track and clean up all spills, including those that are not reportable;</p> <p>TEP will temporarily shut in all production wells on the pad in the event of any upset condition;</p> <p>All piping is pressure tested and inspected for leaks prior to flowback; and</p> <p>Automation technology will be utilized at this location; this technology includes the use of fluid level monitoring for the tanks and high-level shut offs.</p>
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11	Material Handling and Spill Prevention	<p>Material Handling and Spill Prevention - Per- and Polyfluoroalkyl Substances [PFAS]: If PFAS-containing foam is used at a location, TEP will perform appropriate soil and water sampling to determine whether additional characterization is necessary and inform the need for and extent of interim or permanent remedial actions;</p> <p>If PFAS-containing foam is used at a location, TEP will properly capture and dispose of PFAS contaminated soil and fire and flush water; and</p> <p>If PFAS-containing foam is used at a location: TEP will properly characterize the site to determine the level, nature and extent of contamination.</p>
12	Material Handling and Spill Prevention	<p>Drill Cuttings Management and Sampling Protocols: All cuttings generated during drilling will be kept in a bermed portion of the well pad prior to disposition;</p> <p>The moisture content of any water/bentonite-based drilling mud (WBM) generated cuttings will be minimized through good engineering practices and mechanical processes to prevent the accumulation of liquids greater than de minimis amounts;</p> <p>Solids control and separation equipment will be utilized to separate WBM-generated cuttings solids from liquids (water/bentonite drilling mud);</p> <p>In the event that drill cuttings analytically demonstrate constituents above Table 915-1 standards, the cuttings will be remediated prior to interim reclamation activities to levels below all applicable standards of Table 915-1;</p> <p>No liners will be used or disposed of in the cuttings trench;</p> <p>No offsite disposal of water-based bentonite drilling cuttings to another oil and gas location or third party commercial disposal facilities shall occur without prior approval of an amended Waste Management Plan specifying disposal location and waste characterization method;</p> <p>Contingency Sampling of the water/bentonite based drill cuttings will occur regardless of whether the original "background" or "baseline" samples collected from each well drilled are compliant with Table 915-1. The 6-point composite from each well may be used for preliminary analysis and waste profiling; however, discrete sample results will be required for confirmation sampling. The operator will need to close out the cuttings trench with a Form 27. The operator will propose the number of discrete samples, the locations, and depth intervals for the confirmation samples. The depth intervals will be selected to provide sufficient coverage between 0 and 19 feet below the final top surface of the cuttings within the trench. Upon approval of the Form 27, TEP will collect the proposed samples and analyze them for the Table 915-1 constituents.</p>

13	Dust control	<p>Pad / Road Construction: Fresh water will be periodically applied to disturbance areas during construction to minimize fugitive dust.</p> <p>Fresh water will be used to minimize fugitive dust during construction, drilling, completion, and production operations. TEP will not use produced water or other process fluids for dust suppression.</p> <p>Construction During High Wind: Contractor will monitor wind conditions during site construction. During wind events in excess of 13 miles per hour, TEP construction contractors will apply freshwater from an approved source to the disturbance area of the pad, road, or pipeline corridor to minimize or mitigate propagation of fugitive dust. Accessibility and worker safety will be considered prior to application. During periods of sustained high winds over 20 miles per hour, TEP construction contractors may temporarily suspend work to minimize potential for migration of fugitive dust, ensure worker safety, and to minimize impacts to public health, safety, welfare, the environment, and wildlife.</p> <p>Road Surfacing: The existing lease road will be spot graveled during site construction to ensure there is sufficient gravel on the road to minimize fugitive dust.</p> <p>Speed Restrictions: TEP has implemented speed restrictions on all lease roads and requires all TEP employees and contractors to adhere to all posted speed restrictions. The speed limit for the existing access road is, and will be, twenty (20) miles per hour.</p> <p>Road Maintenance: During long-term production operations, TEP will conduct annual inspections of the existing road and will perform maintenance actions as necessary to ensure road integrity and minimize fugitive dust. Road maintenance actions may include, but not limited to, regrading, spot graveling, storm water control maintenance, and application of magnesium chloride (MgCl₂) and / or fresh water.</p> <p>Site Visitation: TEP will utilize telemetry equipment to minimize well site visitation, when possible, to reduce fugitive dust from vehicles traveling the dirt / gravel roads.</p> <p>Soil Management: Topsoil and stockpiled soils will be stabilized through either tackifiers, seeding practices, or erosion control blankets.</p>
14	Noise mitigation	<p>Any operations involving the use of a drilling rig, workover rig, or fracturing and any equipment used in the drilling, completion or production of a well are subject to and will comply with the Agricultural maximum permissible noise levels in Rule 423.a.(2).A. of 65 db(A) in the hours between 7:00 a.m. to 7:00 p.m. and 60 db(A) in the hours between 7:00 p.m. to 7:00 a.m.; and If a noise complaint is made to either TEP directly, the COGCC, or the local government, and</p> <p>TEP is notified of the complaint, noise levels will be measured within 48 hours of receipt of the complaint; TEP will contact the concerned party (if contact information is available) to discuss the complaint and the results of the noise measurements.</p>
15	Noise mitigation	<p>Any operations involving the use of a drilling rig, workover rig, or fracturing and any equipment used in the drilling, completion, or production of a well are subject to and will comply with the Agricultural maximum permissible noise levels in Rule 423.a.(2).A. of 65 db(A) in the hours between 7:00 a.m. to 7:00 p.m. and 60 db(A) in the hours between 7:00 p.m. to 7:00 a.m.; and</p> <p>If a noise complaint is made to either TEP directly, the COGCC, or the local government, and TEP is notified of the complaint, noise levels will be measured within 48 hours of receipt of the complaint; TEP will contact the concerned party (if contact information is available) to discuss the complaint and the results of the noise measurements.</p>

16	Emissions mitigation	<p>TEP will install equipment designed specifically to aid in the mitigation of VOC emissions from this location; this equipment includes emission control devices (ECDs) and tank load out controls; if one of these pieces of equipment is not operational, facility controls will automatically shut-in the pad until the equipment is back on-line;</p> <p>Test separators and associated flowlines, sand traps, and emission control systems will be installed onsite to accommodate green completions techniques; and</p> <p>Venting/Flaring - TEP will not flare or vent gas during completion or flowback, except in upset or emergency conditions, or with prior written approval from the Director for necessary maintenance operations.</p>	
17	Drilling/Completion Operations	<p>Drilling Operations Oil and gas operations will be in compliance with applicable BLM regulations, the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.</p> <p>Fresh water mud system will be utilized for drilling all proposed wells.</p> <p>Upon tripping out of the hole, the drill pipe will be wiped to remove any residual mud.</p> <p>A catch pan will be mounted around the BOP to catch any mud that falls through the rotary table preventing any spillage and source of odor.</p> <p>The storage of excess drilling fluids (fluids not being used in the active mud system) will be in enclosed, upright tanks.</p> <p>Odor neutralizer will be used in the active mud system for management of odors within 24 hours of receipt of a complaint.</p> <p>A closed loop drilling system will be employed.</p>	
18	Drilling/Completion Operations	<p>Completions Operations Completion operations will be conducted remotely from the MV 1-23 Pad (Location ID: 322524). The MV 1-23 pad is located in a remote area of Garfield County, Colorado, more than 1- mile from the nearest Residential Building.</p> <p>Produced water used for frac water will be treated with Sodium Hypochlorite. Sodium Hypochlorite (NaOCL), commonly referred to as biocide or bleach, will be used for bacterial and microbial control, as well as odor prevention and neutralization. TEP will utilize alternative chemicals if needed to effectively treat various microbials that can develop in produced water.</p>	
19	Drilling/Completion Operations	<p>Flowback Operations All hydrocarbons and produced water recovered will be contained within piping, 4-phase separators, and sealed tanks ensuring all odors are contained. Separated gas will be sent to a gas sales line or high efficiency combustor.</p> <p>In compliance with the Air Pollution Control Division Regulation No. 7, flowback tanks containing hydrocarbon vapors will be fully enclosed with hatches sealed. All vapor present in tanks will be routed to a high efficiency combustor with at least a 98% design destruction efficiency. All produced water from enclosed flowback tanks will be pumped off-location into a pipeline.</p> <p>Odor neutralizer will be added to produced water during flowback for management of odors within 24 hours of receipt of a complaint.</p>	

20	Drilling/Completion Operations	<p>Production Operations</p> <p>Produced water will be transported via pipeline from the proposed produced water pump on the Arco Deep 1-27 pad to the existing water pipeline tie-in point.</p> <p>Hydrocarbon odors from production facilities will be minimized by keeping produced fluid hydrocarbons and natural gas contained within pipes, separators, tanks, and combustors; oil and gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare.</p> <p>All tanks will be sealed with thief hatches and gaskets. Tank vapors are controlled with properly sized piping and combustors.</p>
21	Interim Reclamation	<p>The Oil and Gas Location will be re-contoured to blend as nearly as possible with the natural topography during site reclamation. All subsoil and topsoil separated and segregated during site construction will be replaced to a uniform depth during reclamation recontouring operations.</p> <p>The Oil and Gas Location will be reseeded by drill, broadcast, or hydroseed methods. Drill seeding will be utilized wherever soil characteristics and slope allow for effective operation of a rangeland seed drill.</p> <p>TEP will use a seed mix approved by the surface owner.</p> <p>Erosion control will be implemented per the Stormwater Management Plan included in the Form 2A for this location and will be inspected and maintained as required by Federal, State, and Local regulations.</p> <p>Noxious weeds which may be introduced due to soil disturbance during reclamation would be treated in accordance will applicable Federal, State, and local regulations.</p> <p>Site reclamation will occur within six (6) months following well completion operations.</p> <p>The areas identified to be interim reclaimed will be re-contoured to blend as nearly as possible with the natural topography during site reclamation; all topsoil will be moved from the stockpile area and placed over the facility's cut and fill slopes to a uniform depth to ensure long term topsoil health including protection from erosion, prevention of weed establishment, and maintaining soil microbial activity until final reclamation.</p> <p>The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion.</p> <p>Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location.</p>

22	Interim Reclamation	<p>Interim Reclamation: Interim reclamation will occur within six (6) months following completion of well drilling and completion operations;</p> <p>The areas identified to be interim reclaimed will be re-contoured to blend as nearly as possible with the natural topography during site reclamation; all topsoil will be moved from the stockpile area and placed over the facility's cut and fill slopes to a uniform depth to ensure long term topsoil health including protection from erosion, prevention of weed establishment, and maintaining soil microbial activity until final reclamation;</p> <p>The location will be reseeded by drill, broadcast, or hydroseed methods; drill seeding will be utilized wherever soil characteristics and slope allow for effective operation of a rangeland seed drill;</p> <p>The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion;</p> <p>Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location;</p> <p>Protection from Wind and Water Erosion - topsoiled areas will be covered with certified weed free mulch at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices; and</p> <p>Weed Establishment Prevention - TEP uses Cultural, Mechanical, Biological, and Chemical controls to prevent the establishment of weeds.</p>	
23	Interim Reclamation	<p>Protection from Contamination: based on changes in physical characteristics (e.g., organic content, color, texture, density, or consistency), soil horizons will be segregated and stockpiled separately; stockpiles of different soil types will be separated by compacted earthen berms, sediment control logs, straw bale barriers, etc.; and stockpile surfaces will be stabilized to control for erosion and sedimentation.</p> <p>Protection from Compaction: topsoil stockpiles will be indicated on site with signage; stockpiles will be placed in areas away from vehicle and equipment traffic; and when stockpiling, compaction will be minimized by limiting the number of equipment passes, limiting stockpile height, and using vegetation.</p> <p>Protection from Wind Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc.</p> <p>Protection from Water Erosion: surface roughening, applying hydro-seed/mulch, using soil tackifier, covering stockpiles with rolled erosion control products, etc.</p> <p>Weed Establishment Prevention: TEP uses cultural, mechanical, biological, and chemical controls to prevent the establishment of weeds. TEP's complete Weed Control plan is included in Requirement 12 below.</p> <p>The seed bed will be prepared on all topsoiled areas to alleviate compaction and minimize the potential for erosion.</p> <p>Topsoiled areas will be planted with desirable species or a seed mixture provided by the Surface Owner for this particular location.</p> <p>Protection from Wind and Water Erosion: topsoiled areas will be covered with certified weed free mulch at an application rate specified by the product's manufacturer, or a specification sheet that follows good engineering practices.</p>	
24	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	Project related vehicles traffic during production operations will be restricted to daylight hours (7 am to 6 pm) except in the event of an emergency.	
25	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	Project construction activities (pad, road, and pipeline) and associated vehicle traffic will be restricted to daylight hours (7 am to 6 pm from July to August and 8 am to 4 pm from September to February).	

26	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	The operator agrees to reclaim/restore greater sage-grouse habitats with native shrubs, grasses, and forbs identified by CPW that contribute to optimal greater sage-grouse habitat and other wildlife appropriate to the ecological site.
27	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	The operator agrees to make use of tanks and other facilities designed such that they do not provide perches or nest substrates for raptors, crows and ravens.
28	CPW-Wildlife - Avoidance- BLACK BEAR	TEP will install and utilized bear proof dumpsters and trash receptacles for food-related trash at all facilities that generate trash.
29	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	The operator agrees to install raptor perch deterrents on equipment, fences, cross arms and pole tops in greater sage-grouse habitat.
30	CPW-Wildlife - Avoidance- BLACK BEAR	The operator agrees to report bear conflicts immediately to CPW staff.
31	CPW-Wildlife - Minimization-RAPTORS	Exclusionary devices will be installed to prevent birds and other wildlife from accessing equipment stacks, vents, and openings.
32	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	Operations involving the use of a drilling rig, workover rig, or fracturing and any equipment used in the drilling, completion or production of a well are subject to and will comply with the Agricultural maximum permissible noise levels described in Rule 423.a.(2).A. of 65 db(A) in the hours between 7:00 a.m. to 7:00 p.m. and 60 db(A) in the hours between 7:00 p.m. to 7:00 a.m.
33	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	To minimize the potential for impacts to sage-grouse, TEP has implemented speed restrictions for all lease roads and requires that all TEP employees and contractors adhere to these posted speed restrictions.
34	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	A native seed mix beneficial to greater sage-grouse as determined by CPW and approved by the surface owner, will be used during interim reclamation and final reclamation re-seeding activities.
35	CPW-Wildlife - Avoidance- GREATER SAGE- GROUSE	Proposed pipeline construction activities within greater sage-grouse Priority Habitat Management Area will be completed outside the CPW recommended timing limitation (March 1 – July 15).
36	CPW-Wildlife - Minimization-GREATER SAGE-GROUSE	Wildlife – Minimization: Site lighting shall be shielded and directed downward, inward, away from the nearby areas where wildlife may be present, and toward operations to avoid glare on nearby roads or wildlife habitat areas
37	CPW-Wildlife - Minimization-RAPTORS	TEP will conduct vegetation removal activities outside the migratory bird nesting season (April 1 - August 30). If vegetation removal must occur during the nesting season, TEP will implement hazing or other exclusionary measures prior to April 1 to avoid take of migratory birds. Alternatively, TEP may conduct a migratory bird survey prior to vegetation removal as required by COGCC Rule 1202.a.(8) to avoid take of migratory birds.

Total: 37 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
2473649	LAYOUT DRAWING
2473650	PRELIMINARY PROCESS FLOW DIAGRAMS
2473651	RELATED LOCATION AND FLOWLINE MAP
2473652	NRCS MAP UNIT DESC
2473653	OTHER
2473654	OTHER
2473655	CORRESPONDENCE
2473657	DIRECTOR'S RECOMMENDATION
403135970	FORM 2A APPROVED
403256419	CPW WAIVER
403256420	OTHER
403256423	HYDROLOGY MAP
403256425	DIRECTIONAL WELL PLAT
403256426	LOCATION PICTURES
403256427	REFERENCE AREA MAP
403256428	NRCS MAP UNIT DESC
403256432	REFERENCE AREA PICTURES
403256433	GEOLOGIC HAZARD MAP
403256435	WILDLIFE HABITAT DRAWING
403256436	LOCATION DRAWING
403256437	CONSULTATION SUMMARY
403256438	CULTURAL FEATURES MAP
403284981	SURFACE AGRMT/SURETY
403285347	OIL AND GAS LOCATION GIS SHP
403285561	LESSER IMPACT AREA EXEMPTION REQUEST
403285701	ACCESS ROAD MAP
403526684	FORM 2A SUBMITTED
403526685	PUBLIC COMMENT-0

Total Attach: 28 Files

General Comments

User Group	Comment	Comment Date
OGLA	OGDP ID# 483885 and this Form are approved by Commission Order Number 510-75.	09/08/2023
OGLA	The Director has determined that the OGDP application that this Form is a component of meets all requirements of Rule 306.a. The Director's Recommendation has been attached to the Form 2A.	08/15/2023
OGLA	With Operator concurrence, the following was corrected: Updated Layout Drawing was attached. Updated Preliminary Process Flow Diagram was attached. Corrected Distance to Nearest Downgradient Wetland to 5280 ft. Remote Location ID #322524 was added. Updated Water Plan was attached. Light and Noise BMPs were added to Operator BMP List. Updated Related Location and Flowline Map was attached. Updated NRCS Unit Descriptions was attached. Updated Biologic Report (OTHER Doc #2473653) attached. Updated Plan of Development (OTHER Doc #2473654) attached. Correspondence attached. Updated Dust Mitigation Plan was attached. Updated Waste Management Plan was attached. Updated Fluid Leak Detection Plan was attached. Updated Interim Reclamation Plan was attached. Updated Wildlife Plan was attached.	07/27/2023
OGLA	Changed attachment label from "Pre-Application Certification Notification" to "Consultation Summary" for clarity.	05/03/2023
CPW	Colorado Parks & Wildlife (CPW) has consulted with the operator on this proposed development. CPW affirms that the information contained within the wildlife plan and the operator submitted BMPs accurately captures CPW's recommendations for this proposed development. A Wildlife Determination summary document with a detailed overview of CPW's pre-application consultation with the operator has been provided to COGCC staff for their consideration during development of the Final Director's Recommendation. CPW does not have any objections to this proposal, or additional recommendations that have not already been included within the application materials submitted by the operator. Taylor Elm, March 15, 2023	03/15/2023
OGLA	The Director has determined this OGDP application is complete. Form pushed to IN PROCESS.	02/15/2023
OGLA	Rule 304.d Lesser Impact Area exemption request from Rule 304.c.(3) Light Mitigation Plan granted based on information provided in the request letter that impacts to the resource will be so minimal as to cause no concern. CPW correspondence regarding support for the request is included in the exemption request letter. Light BMPs will be provided by the operator during the technical review.	02/14/2023
OGLA	Rule 304.d Lesser Impact Area exemption request from Rule 304.c.(2) Noise Mitigation Plan granted based on information provided in the request letter that impacts to the resource will be so minimal as to cause no concern. CPW correspondence regarding support for the request is included in the exemption request letter. Noise BMPs will be provided by the operator during the technical review.	02/14/2023
OGLA	Returned to DRAFT for the following reasons: Datafield errors. Attachment issues.	01/10/2023

Total: 9 comment(s)