

# State of Colorado Oil and Gas Conservation Commission

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Document Number:

402170695

Receive Date:

11/20/2019

Report taken by:

KRIS NEIDEL

## 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.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

### OPERATOR INFORMATION

|                                                        |                                           |                              |
|--------------------------------------------------------|-------------------------------------------|------------------------------|
| Name of Operator: <u>WESCO OPERATING INC</u>           | Operator No: <u>95520</u>                 | <b>Phone Numbers</b>         |
| Address: <u>120 S DURBIN STREET</u>                    |                                           | Phone: <u>(307) 577-5329</u> |
| City: <u>CASPER</u> State: <u>WY</u> Zip: <u>82602</u> |                                           | Mobile: <u>( )</u>           |
| Contact Person: <u>Dave Weinert</u>                    | Email: <u>davew@kirkwoodcompanies.com</u> |                              |

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 14686 Initial Form 27 Document #: 402170695

#### PURPOSE INFORMATION

- |                                                                                                    |                                                                                                            |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> 901.e. Sensitive Area Determination                                       | <input type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water                   |
| <input type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure                             | <input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b. |
| <input checked="" type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation                 | <input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project                                  |
| <input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste                      | <input type="checkbox"/> Rule 906.c.: Director request                                                     |
| <input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure | <input type="checkbox"/> Other _____                                                                       |

#### SITE INFORMATION

N Multiple Facilities ( in accordance with Rule 909.c. )

|                                                |                            |                               |                                                                 |
|------------------------------------------------|----------------------------|-------------------------------|-----------------------------------------------------------------|
| Facility Type: <u>SPILL OR RELEASE</u>         | Facility ID: <u>467136</u> | API #: _____                  | County Name: <u>MOFFAT</u>                                      |
| Facility Name: <u>Maudlin tank battery</u>     | Latitude: <u>40.286268</u> | Longitude: <u>-108.025514</u> |                                                                 |
| ** correct Lat/Long if needed: Latitude: _____ |                            | Longitude: _____              |                                                                 |
| QtrQtr: <u>NWSW</u>                            | Sec: <u>26</u>             | Twp: <u>4N</u>                | Range: <u>95W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u> |

#### SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use grazing

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

none

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

- |                                                    |                                                      |                                        |
|----------------------------------------------------|------------------------------------------------------|----------------------------------------|
| <input checked="" type="checkbox"/> E&P Waste      | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids             |                                        |
| <input checked="" type="checkbox"/> Oil            | <input type="checkbox"/> Tank Bottoms                |                                        |
| <input type="checkbox"/> Condensate                | <input type="checkbox"/> Pigging Waste               |                                        |
| <input type="checkbox"/> Drilling Fluids           | <input type="checkbox"/> Rig Wash                    |                                        |
| <input type="checkbox"/> Drill Cuttings            | <input type="checkbox"/> Spent Filters               |                                        |
|                                                    | <input type="checkbox"/> Pit Bottoms                 |                                        |
|                                                    | <input type="checkbox"/> Other (as described by EPA) |                                        |

### DESCRIPTION OF IMPACT

| Impacted? | Impacted Media | Extent of Impact                | How Determined |
|-----------|----------------|---------------------------------|----------------|
| Yes       | SOILS          | spill path                      | visual         |
| Yes       | SURFACE WATER  | Safety pit #1 and Safety pit #2 | visual         |

### 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 spill remediation completed to date includes recovery of spilled fluids, washing of the tanks and other equipment within the tank berms, excavation and disposal of approximately 260 cubic yards of contaminated soils from along the spill path, removal of some of the stained vegetation from the safety pits, hot water washing and flushing of the oil in the safety pits, use of absorbents and a mechanical skimmer to remove floating oil from the safety pits.

### 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 ):

Along the spill path from the tank to the field access road, one grab soil sample will be collected from 0-6 inches below ground surface at the middle of the spill path, a second grab soil sample will be collected from 0-6 inches below ground at the end of the spill path. A third grab soil sample will be collected midway on the spill path between the tanks and the safety pits. A fourth grab soil sample will be collected from the pit sidewall on the northwest corner of safety pit #2 at the water level present at the time of sampling. A fifth soil sample will be collected from the NW corner of Safety Pit #1. The soil sample locations are shown on the attached map. Because the spilled material along the spill flow path consisted of crude oil, soil samples #2, 3, 4 and 5 will be analyzed only for Total Extractable Hydrocarbons. Soil sample #1 will be analyzed for the entire table 910-1 soil analyte list. A background soil sample will also be collected for Table 910-1 metals analysis.

#### 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 ):

Water flows periodically from Safety Pit #1 into Safety Pit #2. No water has flowed from Safety Pit #2 since the spill occurred. A single grab surface water sample will be collected from near the Safety Pit #2 discharge pipe (lower end of the safety pit). The sample will be collected vertically from the middle of the fluid level in the pit at the time of sampling as shown on the attached map. The water sample will be analyzed only for Total Extractable Hydrocarbons.

### Additional Investigative Actions

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

The safety pits are being inspected daily for the presence of floating hydrocarbons, to measure the fluid elevation in each pit and to verify that no water is being discharged from Safety Pit #2. The inspection includes documentation of the water level in both pits. The inspections are being documented on the attached form. These forms will be submitted monthly beginning in October, 2019 to the COGCC until approval to cease submittal is received from the COGCC.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected \_\_\_\_\_ 0

Number of soil samples exceeding 910-1 \_\_\_\_\_

Was the areal and vertical extent of soil contamination delineated? \_\_\_\_\_

Approximate areal extent (square feet) \_\_\_\_\_

### NA / ND

\_\_\_\_\_ Highest concentration of TPH (mg/kg) \_\_\_\_\_

\_\_\_\_\_ Highest concentration of SAR \_\_\_\_\_

\_\_\_\_\_ BTEX > 910-1 \_\_\_\_\_

\_\_\_\_\_ Vertical Extent > 910-1 (in feet) \_\_\_\_\_

### 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 910-1 \_\_\_\_\_

\_\_\_\_\_ 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

\_\_\_\_\_ 0 Number of surface water samples collected

\_\_\_\_\_ Number of surface water samples exceeding 910-1

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

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The source of the spill was an overflow from tanks located within the tank berm that resulted from the failure of an injection pump. Stained soils along the spill path have been removed. Spilled fluids in the tank berm have been recovered and the area within the tank berm washed to recover residual spilled fluids. The crude oil floating on safety pits #1 and 2 has been mostly recovered.

## 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.

Stained soils along the spill path have been removed. The spilled fluids within the tank berm have been recovered. The crude oil floating on Safety Pits #1 and #2 has been mostly recovered. Recovery of the remaining floating oil in the safety pits is on going using absorbent materials. Based on the sampling described elsewhere in this document, any soils still present along the spill flow path above the Table 910-1 standards for the analytes tested will be removed and disposed of as E&P waste and then resampling will be completed to verify Table 910-1 compliance. If the water tested in Safety Pit #2 is above the COGCC Table 910-1 standards for the analyte tested, then one volume of the Safety Pit #2 water will be removed from Safety Pit #2 and the water retested after the fluid level has returned to static conditions or the remaining catails will be removed from both safety pits and the water retested to verify compliance with Table 910-1 standards. If the soil samples collected from the safety pits #2 is above the COGCC table 910-1 limits for the analytes tested, then additional soil sampling will be completed around the sample with the exceedence to determine the areal and horizontal extent of the area exceeding COGCC limits and a supplemental Form 27 submitted which proposes a remediation method for the soils exceeding COGCC Table 910-1 limits based on the volume of soils to be remediated. Although the soil and water sample collection will be completed according to the schedule described elsewhere in this document, removal, remediation and/or disposal of additional soils or water will not occur until after the first Friday in December (see discussion in the Form 19s about landowner access limitations). All remediation work related to this spill will be completed within 3 years of the spill date (August 24th, 2019).

## Soil Remediation Summary

### ☐ In Situ

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

### ☐ Ex Situ

- ☐ Excavate and offsite disposal
- ☐ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_
- ☐ Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_
- ☐ 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.

## REMEDATION PROGRESS UPDATE

### PERIODIC REPORTING

Frequency: ☐ Quarterly ☐ Semi-Annually ☐ Annually ☐ Other \_\_\_\_\_

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? Yes \_\_\_\_\_

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

The recovered oil will be/has been processed for sale. The recovered wash water, fresh water and produced water will be/has been injected in the field injection wells. Waste disposal manifests will be submitted to the COGCC under a separate Form 27. Removed vegetation is currently being stored on the banks of Safety Pit #1. The stored vegetation will be disposed of. As discussed in the Form 19s previously submitted, the landowner access agreement stipulations prevent any large equipment entering the area until after the first Friday in December except for emergency purposes. Thus the removed vegetation cannot be disposed of until after the first Friday in December.

Volume of E&P Waste (solid) in cubic yards \_\_\_\_\_ 260

E&P waste (solid) description contaminated soil from along spill path \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: R360 Environmental Solutions, LaBarge, Wyoming \_\_\_\_\_

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_ 950

E&P waste (liquid) description recovered oil, produced water, recovered fresh water and wash water \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: Maudlin Gulch tank battery \_\_\_\_\_

## 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 seeding is planned as part of the remediation of this spill.

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 approve the seed mix? \_\_\_\_\_

If NO, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

### PRIOR DATES

Date of Surface Owner notification/consultation, if required. 08/25/2019

Actual Spill or Release date, if known. 08/24/2019

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/24/2019

Date of commencement of Site Investigation. \_\_\_\_\_

Date of completion of Site Investigation. \_\_\_\_\_

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 08/24/2019

Date of completion of Remediation. \_\_\_\_\_

### SITE RECLAMATION DATES

Date of commencement of Reclamation. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

### OPERATOR COMMENT

The estimated depth of water in Safety Pit #1 and #2 varies from 6 inches to four feet. The depth of water in each pit varies significantly within the pit as a result of an unlevel bottom. The water level in each pit is being monitored daily as described elsewhere in this document. All initial soil and water samples described in this plan will be collected within 30 calendar days of the approval of this Form 27. COGCC field staff will be notified by email at least 7 calendar days before each sampling event.

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

Signed: Dave Weinert

Title: HSE Coordinator

Submit Date: 11/20/2019

Email: davew@kirkwoodcompanies.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: KRIS NEIDEL

Date: 11/26/2019

Remediation Project Number: 14686

### COA Type

### Description

|  |                                                                                                                                                                                                                                                                                                                                    |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Water samples should be for COGCC 609.e groundwater standards, excluding bacteria.                                                                                                                                                                                                                                                 |
|  | All sample should include Inorganics and the full "Organic Compounds in soils list" from COGCC table 910-1.                                                                                                                                                                                                                        |
|  | Sample depth should be appropriate to characterize impacted soil.                                                                                                                                                                                                                                                                  |
|  | All remaining should should be complaint with COGCC Table 910-1.                                                                                                                                                                                                                                                                   |
|  | Samples should be collected along the spill path from the tank battery to the "Safety Pit" in the area of heist pooling (of spilled oil).                                                                                                                                                                                          |
|  | A form 15 should be submitted for each "Safety Pit".                                                                                                                                                                                                                                                                               |
|  | The operator shall comply with Rule 910.b.3. The operator shall ensure that analytical laboratories use appropriate methods with detection limits less than or equal to the concentrations in Table 910-1.                                                                                                                         |
|  | This Site Investigation and Remediation Workplan (Form 27) is conditionally approved; however, additional information or activities may be required during the course of remediation.<br>910.b                                                                                                                                     |
|  | This document states that the remediation "will be completed within 3 years of the spill date". The remediation should begin immediately and remediation activities should actively continue to assure as short time as possible to closure (See Rule 906.a). All hydrocarbon impacts should be remediated as soon as practicable. |

|  |                                                                                                 |
|--|-------------------------------------------------------------------------------------------------|
|  | Supplemental report should include a photo of the "staff gauge" used to determine fluid height. |
|--|-------------------------------------------------------------------------------------------------|

### **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.

| <b><u>Att Doc Num</u></b> | <b><u>Name</u></b>        |
|---------------------------|---------------------------|
| 402170695                 | FORM 27-INITIAL-SUBMITTED |
| 402186707                 | OTHER                     |
| 402187814                 | MAP                       |
| 402187837                 | MAP                       |

Total Attach: 4 Files

### **General Comments**

| <b><u>User Group</u></b> | <b><u>Comment</u></b>                                                                                                                                                                                                                                                                           | <b><u>Comment Date</u></b> |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Environmental            | Wesco should review document number 2508675. It is a letter from COGCC and an NOAV to Wold Oil for a spill in the same area of this Pit. This letter gave direction to Wold to reconfigure the creek drainage to avoid any active use of the containment ponds as part of the active drainage." | 11/26/2019                 |
| Environmental            | The included map, is not accurate for site condtions. The pump building and shop are not on the map.                                                                                                                                                                                            | 11/07/2019                 |

Total: 2 comment(s)