

State of Colorado
Oil and Gas Conservation Commission

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Report taken by:
John Heil

Site Investigation and Remediation Workplan (Supplemental 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: TEP ROCKY MOUNTAIN LLC	Operator No: 96850	Phone Numbers
Address: 1058 COUNTY ROAD 215		Phone: (970) 263-2760
City: PARACHUTE State: CO Zip: 81635		Mobile: (970) 623-4875
Contact Person: Michael Gardner	Email: mgardner@terraep.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 3868 Initial Form 27 Document #: 200103666

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: Historical Spill Closure

SITE INFORMATION

No Multiple Facilities

Facility Type: WELL	Facility ID: _____	API #: 045-10239	County Name: GARFIELD
Facility Name: PA 21-6	Latitude: 39.472064	Longitude: -108.043779	
** correct Lat/Long if needed: Latitude: 39.471877		Longitude: -108.043723	
QtrQtr: NENW	Sec: 6	Twp: 7S	Range: 95W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications CL Most Sensitive Adjacent Land Use RANGELAND
Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? No
Is groundwater less than 20 feet below ground surface? No

Other Potential Receptors within 1/4 mile

Ephemeral drainages lie ~375 feet to the north and ~830 feet to the south, but were dry at the time of release and during sampling. Nearest live water is the Colorado River which is located approximately 4,300 feet to the south

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	PAD AND MINOR AREAS OFF THE PAD	VISUAL SITE INSPECTION

INITIAL ACTION SUMMARY

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

SEE FORM 19 AS TO WHAT CAUSED THE SPILL AND ACTIONS TAKEN BY WILLIAMS PERSONNEL.

Update 10/25/2022: As outlined within the initial Form 19 and Initial Form 27 submitted in 2007. Equipment failure is believed to be the cause of the release. Upon discovery, crew immediately isolated the pipe section causing the spill and performed maintenance. Hydro-vac trucks were utilized to recover any of the free standing liquids that was released and co-mingled on the pad with snow/ice from the previous days storms. Because of the timeframe of when the release occurred, limited documentation is available due to laboratory and subcontractor spill response company records retention policies.

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):

Original data reports could not be located due to the record retention policies in place with the laboratory. Because the original data reports could not be obtained, TEP elected to collect new samples, which would be analyzed for the COGCC Table 915-1 clean-up standards to ensure compliance with current regulations.

Proposed Groundwater Sampling

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

[Empty text box for groundwater sampling details]

Proposed Surface Water Sampling

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

[Empty text box for surface water sampling details]

Additional Investigative Actions

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

[Empty text box for additional investigative actions]

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 4
Number of soil samples exceeding 915-1 0
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 1200

NA / ND

Highest concentration of TPH (mg/kg) _____
Highest concentration of SAR _____
BTEX > 915-1 No
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) 100
Number of groundwater monitoring wells installed 0
Number of groundwater samples exceeding 915-1 0

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

0 Number of surface water samples collected
0 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?

Were background samples collected as part of this site investigation?

Three background samples were collected from nearby undisturbed locations for arsenic, Cr6 and inorganics

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

Volume of solid waste (cubic yards) _____ Volume of liquid waste (barrels) _____

Is further site investigation required?

REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? Yes

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Release fluids were recovered by a hydro-vac truck at the time of the incident, as well as during the course of frac operations as free standing water would accumulate from precipitation events.

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.

As previously stated, records pertaining to the 2007 release were very limited due to record retention policies by laboratories and subcontractor personnel. Clean-up operations consisted on hydro-vac truck removal at the time of release, as well as additional soil clean-up work typically conducted at the completion of frac operations. Soils that remain on site satisfy COGCC Table 915-1 standards and do not require any further remediation.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation
_____ Air sparge / Soil vapor extraction
_____ Natural Attenuation
_____ Other _____

If Yes: Estimated Volume (Cubic Yards) _____
Name of Licensed Disposal Facility or COGCC Facility ID # _____
Yes _____ Excavate and onsite remediation
No _____ Land Treatment
No _____ Bioremediation (or enhanced bioremediation)
No _____ Chemical oxidation
Yes _____ Other soil lefts in place and tested once
equipment was removed _____

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 HAS NOT BEEN IMPACTED.

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 _____

Adequacy of Operator's General Liability Insurance and Financial Assurance

Describe the adequacy of the Operator's general liability insurance and Financial Assurance to fully address the anticipated costs of Remediation, including the estimated remaining cost for this project (below).

If this information has been provided on a Form 27 within the last 12 months, provide the Document Number of that form.

Operator anticipates the remaining cost for this project to be: \$ _____

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: _____

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes _____

If YES:

Compliant with Rule 913.h.(1).

Compliant with Rule 913.h.(2).

Compliant with Rule 913.h.(3).

Do all soils meet Table 915-1 standards? Yes _____

Does the previous reply indicate consideration of background concentrations? Yes _____

Does Groundwater meet Table 915-1 standards? Yes _____

Is additional groundwater monitoring to be conducted? _____

Operator shall comply with the COGCC 1000-Series Reclamation Requirements for all impacted and disturbed areas.

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.

AFTER EXCAVATION AND CONFIRMATORY SAMPLING THE IMPACTED AREAS WILL BE FILLED WITH CLEAN FILL UTILIZING EXISTING SOIL ON THE PAD AND ANY DAMAGE TO THE STORMWATER CONTRLS ALREASY IN PLACE WILL BE REPAIRED AND RE-ENFORCED. IMPACTED AREAS OFF THE PAD WILL BE RECONTOURED TO THEIR ORIGINAL CONFIGURATION.

Is the described reclamation complete? Yes _____

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? _____

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

Did the local soil conservation district provide the seed mix? _____

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. _____

Actual Spill or Release date, or date of discovery. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). _____

Proposed site investigation commencement. 01/22/2007

Proposed completion of site investigation. 01/22/2007

REMEDIAL ACTION DATES

Proposed start date of Remediation. _____

Proposed date of completion of Remediation. _____

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

In response to NOAV Doc# 403003375, this Supplemental Form 27 is being submitted to provide closure documentation for the PA 21-6 release that occurred in January 2007 and issued REM# 3868 on the Initial Form 27 (Doc# 200103666). A status update was provided via Supplemental Form 27 (Doc# 403120823) on 7/29/2022, outlining TEP proposed course of actions.

As outlined within the status update Supplemental Form 27 (Doc# 403120823) submitted on 7/29/2022, TEP has completed an evaluation of the incident and the only records that were obtained from subcontractor personnel were photos of the initial release and remediation from an old digital camera memory card. Photos were used to determine the area of impacts and allow TEP personnel to collect new samples from within the area where the release occurred in 2007. It was decided to collect a new sample due the date of the incident extending beyond the laboratory and subcontractor record retention policies, making the original data reports unavailable. Additionally, three background samples have been collected for metal and inorganic comparison. Confirmation sampling analysis consisted of COGCC Table 915-1 constituents to comply with current regulatory requirements.

Samples were collected as shown within the attached sample location map from depths of 0-12" below ground surface. Visual assessment of the area where the release occurred did not indicate any signs of impacts (stressed vegetation, staining, white crusting, hydrocarbon odors, etc.) nor did field screening results suggest a hydrocarbon concentration at or above COGCC thresholds. Results from the confirmation sampling confirmed that soils do not exceed COGCC Table 915-1 thresholds.

It should be noted that these samples and impacted area map will also be used to provide confirmation to another release that occurred on the same PA 21-6 location the month after (February). The two spills had overlapping areas of impact and occurring during the same frac operation occupation. The other spill that the same documentation will be used for is REM# 3886. Below is a quick breakdown;

Incident #1 January 2007 REM# 3868
Incident #2 February 2007 REM# 3886

Photos of the release that were obtained are attached to show the area of impacts during the initial response in 2007, as well an additional photo log shows the location as it is today (2022).

TEP is requesting closure of this 2007 historical release and REM# 3868.

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

Signed: Kris Rowe

Title: TEP Environmental

Submit Date: 10/28/2022

Email: krowe@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: John Heil

Date: 12/20/2022

Remediation Project Number: 3868

COA Type

Description

COA Type	Description
1 COA	Based on a review of the information provided, it appears that no further action is necessary at this time and COGCC approves the closure request. Should conditions at the site indicate contaminant concentrations in soils exceeding COGCC standards, or, if groundwater is found to be significantly impacted, further investigation and/or remediation activities may be required at the site.

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.

Att Doc Num

Name

Att Doc Num	Name
403207856	FORM 27-SUPPLEMENTAL-SUBMITTED
403207909	PHOTO DOCUMENTATION
403207910	SITE INVESTIGATION REPORT
403207911	SITE INVESTIGATION PLAN
403207913	PHOTO DOCUMENTATION
403207917	SOIL SAMPLE LOCATION MAP
403207919	ANALYTICAL RESULTS

403207920	ANALYTICAL RESULTS
403207933	ANALYTICAL RESULTS

Total Attach: 9 Files

General Comments

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

Total: 0 comment(s)