

State of Colorado  
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
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403748281

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Report taken by:

Krystal Heibel

## 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 ECOM 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: P O & G OPERATING LLC	Operator No: 10634	Phone Numbers
Address: 5847 SAN FELIPE SUITE 3200		Phone: (346) 220-8355
City: HOUSTON	State: TX	Zip: 77057
Contact Person: Rick Eggleston	Email: rick_eggleston@pogresources.com	Mobile: (720) 641-8661

## PROJECT, PURPOSE &amp; SITE INFORMATION

## PROJECT INFORMATION

Remediation Project #: 33643 Initial Form 27 Document #: 403634931

## 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: LOCATION	Facility ID: 470605	API #: _____	County Name: WASHINGTON
Facility Name: Nininger Battery	Latitude: 38.694615	Longitude: -102.420362	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: Lot 4	Sec: 1	Twp: 16S	Range: 45w Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications ML Most Sensitive Adjacent Land Use Agriculture, cropland

Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

## Other Potential Receptors within 1/4 mile

Site is within HPH (Lesser Prairie Chicken Estimated Occupied Range)

## 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	N/A	Excavation done in area
Yes	SOILS	TBD	Lab analysis

### 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 Nininger TB location will be decommissioned in accordance with ECOM Rule 911.a and ECOM Rule 913.c.(1). Soil and groundwater (if encountered) samples will be collected and submitted for laboratory analysis to determine if concentrations and values are in compliance with ECOM Table 915-1. The Topographic Site Location Map showing the geographic setting of the site as well as proposed soil sample maps for the TB and 3 tanks are attached.

### 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 facility decommissioning activities, discrete soil samples will be collected from the surfaces and the excavation areas underneath the separator and three above ground storage tanks. In the absence of apparent impacts, soil samples will be submitted to an accredited laboratory for benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-TMB, 1,3,5-TMB, total petroleum hydrocarbons (TPH (C6-C36)), pH, EC, SAR, boron. 2 background samples will be collected at location of comparable, nearby, non-impacted native soil. Proposed soil sample locations are provided.

#### Proposed Groundwater Sampling

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

If groundwater is encountered during facility decommissioning activities, a minimum of one grab sample will be collected as soon as practical. Groundwater samples will be submitted to an accredited laboratory for analysis of BTEX, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene, using standard methods appropriate for detecting the target analytes in ECOM Table 915-1.

#### 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 4  
Number of soil samples exceeding 915-1 3  
Was the areal and vertical extent of soil contamination delineated? No  
Approximate areal extent (square 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         

### 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.

### NA / ND

-- Highest concentration of TPH (mg/kg) 417  
ND Highest concentration of SAR           
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 4  
  
-- 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)         

## OTHER INVESTIGATION INFORMATION

☐ Were impacts to adjacent property or offsite impacts identified?

☒ Were background samples collected as part of this site investigation?

Two background samples were taken approximately 70 ft SE of the wellhead.

☐ 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?

The areal and vertical extent of the high PH soil will be determined. The high PH impacted soil will be removed and disposed of at an approved facility.

## 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.

NA

## 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.

NA

## Soil Remediation Summary

☐ In Situ

☐ Ex Situ

         Bioremediation ( or enhanced bioremediation )

         Excavate and offsite disposal

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

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

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.

## 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 Quarterly report on progress of site investigation and remediation

### 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.

PO&G Operating LLC. has complied with General Liability Insurance requirement per Rule 705 and is fully bonded per Rule 702 to fully address the anticipated costs of remediation.

Operator anticipates the remaining cost for this project to be: \$ 5000

### 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

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:

Volume of E&P Waste (liquid) in barrels

E&P waste (liquid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC 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 ECMC 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.

The site will be reclaimed in accordance with ECMC 1000 Series Reclamation Rules Per surface owner direction.

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? \_\_\_\_\_

If YES, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

Did the local soil conservation district provide the seed mix? \_\_\_\_\_

### SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 07/08/2024

Proposed date of completion of Reclamation. 07/29/2024

## 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. 09/25/2023

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

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/29/2023

Proposed site investigation commencement. 01/08/2024

Proposed completion of site investigation. 01/26/2024

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/22/2024

Proposed date of completion of Remediation. 05/13/2024

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**

All samples failed the contaminant of concern concentration cleanup level for PH at 8.48, 8.77, and 8.66. The areal and vertical extent of the high PH will be identified and removed. The high PH impacted soil will be disposed of at an approved facility.

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

Signed: Rick Eggleston

Title: EHS&R Project Coordinator

Submit Date: 04/09/2024

Email: rick\_eggleston@pogresources.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: Krystal Heibel

Date: 06/18/2024

Remediation Project Number: 33643

**COA Type****Description**

	Operator shall conduct an environmental investigation to confirm the presence or absence of impacts adjacent to the flowline at a minimum of every 250'.
	Operator shall clarify the plan with the flowlines (abandon-in-place or remove) within the next submittal.
	Operator shall clarify the remediation action plan to address the pH, arsenic, lead, and other potential exceedances associated with this facilities decommissioning.
	Operators will collect and submit for laboratory analysis a soil sample collected from the areas most likely to have been impacted during the operational life of the flowline. These areas include, but are not limited to: where Flowlines connect to the wellhead, surface equipment, risers, valves, or manifolds; where Flowlines bend or were repaired in the past and at joints and hammer unions; where Flowlines connect to Flowlines or equipment of different material; and where Flowlines crossed drainages or surface water or are in contact with shallow groundwater.
	Operator shall populate the Remedial Action Plan within the next submittal.
	Operator shall submit reports of site investigation including all laboratory analytical results for all samples collected, per Rule 913.h.(4).A..  It appears only the chain of custody was attached.
	If groundwater is encountered, Operator will analyze groundwater samples for Table 915-1 Groundwater Inorganic Parameters (total dissolved solids, sulfate, chloride) and organic compounds in groundwater.
	Operator shall collect confirmation soil samples as described in the Rule 915.e.(2) Guidance Document. Operator will analyze soil samples 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)).
	Location and/or its associated flowlines lies within the following mapped High Priority Habitat(s): -Lesser Prairie Chicken Estimated Occupied Range -Designated Groundwater Management Area -Designated Basin Please note that Approval of this Form 27 does not supersede any Federal, State or Local regulations. ECMC recommends consultation with Colorado Parks and Wildlife.

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**

403748281	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
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403748318	ANALYTICAL RESULTS
403748320	ANALYTICAL RESULTS
403748321	ANALYTICAL RESULTS
403828545	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 5 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Environmental	"All samples failed the contaminant of concern concentration cleanup level for PH at 8.48, 8.77, and 8.66. The areal and vertical extent of the high PH will be identified and removed. The high PH impacted soil will be disposed of at an approved facility."	06/18/2024

Total: 1 comment(s)