

State of Colorado
Oil and Gas Conservation Commission

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Report taken by:
Candice (Nikki) Graber

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: <u>KP KAUFFMAN COMPANY INC</u> | Operator No: <u>46290</u> | Phone Numbers Phone: <u>(303) 825-4822</u> Mobile: <u>()</u> |
| Address: <u>1675 BROADWAY, STE 2800</u> | | |
| City: <u>DENVER</u> | State: <u>CO</u> | Zip: <u>80202</u> |
| Contact Person: <u>Max Knop</u> | Email: <u>mknop@kpk.com</u> | |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 18594 Initial Form 27 Document #: 402707643

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

Yes Multiple Facilities

| | | | |
|--|----------------------------|-------------------------------|--|
| Facility Type: <u>PIT</u> | Facility ID: <u>118555</u> | API #: _____ | County Name: <u>WELD</u> |
| Facility Name: <u>PAUL HEINZE1</u> | Latitude: <u>40.034628</u> | Longitude: <u>-104.916813</u> | |
| ** correct Lat/Long if needed: Latitude: _____ | | Longitude: _____ | |
| QtrQtr: <u>NESW</u> | Sec: <u>20</u> | Twp: <u>1N</u> | Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u> |
| Facility Type: <u>SPILL OR RELEASE</u> | Facility ID: <u>479232</u> | API #: _____ | County Name: <u>WELD</u> |
| Facility Name: <u>Paul Heinze #1 Flowline</u> | Latitude: <u>40.035140</u> | Longitude: <u>-104.917660</u> | |
| ** correct Lat/Long if needed: Latitude: _____ | | Longitude: _____ | |
| QtrQtr: <u>NESW</u> | Sec: <u>20</u> | Twp: <u>1N</u> | Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u> |

Facility Type: SPILL OR RELEASE Facility ID: 480128 API #: _____ County Name: WELD
Facility Name: Paul Heinze #1 Flowline (No. 2) Latitude: 40.035030 Longitude: -104.917750
** correct Lat/Long if needed: Latitude: _____ Longitude: _____
QtrQtr: NESW Sec: 20 Twp: 1N Range: 67W Meridian: 6 Sensitive Area? No

SITE CONDITIONS

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

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

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 |
|--------------|----------------|------------------|----------------|
| UNDETERMINED | GROUNDWATER | Unknown | Undetermined |
| Yes | SOILS | Unknown | Undetermined |

INITIAL ACTION SUMMARY

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

Associated well (Paul Heinze #1) has been shut-in since discovery of the release. Excavation and disposal of impacted soil has been an ongoing process since the discovery of the release.

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):

Final vertical and horizontal extent of excavation will be based on limits of excavation and on results from collected grab soil samples. All soil samples will be analyzed and verified compliant with COGCC Table 915-1. At a minimum, one grab sample will be collected from each side of the excavation walls as well as from the base of the excavation area.

Proposed Groundwater Sampling

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

Third party will install a temporary groundwater monitoring well to collect at least one (1) groundwater sample. Groundwater characterization will be made based on the analytical results (Table 915-1) of the collected groundwater sample(s).

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 0

 Highest concentration of TPH (mg/kg)

Number of soil samples exceeding 915-1

 Highest concentration of SAR

Was the areal and vertical extent of soil contamination delineated?

BTEX > 915-1

Approximate areal extent (square feet) _____

Vertical Extent > 915-1 (in feet) _____

Groundwater

Number of groundwater samples collected _____ 0

_____ Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? No _____

_____ Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____

_____ Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed _____

_____ Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____

_____ 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? Yes _____

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

All impacted soil will be excavated and hauled to a certified disposal location. All removed groundwater will be disposed of at a certified disposal location.

REMEDICATION 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.

Excavation will be performed to remove all impacted soil from all associated facilities. Impacted soil will be brought to a certified disposal facility. If groundwater is found to be impacted, a groundwater monitoring plan will be submitted for review and approval to address known impacts to groundwater.

Excavation and disposal of impacted soil will proceed until field screening results indicate soil impacts have been removed. Confirmation samples will be collected following notification to COGCC if field screening results indicate impacts have been removed.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 200

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or COGCC Facility ID # _____

_____ Natural Attenuation

_____ Excavate and onsite remediation

_____ Other _____

_____ 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.

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: _____

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No _____

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? _____

Does the previous reply indicate consideration of background concentrations? _____

Does Groundwater meet Table 915-1 standards? _____

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.

Area of excavation will be backfilled with clean fill dirt. Backfilled excavation area will be recontoured, ripped, and seeded.

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. 07/26/2021

Proposed date of completion of Reclamation. 07/26/2022

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. 01/17/2021

Actual Spill or Release date, or date of discovery. 01/17/2021

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/18/2021

Proposed site investigation commencement. 07/19/2021

Proposed completion of site investigation. 09/30/2021

REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/19/2021

Proposed date of completion of Remediation. 10/29/2021

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

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

Signed: Max Knop _____

Title: Gen Mangr of Air Quality _____

Submit Date: 08/31/2021 _____

Email: mknop@kpk.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: Candice (Nikki) Graber _____

Date: 09/30/2021 _____

Remediation Project Number: 18594 _____

Condition of Approval

COA Type

Description

| | |
|--|---|
| | Operator will provide notice to COGCC EPS Kari Brown (kari.l.brown@state.co.us) at least 48 hours prior to backfill or any sampling events or monitoring well installation performed on location. |
| | COGCC notes the addition of Spill/Release ID 480128 and the partially buried vessel to the description of purpose & site information for the subject project. |
| | Operator will submit a Supplemental Form 27 with: •The boring log (including lithology description, USCS classifications, PID readings, sample collection depths, depth to water, and well construction) for the temporary monitoring well installed at the subject location. •A current map of the subject location including the most recent excavation limits, soil boring locations, and monitoring well locations. Monitoring well locations must include the reference elevations being used to gauge groundwater elevations. GPS data used to create the map must comply with COGCC Rule 216. •Analytical lab reports for and all soil or groundwater samples collected at the site. •Summary table of analytical results compared to table 915-1 standards. |
| | Operator shall submit a current map of the subject location including the most recent excavation limits, soil boring locations, and monitoring well locations. Monitoring well locations must include the reference elevations being used to gauge groundwater elevations. GPS data used to create the map must comply with COGCC Rule 216. |
| | Operator will submit a Form 19 Supplemental Report for the purpose of requesting closure of Spill/Release ID 480128 as will proceed under REM 18594. |
| | Operator shall submit an Implementation Schedule as is required by required by Rule 913.d. The schedule will include planned dates and duration(s) of activities during the next quarterly reporting period. Changes to schedule for cause, must be requested at least 14 days in advance. |
| | Operator will clarify what was meant by the statement that "Third party will install a temporary groundwater monitoring well". Was the "third party" a contractor or subcontractor for the Operator? |
| | All work must be performed by a qualified environmental technician experienced in USCS logging of soil borings, field screening methods, monitor well/piezometer construction and soil, ground water, and surface water sampling. |

8 COAs

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> |
|---------------------------|--|
| 402798041 | INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL) |
| 402819622 | FORM 27-SUPPLEMENTAL-SUBMITTED |

Total Attach: 2 Files

General Comments

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

Total: 0 comment(s)