

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



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Receive Date:

Report taken by:

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 ECMC 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>	Phone Numbers
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>(303) 619-3042</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: 1Q25 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>	Twps: <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 began on 5/13/24, and a leak on the east side of the 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, 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 (ft) below ground surface (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 bgs. During investigation and remediation activities, approximately 6,510 cubic yards of impacted soil were removed and transported to the Buffalo Ridge Landfill for disposal. Due to the size of impacted soil distribution and difficult lithology encountered between approximately 20 and 55 ft bgs, excavation activities were halted, 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. A total of ten groundwater monitoring wells have been installed at the Site between October 2024 and January 2025. The MW01-MW07 well installation investigation details were provided in the approved F27-S #403984802. The MW08-MW10 well installation details from January are provided as an attachment to this report. The results of the 1Q25 groundwater monitoring event 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):

DCP/P66 installed 3 monitoring wells at the Site in January 2025 and soil samples were collected at the interval with the highest PID reading and the total depth of each borehole. Samples were submitted for laboratory analysis of the full Table 915-1 parameters and the results are presented in Tables 3 - 5. DCP/P66 also collected a soil sample at 29 ft bgs during well installation of MW09 based on elevated arsenic results from previous investigations in the 28–35-foot interval to evaluate the abnormally high arsenic levels within this lithologic zone. A comparison of both data sets was inconclusive and likely indicate that inorganic concentrations at the Site are related to natural variations in the subsurface conditions. Additional background sampling at these depths may be warranted. One additional monitoring well is proposed downgradient of MW-05. Soil samples will be collected during installation from the interval with the highest PID reading and the terminal depth of the boring.

Proposed Groundwater Sampling

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

In October 2024 and January 2025, DCP/P66 installed a total of ten groundwater monitoring wells at the site for soil and groundwater delineation purposes, which are illustrated on Figure 2. Monitoring well installations were advanced using hollow stem augur drilling with continuous core sampling methods to evaluate soil conditions at the Site to depths up to 59 feet bgs. A well survey for top of casing at the three newly installed wells was completed in January 2025 and the 1Q25 groundwater monitoring activities were completed between February 11-13, 2025. Groundwater samples were submitted for laboratory analysis and the results are provided within this F27-S report. One additional monitoring well is proposed to be installed downgradient of MW-05 to achieve point of compliance (Figure 5). Groundwater monitoring will continue on a quarterly basis for full Table 915 parameters 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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 6
Number of soil samples exceeding 915-1 6
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 1100

NA / ND

ND Highest concentration of TPH (mg/kg) _____
_____ Highest concentration of SAR _____
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 55

Groundwater

Number of groundwater samples collected 8
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 45
Number of groundwater monitoring wells installed 10
Number of groundwater samples exceeding 915-1 2

-- Highest concentration of Benzene (µg/l) 107
-- Highest concentration of Toluene (µg/l) 95
-- Highest concentration of Ethylbenzene (µg/l) 14.7
-- Highest concentration of Xylene (µg/l) 86.8
NA 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?

Three (3) background samples were collected during previous investigations and background analytical data were returned with elevated levels of arsenic above the Table 915-1 standards. Based on these data, arsenic concentrations above Table 915-1 standards are believed to be naturally occurring at the site. Additional Background sampling may be warranted during any future investigation at depths that correspond to elevated arsenic levels across the site.

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?

Groundwater sampling for 1Q25 was completed February 11-13, 2025. Groundwater monitoring onsite is anticipated to continue on a quarterly basis until no further action 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, DCP/P66 collected another soil sample from MW09 @ 29' (2.25 mg/kg) to evaluate the natural variation of arsenic concentrations from a similar depth as the samples mentioned above. Based on the results and locations/depths of the elevated arsenic concentrations, the evaluation was inconclusive. It appears that these isolated arsenic concentrations are unrelated to the spilled material from the gathering line and are naturally occurring due to changes in the lithologic depositional environment.

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 the gathering line where the hole was located has been removed. Approximately 6,510 cubic yards (CY), or 9,600 tons, of impacted material has been excavated and transported to the Buffalo Ridge Landfill for offsite disposal. During the 1Q25 groundwater monitoring event, approximately 32 gallons of purged groundwater were 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 6,510 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 drilling, monitoring well installation, and groundwater sampling activities, remedial alternatives for the site are being evaluated. During the 1Q25 groundwater monitoring event, approximately 32 gallons of purged groundwater were 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 2/11/2025 and 2/13/2025 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. All ten wells were gauged and eight monitoring well locations were sampled 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 0.61 feet (Table 1), and the well was not sampled. MW10 was dry. Concentrations of Table 915-1 organic constituents were below the ECMC standards and/or the laboratory detection limits at 6 of the 8 sampled locations. All inorganic results were also below the ECMC standard and within background conditions. Two wells (MW05 and MW07) exhibited benzene concentrations above the Table 915-1 standard. Groundwater elevations are presented on Table 1 and a groundwater elevation contour map is presented on Figure 3. The groundwater laboratory analytical results from the 1Q25 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, DCP/P66 requested approval in 4Q24 F27-S report #404025294 to reduce the future groundwater sampling analyses plan to include the Table 915 organic parameters only. Per the first COA in the 4Q24 F27S, DCP/P66 will complete four consecutive quarters of compliance with Table 915-1 inorganic parameters and resubmit a request for a reduced analyte list. Further investigation details will be provided to the ECMC in a Form 27-S work plan.

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 original excavation and test pit investigation areas have been partially backfilled to within approximately 15 feet of the original surface elevation and the work area has been fenced for security and to limit access. Final reclamation will be conducted following completion or soil and groundwater remediation and 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 report 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 during the first quarter of 2025. Based on the groundwater results from October 2024, DCP/P66 requested approval in 4Q24 F27-S report #404025294 to reduce the future groundwater sampling analyses plan to include the Table 915 organic parameters only. Per the first COA in the 4Q24 F27S, DCP/P66 will complete four consecutive quarters of compliance with Table 915-1 inorganic parameters and resubmit a request for a reduced analyte list. Further investigation details will be provided to the ECMC in a Form 27-S work plan.

Groundwater elevations are presented on Table 1, and a groundwater elevation contour map is presented on Figure 3. The groundwater laboratory analytical results from the 1Q25 monitoring event are presented on Table 2 and illustrated on Figure 4. The groundwater laboratory analytical report is included as a separate attachment. The soil analytical results are presented in Tables 3-5. Boring logs for monitoring wells MW08, MW09, and MW10 along with the soil laboratory reports are provided as separate attachments.

In addition, and in response to the agreement with the analytical laboratories and the ECMC, the laboratory reports have been secured and certified upon receipt. The two groundwater data reports (L1826379 and L1827380) were reissued on April 11, 2025, to adhere to these changes and within the 'Signature Validation Status' it states that Document Certification is valid, signed by Pace Analytical Services, LLC and the document has not been modified since it was certified.

One additional monitoring well is being proposed in location illustrated on Figure 5 to achieve point of compliance downgradient of MW-05. Soil samples will be collected during installation from the interval with the highest PID reading and from the terminal depth of the soil boring and the well will be incorporated into the groundwater monitoring network.

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: _____

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: _____

Date: _____

Remediation Project Number: 37023

COA Type

Description

COA Type	Description
0 COA	

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
404163244	ANALYTICAL RESULTS
404163246	ANALYTICAL RESULTS
404163247	ANALYTICAL RESULTS
404163248	ANALYTICAL RESULTS
404163251	ANALYTICAL DATA SUMMARY TABLE(S)
404163252	ANALYTICAL DATA SUMMARY TABLE(S)
404163254	ANALYTICAL DATA SUMMARY TABLE(S)
404163258	ANALYTICAL DATA SUMMARY TABLE(S)
404163262	ANALYTICAL DATA SUMMARY TABLE(S)
404163270	OTHER

Total Attach: 10 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)