



Site Specific Final Reclamation Completion Notice – Cropland Drone Imagery

Permit Closure Report – Cropland

Location ID: 328819

Location Name: HUNGENBERG-64N66W/13SWSW

Report Date:

10/21/2024

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 2024 – Cabbage

Crop 2023 – Cabbage

Inspection:

Performed by	H2E, Incorporated
Date	9/16/2024

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

Location Checklist



Operator / #	PDC ENERGY INC / 69175			
Name / Location ID	HUNGENBERG-64N66W/13SWSW / 328819			
County	Weld			
Well Information	Well Name: HUNGENBERG #13-13F			
	Well API #: 05-123-16473			
	Lat/Long As Drilled: 40.306390 / -104.731760			
	Plug date & Form 6S Doc. #: 03/29/2022 - 403006607			
Facility Entities		Tank Battery		Pits
	X	Wells		On-Location Flowlines (Form 42): Doc. #
		Domestic Taps	X	Off-Location Flowlines (Form 44): Doc. # 403091890
	X	None		Debris
Equipment on Site		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)	X	No		Yes
Remediation (Form 27/27A)		No	X	Yes
On-Location Flowlines	X	No		Yes
Off-Location Flowlines		No	X	Yes
Inspection Corrective Actions		No	X	Yes
Sundry Notice (Form 4)	N/A			
Drone Information	Make & Model: DJI M300			
	Image Processing Software: Pix4Dmapper			
	Pilot Name & FAA Certificate #: Peter Nelson - 4974559			
	Date of FAA Certificate Issuance: 3/19/2024			

Location Summary



Name:	HUNGENBERG-64N66W/13SWSW		
Type	Wellhead		
Location ID	328819		
Operator / #	PDC ENERGY INC / 69175		
Field	WATTENBERG		
County, State	Weld, Colorado		
Lat/Long	40.306390 / -104.731760		
	<input type="checkbox"/> Planned Location	<input checked="" type="checkbox"/> X	<input type="checkbox"/> As Drilled
Location	SWSW 13 4N66W 6		
Facility Status - Date	PA - 3/29/2022		
Facility Entities	<input type="checkbox"/> Tank Battery	<input type="checkbox"/>	<input type="checkbox"/> Pits
	<input checked="" type="checkbox"/> Wells	<input checked="" type="checkbox"/> X	<input type="checkbox"/> Off-Location Flowlines
	<input type="checkbox"/> Domestic Taps	<input type="checkbox"/>	<input type="checkbox"/> On-Location Flowlines
	<input type="checkbox"/> Electric Utilities	<input type="checkbox"/>	<input type="checkbox"/>
Equipment on Site	<input checked="" type="checkbox"/> X	<input type="checkbox"/> No	<input type="checkbox"/> Yes
	If yes, list:		
	Pit mouse/rat holes, cellars backfilled		
Access Road	<input checked="" type="checkbox"/> X	<input type="checkbox"/> Regraded	<input checked="" type="checkbox"/> X Contoured
	<input type="checkbox"/>	<input type="checkbox"/> Culverts Removed	<input type="checkbox"/> Gravel Removed
	<input type="checkbox"/> Pre-Existing (Must provide supporting documentation):		
Variance Requests	N/A		
Sundry Notice (Form 4)	N/A		
Off-Location Flowlines (Form 44)	Form 44 Doc # & Date: 4403091890 - 06/28/2022		
	Purpose: Flowlines Abandoned		
	Abandonment Date: 03/31/2022		
	ECMC Approval Date & Signee: N/A		
	Operator Comments: N/A		
	Flowline Facility Information		
	ECMC Flowline ID: 479253		
	Operator Flowline ID: PDC Flowline System		
	Status & Date: AC - 9/25/2024		
	Flowline Type: Wellhead Line		
	Type of Fluids Transported: Methane Gas		
	Start Point Location ID: 328819		
	Start Point Riser Lat/Long: 40.306390 / -104.731760		
	Equipment at Start Point: Wellhead		
	End Point Location ID: 471377		
	End Point Riser Lat/Long: 40.309245 / -104.731694		
	Equipment at End Point: Separator		

Field Inspection Form (Form INSP)	Form INSP Doc # & Date: 661600744 - 9/13/2012 680702868 - 10/5/2016 696501084 - 11/15/2019 697001828 - 08/14/2020 697002166 - 10/06/2020 697004492 - 09/03/2021 697005092 - 01/13/2022
	Status Summary: 661600744 - Satisfactory 680702868 - NO FOLLOW UP INSPECTION REQUIRED 696501084 - NO FOLLOW UP INSPECTION REQUIRED 697001828 - FOLLOW UP INSPECTION REQUIRED 697002166 - THIS IS A FOLLOW UP INSPECTION; NO FOLLOW UP INSPECTION REQUIRED 697004492 - NO FOLLOW UP INSPECTION REQUIRED 697005092 - NO FOLLOW UP INSPECTION REQUIRED
	Inspected Facilities: 661600744 - Well 680702868 - Well 696501084 - Well 697001828 - Well 697002166 - Well 697004492 - Well 697005092 - Well
	Inspection Status: 661600744 - PR 680702868 - PR 696501084 - PR 697001828 - PR 697002166 - PR 697004492 - PR 697005092 - SI
	Inspection Date & Inspector: 661600744 - 02/29/2012 - Montoya, John 680702868 - 10/05/2016 - Peterson, Tom 696501084 - 11/15/2019 - Peterson, Tom 697001828 - 08/14/2020 - Peterson, Tom 697002166 - 10/06/2020 - Peterson, Tom 697004492 - 09/03/2021 - Peterson, Tom 697005092 - 01/13/2022 - Peterson, Tom
	Comments: 661600744 - None 680702868 - None 696501084 - None 697001828 - Wellhead sign lacked an emergency contact number and trash around the wellhead area. During this inspection the following possible compliance issues were observed: Rule 210.b. with a corrective action date of 11/16/2020, Rule 603.f. with a corrective action date of 11/16/2020. A follow up on this site inspection needs to be conducted to ensure the compliance issues have been corrected to comply with COGCC rules. 697002166 - Emergency contact number noted in prior inspection has been added to wellhead sign 697004492 - None 697005092 - None

Inspection Corrective Actions (CAs)	697001828 -Emergency contact number is not posted at wellhead. Broken concrete around wellhead		
Environmental Incidents & Remediation		None	Spill or Release (Form 19)
	X	Remediation (Form 27/27A)	
Spill or Release (Form 19)	N/A		
Site Investigation and Remediation Workplan (Form 27/27A)	Remediation Project #: 21639		
	Form 27 Initial Doc # & Date: 402904640 - 01/07/2022		
	Purpose: Decommissioning of Oil and Gas Facilities		
	Notes: This Form 27 serves as notification for the abandonment of the Hungenberg 13-13F wellhead and removal of the associated flowline. Abandonment activities are planned to begin the week of January 10, 2022. This schedule may be adjusted due to unforeseen circumstances, delays, and/or changes in weather.		
	Form 27 Supplemental Docs # & Date: 403068934 - 06/24/2022		
	Purpose: Decommissioning of Oil and Gas Facilities; Request to leave elevated inorganics in situ.		
	Operator Comments: Analytical results indicated that constituent concentrations in all samples were in compliance with COGCC Table 915-1 standards, with exception to the pH value for sample WH01. Based on the absence of other indicators that a spill or release occurred, such as hydrocarbon exceedances or elevated EC and SAR in soil, the pH results at these locations is not associated with E&P activities. Additionally, pH was determined to be present in the native background samples at elevated levels. As such, PDC requests that pH not be considered a Table 915-1 contaminant of concern at this location and is requesting a No Further Action (NFA) determination for the Hungenberg 13-13F Wellhead.		
	ECMC Comments: Based on the information presented, the elevated pH sample from the area appears to be similar to background pH; therefore, elevated pH may not be associated with E&P activities. It appears that 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 background levels or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required.		
	ECMC COAs: 1 COA		
	Closure Request Approved: Jason Kosola - 08/29/2022		
	Final Resolution: 08/29/2022		
	COGIS Tank Location Information (Scout Card)	Tank Battery Name: HUNGENBERG/	
Location ID: 471377			
Status & Date: AC - 4/6/2022			
Lat/Long: 40.309245 / -104.731694			
Notes: N/A			
Form 4 Doc # & Date: N/A			
COGIS Well Information (Scout Card)	Purpose: N/A		
	Well Name: HUNGENBERG #13-13F		
	Facility ID: 248672		
	Status & Date: PA - 3/29/2022		
	Lat/Long: 40.306390 / -104.731760		
	Notes: N/A		
Form 4 Doc # & Date: N/A			
Purpose: N/A			



Designated Land Use Observations

Previous Land Use	Current Land Use
Reference Imagery for Infrastructure: NAIP 2013	Remotely Sensed Imagery: 9/16/2024
Designation: Oil and Gas Facility	Designation: Cropland

The following imagery sources were reviewed during this investigation:

NAIP Imagery 2013, 2023, and historic Google Earth Imagery.

Site Observation Notes

No Additional Information

Closure Information

This final reclamation completion notice is intended to close the HUNGENBERG-64N66W/13SWSW location which consists of the HUNGENBERG #13-13F (API # 05-123-16473) wellhead. This wellhead does not share a disturbance with any other wells or tank batteries. The associated tank battery has its own location ID (471377) which will remain open until final remediation has been achieved.

The HUNGENBERG-64N66W/13SWSW location is in Weld County, Colorado east of CR 35 and north of CR 44. There is one off location flowline associated with this well that transports methane gas to its associated tank battery.

HUNGENBERG #13-13F was reclaimed and returned to the landowner for agricultural use in 2022. The wellhead was accessed from an unnamed access road along CR 35 that led to the HUNGENBERG-64N66W/13SWSW location.

There are no spill/releases (Form 19) documented during our records review.

One Remediation Workplan (Form 27-I) was documented and identified during our records review (Doc. # 402904640). The workplan was filed on 01/07/2022 for "Decommissioning of Oil and Gas Facilities." On 06/24/2022 a Form 27-S (Doc. # 403068934) was filed to close remediation project number 21639. This remediation workplan was closed on 08/29/2022 by Jason Kosola.

There was one corrective action (CA) identified during our records review. On 08/14/2020 (Document # 697001828) the corrective action stated "Emergency contact number is not posted at wellhead. Broken concrete around wellhead." During the follow-up inspection on 10/06/2020 (Document # 697002166) the corrective has been addressed as the comment stated that "Emergency contact number noted in prior inspection has been added to wellhead sign" and the status summary was "no follow up inspection required."



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

Summary Acreage Table

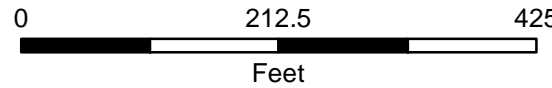
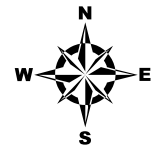
Description	Acres
Historic Disturbance Extent	0.10
Access Road	0.08
Flowline	Not Included
Tank Battery	Not Included
Well Pad	0.02

Pre-Plugging Active Operations Location Overview



PDC Form 4 Final Reclamation - Pre Plugging Overview

Hungenberg 13-13F



Prepared by:



Editor: EJanak

File: PDC_Drone_Rec_PrePlugging_DDP

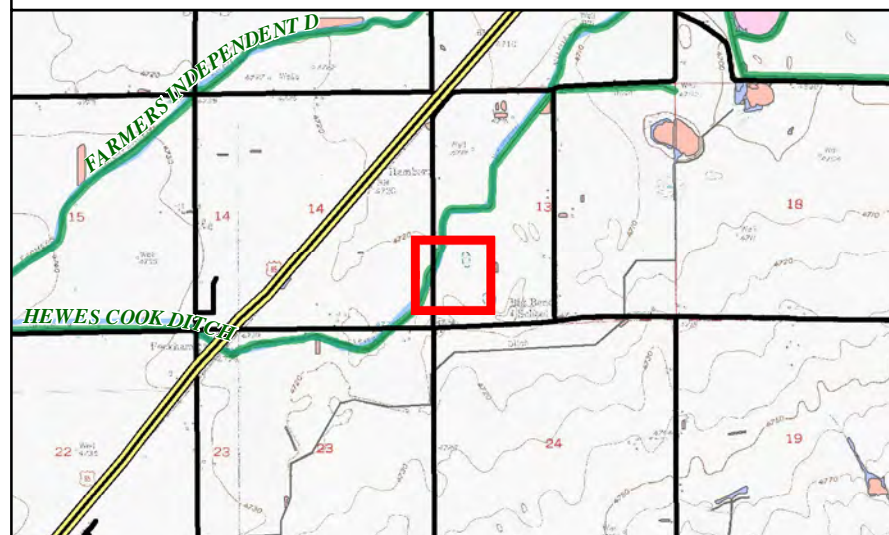
Scale: 1:1,900

Date: 11/5/2024

⊕ Well Head

- ▬ Former Tank Battery Disturbance
- ▬ Reclaimed Well Pad Disturbance
- ▬ Reclaimed Access Road Disturbance
- ▬ Flowline - Abandoned

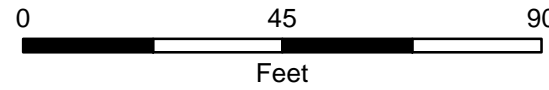
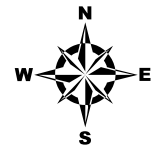
NAIP 2015 Imagery





PDC Form 4 Final Reclamation - Pre Plugging Overview

Hungenberg 13-13F



Prepared by:

Editor: EJanak

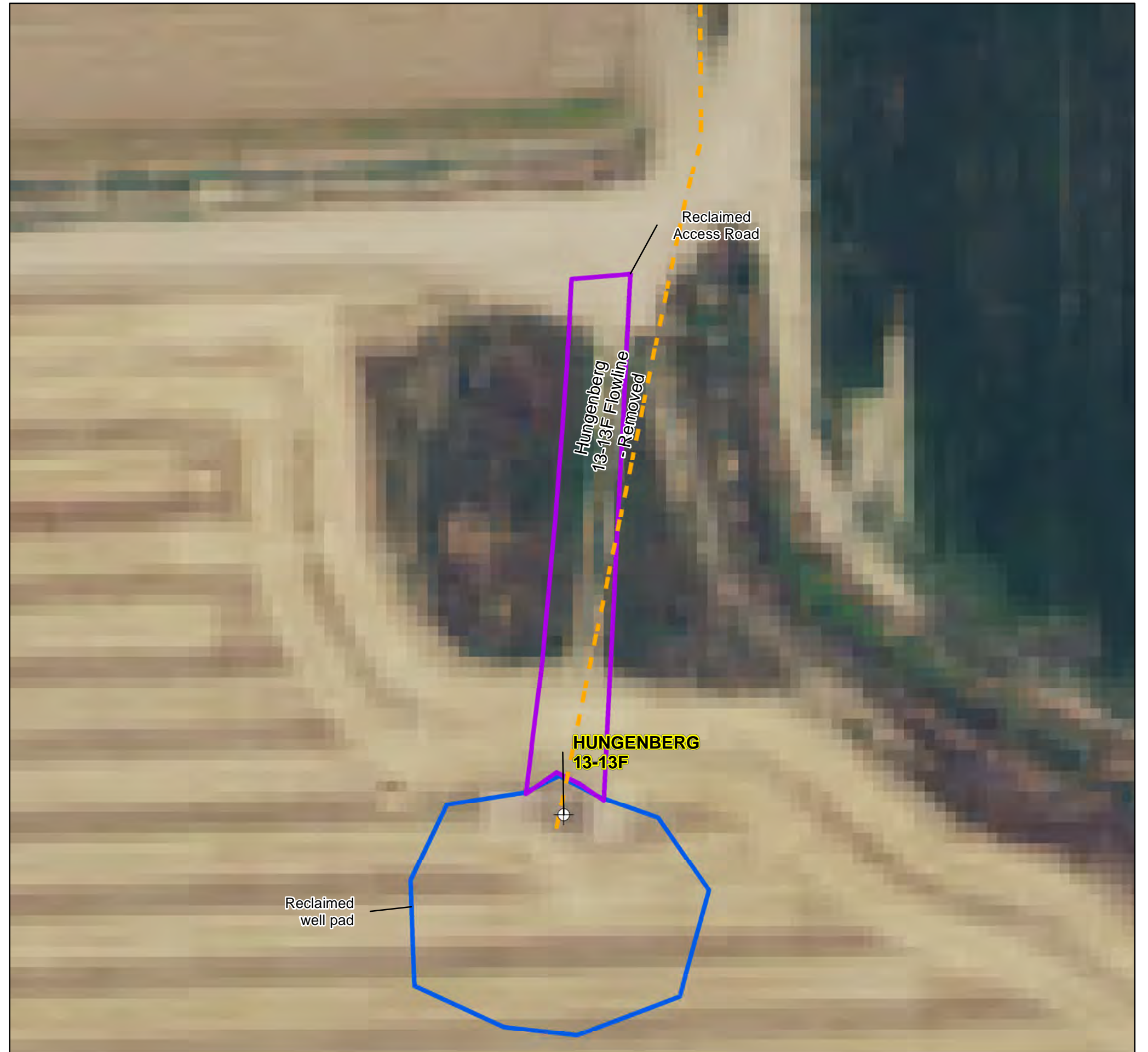
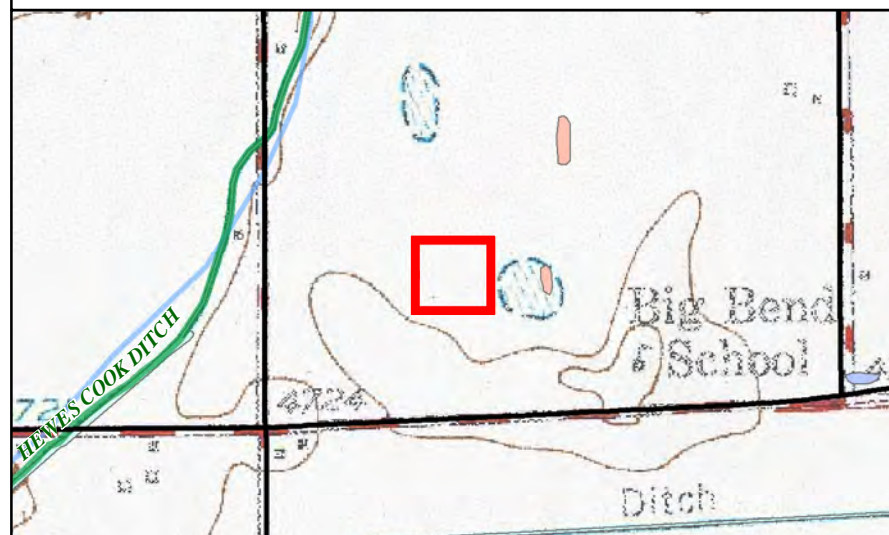
File: PDC_Drone_Rec_PrePlugging_DDP

Scale: 1:400
Date: 11/5/2024

⊕ Well Head

- Reclaimed Well Pad Disturbance
- Reclaimed Access Road Disturbance
- Flowline - Abandoned

NAIP 2015 Imagery

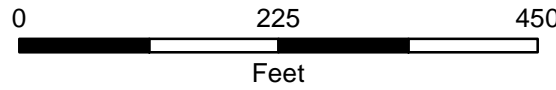
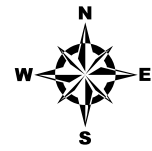


Post-Plugging and Abandonment Location Overview



PDC Form 4 Final Reclamation - Post Plugging Overview

Hungenberg 13-13F



Editor: EJanak

File: PDC_Drone_Rec_PostPlugging_DDP

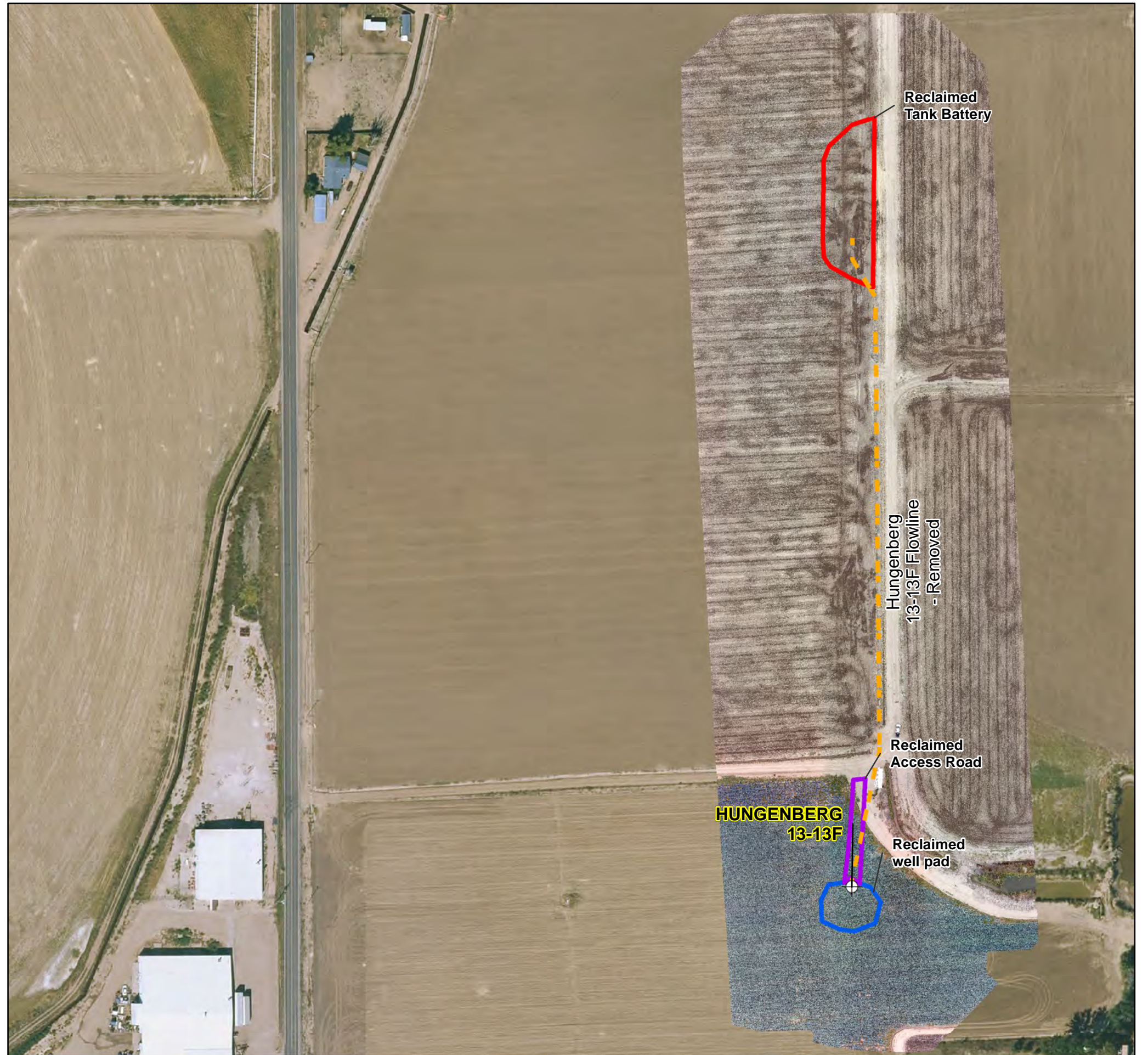
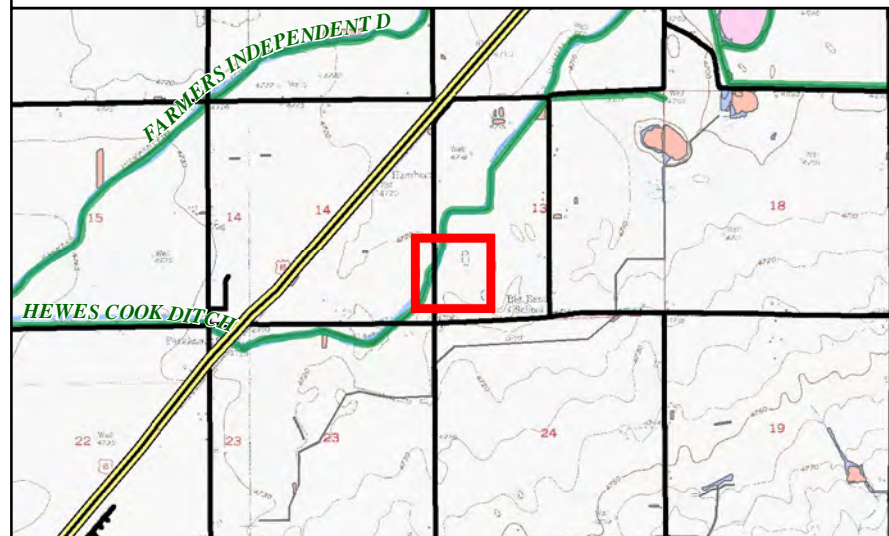
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Date: 11/5/2024

⊕ Well Head

- ▬ Reclaimed Tank Battery Disturbance
- ▬ Reclaimed Well Pad Disturbance
- ▬ Reclaimed Access Road Disturbance
- ▬ Flowline - Abandoned

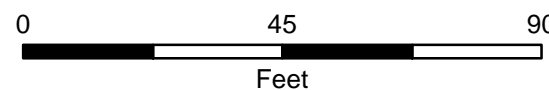
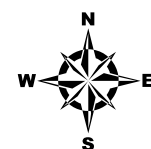
2024 Drone Imagery





PDC Form 4 Final Reclamation - Post Plugging Overview

Hungenberg 13-13F



Prepared by:



Editor: EJanak

File: PDC_Drone_Rec_PostPlugging_DDP

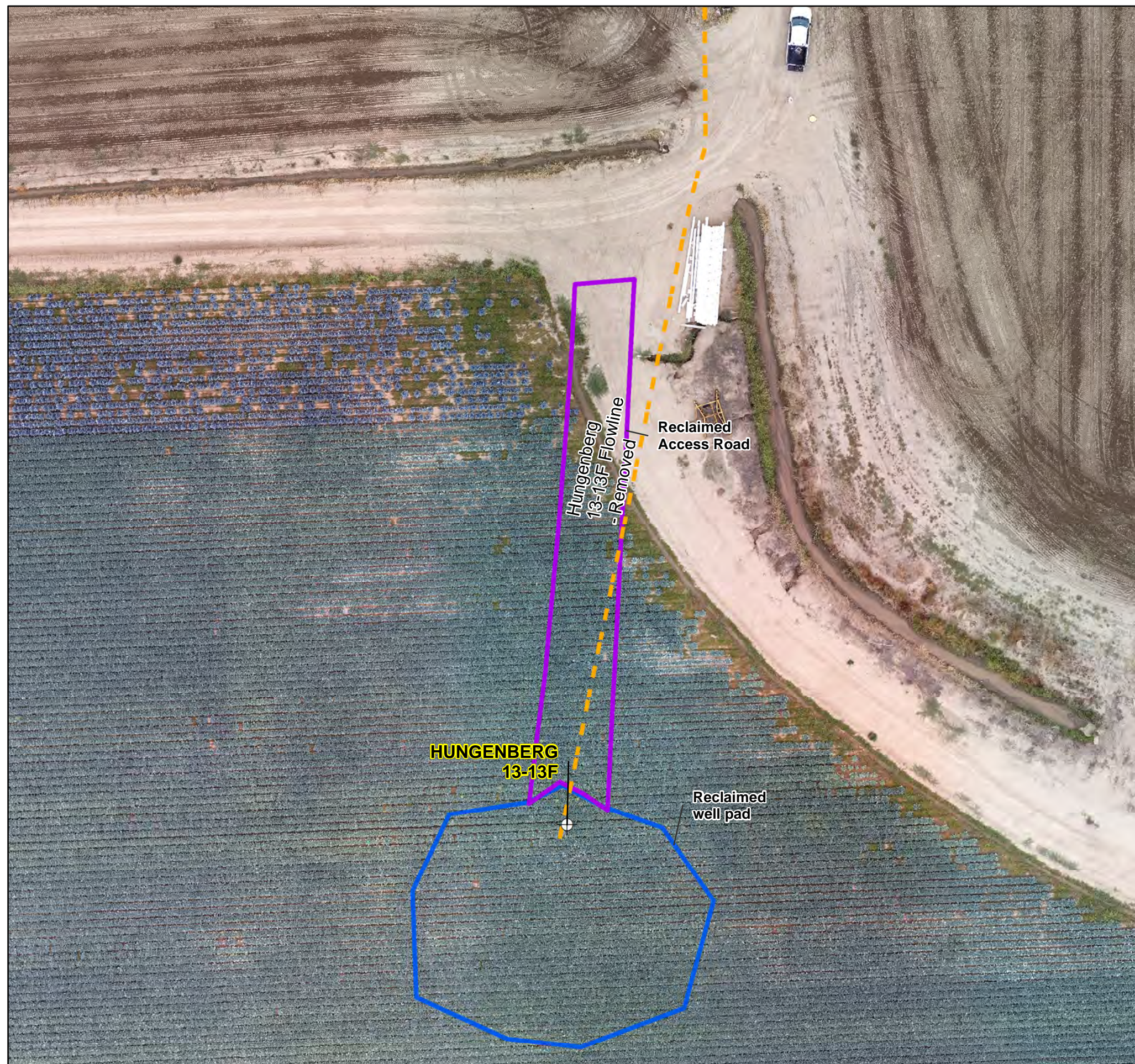
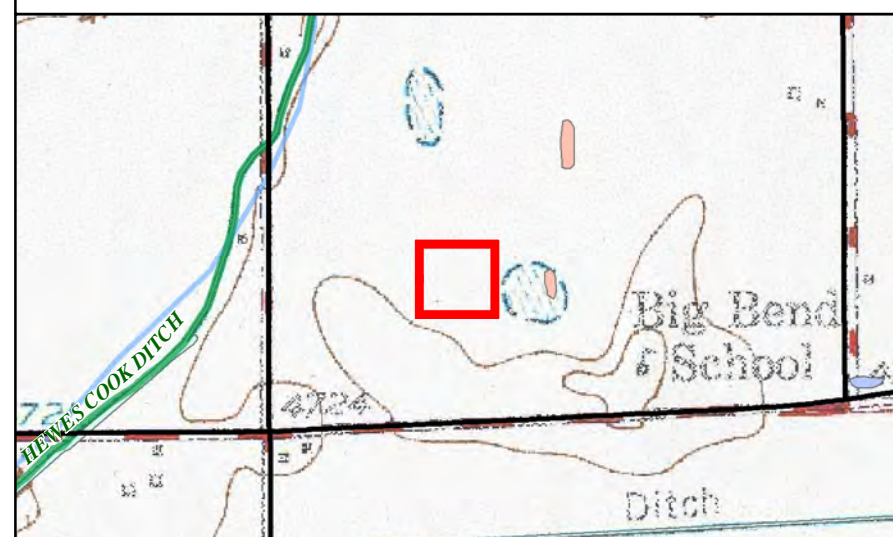
Scale:1:400

Date: 11/5/2024

⊕ Well Head

- Reclaimed Well Pad Disturbance
- Reclaimed Access Road Disturbance
- Flowline - Abandoned

2024 Drone Imagery



Cardinal Direction Drone Photos of the Reclaimed Area

Photo Dates:

9/16/2024

Drone Photo Height:

100'

North of Disturbance Facing South
Lat/Long: 40.30696764 / -104.73174442



South of Disturbance Facing North
Lat/Long: 40.30598308 / -104.73178939



East of Disturbance Facing West
Lat/Long: 40.30643569 / -104.73114194



West of Disturbance Facing East
Lat/Long: 40.30639550 / -104.73235514



Cardinal Direction Drone Photos of the Reference Area

Photo Dates:

9/16/2024

Drone Photo Height:

100'

Reference Area North of the Reclaimed Area
Lat/Long: 40.30697278 / -104.73175394



Reference Area South of the Reclaimed Area
Lat/Long: 40.30597625 / -104.73178456



Reference Area West of the Reclaimed Area
Lat/Long: 40.30639197 / -104.73236369



Reference Area East of the Reclaimed Area
Lat/Long: 40.30643569/ -104.73113261



Reference Photo for Cropland Growth Stage

Cropland Reference Photo (Cabbage)
Lat/Long: 40.30684500 / -104.73195500

