

State of Colorado Oil and Gas Conservation Commission

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Report taken by:

Kari Brown

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
Address: <u>1675 BROADWAY, STE 2800</u>		Phone: <u>(303) 825-4822</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>	Mobile: <u>(720) 317-8161</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 16131 Initial Form 27 Document #: 402536186

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: <u>SPILL OR RELEASE</u>	Facility ID: <u>478086</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>UPRR 43 PAN AM G Consolidation #2</u>		Latitude: <u>40.014968</u>	Longitude: <u>-104.905802</u>
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>29</u>	Twp: <u>1N</u>	Range: <u>67W</u>
Meridian: <u>6</u>		Sensitive Area? <u>No</u>	

SITE CONDITIONS

General soil type - USCS Classifications SC

Most Sensitive Adjacent Land Use Residential/Cropl and

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

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
No	GROUNDWATER	None	Groundwater Sampling
Yes	SOILS	25'(n-s) x 15'(e-w) x 6' BGS	Extent of Excavation

INITIAL ACTION SUMMARY

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

Landowner notified KPK at 2:15 pm on 9/19/2020, via the emergency contact line that an active flowline release was observed. KPK shut-in and depressurized flowline system within 2-hours of notification. Equipment was brought in same day to remove standing liquids and contain flowline release at ground surface level.

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):

The total horizontal and vertical extent has not been established. Extent of impact will be based on limits of final excavation. Final vertical and horizontal extent of the excavation will be based on results from collected grab soil samples from the excavation walls. All soil Samples will be analyzed for TPH-GRO, DRO & ORO (EPA Method 8215), and BTEX (EPA Method 8260) and verified complaint with COGCC Tale 910-1.

Proposed Groundwater Sampling

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

Groundwater was encountered during excavation. One (1) groundwater sample was collected and analyzed for BTEX (EPA Method 8260). Analytical results verified groundwater sample complaint with COGCC Table 910-1.

COA requirement of Field Inspection Doc#689501092, one (1) sample collected from the private water well (DWR Permit 302477) and verified compliant with COGCC Table 910-1.

Proposed Surface Water Sampling

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

COA requirement of Field Inspection Doc#689501092, three (3) surface water samples from Big Dry Creek (upstream, downstream, and at location of spill) were collected and verified compliant with COGCC Table 910-1.

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 0

Number of soil samples exceeding 915-1

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 > 915-1 _____

_____ Vertical Extent > 915-1 (in feet) _____

Groundwater

Number of groundwater samples collected 2

Was extent of groundwater contaminated delineated? Yes _____

Depth to groundwater (below ground surface, in feet) 5' _____

Number of groundwater monitoring wells installed 0

Number of groundwater samples exceeding 915-1 0

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) _____

NA _____ Highest concentration of Methane (mg/l) _____

Surface Water

3 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?

☐ 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.

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.

Excavation will be performed to remove all impacted soil. Impacted soil will be disposed of at the Front Range Landfill in Erie, CO. Excavation activities are ongoing. Following the completion of excavation activities, soil samples will be collected.

1) Excavation activities will stop to collect soil samples. It is estimated soil sampling will be scheduled for the week of July 19, 2021.

2) Soil samples will be sent to lab for analysis. Lab analysis estimated to be completed by August 13, 2021.

3) If samples are compliance with Table 915-1 thresholds, KPK will submit results for review. Supplemental Form 27 submittal estimated to be submitted by August 20, 2021. If sample results are not compliant KPK will request to backfill temporarily until irrigation line stops (est. late October 2021-November 2021). After the irrigation line stops, KPK will resume excavation activities.

4) If Supplemental Form 27 submittal is approved, KPK will submit Supplemental Form 27 requesting to backfill excavation area. Timing cannot be estimated for Form 27 review.

5) If Supplemental Form 27 is approved, KPK will backfill excavation area continue with groundwater characterization.

Soil Remediation Summary

☐ In Situ

☒ Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 875

_____ 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.

Groundwater has not been found to be impacted; however, for groundwater characterization, four (4) piezometers were installed around the current excavation area. Initial groundwater sampling has not been performed as the piezometers were installed on July 7, 2021

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? 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 827

E&P waste (solid) description Hydrocarbon impacted soils

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility: Denver Regional Landfill

Volume of E&P Waste (liquid) in barrels 3205

E&P waste (liquid) description Groundwater

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility: NGL Water Solutions

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.

Upon obtaining complaint confirmation soil samples, the excavation area will be backfilled using clean fill dirt, recontoured, 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? No

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

Did the local soil conservation district provide the seed mix? No

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. 09/19/2020

Actual Spill or Release date, or date of discovery. 09/19/2020

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/19/2020

Proposed site investigation commencement. 09/19/2020

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. 09/19/2020

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

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: 07/13/2021

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: Kari Brown

Date: 08/27/2021

Remediation Project Number: 16131

Condition of Approval**COA Type****Description**

	Operator shall submit Quarterly Updates every 90 days including a detailed project summary and status, as required by Rule 913.e. Quarterly updates shall include a current map of the subject location including current excavation limits, soil boring locations, and monitoring well locations. GPS data used to create the map must comply with COGCC Rule 216. Operator will include historical and recent soil analytical data in a table format in Quarterly updates. Operator shall submit field notes of all field activities reported during a Quarterly Update.
	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 shall provide results for monitoring well sampling including a summary table of analytical results compared to table 915-1 standards, analytical lab reports, and site diagram showing the location of monitoring wells.
	Operator shall provide boring logs for monitoring wells in accordance with standard environmental practices. This includes at a minimum; lithology description, USCS classifications, PID readings, sample collection depths, depth to water, and well construction.

4 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.

Att Doc Num**Name**

402745475	FORM 27-SUPPLEMENTAL-SUBMITTED
402745512	DISPOSAL MANIFESTS
402745513	DISPOSAL MANIFESTS

Total Attach: 3 Files

General Comments**User Group****Comment****Comment Date**

		Stamp Upon Approval
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Total: 0 comment(s)