

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
401437116  
Receive Date:  
11/07/2017

Report taken by:  
Jim Hughes

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.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: <u>SCHUTZ* RICHARD E</u>	Operator No: <u>10363</u>	<b>Phone Numbers</b>
Address: <u>PO BOX 66</u>		Phone: <u>(970) 264-4436</u>
City: <u>CHROMO</u>	State: <u>CO</u>	Zip: <u>81128</u>
Contact Person: <u>Richard Schutz</u>	Email: <u>schutzre@yahoo.com</u>	Mobile: <u>( )</u>

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**

Remediation Project #: 10228 Initial Form 27 Document #: 401305747

**PURPOSE INFORMATION**

<input type="checkbox"/> 901.e. Sensitive Area Determination	<input type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water
<input type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure	<input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b.
<input checked="" type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation	<input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project
<input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste	<input type="checkbox"/> Rule 906.c.: Director request
<input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure	<input type="checkbox"/> Other _____

**SITE INFORMATION** Y Multiple Facilities ( in accordance with Rule 909.c. )

Facility Type: <u>LOCATION</u>	Facility ID: <u>378540</u>	API #: _____	County Name: <u>ARCHULETA</u>
Facility Name: <u>FITZHUGH-N33N1E 33SESE</u>	Latitude: <u>37.051745</u>	Longitude: <u>-106.844147</u>	
** correct Lat/Long if needed: Latitude: <u>37.051724</u>		Longitude: <u>-106.844276</u>	
QtrQtr: <u>SESE</u>	Sec: <u>33</u>	Twp: <u>33N</u>	Range: <u>1E</u> Meridian: <u>N</u> Sensitive Area? <u>No</u>
Facility Type: <u>LOCATION</u>	Facility ID: <u>378556</u>	API #: _____	County Name: <u>ARCHULETA</u>
Facility Name: <u>FITZHUGH-N33N1E 33NWNE</u>	Latitude: <u>37.060316</u>	Longitude: <u>-106.847074</u>	
** correct Lat/Long if needed: Latitude: <u>37.050863</u>		Longitude: <u>-106.845144</u>	
QtrQtr: <u>NWNE</u>	Sec: <u>33</u>	Twp: <u>33N</u>	Range: <u>1E</u> Meridian: <u>N</u> Sensitive Area? <u>No</u>
Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>450997</u>	API #: _____	County Name: <u>ARCHULETA</u>
Facility Name: <u>Fitzhugh 15 15</u>	Latitude: <u>37.052863</u>	Longitude: <u>-106.846874</u>	
** correct Lat/Long if needed: Latitude: <u>37.052892</u>		Longitude: <u>-106.846868</u>	
QtrQtr: <u>NWSE</u>	Sec: <u>33</u>	Twp: <u>33N</u>	Range: <u>1E</u> Meridian: <u>N</u> Sensitive Area? <u>No</u>

**SITE CONDITIONS**

General soil type - USCS Classifications CH Most Sensitive Adjacent Land Use Agriculture

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**

### SITE INVESTIGATION PLAN

**TYPE OF WASTE:**

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> <b>E&amp;P Waste</b> | <input type="checkbox"/> <b>Other E&amp;P Waste</b>  | <input type="checkbox"/> <b>Non-E&amp;P Waste</b> |
| <input type="checkbox"/> Produced Water                  | <input type="checkbox"/> Workover Fluids             | _____   |
| <input checked="" type="checkbox"/> Oil                  | <input type="checkbox"/> Tank Bottoms                | _____   |
| <input type="checkbox"/> Condensate                      | <input type="checkbox"/> Pigging Waste               |   |
| <input type="checkbox"/> Drilling Fluids                 | <input type="checkbox"/> Rig Wash                    |   |
| <input type="checkbox"/> Drill Cuttings                  | <input type="checkbox"/> Spent Filters               |   |
|  | <input type="checkbox"/> Pit Bottoms                 |   |
|  | <input type="checkbox"/> Other (as described by EPA) | _____   |

**DESCRIPTION OF IMPACT**

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	slight	by sight

**INITIAL ACTION SUMMARY**

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

Shut off Fitzhugh 6 pump

**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 ):

At each location after cleanup

**Proposed Groundwater Sampling**

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

**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 0  
Number of soil samples exceeding 910-1 \_\_\_\_\_  
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 > 910-1 \_\_\_\_\_  
\_\_\_\_\_ Vertical Extent > 910-1 (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 910-1 \_\_\_\_\_

\_\_\_\_\_ 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 910-1  
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?

There are on going efforts to excavate all sites to determine the impact at each site. Well #7 has been excavated at least 5' to 6' deep and approx. 20' in diameter and are still excavating to get to unimpacted soil. Some areas in the pit are still showing oil in soil, while other areas are getting out of the oil. Well #7 is actively being excavated while Well #11 and Well #15 have only been excavated to plug flowlines and find problem areas. All other open holes where flowlines were plugged are backfilled. in

# REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? Yes \_\_\_\_\_

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Excavate and haul waste to appropriate site for farming soil.

## 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.

Excavate impacted material in Well #7, Well #11 and Well #15, land farm it, then return it to the excavated areas once it is compliant with Table 910-1.

## Soil Remediation Summary

In Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

Ex Situ

No \_\_\_\_\_ Excavate and offsite disposal  
If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_  
Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_  
Yes \_\_\_\_\_ Excavate and onsite remediation  
No \_\_\_\_\_ Land Treatment  
No \_\_\_\_\_ Bioremediation (or enhanced bioremediation)  
No \_\_\_\_\_ Chemical oxidation  
Yes \_\_\_\_\_ Other \_\_\_\_\_ Land Farming

## 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

Frequency:  Quarterly  Semi-Annually  Annually  Other \_\_\_\_\_

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? No \_\_\_\_\_

Do all soils meet Table 910-1 standards? No \_\_\_\_\_

Does the previous reply indicate consideration of background concentrations? \_\_\_\_\_

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface? No \_\_\_\_\_

Does Groundwater meet Table 910-1 standards? \_\_\_\_\_

Is additional groundwater monitoring to be conducted? \_\_\_\_\_

## 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 excavated material will be land farmed and land farmed material will be returned to excavated areas upon complying with Table 910-1 standards.

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 approve the seed mix? Yes \_\_\_\_\_

If NO, does the seed mix comply with local soil conservation district recommendations? Yes \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

### PRIOR DATES

Date of Surface Owner notification/consultation, if required. 06/02/2017

Actual Spill or Release date, if known. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/02/2017

Date of commencement of Site Investigation. \_\_\_\_\_

Date of completion of Site Investigation. \_\_\_\_\_

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 06/21/2017

Date of completion of Remediation. \_\_\_\_\_

### SITE RECLAMATION DATES

Date of commencement of Reclamation. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

### OPERATOR COMMENT

Fitzhugh 7 Facility ID 378540  
 Fitzhugh 11 Facility ID 378556  
 Fitzhugh 15 Facility ID 450997  
 Above are the actual wells that had flowlines that were leaking and were capped

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

Signed: Richard Schutz

Title: Owner

Submit Date: 11/07/2017

Email: schutzre@yahoo.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: Jim Hughes

Date: 11/28/2017

Remediation Project Number: 10228

### COA Type

### Description

<u>COA Type</u>	<u>Description</u>

### 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

401437116	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
401469167	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 2 Files

### General Comments

#### User Group

#### Comment

#### Comment Date

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)