

State of Colorado
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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Receive Date:

Report taken by:

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 ECMC 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: TALLGRASS WATER WESTERN LLC	Operator No: 10608	Phone Numbers
Address: 370 VAN GORDON STREET		Phone: (316) 322-3514
City: LAKEWOOD	State: CO	Zip: 80228
Contact Person: Scott Yount	Email: scott.yount@tallgrass.com	Mobile: (316) 322-3514

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 36100 Initial Form 27 Document #: 403844188

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: SPILL OR RELEASE	Facility ID: 486406	API #: _____	County Name: WELD
Facility Name: SPILL/RELEASE POINT		Latitude: 40.804528	Longitude: -103.811806
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: SWSE	Sec: 25	Twp: 10N	Range: 58W
		Meridian: 6	Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications SC

Most Sensitive Adjacent Land Use None

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? No

Other Potential Receptors within 1/4 mile

The Site is surrounded by vacant rangeland and oil and gas production facilities. There are no residences, wetlands, surface waters or wildlife habitat within 0.25 miles of the Site. A 2.3 acre unnamed ephemeral freshwater emergent wetland is mapped in the National Wetlands Inventory (NWI) 2,440 feet west-southwest of the release point. Groundwater monitoring well Permit 53348-MH, mapped by DWR approximately 0.97 mile west-northwest of the release, reported static water levels at 38.34ft-bgs at the time of completion

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	85' by 45'	visible impacts to soil

INITIAL ACTION SUMMARY

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

The line was shut in to prevent the release of additional brine water. The line has been exposed and it appears that the release was due to the failure of a fitting on the pipeline riser. Tallgrass estimates that approximately 75 barrels of brine water was released, approximately 10 barrels of brine water was recovered.

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):

During the initial spill response, one waste characterization sample was submitted for analysis of all contaminants of concern listed in Table 915-1. Four background samples were collected at two locations at two feet bgs and five feet bgs. Based on the waste characterization sample results, Tallgrass requested an amended analysis of contaminants of concern which was approved by the COGCC. A map of soil sample locations will be provided in subsequent Form 27 submittals.

Proposed Groundwater Sampling

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

Proposed Surface Water Sampling

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

Additional Investigative Actions

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

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 35
Number of soil samples exceeding 915-1 20
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 3500

NA / ND

ND Highest concentration of TPH (mg/kg) _____
-- Highest concentration of SAR 43.2
BTEX > 915-1 Yes
Vertical Extent > 915-1 (in feet) 11

Groundwater

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

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

Surface Water

0 Number of surface water samples collected
____ 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?

Four background samples were collected at two locations at two and five feet bgs.

☐ 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? No

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Repairs have been made to the fitting associated with the pipe riser have been made

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.

Initial remediation of the site consisted of the removal of visibly impacted soil. Discrete soil confirmation were collected from the excavated area in accordance with the COGCC excavation guidance document and compared to the approved reduction of Table 915-1 contaminants of concerned. Lab data indicates that additional soil removal is required. Removal of impacted soil will continue until confirmation soil samples indicate that cleanup levels have been achieved. Implementation of the excavation of impacted soil is in progress, determining obtaining NRA status is difficult due to delays in receiving lab data and the presence of several third-party pipelines in the excavated area.

Soil Remediation Summary

☐ In Situ

☒ Ex Situ

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

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

Groundwater Remediation Summary

☐ No Bioremediation (or enhanced bioremediation)
☐ No Chemical oxidation
☐ No Air sparge / Soil vapor extraction
☐ No Natural Attenuation
☐ No 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.

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 Removal of impacted soil

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.

We have \$35M in General Liability limits with a self-insured retention of \$2,000,000. The current estimate for complete remediation of this project is well within our self-insured retention, currently estimated around \$200,000. Our net income last year was over \$540,000,000 we have the financial ability to cover the remediation costs

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

WASTE DISPOSAL INFORMATION

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

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

None

Volume of E&P Waste (solid) in cubic yards 830

E&P waste (solid) description Produced water impacted soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Pawnee Waste LLC

Volume of E&P Waste (liquid) in barrels 0

E&P waste (liquid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC 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?

Does Groundwater meet Table 915-1 standards? Yes

Is additional groundwater monitoring to be conducted? _____

Operator shall comply with the ECMC 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.

Reclamation will be conducted in accordance with COGCC 1004 Series Rules. Will work with landowner to ensure the chose of seed mix is acceptable

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? _____

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. 04/08/2024

Actual Spill or Release date, or date of discovery. 04/08/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 04/10/2024

Proposed site investigation commencement. 04/16/2024

Proposed completion of site investigation. 08/08/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/10/2024

Proposed date of completion of Remediation. 11/13/2024

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

Following discovery of the release, Tallgrass Water Western LLC conducted remedial excavation utilizing hydro-vacuum and conventional excavation equipment to remove approximately 830 cubic yards of suspected impacted soils for disposal at Pawnee Waste, LLC in Grover, Colorado. Confirmation grab soil samples were collected at the floor and sidewalls of excavation until the vertical and horizontal extents of excavation were compliant with ECOM Table 915-1 Residential Soil Screening Levels and site-specific background limits – except for localized pH and arsenic exceedances discussed below

Division of Water Resources groundwater monitoring well (Permit Number 53348-MH), registered approximately 5,100 feet west-northwest of the spill/release point, reported static water levels at 38.34ft-bgs at the time of completion. Groundwater is anticipated to be greater than 20 feet below the greatest extent of soil impacts related to this release (11ft-bgs). Soil logged during sampling noted silty sands to approximately 4-5ft-bgs, underlain by dense light-colored sandy clays. Based on this, Tallgrass respectfully requests the use of Residential Soil Screening Levels at this location.

Laboratory analytical results for confirmation grab soil samples SS17@4, SS18@4, SS19@4, SS20@3, SS22@6, SS27@3 and SS28@3 reported concentrations above Table 915-1 Residential Soil Screening Limits and established site-specific background limits for pH, and/or arsenic. Since these results represented the only exceedances reported at these sample locations, and the reported analytical results were minimally above regulatory limits, the soil samples were requested to be re-analyzed by the laboratory. Original results and the rerun results are displayed in the report and summary tables; rerun results are denoted with the suffix 'RE'. However, for the purposes of this remediation closure request, rerun results for arsenic only are intended to demonstrate compliance. Based on these investigation and rerun results, the elevated arsenic at soil sample SS17@4, SS18@4, SS19@4, SS20@3, SS22@6, SS27@3, and SS28@3 are shown to be compliant in rerun results or are within range of background limits, are de minimus in quantity, and do not appear to be related to E&P Waste. Elevated pH at soil samples SS19@4 and SS27@3 are also within range of background limits, are de minimus in quantity, and do not appear to be related to E&P Waste.

Tallgrass respectfully requests no further action determination for Remediation Project Number 36100 and Spill/Release ID 486406.

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

Signed: Scott Yount

Title: Sr EHS Specialist

Submit Date: _____

Email: scott.yount@tallgrass.com

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

ECMC Approved: _____

Date: _____

Remediation Project Number: 36100

COA Type

Description

0 COA	

ATTACHMENT 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

403998696	ANALYTICAL RESULTS
403998698	ANALYTICAL RESULTS
403998699	ANALYTICAL RESULTS
403998700	ANALYTICAL RESULTS
403998701	ANALYTICAL RESULTS
403998702	SITE MAP
403998704	SOIL SAMPLE LOCATION MAP
403998706	OTHER
403998707	PHOTO DOCUMENTATION

Total Attach: 9 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)