

# State of Colorado Oil and Gas Conservation Commission

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Document Number:

403196653

Receive Date:

10/13/2022

Report taken by:

Laurel Anderson

## 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: INVESTMENT EQUIPMENT LLC	Operator No: 10330	<b>Phone Numbers</b> Phone: (405) 642-9437 Mobile: ( )
Address: PMB 412 558 CASTLE PINES PKWY		
City: CASTLE PINES	State: CO Zip: 80108	
Contact Person: Jim Chisholm	Email: investmentequipment@gmail.com	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 18894 Initial Form 27 Document #: 402646539

#### 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

Yes Multiple Facilities

Facility Type: PIT	Facility ID: 117586	API #:	County Name: WASHINGTON
Facility Name: COLORADO STATE 1 & 2		Latitude: 39.751264	Longitude: -103.272980
		** correct Lat/Long if needed: Latitude:	Longitude:
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W Meridian: 6 Sensitive Area? Yes
Facility Type: PIT	Facility ID: 117587	API #:	County Name: WASHINGTON
Facility Name: COLORADO "A" 1		Latitude: 39.750951	Longitude: -103.272409
		** correct Lat/Long if needed: Latitude:	Longitude:
QtrQtr: NESW	Sec: 36	Twp: 3S	Range: 53W Meridian: 6 Sensitive Area? Yes

Facility Type: LOCATION		Facility ID: 470686		API #: _____		County Name: _____	
Facility Name: _____				Latitude: _____		Longitude: _____	
				** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: _____	Sec: _____	Twp: _____	Range: _____	Meridian: _____	Sensitive Area? No		

Facility Type: OFF-LOCATION FLOWLINE		Facility ID: 470717		API #: _____		County Name: WASHINGTON	
Facility Name: Production Line				Latitude: 39.751120		Longitude: -103.273620	
				** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W	Meridian: 6	Sensitive Area? Yes		

Facility Type: OFF-LOCATION FLOWLINE		Facility ID: 470718		API #: _____		County Name: WASHINGTON	
Facility Name: Production Line				Latitude: 39.751120		Longitude: -103.273620	
				** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W	Meridian: 6	Sensitive Area? Yes		

## **SITE CONDITIONS**

General soil type - USCS Classifications SW \_\_\_\_\_ Most Sensitive Adjacent Land Use 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 INVESTIGATION PLAN

### TYPE OF WASTE:

- ☐ E&P Waste ☐ Other E&P Waste ☒ Non-E&P Waste
- ☐ Produced Water ☐ Workover Fluids ☐ No waste is currently anticipated
- ☐ 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	GROUNDWATER	N/A	Laboratory analysis, if encountered
UNDETERMINED	SOILS	N/A	Laboratory 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.

A site investigation will be conducted pursuant to COGCC Rule 911 at the Colorado State location, off-location flowlines, on-location flowline(s), tank battery, and location. See attachment for soil sampling and field screening locations.

### 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 ):

Grab samples will be taken at the equipment sites, 3 in total; each pit will have the sidewalls sampled and the pit bottom; the larger pit will have two pit bottom samples collected; one background sample will be collected for this location. Soil samples will be analyzed by a certified laboratory for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil per COGCC Table 915-1, and EC, SAR, pH, and boron. All samples collected will be analyzed by a certified laboratory using approved COGCC laboratory analysis methods. Please see attached proposed sampling map.

#### Proposed Groundwater Sampling

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

If groundwater is encountered during the site assessment, a grab groundwater sample will be collected and analyzed for all organic compounds per COGCC 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 ):

Visual inspection of the flowlines will occur during abandonment activities. Field personnel will field screen all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling is required. The COGCC Wellhead/Flowline Closure Checklist will be utilized and filled out during the abandonment process. A photolog will be submitted on the subsequent Form 27.

## SITE INVESTIGATION REPORT

### SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 0

Highest concentration of TPH (mg/kg)

Number of soil samples exceeding 915-1 \_\_\_\_\_

Highest concentration of SAR \_\_\_\_\_

Was the areal and vertical extent of soil contamination delineated? \_\_\_\_\_

BTEX > 915-1 \_\_\_\_\_

Approximate areal extent (square feet) \_\_\_\_\_

Vertical Extent > 915-1 (in feet) \_\_\_\_\_

#### 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?

☐ 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.

No source was generated

#### 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.

N/A

#### 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.

## 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

### 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? No

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.

Reclamation will be in accordance with COGCC 1000 Series Rules and landowner's requests.

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

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). 08/02/2021

Proposed site investigation commencement. \_\_\_\_\_

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**

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

Signed: Jim Chisholm

Title: President

Submit Date: 10/13/2022

Email: investmentequipment@gmail.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: Laurel Anderson

Date: 01/19/2023

Remediation Project Number: 18894

**COA Type****Description**

	<p>Two remediation projects are open for Pit closure/decommissioning (pits 117586 and 117587). Operator shall request closure for Remediation Project 16226 and state work is proceeding under Remediation Project 18894. As such, Operator shall address Spill 472607 under Remediation Project 18894 and add the spill to the site information section. The site information section on the subsequent Form 27 Supplemental for Remediation Project number 18894 must include the following:</p> <ul style="list-style-type: none"> <li>-Spill 472607</li> <li>-Pit 117586</li> <li>-Pit 117587</li> <li>-Location 470686</li> <li>-Off-location flowline 470717 (request administrative closure and reference remediation project associated with flowline removal)</li> <li>-Off-location flowline 470718 (request administrative closure and reference remediation project associated with flowline removal)</li> </ul>
	<p>If Operator proposes additional background soil sampling, Operator shall obtain background samples from a minimum of five (5) separate locations for characterization. Background sampling locations should be sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, and should be obtained from similar depths and soil horizons or lithologic materials for comparison to confirmation soil samples.</p>
	<p>Due to soil impacts discovered and impacts remaining in-situ - Operator shall comply with the current Rule 911 for facility closure and with Table 915-1 for concentration standards. Operator shall conduct additional investigation for the tank battery location (470686), Spill 472607 and pit closures (pits 117586 &amp; 117587) and collect confirmation soil samples as described in the Rule 915.e.(2) &amp; Rule 911.c. Pit Closure Guidance Documents. 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)). On the subsequent Form 27s Operator shall propose a sampling plan for additional site investigation.</p>
	<p>The Soil Analytical Results Summary table for Table 915-1 Soil Suitability parameters attached to the Closure Report does not indicate sample depths and the samples listed are not shown on the Sample Locations Figure. Additionally, soil sample locations depicted on the Sample Locations Figure do not appear in the Soil Analytical Results Summary table. Operator shall review these discrepancies and provide an updated Sample Location figure and/or Soil Analytical Results Summary table on the subsequent Supplemental Form 27.</p>
	<p>Operator has not updated the Remedial Action Plan section to reflect all site investigation and remediation activities to date. Operator shall update the relevant information on the subsequent Supplemental Form 27.</p>
	<p>Operator shall evaluate and provide a comprehensive list of all sensitive receptors within 1/4 mile of the location on the subsequent Form 27 Supplemental.</p> <p>Please note: Location lies within the following mapped High Priority Habitat: Pronghorn Winter Concentration Area. Approval of this Form 27 does not supersede any Federal, State or Local regulations. COGCC recommends consultation with Colorado Parks and Wildlife.</p>



	Operator has not populated the Site Investigation Report Section. Operator shall populate this section with the relevant information on the subsequent Supplemental Form 27.
	The Implementation Schedule section of this Form 27s has not been fully populated. Operator shall submit an Implementation Schedule as is required by Rule 913.d. The schedule will include planned dates and duration(s) of activities during the next quarterly reporting period. Operator shall populate provide this information on the subsequent Supplemental Form 27.
	Table 915-1 Footnote 11 indicates "The Director will consider Residential Soil Screening Level Concentrations up to 1.25 times site specific background levels for metals in soil." Operator shall update the analytical summary table to exclude multiplying 1.25 times the background level for parameters listed in the Soil Suitability for Reclamation section on the subsequent Supplemental Form 27.
	<p>Soil sample data indicate that SAR, EC, pH and boron at the site exceed Table 915-1 soil suitability levels for reclamation. Therefore the remediation project cannot be closed at this time and COGCC has removed the closure request.</p> <p>On the subsequent Form 27s Operator shall propose a remedial action plan to address soil impacts above Table 915-1 standards or if the Operator proposes to leave material with elevated levels of SAR, EC, and pH in situ, the Operator will provide a detailed Reclamation plan that includes, but is not limited to, soil analysis from adjacent undisturbed lands, revegetation techniques, site stabilization, and details of seeded species. Operator will submit the Reclamation plan on a Form 27 Supplemental Report for Director review. Delineation of SAR, EC, pH and boron above Table 915-1 standards will be completed prior to development and submittal of Reclamation Plan. At no time will soil with SAR, EC, pH or boron levels that exceed Table 915-1 be left within the root zone. See Rule 915.b. - Soil Suitability for Reclamation guidance document for additional information.</p>
	The Remediation Progress Update section has not been populated. While this Form 27 Supplemental is being approved as submitted, the subsequent Form 27 Supplemental must be populated with: 1) Periodic Reporting information 2) 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. 3) Waste Disposal Information as needed.
	Operator has not updated portions of the Site Investigation Plan section to reflect all site investigation and remediation activities to date. Operator shall update the relevant information on the subsequent Supplemental Form 27.
12 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>
403196653	FORM 27-SUPPLEMENTAL-SUBMITTED
403196664	REMEDIATION PROGRESS REPORT

Total Attach: 2 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)