

# State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

402855541

Receive Date:

10/28/2021

Report taken by:

CHRIS CANFIELD

## 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>	<b>Phone Numbers</b>
Address: <u>1675 BROADWAY, STE 2800</u>		Phone: <u>(303) 8254822</u>
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Jeff Rickard</u>	Email: <u>jrickard@kpk.com</u>	Mobile: <u>( )</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>Yes</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 ):

APEX will utilize Drill Pro of Thornton, Colorado for drilling services. Petroleum impacted soils remain at the southeast corner of the current excavation just north of the buried irrigation line. Two (2) probe borings will be installed to depths of approximately 15 feet or refusal in WCR 4. The borings will be completed to the south and southeast of the Facility's current excavation and buried irrigation pipeline. If petroleum contaminated soils are encountered in the borings, up to three (3) additional borings will be completed in WCR 4. Also, a boring will be completed as a temporary monitoring well upgradient of the current monitoring wells and excavation. See attached map for proposed boring and well locations. The soils encountered in each probe boring and the monitoring well boring will be logged by a geologist in the field using USCS soil descriptions and field screening results. The monitoring wells will be constructed of 1-inch diameter, threaded, polyvinyl chloride

#### Proposed Groundwater Sampling

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

Groundwater samples will be completed from the proposed temporary monitoring well and each existing temporary monitoring wells approximately one-week following installation. The samples will be stored on ice in a cooler and delivered to Summit Scientific of Golden, Colorado under chain-of-custody documentation. The groundwater samples will be analyzed for hydrocarbon analytes listed in Table 915-1.

#### 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? No

## 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 Denver Regional Landfill in Erie, CO. Excavation activities are ongoing.

## Soil Remediation Summary

☐ In Situ

☒ Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

Yes \_\_\_\_\_ Excavate and offsite disposal  
\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 100  
\_\_\_\_\_ Name of Licensed Disposal Facility or COGCC 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.

## REMEDIATION PROGRESS UPDATE

### PERIODIC REPORTING

#### Approved Reporting Schedule:

☐ Quarterly☐ Semi-Annually☐ Annually☒ Other

Update due to Commission by 11/1/21

#### ☐ 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&amp;P Waste derived from this remediation project:

None

Volume of E&P Waste (solid) in cubic yards 48E&P waste (solid) description Hydrocarbon impacted soils

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

Non-COGCC Disposal Facility: Denver Regional LandfillVolume of E&P Waste (liquid) in barrels 0

E&amp;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.

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? Yes

## 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. 12/31/2021

## 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**

KPK believes a minor amount of soil on the SE corner is all that remains of the contaminated soil (see photos). KPK will begin excavation of this once the irrigation line that has held up the progress is deactivated for the season, estimated to be sometime in early November. KPK will also confirm limits of contamination via proposed soil borings (attached). KPK has secured a right of way permit from Weld County and can begin work on soil boring in proposed plan once COGCC grants approval.

KPK collected samples from the East, West, North and Floor under witness from the COGCC on 7/23/21 which showed compliance with table 915 (except for boron and arsenic which KPK will perform background sampling for). A sample map will be provided in a supplemental backfill request once all impacted is removed and confirmed via lab results.

GW sampling is ongoing. (Report Attached)

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

Signed: Jeff Rickard

Title: Regulatory

Submit Date: 10/28/2021

Email: jrickard@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: CHRIS CANFIELD

Date: 11/22/2021

Remediation Project Number: 16131

## **Condition of Approval**

### **COA Type**

### **Description**

	Passing the subject Form 27 serves to acknowledge receipt of the attached information by the COGCC and does not imply approval of any requests therein. COGCC's review of and response to such requests will be made separately.
	Site Investigation Report has not been completed. Operator is directed to update this information on the next Supplemental Form 27.
	Operator will submit a minimum of one soil sample for laboratory analysis in accordance with Table 915-1 from each soil boring advanced during monitoring well installation.
	In accordance with Rule 914 Operator is required to define the horizontal and vertical extent of impacts to soil. More than the proposed borings may be required to obtain a point of compliance. The borings shall be installed within 45 days and with the approval of a Form 27 Workplan.
	In accordance with Rule 914 additional monitoring wells are required to define the horizontal extent of impacts to groundwater. More than one well may be required to obtain a point of compliance. The monitoring well(s) shall be installed within 45 days and with the approval of a Form 27 Workplan.
	Operator shall provide correspondence and/or permits with Weld County granting access to install soil borings in Weld County Road 4. Operator may not install borings until this information is provided in a Supplemental Form 27.
	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.
	Operator will provide notice to COGCC EPS Kari Brown (kari.l.brown@state.co.us) at least 48 hours prior to backfill, monitoring well installation, soil boring investigation, or any sampling events performed on location.
	Operator shall update the waste disposal information on the next Supplemental Form 27.
	In future Form 27 Submittals Operator will present analytical results in a summary table compared to table 915-1 standards in addition to any analytical lab reports.
	Operator shall provide the soil sample location map via Supplemental Form 27 within 10 days of the approval of this form. GPS data used to create the map must comply with COGCC Rule 216.

11 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.

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
402855541	FORM 27-SUPPLEMENTAL-SUBMITTED
402855552	SITE INVESTIGATION PLAN
402855556	PHOTO DOCUMENTATION
402855600	ANALYTICAL RESULTS
402855834	MONITORING REPORT

Total Attach: 5 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)