



Site Specific Final Reclamation Completion Notice – Land Use Change Drone Imagery

Permit Closure Report – Land Use Change

Tank Battery Location ID: 464272

Tank Battery Location Name: BRIGGS-65N66W/17SWSE

Report Date:

11/14/2024

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 Land use change drone imagery and information for submitting a final reclamation completion notice.

Land Use Year and Type

Land Use 2024 – Housing Development

Land Use 2023 – Housing Development Construction

Land Use 2019 – Oil and Gas Operations

Inspection:

Performed by	H2E Inc.
Date	10/30/2024

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

Location Checklist



Operator / #	PDC ENERGY INC - 69175			
Name / Location ID	BRIGGS-65N66W/17SWSE - 464272			
County	Weld			
Tank Battery Information	Name: BRIGGS #17-1 TB Lat/Long: 40.396020 / -104.803640			
Facility Entities	X	Tank Battery		Pits
		Wells		On-Location Flowlines (Form 42): Doc. #
		Domestic Taps	X	Off-Location Flowlines (Form 44): Doc. # 403906769
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)	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)	Form 4 Doc. # & Date: N/A			
	Purpose: N/A			
	Comments: N/A			
	Attachments: 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			



Designated Land Use Observations

Previous Land Use	Current Land Use
Reference Imagery for Infrastructure: NAIP 2015	Remotely Sensed Imagery: 10/30/2024
Designation: Oil and Gas Facility	Designation: Housing Development

The following imagery sources were reviewed during this investigation:

NAIP Imagery from 2015, 2023, and historic Google Earth imagery from 1985-2023.

Site Observation Notes

No Additional Information

Closure Information

This final reclamation completion notice is intended to close the BRIGGS-65N66W/17SWSE location which consists of the Briggs #17-1 tank battery. This tank battery does not share a disturbance with any wells or other tank batteries. The associated wellhead has its own location ID (323660) and is being closed in a separate submittal.

The Briggs tank battery location is in Weld County, Colorado and is directly north of Highway 34 and 0.5 miles west of 71st Ave. The Briggs #17-1 wellhead and tank battery were plugged in 2019, reclaimed and returned to the landowner for agricultural use. Since then, the land has been converted to a housing development.

There is one off-location flowline associated with this tank battery that transported produced fluids from the associated wellhead. The flowline was fully removed March 21, 2019, via Form 44 (Doc. #: 403906769).

The wellhead and tank battery were accessed from an unnamed access road off Highway 34. The access road was reclaimed in 2019 and returned to the landowner, the current use is a housing development.

There were no Spills (Form 19) identified for the tank battery or associated wellhead during the record search.

There was one Remediation Workplan (Form 27) identified (Remediation Project #13064). This project was for the removal of a partially buried produced water vault. The vault was removed, and soil sampling was conducted. All results were within Table 910-1 limits. As planned and approved, the vault was then backfilled. The Commission approved the request for closure on June 3, 2019. No further action is necessary under this Remediation Project.



During field inspections there was one violation related to tank berms. Linda Pavelka noted during the May 18, 1995, inspection that the tank berms were not large enough. This violation was cleared during the follow-up inspection on September 15, 1995.

Two Corrective Actions (CA's) were identified during the records review. The inspection by Jason Gomez on 4/30/2014 (#673800844 – 4/30/2014) stated the wellhead sign was lying on the ground. In addition, a NFPA label was needed on the produced water tank. The CA required installing signs to comply with rule 210. Corrective Actions were due by May 30, 2014. A follow-up inspection noted the CAs were completed and in compliance (#673802912 – 3/1/2016). The second CA was from the inspection on 8/20/2019. Inspector Santistevan stated that an unused gas meter house was left at the tank battery location. All other equipment had been removed. The CA required compliance with Rule 603.f. (Insp #679601376 – 8/20/2019). A FIR Resolution Form was submitted September 17, 2019, stating the gas meter was removed and the location was in compliance with Rule 603.f (Doc #402179969).

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	0.55
Access Road	0.2
Flowline	Not Included
Tank Battery	0.35
Well Pad	Not Included

Location Summary



Name	BRIGGS-65N66W/17SWSE		
Type	Tank Battery		
Location ID	464272		
Operator / #	PDC ENERGY INC - 69175		
Field	Wattenberg - #90750		
County, State	Weld, Colorado		
Lat/Long	40.396020 / -104.803640		
	<input type="checkbox"/> Planned Location	<input checked="" type="checkbox"/> X	<input type="checkbox"/> As Drilled
Location	SWSE 17 5N66W		
Location Status - Date	AC - 6/20/2019		
Facility Entities	<input checked="" type="checkbox"/> X	Tank Battery	<input type="checkbox"/> Pits
	<input type="checkbox"/>	Wells	<input checked="" type="checkbox"/> X Off-Location Flowlines (Form 44)
	<input type="checkbox"/>	Domestic Taps	<input type="checkbox"/> On-Location Flowlines (Form 42)
	<input type="checkbox"/>	Electric Utilities	<input type="checkbox"/>
Equipment on Site	<input checked="" type="checkbox"/> X	No	<input type="checkbox"/> Yes
	If yes, list:		
	<input checked="" type="checkbox"/> X	Pit mouse/rat holes, cellars backfilled	
Access Road	<input checked="" type="checkbox"/> X	Regraded	<input checked="" type="checkbox"/> X Contoured
	<input type="checkbox"/>	Culverts Removed	<input type="checkbox"/> Gravel Removed
	<input type="checkbox"/>	Pre-Existing (Must provide supporting documentation):	
Variance Requests	No variance requests identified during review.		
Sundry Notice (Form 4)	No sundry notice pertaining to series 900-1200 rules was identified.		
On Location Flowlines (Form 42)	N/A		
Off-Location Flowlines (Form 44)	Form 44 Doc # & Date: #403906769 - 8/30/2024		
	Purpose: Flowline Removal		
	Abandonment Date: 3/21/2019		
	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 - 11/8/2024		
	Flowline Type: Wellhead Line		
	Type of Fluids Transported: Produced Fluids		
	Start Point Location ID: 245537		
	Start Point Riser Lat/Long: 40.394392 / -104.800979		
	Equipment at Start Point: Wellhead		
	End Point Location ID: 464272		
	End Point Riser Lat/Long: 40.396020 / -104.803640		
	Equipment at End Point: Separator		

Field Inspection Form (Form INSP)	Form INSP Doc # & Date: #500169783 - 5/18/1995
	Status Summary: Fail - Violation
	Inspected Facilities: Wellhead and Tank Battery
	Inspection Status: PR
	Inspection Date & Inspector: 5/18/1995 by Linda Pavelka Comments: INADEQUATE BERMS-NEED TO HOLD 110% OF TANK VOLUMN;PLEASE FIX BERMS/FIREWALS
Field Inspection Form (Form INSP)	Form INSP Doc # & Date: #500169784 - 9/15/1995
	Status Summary: Pass
	Inspected Facilities: Wellhead and Tank Battery
	Inspection Status: PR
	Inspection Date & Inspector: 9/15/1995 by Linda Pavelka Comments: Looks good ;
Field Inspection Form (Form INSP)	Form INSP Doc # & Date: #673800844 - 4/30/2014
	Status Summary: Satisfactory; 2 CAs
	Inspected Facilities: Wellhead and Tank Battery
	Inspection Status: PR
	Inspection Date & Inspector: 4/30/2014 by Jason Gomez Comments: Wellhead sign lying on ground. No NFPA label on produced water tank.
Field Inspection Form (Form INSP)	Form INSP Doc # & Date: #673802912 - 3/1/2016
	Status Summary: Satisfactory - This is a follow up inspection
	Inspected Facilities: Wellhead and Tank Battery
	Inspection Status: PR
	Inspection Date & Inspector: 3/1/2016 by Jason Gomez Comments: Corrective actions from Doc#673800844 have been completed to comply with COGCC rules.
Field Inspection Form (Form INSP)	Form INSP Doc # & Date: #679601376 - 8/20/2019
	Status Summary: Follow Up Inspection Required - one CA
	Inspected Facilities: Wellhead and Tank Battery
	Inspection Status: AC
	Inspection Date & Inspector: 8/20/2019 by Brittani Santistevan Comments: Unused gas meter house left where tank battery resided. All other equipment has been removed since wellhead has been plugged and abandoned.
Inspection Corrective Actions (CAs)	500169783 - INADEQUATE BERMS-NEED TO HOLD 110% OF TANK VOLUMN;PLEASE FIX BERMS/FIREWALS 673800844 - Wellhead sign lying on ground. No NFPA label on produced water tank. 679601376 - Comply with Rule 603.f. (CA response FIRR Doc #673802912 - 9/17/2019)

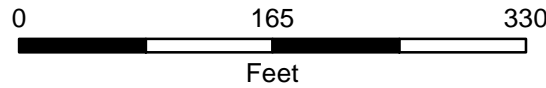
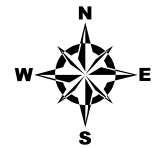
Environmental Incidents & Remediation	None	Spill or Release (Form 19)
	X	Remediation (Form 27/27A)
Spill or Release (Form 19)	There were no spills reported for this location.	
Site Investigation and Remediation Workplan (Form 27/27A)	Remediation Project #: 13064	
	Form 27 Initial Doc # & Date: #401994063 - 4/3/2019	
	Purpose: Removal of partially buried produced water vault.	
	Notes: Any remediation action, if any, is dependent on pit soil sample analysis results from the lab. If lab results show no impacts, the pit will be backfilled. If lab results show any impact, it will trigger an assessment of impact extent.	
	Form 27 Supplemental Docs # & Date: #402062023 - 6/3/2019	
	Purpose: Closure of Remediation Project from removal of partially buried produced water vault	
	Operator Comments: The partially buried produced water vault was removed by Unlimited. All results were within Table 910-1 limits. The pit will be backfilled.	
	ECMC Comments: N/A	
	ECMC COAs: Based on the information presented, it appears that no further 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. In addition, the surface area disturbed by the remediation activity shall be reclaimed in accordance with the 1000 Series Reclamation Rules.	
	Closure Request Approved: 6/3/2019 by Candice (Nikki) Graber	
Final Resolution: No Further Action		
COGIS Tank Facilities Information (Scout Card)	Tank Battery Name: BRIGGS-65N66W/17SWSE	
	Location ID: 464272	
	Status & Date: AC - 6/20/2019	
	Lat/Long: 40.396020 / -104.803640	
	Notes: N/A	
	Form 4 Doc # & Date: N/A	
COGIS Well Information (Scout Card)	Purpose: N/A	
	Well Name: BRIGGS #17-1	
	Facility ID: 245537	
	Status & Date: PA - 3/21/2019	
	Lat/Long: 40.394394 / -104.800984	
	Notes: N/A	
Form 4 Doc # & Date: N/A		
Purpose: N/A		

Pre-Plugging Active Operations Location Overview



PDC Form 4 Final Reclamation - Pre Plugging Overview

BRIGGS 17-1 TB



Prepared by:

Editor: CDenison

File: PDC_Drone_Rec_PrePlugging_DDP

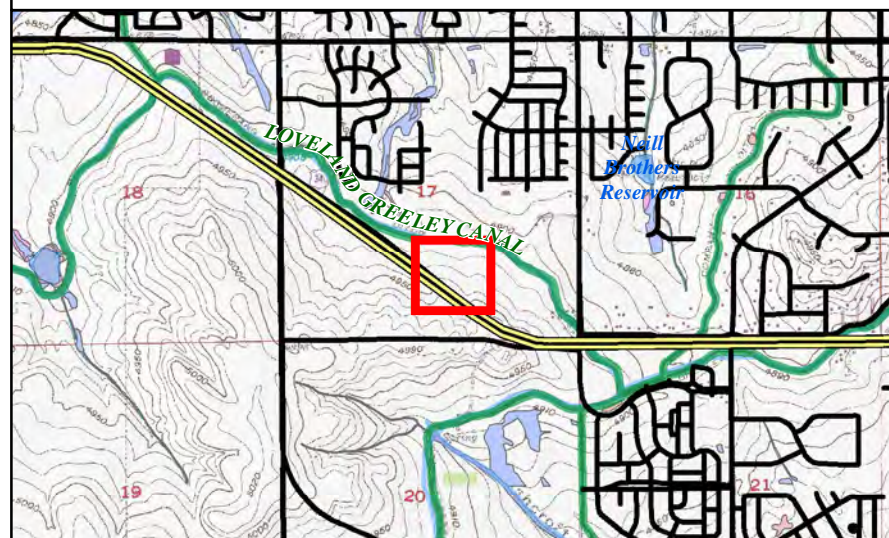
Scale: 1:1,500

Date: 11/22/2024

⊕ Well Head

- Former Tank Battery Disturbance
- Reclaimed Well Pad Disturbance
- Reclaimed Access Road Disturbance
- Flowline - Removed
- Highway

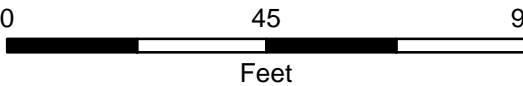
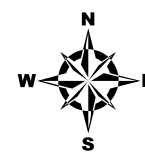
NAIP 2015 Imagery






PDC Form 4 Final Reclamation - Pre Plugging Overview


BRIGGS 17-1 TB





Prepared by:



Editor: CDenison
File: PDC_Drone_Rec_PrePlugging_DDP

Scale:1:400
Date: 11/22/2024

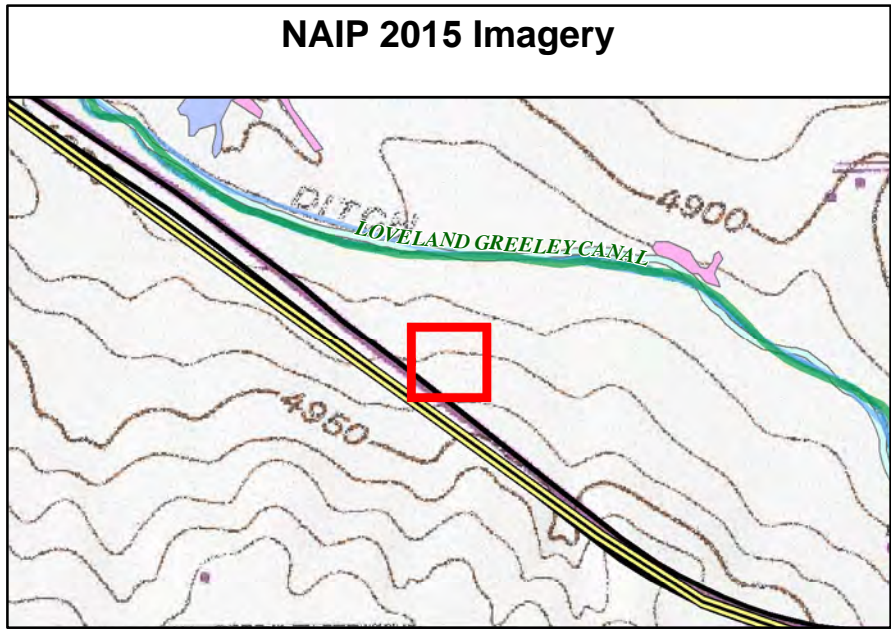
 Well Head

 Former Tank Battery Disturbance

 Reclaimed Access Road Disturbance

 Flowline - Removed

NAIP 2015 Imagery

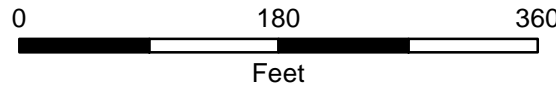
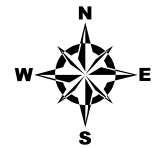


Post-Plugging and Abandonment Location Overview



PDC Form 4 Final Reclamation - Post Plugging Overview

BRIGGS 17-1



Prepared by:



Editor: CDenison

File: PDC_Drone_Rec_PostPlugging_DDP

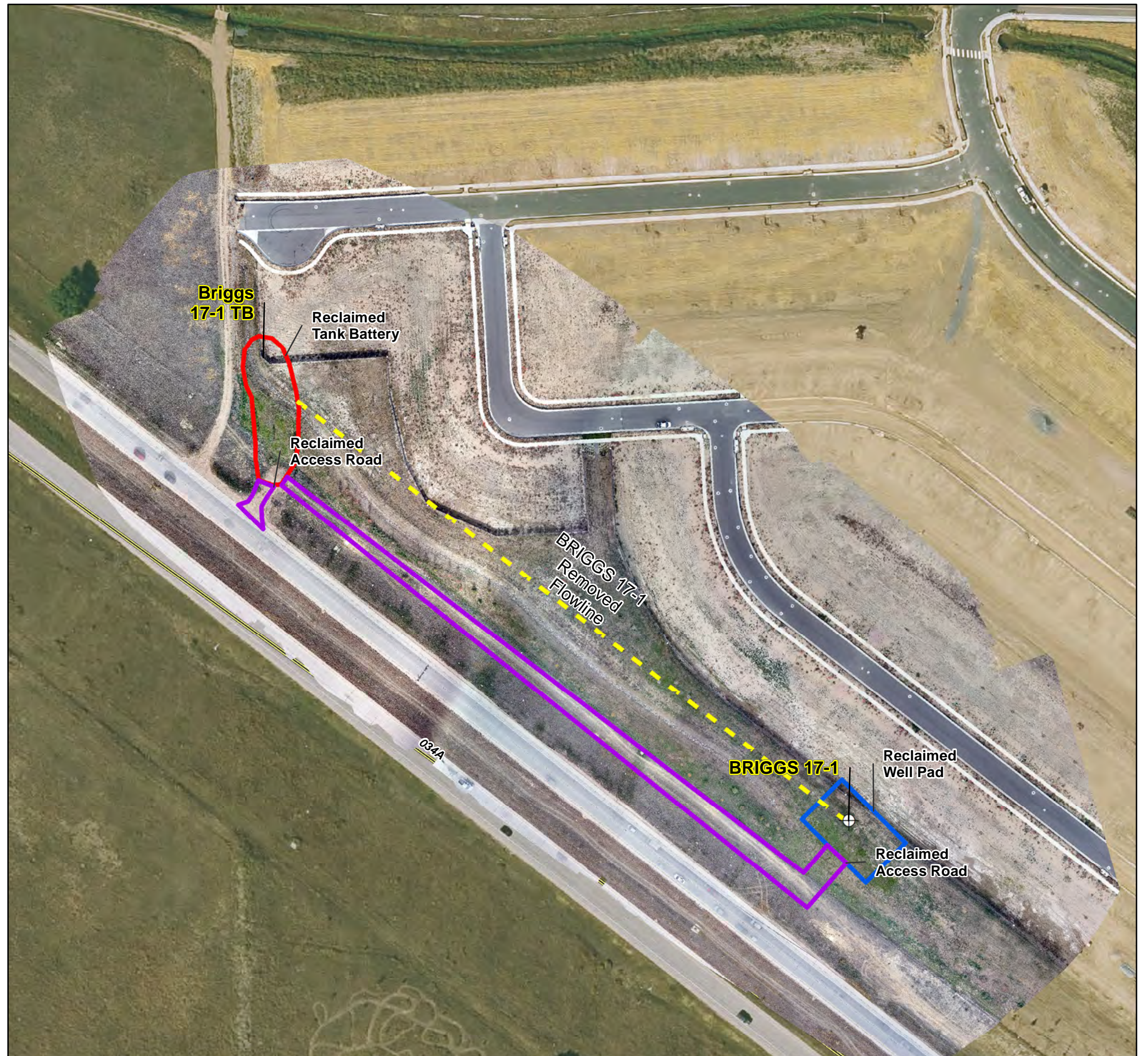
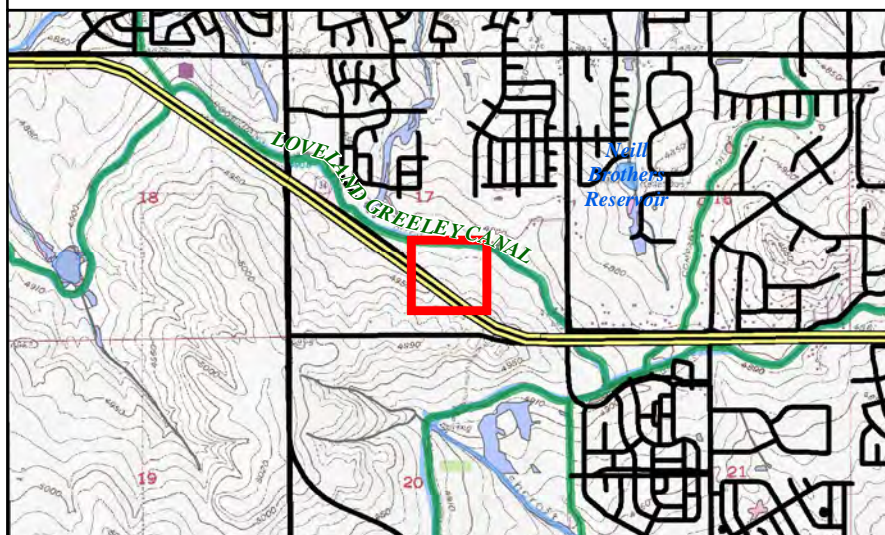
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Date: 11/24/2024

⊕ Well Head

- ▬ Reclaimed Tank Battery Disturbance
- ▬ Reclaimed Well Pad Disturbance
- ▬ Reclaimed Access Road Disturbance
- - - Flowline - Removed
- ▬ Highway

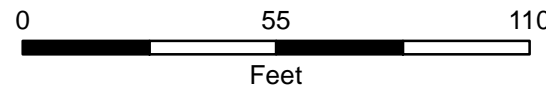
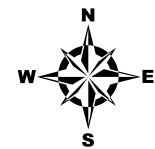
2024 Drone Imagery





PDC Form 4 Final Reclamation - Post Plugging Overview

BRIGGS 17-1



Prepared by:



Editor: CDenison

File: PDC_Drone_Rec_PostPlugging_DDP

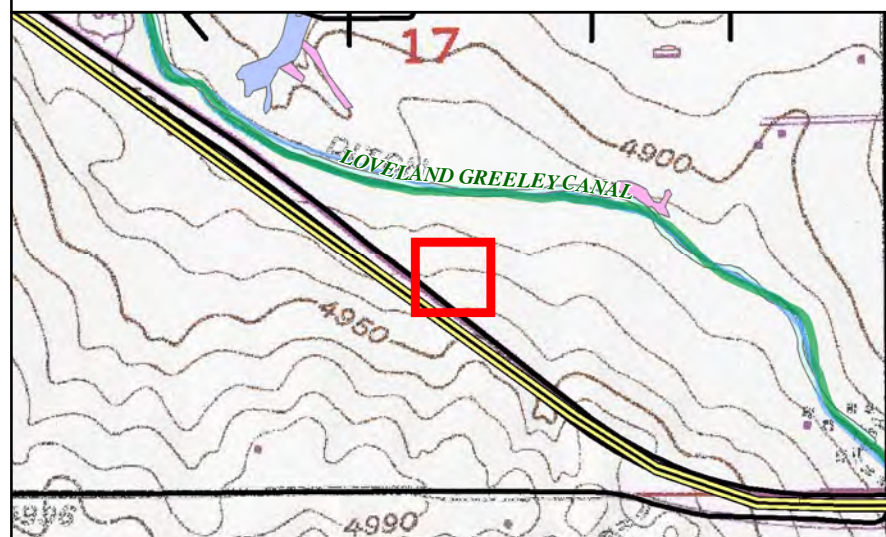
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Date: 11/24/2024

⊕ Well Head

- Reclaimed Tank Battery Disturbance
- Reclaimed Access Road Disturbance
- Flowline - Removed
- Highway

2024 Drone Imagery





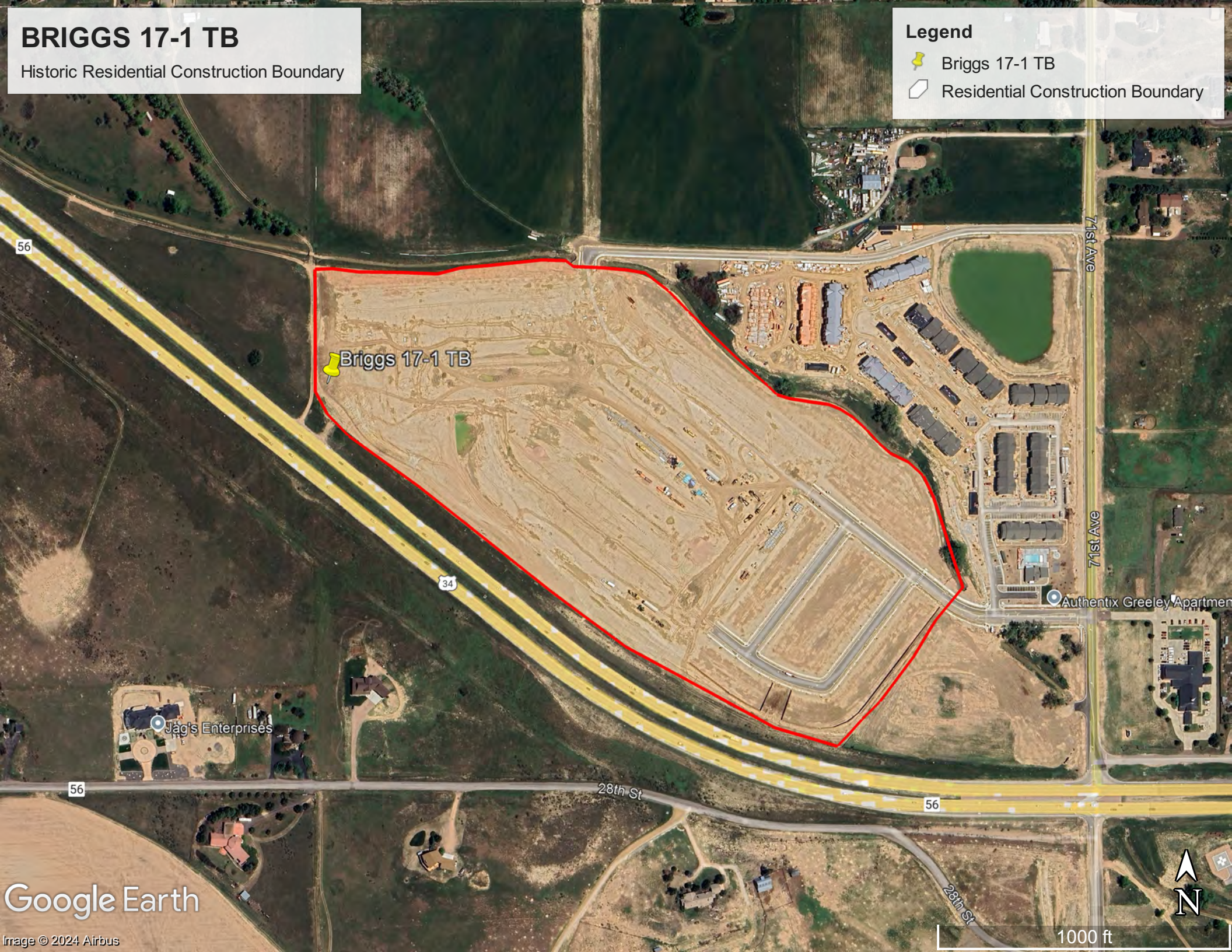
Historical Residential Construction Boundary (2023)

BRIGGS 17-1 TB

Historic Residential Construction Boundary

Legend

-  Briggs 17-1 TB
-  Residential Construction Boundary



Cardinal Direction Drone Photos of the Reclaimed Tank Battery Area

Photo Dates:

10/30/2024

Drone Photo Height:

85'

North of Tank Battery Disturbance Facing South
Lat/Long: 40.397313 / -104.803888



South of Tank Battery Disturbance Facing North
Lat/Long: 40.394854 / -104.804324



West of Tank Battery Disturbance Facing East
Lat/Long: 40.395972 / -104.805423



East of Tank Battery Disturbance Facing West
Lat/Long: 40.395980 / -104.801901



Handheld Photo of the Reclaimed Tank Battery Area

Photo Dates:
10/30/2024

Reclaimed Tank Battery Area:
Lat/Long: 40.396456 / -104.803626



10.30.2024 00:45