

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
403238795  
Receive Date:  
12/20/2022  
Report taken by:  
KRIS NEIDEL

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>(970) 261-3567</u> Mobile: <u>( )</u>
Address: <u>1700 LINCOLN ST STE 4550</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80203</u>
Contact Person: <u>Craig Meis</u>	Email: <u>cmeis@kpk.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 11881 Initial Form 27 Document #: 401766907

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>452051</u>	API #: _____	County Name: <u>JACKSON</u>
Facility Name: <u>DAKLAK Flowline</u>	Latitude: <u>40.778298</u>	Longitude: <u>-106.263055</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESE</u>	Sec: <u>4</u>	Twp: <u>9N</u>	Range: <u>79W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications CL Most Sensitive Adjacent Land Use Rangeland  
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

There are no residence within a quarter mile of the release. There are no habitable structures within a quarter mile of the release. County Road 10 is approximately 1,425 feet north of the site. The release is within the footprint of Lee Draw, which is a USFWS-mapped riverine wetland (R4SBC). The 100 year floodplain is not mapped within a quarter mile of the release. High Priority habitat is mapped over the site for the following: Greater Sage Grouse Lek Site, Greater Sage Grouse Priority Habitat Management Area, Pronghorn Migration Corridors, Pronghorn Winter Concentration. There are no Bald Eagle Roost sites or Bald Eagle Active Nest site half mile buffers within a quarter mile of the release. CPW has been contacted about the priority habitat restrictions. If needed, the implementation schedule for field work will be adjusted in a supplemental Form 27 once CPW responds. There are 0 domestic water wells within a quarter mile of the release.

# 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	SOILS	300'x75'	Soil Samples

## 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 occurred during prior operator, Bonanza Creek Energy. Most of the impacts remained at surface and it was removed immediately. According to correspondence between COGCC and Operator, the flowline had a 1" hole in it that was repaired with a pipe repair clamp. Excavation efforts will take place to define the vertical and horizontal extent 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 ):

Based on analytical results from historical and recent (September 2022) surface soil sampling, excavation is necessary in the source area to remove impacted soil associated the release. Final vertical and horizontal extent of excavation will be based on limits of excavation and on results from grab soil samples and photoionization detector (PID) field screening. Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document and will be analyzed for TPH (C6-C36), Table 915-1 Organic Compounds in Soil, Table 915-1 metals, and Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble). Discrete soil samples are also required in the extent area of the release to the southwest. The re-sampled extent area samples will be analyzed for full Table 915-1 constituents. If needed, extent borings may be installed with soil samples taken and analyzed for Table 915-1.

### Proposed Groundwater Sampling

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

If groundwater is encountered during cleanup activities, a grab sample will be collected as soon as practical. If contaminated soil is in contact with groundwater or if free product/hydrocarbon sheen are observed, the release will be reported in accordance with Rule 912.b. Groundwater samples will be submitted for laboratory analysis of BTEX, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene by EPA Method 8260. A Groundwater Monitoring plan with a total of 5 wells, 1 upgradient, 2 cross gradient, 1 down gradient, and 1 at source (Additional wells may be necessary) will be submitted for approval, and Groundwater monitoring will continue until 4 clean consecutive quarters is achieved. COGCC will be provided a 48 Hour notice prior to the installation of monitoring wells. Soil data will be collected. Boring and well construction logs will be completed and provided in a supplemental form 27.

### 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 26  
Number of soil samples exceeding 915-1 26  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 22500

**NA / ND**

-- Highest concentration of TPH (mg/kg) 13000  
0  
-- Highest concentration of SAR 81.9  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 2

**Groundwater**

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) 30  
Number of groundwater monitoring wells installed 0  
Number of groundwater samples exceeding 915-1 0

NA Highest concentration of Benzene (µg/l) \_\_\_\_\_  
NA Highest concentration of Toluene (µg/l) \_\_\_\_\_  
NA Highest concentration of Ethylbenzene (µg/l) \_\_\_\_\_  
NA Highest concentration of Xylene (µg/l) \_\_\_\_\_  
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?

Empty text box for response to impact question.

Were background samples collected as part of this site investigation?

6 background soil samples were collected on 9/14/2022. If extents of impacts encompass existing background sample locations, additional background soil sample will be collected.

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?

Additional excavation paired with field screening is required at the site. Excavation will be followed by confirmation soil sampling. Tilling activities have resulted in increased alkali occurring at ground surface. Background samples were collected in September 2022 to determine if high SAR and EC are a result of the release or a result of the native soil within the release area. Site-specific limits for metals and soil suitability parameters for reclamation were not calculated because the final extents of excavation have not been determined yet.

**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.

Impacted soil with analytical results exceeding Table 915-1 thresholds will be excavated and disposed of at the Walden Land Treatment Facility. Work will proceed after consultation with Colorado Parks and Wildlife. MarCom will provide the required 48-hour notification to COGCC prior to beginning work.

**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.

Based on analytical results of soil samples collected 9/14/2022, additional remediation work (excavation) is necessary at the release point. Sampling on 9/26/2018 indicated additional remediation work is required in the release area. Additional tilling activities occurred in 2020 and 2021 to remediate the impacted area. Final vertical and horizontal extent of excavation area will be based on results from collected discrete soil samples. Final vertical and horizontal extent of excavation will be based on limits of excavation and on results from grab soil samples and photoionization detector (PID) field screening. Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document and will be analyzed for TPH (C6-C36), Table 915-1 Organic Compounds in Soil, Table 915-1 metals, and Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble). Samples will be collected in accordance to COGCCs table 915-1 sample collection guidelines table. If needed, extent borings may be installed, and soil samples collected to further evaluate the extent of soil impacts. COGCC will be provided with a 48 hr. notice prior to any sampling event.





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.

Currently, the vertical extent of contamination is minimal and no contouring is required. Further excavation is required based on recent sample analytics around the source. If the excavation extends significantly past the current limits and once confirmation sample analytical 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. 06/19/2023

Proposed date of completion of Reclamation. 08/15/2023

## 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. 09/02/2017

Actual Spill or Release date, or date of discovery. 09/02/2017

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/02/2017

Proposed site investigation commencement. 09/05/2017

Proposed completion of site investigation. 05/29/2023

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/17/2023

Proposed date of completion of Remediation. 05/29/2023

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:

Updated implementation scheduled to account for excavation work to be conducted in late spring followed by confirmation soil sampling. Reclamation schedule is tentative pending excavation extents.

## OPERATOR COMMENT

Additional excavation in the source area is required to remove impacts. Once field screening results indicate impacts have been removed, new at-depth confirmation samples will be collected. Operator will also collect discrete surface soil samples from the extent area of the release and submit for full Table 915-1 constituents. For clarification, the extent area is to the west-southwest of the source. Previous samples collected in the extent area in 2018 were composite samples, and COGCC notified Operator via email that new samples need to be collected as discrete samples to be considered valid. If impacts are found in the extent area, Operator may extend the excavation to address impacts. Soil borings may be advanced to delineate impacts as well. Additional background soil samples may be required if the excavation extent encompasses the current background sample points.

A map depicting 9/14/2022 soil sample locations has been provided. An updated analytical summary table is attached. CPW has been contacted about the high priority habitat restrictions that are mapped over the site. If work needs to be delayed in the late spring, Operator will update the implementation schedule in the Q1 2023 Form 27 submittal. Date of Surface Owner Notification has been updated for when BLM was contacted according to the original Form 19 (Doc 401395060). Operator acknowledges COGCC COA about adopting a quarterly reporting schedule on Doc 403150376, and Operator plans to adhere to the quarterly update schedule. Operator has updated its anticipated remaining cost for this project per COGCC COA to account for excavation work and investigation work.

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

Signed: Josiah Reamy

Title: Project Manager

Submit Date: 12/20/2022

Email: PrimaryContractor@MarComLLC.net

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: 11881

## COA Type

## Description

<u>COA Type</u>	<u>Description</u>
0 COA	

## 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

403238795	FORM 27-SUPPLEMENTAL-SUBMITTED
403239076	SOIL SAMPLE LOCATION MAP
403239079	ANALYTICAL RESULTS
403239080	ANALYTICAL RESULTS
403239106	PHOTO DOCUMENTATION
403239108	CORRESPONDENCE

Total Attach: 6 Files

## General Comments

### User Group

### Comment

### Comment Date

Environmental	This Form 27 cannot be approved based on the information submitted. Therefore Document ID #[403238795] will be denied. The Operator is directed to submit a replacement form.	02/23/2023
Environmental	COGCC has denied this form for the following reasons: - Per COA on Document #403150376 "On the next Form 27 Operator shall provide a detailed stand alone implementation plan proposing dates for completion of all field work to occur as soon as possible in Spring 2023." This information was not provided. - Populated date of Surface Owner notification is more than 5 years old - Operator provided no documentation of correspondence with CPW	02/23/2023

Total: 2 comment(s)