

# SITE-SPECIFIC QUALITY ASSURANCE & QUALITY CONTROL AUDIT

Permit Closure Type – Final



## PERMIT CLOSURE REPORT – DESIGNATION LAND USE CHANGE

Location ID - 319611

Location Name – HAAS-66N67W 15NESE

### Report Date

7 Nov 2022

Soil Sage has conducted a thorough data audit as part of our Quality Assurance and Quality Control (QA/QC) protocols. The audit revealed this site has gone through a land use change.

### Initial Job Assignment

Client	CIVITAS Resources
Work Assignment	179 Site Permit Closures
Date	July 20, 2022

### Quality Assurance & Quality Control Audit

Auditor	Soil Sage
Audit Date	10/31/2022

### Audit Methodology

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

- ✓ Original List (spreadsheet) of proposed 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
- ✓ Natural Resources Conservation Service (NRCS) Map Unit Description
- ✓ Hydrology Map

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

## Site Description

<b>Name</b>	HAAS-66N67W 15NESE		
<b>Location ID</b>	319611		
<b>Operator / #</b>	EXTRACTION OIL & GAS INC / 10459		
<b>Field</b>	SEVERENCE 77030		
<b>County / State</b>	WELD / CO	<b>Lat/Long</b>	40.484493 / -104.872766
<b>Facility Status</b>	AC	<b>Location</b>	NESE 15 6N67W
<b>Facility Status Date</b>	04/14/2017	<b>Access Road</b>	Pre-existing access road
<b>Facility Entities</b>	<input checked="" type="checkbox"/> Tank Battery	<input checked="" type="checkbox"/> Pits	
	<input checked="" type="checkbox"/> Wells	<input type="checkbox"/> Off-Location Flowlines	
	<input type="checkbox"/> Domestic Taps	<input checked="" type="checkbox"/> On-Location Flowlines	
<b>Environment Incidents &amp; Remediation</b>	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Spill or Release ( <b>Form 19</b> )	
	<input checked="" type="checkbox"/> Remediation ( <b>Form 27</b> )		
<b>Sundry Notice (Form 4)</b>	<b>Form 4s exist for Related Facilities</b> – See individual scout card data for report details.		
<b>On-Location Flowlines (Form 42)</b>	<b>Form 42s exist for Related Facilities</b> – See individual scout card data for report details.		
<b>Off-Location Flowlines (Form 44)</b>	<b>No Form 44s were detected during this QA &amp; QC Audit.</b>		
<b>COGIS Spill or Release (Form 19) (Scout Card)</b>	<p><b>Spill or Release</b> – FACILITY 445284 – Status CL – 03/29/2017</p> <ul style="list-style-type: none"> <li>● <b>Form 19 Resolving Doc # &amp; Date</b> – 401246011 – 03/29/2017 <ul style="list-style-type: none"> <li>○ <b>Date Closed</b> – 03/29/2017</li> </ul> </li> <li>● <b>Form 19 Initial Doc # &amp; Date</b> – 401015105 – 03/24/2016 <ul style="list-style-type: none"> <li>○ <b>Date of Discovery</b> – 03/22/2016</li> <li>○ <b>Spill Type</b> – Historical Release (discovered during relocation of tank battery – reference Form 4 #401005044 – 03/28/2016)</li> <li>○ <b>Reference Location Facility ID &amp; Type</b> – 319611 – Tank Battery</li> <li>○ <b>Operator</b> – GREAT WESTERN OPERATING COMPANY LLC</li> <li>○ <b>Operator Comments</b> – Work proceeding under an approved Form 27 – Doc # 401235959 (Remediation Project # 10100).</li> </ul> </li> </ul>		

<p><b>Site Investigation and Remediation Workplan (Form 27/27A)</b></p>	<p><b>Remediation Project # – 10100</b></p> <ul style="list-style-type: none"> <li>● <b>Form 27A - Supplemental Doc # &amp; Date – 402746402 on 07/14/2021</b> <ul style="list-style-type: none"> <li>○ <b>Final Resolution – Case Closed – 07/14/2021 – Rick Allison</b></li> </ul> </li> <li>● <b>Form 27 – Initial Doc# &amp; Date – 401235959 on 03/17/2017</b> <ul style="list-style-type: none"> <li>○ <b>Purpose – Remediation of Spill and Releases</b></li> <li>○ <b>Type of Waste Requiring Remediation – E&amp;P Waste, Produced Water</b></li> <li>○ <b>Impacted Media – Groundwater Impacted Type – Yes</b></li> <li>○ <b>Impacted Media – Soils Impacted Type – Yes</b></li> <li>○ <b>Facility ID – 445284</b></li> <li>○ <b>Facility Type – Spill or Release</b></li> </ul> </li> </ul>
<p><b>COGIS Tank Facilities Information (Scout Card)</b></p>	<p><b>Tank Battery – HAAS-66N67W #15NESE</b></p> <ul style="list-style-type: none"> <li>● <b>Tank Battery Status &amp; Date – AC – 04/14/2009</b></li> <li>● <b>Form 4 Doc # &amp; Date – 401005044 – 03/28/2016</b>  <b>Purpose – Relocation of tank battery due to potential hazards of encroaching property development.</b>  <b>Approved – 03/28/2016 by Doug Andrews</b></li> <li>● <b>Form 19 Resolving Doc # &amp; Date – 401246011 – 03/29/2017</b> See Site Investigation &amp; Remediation Workplan above for details.</li> </ul>
<p><b>COGIS Well Information (Scout Card)</b></p>	<p><b>Well – HAAS #1 FACILITY ID 243772</b></p> <ul style="list-style-type: none"> <li>● <b>Well Status &amp; Date – PA – 04/14/2017</b></li> <li>● <b>Form 6 Subsequent Doc # &amp; Date – 401281229 – Approved on 5/30/2018 by Eric Jacobson.</b></li> <li>● <b>Form 42 – Doc # &amp; Date – 401351135 submitted on 07/24/2017</b>  <b>Purpose – Flowlines Abandoned. Completed on 05/15/2017</b></li> <li>● <b>Form 42 – Doc # &amp; Date – 401244027 submitted on 03/27/2017</b>  <b>Purpose – Start of Plugging Operations 48 hour notice.</b></li> <li>● <b>Form 4 Doc # – 401150321</b>  <b>Purpose – Interim reclamation complete. Site ready for inspection.</b>  <b>Approved – 12/02/2016 by Chris Binschus</b></li> </ul>
<p><b>COGIS Pit Information (Scout Card)</b></p>	<p><b>Pit – HAAS 1# - FACILITY ID 111150</b></p> <ul style="list-style-type: none"> <li>● <b>Pit Operator – SMITH OIL PROPERTIES INC / 79905</b></li> <li>● <b>Pit Status &amp; Date – CL – 09/23/1999</b></li> </ul>

## Audit Key Findings - Designation Land Use Change Observations

PREVIOUS LAND USE	CURRENT LAND USE
Reference Imagery for Infrastructure – DRCOG 2012	Remotely Sense Imagery – 09/14/2022
Designation – Agricultural Processing and Staging Area	Designation – Housing Development

### The following imagery sources were reviewed during this audit:

EarthExplorer, DRCOG 2010 - 2014, NAIP Imagery 2011, 2013, 2015, 2017, 2019, 2021, ESRI Maxar and Remotely Sensed Imagery Sep 2022

## Closure Information

**Notes from Tank Battery Scout Card** – Operator moved tank battery to next to the well due to property development encroaching on the tank battery via Form 4 Sundry Doc #401005044. Doug A. 3/28/16.

### Notes from Form 19 – Resolving doc –

- The produced water vessel was removed from the site and the Haas production site has been relocated and sold to Extraction.
- Operator Comments - Work proceeding under an approved Form 27 (Remediation Project # 10100) to resolve Spill ID 445284.

### Form 27 (web page) related to the SPILL OR RELEASE location:

[https://cogcc.state.co.us/cogisdb/Incidents/reportDetail?report=rem&doc\\_num=401235959](https://cogcc.state.co.us/cogisdb/Incidents/reportDetail?report=rem&doc_num=401235959)

**Note from Form 4 Sundry Notice** - Operator Comments - We purchased the Haas #1 tank battery from Bill Barrett located in NESE section 15, T6N, R67W. Recently there were some developers who built a turning lane that came within 10' of our tank battery. It was not part of their initial plan to be that close to us, but they strayed from those plans causing a safety hazard with the turning lane. Due to this safety concern, we took immediate action to move the tank battery. Its current coordinates are now at 40.484556 and -104.872644. Attached is an updated facility layout, location drawing and cultural distances. Berms have been constructed along all sides of the tanks and separators.

## Site Summary

Based on the key findings of our thorough data audit, the following information is provided:

### *Site Investigation Date*

09/21/2022

### *Reference Area Photos*

Site photos

21 Sept 2022

Cardinal directional photos of the site



North



East



South



West

On the ground photos



# ATTACHMENTS

## Maps and Figures

### *Area Maps*

Previous Infrastructure Overview

Current Site Overview

Hydrology – (2 CCR 404-1 – 303.b.3.G pg.34)

## Background Information

*Natural Resources Conservation Service (NRCS) Map Unit Description*

Reference Soil Document

# Soil Properties

## USDA Soil Description

<b>Location ID / Name</b>	319611 - HAAS-66N67W 15NESE
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### Reference Soil Information

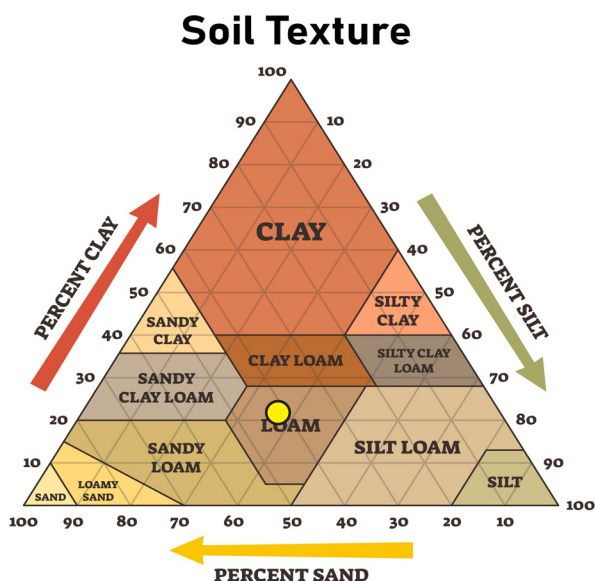
The location of the site is contained within one soil type, Kim loam.

### Map Unit 32 Reference Soil information - Kim loam

This soil is formed from mixed eolian deposits derived from sedimentary rock. Landform is plains, alluvial fans, with the Loamy Plains Ecological Site. Soils are well drained with a moderate water holding capacity, and slope 1-3 percent.

Depth (in)	Physical			Chemical			
	Texture	Bulk Density	Partical Size Percent sand, silt, clay	pH	EC	SAR	OM%
0-10	Loam	1.33	42-37-21	7.9	0.0	0.0	0.75
10-20	Loam	1.33	42-37-21	7.9	0.0	0.0	0.75
20-30	Loam	1.33	42-37-21	7.9	0.0	0.0	0.75
30-40	Loam	1.33	42-37-21	7.9	0.0	0.0	0.75
40-50	Fine Sandy Loam	1.43	65-20-15	7.9	0.0	0.0	0.25
50 +	Fine Sandy Loam	1.43	65-20-15	7.9	0.0	0.0	0.25

### Soil Texture Triangle reflect the 0-10 in depth



### Erosion Potential (10 inches)

- K Factor, Whole soil - .28. 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 – 4L. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.

**Infrastructure**

Facility – AC – 4/14/2017  
Well – PA – 4/14/2017  
Tank Battery – AC - 4/14/2009  
Pit -CL – 09/23/1999  
Road – Pre-existing  
On-Location FLO – 401351135 – 5/15/2017  
Off-Location FLO - NA  
Environmental – RPN – 10100  
Resolved – 7/14/2021



**CIV - 319611- HAAS**  
**Map Extent - DRCOG 2012**

Imagery: DRCOG  
Imagery Date: 2012  
Map Date: 07 Nov 2022  
Datum: NAD\_1983\_UTM\_Zone\_13N  
POC: Soil Sage

**Legend**

- ◆ Wells
- ▭ Disturbance Extent
- ▭ Tank Battery

0 0.01 0.03 0.05 Miles

Overall Disturbance: 0.16 Acres  
Scale: 1:1,400

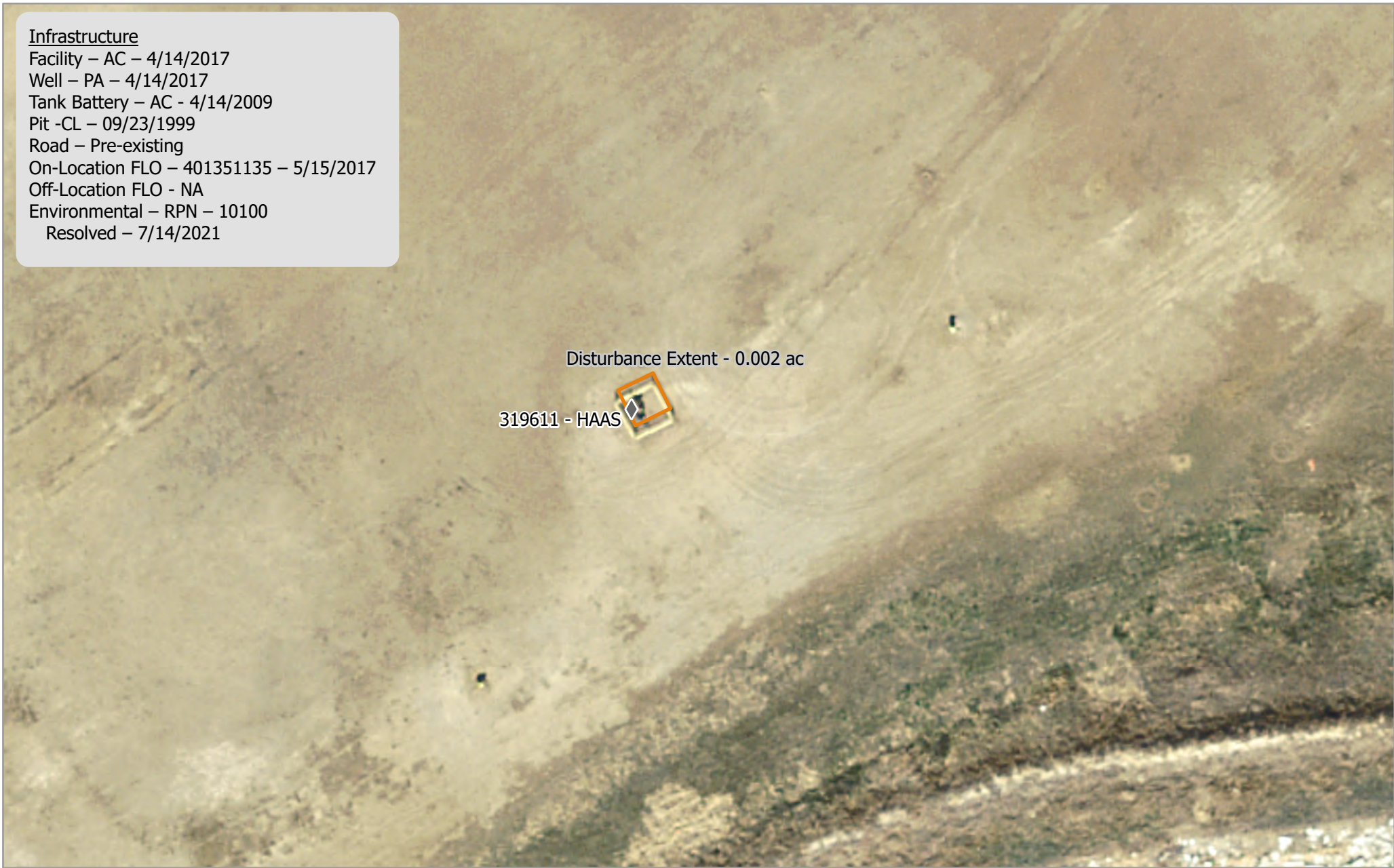
Pad Location: 40.484550  
-104.872640



Service Credits - Maxar, Microsoft

**Infrastructure**

Facility – AC – 4/14/2017  
Well – PA – 4/14/2017  
Tank Battery – AC - 4/14/2009  
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Resolved – 7/14/2021



Disturbance Extent - 0.002 ac

319611 - HAAS

**CIV - 319611- HAAS  
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Imagery: DRCOG  
Imagery Date: 2012  
Map Date: 07 Nov 2022  
Datum: NAD\_1983\_UTM\_Zone\_13N  
POC: Soil Sage

**Legend**

- ◆ Wells
- ▭ Disturbance Extent

0 0 0.01 0.01 Miles

Overall Disturbance: 0.16 Acres  
Scale: 1:400

Pad Location: 40.484550  
-104.872640



Service Credits - Maxar, Microsoft

**Infrastructure**

Facility – AC – 4/14/2017  
Well – PA – 4/14/2017  
Tank Battery – AC - 4/14/2009  
Pit -CL – 09/23/1999  
Road – Pre-existing  
On-Location FLO – 401351135 – 5/15/2017  
Off-Location FLO - NA  
Environmental – RPN – 10100  
Resolved – 7/14/2021

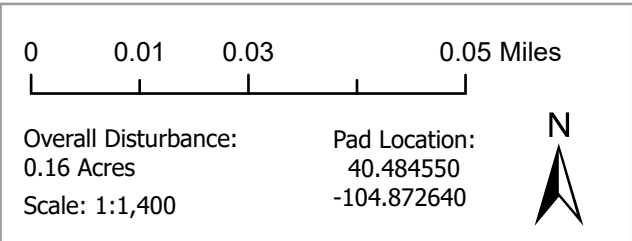


**CIV - 319611- HAAS  
Map Extent - Overview**

Imagery: RS Orthomosaic & DSM  
Imagery Date: 14 Sep 2022  
Map Date: 07 Nov 2022  
Datum: NAD\_1983\_UTM\_Zone\_13N  
POC: Soil Sage

**Legend**

- ◆ Wells
- ▭ Disturbance Extent
- ▭ Tank Battery



Service Credits - Maxar, Microsoft



**Infrastructure**

Facility – AC – 4/14/2017  
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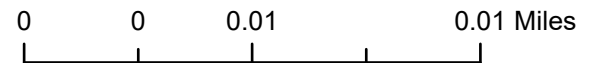
319611 - HAAS

**CIV - 319611- HAAS  
Map Extent - Overview**

Imagery: RS Orthomosaic & DSM  
Imagery Date: 14 Sep 2022  
Map Date: 07 Nov 2022  
Datum: NAD\_1983\_UTM\_Zone\_13N  
POC: Soil Sage

**Legend**

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- ▭ Disturbance Extent



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**Infrastructure**

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On-Location FLO – 401351135 – 5/15/2017  
Off-Location FLO - NA  
Environmental – RPN – 10100  
Resolved – 7/14/2021



**CIV - 319611- HAAS  
Map Extent - Hydrology**

Imagery: RS Orthomosaic & DSM  
Imagery Date: 14 Sep 2022  
Map Date: 07 Nov 2022  
Datum: NAD\_1983\_UTM\_Zone\_13N  
POC: Soil Sage

