

State of Colorado  
Oil and Gas Conservation Commission

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Report taken by:  
ROB YOUNG

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: PHILLIPS PETROLEUM CO	Operator No: 70100	Phone Numbers Phone: (281) 206-5298 Mobile: (907) 227-1777
Address: P O BOX 1967		
City: HOUSTON State: TX Zip: 77251-1967		
Contact Person: Samuel Widmer	Email: sam.widmer@cop.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 7729 Initial Form 27 Document #: 1761394

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: WELL	Facility ID: _____	API #: 087-05719	County Name: MORGAN
Facility Name: STATE M(K) 2	Latitude: 40.134223	Longitude: -103.531410	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESE	Sec: 16	Twp: 2N	Range: 55W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications OH Most Sensitive Adjacent Land Use NON CROP LAND  
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**

CLOSEST CONFIRMED WATER WELL ~0.32 MILES SE, SURFACE WATER (BEAVER CREEK) ~2.1 MILES W OF SITE.

**SITE INVESTIGATION PLAN**

**TYPE OF WASTE:**

- E&P Waste
  - Produced Water
  - Oil
  - Condensate
  - Drilling Fluids
  - Drill Cuttings
  - Other E&P Waste
  - Workover Fluids
  - Tank Bottoms
  - Pigging Waste
  - Rig Wash
  - Spent Filters
  - Pit Bottoms
  - Other (as described by EPA)
  - Non-E&P Waste
- Flowline and debris - This has been removed

**DESCRIPTION OF IMPACT**

Impacted?	Impacted Media	Extent of Impact	How Determined
No	SOILS	See site inspection report	Field verified and completed.
No	VEGETATION	See site inspection rep	Field verified and completed.

**INITIAL ACTION SUMMARY**

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

SITE VISIT CONDUCTED BY CONOCOPHILLIPS COMPANY AND CONESTOGA-ROVERS & ASSOCIATES ON FEBRUARY 8, 2013. PROPOSAL TO CONDUCT SOIL INVESTIGATION ACTIVITIES SUBMITTED WITH THIS FORM 27 FOR APPROVAL. SOIL INVESTIGATION WORK SCHEDULED TO BEGIN THE WEEK OF APRIL 22, 2013. SEE ATTACHED DOCUMENT TITLED "ENVIRONMENTAL WORK PLAN FOR SOIL INVESTIGATION AND SAMPLING ACTIVITIES".

**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 ):

On June 13 and 27, 2013, GHD collected 23 soil samples across the investigation area which included the Plains M(K)1 and Phillips M(K)2 well sites. Soil sample locations were based on the results of the geophysical survey data and were collected to determine whether petroleum impacts or potential inorganic impacts associated with exploration and production (E&P) activities existed within the area.

**Proposed Groundwater Sampling**

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

[Empty box for groundwater sampling details]

**Proposed Surface Water Sampling**

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

[Empty box for surface water sampling details]

**Additional Investigative Actions**

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

[Empty box for additional investigative actions]

**SITE INVESTIGATION REPORT**

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 8  
Number of soil samples exceeding 915-1 1  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 12266  
49

### NA / ND

ND Highest concentration of TPH (mg/kg) \_\_\_\_\_  
-- Highest concentration of SAR 17.5  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 0

### 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?

6 background samples 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?

## 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.

- May 1, 1958 – State M(K)2 well spudded by Plains Exploration Company
- May 17, 1958 – State M(K)3 well spudded by Plains Exploration Company;
- August 11, 1958 – State M(K)4 well spudded by Plains Exploration Company;
- August 17, 1958 – State M(K)4 plugged by Haliburton Oil Well Cementing Company on behalf of operator Plains Exploration Company;
- July 13, 1972 – State M(K)1 well plugged on behalf of operator Cardinal Petroleum Company;
- July 20, 1972 – State M(K)3 well plugged on behalf of operator Cardinal Petroleum Company;
- March 1, 1974 – State M(K)2 change in ownership from Cardinal Petroleum Company to Phillips Petroleum Company;
- May 26, 1985 – State M(K)2 well plugged and abandoned by Phillips Petroleum Company;
- August 26, 1986 – State M(K)2 lease inspection performed: results indicate "P&A OK" for skim tank, and "no sign of T-B" for Pit No.1 and "well head area restoration OK" for Pit No. 2;
- January 22, 2013 – Field inspection of M(K) complex conducted by COGCC (Document No. 668700416);
- February 8, 2013 – Site visit of M(K) complex by ConocoPhillips and GHD.
- April 25, 2013 – Site visit of M(K) complex by ConocoPhillips and GHD to complete geophysical investigation.
- June 10, 13 and 27, 2013 – Site visit of M(K) complex by GHD to complete shallow soil sampling.
- May 30, 2014 – Site visit of M(K) complex by GHD to photograph Site following heavy spring rain.
- November 5, 2015 - Site visit of M(K) complex by ConocoPhillips and GHD
- Site meeting with GHD, ConocoPhillips, State Land Board, and COGCC, on September 9, 2019,
- The Site was reinspected by GHD on October 8, 2021

## **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.

After the October 8, 2021 inspection, GHD recommends no further action be taken and even though there remain to be a few areas where the seed did not take greater than 70 percent of the area in question has been revegetated. GHD's concern would be that the actions needed to vegetate the remaining areas to be would possibly cause more damage to the newly established vegetation. When comparing the photos taken in similar areas pre and post seeding vegetations has become thicker and healthier in the affected areas and the bare areas have reduced significantly

### **Soil Remediation Summary**

In Situ

Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

\_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_

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

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

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

\_\_\_\_\_ Excavate and onsite remediation

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

\_\_\_\_\_ 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.

N/A

# 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 \_\_\_\_\_

## WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? \_\_\_\_\_

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

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

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

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

Non-COGCC Disposal Facility: \_\_\_\_\_

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

E&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? Yes \_\_\_\_\_

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? Yes \_\_\_\_\_

Does Groundwater meet Table 915-1 standards? Yes \_\_\_\_\_

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.

SEE ATTACHED Vegetation Inspection Report

Is the described reclamation complete? Yes \_\_\_\_\_

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. 01/22/2013

Proposed date of completion of Reclamation. 11/12/2021

## 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. \_\_\_\_\_

Actual Spill or Release date, or date of discovery. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). \_\_\_\_\_

Proposed site investigation commencement. 04/23/2013

Proposed completion of site investigation. \_\_\_\_\_

### REMEDIAL ACTION DATES

Proposed start date of Remediation. \_\_\_\_\_

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**

Discussed this project with Rob Young and he said this would be everything he needed to close this site out. I previously submitted this report via email. Please let me know if you need anything else

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

Signed: Samuel Widmer

Title: RM&R Program Manager

Submit Date: 02/09/2022

Email: sam.widmer@cop.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: ROB YOUNG

Date: 02/09/2022

Remediation Project Number: 7729

**Condition of Approval****COA Type****Description**

	Based on the information presented, it appears that no further action is necessary at this time and the COGCC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding COGCC standards or if ground water is found to be impacted, then further investigation and/or remediation activities may be required.
1 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**

402951453	FORM 27-SUPPLEMENTAL-SUBMITTED
402951505	MONITORING REPORT

Total Attach: 2 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)