

State of Colorado  
Energy & Carbon Management Commission

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01/25/2024

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: KP KAUFFMAN COMPANY INC	Operator No: 46290	<b>Phone Numbers</b>
Address: 1700 LINCOLN ST STE 4550		Phone: (720) 868-9848 x0110
City: DENVER State: CO Zip: 80203		Mobile: (303) 550-8892
Contact Person: John Peterson	Email: jpeterson@kpk.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 23366 Initial Form 27 Document #: 403055757

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: LOCATION	Facility ID: 479311	API #: _____	County Name: WELD
Facility Name: UPRR 42 PAN AM AE MANIFOLD 2	Latitude: 40.094130	Longitude: -104.925760	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESE	Sec: 31	Twp: 2N	Range: 67W Meridian: 6 Sensitive Area? Yes
Facility Type: SPILL OR RELEASE	Facility ID: 481730	API #: _____	County Name: WELD
Facility Name: Facility 4 AE 2	Latitude: 40.094059	Longitude: -104.925604	
** correct Lat/Long if needed: Latitude: 40.094020		Longitude: -104.925690	
QtrQtr: NESE	Sec: 31	Twp: 2N	Range: 67W Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Residential

Is domestic water well within 1/4 mile? No

Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? Yes

### **Other Potential Receptors within 1/4 mile**

A residential development is located approximately 200 feet southwest of the site. County Road 15 is located 475' to the east and Indian Paint Brush Street is located 125' feet south of the site. Stormwater retention ponds are located approximately 450 feet north of the release point. The retention ponds are USFWS-mapped freshwater emergent wetlands (PEM1F). The 100-year floodplain is not within 1/4 mile of the site. High Priority habitat is not within 1/4 mile of the site. There are no domestic water wells within a quarter mile of the site.

**DENIED**

# 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	GROUNDWATER	TBD	Analytical Testing
Yes	SOILS	280 yards	Calculated based off of 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.

This form has been prepared to provide updates for the UPRR 42 PAN AM AE Manifold site release. KPK was notified on March 9, 2022 by another operator that impacts were located near the KPK flowline at an off-site location of Facility 4 AE#2. KPK dispatched field crews to the site and began excavating to expose the flowline on April 5, 2022. No activate leaks or damages were identified during investigation; therefore, the release was labeled as a historical release. KPK crews continued excavating and removing impacted soil.

Confirmation soil sampling has been completed during the excavation activity at the site and during the installation of five soil borings. Soil samples were collected along the sidewalls and floor of the excavation (SW-1@7' through SW-8@7', BH-1@8' through BH-3@10') and around the excavation with a GeoProbe (SB-1 through SB-5). All samples were collected as described in the Rule 915.e Guidance Document and analyzed for TPH (C6-C36), Table 915-1 organics and inorganics compounds in soil, and Table 915-1 Soil Suitability for Reclamation (Electric Conductivity, Sodium Absorption Ratio, and pH). Analytical results are included in the Attachments.

## 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 ):

Five groundwater monitoring wells were installed at the Site. Quarterly groundwater sampling is currently being conducted. Groundwater samples are collected from each well and analyzed for the Organic Compounds in Groundwater listed in ECOM Table 915-1. If warranted, additional groundwater assessment will be conducted. Analytical results are included in the Attachments.

### 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 22  
Number of soil samples exceeding 915-1 22  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 1250

**NA / ND**

-- Highest concentration of TPH (mg/kg) 1.6  
-- Highest concentration of SAR 12.2  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 10

**Groundwater**

Number of groundwater samples collected 15  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) 10  
Number of groundwater monitoring wells installed 5  
Number of groundwater samples exceeding 915-1 15

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**

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?  
Background soil samples (BK-1 through BK-4) were collected from 4 feet below ground surface (bgs) and from 8 feet bgs and submitted for analysis of the inorganic constituents listed on ECMC Table 915-1. Background soil analytical data is summarized in the attached Soil Analytical Summary Table.

Was investigation derived waste (IDW) generated as part of this investigation?  
Volume of solid waste (cubic yards) 325 Volume of liquid waste (barrels) 0

Is further site investigation required?  
Quarterly groundwater sampling is currently being conducted. Groundwater samples are collected from each well and analyzed for the Organic Compounds in Groundwater listed in ECMC Table 915-1. If warranted, additional groundwater assessment will be conducted.

**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.  
Operator has removed all impacted material via excavation and off-site disposal. Confirmation soil samples were collected prior to ECMC-approved backfill as outlined on Doc # 403170660.

**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.  
The excavation has been backfilled. Quarterly groundwater sampling is currently being conducted. Groundwater samples are collected from each well and analyzed for the Organic Compounds in Groundwater listed in ECMC Table 915-1. If warranted, additional groundwater assessment will be conducted. ECMC will be notified 48 hours prior to sampling.

**Soil Remediation Summary**

In Situ  Ex Situ  
\_\_\_\_\_ Bioremediation ( or enhanced bioremediation ) Yes \_\_\_\_\_ Excavate and offsite disposal  
\_\_\_\_\_ Chemical oxidation If Yes: Estimated Volume (Cubic Yards) 325

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_

\_\_\_\_\_ No 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

Yes \_\_\_\_\_ 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.

Following a meeting with the developer, five groundwater monitoring wells were installed at the Site. Quarterly groundwater sampling is currently being conducted. Groundwater samples are collected from each well and analyzed for the Organic Compounds in Groundwater listed in ECMC Table 915-1. If warranted, additional groundwater assessment will be conducted.

# 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.

KPK has sufficient insurance and bonding to fully address the anticipated costs of Remediation, including the remaining estimated costs for this project. KPK has general liability insurance and financial assurance in compliance with ECMC rules. The cost for remediation is a preliminary estimate only, costs may change upwards or downward based on site-specific information. KPK makes no representation or guarantees as to the accuracy of the preliminary estimate.

Operator anticipates the remaining cost for this project to be: \$ 20000

## 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  325

E&P waste (solid) description  Hydrocarbon impacted soil

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:  Front Range Landfill

Volume of E&P Waste (liquid) in barrels  1

E&P waste (liquid) description  Bail water

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:  Disposed at KPK field 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? Yes

Does the previous reply indicate consideration of background concentrations? No

Does Groundwater meet Table 915-1 standards? No

Is additional groundwater monitoring to be conducted? Yes

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.

The site will be reclaimed in accordance with ECMC 1000 Series Reclamation Rules. The surface owner is planning residential development on the quarter section.

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. 03/31/2023

Proposed date of completion of Reclamation. 09/29/2023

## 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. 03/09/2022

Actual Spill or Release date, or date of discovery. 03/09/2022

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/09/2022

Proposed site investigation commencement. 04/28/2022

Proposed completion of site investigation. 01/31/2024

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/09/2022

Proposed date of completion of Remediation. 01/31/2024

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:

Monitoring well installs were completed in January 2023, with three quarters of monitoring complete to date. The Operator has allotted 1 month to address any final grading requested from the developer after removing wells (anticipated January 2024). This schedule may need to be adjusted if impacts are observed in the groundwater samples.

**OPERATOR COMMENT**

None

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

Signed: Michael Hattel

Title: Project Manager

Submit Date: 01/25/2024

Email: mhattel@msn.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: \_\_\_\_\_

Date: \_\_\_\_\_

Remediation Project Number: 23366

**COA Type****Description**

0 COA	
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**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**

403653576	FORM 27 DENIED
403653680	MONITORING REPORT
403665786	MONITORING REPORT
403684822	FORM 27-SUPPLEMENTAL-SUBMITTED
403684823	DENIED FORM 27 DENIED
403684824	DENIED FORM 27 DENIED

Total Attach: 6 Files

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

	Per the previous approved monitoring plan (Document #403170660) four consecutive quarters of the approve analytes are required prior to closure of this remediation. ECMC notified Operator of this discrepancy on November 14, 2023 (Document #403592402), September 27, 2023 (Document #403494537).  Operator has repeatedly failed to comply with the approved sampling plan.	02/12/2024
	Per previous COA on Document #s403494537 and 403592402: "Operator's approved groundwater sampling plan indicates that Operator will sample for Table 915-1 analytes as well as barium and cadmium. No barium or cadmium reports have been submitted to date. Operator shall adhere to the approved sampling plan and begin sampling for the Organic Compounds in Groundwater (benzene, toluene, ethylbenzene, xylenes, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene), the Groundwater Inorganic Parameters (total dissolved solids, chloride, sulfate) as well as for barium and cadmium." Operator has continued to fail at comply with their approved sampling plan."	02/12/2024
	Per previous COA on Document #s 403494537 and 403592402: "Sulfate and Chloride exceedances have been reported at this location. Operator shall define the background concentrations on the next report." Operator has not provided this information and attached document indicates that "Background water sample not collected for this site."	02/12/2024

Total: 3 comment(s)