

Location Checklist



Operator / #	PDC ENERGY / 69175			
Name / Location ID	OWL CREEK-66N64W/5NESE / 322720			
County	WELD			
Well Information	Well Name: OWL CREEK #7			
	Well API #: 05-123-11929			
	Lat/Long As Drilled: 40.513500 / -104.566900			
	Plug date & Form 6S Doc. #: 12/03/2020 #402564825			
Facility Entities		Tank Battery		Pits
	X	Wells		On-Location Flowlines (Form 42): Doc. #
		Domestic Taps	X	Off-Location Flowlines (Form 44): Doc. #402814346
Equipment on Site	X	None		Debris
		Pit mouse/rat holes, cellars backfilled		
Access Road	X	Regraded	X	Contoured
		Culverts removed		Gravel removed
		Pre-existing: must provide supporting documentation		
Reclamation Status	X	Location and associated disturbances reclaimed		
		Subsidence		
Spills or Releases (Form 19)		No	X	Yes
Remediation (Form 27/27A)		No	X	Yes
On-Location Flowlines	X	No		Yes
Off-Location Flowlines		No	X	Yes
Inspection Corrective Actions	X	No		Yes
Sundry Notice (Form 4)	Form 4 Doc. # & Date: #400760678 - 12/30/2014 For Interim Reclamation Completion			
Drone Information	Make & Model: DJI Mavic Air 2			
	Image Processing Software: Raw			
	Pilot Name & FAA Certificate #: Kooper Cline			
	Date of FAA Certificate Issuance: 4/14/2023 #4819123			



Site Specific Final Reclamation Completion Notice – Cropland Drone Imagery

Permit Closure Report – Cropland

Location ID: 322720

Location Name: OWL CREEK-66N64W/5NESE

Report Date:

6/26/2024

H2E has conducted a thorough review of the data provided in this report. This report was developed in accordance with ECMC Operator Guidance – Operator supplied cropland drone imagery and information for submitting a final reclamation completion notice.

Crop Year and Type

Crop 2023 – Corn

Crop 2022 – Corn

Inspection:

Performed by	Confluence Compliance
Date	7/19/2023

All pertinent data, imagery, and materials are included at the end of this report.

Location Summary



Name:	OWL CREEK #7		
Type	Well		
Location ID	322720		
Operator / #	PDC ENERGY INC - 69175		
Field	WATTENBERG - #90750		
County, State	WELD, CO		
Lat/Long	40.513500 / -104.566900		
	Planned Location	<input checked="" type="checkbox"/>	As Drilled
Location	NESE 5 6N64W 6		
Facility Status - Date	PA - 12/3/2020		
Facility Entities		Tank Battery	Pits
	<input checked="" type="checkbox"/>	Wells	<input checked="" type="checkbox"/> Off-Location Flowlines (Form 44)
		Domestic Taps	On-Location Flowlines (Form 42)
		Electric Utilities	
Equipment on Site	<input checked="" type="checkbox"/>	No	Yes
	If yes, list:		
	Pit mouse/rat holes, cellars backfilled		
Access Road	<input checked="" type="checkbox"/>	Regraded	<input checked="" type="checkbox"/> Contoured
		Culverts Removed	Gravel Removed
	Pre-Existing (Must provide supporting documentation):		
Variance Requests	No variance requests		
Sundry Notice (Form 4)	#400760678 - 12/30/2014 For Interim Reclamation Completion		
On Location Flowlines (Form 42)	NA		
Off-Location Flowlines (Form 44)	Form 44 Doc # & Date: #402814346 & 09/16/2021		
	Purpose: FLOWLINE SYSTEM ABANDONMENT VERIFICATION		
	Abandonment Date: 01/05/2021		
	ECMC Approval Date & Signee: NA		
	Operator Comments:		
	Flowline Facility Information		
	ECMC Flowline ID: 479253		
	Operator Flowline ID: 130862		
	Status & Date: AC - 3/5/2020		
	Flowline Type: Wellhead line		
	Type of Fluids Transported: Produced Fluids		
	Start Point Location ID: 322720		
	Start Point Riser Lat/Long: 40.513444, -104.566856		
	Equipment at Start Point: Wellhead		
Field Inspection Form (Form INSP)	End Point Location ID: 472904		
	End Point Riser Lat/Long: 40.513444, -104.565017		
	Equipment at End Point: Separator		
	Form INSP Doc # & Date:		
	4/20/2023 - 707601121		
	2/2/2021 - 693700713		
	9/21/2020 - 696103759		
	10/4/2018 - 694400026		
	10/8/2014 - 673801458		
	Status Summary: NO FOLLOW UP INSPECTIONS REQUIRED		
	Inspected Facilities: Well head		
	Inspection Status: PA		
	Inspection Date & Inspector:		
	4/20/2023 - Evins, Bret		
Inspection Corrective Actions (CAs)	2/2/2021 - ALLISON, RICK		
	9/21/2020 - Evins, Bret		
	10/4/2018 - Kraich, Adam		
	10/8/2014 - Gomez, Jason		
	Comments:		
Environmental Incidents & Remediation		None	<input checked="" type="checkbox"/> Spill or Release (Form 19)
	<input checked="" type="checkbox"/>	Remediation (Form 27/27A)	
Spill or Release (Form 19)	Spill/Release Facility ID:		
	472904 (Tank Battery)		
	244136 (Well)		

Site Investigation and Remediation Workplan (Form 27/27A)	Remediation Project #: 16159 (Tank Battery) 16258 (Well)
	Form 27 Initial Doc # & Date: 402542237 - 12/01/2020 (Tank Battery) 402575025 - 01/18/2021 (Well)
	Purpose: 909.c.(1), Rule 905: Pit or PW vessel closure (Tank Battery) Other - Wellhead Closure (Well)
	Notes: This Form 27 serves as notification for the abandonment of the Owl Creek 7 wellhead and associated flowline. Abandonment activities are planned to begin the week of January 18, 2021. This schedule may be adjusted due to unforeseen circumstances, delays, and/or changes in weather. Applicable Form 42 document number: 402538916. (Well)
	Form 27 Supplemental Docs # & Date: 403607392 & 12/18/2023 (Tank Battery) 402629669 & 03/17/2021 (Well)
	Purpose: (Tank Battery) Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal. 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.(9): Decommissioning of Oil and Gas Facilities. Rule 913.g: Changes of Operator. (Well) 909.c.(2), Rule 906: Spill/Release Remediation Rule 909.e.(2)B.: Closure of remediation project Other - Wellhead Closure
	Operator Comments: (Tank Battery) This Supplemental Form 27 was submitted to summarize quarterly groundwater monitoring activities and analytical results collected during the fourth quarter 2023 at the former Owl Creek 7, 7-5 location. Inorganic parameter concentration trends were examined over time and compared to historic background data and groundwater flow direction. Based on the data, there has been an overall downward trend in inorganic concentrations over time. In addition, there was a direct correlation between rising groundwater elevation and elevated inorganic parameters over time. The graphs illustrating the data are included as Attachment B. Fourth quarter 2023 groundwater analytical results indicated that chloride anion concentrations were in compliance with the applicable regulatory standards in all 12 monitoring well locations for the fourth consecutive quarter. TDS and/or sulfate anion concentrations were in exceedance of the applicable regulatory standards and greater than 1.25x the maximum background concentration in monitoring wells BH03R, BH04R, and BH08. Based on the location of this site within an active agricultural field, the direct correlation between groundwater elevation and elevated inorganic parameters, the removal of all source mass material, and the absence of dissolved-phase hydrocarbon impacts, TDS and sulfate anion exceedances recorded on site are hypothesized to be a result of surface run-off and agricultural operations. Consequently, PDC is requesting a No Further Action (NFA) determination for this remediation project.
	ECMC Comments: ECMC COAs: Based on the information presented no further remedial action is necessary at this time and the COGCC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding COGCC standards or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required.
Closure Request Approved: 02/29/2024 RICK ALLISON (Tank Battery) 03/24/2021 RICK ALLISON (Well)	
Final Resolution: 02/29/2024 (Tank Battery) 03/24/2021 (Well)	

COGIS Tank Facilities Information (Scout Card)	Tank Battery Name: Owl Creek/7, 7-5
	Location ID: 472904
	Status & Date: AC - 2/15/2021
	Lat/Long: 40.513460 / -104.564984
	Notes:
	Form 4 Doc # & Date: NA Purpose: NA
COGIS Well Information (Scout Card)	Well Name: OWL CREEK #7
	Facility ID: 244136
	Status & Date: PA - 12/3/2020
	Lat/Long: 40.513500 / -104.566900
	Notes:
	Form 4 Doc # & Date: #400760678 - 12/30/2014 Purpose: Interim reclamation complete, site ready for inspection.



Designated Land Use Observations

Previous Land Use	Current Land Use
Reference Imagery for Infrastructure: NAIP 2016	Remotely Sensed Imagery: 5/29/2023
Designation: Oil and Gas Facility	Designation: Cropland

The following imagery sources were reviewed during this investigation:

NAIP Imagery 2016, 2023, and historic Google Earth imagery.

Site Observation Notes

No Additional Information

Closure Information

This final reclamation completion notice is to close out the OWL CREEK-66N64W/5NESE location which consists of the OWL CREEK #7 well (API # 05-123-11929); the associated OWL CREEK #7-5 well (API #05-123-27175) will remain open and tied to the Owl Creek #7; 7-5 (472904) until both the well and tank battery disturbances meet the final reclamation standard.

The OWL CREEK-66N64W/5NESE location is in Weld County, Colorado near the intersection of County Road 53 and County Road 74. There is one off-location flowline between each wellhead and the Creek #7; 7-5 Tank Battery location registered and abandoned under the PDC Flowline System (479253). These flowlines were removed in 2021.

A Form 4 Sundry Notice (Doc # 400760678) was filed for the associated tank battery on 12/30/2014 to notify the COGCC that interim reclamation was completed and ready for inspection.

The location was closed and reclaimed in 2021. The wellhead was accessed from an access road off of County Road 53 that began at the tank battery location. The access road was reclaimed and returned to agriculture alongside the wellhead disturbance.

A Remediation Workplan (Form 27-I) for the tank battery location was documented on 12/01/2020 for 909.c.(1), Rule 905: Pit or PW vessel closure. The Form 27-S # 403607392 documents contaminated soil discovered around the produced water vessel under remediation project #16159. Between January 28 and February 22, 2021, approximately 2154 cubic yards of impacted material were excavated and transported to the North Weld Waste Management Facility in Ault, Colorado for disposal under PDC waste manifests. During excavation activities, groundwater was encountered within the excavation at approximately 7 feet below ground surface (bgs). Groundwater vacuum recovery activities were conducted concurrent with excavation activities and approximately 220 barrels of groundwater were removed and transported to the NGL Energy disposal facility for disposal. 12 groundwater monitoring wells were installed at the location, and groundwater was within compliance by the fourth quarter of 2023. Rick Allison at COGCC approved the No Further Action Request on 2/29/2023. The well location also has Form 27's, but the contaminants discovered were determined to be from the produced water vessel as well as stated in Form 27-S Doc # 402629669.

Drone imagery confirms that no equipment was left on site at this location after reclamation activities occurred.



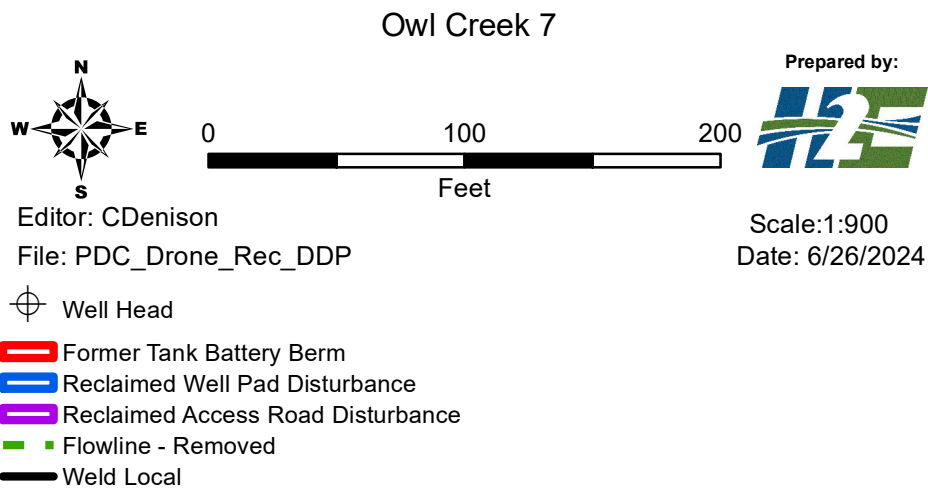
Summary Acreage Table

Description	Acres
Historic Disturbance Extent	0.68
Access Road	0.21
Flowline	Included in access road disturbance acreage
Tank Battery	Not Included
Well Pad	0.47

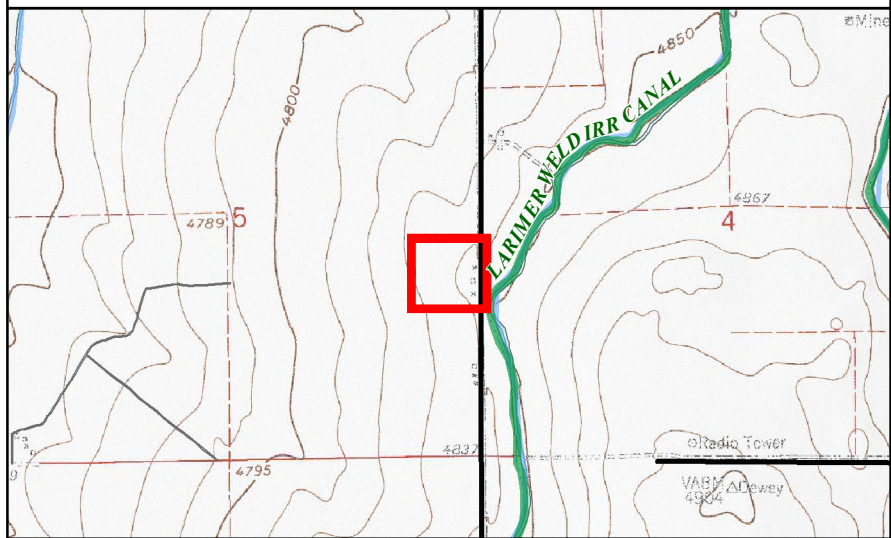
Pre-Plugging Active Operations Location Overview



PDC Form 4 Final Reclamation - Pre Plugging Overview



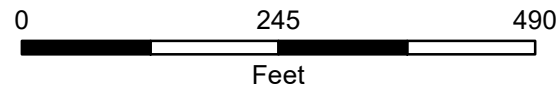
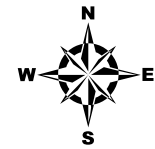
NAIP 2016 Imagery





PDC Form 4 Final Reclamation - Pre Plugging Overview

Owl Creek 7



Prepared by:



Editor: CDenison

File: PDC_Drone_Rec_DDP

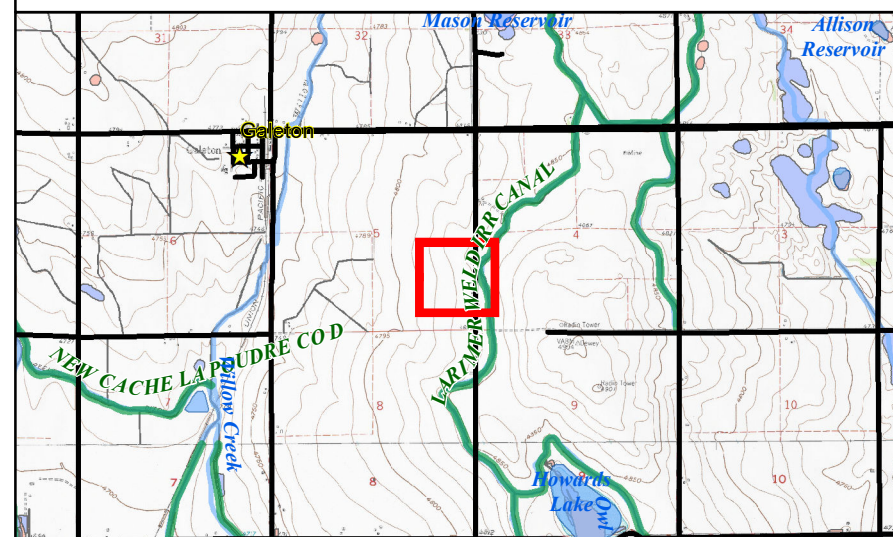
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Date: 6/26/2024

⊕ Well Head

- Former Tank Battery Berm
- Reclaimed Well Pad Disturbance
- Reclaimed Access Road Disturbance
- Flowline - Removed
- Weld Local

NAIP 2016 Imagery

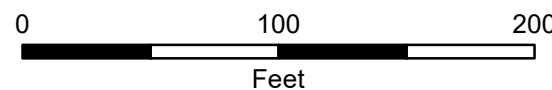
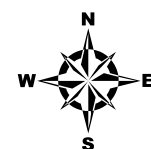


Post-Plugging and Abandonment Location Overview



PDC Form 4 Final Reclamation - Post Plugging Overview

Owl Creek 7



Prepared by:

Editor: CDenison

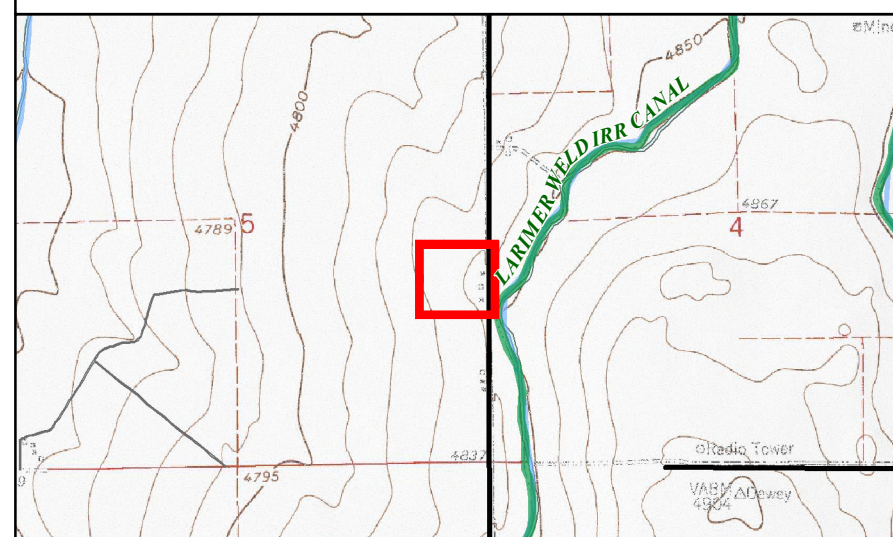
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Date: 6/26/2024

Well Head

- Former Tank Battery Berm
- Reclaimed Well Pad Disturbance
- Reclaimed Access Road Disturbance
- Flowline - Removed
- Weld Local

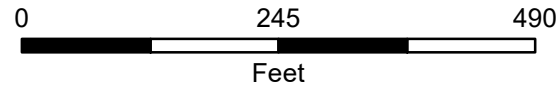
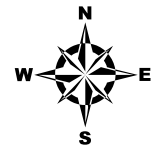
NAIP 2023 Imagery





PDC Form 4 Final Reclamation - Post Plugging Overview

Owl Creek 7



Prepared by:

Editor: CDenison

File: PDC_Drone_Rec_DDP

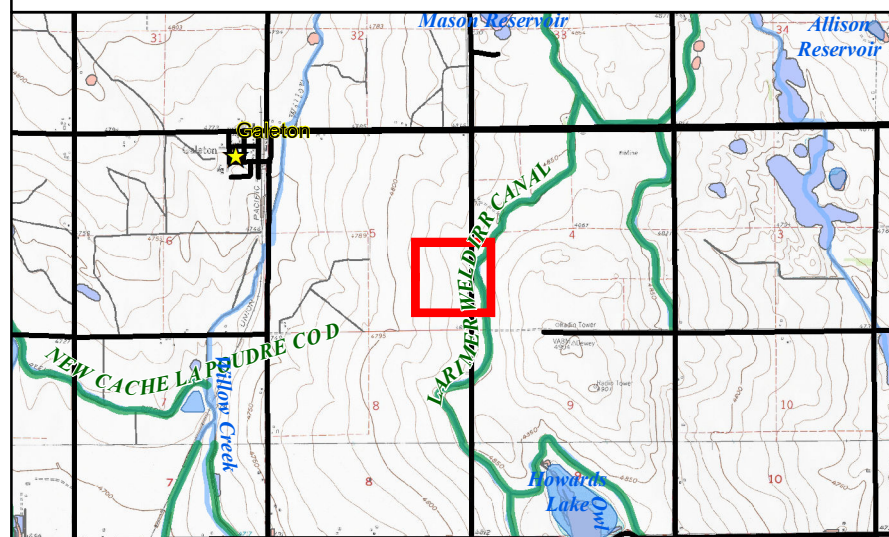
Scale: 1:2,200

Date: 6/26/2024

⊕ Well Head

- Former Tank Battery Berm
- Reclaimed Well Pad Disturbance
- Reclaimed Access Road Disturbance
- Flowline - Removed
- Weld Local

NAIP 2023 Imagery



Post Plugging overview of OWL CREEK #7
Lat/Long: 40.51345214 / -104.56693208
Flight Height: 375'



Cardinal Direction Drone Photos of the Reclaimed Area

Photo Dates:

7/19/2023

Drone Photo Height:

85'

North of Disturbance Facing South
Lat/Long: 40.51369983 / -104.56690856



South of Disturbance Facing North
Lat/Long: 40.51318467/ -104.56689172



West of Disturbance Facing East
Lat/Long: 40.51344669 / -104.56719161



East of Disturbance Facing West
Lat/Long: 40.51347136 / -104.56654517



Access Road Reclamation Photo

Photo Dates:

7/19/2023

Drone Photo Height:

85'

Access Road Entrance Facing Disturbance
Lat/Long: 40.51350214 / -104.56561344



Access Road End Facing Entrance
Lat/Long: 40.51346097 / -104.56685003



Cardinal Direction Drone Photos of the Reference Area

Photo Dates:

7/19/2023

Drone Photo Height:

85'

Reference Area North of the Reclaimed Area
Lat/Long: 40.51370444 / -104.56659847



Reference Area South of the Reclaimed Area
Lat/Long: 40.51318575 / -104.56716161



Reference Area West of the Reclaimed Area
Lat/Long: 40.51367247 / -104.56718836



Reference Area East of the Reclaimed Area
Lat/Long: 40.51320047 / -104.56657242



Reference Photo for Cropland Growth Stage

Cropland Reference Photo (Corn)
Lat/Long: 40.51329925 / -104.56693347

