

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
403955340  
Receive Date:  
10/16/2024

Report taken by:  
Candice (Nikki) Graber

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 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: <u>KP KAUFFMAN COMPANY INC</u>	Operator No: <u>46290</u>	<b>Phone Numbers</b>
Address: <u>1700 LINCOLN ST STE 4550</u>		Phone: <u>(720) 8689848x0110</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80203</u>		Mobile: <u>(303) 5508872</u>
Contact Person: <u>John Peterson</u>	Email: <u>jpeterson@kpk.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**

Remediation Project #: 37945 Initial Form 27 Document #: 403955340

**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>487675</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Lanson Farms 15 Flowline</u>	Latitude: <u>40.101818</u>	Longitude: <u>-104.967656</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWNE</u>	Sec: <u>35</u>	Twp: <u>2N</u>	Range: <u>68W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

**SITE CONDITIONS**

General soil type - USCS Classifications SC 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

Distances to potential receptors are as follows:

Water well: located approximately 532 feet north of the spill

Surface water: Godding Hollow stream located approximately 97 feet east of the spill

Wetlands: freshwater emergent wetland located approximately 97 feet east of the spill

Livestock: approximately 2420 feet northeast of spill

Occupied building: approximately 455 feet northeast of spill

100yr floodplain: approximately 161 feet north of spill

# 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	GROUNDWATER	TBD	TBD
Yes	SOILS	TBD	field screen/analytical testing

## INITIAL ACTION SUMMARY

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

On 8/19/24 a KPK employee found contaminated soil at the ground surface and notified supervisors of the spill. Personnel immediately shut in wells and a crew was sent to perform source removal. The cause of the spill was due to a joint failure at the junction of 3" fiberglass to 3" steel line. KPK repaired the line by replacing the 3" steel line section with 3" poly. KPK began excavating and field screening the sidewalls. One Source @ Surface was collected and analyzed for full Table 915-1. More excavation at the southeast corner of the excavation is necessary. Groundwater is shallow at approximately 2' depth below ground surface. KPK proposes the installation of groundwater monitoring wells in this form 27.

## 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 ):

After further excavation of the southeast corner, KPK proposes the collection of 4 sidewall samples in accordance with Table 1 Rule 915.e.(2). Samples will be analyzed for full Table 915-1 analytes. KPK proposes the collection of 2 background samples at 1' depth bgs to be analyzed for Table 915-1 inorganics. KPK additionally proposes the collection of 3 surface samples beneath the stockpile after the stockpile has been removed. Surface samples will be analyzed for full Table 915-1 analytes. See attached figures for proposed sample locations. KPK will also collect soil samples from the soil borings used to install groundwater monitoring wells at 1' depth, samples will be analyzed for full Table 915-1.

### Proposed Groundwater Sampling

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

KPK proposes the installation of 5 groundwater monitoring wells to be monitored on a quarterly basis. Samples will be analyzed for full Table 915-1 analytes. See attached figure for proposed groundwater monitoring well locations.

### 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 1 -- Highest concentration of TPH (mg/kg) 9750  
 Number of soil samples exceeding 915-1 1 -- Highest concentration of SAR 13.1  
 Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 Yes  
 Approximate areal extent (square feet) 403 Vertical Extent > 915-1 (in feet) 1

**Groundwater**

Number of groundwater samples collected 0 NA Highest concentration of Benzene (µg/l) \_\_\_\_\_  
 Was extent of groundwater contaminated delineated? No NA Highest concentration of Toluene (µg/l) \_\_\_\_\_  
 Depth to groundwater (below ground surface, in feet) 2 NA Highest concentration of Ethylbenzene (µg/l) \_\_\_\_\_  
 Number of groundwater monitoring wells installed 0 NA 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  
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?  
 Only a source sample has been collected to date. The Source @ Surface sample exceeded Table 915-1 concentrations for xylenes, total; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; fluorene; 1-methylnaphthalene; 2-methylnaphthalene; naphthalene; DRO; RRO; GRO; TPH; arsenic; barium; chromium; selenium; and SAR. The source area has been excavated and confirmation samples analyzed for full Table 915-1 analytes are proposed in this form.

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?  
 KPK proposes the collection of 4 confirmation soil samples along each sidewall of the excavation, 3 surface samples beneath the stockpile, and 2 background samples. Additionally, KPK proposes the installation of 5 groundwater monitoring wells at this site. According to topographic maps, groundwater appears to flow north/northwest towards Godding Hollow stream. KPK will place 3 wells north/northwest of the excavation, 1 well south of the excavation as a point of compliance well, and 1 well will be placed in the source area of the excavation.

**REMEDIAL ACTION PLAN**

**SOURCE REMOVAL SUMMARY**

Describe how source is to be removed.  
 Source material within soil will be removed through excavation. Soil has been stockpiled on a lined and bermed containment south of the excavation. Contaminated soil will be disposed of at a disposal facility. KPK will collect 4 confirmation sidewall samples to be analyzed for full Table 915-1 to ensure the removal of contaminants in soil. 3 surface samples will be collected and analyzed for full Table 915-1 analytes following the removal of the stockpile on site. Groundwater will be monitored through the sampling of 5 monitoring wells installed around and within the excavation.

**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.  
 KPK plans to excavate remaining impacts in soil and transport the waste to a certified disposal facility. Background and confirmation samples will be collected to ensure that KPK is in compliance with Table 915-1. Groundwater will be analyzed through groundwater monitoring which will be sampled on a quarterly basis. See the attached figures for soil sample locations. If impacts to groundwater are determined, extent will be defined and remedial technologies will be evaluated.

**Soil Remediation Summary**

In Situ  Ex Situ  
 \_\_\_\_\_ Bioremediation ( or enhanced bioremediation ) \_\_\_\_\_ Yes \_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 30  
Name of Licensed Disposal Facility or ECMC 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.

KPK proposes the installation of 5 groundwater monitoring wells at this site. According to topographic maps, groundwater appears to flow north/northwest towards Godding Hollow stream. KPK will place 3 wells north/northwest of the excavation, 1 well south of the excavation as a point of compliance well, and 1 well will be placed in the source area of the excavation.

# 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 estimates that this project is 20% complete. Remaining tasks include excavation, confirmation sampling, background sampling, groundwater monitoring, backfill, and reclamation. 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: \$ 80000 \_\_\_\_\_

## 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:

petroleum impacted soil

Volume of E&P Waste (solid) in cubic yards \_\_\_\_\_ 12

E&P waste (solid) description petroleum impacted soil

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

Non-ECMC Disposal Facility: Buffalo Ridge Landfill

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_ 0

E&P waste (liquid) description \_\_\_\_\_

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

Non-ECMC Disposal Facility: \_\_\_\_\_

# 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 receiving confirmation sampling analytical that shows all impacts have been removed, KPK will submit request for Backfill to the state. Upon completion of the backfill KPK will consult with the landowner on seeding preference. Reclamation will commence following the 1000 series reclamation rules.

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. 03/17/2025

Proposed date of completion of Reclamation. 12/16/2025

## 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. 08/20/2024

Actual Spill or Release date, or date of discovery. 08/19/2024

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/19/2024

Proposed site investigation commencement. 08/19/2024

Proposed completion of site investigation. 12/16/2024

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 08/19/2024

Proposed date of completion of Remediation. 12/16/2025

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**

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

Signed: Cullen Chew

Title: Environmental Coordinator

Submit Date: 10/16/2024

Email: cchew@kpk.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: Kari Brown

Date: 11/21/2024

Remediation Project Number: 37945

**COA Type****Description**

	Operator will provide notice to ECMC EPS Kari Brown (kari.l.brown@state.co.us) and Nikki Graber (nikki.graber@state.co.us) at least 48 hours prior to backfill or any sampling events performed on location.
	Operator shall submit a Form 19 Supplemental closing Spill ID 475986 with work transferring to this remediation project.
	Operator shall provide boring logs 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.
	In accordance with Rule 914, if impacts are observed during monitoring well installation a step out monitoring well(s) shall be installed to define the horizontal extent of impacts to soil and groundwater and the monitoring wells shall be installed within 45 days of observations.
	Operator will submit a minimum of one soil sample for full Table 915-1 analysis from each soil boring advanced during monitoring well installation.
	Due to shallow groundwater, Operator shall comply with Table 915-1 Protection of Groundwater Soil Screening Level Concentrations.
	In accordance with Rule 913.e.(3), Operator will adopt a quarterly reporting schedule (every 90 days).  ECMC selected Quarterly under Remediation Progress Update.
	Pursuant to Rule 913.d, Operator will adhere to the proposed schedule. Any deviation from the schedule must be approved by the Director in writing on a Form 27 Supplemental Report.
	In accordance with 913.d.(1), Operator will investigate impacts to soil, Groundwater, and surface water as soon as the impacts are discovered.
9 COAs	

**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**

403955340	FORM 27-INITIAL-SUBMITTED
403956044	DISPOSAL MANIFESTS
403957400	ANALYTICAL RESULTS
403957737	PHOTO DOCUMENTATION
403957761	ANALYTICAL RESULTS

403957764	ANALYTICAL RESULTS
403957767	ANALYTICAL RESULTS
403958229	MAP

Total Attach: 8 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
		Stamp Upon Approval

Total: 0 comment(s)