FORM 27 Rev 5/22

State of Colorado
Oil and Gas Conservation Commission

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Report taken by: Jason Kosola

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 INFORMATON

Name of Operator: XTO ENERGY INC Operator No: 100264
Address: 210 PARK AVENUE STE 2240
City: OKLAHOMA CITY State: OK Zip: 73102
Contact Person: Erin Clark

Phone Numbers
Phone: (405) 594-9457
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PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 22832 Initial Form 27 Document #: 402979959

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.
- [X] 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

Yes Multiple Facilities

Facility Type: WELL Facility ID: API #: 071-09126 County Name: LAS ANIMAS
Facility Name: APACHE CANYON 6-9V Latitude: 37.112225 Longitude: -104.924301
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NESE Sec: 6 Twp: 34S Range: 67W Meridian: 6 Sensitive Area? Yes

Facility Type: PIT Facility ID: 292612 API #: County Name: LAS ANIMAS
Facility Name: APACHE CANYON 06-09V Latitude: 37.112225 Longitude: -104.924301
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NESE Sec: 6 Twp: 34S Range: 67W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SC

Most Sensitive Adjacent Land Use Forest

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

NA

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- [X] **E&P Waste**
  - [X] 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** _____

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	To be determined.	Laboratory analysis of 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.

This form is being summitted to report initial sampling supporting the APACHE CANYON 6-9V (API# 05-071-09126) well P&A and associated pit closure (COGCC Facility ID 292612). On 9/6/2022, soil samples were collected per the approved Initial Form 27 #402979959. Twelve soil samples were collected from the pit, wellhead excavation, associated flowline connection points, and equipment footprints. Laboratory results of initial characterization samples indicate compliance with COGCC Table 915-1 Residential Screening Levels except for SAR, pH, arsenic, and chromium (VI). Additionally, one composite soil sample was collected of the soil soil removed from the pit. Laboratory results of the composite sample indicate compliance with COGCC Table 915-1 Residential Screening Levels except for TPH and arsenic. The soil represented by this sample will be transported off location for disposal at an approved facility.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

[X] Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

SAR, pH, arsenic, and chromium (VI) exceedances remain within the project area. However, a produced water sample (COGCC Sample Site ID 288598) collected from the APACHE CANYON 6-9V (API# 05-071-09126) well indicates a pH of 7.6, and arsenic and chromium (VI) values below the laboratory detection limit. Based on this analysis, the elevated concentrations in the project area appear to be naturally occurring and XTO requests a reduced analyte suite of SAR for future confirmation samples associated with this remediation project. If this request is approved, XTO plans to excavate SAR impacts in the area represented by pit base sample 220906_Apache_Bottom-Hole_CS1(1015)13.5' and confirm removal through laboratory analysis. A Site Diagram illustrating sample locations is attached. Laboratory reports are included and summarize in the attached table.

Proposed Groundwater Sampling

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

No groundwater was encountered during initial investigation.

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 **NA / ND**

Number of soil samples collected 13 -- Highest concentration of TPH (mg/kg) 638

Number of soil samples exceeeding 915-1 13 -- Highest concentration of SAR 8.09

Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 No

Approximate areal extent (square feet) 250 Vertical Extent > 915-1 (in feet) 14

Groundwater

Number of groundwater samples collected 0 Highest concentration of Benzene (µg/l)

Was extent of groundwater contaminated delineated? No Highest concentration of Toluene (µg/l)

Depth to groundwater (below ground surface, in feet) Highest concentration of Ethylbenzene (µg/l)

Number of groundwater monitoring wells installed Highest concentration of Xylene (µg/l)

Number of groundwater samples exceeding 915-1 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?

See attached Site Diagram and table detailing background soil sampling.

☐ 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?

See Remediation Summary.

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.

Visually impacted soil from the pit was excavated and will be transported to an approved deposal facility.

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.

On 9/6/2022, soil samples were collected in per the approved Initial Form 27 #402979959. Twelve soil samples were collected from the pit, wellhead excavation, associated flowline connection points, and equipment footprints. Laboratory results of initial characterization samples indicate compliance with OCGCC Table 915-1 Residential Screening Levels except for SAR, pH, arsenic, and chromium (VI). Exceedances of pH rang from 8.43 to 9.12. Arsenic exceedances range from 1.89 mg/kg to 29.4 mg/kg. Chromium (VI) exceedances range from 0.406 mg/kg to 0.562 mg/kg. However, a produced water sample (COGCC Sample Site ID 288598) collected from the APACHE CANYON 6-9V (API# 05-071-09126) indicates a pH of 7.6, and arsenic and chromium (VI) values below the laboratory detection limit. Based on this analysis, the elevated concentrations of these constituents in the project area appear to be naturally occurring and XTO requests a reduced analyte suite of SAR for future confirmation samples associated with this remediation project.

Additionally, one composite soil sample was collected of the soil removed from the pit. Laboratory results of composite sample indicate compliance with OCGCC Table 915-1 Residential Screening Levels except for TPH and arsenic. The soil represented by this sample will be transported off location for disposal at an approved facility. A Site Diagram illustrating sample locations is attached. Laboratory reports are included and summarize in the attached table.

Upon approval of the requested reduced analyte suite, XTO plans to excavate SAR impacts in the area represented by pit base sample 220906_Apache_Bottom-Hole_CS1(1015)13.5' and confirm removal through laboratory analysis.

Soil Remediation Summary

☐ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☐ **Ex Situ**

_____ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) _____

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:

[X] 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 _____

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.

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

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? 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.

All disturbance areas will be returned to grade with suitable material in preparation for final reclamation activities pursuant to the COGCC 1000 Series 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?

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.

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.

Actual Spill or Release date, or date of discovery.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/06/2022

Proposed site investigation commencement. 09/06/2022

Proposed completion of site investigation. 10/06/2022

REMEDIAL ACTION DATES

Proposed start date of Remediation. 10/06/2022

Proposed date of completion of Remediation. 10/06/2022

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

This form is being summitted to report initial P&A sampling results of the APACHE CANYON 6-9V (API# 05-071-09126) well and associated Pit (COGCC Facility ID 292612). Additionally, this form serves to request a reduced analyte suite of SAR based on initial characterization samples and produced water analysis. Upon approval of this form, XTO plans to continue excavation of the identified SAR exceedance in the pit base.

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

Signed: Erin Clark Title: Lead Reg. Coordinator

Submit Date: 10/04/2022 Email: erin.k.clark@exxonmobil.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: Jason Kosola Date: 10/06/2022

Remediation Project Number: 22832

COA Type	Description
	This Form 27 Supplemental is being approved as submitted. However, the next Form 27 Supplemental must be populated with the Adequacy of Operator's General Liability Insurance and Financial Assurance data field under the Remediation Progress Update tab to describe how Operator's Financial Assurance meets the requirements of Rule 703.b. and General Liability Insurance meets the requirements of Rule 705.b.
	Reduced analyte request is denied. Per discussion on the phone with operator, pH cannot be excluded based upon a produced water sample. Operator shall run analysis for pH and SAR.
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
403186127	FORM 27-SUPPLEMENTAL-SUBMITTED
403186381	SITE MAP
403186387	SITE MAP
403186409	ANALYTICAL RESULTS
403186431	ANALYTICAL RESULTS

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)