

State of Colorado
Oil and Gas Conservation Commission

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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>	Phone Numbers
Address: <u>1700 LINCOLN ST STE 4550</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80203</u>
Contact Person: <u>Ray Gorka</u>	Email: <u>rgorka@kpk.com</u>	Phone: <u>(720) 434-2215</u>
		Mobile: <u>()</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 19246 Initial Form 27 Document #: 402754236

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>TANK BATTERY</u>	Facility ID: <u>480225</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Hladky-OGorman&CaryWalking1</u>	Latitude: <u>40.121290</u>	Longitude: <u>-104.789666</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWSW</u>	Sec: <u>21</u>	Twp: <u>2N</u>	Range: <u>66W</u>
	Meridian: <u>6</u>	Sensitive Area? <u>No</u>	

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Livestock/Ag
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

Agricultural cropland and pastureland are adjacent to the site. Approximately 5 residences, possibly 6 other habitable structures are within a quarter mile of the site; County Road 18.5 is 810 feet north of the site; SURFACE WATER: A stock pond is located approximately 515 feet northeast of the site; Fulton Ditch is located approximately 2,185 feet east-northeast of the site. The stock pond and Fulton ditch are mapped wetlands (PUBFx) and (R4SBCx). The 100 year floodplain is not located within 1/4 mile of the site. west approximately 1,800' of the well; High Priority habitat is approximately 4,725 feet to the west and northwest; a Bald Eagle Roost site is not located within a mile of the site; a Bald Eagle Active Nest site half mile buffer is 4,725 feet to the west. There are 0 domestic water wells within a quarter mile of the site.

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
UNDETERMINED	SOILS	TBD	Screening/Analytical

INITIAL ACTION SUMMARY

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

Per Field Inspection Report (Doc #697601412): a concrete vault was reported as leaking in 1998 report from Operator (document 2542826). The concrete produced water vault is not in service and still needs to be removed to investigate if impacts associated with E&P waste exist. 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):

Following the removal of the concrete vault, soil will be field screened to determine if impacts to soil are present. 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). Five (5) discrete soil samples will be collected from where the concrete vault was installed - each sidewall and base (~3 ft below ground surface) to verify soil was not impacted from the operation of the partially buried produced water vessel. If needed, extent borings may be installed, and soil samples collected to evaluate the extent of soil impacts. COGCC will be provided with a 48 hr notice prior to any sampling event.

Proposed Groundwater Sampling

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

If encountered, a grab groundwater sample will be collected from the excavation. Groundwater samples will be analyzed for Table 915-1 Organic Compounds in Groundwater and Table 915-1 inorganic parameters.

Proposed Surface Water Sampling

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

[Empty text box for surface water sampling details]

Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan (summary):

[Empty text box for additional investigative actions]

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

_____ Highest concentration of Benzene (µg/l) _____
_____ Highest concentration of Toluene (µg/l) _____
_____ Highest concentration of Ethylbenzene (µg/l) _____
_____ Highest concentration of Xylene (µg/l) _____
_____ 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?

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?

Following the removal of the concrete vault, soil will be field screened to determine if impacts to soil are present. 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). Five (5) discrete soil samples will be collected from where the concrete vault was installed - each sidewall and base (~3 ft below ground surface) to verify soil was not impacted from the operation of the partially buried produced water vessel. If needed, extent borings may be installed, and soil samples collected to evaluate the extent of soil impacts. COGCC will be provided with a 48 hr notice prior to any sampling event.

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.

If soil is found to be impacted due to the operation of the partially buried produced water vessel, Form 19 will be submitted reporting the associated release. Impacted soil will be excavated until soil sample analyses results show no exceedances of Table 915-1 thresholds.

REMEDICATION 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.

Once the concrete vault is removed, impacted soil will be excavated and disposed of at a certified disposal facility. Following notification to COGCC, confirmation samples will be collected and analyzed for Table 915-1 constituents. If groundwater is found to be impacted, a groundwater monitoring plan will be submitted for review and approval to address known impacts to groundwater. If additional excavation is required, the extent of the impacts will be delineated using soil borings. If soil is found to be impacted due to the operation of the partially buried produced water vessel, Form 19 will be submitted reporting the associated release. Impacted soil will be excavated until soil sample analyses results show no exceedances of Table 915-1 thresholds.

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) _____ 20
 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

No _____ Bioremediation (or enhanced bioremediation)
 No _____ Chemical oxidation
 No _____ Air sparge / Soil vapor extraction
 No _____ Natural Attenuation
 No _____ 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.

If groundwater is encountered during remediation, groundwater samples will be collected, and a Groundwater Monitoring (GWM) Plan will be proposed to COGCC. Upon approval of the GWM plan, COGCC will be provided with a 72-hour notice before well installation.

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 receiving confirmation sample 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. Concrete vault was within tank battery berms, so KPK will ensure secondary containment (earthen berms) are adequate during reclamation.

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. 02/20/2023

Proposed date of completion of Reclamation. 03/20/2023

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. 07/20/2021

Actual Spill or Release date, or date of discovery. 01/01/1998

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/20/2021

Proposed site investigation commencement. 11/28/2022

Proposed completion of site investigation. 12/26/2022

REMEDIAL ACTION DATES

Proposed start date of Remediation. 12/26/2022

Proposed date of completion of Remediation. 01/30/2023

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:

Operator is updating the implementation scheduled because the concrete produced water vault has not been removed as of this submission. Operator plans to remove the concrete vault in Q4 2022.

OPERATOR COMMENT

Operator is submitting this Form 27 as a quarterly update. The concrete produced water vault has not been removed as of this submission. Operator plans to remove the concrete vault in Q4 2022. As stated in the Site Investigation Plan, confirmation samples will be collected and analyzed for Table 915-1 constituents. If soil is found to be impacted due to the operation of the partially buried produced water vessel, Form 19 will be submitted reporting the associated release. Impacted soil will be excavated until soil sample analytical results show no exceedances of Table 915-1 thresholds. The waste volume reported in the Remediation Progress Update and Remedial Action Plan sections are an estimate of impacted soil to be removed from the excavation. Waste disposal manifests will be provided once work has started. No COAs exist from the previous Form 27 submission.

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: 10/27/2022

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: CHRIS CANFIELD

Date: 12/09/2022

Remediation Project Number: 19246

COA Type**Description**

	All unaddressed COAs/CAs from previously approved forms/inspections still apply.
	All COAs applied to the GRIP apply to this remediation project.
2 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**

403207885	FORM 27-SUPPLEMENTAL-SUBMITTED
403208251	SITE MAP

Total Attach: 2 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)