

State of Colorado
Energy & Carbon Management Commission

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404295775
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: WESCO OPERATING INC Operator No: 95520 Phone Numbers
Address: 120 S DURBIN STREET Phone: (970) 6587025
City: CASPER State: WY Zip: 82602 Mobile: (970) 6587025
Contact Person: Parker Coit Email: Parker.Coit@wsp.com

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 5151 Initial Form 27 Document #: 2608147

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: Update to Remediation Project Number (RPN) 5151.

SITE INFORMATION

No Multiple Facilities

Facility Type: LOCATION Facility ID: 312985 API #: _____ County Name: MOFFAT
Facility Name: MAUDLIN GULCH UNIT-64N95W Latitude: 40.272118 Longitude: -108.016071
35NWSE
** correct Lat/Long if needed: Latitude: _____ Longitude: _____
QtrQtr: NWSE Sec: 35 Twp: 4N Range: 95W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use PASTURE
Is domestic water well within 1/4 mile? Yes 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

NONE IDENTIFIED.

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) Crude oil and produced water contaminated soil.

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	TBD	Soil samples

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 initial form 19, Initial Form 27 document number (DN) 2608147 and supplemental form 27 DN:404187840 for information on activities completed prior to the submission of this supplemental form.

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):

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

NA / ND

Number of soil samples collected 7

-- Highest concentration of TPH (mg/kg) 162.3
4

Number of soil samples exceeding 915-1 7

-- Highest concentration of SAR 13.7

Was the areal and vertical extent of soil contamination delineated? Yes

BTEX > 915-1 No

Approximate areal extent (square feet) 0

Vertical Extent > 915-1 (in feet) 0

Groundwater

Number of groundwater samples collected 0

ND Highest concentration of Benzene (µg/l)

Was extent of groundwater contaminated delineated? Yes

ND Highest concentration of Toluene (µg/l)

Depth to groundwater (below ground surface, in feet)

ND Highest concentration of Ethylbenzene (µg/l)

Number of groundwater monitoring wells installed

ND Highest concentration of Xylene (µg/l)

Number of groundwater samples exceeding 915-1

NA 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?

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.

No source was identified.

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.

There are no plans for additional remediation.

Soil Remediation Summary

In Situ

Ex Situ

 Bioremediation (or enhanced bioremediation)

 Excavate and offsite disposal

 Chemical oxidation

If Yes: Estimated Volume (Cubic Yards)

 Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or ECMC Facility ID #

Yes Natural Attenuation

Excavate and onsite remediation

Yes Other See Enclosure C of attached report. Site soils were rototilled and disced in 2012.

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.

NOT APPLICABLE.

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: \$ 0 _____

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 _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____

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

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? Yes _____

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.

No reclaim is currently planned.

Is the described reclamation complete? _____

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). 06/24/2010

Proposed site investigation commencement. 06/24/2010

Proposed completion of site investigation. 12/31/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/24/2010

Proposed date of completion of Remediation. 12/31/2025

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

The initial spill was in June 2010 with a reported volume of 0.05 barrels of oil and 0.05 barrels produced water that occurred under the previous operator (Wold). Wold and Wesco completed repeated discing and/or rototilling along areas of the spill path in 2012. Wesco completed least three soil sampling events with reports submitted to the ECMC (formerly COGCC) and subsequent soil excavation. The soil excavation was completed in 2013. A follow-up letter or email documenting the soil removal work possibly with a request for spill closure may have been submitted to the COGCC at the time the excavation work was completed.

Based on the analytical results presented in the attached ROWC, WSP suggests that Wesco apply Footnote 3 of ECMC's Table 915-1 to the analytical results for sample "MAUD26-SS03@21". Footnote 3 allows for the concentration level of SAR to be modified with the ECMC's Directors approval based on land use, depth, and characteristics of the vegetative community. . Although sample "MAUD26-SS03@21" indicated elevated laboratory results of SAR, the future use for this area is for hunting and grazing/wildlife habitat. Current and future land use is non-crop rangeland. Since there are no future plans to disturb this area, and the native vegetation does not appear to be hindered, this area should remain undisturbed and be left to naturally attenuate over time. Enclosure A includes photos documenting current state of the vegetation at the Site.

WSP believes that the exceedances in pH and EC for confirmation soil samples MAUD26-SS03 and MAUD26-SS04 are not related to the historic spill at the Site. Based on the historic lab results for the samples collected by Wesco on May 2nd, 2011, the pH and EC values recorded ranged from 7.3 to 7.9 for pH and 0.40 to 3.66 for EC, all within COGCC standards at the time. WSP believes the exceedances of pH and EC are likely related to natural mineral weather in native soils in and around the Site.

Twelve background samples have been collected and analyzed in the Maudlin Gulch field within an approximate 2-mile radius of the Site. All twelve background samples analytical data indicate elevated arsenic levels in native soils, which is likely due to natural mineral weathering . The arsenic levels in the background samples range from 3.35 mg/kg to 8.25 mg/kg which all exceed the ECMC Table 915-1 RSSCLs of 0.68 mg/kg. On page 44 of ECMC's 900 Series – Environmental Impact Prevention, the document states that, "The Director will consider Residential Soil Screening Level Concentrations up to 1.25 times site specific background levels for metals in soil." The highest reported arsenic concentration from the Site is 6.99 mg/kg and the highest recorded background concentration of arsenic from the Maudlin Gulch field is 8.25 mg/kg. Therefore, 1.25 times the highest recorded background concentration is 10.31 mg/kg which is well above the highest reported arsenic concentration of 6.99 mg/kg. Figure 3 includes a map of all background soil sample locations in the vicinity of the Site, and Table 2 includes a list of all background soil sampling analytical results from the Maudlin Gulch field.

Based on the information above, WSP recommends that Wesco request the ECMC for relief of EC, pH, SAR, and arsenic Table 915-1 (RSSCLs) exceedances. Historic exceedances from the spill have naturally attenuated overtime, and WSP recommends that Wesco submits a request to the ECMC asking that No Further Action is needed for the Maudlin 26 spill, and that the Remediation Project be closed (RPN 5151).

Please reference ECMC Supplemental Form 27 DN 404295775 for summaries of the information provided in this ROWC.

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

Signed: Parker Coit

Title: PG

Submit Date: _____

Email: Parker.Coit@wsp.com

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

ECMC Approved: _____

Date: _____

Remediation Project Number: 5151

COA Type

Description

0 COA	
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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

404295869	ANALYTICAL RESULTS
404311668	REMEDATION PROGRESS REPORT

Total Attach: 2 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)