

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
404025294  
Receive Date:  
01/02/2025

Report taken by:  
John Heil

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: <u>DCP OPERATING COMPANY LP</u>	Operator No: <u>4680</u>	<b>Phone Numbers</b>
Address: <u>2331 CITYWEST BLVD., S812-02</u>		Phone: <u>(303) 619-3042</u>
City: <u>HOUSTON</u> State: <u>TX</u> Zip: <u>77042</u>		Mobile: <u>( )</u>
Contact Person: <u>Steve Weathers</u>	Email: <u>stephen.weathers@p66.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 37023 Initial Form 27 Document #: 403883118

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: 4Q24 Groundwater Monitoring

SITE INFORMATION

No  Multiple Facilities

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>486729</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Four Parmlee (H-6-9) 3/2024</u>	Latitude: <u>40.252892</u>	Longitude: <u>-104.266391</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESE</u>	Sec: <u>1</u>	Twp: <u>3N</u>	Range: <u>62W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SP Most Sensitive Adjacent Land Use Range  
 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

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste  | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water        | <input type="checkbox"/> Workover Fluids             | _____                                  |
| <input type="checkbox"/> Oil                   | <input type="checkbox"/> Tank Bottoms                |  |
| <input checked="" 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
Yes	GROUNDWATER	Undetermined	Laboratory analysis
Yes	SOILS	Undetermined	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.

In March 2024, a potential oil and gas release was discovered during a routine flyover of a gas gathering line at the project location. The gathering line was immediately shut-in, and the gathering line has remained offline since discovery. Investigation was initiated on 5/13/24, and a leak on the east side of gathering line at the 3 o'clock position was discovered. Between 5/13/24 & 7/3/24, DCP Operating Company, LP / Phillips 66 (DCP/P66) performed delineation & investigation activities using test pitting & excavation methods. Soils were field screened with a PID instrument which indicated potentially impacted soil surrounding the leak location. Based on field observations, PID readings, and initial laboratory results, hydrocarbon impacts appear to extend to between 50 and 54 feet bgs near the source location and approximately 150' North and South and 100' East & West of the source location. Groundwater was encountered during excavation and test pitting activities at a depth between approximately 40 and 50 feet below ground surface (bgs). During the investigation and remediation activities, approximately 6510 cubic yards of impacted soil was removed and transported to the Waste Management Buffalo Ridge Landfill for disposal. Due to the size of impacted soil distribution and difficult lithology encountered between approximately 20 and 55 feet bgs, excavation activities were discontinued, and the excavation was backfilled between 7/30 and 8/9 2024 to facilitate further investigation work. Remediation number #37023 was assigned to this project with the conditionally approved F27-I #403883118. In October 2024, DCP/P66 installed seven (7) groundwater monitoring wells, and the details of the well installation investigation were provided in the recently submitted F27-S #403984802 (currently in process). The results of the recent groundwater monitoring event and proposed investigation activities are detailed within this Form 27-S work plan.

### 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 ):

Based on the recent groundwater analytical data, DCP/P66 proposes to advance up to 3 additional soil borings at the site. Soil samples will be collected from each location at the depth with the highest PID detection, and/or just above the saturated interval, and the total depth of the borehole. Soil samples will be submitted for laboratory analysis of full Table 915 analytes. Additionally, and as described in further detail later in this report, DCP/P66 also proposes to collect soil samples for arsenic analysis between 30 and 35 feet below ground surface (bgs) at the drilling locations to evaluate arsenic concentrations at that depth.

#### Proposed Groundwater Sampling

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

In October 2024, DCP/P66 installed seven (7) groundwater monitoring wells at the site for groundwater delineation which are illustrated on Figure 2. Monitoring well installation was advanced to approximately 55 feet bgs using hollow stem augur drilling with continuous core sampling methods to evaluate soil conditions at the Site. Groundwater monitoring activities and monitoring well surveying for top of casing elevations was completed in late October 2024. Groundwater samples were submitted for laboratory analysis and the results are provided within this F27-S report. Based on the results, DCP/P66 is proposing to install up to 3 additional locations (see Figure 5) for horizontal delineation purposes and the details of the investigation will be presented to the ECMC in a subsequent F27-S report. Groundwater monitoring will continue on a quarterly basis until four consecutive quarters of results below the standards and no further action is approved by ECMC.

#### 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 ):

Following an evaluation of the data from the October 2024 soil and groundwater investigation, additional groundwater delineation is warranted onsite, and DCP/P66 is proposing up to three additional borehole/monitoring well locations shown on Figure 5. Soil samples will be submitted for laboratory analysis of full Table 915 analytes from the depth with the highest PID detection, and/or just above the saturated interval, and the total depth of the borehole. Based on the groundwater results from October 2024 (Table 1 and 2), DCP/P66 requests approval to reduce the future groundwater sampling analyses to include the Table 915 organic parameters only. The inorganic groundwater parameters appear to be similar across the site and below the Table 915 standards and or within 1.25 times the highest concentration from an unimpacted location. Further investigation details will be provided to the ECMC in a Form 27-S work plan.

## SITE INVESTIGATION REPORT

### SAMPLE SUMMARY

Soil	NA / ND
Number of soil samples collected <u>0</u>	<u>        </u> Highest concentration of TPH (mg/kg) <u>        </u>
Number of soil samples exceeding 915-1 <u>        </u>	<u>        </u> Highest concentration of SAR <u>        </u>
Was the areal and vertical extent of soil contamination delineated? <u>        </u>	<u>        </u> BTEX > 915-1 <u>        </u>
Approximate areal extent (square feet) <u>        </u>	<u>        </u> Vertical Extent > 915-1 (in feet) <u>        </u>
<b>Groundwater</b>	
Number of groundwater samples collected <u>7</u>	-- <u>        </u> Highest concentration of Benzene (µg/l) <u>878</u>
Was extent of groundwater contaminated delineated? <u>No</u>	-- <u>        </u> Highest concentration of Toluene (µg/l) <u>5130</u>
Depth to groundwater (below ground surface, in feet) <u>45</u>	-- <u>        </u> Highest concentration of Ethylbenzene (µg/l) <u>373</u>
Number of groundwater monitoring wells installed <u>7</u>	-- <u>        </u> Highest concentration of Xylene (µg/l) <u>4630</u>
Number of groundwater samples exceeding 915-1 <u>3</u>	NA <u>        </u> Highest concentration of Methane (mg/l) <u>        </u>
<b>Surface Water</b>	
<u>0</u> Number of surface water samples collected	
<u>        </u> 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?

Three (3) background samples were collected from the site as previously reported. All three background samples exhibited arsenic concentrations above the Table 915-1 standards.

Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards) 0 Volume of liquid waste (barrels) 1

Is further site investigation required?

Following the initial monitoring well installation, groundwater sampling was completed in late October 2024 and based on the results, additional investigation and monitoring well installation is being proposed at the locations shown in Figure 5. Subsequent to the proposed investigation activities and well installation, the new monitoring wells will be a part of the quarterly groundwater monitoring network onsite which is anticipated to continue on regular basis until a no further action at the site is approved by ECMC. Any future site investigations will be proposed to the ECMC in Form 27-S documents.

As presented in previous Form 27-S reports, unusually high arsenic concentrations in soil were observed in excavation samples STP05@35' (83.5 mg/kg) and E-14@30' (67.9 mg/kg) as well as within the boring for monitoring well MW07@28' (76.4 and 45.4 mg/kg). The second result at MW07@28' was from re-analyzing the sample for confirmation. Because the majority of soil samples that have been collected at the site, including the source area sample, exhibited arsenic concentrations well below those values and within known ranges for naturally occurring concentrations in Colorado, and the three samples discussed above were collected at similar depths (30 to 35 bgs), DCP/P66 proposes to collect additional soil samples for arsenic analysis from the proposed drilling locations between 30 and 35 feet bgs to evaluate if there is a lithologic zone with naturally occurring high arsenic concentrations at that depth that is unrelated to the spilled material from the gathering line.

# 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.

The section of gathering line where the hole was located has been removed. Approximately 6510 cubic yards (CY), or 9600 tons, of impacted material has been excavated and transported to the Buffalo Ridge Landfill for offsite disposal. During the 4Q24 groundwater monitoring event, approximately 54 gallons of purged groundwater, including a minimal amount of light non-aqueous phase liquid (LNAPL) from MW01, was removed and disposed of at an off-site DCP/P66 facility. Additional remediation activities will be evaluated based on the drilling investigation activities and future groundwater monitoring events.

## 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.

Approximately 6510 cubic yards (CY) of impacted material were excavated and transported to the Buffalo Ridge Landfill. Based on analytical data collected throughout the initial excavation and the additional delineation activities that took place in October 2024, remedial alternatives for the site are being evaluated pending additional investigation activities presented herein. During the 4Q24 groundwater monitoring event, approximately 54 gallons of purged groundwater, including a minimal amount of LNAPL from MW01, was removed and disposed of at an off-site DCP/P66 facility.

## Soil Remediation Summary

In Situ

Ex Situ

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

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

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

\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 6510

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

\_\_\_\_\_ Name of Licensed Disposal Facility or ECMC 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

Yes \_\_\_\_\_ Other \_\_\_\_\_ Bailing/purging during groundwater sampling \_\_\_\_\_

## 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.

Groundwater monitoring activities were conducted on 10/24/2024 and 10/25/2024 and included Site-wide groundwater gauging and sampling for Table 915-1 parameters. Groundwater levels were measured to evaluate hydraulic characteristics and provide information regarding seasonal fluctuations at the Site. Wells were gauged and sampled at all seven (7) monitoring well locations using standard groundwater sampling methods and submitted to Pace Analytical Laboratory (Pace) for analysis of Table 915-1 organic parameters by EPA Method 8260B and inorganic parameters by EPA Methods 2540C and 9056A. LNAPL was observed at monitoring well MW01 with a measured thickness of 0.08 feet (Table 1). The LNAPL was removed via standard bailing/purging techniques and a groundwater sample was collected. Concentrations of Table 915-1 organic constituents were below the ECMC standards and/or the laboratory detection limits at 4 of the 7 sampled locations. Three wells (MW01, MW05, and MW07) exhibited benzene concentrations above the Table 915-1 standard and MW01 also exhibited elevated concentrations of 1,2,4-trimethylbenzene (TMB) and 1,3,5-TMB. Groundwater elevations are presented on Table 1 and groundwater elevation contour map is presented on Figure 3. Groundwater laboratory analytical results from the 4Q24 monitoring event are presented on Table 2 and illustrated on Figure 4. The laboratory analytical report is included as a separate attachment. Based on the groundwater results from October 2024 event, DCP/P66 proposes to install up to 3 more monitoring wells (Figure 5) for delineation and establish points of compliance. In addition, DCP/P66 requests approval to reduce the future groundwater sampling analyses plan to include the Table 915 organic parameters only since the inorganic groundwater parameters appear to be similar across the site and below the Table 915 standards and or within 1.25 times the highest concentration from an unimpacted location.

# 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 4Q24 Groundwater Monitoring

## 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.

DCP/P66 maintains appropriate comprehensive general liability insurance to satisfy the requirements of Rule 705.B, with at least \$5MM in coverage and including coverage for sudden and accidental release events. The cost provided below for remediation is a preliminary estimate only, costs may change upwards or downward based on site-specific information. DCP/P66 makes no representation or guarantees as the accuracy of the preliminary estimate.

Operator anticipates the remaining cost for this project to be: \$ 300000

## WASTE DISPOSAL INFORMATION

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

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

NA

Volume of E&P Waste (solid) in cubic yards 6510

E&P waste (solid) description soil

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

Non-ECMC Disposal Facility: Waste Management Buffalo Ridge

Volume of E&P Waste (liquid) in barrels 1

E&P waste (liquid) description Purged Groundwater

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

Non-ECMC Disposal Facility: Off-site DCP/P66 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 excavation and test pit investigation area has been backfilled. Following completion of additional investigation and potential remedial activities, site surfaces will be regraded to match existing conditions with landowner and Weld County approval. Final reclamation will be conducted following completion of the soil investigation and groundwater monitoring once a no further action determination, and eventual site closure is approved by the ECMC.

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. 03/29/2024

Actual Spill or Release date, or date of discovery. 05/13/2024

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/13/2024

Proposed site investigation commencement. 05/13/2024

Proposed completion of site investigation. 04/30/2025

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/01/2025

Proposed date of completion of Remediation. 12/31/2027

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 27 Supplemental is being submitted to update the ECMC on the recent groundwater monitoring event as well as the additional investigation and remediation efforts at the Site. With ECMC approval, DCP/P66 is proposing to complete additional monitoring wells onsite and anticipates the drilling activities to begin around December 20th, 2024, and resume the week of January 6th, 2025. Pending additional investigation activities as described herein, DCP/P66 will present the investigation results in a Form 27-Supplemental report and evaluate remedial alternatives. In addition, DCP/P66 requests approval to reduce the future groundwater sampling analyses plan to include the Table 915 organic parameters only since the inorganic groundwater parameters appear to be similar across the site and below the Table 915 standards and or within 1.25 times the highest concentration from an unimpacted location.

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

Signed: Steve Weathers

Title: Program Manager

Submit Date: 01/02/2025

Email: ECMCNotification@p66.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: John Heil

Date: 03/06/2025

Remediation Project Number: 37023

**COA Type**

**Description**

	It is stated " In addition, DCP/P66 requests approval to reduce the future groundwater sampling analyses plan to include the Table 915 organic parameters only since the inorganic groundwater parameters appear to be similar across the site and below the Table 915 standards and or within 1.25 times the highest concentration from an unimpacted location." Operator may request a reduced analyte suite once 4 consecutive quarters of compliance with Table 915-1 inorganic groundwater parameters is achieved.
	ECMC approves the Proposed Monitoring Well Locations outlined on Doc #404025353 Figure 5 Monitoring Well Location Map.
2 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.

<b>Att Doc Num</b>	<b>Name</b>
404025294	FORM 27-SUPPLEMENTAL-SUBMITTED
404025353	MONITORING REPORT
404025358	ANALYTICAL RESULTS

Total Attach: 3 Files

**General Comments**

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

Total: 0 comment(s)