Location Checklist

Operator / #	CRESTONE PEAK RESOURCES OPERATING LLC / 10633			
Location ID & Name	332220 MANTLE-64N65W/28SWNE			
County	WELD, CO			
Well Information	Well Name:	MANTLE #32-28		
	Well API #:	05-123-21989		
	Lat/Long as Drilled:	40.284655 / -104.666698		
	Plug Date & Form 6s Doc #:	08/08/2018, 401750360		
Facility Entities	x Tank Battery (Off-Site)		Pits	
	x Wells	x	On-Location Flowlines (Form 42) Doc #: 401719640	
	Domestic Taps	x	Off-Location Flowlines (Form 44) Doc #: 401819656	
Equipment On-Site	x None		Debris	
	Pit mouse/rat holes, cellars backfilled			
Access Road	x Regraded	x	Contoured	
	Culverts removed	x	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)	x No		Yes	
On-Location Flowlines	No	x	Yes	
Off-Location Flowlines	No	x	Yes	
Inspection Corrective Actions	No	x	Yes – Resolved 2017	
Sundry Notice	Form 4 Doc # & Date:	402506215 & 10/12/2020		
	Purpose:	Final reclamation complete, site ready for inspection. This form was prepared to document successful completion of final reclamation efforts. The well was accessed via a preexisting crop perimeter road to the east. This road remains for its historical purpose of field access. A long-term access road through the cropland to the well was not developed. The associated centralized battery is permitted with Location ID 332220 and remains active for two producing wells. Please see the attached report for reclamation activities, details on the completed vegetation assessment, and photo documentation.		
	Comments:	The approval of this Form 4 is an acknowledgement that the document was received. It is not an approval of the final reclamation as the outcome of the methods will be determined on the ground during an inspection at a future date.		
	Attachments:	Vegetation Assessment Report Doc #402506225		
Drone Information	Make & Model	DJI M300/DJI Mavic 3 Multispectral		
	Image Processing Software	Pix4dfields – RGB/Multispectral Imagery & Pix4dmatic – RGB Imagery		
	Pilot Name & FAA Certificate #	Sam Streeter, #4100157		
	Date of FAA Certificate Issuance	23 Dec 2023		

SITE-SPECIFIC QUALITY ASSURANCE & QUALITY CONTROL AUDIT

Final Reclamation Complete Notice – Cropland Drone Imagery

PERMIT CLOSURE REPORT – CROPLAND

Location ID 332220
Location Name MANTLE-64N65W/28SWNE

Report Date

18 Jan 2024

Soil Sage has conducted a thorough data audit as part of our Quality Assurance and Quality Control (QA/QC) protocols. This report was developed in accordance with the ECMC Operator Guidance – Operator supplied cropland drone imagery and information for submitting a final reclamation complete notice.

Crop Year and Type

Crop 2023 – Alfalfa
Crop 2022 – Alfalfa

Quality Assurance & Quality Control Audit

Auditor	Soil Sage
Audit Date	06 Nov 2023

Audit Methodology

The following source materials were consulted during the QA and QC audit process:

- ✓ Site Permit Closures provided by CIVITAS Resources
- ✓ Colorado Oil & Gas Information System – COGIS Database
- ✓ On-site Evaluation and Proprietary Soil Sage Drone Imagery data collection
- ✓ Review of legacy imagery for site location and facility parameters

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

Site Description

Name	MANTLE-64N65W/28SWNE			
Location ID	332220			
Operator / #	CRESTONE PEAK RESOURCES OPERATING LLC / 10633			
Field	WATTENBERG / 90750			
County, State	WELD, CO			
Lat/Long	40.284655 / -104.666698			
	X	Planned Location		As Drilled
Facility Status	CL	**Location**		SWNE 28 4N65W
Facility Status Date	10/17/2018			
Facility Entities	X	Tank Battery (Off-Site)		Pits
	X	Wells	X	Off-Location Flowlines (**Form 44**)
		Domestic Taps	X	On-Location Flowlines (**Form 42**)
		Electric Utilities		
Equipment on Site	X	No		Yes
		If yes, list:		
		Pit mouse/rat holes, cellars backfilled		
Access Road	X	Regraded	X	Contoured
		Culverts Removed	X	Gravel Removed
		Pre-Existing: must provide supporting documentation		
Environment Incidents & Remediation	X	None		Spill or Release (**Form 19**)
		Remediation (**Form 27/27A**)		
Variance Requests	**No Variance Requests were detected during this QA & QC Audit.**			
Inspection Corrective Actions (CA)s	**Corrective Actions (CA)s were detected during the QA & QC Audit.** **CA Overall Status:** 1 of 1 Completed **CA-Approving Inspection Doc # & Date:** 680703544 & 01/13/2017 ○ **Inspector:** 01/06/2017 by Tom Peterson **Form FIRR Doc # & Submittal Date:** 401177982 & 01/30/2017 ○ **Overall Status:** 1 CA Completed ○ **Originating Field Inspection Report (FIR) Doc #:** 680703455 & 12/27/2016 ○ **CA#:** 54671 **Date Completed:** 01/05/2017 Comply with Rule 603.f using the Rule 603.f guidance document for further details.			

	ECMC Decision: Approved
	Complete ECMC Inspection Search Results: Link
Sundry Notice (Form 4)	**Form 4 Doc # & Date:** 402506215 & 10/12/2020 ○ **Purpose:** Final reclamation complete, site ready for inspection. This form was prepared to document successful completion of final reclamation efforts. The well was accessed via a preexisting crop perimeter road to the east. This road remains for its historical purpose of field access. A long-term access road through the cropland to the well was not developed. The associated centralized battery is permitted with Location ID 332220 and remains active for two producing wells. Please see the attached report for reclamation activities, details on the completed vegetation assessment, and photo documentation. ○ **Comments:** The approval of this Form 4 is an acknowledgement that the document was received. It is not an approval of the final reclamation as the outcome of the methods will be determined on the ground during an inspection at a future date. ○ **Attachments:** Vegetation Assessment Report Doc #402506225
On Location Flowlines (Form 42)	**Form 42s were detected during the QA & QC Audit.** See individual scout card data for details.
Off-Location Flowlines (Form 44)	**Form 44 Doc # & Date:** 401819656 & 11/29/2018 ○ **Purpose:** Off-Location Flowline Abandonment ○ **Abandonment Date:** 10/15/2018 ○ **ECMC Approval Date & Signee:** 11/29/2018 by Julie Murphy ○ **Operator Comments:** Flowline was disconnected from wellhead and from separator. 835' of flowline was abandoned in place. Both ends plugged below ground. Flowline was flushed with 25bbls fresh water prior to plugging. Flowline was verified free of hydro carbons with LEL monitor. Flowline was cut below ground level. Flowline was capped on both ends with 120lbs of slurry per state NTO, then backfilled on both ends. **Flowline Facility Information** ○ **ECMC Flowline ID:** 456906 ○ **Operator Flowline ID:** 080720181 ○ **Status & Date:** AC & 03/31/2021 ○ **Flowline Type:** Wellhead Line

	○ **Type of Fluids Transported:** Multiphase ○ **Start Point Location ID:** 332220 ○ **Start Point Riser Lat/Long:** 40.284641 / -104.666696 (Mantle #32-28 well) ○ **Equipment at Start Point:** Well ○ **End Point Location ID:** 332706 ○ **End Point Riser Lat/Long:** 40.285329 / -104.664337 (Mantle Production Facilities) ○ **Equipment at End Point Riser:** Separator
Field Inspection Form (Form INSP)	**Form INSP Doc # & Date:** 680703544 & 01/13/2017 ○ **Status Summary:** This is a Follow Up Inspection, No Follow Up Inspection Required ○ **Inspected Facilities:** Mantle 32-28 well ○ **Inspection Status:** PR ○ **Inspection Date & Inspector:** 01/06/2017 by Tom Peterson ○ **Comments:** Weeds noted in prior inspection document #680703455 have been corrected. Shared facility with API #123-12671. ○ **Attachments:** None **Form INSP Doc # & Date:** 680703455 & 12/27/2016 ○ **Status Summary:** Follow Up Inspection Required, Corrective Action Response Requested ○ **Inspected Facilities:** Mantle 32-28 well ○ **Inspection Status:** PR ○ **Inspection Date & Inspector:** 12/20/2016 by Tom Peterson ○ **Comments:** Shared facility with API #123-12671 ○ **Corrective Action:** Weeds have grown around wellhead area. See attached photo. Comply with Rule 603.f using the Rule 603.f guidance document for further details. **CA Date:** 01/06/2017 ○ **Attachments:** Inspection Photos Doc #68070345
COGIS Tank Facilities Information (Scout Card)	**No Tank Battery documents were detected during this QA/QC Audit.** However, the Tank Battery is referenced in Inspection Doc #680703544 stating "Shared facility with API #123-12671." That well is associated with a separate location ID 332706 where the tank battery is located.
COGIS Well Information (Scout Card)	**Well Name**: MANTLE #32-28 **API#**: 05-123-21989

	FACILITY ID: 271040 ○ **Status & Date**: PA & 10/17/2018 ○ **Lat/Long As Drilled**: 40.284655 / -104.666698 ○ **Form 6 Doc # & Date:** 401750360 & 06/24/2019 ○ **Form 42 Doc # & Date:** 401719640 & 07/31/2018 **Purpose:** Start of Plugging Operations – 48-hour notice required

ECMC Abbreviations: Location & Facility Status Codes, Inspection Types & Statuses and ECMC Help.

Audit Key Findings – Designation Land Use Observations

PREVIOUS LAND USE	CURRENT LAND USE
Reference Imagery for Infrastructure: Maxar 2010	**Remotely Sensed Imagery:** 19 Jul 2023; 26 Aug 2022
Designation: Oil & Gas Facility	**Designation:** Cropland

The following imagery sources were reviewed during this audit:

EarthExplorer, DRCOG 2002 - 2014, NAIP Imagery 2011, 2013, 2015, 2017, 2019, 2021, ESRI Maxar and Remotely Sensed Imagery Sep 2022

Closure Information

Mantle #32-28 well (API #05-123-21989) is located in Weld County, Colorado near the intersection of County Road 42 and County Road 43. There is an Off-Location Flowline between this well and a tank battery located at Location ID 332706.

There was a Corrective Action at this location in 2016 due to weeds growing around wellhead area. This was resolved in2017 and an ECMC inspection approved the CA in 2017.

Mantle #32-28 well (API #05-123-21989) was plugged and abandoned on 08/08/2018. The well access road was reclaimed at this time. The related facility, 332706, has not been reclaimed at the time of inspection. The production facilities serve two other wells at the same location.

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

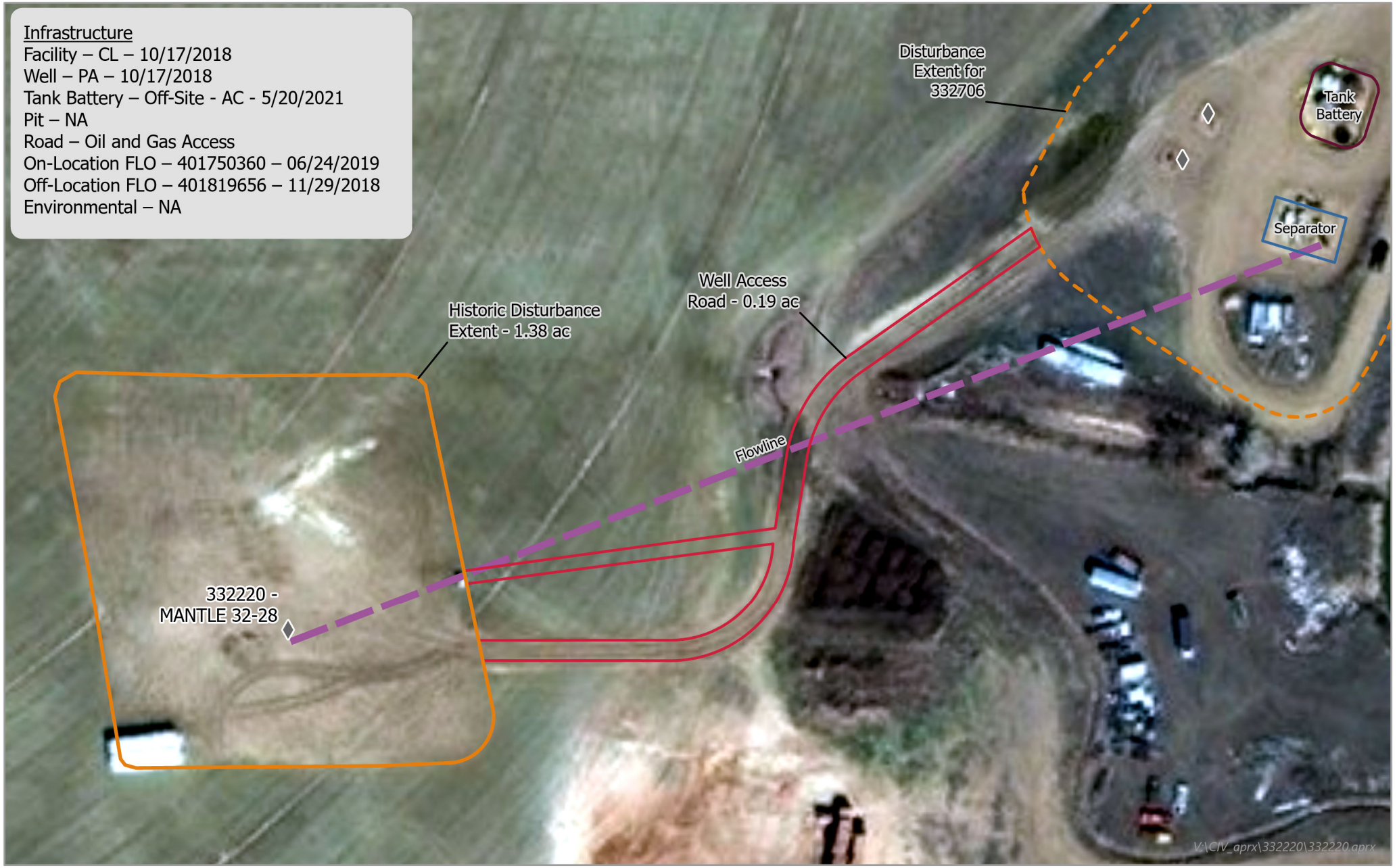
Summary Acreage Table

Description	Acres
Historic Disturbance Extent	1.58
Access Road	0.19
Flowline	Not Included
Tank Battery	Off-Site (Loc ID 332706)
Well Pad	1.38

Drone Information

Make	DJI
Model	M300/Mavic 3 Multispectral
Image Processing Software	Pix4dfields – RGB/Multispectral Imagery & Pix4dmatic – RGB Imagery
Pilot Name	Sam Streeter
Pilot FAA Certificate Number	4100157
Date of FAA Certificate Issuance	23 Dec 2023

Pre-Plugging Active Operations Location Overview



CIV - 332220 - MANTLE 32-28
Map Extent - Pre-Plugging Overview

Imagery: Maxar
Imagery Date: 11 Mar 2010
Map Date: 09 Jan 2024
Datum: WGS 1984 UTM Zone 13N
POC: Soil Sage

Wells
Flowline
Historic Disturbance Extent
Well Access Road
Tank Battery
Separator

0 30 60 Meters

Total Disturbance:
1.58 Acres

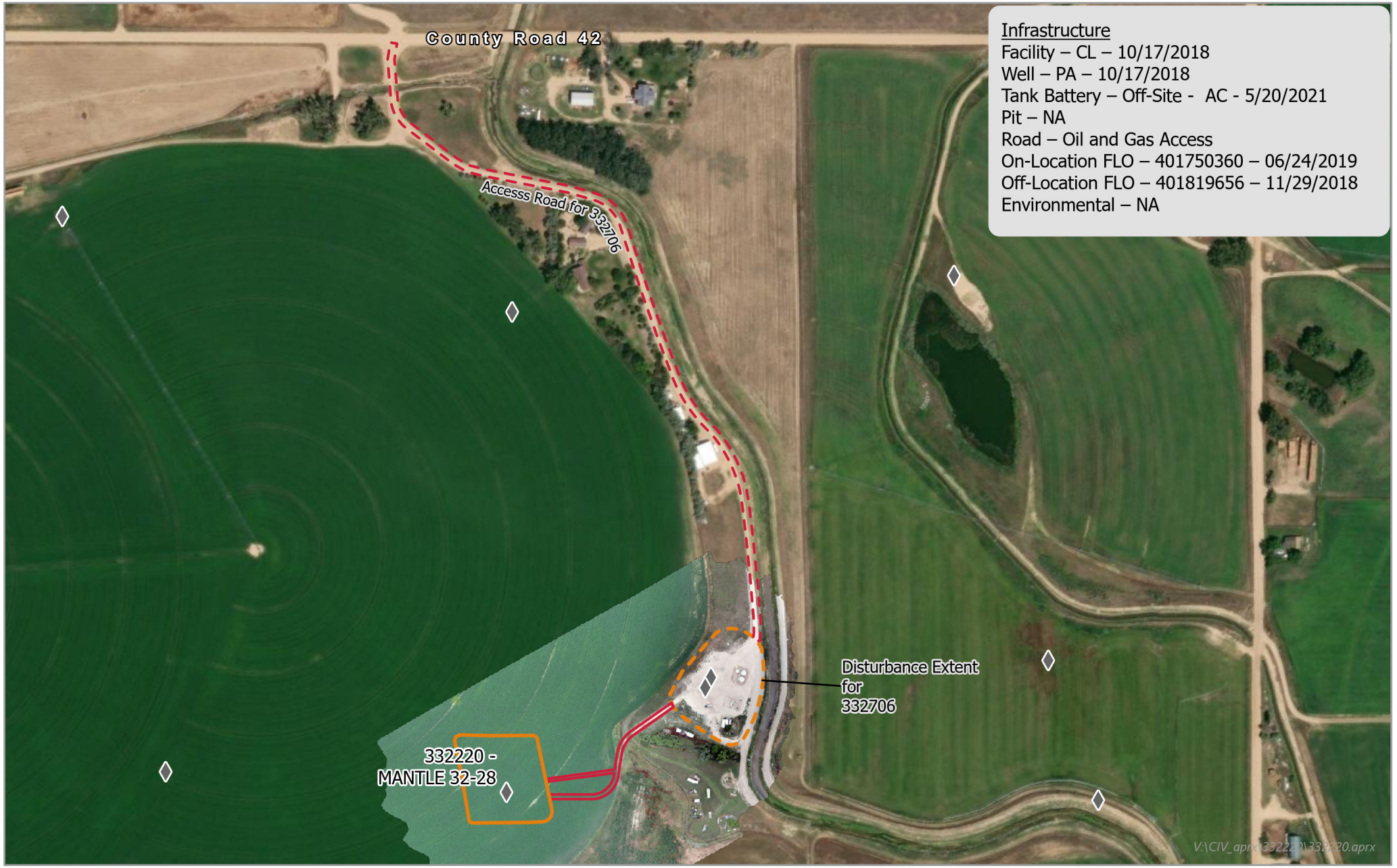
Scale: 1:1,000

Pad Location:
40.284655
-104.666698

N

Service Credits - Maxar, Microsoft

Post-Plugging and Abandonment Location Overview



CIV - 332220 - MANTLE 32-28
Map Extent - Post Plugging Road Overview

Imagery: RS Orthomosaic and DSM
Imagery Date: 19 Jul 2023
Map Date: 04 Jan 2024
Datum: WGS 1984 UTM Zone 13N
POC: Soil Sage

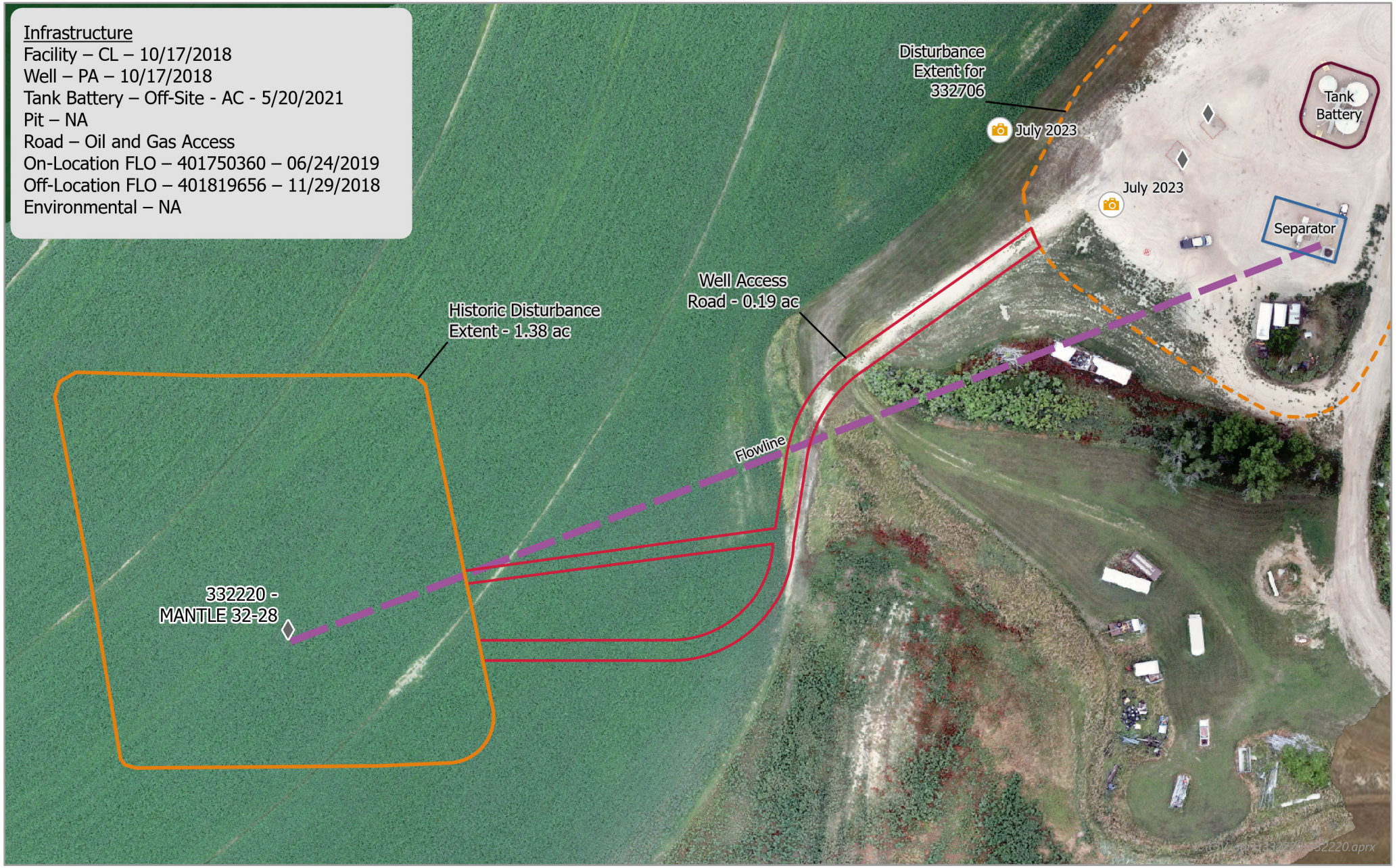
Legend
- Wells
- Historic Disturbance Extent
- Well Access Road

0 130 260 Meters

Scale: 1:4,500

Pad Location:
40.284655
-104.666698

N



CIV - 332220 - MANTLE 32-28
Map Extent - Post Plugging Overview

Imagery: RS Orthomosaic and DSM
Imagery Date: 19 Jul 2023
Map Date: 09 Jan 2024
Datum: WGS 1984 UTM Zone 13N
POC: Soil Sage

Wells
Photo Points
Flowline
Historic Disturbance Extent
Well Access Road
Tank Battery
Separator

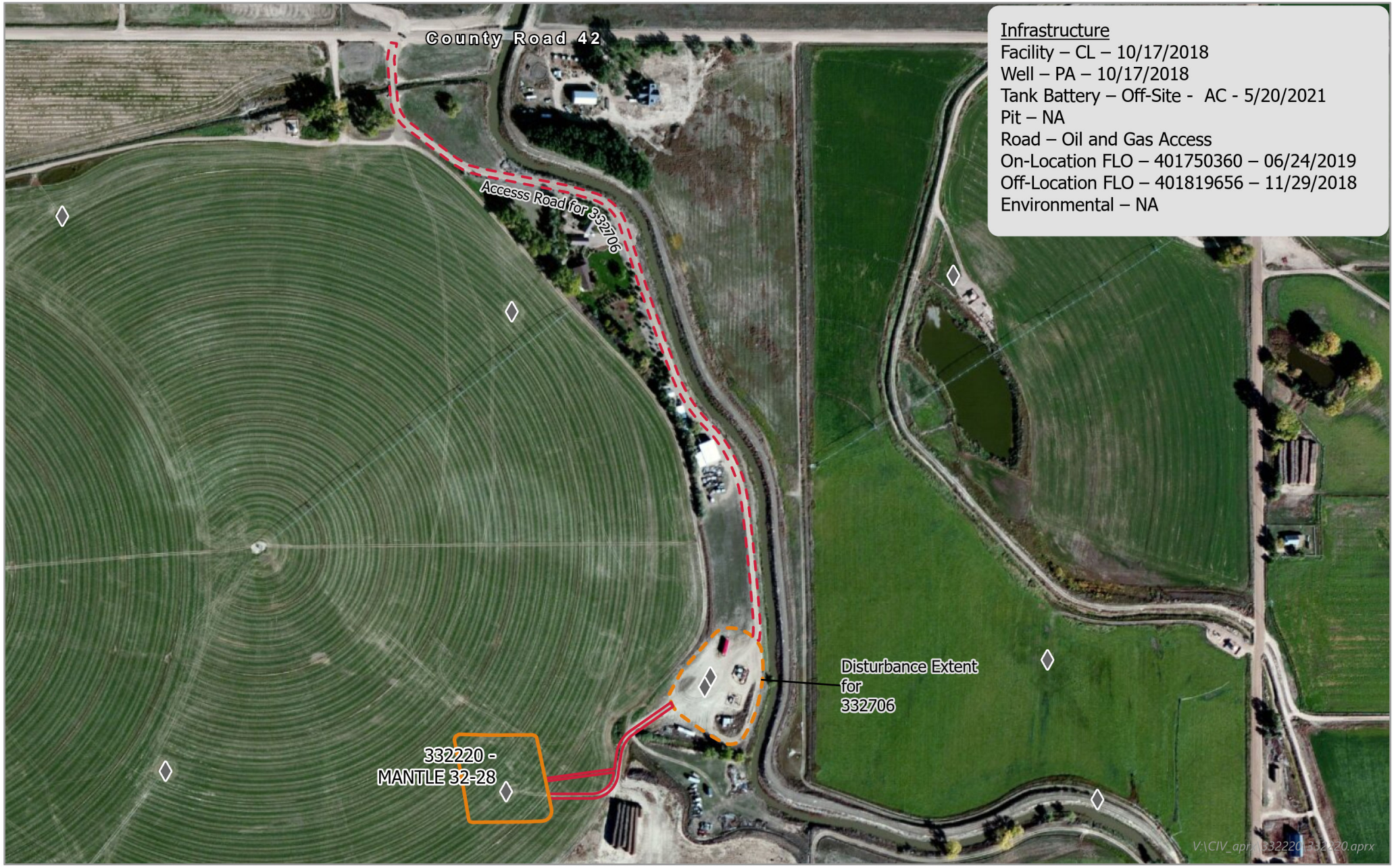
0 30 60 Meters

Total Disturbance:
1.58 Acres

Scale: 1:1,000

Pad Location:
40.284655
-104.666698

N



Service Credits - esri_imagery, Maxar

CIV - 332220 - MANTLE 32-28
Map Extent - Pre-Plugging Road Overview

Imagery: Maxar
Imagery Date: 11 Mar 2010
Map Date: 04 Jan 2024
Datum: WGS 1984 UTM Zone 13N
POC: Soil Sage

Legend
- Wells
- Historic Disturbance Extent
- Well Access Road

0 130 260 Meters

Scale: 1:4,500

Pad Location:
40.284655
-104.666698

N

Cardinal Directional Drone Photos & Reference Area Photos

Site Investigation and Photos Date

19 Jul 2023

Drone Photo Height

210 feet

Cardinal directional photos of the site. Reference overview map.

In View – Well, Access Road, Flowline **NORTH** – 40.282896 / -104.666569

In View – Well, Tank Battery, Access Road, Flowline **EAST** – 40.284561 / -104.668177

In View – Well, Access Road, Flowline **SOUTH** – 40.286307 / -104.666443

In View – Well, Access Road, Flowline **WEST** – 40.284743 / -104.663828

In View – Well, Tank Battery, Access Road, Flowline **NORTHEAST** – 40.283630 / -104.667945

In View – Well, Access Road, Flowline **SOUTHWEST** – 40.285842 / -104.663538

In View – Well, Access Road, Flowline **SOUTHWEST** – 40.285801 / -104.663931

In View – Tank Battery, Access Road, Flowline **NORTH** – 40.284533 / -104.664511

In View – Tank Battery, Access Road, Flowline **EAST** – 40.285412 / -104.665724

In View – Tank Battery, Access Road, Flowline **SOUTH** – 40.286342 / -104.664457

In View – Tank Battery, Access Road, Flowline **WEST** – 40.285448 / -104.663346

Well – Handheld Photographic Evidence

Site Investigation and Photos Date

17 Jul 2023

Handheld photos taken from Tank Battery location 332706 looking West into the Alfalfa field where the Mantle 32-28 wellhead was. No handheld photos taken from Mantle 32-28 wellhead location due to crop height.

	
Looking Northwest into field – 40.285558 / -104.665074	Looking West into field – 40.285536 / -104.665067

Off-Location Tank Battery Outside of Cropland – Handheld Photographic Evidence

Site Investigation and Photos Date

17 Jul 2023

Handheld photos taken from Tank Battery location 332706.

	
South end of Tank Battery location – 40.285410 / -104.664822	

Cardinal Directional Drone Photos Showing No Equipment Remaining

Site Investigation and Photos Date

25 Aug 2022

Drone Photo Height

330 feet

Cardinal directional photos of the site. Reference overview map.

In View – Well, Access Road, Flowline **NORTH** – 40.283189 / -104.666583

In View – Well, Tank Battery, Access Road, Flowline **EAST** – 40.284763 / -104.668857

In View – Well, Access Road, Flowline **SOUTH** – 40.286846 / -104.667135

In View – Well, Access Road, Flowline **WEST** – 40.284858 / -104.663450

ATTACHMENTS

Maps and Figures

Area Maps

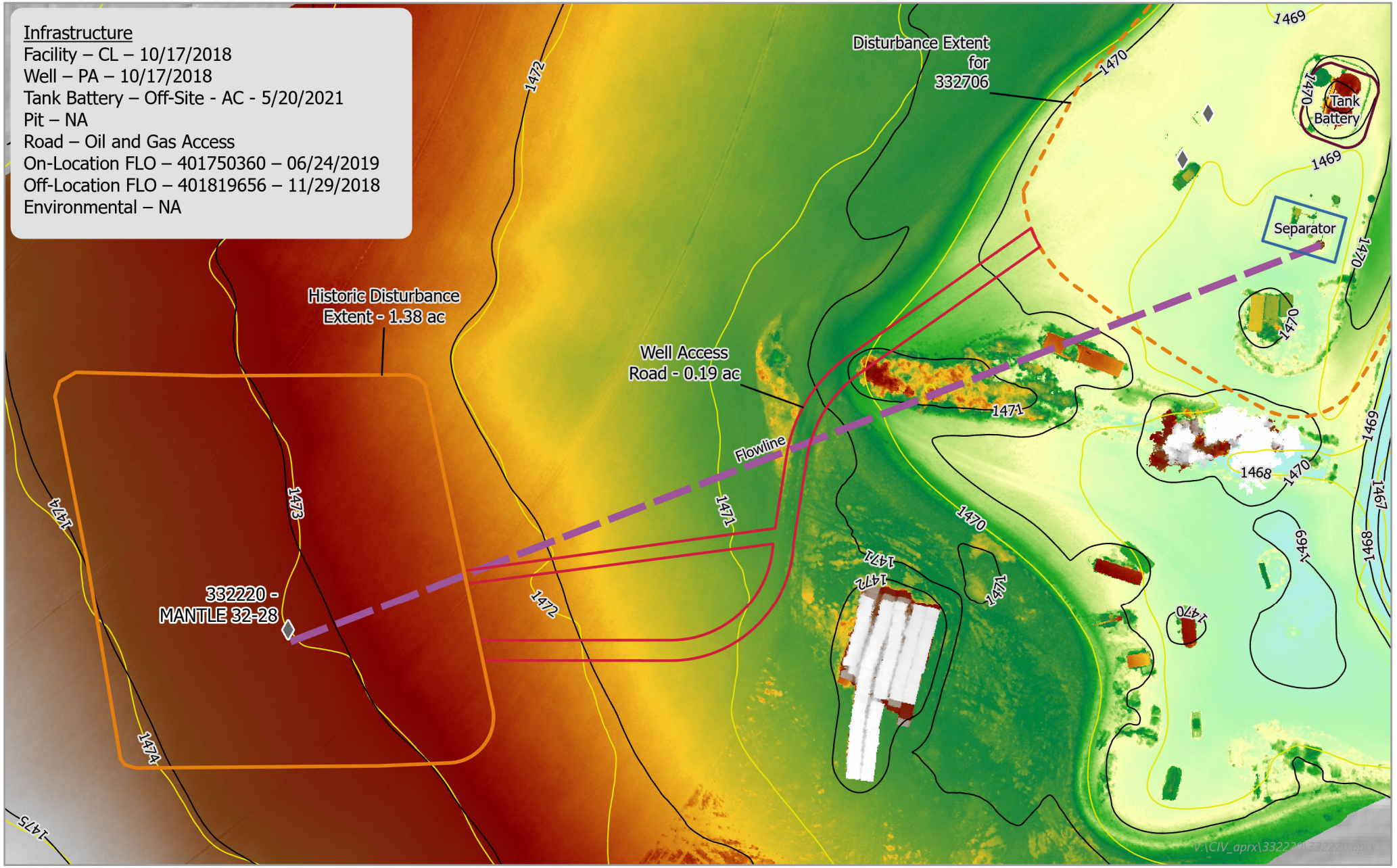
Elevation & Contours

Hydrology

Background Information

Natural Resources Conservation Service (NRCS) Map Unit Description

Reference Soil Document



CIV - 332220 - MANTLE 32-28
Map Extent - Elevation & Contours

Imagery: CWCB Elevation, RS DSM
Imagery Date: 2018, 26 Aug 2022
Map Date: 09 Jan 2024
Datum: WGS 1984 UTM Zone 13N
POC: Soil Sage

- Wells
- 1 Meter Contours (2018)
- 1 Meter Contours (2022)
- Flowline
- Historic Disturbance Extent
- Well Access Road
- Tank Battery
- Separator

Elevation
Meters
1484
1465

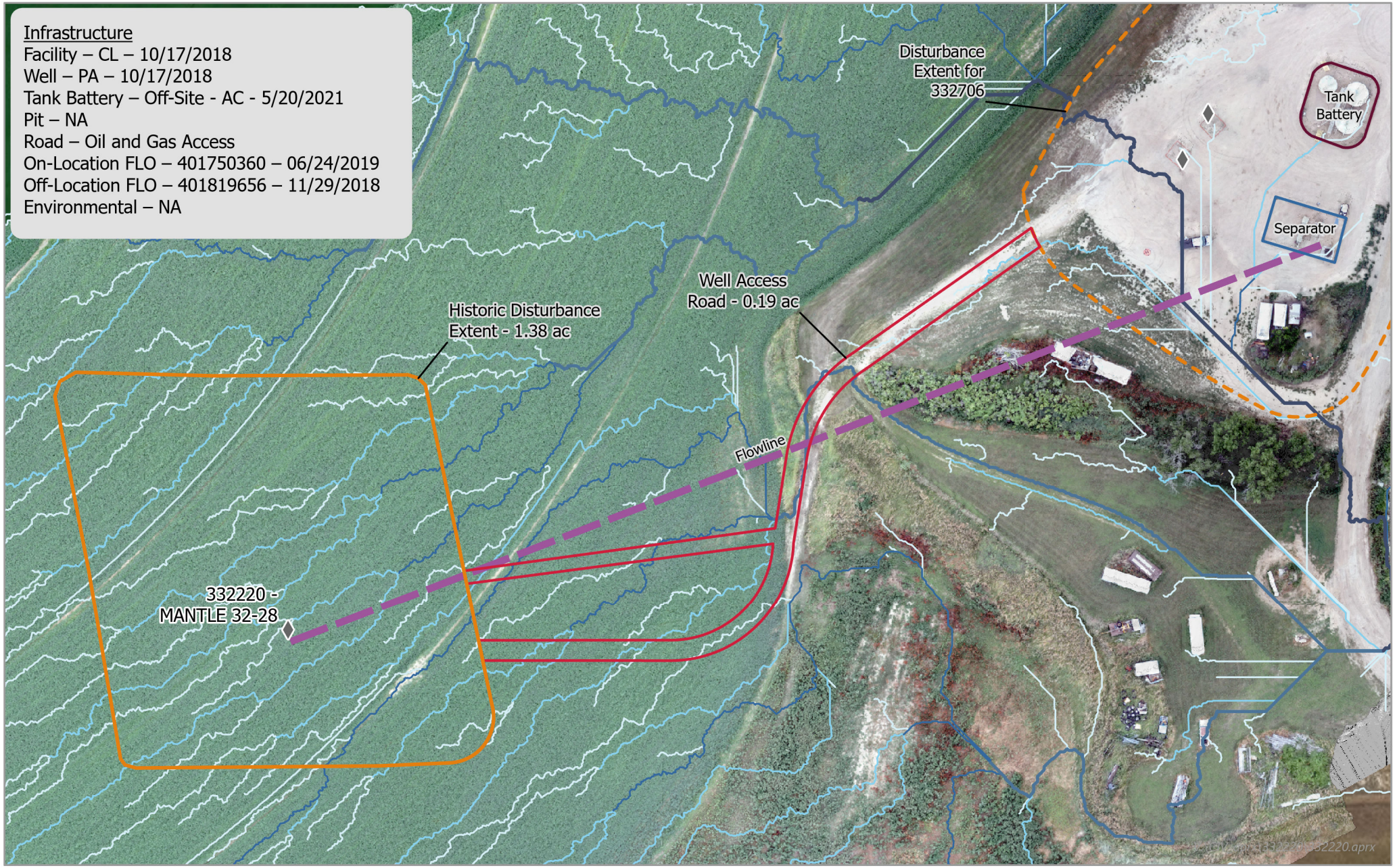
0 30 60 Meters

Total Disturbance:
1.58 Acres

Scale: 1:1,000

Pad Location:
40.284655
-104.666698

N



CIV - 332220 - MANTLE 32-28
Map Extent - Hydrology

Imagery: RS DSM, Orthomosaic
Imagery Date: 26 Aug 2022, 19 Jul 2023
Map Date: 09 Jan 2024
Datum: WGS 1984 UTM Zone 13N
POC: Soil Sage

Wells	Stream Order
Flowline	1
Historic Disturbance Extent	2
Well Access Road	3
Tank Battery	4
Separator	5

0 30 60 Meters

Total Disturbance: 1.58 Acres

Scale: 1:1,000

Pad Location: 40.284655 -104.666698

N

Soil Properties

USDA Soil Description

Reference Soil Information

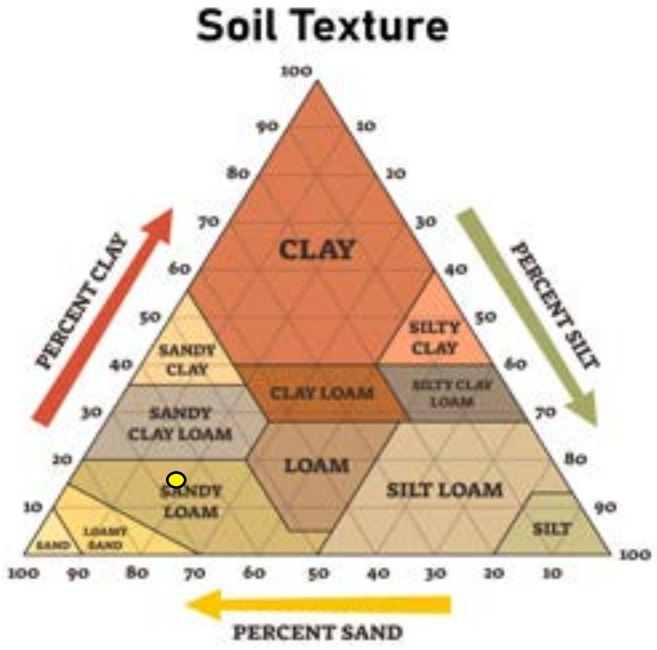
The location of the site is contained within one soil type, Otero sandy loam.

Map Unit 52 Reference Soil information - Otero sandy loam

This soil is formed from eolian deposits and/or mixed outwash. Landform is plains, with the Sandy Plains Ecological Site. Soils are well drained with a moderate water holding capacity, and slope 3-5 percent.

	Physical			Chemical			
Depth (in)	**Texture**	**Bulk Density**	**Partical Size Percent sand, silt, clay**	**pH**	**EC**	**SAR**	**OM%**
0-10	Sandy Loam	1.43	66-19-15	7.9	1.0	0.0	1.25
10-20	Sandy Loam	1.43	66-19-15	7.9	1.8	0.0	0.44
20-30	Fine Sandy Loam	1.43	65-20-15	7.9	2.0	0.0	0.25
30-40	Fine Sandy Loam	1.43	65-20-15	7.9	2.0	0.0	0.25
40-50	Fine Sandy Loam	1.43	65-20-15	7.9	2.0	0.0	0.25
50 +	Fine Sandy Loam	1.43	65-20-15	7.9	2.0	0.0	0.25

Soil Texture Triangle reflect the 0-10 in depth



Erosion Potential (10 inches)

- K Factor, Whole soil - .15. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.
- Wind Erodibility Group – 3. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.

Soil Reference Information

There is a general relationship of soil bulk density to root growth based on soil texture. Bulk densities ideal for root growth are less than 1.60 g/cc for sandy textures, less than 1.40 g/cc for loamy textures, and less than 1.10 g/cc for clayey textures. Bulk densities that restrict root growth are greater than 1.80 g/cc for sandy textures, 1.65 g/cc for loamy textures, and 1.47 g/cc for clayey textures.