

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
402877972

Receive Date:

Report taken by:

Site Investigation and Remediation Workplan (Initial Form)

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. However, this shall not preclude the Operator from taking immediate action to protect public health or safety, the environment, wildlife, or livestock.

This Form 27 describes site conditions as currently understood by the Operator; approval of this Form 27 by COGCC is based on the site conditions accurately described herein; any changes in site conditions identified during or subsequent to the performance of the approved workplan may necessitate additional investigation or remediation which shall be described on a supplemental Form 27.

This Form 27 is intended to provide basic information regarding the proposed site investigation and remediation actions, but the workplan may be more fully described in attached documentation.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

OPERATOR INFORMATION

Name of Operator: <u>TEP ROCKY MOUNTAIN LLC</u>	Operator No: <u>96850</u>	Phone Numbers
Address: <u>PO BOX 370</u>		Phone: <u>(970) 623-4875</u>
City: <u>PARACHUTE</u> State: <u>CO</u> Zip: <u>81635</u>		Mobile: <u>(970) 263-2760</u>
Contact Person: <u>Michael Gardner</u>	Email: <u>mgardner@terraep.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: _____ Initial Form 27 Document #: 402877972

PURPOSE INFORMATION

- Rule 913.c.(1): Pit or Cuttings Trench closure.
- Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- Rule 913.c.(3): Remediation of Spill and Releases pursuant to Rule 912.
- Rule 913.c.(4): Land treatment of Oily Waste pursuant to Rule 905.e.
- Rule 913.c.(5): Closure of Centralized E&P Waste Management Facilities pursuant to Rule 907.h.
- Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1.
- Rule 913.c.(7): Investigation and remediation of natural gas in soil or Groundwater.
- Rule 913.c.(8): When requested by the Director due to any potential risk to soil, Groundwater, or surface water.
- Rule 913.c.(9): Decommissioning of Oil and Gas Facilities.
- Rule 913.g: Changes of Operator.
- Rule 915.b: Request to leave elevated inorganics in situ.
- Other: _____

SITE INFORMATION

No Multiple Facilities

Facility Type: <u>LOCATION</u>	Facility ID: <u>336014</u>	API #: _____	County Name: <u>GARFIELD</u>
Facility Name: <u>RIVER RANCH-66S92W 8NWSW</u>	Latitude: <u>39.538952</u>	Longitude: <u>-107.697490</u>	
	** correct Lat/Long if needed: Latitude: <u>39.538960</u>	Longitude: <u>-107.697320</u>	
QtrQtr: <u>NWSW</u>	Sec: <u>8</u>	Twp: <u>6S</u>	Range: <u>92W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications OH

Most Sensitive Adjacent Land Use Gravel pit to the west and rangeland to the east

Is domestic water well within 1/4 mile? No

Is surface water within 1/4 mile? Yes

Is groundwater less than 20 feet below ground surface? Yes _____

Other Potential Receptors within 1/4 mile

Nearest water well is located ~2,440, but does not have a well construction diagram. The next closest well is located ~3,128 feet to the east and indicates a static water level of 6 feet. Surface water pond is located ~475 feet to the north and a wetland marsh area is located ~30 feet south of the spill point of origin.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- E&P Waste Other E&P Waste Non-E&P Waste
- Produced Water Workover Fluids
- Oil Tank Bottoms
- Condensate Pigging Waste
- Drilling Fluids Rig Wash
- Drill Cuttings Spent Filters
- Pit Bottoms
- Other (as described by EPA) _____

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	~8-10" below ground surface	field screening and soil data analysis
Yes	SURFACE WATER	~single detection <915-1 @ 1200' DG	water data analysis
Yes	VEGETATION	~3,000 sq feet	visual impacts on vegetation

INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

Immediately upon discovery, the source of the water was stopped by isolating the defective valve and plugging the poly-line riser. Spill absorbent booms and check dams were installed in efforts to channel the produced water away from the marsh. A vac-truck was immediately dispatched to the location to recover produced water and paraffin from the marsh.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

Six (6) soil samples have been collected within the impacted area upon initial discovery as well as throughout the excavation and remediation process. TEP will continue to collect samples as necessary and analyze them for constituents that exceeded within the initial sampling.

Proposed Groundwater Sampling

Will groundwater samples be collected as part of this investigation? (Number, analyses, and locations of samples):

Groundwater impacts are not expected at this time

Proposed Surface Water Sampling

Will surface water samples be collected as part of this investigation? (Number, analyses, and locations of samples):

Eight (8) surface water sample points have been established with one of them being at the breach point where the spill flowed into the surface water marsh area, one upgradient, and the rest are downgradient. See attached sample location map.

Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan (summary):

TEP will conduct additional excavation of the soils and monitor surface water conditions for any sheen. Vac trucks will be utilized to remove any observed sheen on the surface water.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 15
Number of soil samples exceeding 915-1 9
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 3000

NA / ND

-- Highest concentration of TPH (mg/kg) 1115
-- Highest concentration of SAR 27.9
BTEX > 915-1 Yes
Vertical Extent > 915-1 (in feet) 1

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 6`
Number of groundwater monitoring wells installed _____
Number of groundwater samples exceeding 915-1 _____

Highest concentration of Benzene (µg/l) _____
Highest concentration of Toluene (µg/l) _____
Highest concentration of Ethylbenzene (µg/l) _____
Highest concentration of Xylene (µg/l) _____
Highest concentration of Methane (mg/l) _____

Surface Water

8 Number of surface water samples collected
6 Number of surface water samples exceeding 915-1
If surface water is impacted, other agency notification may be required.

OTHER INVESTIGATION INFORMATION

Were impacts to adjacent property or offsite impacts identified?

Production water flowed out of the riser and into a wetland marsh area. A single, low-level benzene detection was observed within the surface water ~1200 feet downgradient during a 10/11/21 sampling event, however subsequent sampling events indicate no benzene concentrations exceed Table 915-1 thresholds.

Were background samples collected as part of this site investigation?

Six (6) background soil samples were collected from around the location in undisturbed points. One (1) upgradient water sample was collected to determine baseline of the surface water.

Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards) 312 Volume of liquid waste (barrels) 35

Is further site investigation required?

Additional excavation of soils around the riser is planned to help remove possible source of hydrocarbon-contaminated soils that may be the source of a sheen that is periodically observed in select areas.

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The leaking riser has been removed from service and will be rebuilt. The riser will not be used until repairs are made and the riser is tested.

REMEDIATION SUMMARY

Describe how remediation of existing impacts to soil and groundwater is to be accomplished (i.e. summarize remedial action plan). Provide a brief narrative description including: technical justification, schedule for implementation, estimated time to attain NFA status, plus plans and specifications for the selected remedial action technology.

Impacted soils around the release point have been and will continue to be excavated and hauled off site for disposal. Surface water absorbent booms have been placed downgradient and will be replaced as needed. Surface water monitoring will occur bi-weekly by TEP personnel visiting the site and evaluating the surface water for any sheen. If a sheen is observed, vac truck equipment will be dispatched to the site for removal. Sampling of the surface water will be performed as needed to document compliance with 915-1 cleanup standards.

Soil Remediation Summary

In Situ

- _____ Bioremediation (or enhanced bioremediation)
- _____ Chemical oxidation
- _____ Air sparge / Soil vapor extraction
- _____ Natural Attenuation
- _____ Other _____

Ex Situ

- Yes _____ Excavate and offsite disposal
- _____ If Yes: Estimated Volume (Cubic Yards) _____ 312
- _____ Name of Licensed Disposal Facility or COGCC Facility ID # _____
- No _____ Excavate and onsite remediation
- _____ Land Treatment
- _____ Bioremediation (or enhanced bioremediation)
- _____ Chemical oxidation
- _____ Other _____

Groundwater Remediation Summary

- _____ Bioremediation (or enhanced bioremediation)
- _____ Chemical oxidation
- _____ Air sparge / Soil vapor extraction
- _____ Natural Attenuation
- _____ Other _____

GROUNDWATER MONITORING

If groundwater has been impacted, describe proposed monitoring plan, including # of wells or sample points, monitoring schedule, analytical methods, points of compliance. Attach a groundwater monitoring location diagram.

Groundwater impacts are not anticipated at this time as soil analysis indicates compliance with Table 915-1 with the exception to inorganics.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

Quarterly Semi-Annually Annually Other

Request Alternative Reporting Schedule:

Semi-Annually Annually Other

Rule 913.e:

After initial approval of a Form 27, the Operator will provide quarterly update reports in a Supplemental Form 27 to document progress of site investigation and remediation, unless an alternative reporting schedule has been requested by the Operator and approved by the Director. The Director may request a more frequent reporting schedule based on site-specific conditions.

Report Type: Groundwater Monitoring Land Treatment Progress Report O&M Report
 Other _____

WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? _____

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

Volume of E&P Waste (solid) in cubic yards _____

E&P waste (solid) description _____

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: _____

Volume of E&P Waste (liquid) in barrels _____

E&P waste (liquid) description _____

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: _____

RECLAMATION PLAN

RECLAMATION PLANNING

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing.

The area where the spill occurred and excavation took place, reclamation will occur in accordance with the 1000 series rules as well as any other governing agency requirements. Note that the Army Core of Engineers (ACOE) has been contacted and they've confirmed that current activities do not warrant any actions or requirements set forth by the ACOE.

Is the described reclamation complete? No

Does the reclamation described herein constitute interim or final reclamation of the Oil and Gas Location?

Interim Final

Did the Surface Owner provide the seed mix? Yes

 If YES, does the seed mix comply with local soil conservation district recommendations? Yes

Did the local soil conservation district provide the seed mix? No

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. _____

Proposed date of completion of Reclamation. _____

IMPLEMENTATION SCHEDULE

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

PRIOR DATES

Date of Surface Owner notification/consultation, if required. 10/12/2021

Actual Spill or Release date, or date of discovery. 10/11/2021

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 10/11/2021

Proposed site investigation commencement. 10/11/2021

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. 10/13/2021

Proposed date of completion of Remediation. 12/10/2021

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

OPERATOR COMMENT

Please forward onto John Heil

This Initial Form 27 is being submitted for the River Ranch A riser spill as well as provide updated information on the status of the spill and remediation efforts.

Follow-up soil samples have been collected on 11/12/21 from the sample points that contained exceeding constituents from the 10/27/21 sampling event, but samples are still being analyzed by Pace Laboratories. Updated data trackers and sample location maps have been attached for reference.

Additional excavation is anticipated during the week of November 29 - December 3 to address any residual soil impacts that may be around the riser which are contributing to a sheen on the surface water observed by COGCC personnel during inspections.

TEP is currently conducting daily inspections of the site and dispatching a vac truck if at any time a sheen or signs of hydrocarbon presence is observed within the surface water.

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

Signed: Michael Gardner

Title: TEP Environmental

Submit Date: _____

Email: mgardner@terraep.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: _____

Date: _____

Remediation Project Number: _____

COA Type

Description

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Attachment Check List

Upon approval, the approved Form 27 and all listed attachments will be indexed to the Remediation Project file. Only the approved Form 27 will also be indexed to the related Facilities.

<u>Att Doc Num</u>	<u>Name</u>
402878143	ANALYTICAL RESULTS
402878144	ANALYTICAL RESULTS
402878146	ANALYTICAL RESULTS
402878148	ANALYTICAL RESULTS
402878149	ANALYTICAL RESULTS
402878151	ANALYTICAL RESULTS
402878161	ANALYTICAL RESULTS
402878169	ANALYTICAL RESULTS
402878171	ANALYTICAL RESULTS
402878173	ANALYTICAL RESULTS
402878198	ANALYTICAL RESULTS
402878201	MAP
402878202	SOIL SAMPLE LOCATION MAP

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)