

Texas Commission on Environmental Quality

Remediation Division Correspondence Identification Form

SITE & PROGRAM AREA IDENTIFICATION

SITE LOCATION			REMEDIATION DIVISION PROGRAM AND FACILITY IDENTIFICATION	
Site Name: El Campo Aluminum			Is This Site Being Managed Under A State Lead Contract? ☐ Yes ☒ No	
Address 1: 902 Gladys Street			Program Area:	VOLUNTARY CLEANUP PROGRAM
Address 2:			Mail Code:	MC-221
City: El Campo		State: Texas	Is This A New Site To This Program Area? ☐ Yes ☒ No	
Zip Code:	77437	County:	Wharton	VCP No.: 538
TCEQ Region: Region 12 - Houston			--Leave This Field Blank--	

DOCUMENT(S) IDENTIFICATION

PHASE OF REMEDIATION	DOCUMENT NAME
1. ASSESSMENT	GROUNDWATER (OR OTHER MEDIA) MONITORING REPORT
2.	
3.	
4.	
5.	

CONTACT INFORMATION

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TCEQ INTERNAL USE ONLY

Document No.	TCEQ Database Term	Document No.	TCEQ Database Term
1.	GW/MEDIA MONITORING RPT	4.	
2.		5.	
3.			

2021 ANNUAL GROUNDWATER MONITORING REPORT

Former El Campo Aluminum Facility
902 Gladys Street
El Campo, Texas 77437

Customer No. CN601736101
Regulated Entity No. RN101475192
Voluntary Cleanup Program No. 538

Prepared for:

Whittaker Corporation

1955 North Surveyor Avenue
Simi Valley, California 93063-3386

31 March 2022



GSI Environmental Inc.

9600 Great Hills Trail, Suite 350E ■ Austin, TX 78759 ■ P: 512.346.4474



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GSI Job No. 5452

Issued: 31 March 2022

A handwritten signature in blue ink, appearing to read 'J. Skaggs', written over a horizontal line.

Jonathan M. Skaggs, PG
Texas Professional Geoscientist No. 11370

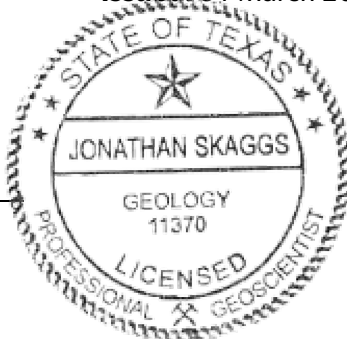


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1.0 INTRODUCTION

This report summarizes groundwater monitoring and response action activities performed in 2021 by GSI Environmental, Inc. (GSI) at and near the former El Campo Aluminum Facility ("the Plant") located at 902 Gladys Street in El Campo, Texas. For the purposes of this report, "the Site" describes areas where groundwater assessment, monitoring, and response action activities occur within an approximately 2-mile-long area at and to the south of the former Plant. The Site is subject to the Texas Risk Reduction Program (TRRP) (Chapter 30 Texas Administrative Code [30 TAC] §350) and is overseen by the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program (VCP), site No. 538, executed on 20 July 2006. The purpose of ongoing environmental work at the Site is to monitor and address volatile organic compounds (VOCs) in groundwater, specifically trichloroethene (TCE) and its degradation products including 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene (tDCE), and vinyl chloride.

Environmental investigations at the Site commenced in 1997. For a full chronology of historical investigations, refer to Geomatrix Consultants Inc.'s December 2006 *Affected Property Assessment Report* (APAR, Geomatrix, 2006). Response action activities are currently being implemented under the following TCEQ-approved documents:

- May 2008 *Response Action Plan* (RAP, Geomatrix, 2008);
- December 2011 *RAP Supplement* (2011 RAP Supplement, AMEC, 2011); and
- July 2014 *RAP Supplement* (2014 RAP Supplement; AMEC, 2014).

Groundwater analytical data and a summary of groundwater response action activities were provided to TCEQ in groundwater Response Action Effectiveness Reports (RAERs) submitted in 2011, 2012, 2016, and 2020.

In 2021, the following groundwater monitoring and response action activities were completed:

1. GSI conducted the site-wide groundwater sampling event in February 2021 and quarterly groundwater monitoring at select wells in February, May-June, September, and December 2021, respectively; and
2. Approximately 3,000 gallons of molasses were injected into Injection Galleries 1 and 4 as a part of the active groundwater response action.

2.0 GROUNDWATER-BEARING UNITS

The Site is underlain by three coarse-grained alluvial groundwater bearing units (GWBUs). From shallow to deep, the unit names and approximate depths are as follows:

- **A-Zone:** approximately 32 to 50 feet below ground surface (bgs);
- **B-Zone:** approximately 135 to 150 feet bgs; and
- **C-Zone:** approximately 150 to 200 feet bgs (Geomatrix, 2006; Wood, 2020).

A clay aquitard separates the B- and C-Zones. Wells screened in B- and C-Zones exhibit significant differences in hydraulic head, suggesting hydraulic separation between the zones.

3.0 GROUNDWATER MONITORING ACTIVITIES

Groundwater monitoring activities at the Site are conducted quarterly. The first quarter of the year is an annual site-wide monitoring event and in 2021 the first quarter monitoring event included wells in the B- and C-Zones. The second, third, and fourth quarter events evaluate a subset of B-Zone wells in locations downgradient of molasses injection galleries and along the B-Zone PCLE zone boundaries. The TCEQ-approved groundwater sampling and analysis schedule through 2024 is presented as Table 1.

During each monitoring event, GSI employed standard low-flow groundwater sampling. Key activities are briefly described below.

- Prior to sampling, each well was inspected for damage and repairs were made, as necessary.
- Static water levels were collected to the nearest hundredth of a foot using an electric water level meter.
- After collecting a static water level, a stainless-steel submersible flow-controlled pump was connected to dedicated polyethylene tubing and lowered into the well.
- Wells were purged until water quality parameters (i.e., specific conductivity, oxidation-reduction potential, temperature, and dissolved oxygen) stabilized, at which point a sample was collected in laboratory-provided containers.
- After sampling each well, the submersible pump (and power cord) and water level meter were cleaned using mild detergent (e.g., Liquinox®) prior to use at the next well.

In addition, central injection gallery recovery well IG4-RW-1 was sampled quarterly to ensure that molasses injection activities complied with TCEQ Underground Injection Control (UIC) Class V Injection Well Authorization No. 5X2600478.

GSI did not perform groundwater monitoring activities at the Zone A wells (see Table 1). These wells will be sampled during the first quarter of 2023.

3.1 Passive Diffusion Bag Groundwater Sampling

During the second quarter 2021 sampling event, a field demonstration was conducted to evaluate the use of Passive Diffusion Bags (PDBs) as an alternative sampling method at the Site. The goal of the field demonstration was to directly compare analytical results of the PDB sampling method with current low-flow purging methods at select wells. Groundwater sampling using PDBs is a proven method for volatile organic compounds (VOCs) such as TCE and has been deployed at many contaminated sites (ITRC, 2004; ASTM, 2020). The PDB method is beneficial as it increases efficiency and cost savings while sampling (ITRC, 2004), minimizes generation of investigation-derived waste, and increases workplace safety at the Site, as workers are not required to transport purge water and other supplies (e.g., car batteries) between wells.

Results of the field demonstration indicate that PDBs are a suitable alternative to the low-flow groundwater sampling at the Site. These results were included in a letter report submitted to TCEQ titled *Evaluation of Passive Diffusion Bag Groundwater Sampling Method*, dated 28 September 2021 (GSI, 2021b). TCEQ subsequently approved the use of PDBs, in lieu of low-flow sampling, at the Site in a letter dated 15 November 2021. GSI will transition to PDBs as the primary sampling method in the first quarter of 2022.

4.0 GROUNDWATER MONITORING RESULTS

Results of 2021 groundwater monitoring activities are summarized below.

4.1 Groundwater Elevations

Groundwater elevations and gradients observed in each of the GWBUs in 2021 were generally consistent with historical observations. Groundwater elevations in the B-, and C-Zones are presented in Tables 2 and 3, respectively, and discussed in the sections below.

4.1.1 B-Zone Groundwater Elevations

B-Zone groundwater potentiometric surface maps for the quarterly events are presented in Figures 1-4. In first quarter 2021, groundwater elevations ranged from 59.97 feet above mean sea level (AMSL) (MW-136B) to 68.32 feet AMSL (MW-6B) (Figure 1; Table 2). Groundwater elevations were similar during the remaining quarterly events (Figures 2-4; Table 2).

In the northern portion of the Site (between wells MW-5B and MW-142B), the direction of groundwater flow is to the southwest with a hydraulic gradient of approximately 0.00052 ft/ft (February 2021). In the southern plume area (between MW-128B and MW-136B), the direction of groundwater flow is to the south with a hydraulic gradient of approximately 0.00094 ft/ft (Figure 1). The groundwater flow direction and hydraulic gradient in the B-Zone were generally consistent between the 2021 quarterly sampling events and consistent with historical observations.

4.1.2 C-Zone Groundwater Elevations

The C-Zone groundwater potentiometric surface map from February 2021 is presented in Figure 5. Groundwater elevations ranged from 50.22 (MW-23C) to 52.68 (PPW-2) feet AMSL (Table 3). Groundwater flow direction in the C-zone is south-southeasterly, with a hydraulic gradient of approximately 0.00014 ft/ft as measured between MW-11C and MW-130C.

4.2 Groundwater Analytical Results

Groundwater analytical results for the B- and C-Zone wells are presented in Tables 4 and 5, respectively. Results were compared to TCEQ Tier 1 residential groundwater ingestion ($^{GW}GW_{ing}$) Protective Concentration Levels (PCLs). Data usability summaries and laboratory reports for groundwater analytical data are included in Appendix A. Discussion in this section focuses on concentrations of the four primary contaminants of concern (COCs) at the Site: TCE and its degradation products 1,1-DCE, cDCE, and vinyl chloride.

4.2.1 B-Zone Analytical Results

Concentrations of TCE, 1,1-DCE, cDCE, and vinyl chloride exceeded their respective PCLs at several B-zone wells. The TCE PCL exceedance (PCLE) zone encompasses an approximately two-mile-long area

between MW-6B and MW-140B (north to south) and MW-142 and MW-146B (east to west) (Figures 6-9). Overall, the TCE PCLE zone was consistent between quarterly events in 2021 and with those from prior years (Figure 24 and Figure 25). The southern extent of the TCE PLCE zone continues to be delineated by wells MW-137B, MW-140B, and MW-135B.

PCLE zones for 1,1-DCE, cDCE, and vinyl chloride are smaller than the TCE PCLE zone (Figures 11-22) and generally consistent between quarterly events in 2021 and with those from prior years (Figures 23 and 24). Concentrations of 1,1-DCE, cDCE, and vinyl chloride are highest immediately downgradient of the molasses injection galleries, suggesting that biodegradation of TCE is occurring as a result of the response action.

Other COCs that were detected but concentrations were below their respective PCLs include: 1,1,2-trichloroethane, 1,1-dichloroethane, 1,1-dichloropropene, 1,2-dichloroethane, benzene, chloroform, chloromethane, methyl tert-butyl ether, naphthalene, toluene, and trans-1,2-dichloroethene (tDCE; another degradation product of TCE).

4.2.1.1 Southern Plume Area

During the fourth quarter 2021 event, an exceedance of the critical PCL for TCE was detected in well MW-134B (5.38 micrograms per liter [$\mu\text{g/L}$], duplicate 4.93 $\mu\text{g/L}$). The well was resampled in January 2022 and TCE was detected at 4.56 $\mu\text{g/L}$. In response, two additional monitoring wells will be installed to confirm delineation of the PCLE zone east of well MW-134B (Figure 26). Well installation activities are scheduled for the second quarter of 2022, pending landowner access agreements.

4.2.2 C-Zone Analytical Results

There were no PCLE exceedances in the C-Zone in 2022 (Table 5). TCE was detected but did not exceed its PCL at wells PPW-2, MW-7C, MW-17C, and MW-23C (1.95 $\mu\text{g/L}$, 2.17 $\mu\text{g/L}$, 0.424 $\mu\text{g/L}$ and 3.2 $\mu\text{g/L}$). Other VOCs were detected sporadically, but at levels below their respective PCLs, including TCE degradation products cDCE and 1,1-DCE, as well as chloroform. The extent of the PCLE zone in C-Zone wells is smaller than that observed in prior years (Figure 25).

5.0 RESPONSE ACTION STATUS

In 2021, GSI continued to implement the groundwater response action to address the groundwater PCLE zones in accordance with the TCEQ-approved RAP and RAP Supplements for the Site (Geomatrix 2008; AMEC 2011; AMEC 2014). The current groundwater response action consists of:

- Active Response Action: Molasses injections focused on the core of the B-Zone TCE plume (areas where TCE concentrations exceed 100 $\mu\text{g/L}$) to stimulate biodegradation of TCE and its degradation products.
- Passive Response Action: Monitored natural attenuation (MNA) to address the portions of the groundwater PCLE Zones where TCE is below 100 $\mu\text{g/L}$.

During this reporting period, approximately 3,000 gallons of molasses were injected into select Injection Gallery 1 and Injection Gallery 4 wells.

6.0 WELL PLUGGING ACTIVITIES

As approved by the TCEQ, GSI retained and oversaw Best Drilling, Inc. of Houston, Texas, a Texas-licensed drilling contractor, to plug and abandon monitoring wells MW-104B, MW-138B, and MW-139B in accordance with Title 16 Texas Administrative Code (16 TAC) §76.104 on 25 June 2021. Copies of the State of Texas Well Plugging Reports are included in Appendix B of this report.

7.0 FUTURE ACTIVITIES

Planned activities at the Site in 2022 include:

- Continue quarterly groundwater monitoring using the PDB sampling method;
- Continue quarterly molasses injections at Injection Galleries 1 and 4;
- Install two new groundwater monitoring wells in the Southern Plume Area; and
- Prepare and submit the 2022 RAER by 30 June 2022.

The results of 2022 monitoring activities and an update on response action status will be submitted in the next annual groundwater monitoring report by 31 March 2023.

8.0 REFERENCES

- AMEC Environment & Infrastructure, Inc. (AMEC), 2011, Response Action Plan Supplement, El Campo Aluminum Facility, El Campo, Texas, VCP No. 538, December.
- AMEC, 2014, Response Action Plan Supplement, El Campo Aluminum Facility, El Campo, Texas, VCP No. 538, July 8.
- ASTM International (ASTM), 2020. ASTM D7929-20, Standard Guide for Selection of Passive Techniques for Sampling Groundwater Monitoring Wells, ASTM International, West Conshohocken, PA, 2020, <https://www.astm.org/d7929-20.html>.
- Geomatrix Consultants, Inc. (Geomatrix), 2006, Affected Property Assessment Report, El Campo Groundwater Site, VCP No. 538, December.
- Geomatrix, 2008, Response Action Plan, El Campo Aluminum Facility, El Campo, Texas, VCP No. 538, May.
- GSI Environmental, Inc. (GSI), 2020a, Response to TCEQ's August 17, 2020 Letter, Former El Campo Facility, 902 Gladys Street, El Campo Texas 77437, September 16.
- GSI, 2020b, Response to TCEQ's 14 October 2020 Letter, Former El Campo Facility, 902 Gladys Street, El Campo Texas 77437, December 11.
- GSI, 2021a, Response to TCEQ's 14 October 2020 Letter, Southern Plume Area Evaluation, Former El Campo Facility, 902 Gladys Street, El Campo Texas 77437, January 27.
- GSI, 2021b, Evaluation of Passive Diffusion Bag Groundwater Sampling Method, Former El Campo Facility, 902 Gladys Street, El Campo Texas 77437, September 28.
- Interstate Technology & Regulatory Council (ITRC), 2004. Technical and Regulatory Guidance for Using Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in

Groundwater. Prepared by Interstate Technology & Regulatory Council Diffusion Sampler Team. February 2004.

Texas Commission on Environmental Quality (TCEQ), 2021, Re: El Campo Aluminum Facility, El Campo, Wharton County, Voluntary Cleanup Program (VCP) No. 538; Customer No. CN601736101; Regulated Entity No. RN101475192. August 04.

Wood, 2020, 2020 Response Action Effectiveness Report, Former El Campo Aluminum Facility, VCP No. 538, July.

TABLES

Table 1: Groundwater Sampling and Analysis Schedule Through 2025

Table 2: Groundwater Elevations – B-Zone

Table 3: Groundwater Elevations – C-Zone

Table 4: Groundwater Analytical Results – B-Zone

Table 5: Groundwater Analytical Results – C-Zone

TABLE 1
GROUNDWATER SAMPLING AND ANALYSIS SCHEDULE THROUGH 2025
Former El Campo Aluminum Facility
El Campo, Texas



Well ID	2022				2023				2024				2025			
	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25
A-Zone ²																
MW-6A					X											
MW-7A					X											
MW-9A					X											
MW-10A					X											
MW-13A					X											
MW-14A					X											
MW-21A					X											
VFW-MW-1					X											
B-Zone																
IG1-MW-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-6B1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-6B2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-6B3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-MW-7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG1-RW-4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG2-MW-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG2-MW-2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG2-MW-3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG2-MW-4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG3-MW-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG4-MW-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG4-MW-2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG4-MW-3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IG4-RW-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-5B	X				X				X				X			
MW-6B	X				X				X				X			
MW-7B	X				X				X				X			
MW-10B	X								X							
MW-12B	X								X							
MW-14B	X				X				X				X			
MW-17B	X				X				X				X			
MW-19B	X								X							
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-25B	X				X				X				X			
MW-26B	X								X							
MW-100B	X				X				X				X			
MW-102B	X				X				X				X			
MW-103B	X				X				X				X			
MW-109B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-110B	X				X				X				X			
MW-111B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-112B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-112B2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-113B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-114B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-115B-R	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-117B	X				X				X				X			
MW-118B	X				X				X				X			
MW-119B	X								X							
MW-121B	X				X				X				X			
MW-124B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-125B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-126B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-127B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-128B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-131B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-132B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-133B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-134B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-135B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-136B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-137B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-140B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-141B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-142B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-143B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-146B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-147B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PSRW-1	X								X							
C-Zone																
MW-5C	X								X							
MW-7C	X				X				X				X			
MW-17C	X				X				X				X			
MW-22C	X								X							
MW-23C	X				X				X				X			
MW-130C	X				X				X				X			
PPW-1	X								X							
PPW-2	X				X				X				X			
Total Wells	72	45	45	45	71	45	45	45	72	45	45	45	63	45	45	45

Notes:
1. **Shaded and Bolded** indicates sample will be analyzed for VOC, TDS, TOC, Methane, Ethane, and Ethene. All others to be analyzed for VOCs only.
2. A-Zone groundwater monitoring wells were last sampled during the first quarter of 2020.

Abbreviations:
EPA = U.S. Environmental Protection Agency
PPW = Plant Production Well
TDS = total dissolved solids
TOC = total organic carbon
VOCs = volatile organic compounds

TABLE 2
GROUNDWATER ELEVATIONS - B-ZONE
 Former El Campo Aluminum Facility
 El Campo, Texas

Well	Measurement Date	TOC (ft AMSL)	DTW (ft)	Groundwater Elevation (ft AMSL)
IG1-MW-1	2/8/2021	38.27	104.15	65.88
IG1-MW-1	5/24/2021	38.92	104.15	65.23
IG1-MW-1	9/20/2021	37.02	104.15	67.13
IG1-MW-1	12/6/2021	38.54	104.15	65.61
IG1-MW-2	2/8/2021	38.42	103.90	65.48
IG1-MW-2	5/24/2021	37.86	103.90	66.04
IG1-MW-2	9/20/2021	37.15	103.90	66.75
IG1-MW-2	12/6/2021	36.98	103.90	66.92
IG1-MW-3	2/8/2021	38.28	104.16	65.88
IG1-MW-3	5/24/2021	37.75	104.16	66.41
IG1-MW-3	9/20/2021	37.06	104.16	67.10
IG1-MW-3	12/6/2021	36.81	104.16	67.35
IG1-MW-4	2/8/2021	38.12	104.12	66.00
IG1-MW-4	5/24/2021	37.68	104.12	66.44
IG1-MW-4	9/20/2021	36.89	104.12	67.23
IG1-MW-4	12/6/2021	36.62	104.12	67.50
IG1-MW-5	2/8/2021	38.49	104.28	65.79
IG1-MW-5	5/24/2021	38.08	104.28	66.20
IG1-MW-5	9/20/2021	37.23	104.28	67.05
IG1-MW-5	12/6/2021	37.00	104.28	67.28
IG1-MW-6B1	2/8/2021	38.09	104.00	65.91
IG1-MW-6B1	5/24/2021	37.64	104.00	66.36
IG1-MW-6B1	9/20/2021	36.85	104.00	67.15
IG1-MW-6B1	12/6/2021	36.65	104.00	67.35
IG1-MW-6B2	2/8/2021	38.57	104.15	65.58
IG1-MW-6B2	5/24/2021	38.07	104.15	66.08
IG1-MW-6B2	9/20/2021	37.25	104.15	66.90
IG1-MW-6B2	12/6/2021	37.07	104.15	67.08
IG1-MW-6B3	2/8/2021	38.18	104.13	65.95
IG1-MW-6B3	5/24/2021	37.73	104.13	66.40
IG1-MW-6B3	9/20/2021	36.95	104.13	67.18
IG1-MW-6B3	12/6/2021	36.71	104.13	67.42
IG1-MW-7	2/8/2021	37.53	103.29	65.76
IG1-MW-7	5/24/2021	37.11	103.29	66.18
IG1-MW-7	9/20/2021	36.29	103.29	67.00
IG1-MW-7	12/6/2021	36.03	103.29	67.26
IG1-RW-4	2/8/2021	39.22	105.00	62.54
IG1-RW-4	5/24/2021	38.82	105.00	62.94
IG1-RW-4	9/20/2021	37.95	105.00	63.81
IG1-RW-4	12/6/2021	37.71	105.00	64.05

TABLE 2
GROUNDWATER ELEVATIONS - B-ZONE
 Former El Campo Aluminum Facility
 El Campo, Texas

Well	Measurement Date	TOC (ft AMSL)	DTW (ft)	Groundwater Elevation (ft AMSL)
IG2-MW-1	2/8/2021	33.44	100.75	67.31
IG2-MW-1	5/24/2021	33.02	100.75	67.73
IG2-MW-1	9/20/2021	32.28	100.75	68.47
IG2-MW-1	12/6/2021	32.12	100.75	68.63
IG2-MW-2	2/8/2021	34.16	101.87	67.71
IG2-MW-2	5/24/2021	33.74	101.87	68.13
IG2-MW-2	9/20/2021	32.95	101.87	68.92
IG2-MW-2	12/6/2021	32.87	101.87	69.00
IG2-MW-3	2/8/2021	32.08	99.75	67.67
IG2-MW-3	5/24/2021	31.69	99.75	68.06
IG2-MW-3	9/20/2021	30.94	99.75	68.81
IG2-MW-3	12/6/2021	30.78	99.75	68.97
IG2-MW-4	2/8/2021	35.06	102.31	67.25
IG2-MW-4	5/24/2021	34.64	102.31	67.67
IG2-MW-4	9/20/2021	33.90	102.31	68.41
IG2-MW-4	12/6/2021	33.71	102.31	68.60
IG3-MW-1	2/8/2021	34.58	100.76	66.18
IG3-MW-1	5/24/2021	33.99	100.76	66.77
IG3-MW-1	9/20/2021	33.26	100.76	67.50
IG3-MW-1	12/6/2021	33.08	100.76	67.68
IG4-MW-1	2/8/2021	36.23	101.74	65.51
IG4-MW-1	5/24/2021	35.86	101.74	65.88
IG4-MW-1	9/20/2021	34.93	101.74	66.81
IG4-MW-1	12/6/2021	34.72	101.74	67.02
IG4-MW-2	2/8/2021	39.42	104.63	65.21
IG4-MW-2	5/24/2021	38.99	104.63	65.64
IG4-MW-2	9/20/2021	38.05	104.63	66.58
IG4-MW-2	12/6/2021	37.82	104.63	66.81
IG4-MW-3	2/8/2021	38.87	104.04	65.17
IG4-MW-3	5/24/2021	38.49	104.04	65.55
IG4-MW-3	9/20/2021	37.56	104.04	66.48
IG4-MW-3	12/6/2021	37.35	104.04	66.69
MW-100B	2/8/2021	33.19	99.68	66.49
MW-102B	2/8/2021	33.70	100.48	66.78
MW-103B	2/8/2021	34.92	99.79	64.87
MW-109B	2/8/2021	35.01	100.78	65.77
MW-109B	5/24/2021	34.54	100.78	66.24
MW-109B	9/20/2021	33.74	100.78	67.04
MW-109B	12/6/2021	33.50	100.78	67.28

TABLE 2
GROUNDWATER ELEVATIONS - B-ZONE
 Former El Campo Aluminum Facility
 El Campo, Texas

Well	Measurement Date	TOC (ft AMSL)	DTW (ft)	Groundwater Elevation (ft AMSL)
MW-110B	2/8/2021	34.86	101.29	66.43
MW-111B	2/8/2021	35.74	101.16	65.42
MW-111B	5/24/2021	35.32	101.16	65.84
MW-111B	9/20/2021	34.49	101.16	66.67
MW-111B	12/6/2021	33.22	101.16	67.94
MW-112B	2/8/2021	32.01	96.78	64.77
MW-112B	5/24/2021	31.81	96.78	64.97
MW-112B	9/20/2021	30.80	96.78	65.98
MW-112B	12/6/2021	30.74	96.78	66.04
MW-112B2	2/8/2021	32.33	96.52	64.19
MW-112B2	5/24/2021	31.50	96.52	65.02
MW-112B2	9/20/2021	30.52	96.52	66.00
MW-112B2	12/6/2021	30.50	96.52	66.02
MW-113B	2/8/2021	35.16	101.96	66.80
MW-113B	5/24/2021	34.72	101.96	67.24
MW-113B	9/20/2021	33.91	101.96	68.05
MW-113B	12/6/2021	33.73	101.96	68.23
MW-114B	2/8/2021	35.72	100.96	65.24
MW-114B	5/24/2021	35.28	100.96	65.68
MW-114B	9/20/2021	34.41	100.96	66.55
MW-114B	12/6/2021	34.13	100.96	66.83
MW-115B-R	2/8/2021	35.09	100.44	65.35
MW-115B-R	5/24/2021	34.46	100.44	65.98
MW-115B-R	9/20/2021	33.81	100.44	66.63
MW-115B-R	12/6/2021	33.57	100.44	66.87
MW-117B	2/8/2021	35.29	102.69	67.40
MW-118B	2/8/2021	32.56	95.47	62.91
MW-121B	2/8/2021	33.78	100.15	66.37
MW-124B	2/8/2021	32.81	97.36	64.55
MW-124B	5/24/2021	32.31	97.36	65.05
MW-124B	9/20/2021	31.40	97.36	65.96
MW-124B	12/6/2021	31.20	97.36	66.16
MW-125B	2/8/2021	35.40	101.53	66.13
MW-125B	5/24/2021	34.90	101.53	66.63
MW-125B	9/20/2021	34.11	101.53	67.42
MW-125B	12/6/2021	33.89	101.53	67.64
MW-126B	2/8/2021	35.43	100.71	65.28
MW-126B	5/24/2021	34.90	100.71	65.81
MW-126B	9/20/2021	31.11	100.71	69.60
MW-126B	12/6/2021	33.86	100.71	66.85

TABLE 2
GROUNDWATER ELEVATIONS - B-ZONE
 Former El Campo Aluminum Facility
 El Campo, Texas

Well	Measurement Date	TOC (ft AMSL)	DTW (ft)	Groundwater Elevation (ft AMSL)
MW-127B	2/8/2021	34.56	99.31	64.75
MW-127B	5/24/2021	34.13	99.31	65.18
MW-127B	9/20/2021	33.16	99.31	66.15
MW-127B	12/6/2021	32.99	99.31	66.32
MW-128B	2/8/2021	31.95	96.30	64.35
MW-128B	5/24/2021	31.48	96.30	64.82
MW-128B	9/20/2021	30.48	96.30	65.82
MW-128B	12/6/2021	30.34	96.30	65.96
MW-131B	2/8/2021	35.42	99.04	63.62
MW-131B	5/24/2021	34.82	99.04	64.22
MW-131B	9/20/2021	33.84	99.04	65.20
MW-131B	12/6/2021	33.80	99.04	65.24
MW-132B	2/8/2021	36.88	100.23	63.35
MW-132B	5/24/2021	36.20	100.23	64.03
MW-132B	9/20/2021	35.38	100.23	64.85
MW-132B	12/6/2021	35.42	100.23	64.81
MW-133B	2/8/2021	34.42	97.45	63.03
MW-133B	5/24/2021	33.72	97.45	63.73
MW-133B	9/20/2021	37.81	97.45	59.64
MW-133B	12/6/2021	32.81	97.45	64.64
MW-134B	2/8/2021	37.70	100.88	63.18
MW-134B	5/24/2021	36.89	100.88	63.99
MW-134B	9/20/2021	36.20	100.88	64.68
MW-134B	12/6/2021	36.11	100.88	64.77
MW-135B	2/8/2021	40.65	102.66	62.01
MW-135B	5/24/2021	39.70	102.66	62.96
MW-135B	9/20/2021	39.02	102.66	63.64
MW-135B	12/6/2021	38.86	102.66	63.80
MW-136B	2/8/2021	41.09	101.06	59.97
MW-136B	5/24/2021	40.06	101.06	61.00
MW-136B	9/20/2021	39.41	101.06	61.65
MW-136B	12/6/2021	39.13	101.06	61.93
MW-137B	2/8/2021	36.80	99.15	62.35
MW-137B	5/24/2021	35.85	99.15	63.30
MW-137B	9/20/2021	34.95	99.15	64.20
MW-137B	12/6/2021	35.04	99.15	64.11
MW-140B	2/8/2021	38.27	100.17	61.90
MW-140B	5/24/2021	37.39	100.17	62.78
MW-140B	9/20/2021	36.50	100.17	63.67
MW-140B	12/6/2021	36.45	100.17	63.72

TABLE 2
GROUNDWATER ELEVATIONS - B-ZONE
 Former El Campo Aluminum Facility
 El Campo, Texas

Well	Measurement Date	TOC (ft AMSL)	DTW (ft)	Groundwater Elevation (ft AMSL)
MW-141B	2/8/2021	37.99	103.80	65.81
MW-141B	5/24/2021	37.50	103.80	66.30
MW-141B	9/20/2021	36.72	103.80	67.08
MW-141B	12/6/2021	36.49	103.80	67.31
MW-142B	2/8/2021	39.05	104.64	65.59
MW-142B	5/24/2021	38.70	104.64	65.94
MW-142B	9/20/2021	37.81	104.64	66.83
MW-142B	12/6/2021	37.59	104.64	67.05
MW-143B	2/8/2021	38.70	104.29	65.59
MW-143B	5/24/2021	38.10	104.29	66.19
MW-143B	9/20/2021	39.39	104.29	64.90
MW-143B	12/6/2021	37.14	104.29	67.15
MW-146B	2/8/2021	38.41	103.63	65.22
MW-146B	5/24/2021	37.90	103.63	65.73
MW-146B	9/20/2021	37.11	103.63	66.52
MW-146B	12/6/2021	36.85	103.63	66.78
MW-147B	2/8/2021	37.94	103.00	65.06
MW-147B	5/24/2021	37.43	103.00	65.57
MW-147B	9/20/2021	36.59	103.00	66.41
MW-147B	12/6/2021	36.40	103.00	66.60
MW-14B	2/8/2021	32.60	100.18	67.58
MW-17B	2/8/2021	31.73	99.01	67.28
MW-21B	2/8/2021	32.24	99.62	67.38
MW-21B	5/24/2021	31.82	99.62	67.80
MW-21B	9/20/2021	31.08	99.62	68.54
MW-21B	12/6/2021	30.92	99.62	68.70
MW-25B	2/8/2021	32.64	100.27	67.63
MW-5B	2/8/2021	36.14	103.93	67.79
MW-6B	2/8/2021	33.55	101.87	68.32
MW-7B	2/8/2021	31.22	99.07	67.85

Notes:

1. TOC = top of casing; ft AMSL = feet above mean sea level; DTW = depth to water (ft below TOC)
2. Zone B wells gauged quarterly.

TABLE 3
GROUNDWATER ELEVATIONS - C-ZONE

Former El Campo Aluminum Facility
El Campo, Texas

Well	Measurement Date	TOC (ft AMSL)	DTW (ft)	Groundwater Elevation (ft AMSL)
PPW-2	02/08/21	48.89	101.57	52.68
MW-17C	02/08/21	48.45	98.85	50.40
MW-23C	02/08/21	52.71	102.93	50.22
MW-7C	02/08/21	48.69	99.28	50.59

Notes:

1. TOC = top of casing; ft AMSL = feet above mean sea level; DTW = depth to water (ft below TOC)
2. Zone C wells gauged in February 2021.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - B-ZONE
DETECTED VOLATILE ORGANIC COMPOUNDS
Former El Campo Aluminum Facility
El Campo, Texas

Zone	Location ID	Sample Date	Sample Type	1,1,2-Trichloroethane (µg/L)		1,1-Dichloroethane (µg/L)		1,1-Dichloroethene (µg/L)		1,1-Dichloropropene (µg/L)		1,2-Dichloroethane (µg/L)		Benzene (µg/L)		Chloroform (µg/L)		Chloromethane (µg/L)		cis-1,2-Dichloroethene (µg/L)		Methyl tert-butyl ether (µg/L)		Naphthalene (µg/L)		Toluene (µg/L)		trans-1,2-Dichloroethene (µg/L)		Trichloroethene (µg/L)		Vinyl Chloride (µg/L)	
				Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
TRRP ^{GW} _{ing} PCL				5		4900		7		9.1		5		5		80		70		70		240		490		1000		100		5		2	
Zone B	IG1-MW-1	2/10/2021	N	0.228	U	0.244	U	1.65		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	17.8				2	U	0.5	U	0.256	U	3.77	J	2.51	
	IG1-MW-1	5/25/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	1.55	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	IG1-MW-1	5/25/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	1.98	0.571	U	2	U	0.5	U	0.256	U	1.72	J	0.234	U	
	IG1-MW-1	9/20/2021	N	0.228	U	0.244	U	3.72		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	21.5	0.571	U	2	U	0.5	U	0.256	U	29.7		2.07		
	IG1-MW-1	12/7/2021	N	0.228	U	0.244	U	3.53		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	24.5	0.571	U	2	U	0.5	U	0.256	U	29.2		2.89		
	IG1-MW-2	2/10/2021	N	0.228	U	0.39	J	4.76		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	57				2	U	0.5	U	0.89	J	10.4		57.2	
	IG1-MW-2	5/25/2021	N	0.228	U	0.244	U	2.68		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	33.7	0.571	U	2	U	0.5	U	1.43		2	J	13.7		
	IG1-MW-2	5/25/2021	N	0.228	U	0.244	U	3.36		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	34.3	0.571	U	2	U	0.5	U	1.52		8.31		12.6		
	IG1-MW-2	9/22/2021	N	0.228	U	0.244	U	5.01		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	46.8	0.571	U	2	U	0.5	U	0.903	J	10.5		53.1		
	IG1-MW-2	12/7/2021	N	0.228	U	0.244	U	5.47		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	58.6	0.571	U	2	U	0.5	U	0.256	U	10.2		52.3		
	IG1-MW-3	2/9/2021	N	0.228	U	0.244	U	5.2		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	84.3				2	U	0.5	U	0.58	J	0.424	U	4.08	
	IG1-MW-3	5/25/2021	N	0.228	U	0.244	U	5.79		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	31.2	0.571	U	2	U	0.5	U	0.629	J	72		2.11		
	IG1-MW-3	9/22/2021	N	0.228	U	0.244	U	5.85		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	66.7	0.571	U	2	U	0.5	U	0.761	J	14.3		2.43		
	IG1-MW-3	12/8/2021	N	0.228	U	0.244	U	7.4		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	87.4	0.571	U	2	U	0.5	U	12.4		15.4		33.6		
	IG1-MW-4	2/22/2021	N	0.228	U	0.42	J	9.08		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	115				2	U	0.5	U	15.1		28.8		36.7	
	IG1-MW-4	5/25/2021	N	0.228	U	0.244	U	6.9		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	80.3	0.571	U	2	U	0.5	U	14.9		18.5		49.5		
	IG1-MW-4	5/25/2021	N	0.228	U	0.244	U	6.99		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	80.7	0.571	U	2	U	0.5	U	14.6		12.6		49.1		
	IG1-MW-4	9/22/2021	N	0.228	U	0.244	U	9.47		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	95.4	0.571	U	2	U	0.5	U	18.8		28.9		52.2		
	IG1-MW-4	12/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	58.1	0.571	U	2	U	0.5	U	0.256	U	0.424	U	47.5		
	IG1-MW-5	2/22/2021	N	0.228	U	0.43	J	11.4		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	60.8				2	U	0.5	U	0.256	U	142	D	7.98	
	IG1-MW-5	5/25/2021	N	0.228	U	0.244	U	11		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	56.6	0.571	U	2	U	0.5	U	0.256	U	149		7.61		
	IG1-MW-5	5/25/2021	N	0.228	U	0.244	U	7.59		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	102	0.571	U	2	U	0.5	U	0.266	J	35.8		15.7		
	IG1-MW-5	9/23/2021	N	0.228	U	0.374	J	10.9		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	49.5	0.571	U	2	U	0.5	U	0.256	U	134		16.5		
	IG1-MW-5	12/9/2021	N	0.228	U	0.244	U	2.02		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	68.9		0.234	U
	IG1-MW-6B1	2/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.26	J			2	U	0.5	U	0.256	U	0.424	U	42.3	
	IG1-MW-6B1	5/27/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	1.67	0.571	U	2	U	0.5	U	0.256	U	0.424	U	43.6		
	IG1-MW-6B1	9/21/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.643	J	0.571	U	2	U	0.5	U	0.349	J	0.424	U	93.5	
	IG1-MW-6B1	12/7/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	31.4	
	IG1-MW-6B2	2/9/2021	N	0.228	U	0.244	U	0.81	J	5.92		0.285	U	0.214	U	0.259	U	0.318	U	41.9				2	U	0.5	U	0.74	J	0.424	U	168	D
	IG1-MW-6B2	5/27/2021	N	0.228	U	0.244	U	0.478	J	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	17.2	0.571	U	2	U	0.68	J	0.623	J	1.39	J	167		
	IG1-MW-6B2	9/21/2021	N	0.228	U	0.317	J	0.476	J	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	7.16	0.571	U	2	U	0.677	J	0.972	J	0.424	U	285		
	IG1-MW-6B2	12/7/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	4.5	0.571	U	2	U	0.5	U	0.256	U	0.424	U	355		
	IG1-MW-6B3	2/22/2021	N	0.228	U	1.06		3.93		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	88.8				2	U	0.5	U	0.85	J	10.8		208	JH
	IG1-MW-6B3	2/22/2021	Dup	0.228	U	1.17		4.2		0.481	U	0.285	U	0.214	U	0.259	U	0															

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - B-ZONE
DETECTED VOLATILE ORGANIC COMPOUNDS
Former El Campo Aluminum Facility
El Campo, Texas

Zone	Location ID	Sample Date	Sample Type	1,1,2-Trichloroethane (µg/L)		1,1-Dichloroethane (µg/L)		1,1-Dichloroethene (µg/L)		1,1-Dichloropropene (µg/L)		1,2-Dichloroethane (µg/L)		Benzene (µg/L)		Chloroform (µg/L)		Chloromethane (µg/L)		cis-1,2-Dichloroethene (µg/L)		Methyl tert-butyl ether (µg/L)		Naphthalene (µg/L)		Toluene (µg/L)		trans-1,2-Dichloroethene (µg/L)		Trichloroethene (µg/L)		Vinyl Chloride (µg/L)	
				Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
TRRP ^{GW} GW _{ing} PCL				5		4900		7		9.1		5		5		80		70		70		240		490		1000		100		5		2	
Zone B	IG4-MW-1	2/23/2021	N	0.228	U	0.43	J	2.73	J	0.481	U	0.285	U	0.214	U	0.27	J	0.318	U	67	DX			2	U	0.5	U	1.16		413	J	21.5	
	IG4-MW-1	2/23/2021	Dup	0.228	U	0.49	J	5.3	J	0.481	U	0.285	U	0.214	U	0.48	J	0.318	U	84.9				2	U	0.5	U	0.7	J	209	J	5.6	
	IG4-MW-1	5/26/2021	N	0.228	U	0.244	U	6.66		0.481	U	0.285	U	0.214	U	0.341	J	0.318	U	73.5		0.571	U	2	U	0.5	U	0.785	J	481		1.33	J
	IG4-MW-1	5/26/2021	N	0.228	U	0.244	U	1.54		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	251		0.571	U	2	U	0.5	U	0.979	J	87		4.04	
	IG4-MW-1	9/23/2021	N	0.228	U	0.785	J	9.47		0.481	U	0.285	U	0.214	U	0.392	J	0.318	U	64.2		0.571	U	2	U	0.5	U	0.784	J	608		0.803	J
	IG4-MW-1	9/23/2021	Dup	0.228	U	0.822	J	9.5		0.481	U	0.285	U	0.214	U	0.408	J	0.318	U	64.6		0.571	U	2	U	0.5	U	0.887	J	675		0.772	J
	IG4-MW-1	12/9/2021	N	0.228	U	0.244	U	9.21		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	62.9		0.571	U	2	U	0.5	U	0.823	J	725		0.234	U
	IG4-MW-1	12/9/2021	Dup	0.228	U	0.244	U	8.64		0.481	U	0.285	U	0.214	U	0.29	J	0.318	U	63.3		0.571	U	2	U	0.5	U	0.773	J	693		0.234	U
	IG4-MW-2	2/23/2021	N	0.228	U	0.244	U	2.01		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	88				2	U	0.5	U	0.51	J	36		97.1	
	IG4-MW-2	5/26/2021	N	0.228	U	0.244	U	1.45		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	53.1		0.571	U	2	U	0.5	U	0.427	J	13		147	
	IG4-MW-2	5/26/2021	N	0.228	U	0.244	U	1.22		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	43.3		0.571	U	3.54	J	0.5	U	0.352	J	14.8		116	
	IG4-MW-2	9/22/2021	N	0.228	U	0.244	U	2.64		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	101		0.571	U	2	U	0.5	U	0.651	J	56.4		90.9	
	IG4-MW-2	12/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	88.7		0.571	U	2	U	0.5	U	0.256	U	46.7		112	
	IG4-MW-3	2/23/2021	N	0.228	U	0.35	J	7.87		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	30.2				2	U	0.5	U	0.256	U	152	D	32.7	
	IG4-MW-3	5/27/2021	N	0.228	U	0.344	J	9		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	35.5		0.571	U	2	U	0.5	U	0.256	U	146		36.1	
	IG4-MW-3	5/27/2021	N	0.228	U	0.244	U	8.65		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	37		0.571	U	2	U	0.5	U	0.256	U	168		34	
	IG4-MW-3	9/23/2021	N	0.228	U	0.244	U	9.5		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	25.7		0.571	U	2	U	0.5	U	0.256	U	192		28.5	
	IG4-MW-3	12/9/2021	N	0.228	U	0.244	U	14		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	48.6		0.571	U	2	U	0.5	U	0.256	U	375		45	
	IG4-RW-1 Influent	1/29/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	U	0.424	U	0.234	U
	IG4-RW-1 Influent	9/27/2021	N	0.228	U	0.244	U	4.94		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	12.5		0.571	U	2	U	0.5	U	0.256	U	143		4.05	
	IG4-RW-1 Wellhead	4/28/2021	N	0.228	U	0.244	U	10.5		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	34.9		0.571	U			0.5	U	0.256	U	198		7.94	
	MW-5B	2/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.68	J	0.318	U	0.174	U			2	U	0.5	U	0.256	U	2.42	J	0.234	U
	MW-6B	2/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.46	J	0.318	U	1.07				2	U	0.5	U	0.256	U	4.28	J	0.234	U
	MW-7B	2/10/2021	N	0.228	U	0.71	J	0.71	J	0.481	U	0.285	U	0.214	U	0.52	J	0.318	U	1.87				2	U	0.5	U	0.256	U	7.08		0.234	U
	MW-14B	2/23/2021	N	0.228	U	0.244	U	0.67	J	0.481	U	0.285	U	0.214	U	0.259	U	0.37	J	0.174				2	U	0.5	U	0.256	U	19.6		0.234	U
	MW-17B	2/11/2021	N	0.228	U	0.47	J	0.46	J	0.481	U	0.285	U	0.214	U	0.32	J	0.318	U	3.3				2	U	0.5	U	0.256	U	22.9		0.234	U
	MW-21B	2/11/2021	N	0.228	U	2.11		1.98		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	34.8				2	U	0.5	U	0.256	U	26.9		0.234	U
	MW-21B	5/26/2021	N	0.228	U	1.15		1.25		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	16		0.571	U	2	U	0.5	U	0.256	U	23.5		0.234	U
	MW-21B	9/22/2021	N	0.228	U	2.2		2.58		0.481	U	0.285	J	0.214	U	0.259	U	0.318	U	29.5		0.571	U	2	U	0.5	U	0.256	U	27.1		0.387	J
	MW-21B	12/8/2021	N	0.228	U	2.71		2.61		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	41.2		0.571	U	2	U	0.5	U	0.256	U	38.7		0.234	U
	MW-25B	2/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	U	0.424	U	0.234	U
	MW-100B	2/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.79	J			2	U	0.5	U	0.256	U	0.424	U	0.234	U
	MW-102B	2/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.61	J	0.318	U	0.174	U			2	U	0.5	U	0.256	U	8.73		0.234	U
	MW-103B	2/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U																						

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - B-ZONE
DETECTED VOLATILE ORGANIC COMPOUNDS
Former El Campo Aluminum Facility
El Campo, Texas

Zone	Location ID	Sample Date	Sample Type	1,1,2-Trichloroethane (µg/L)		1,1-Dichloroethane (µg/L)		1,1-Dichloroethene (µg/L)		1,1-Dichloropropene (µg/L)		1,2-Dichloroethane (µg/L)		Benzene (µg/L)		Chloroform (µg/L)		Chloromethane (µg/L)		cis-1,2-Dichloroethene (µg/L)		Methyl tert-butyl ether (µg/L)		Naphthalene (µg/L)		Toluene (µg/L)		trans-1,2-Dichloroethene (µg/L)		Trichloroethene (µg/L)		Vinyl Chloride (µg/L)		
				Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	
TRRP ^{GW} PCL				5		4900		7		9.1		5		5		80		70		70		240		490		1000		100		5		2		
Zone B	MW-124B	2/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-124B	5/27/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-124B	9/21/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-124B	12/7/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-125B	2/10/2021	N	0.228	U	0.244	U	3.91		0.481	U	0.285	U	0.214	U	0.28	J	0.318	U	11.5				2	U	0.5	U	0.256	U	72.1		1.19	J	
	MW-125B	5/26/2021	N	0.228	U	0.244	U	3.16		0.481	U	0.285	U	0.214	U	0.259	U	0.43	J	12.5		0.571	U	2	U	0.5	U	0.256	U	53.5		0.95	J	
	MW-125B	9/22/2021	N	0.228	U	0.244	U	4.34		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	11.2		0.571	U	2	U	0.5	U	0.256	U	64		0.775	J	
	MW-125B	12/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	39.5			0.234	U
	MW-126B	2/10/2021	N	0.228	U	0.244	U	0.81	J	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	100				2	U	0.5	U	0.256	U	0.424	U	62	J	
	MW-126B	2/10/2021	Dup	0.228	U	0.244	U	0.61	J	0.481	UJL	0.285	U	0.214	U	0.259	U	0.318	U	72				2	U	0.5	U	0.29	JL	0.424	U	31.9	J	
	MW-126B	5/25/2021	N	0.228	U	0.244	U	0.228	J	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	47.6		0.571	U	2	U	0.5	U	0.256	U	1.71	J	32.2		
	MW-126B	9/21/2021	N	0.228	U	0.244	U	0.284	J	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	63.5	JH	0.571	U	2	U	0.817	J	0.635	J	0.424	U	0.234	U	
	MW-126B	9/21/2021	Dup	0.228	U	0.244	U	0.23	J	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	59.4		0.571	U	2	U	0.815	J	0.542	J	0.424	U	0.234	U	
	MW-126B	12/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	UJ	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	UJ	
	MW-126B	12/8/2021	Dup	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	104	J	0.571	U	2	U	0.5	U	0.773	J	1.09	J	84.2	J	
	MW-127B	2/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-127B	5/24/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-127B	9/20/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-127B	12/6/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-128B	2/23/2021	N	0.228	U	0.244	U	3.5		0.481	U	0.285	U	0.214	U	0.3	J	0.318	U	0.68				2	U	0.5	U	0.256	U	206	D	0.234	U	
	MW-128B	5/26/2021	N	0.228	U	0.244	U	2.3		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	1.32		0.571	U	2	U	0.5	U	0.256	U	155		0.234	U	
	MW-128B	5/26/2021	N	0.228	U	0.244	U	3.07		0.481	U	0.285	U	0.214	U	0.261	J	0.318	U	0.715	J	0.571	U	2	U	0.5	U	0.256	U	245		0.234	U	
	MW-128B	5/26/2021	Dup	0.228	U	0.244	U	2.05		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	1.27		0.571	U	2	U	0.5	U	0.256	U	139		0.234	U	
	MW-128B	9/23/2021	N	0.228	U	0.244	U	3.97		0.481	U	0.285	U	0.214	U	0.295	J	0.318	U	0.91	J	0.571	U	2	U	0.5	U	0.256	U	338		0.234	U	
	MW-128B	12/9/2021	N	0.228	U	0.244	U	3.55		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.792	J	0.571	U	2	U	0.5	U	0.256	U	221		0.234	U	
	MW-131B	2/12/2021	N	0.228	U	0.244	U	0.57	J	0.481	UJL	0.285	U	0.214	U	0.3	J	0.318	U	0.174	U			2	U	0.5	U	0.256	UJL	49.1	J	0.234	U	
	MW-131B	5/28/2021	N	0.228	U	0.244	U	2.04		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.495	J	0.571	U	2	U	0.5	U	0.256	U	141		0.234	U	
	MW-131B	5/28/2021	N	0.228	U	0.244	U	0.374	J	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	88.6		0.234	U	
	MW-131B	9/23/2021	N	0.228	U	0.244	U	2.49		0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.725	J	0.571	U	2	U	0.5	U	0.256	U	217		0.234	U	
	MW-131B	12/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	143		0.234	U	
	MW-132B	2/11/2021	N	0.228	U	0.244	U	0.216	U	0.481	UJL	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	UJL	0.424	U	0.234	U	
	MW-132B	5/25/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.504	J	0.234	U	
	MW-132B	9/21/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
	MW-132B	12/7/																																

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - B-ZONE
DETECTED VOLATILE ORGANIC COMPOUNDS
Former El Campo Aluminum Facility
El Campo, Texas

Zone	Location ID	Sample Date	Sample Type	1,1,2-Trichloroethane (µg/L)		1,1-Dichloroethane (µg/L)		1,1-Dichloroethene (µg/L)		1,1-Dichloropropene (µg/L)		1,2-Dichloroethane (µg/L)		Benzene (µg/L)		Chloroform (µg/L)		Chloromethane (µg/L)		cis-1,2-Dichloroethene (µg/L)		Methyl tert-butyl ether (µg/L)		Naphthalene (µg/L)		Toluene (µg/L)		trans-1,2-Dichloroethene (µg/L)		Trichloroethene (µg/L)		Vinyl Chloride (µg/L)	
				Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
TRRP ^{GW} _{ing} PCL				5		4900		7		9.1		5		5		80		70		70		240		490		1000		100		5		2	
Zone B	MW-142B	2/9/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	U	8.47		0.234	U
	MW-142B	5/26/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	9.42		0.234	U
	MW-142B	9/22/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.176	J	0.571	U	2	U	0.5	U	0.256	U	11.2		0.234	U
	MW-142B	12/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	8.98		0.234	U
	MW-143B	2/10/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	U	1.77	J	0.234	U
	MW-143B	5/26/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	1.58	J	0.234	U
	MW-143B	9/22/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	2.07	J	0.234	U
	MW-143B	12/7/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	1.61	J	0.234	U
	MW-146B	2/10/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.27	J	0.318	U	0.174	U			2	U	0.5	U	0.256	U	2.13	J	0.234	U
	MW-146B	2/10/2021	Dup	0.228	U	0.244	U	0.216	U	0.481	UJL	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	UJL	1.23	J	0.234	U
	MW-146B	5/27/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	21.8		0.571	U	2	U	0.5	U	0.256	U	50.2		0.234	U
	MW-146B	5/27/2021	Dup	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	21.6		0.571	U	2	U	0.5	U	0.256	U	49.8		0.234	U
	MW-146B	9/22/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	3.26		0.571	U	2	U	0.5	U	0.256	U	8.49		0.234	U
	MW-146B	9/22/2021	Dup	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	2.63		0.571	U	2	U	0.5	U	0.256	U	8.87		0.234	U
	MW-146B	12/8/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	UJ	0.571	U	2	U	0.5	U	0.256	U	0.424	UJ	0.234	U
	MW-146B	12/8/2021	Dup	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	16.7	J	0.571	U	2	U	0.5	U	0.256	U	27.2	J	0.234	U
	MW-147B	2/10/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U			2	U	0.5	U	0.256	U	0.424	U	0.234	U
	MW-147B	5/27/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U
MW-147B	9/21/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	
MW-147B	12/7/2021	N	0.228	U	0.244	U	0.216	U	0.481	U	0.285	U	0.214	U	0.259	U	0.318	U	0.174	U	0.571	U	2	U	0.5	U	0.256	U	0.424	U	0.234	U	

- Notes:
- µg/L = micrograms per liter; VOCs = volatile organic compounds; Dup = duplicate sample; N = normal sample (not a duplicate); conc. = measured concentration; qual. = data qualifier
 - J = estimated; U = result below detection limit; D = The result is from a diluted sample; L = sample result biased low; X = MS/MSD recoveries were outside of laboratory control limits
 - PCL = protective concentration level
 - Samples collected quarterly.
 - Analytical results for VOCs not listed on this table were non-detect and are included in Appendix A.
 - Groundwater PCLs (^{GW}GW_{ing}) are from Texas Commission on Environmental Quality Texas Risk Reduction Program PCL Tables, updated 06 January 2021. Accessed from: <https://www.tceq.texas.gov/remediation/trrp/trrppcls.html>
 - Results in bold incate detections, shaded bold results indicate an exceedance of the PCL.
 - Detection limits for other VOCs are presented in the analytical laboratory reports (Appendix A).
 - Methyl tert-butyl ether was not analyzed for in the February 2021 sampling event, as is denoted by the grayed out cells.

TABLE 5
GROUNDWATER ANALYTICAL RESULTS - C-ZONE
DETECTED VOLATILE ORGANIC COMPOUNDS

Former El Campo Aluminum Facility
 El Campo, Texas

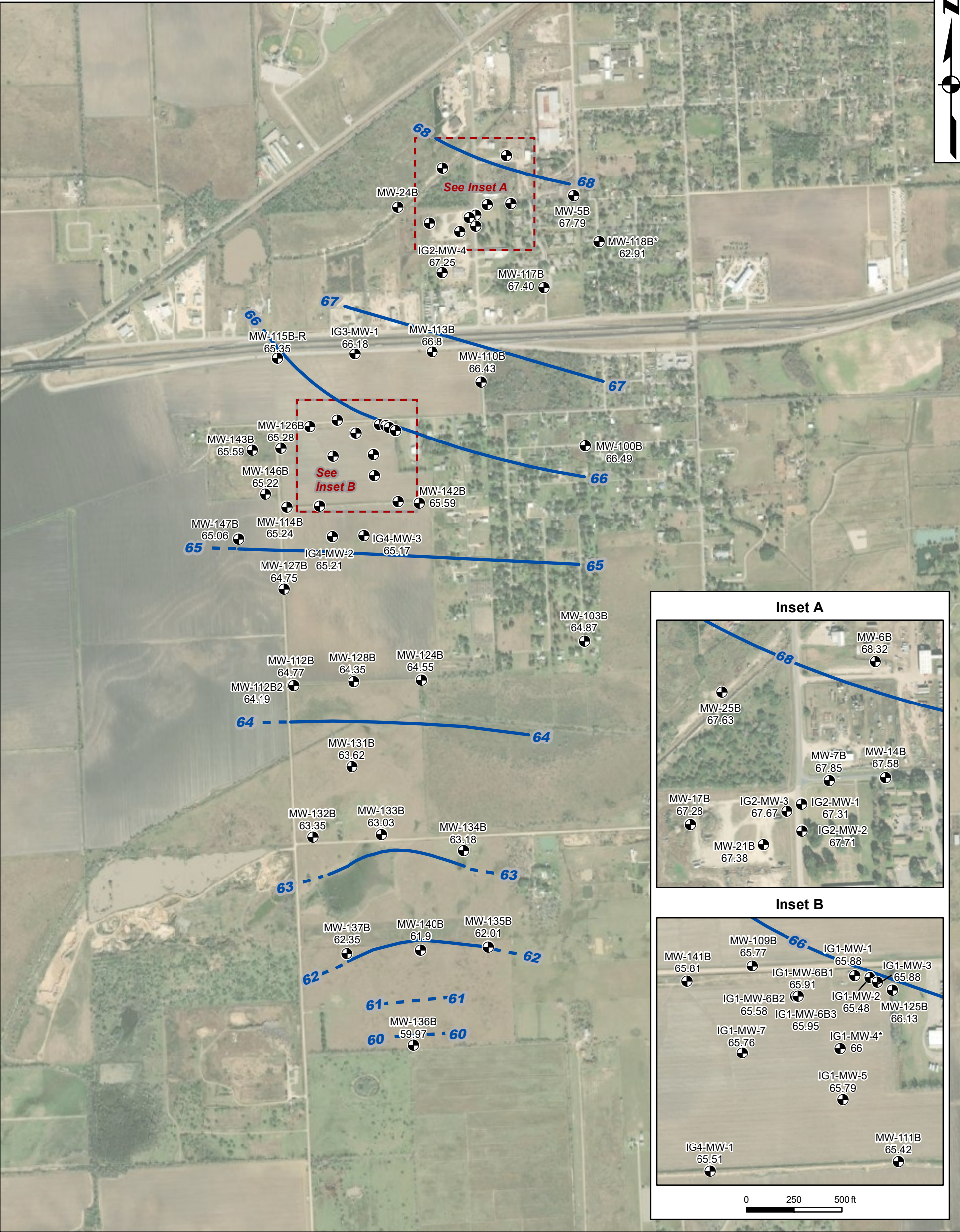
Zone	Location ID	Sample Date	Sample Type	1,1-Dichloroethene (µg/L)		Chloroform (µg/L)		cis-1,2-Dichloroethene (µg/L)		Trichloroethene (µg/L)	
				Conc.	Qual.	Conc.	Qual.	Conc.	Qual.	Conc.	Qual.
TRRP ^{GW} GW _{Ing} PCL				7		80		70		5	
Zone C	MW-7C	2/22/2021	N	0.216	U	0.259	U	0.31		2.17	
	MW-17C	2/24/2021	N	0.216	U	0.259	U	0.174	U	0.424	
	MW-17C	2/24/2021	Dup	0.216	U	0.259	U	0.174	U	0.59	
	MW-23C	2/24/2021	N	0.74	J	0.259	U	2.67		3.2	
	MW-130C	3/10/2021	N	0.216	U	0.259	U	0.174	U	0.424	U
	PPW-2	2/9/2021	N	0.216	U	0.3	J	0.174	U	1.95	J

Notes:

1. µg/L = micrograms per liter; VOCs = volatile organic compounds
2. Dup = duplicate sample; N = normal sample (not a duplicate); conc. = measured concentration; qual. = data qualifier
3. J = estimated; U = result below detection limit
4. PCL = protective concentration level
5. Samples collected annually by GSI Environmental.
6. Analytical results for VOCs not listed on this table were non-detect and are included in Appendix A.
7. Groundwater PCLs (GW_{Ing}) are from Texas Commission on Environmental Quality Texas Risk Reduction Program PCL Tables, updated January 6 2021.
 Accessed from: <https://www.tceq.texas.gov/remediation/trrp/trrppcls.html>
8. Results in bold incate detections, shaded bold results indicate an exceedance of the PCL.
9. Detection limits for other VOCs are presented in the analytical laboratory reports (Appendix A).

FIGURES

- Figure 1: Groundwater Potentiometric Surface Map – B-Zone – First Quarter 2021
Figure 2: Groundwater Potentiometric Surface Map – B-Zone – Second Quarter 2021
Figure 3: Groundwater Potentiometric Surface Map – B-Zone – Third Quarter 2021
Figure 4: Groundwater Potentiometric Surface Map – B-Zone – Fourth Quarter 2021
Figure 5: Groundwater Potentiometric Surface Map – C-Zone – First Quarter 2021
Figure 6: Trichloroethene Groundwater Isoconcentration Map – B-Zone – First Quarter 2021
Figure 7: Trichloroethene Groundwater Isoconcentration Map – B-Zone – Second Quarter 2021
Figure 8: Trichloroethene Groundwater Isoconcentration Map – B-Zone – Third Quarter 2021
Figure 9: Trichloroethene Groundwater Isoconcentration Map – B-Zone – Fourth Quarter 2021
Figure 10: Trichloroethene Groundwater Isoconcentration Map – C-Zone – First Quarter 2021
Figure 11: 1,1-Dichloroethene Groundwater Isoconcentration Map – B-Zone – First Quarter 2021
Figure 12: 1,1-Dichloroethene Groundwater Isoconcentration Map – B-Zone – Second Quarter 2021
Figure 13: 1,1-Dichloroethene Groundwater Isoconcentration Map – B-Zone – Third Quarter 2021
Figure 14: 1,1-Dichloroethene Groundwater Isoconcentration Map – B-Zone – Fourth Quarter 2021
Figure 15: cis-1,2-Dichloroethene Groundwater Isoconcentration Map – B-Zone – First Quarter 2021
Figure 16: cis-1,2-Dichloroethene Groundwater Isoconcentration Map – B-Zone – Second Quarter 2021
Figure 17: cis-1,2-Dichloroethene Groundwater Isoconcentration Map – B-Zone – Third Quarter 2021
Figure 18: cis-1,2-Ddichloroethene Groundwater Isoconcentration Map – B-Zone – Fourth Quarter 2021
Figure 19: Vinyl Chloride Groundwater Isoconcentration Map – B-Zone – First Quarter 2021
Figure 20: Vinyl Chloride Groundwater Isoconcentration Map – B-Zone – Second Quarter 2021
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Figure 23: Trichloroethene Groundwater PCLE Zone Between 2019 and 2021 – B-Zone
Figure 24: Trichloroethene Groundwater 100 Micrograms Per Liter Contour Between 2019 and 2021 – B-Zone
Figure 25: Trichloroethene Groundwater PCLE Zone Between 2019 and 2021 – C-Zone
Figure 26: Proposed B-Zone Monitoring Well Locations



LEGEND

Monitoring well location

67.25 Measured static water level elevation (ft msl)

Potentiometric surface contour (ft msl); Dashed where inferred

Notes

1. * = Measurement not used in contouring; ft msl = feet mean sea level.

2. Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.

3. Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

STATE OF TEXAS

JONATHAN SKAGGS

PROFESSIONAL GEOLOGIST

11370

Feet

0 600 1,200

GSI

ENVIRONMENTAL

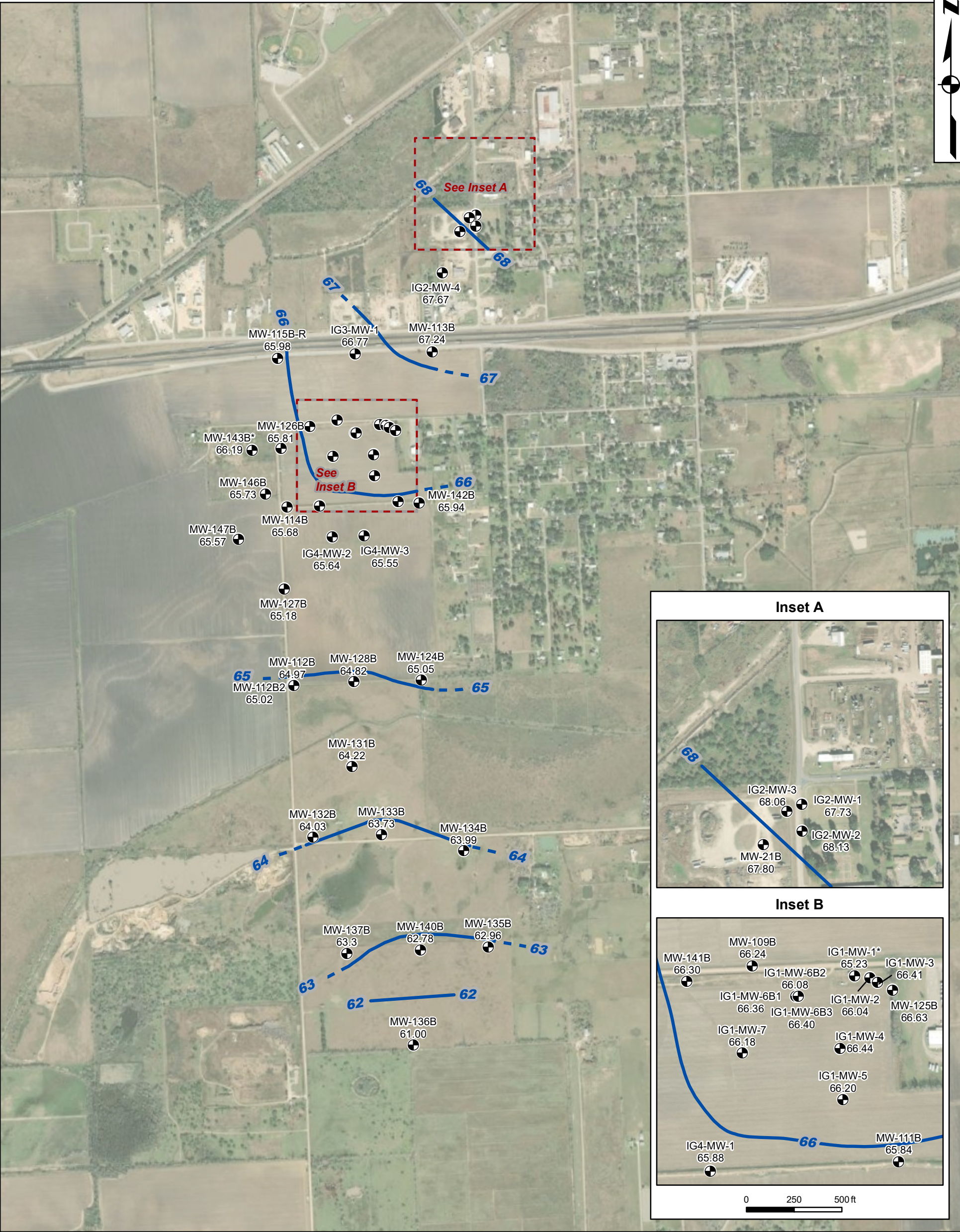
GROUNDWATER POTENTIOMETRIC SURFACE MAP – B-ZONE

FIRST QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

GSI Job No.	5452-015	Drawn By:	AV
Issued:	30-Mar-2022	Chk'd By:	EKR
Map ID:	015_02	App'd By:	

FIGURE 1



Monitoring well location

68.13 Measured static water level elevation (ft msl)

Potentiometric surface contour (ft msl); Dashed where inferred

STATE OF TEXAS

JONATHAN SKAGGS

11370

LICENSED PROFESSIONAL GEOLOGIST

06001200

0600

1200

Notes

* = Measurement not used in contouring; ft msl = feet mean sea level.

Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.

Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

GSI

ENVIRONMENTAL

GROUNDWATER POTENTIOMETRIC SURFACE MAP – B-ZONE

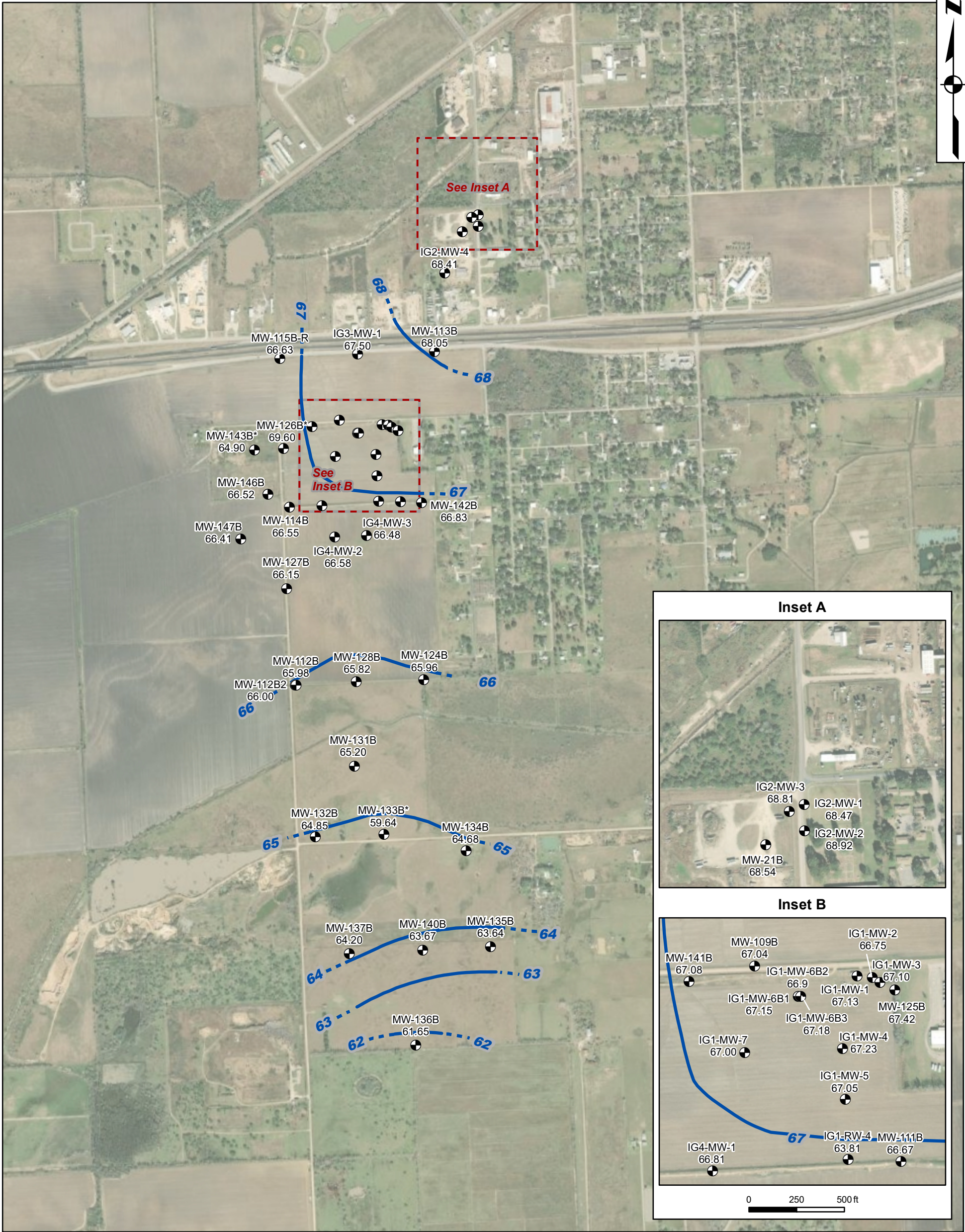
SECOND QUARTER 2021

Former El Campo Aluminum Facility

El Campo, Texas

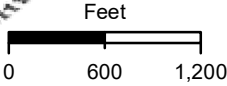
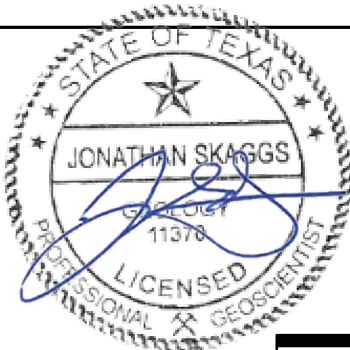
GSI Job No.	5452-015	Drawn By:	AV
Issued:	30-Mar-2022	Chk'd By:	EKR
Map ID:	015_03	Appv'd By:	

FIGURE 2



LEGEND

- Monitoring well location
- 69.60 Measured static water level elevation (ft msl)
- 65 — Potentiometric surface contour (ft msl); Dashed where inferred



Notes

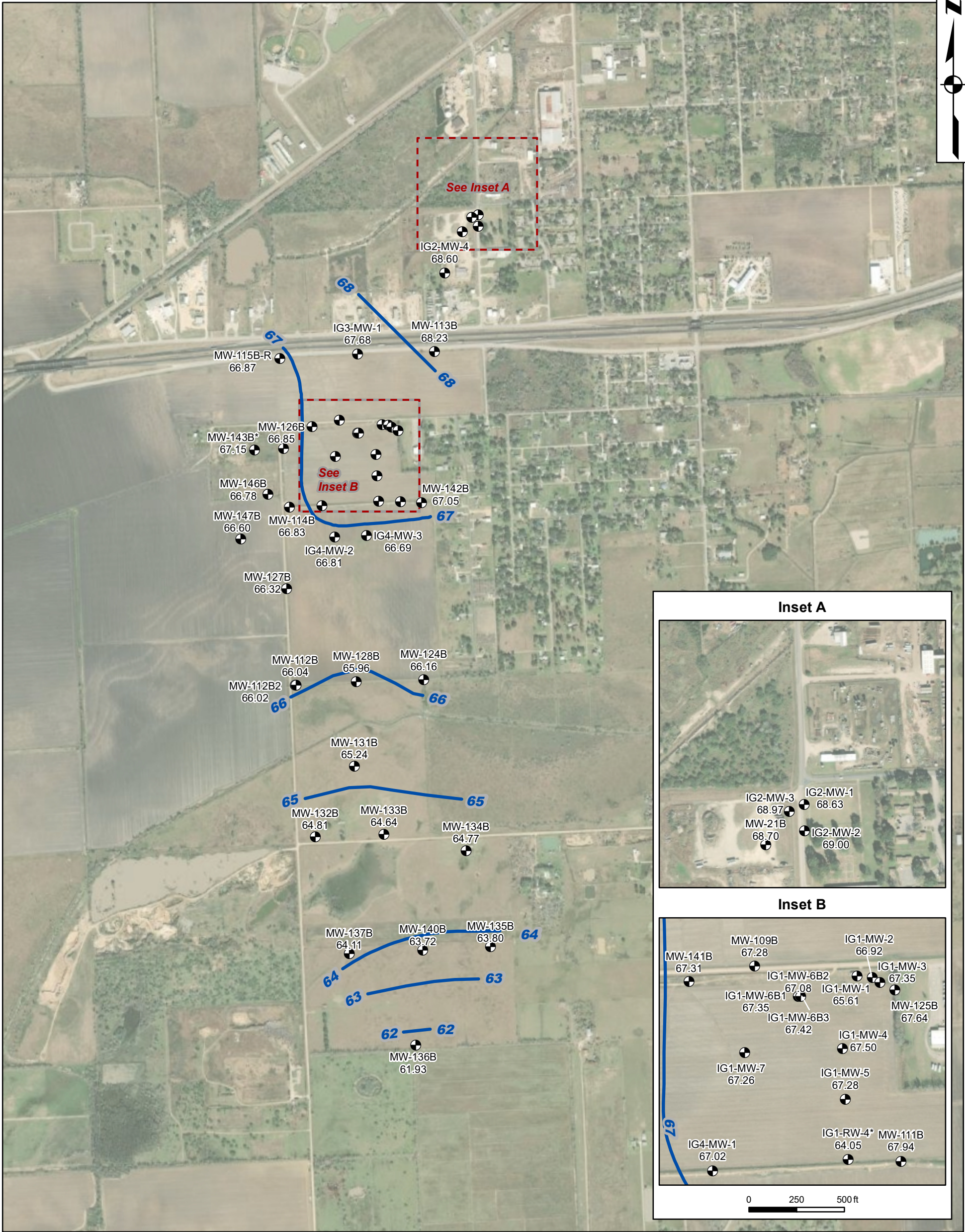
- * = Measurement not used in contouring; NS = not sampled; ft msl = feet mean sea level.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



GROUNDWATER POTENTIOMETRIC
SURFACE MAP - B-ZONE
THIRD QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

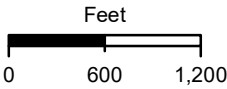
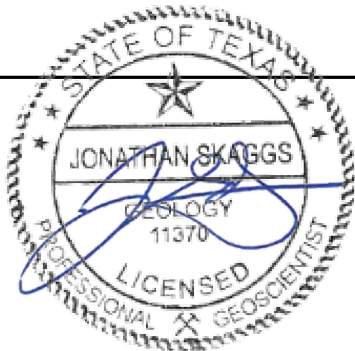
GSI Job No.	5452-015	Drawn By:	AV
Issued:	30-Mar-2022	Chk'd By:	EKR
Map ID:	015_04	Appv'd By:	

FIGURE 3



LEGEND

- Monitoring well location
- 68.60 Measured static water level elevation (ft msl)
- 65 Potentiometric surface contour (ft msl); Dashed where inferred



Notes

- * = Measurement not used in contouring; ft msl = feet mean sea level.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



GROUNDWATER POTENTIOMETRIC
SURFACE MAP - B-ZONE
FOURTH QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

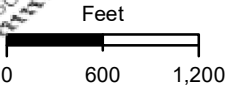
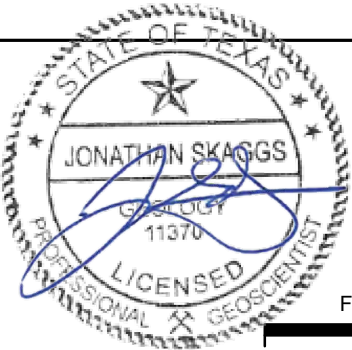
GSI Job No.	5452-015	Drawn By:	AV
Issued:	30-Mar-2022	Chk'd By:	EKR
Map ID:	015_05	Appv'd By:	

FIGURE 4



LEGEND

-  Monitoring well location
- 52.68 Measured static water level elevation (ft msl)
-  Potentiometric surface contour (ft msl); Dashed where inferred



Notes

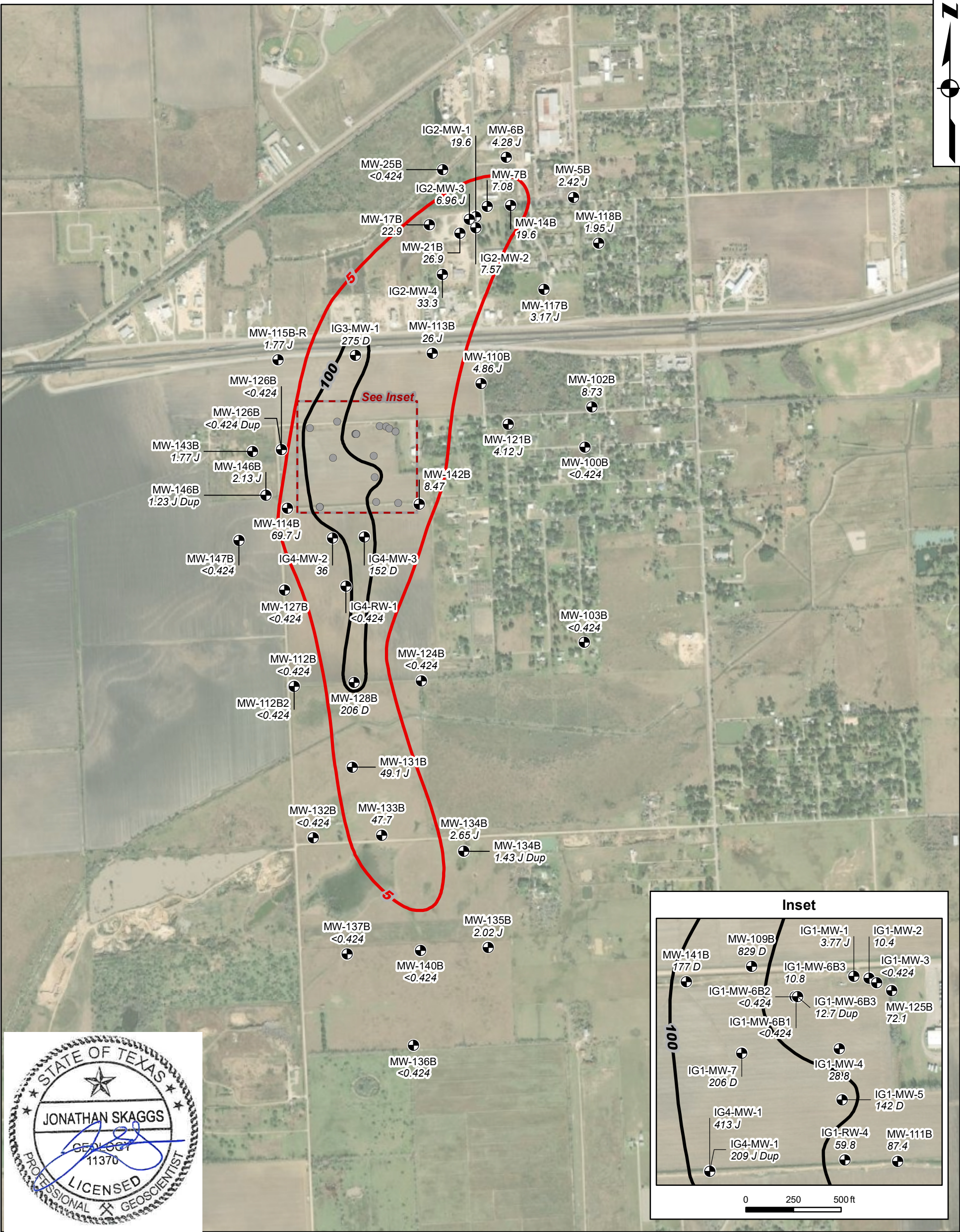
- ft msl = feet mean sea level; NS = not sampled.
- MW-130C was unable to be located, therefore a static water level measurement was not collected.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



GROUNDWATER POTENTIOMETRIC
SURFACE MAP - C-ZONE
FIRST QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

GSI Job No.	5452-001	Drawn By:	AV
Issued:	30-Mar-2022	Chk'd By:	EKR
Map ID:	015_06	Appv'd By:	

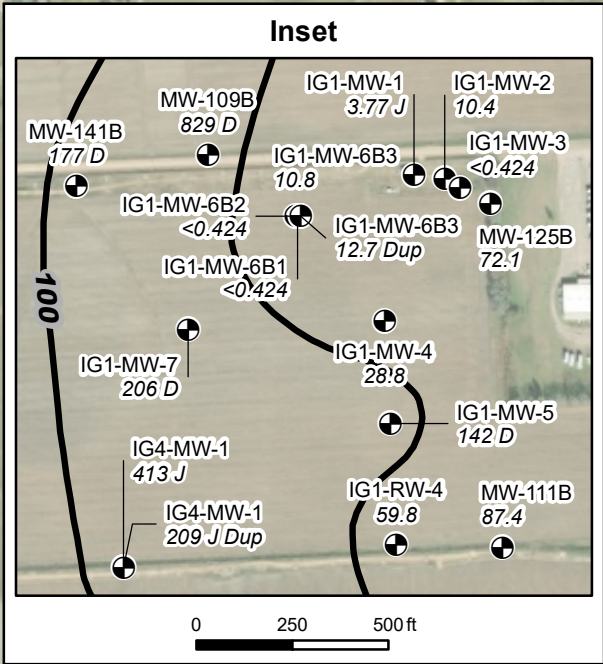
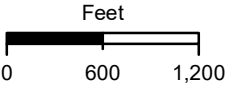
FIGURE 5



LEGEND

	Monitoring well location		TCE isoconcentration contour (µg/L)
829	TCE concentration (µg/L) (* = Measurement not used in contouring; J = Estimated value; D = Result from diluted sample; Dup = duplicate sample) (* < ' sign indicates sample result is below the method detection limit (MDL))		TCE PCLE Zone (5 µg/L)

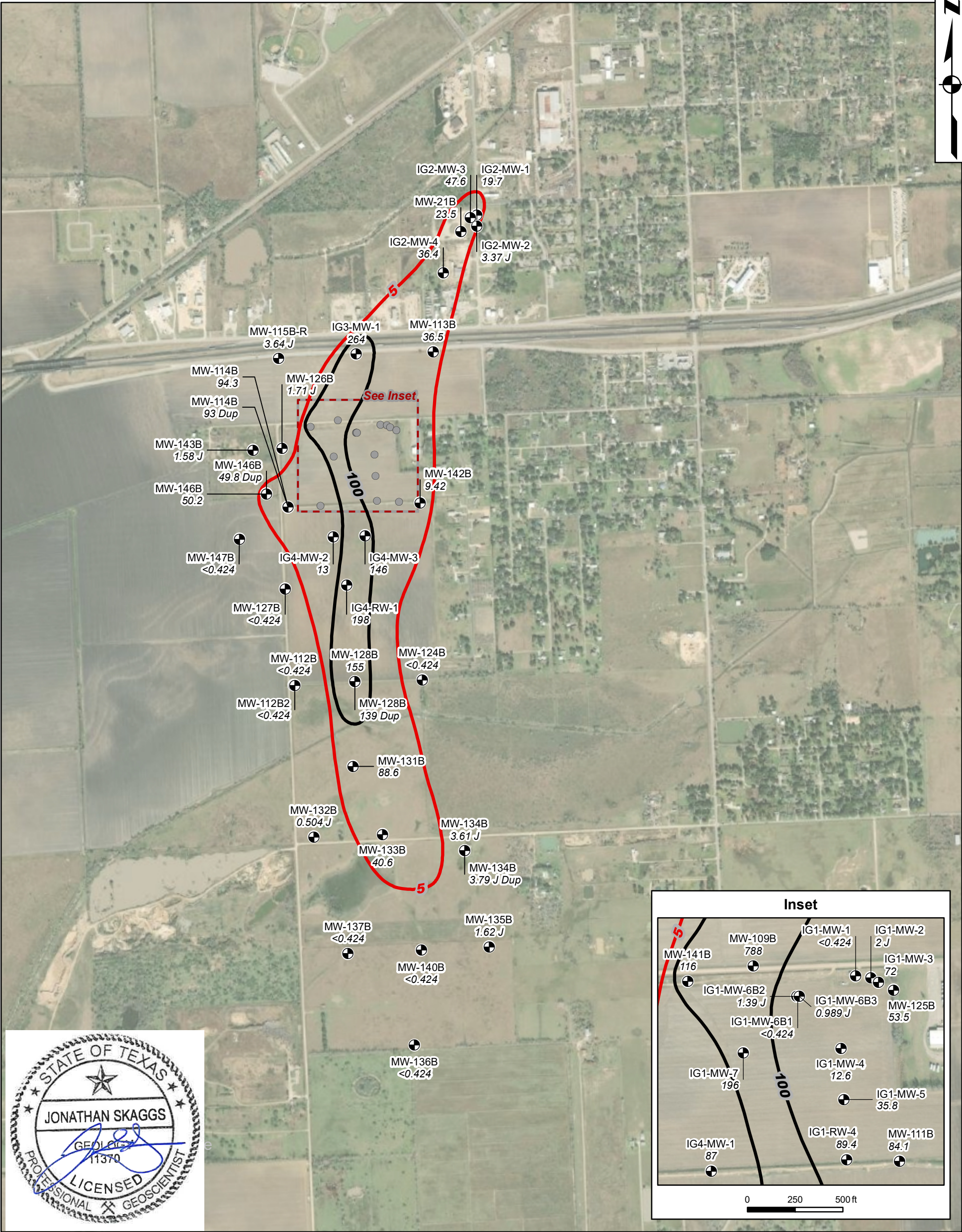
- Notes
- * = Measurement not used in contouring; TCE = Trichloroethene; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; D = Result from diluted sample; Dup = duplicate sample.
 - Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
 - Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



TRICHLOROETHENE GROUNDWATER ISOCONCENTRATION MAP - B-ZONE
FIRST QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	EKR/ARD
Map ID:	016_01	Appv'd By:	

FIGURE 6



LEGEND

	Monitoring well location		100 TCE isoconcentration contour (µg/L)
788	TCE concentration (µg/L) (* sign indicates sample result is below the method detection limit (MDL))		5 TCE PCLE Zone (5 µg/L)

- Notes**
- * = Measurement not used in contouring; TCE = Trichloroethene; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
 - Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
 - Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

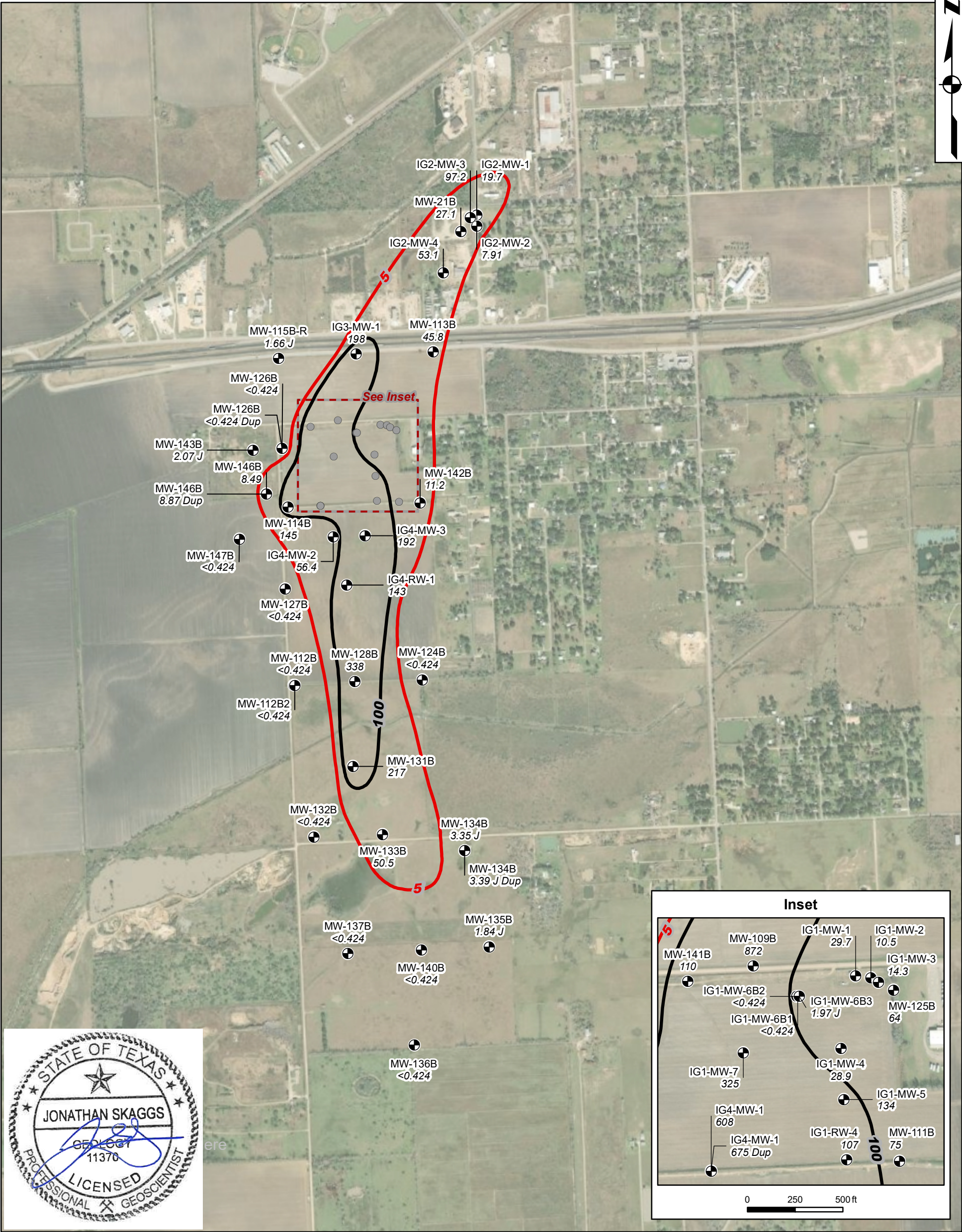


TRICHLOROETHENE GROUNDWATER
ISOCONCENTRATION MAP - B-ZONE
SECOND QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	EKR/ARD
Map ID:	016_02	App'd By:	

FIGURE 7



Monitoring well location

872

TCE concentration (µg/L)
(* sign indicates sample result is below the method detection limit (MDL))

100

TCE isoconcentration contour (µg/L)

5

TCE PCLE Zone (5 µg/L)

Feet

0

600

1,200

Notes

1. * = Measurement not used in contouring; TCE = Trichloroethene; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.

2. Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.

3. Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

GSI

ENVIRONMENTAL

TRICHLOROETHENE GROUNDWATER ISOCONCENTRATION MAP - B-ZONE

THIRD QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

GSI Job No.

5452-015

Drawn By:

CDM

Issued:

30-Mar-2022

Chk'd By:

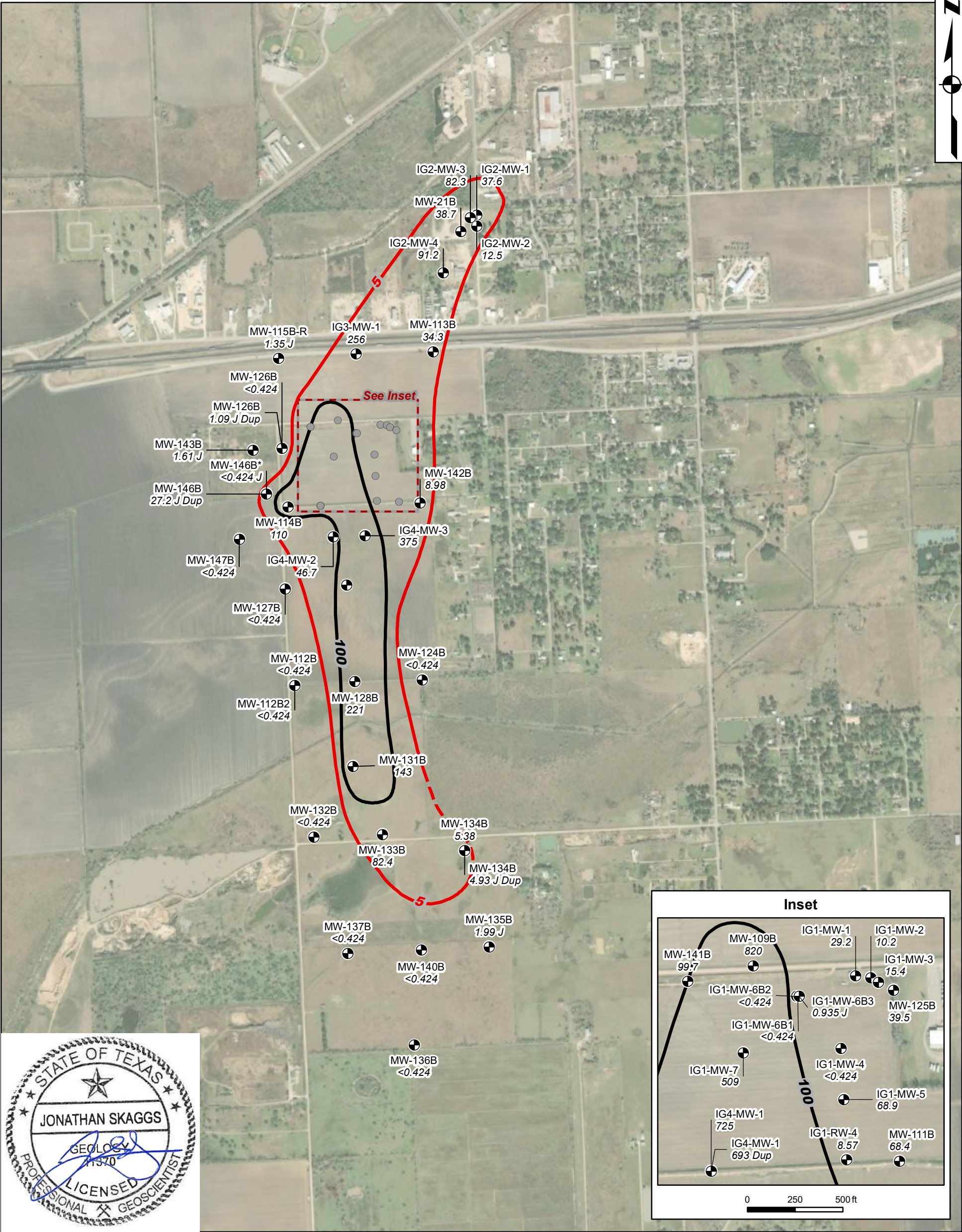
EKR/ARD

Map ID:

016_03

Appv'd By:

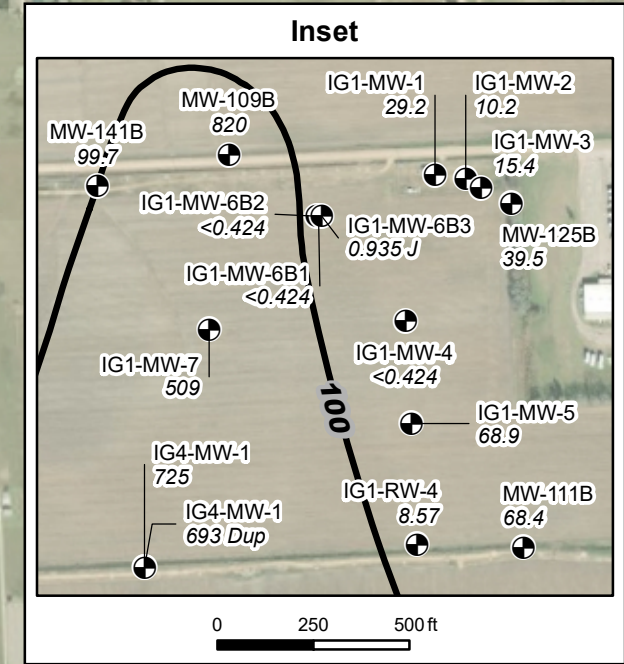
FIGURE 8



LEGEND

	Monitoring well location		TCE isoconcentration contour (µg/L)
820	TCE concentration (µg/L) (* sign indicates sample result is below the method detection limit (MDL))		TCE PCLE Zone (5 µg/L)

- Notes
- * = Measurement not used in contouring; TCE = Trichloroethene; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
 - Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
 - Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



TRICHLOROETHENE GROUNDWATER ISOCONCENTRATION MAP - B-ZONE

FOURTH QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

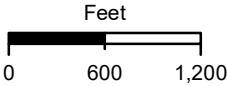
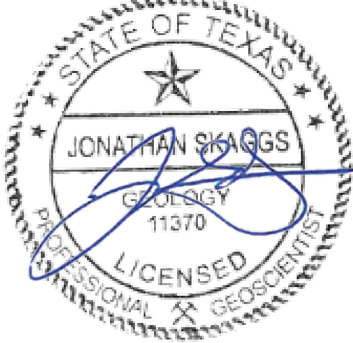
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	EKR/ARD
Map ID:	016_04	App'd By:	

FIGURE 9



LEGEND

- Monitoring well location
- 3.2 TCE concentration (µg/L)
(* sign indicates sample result is below the method detection limit (MDL))



Notes

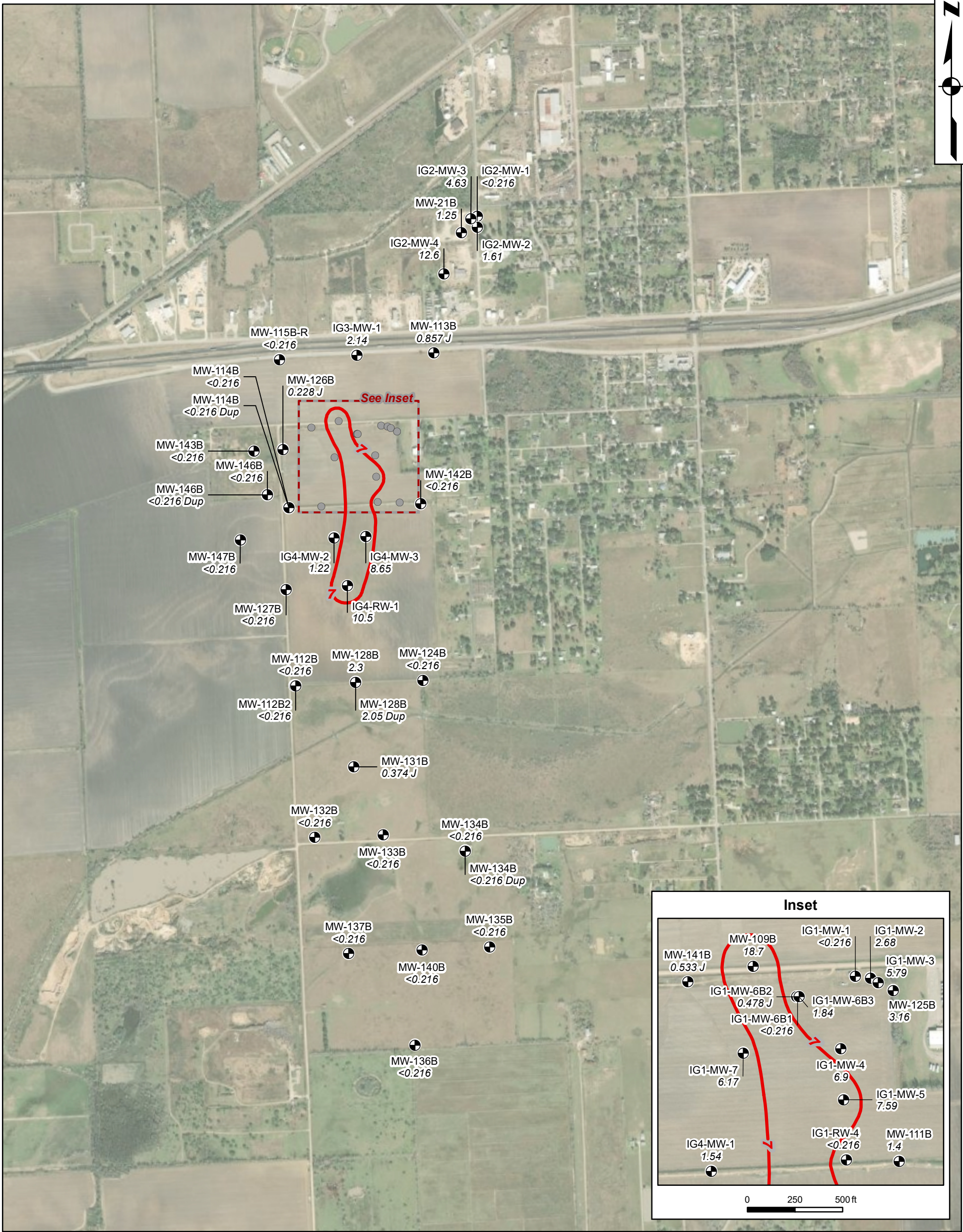
- * = Measurement not used in contouring; TCE = Trichloroethene; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



TRICHLOROETHENE GROUNDWATER
CONCENTRATION MAP - C-ZONE
FIRST QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

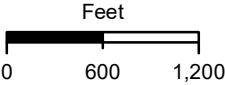
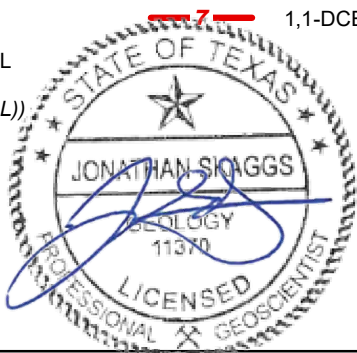
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	EKR/ARD
Map ID:	016_05	Appv'd By:	

FIGURE 10



LEGEND

- Monitoring well location
- 18.7 1,1-Dichloroethene concentration in ug/L
(*< sign indicates sample result is below the method detection limit (MDL))
- 1,1-DCE PCLE Zone (7 ug/L)



Notes

- * = Measurement not used in contouring; ug/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

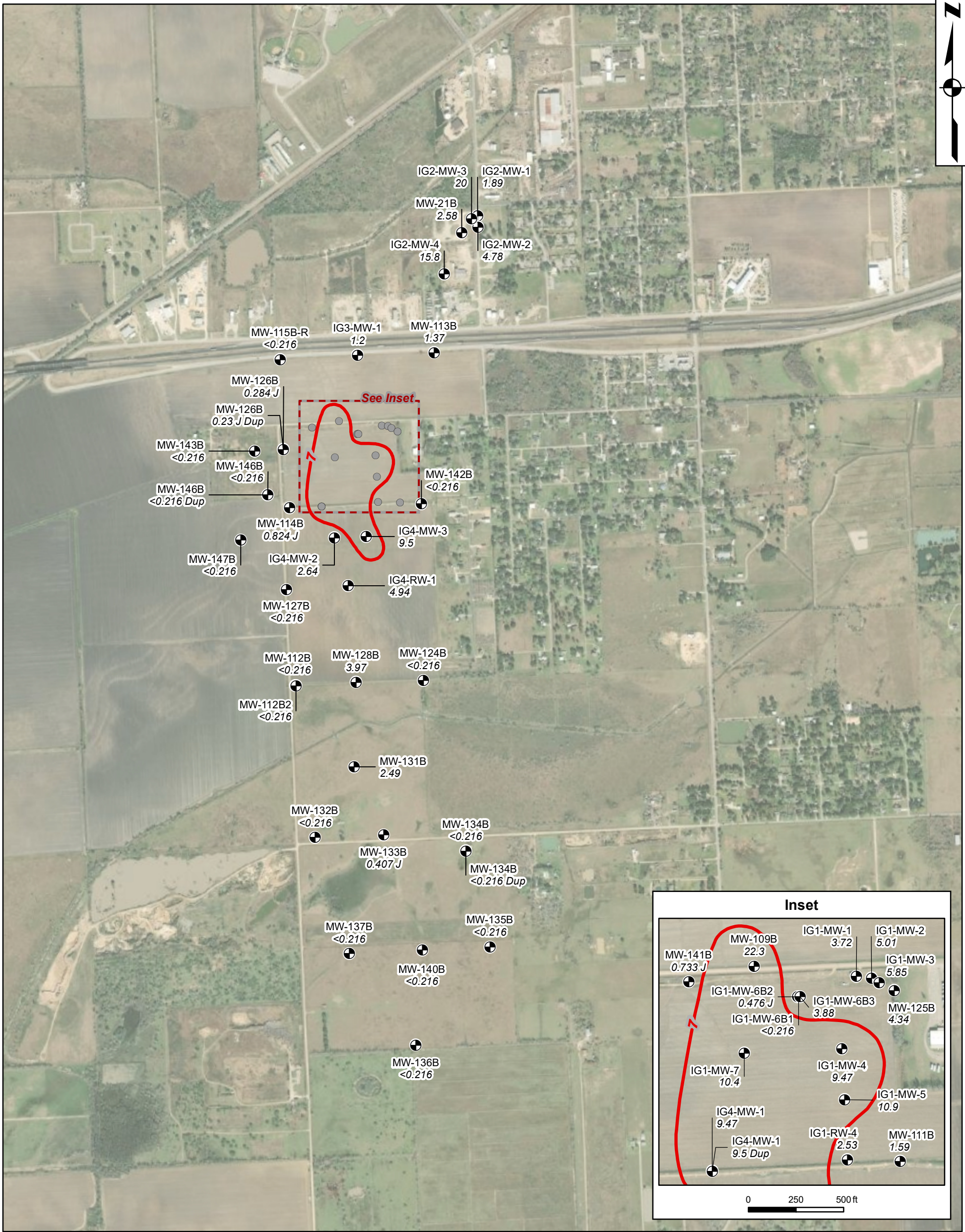


**1,1-DICHLOROETHENE GROUNDWATER ISOCONCENTRATION MAP - B-ZONE
SECOND QUARTER 2021**

Former El Campo Aluminum Facility
El Campo, Texas

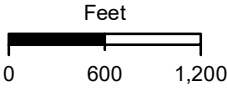
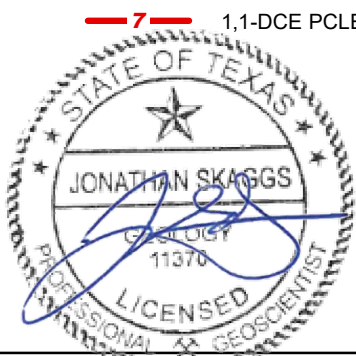
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_07	App'd By:	

FIGURE 12



LEGEND

- Monitoring well location
- 22.3 1,1-Dichloroethene concentration in ug/L
(*'<' sign indicates sample result is below the method detection limit (MDL))



Notes

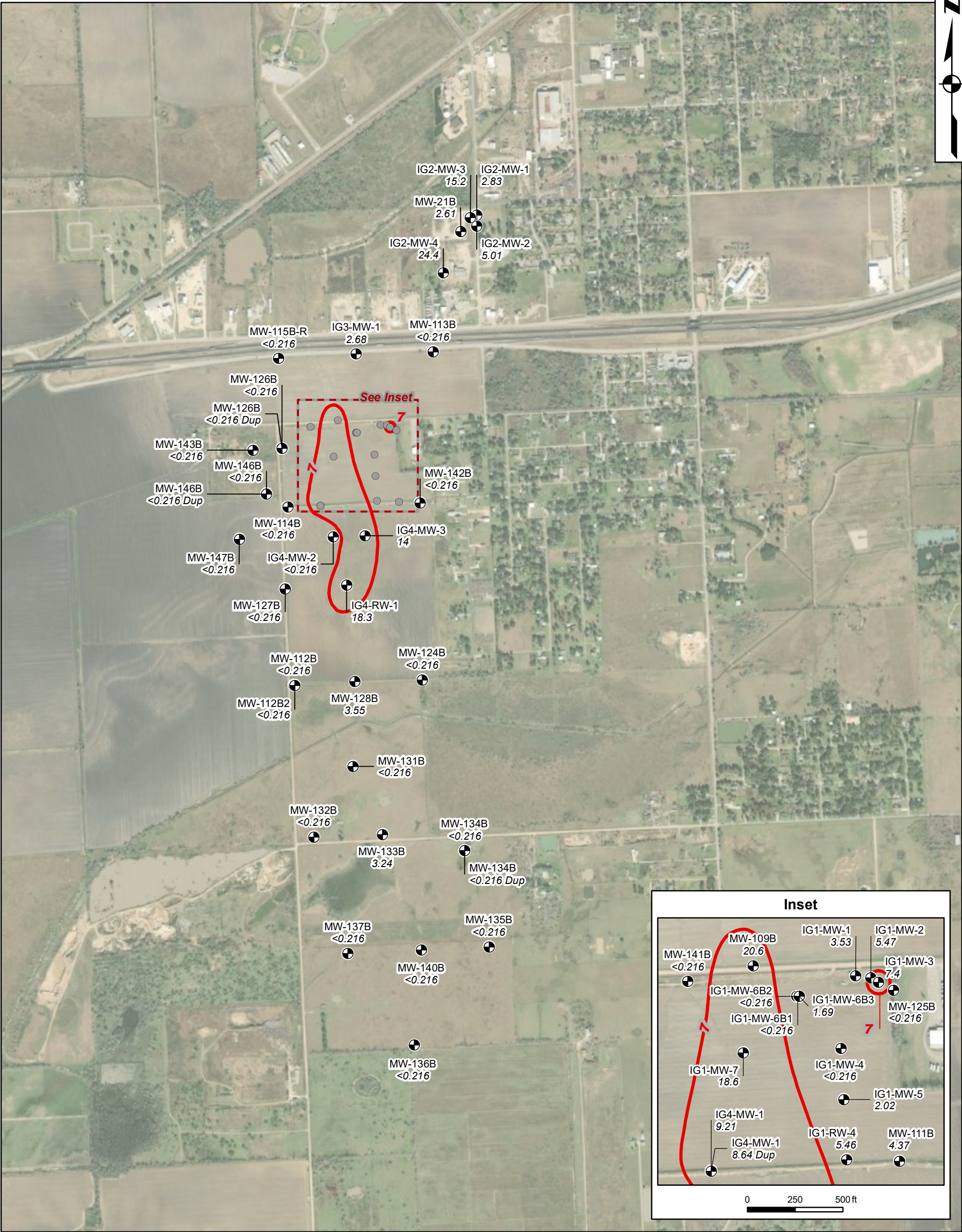
- * = Measurement not used in contouring; ug/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



1,1-DICHLOROETHENE GROUNDWATER ISOCONCENTRATION MAP - B-ZONE
THIRD QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

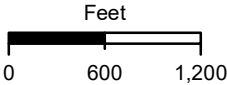
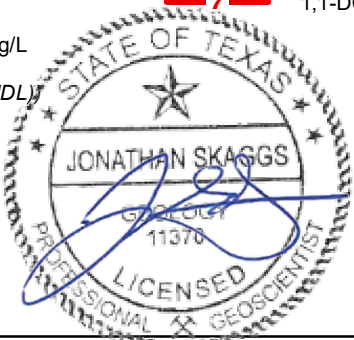
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_08	App'd By:	

FIGURE 13



LEGEND

- Monitoring well location
- 22.4 1,1-Dichloroethene concentration in ug/L
(*'<' sign indicates sample result is below the method detection limit (MDL))
- 1,1-DCE PCLE Zone (7 ug/L)



Notes

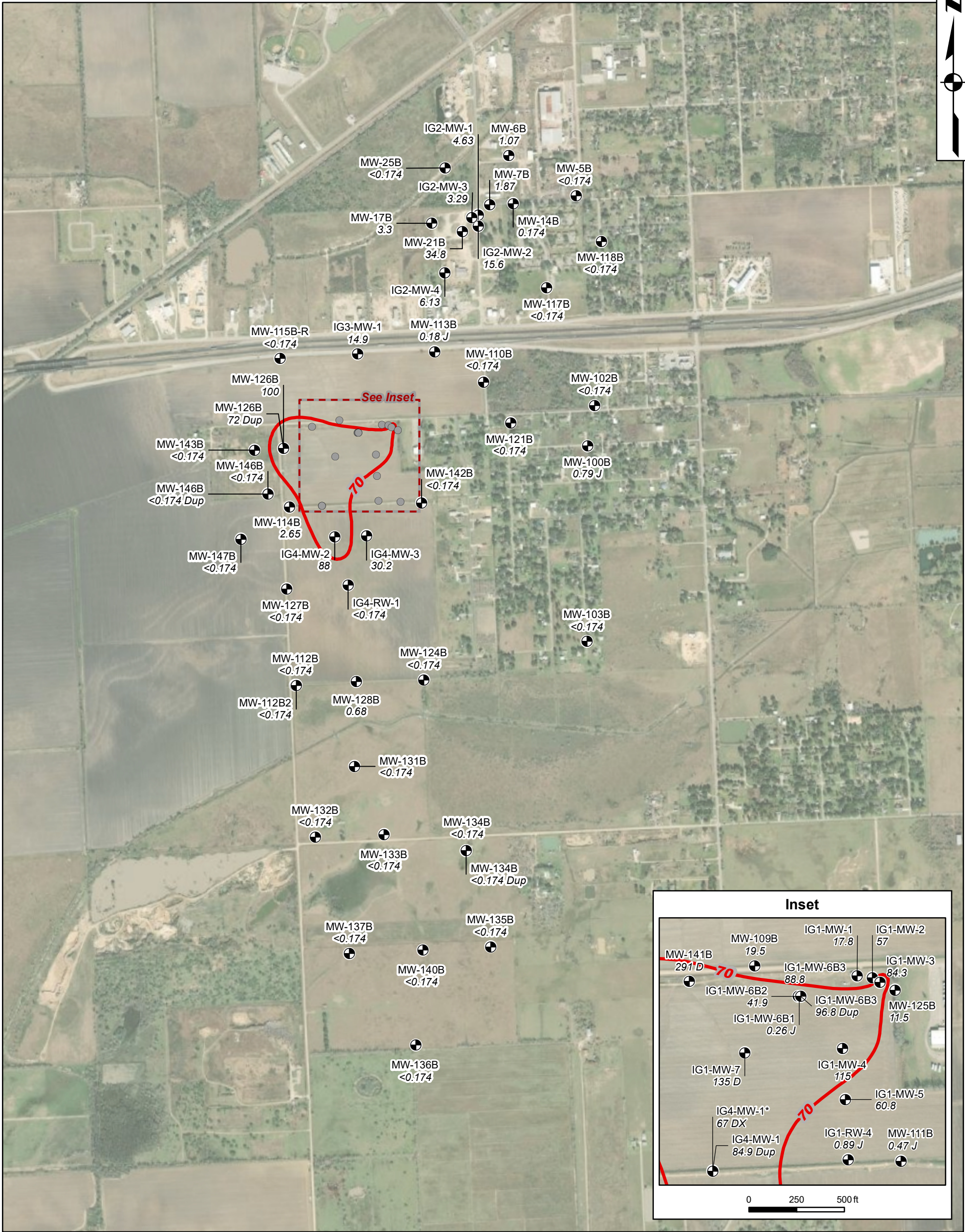
- * = Measurement not used in contouring; ug/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



1,1-DICHLOROETHENE GROUNDWATER ISOCONCENTRATION MAP - B-ZONE
FOURTH QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

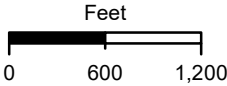
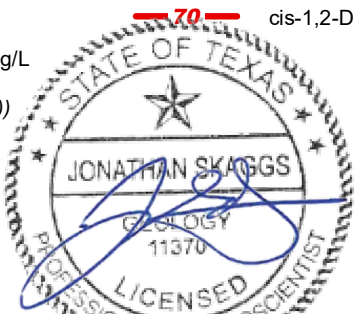
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_09	Appv'd By:	

FIGURE 14



LEGEND

- Monitoring well location
- 115 cis-1,2-Dichloroethene concentration in ug/L ('<' sign indicates sample result is below the method detection limit (MDL))
- 70 cis-1,2-DCE PCLE Zone (70 ug/L)



Notes

- * = Measurement not used in contouring; $\mu\text{g/L}$ = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; D = Result from diluted sample; X = MS/MSD recoveries outside laboratory control limits; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

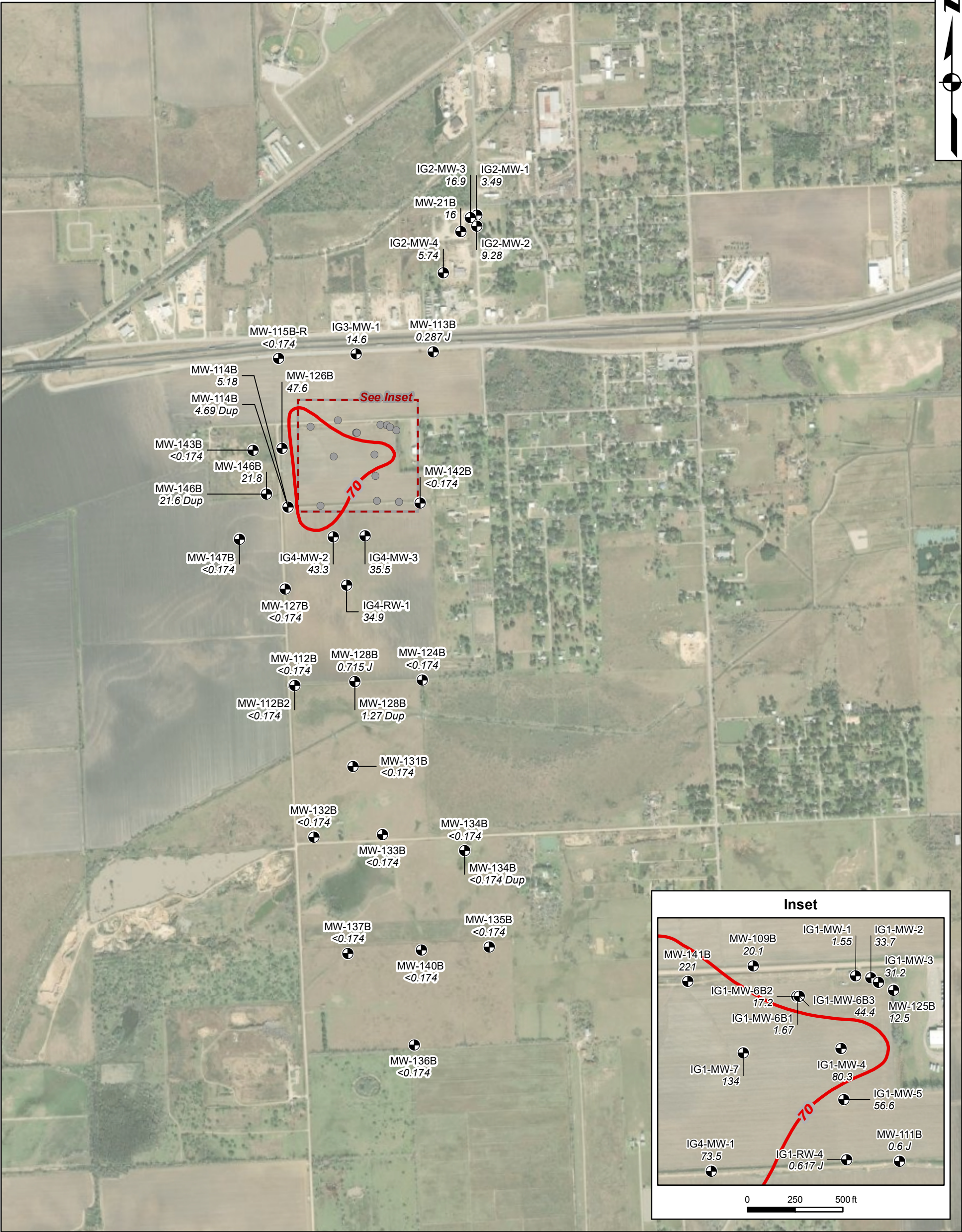


CIS-1,2-DICHLOROETHENE
GROUNDWATER ISOCONCENTRATION
MAP - B-ZONE FIRST QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

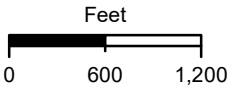
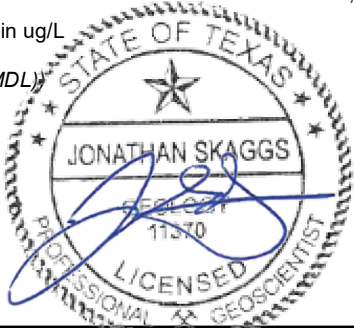
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_10	App'd By:	

FIGURE 15



LEGEND

- Monitoring well location
- 221 cis-1,2-Dichloroethene concentration in ug/L ('<' sign indicates sample result is below the method detection limit (MDL))
- 70 cis-1,2-DCE PCLE Zone (70 ug/L)



Notes

- * = Measurement not used in contouring; ug/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

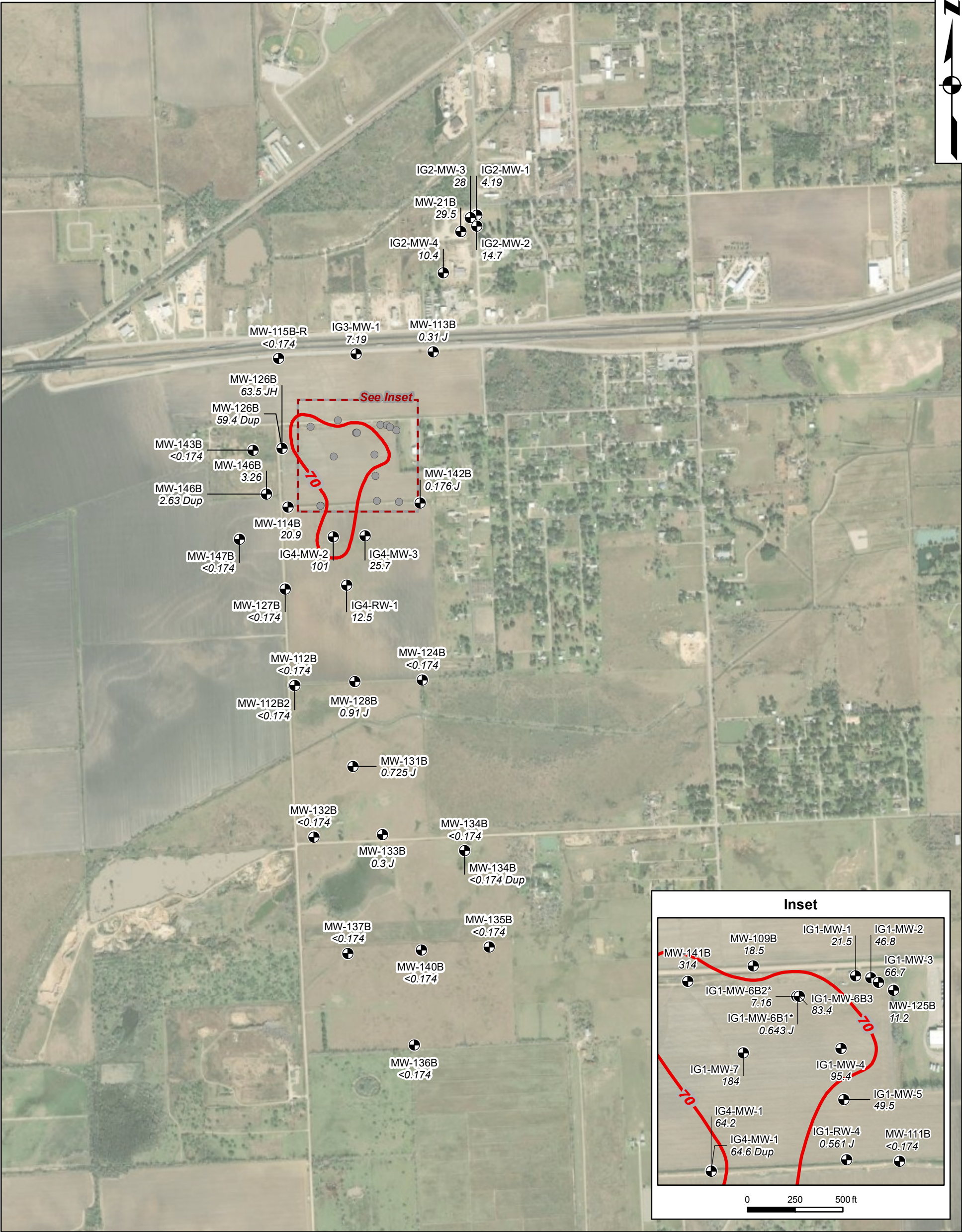


CIS-1,2-DICHLOROETHENE
GROUNDWATER ISOCONCENTRATION
MAP - B-ZONE SECOND QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

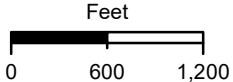
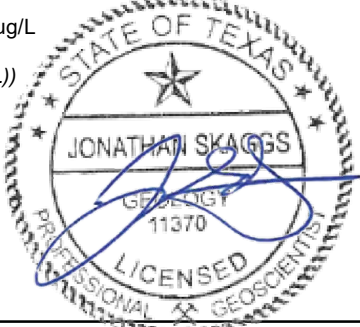
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_16	App'd By:	

FIGURE 16



LEGEND

- Monitoring well location
- 314 cis-1,2-Dichloroethene concentration in ug/L ('<' sign indicates sample result is below the method detection limit (MDL))
- 70 cis-1,2-DCE PCLE Zone (70 ug/L)



Notes

- * = Measurement not used in contouring; $\mu\text{g/L}$ = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

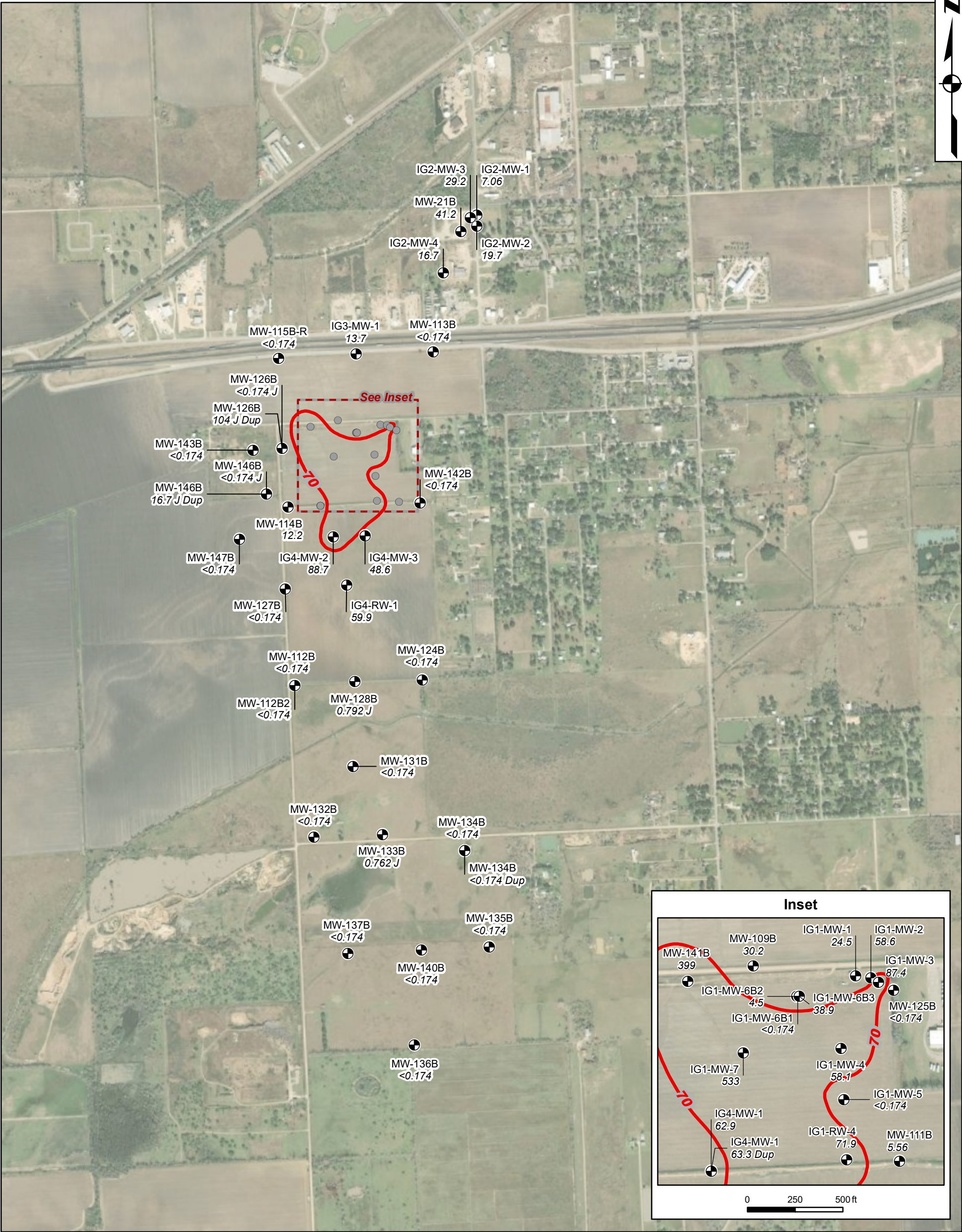


CIS-1,2-DICHLOROETHENE
GROUNDWATER ISOCONCENTRATION
MAP - B-ZONE THIRD QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

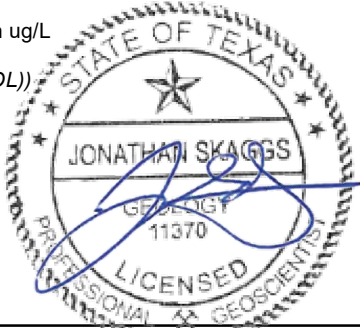
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_12	App'd By:	

FIGURE 17



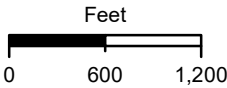
LEGEND

-  Monitoring well location
- 533** cis-1,2-Dichloroethene concentration in ug/L
('<' sign indicates sample result is below the method detection limit (MDL))
-  **70** cis-1,2-DCE PCLE Zone (70 ug/L)



Notes

1. * = Measurement not used in contouring; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
2. Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
3. Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

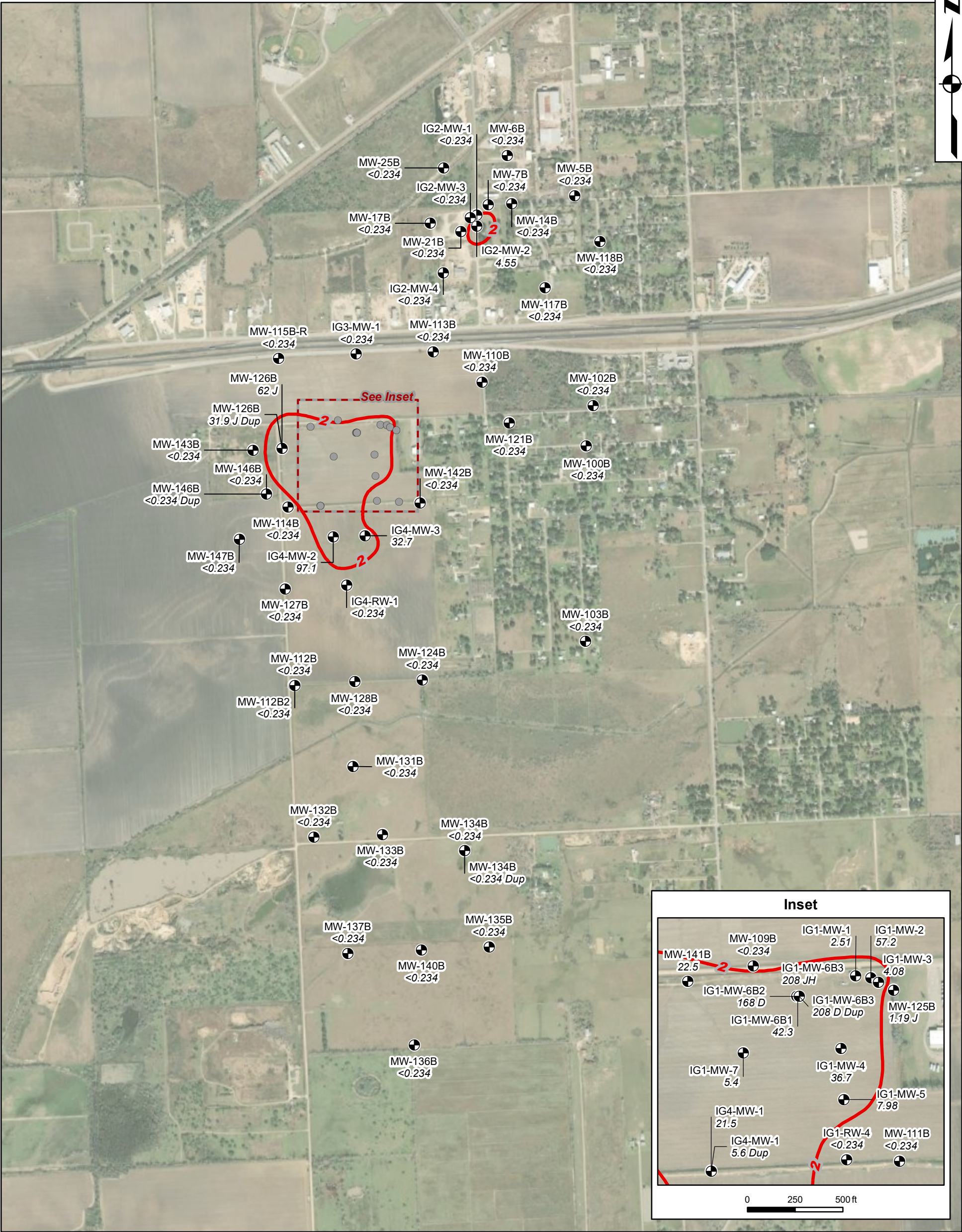


CIS-1,2-DICHLOROETHENE
GROUNDWATER ISOCONCENTRATION
MAP - B-ZONE FOURTH QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

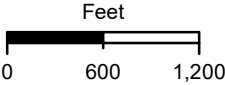
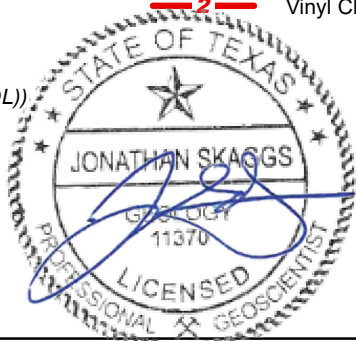
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_13	Appv'd By:	

FIGURE 18



LEGEND

- Monitoring well location
- 97.1 Vinyl Chloride concentration (µg/L)
(*' sign indicates sample result is below the method detection limit (MDL))
- Vinyl Chloride PCLE Zone (2 µg/L)



Notes

- * = Measurement not used in contouring; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; D = Result from diluted sample; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

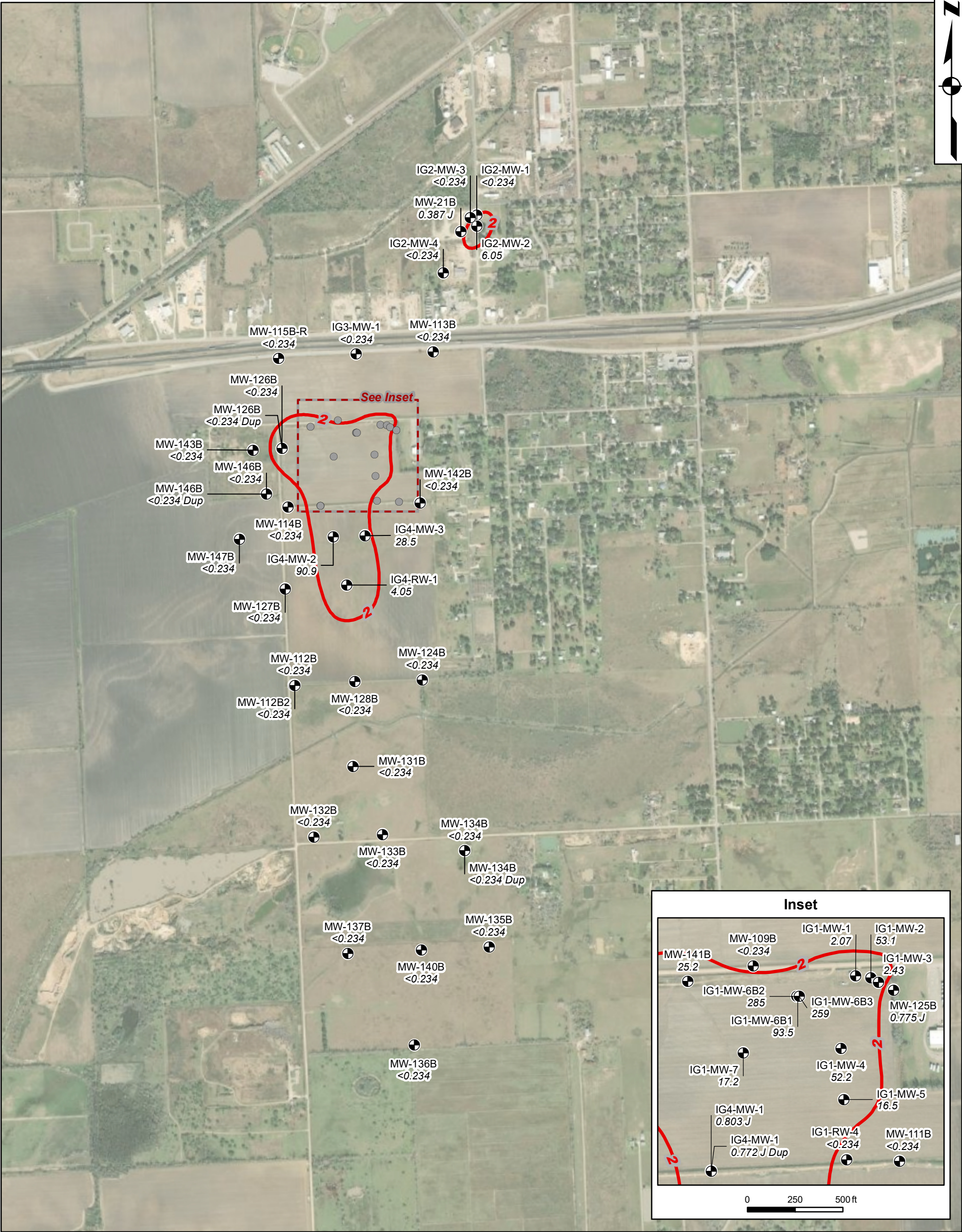


VINYL CHLORIDE GROUNDWATER
ISOCONCENTRATION MAP - B-ZONE
FIRST QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

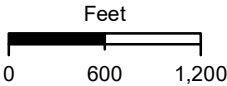
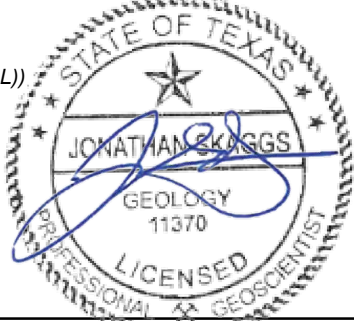
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_14	Appv'd By:	

FIGURE 19



LEGEND

- Monitoring well location
- 259 Vinyl Chloride concentration (µg/L) ('<' sign indicates sample result is below the method detection limit (MDL))
- 2 Vinyl Chloride PCLE Zone (2 µg/L)



Notes

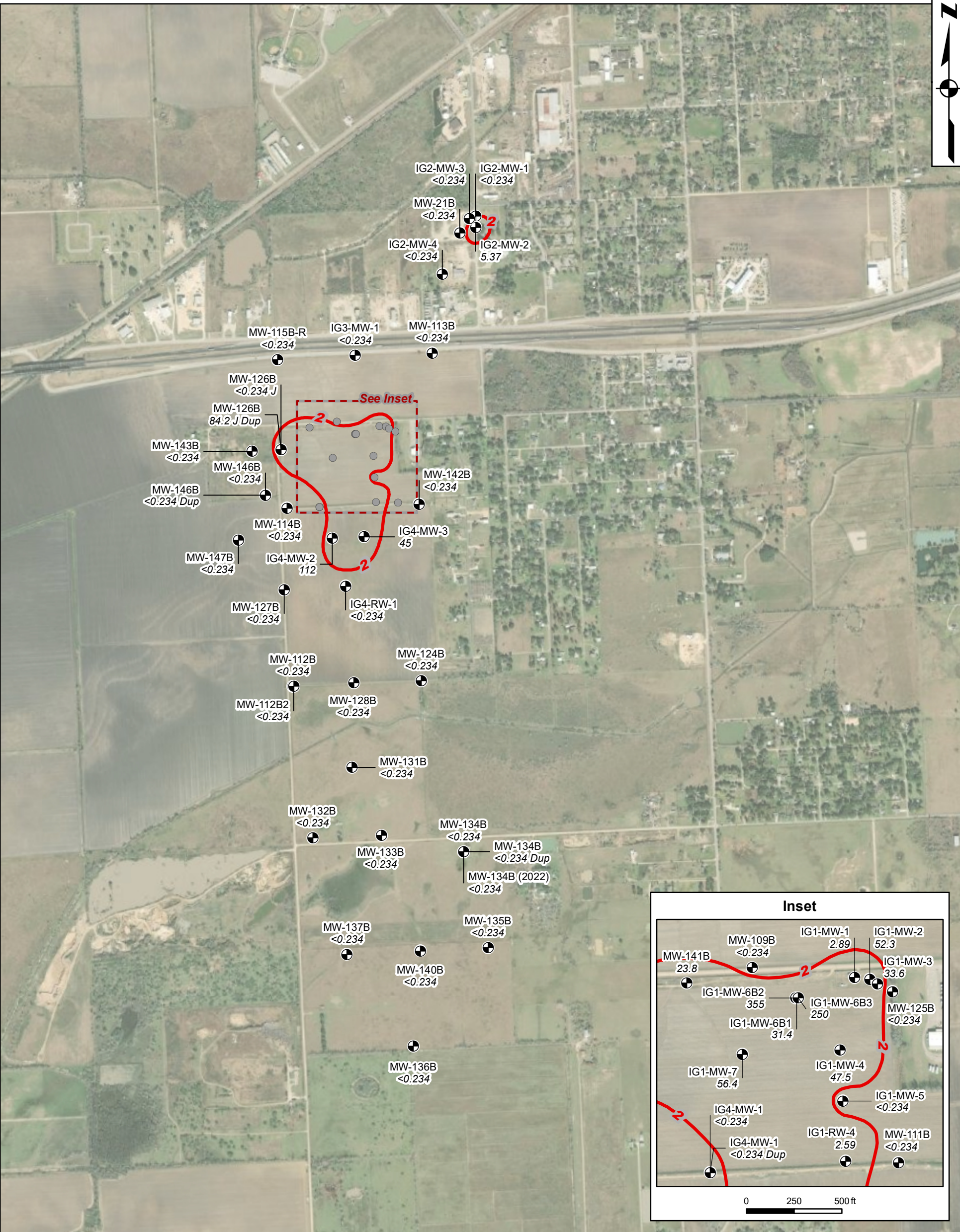
- * = Measurement not used in contouring; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



VINYL CHLORIDE GROUNDWATER ISOCONCENTRATION MAP - B-ZONE
THIRD QUARTER 2021
Former El Campo Aluminum Facility
El Campo, Texas

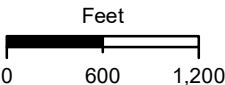
GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_16	Appv'd By:	

FIGURE 21



LEGEND

- Monitoring well location
- 355 Vinyl Chloride concentration (µg/L)
(* indicates sample result is below the method detection limit (MDL))
- 2 Vinyl Chloride PCLE Zone (2 µg/L)



Notes

- * = Measurement not used in contouring; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).

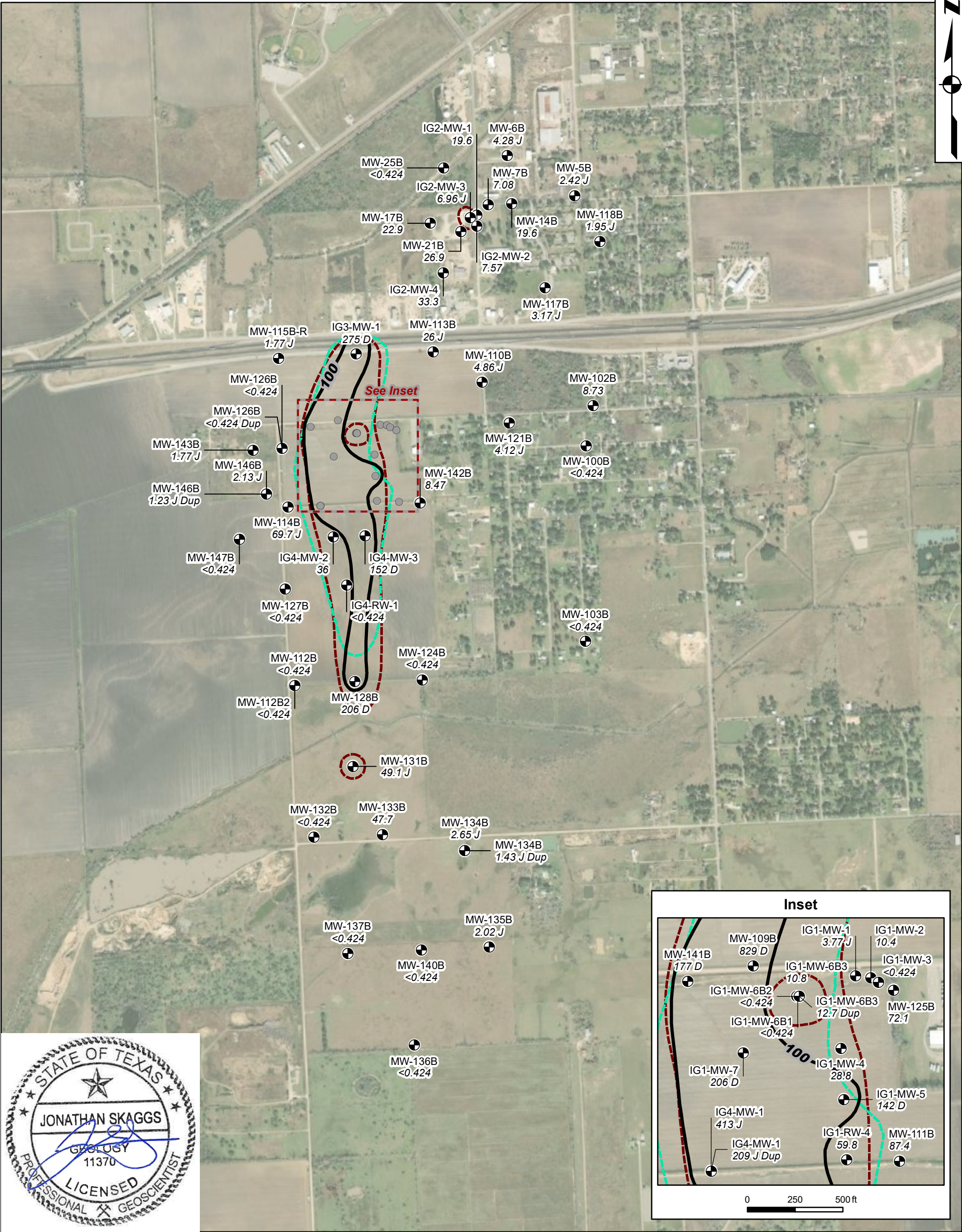


VINYL CHLORIDE GROUNDWATER
ISOCONCENTRATION MAP - B-ZONE
FOURTH QUARTER 2021

Former El Campo Aluminum Facility
El Campo, Texas

GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_17	App'd By:	

FIGURE 22



Monitoring well location

829

2021 TCE concentration (µg/L)
(*' sign indicates sample result is below the method detection limit (MDL))

100

2021 TCE isoconcentration contour (µg/L)

Approximate PCLE Zone (100 µg/L TCE)
First Quarter 2020

Approximate PCLE Zone (100 µg/L TCE)
First Quarter 2019

Feet

0

600

1,200

Notes

- * = Measurement not used in contouring; TCE = Trichloroethene; µg/L = micrograms per liter; PCLE = Protective Concentration Limit Exceedance; J = Estimated value; Dup = duplicate sample.
- Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
- Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).
- Approximate PCLE zone boundary contours from 2019 Annual Groundwater Monitoring Report, submitted by Wood Environment & Infrastructure Solutions, Inc. in April 2020.

GSI

ENVIRONMENTAL

TRICHLOROETHENE GROUNDWATER

100 MICROGRAMS PER LITER CONTOUR

BETWEEN 2019 AND 2021 - B-ZONE

Former El Campo Aluminum Facility

El Campo, Texas

GSI Job No.	5452-015	Drawn By:	CDM/AV
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_19	Appv'd By:	

FIGURE 24



LEGEND

Monitoring well location

2.17

2021 TCE concentration (µg/L)
(*' sign indicates sample result is below the method detection limit (MDL))

Approximate Plume Core (100 µg/L TCE) for January/February/March 2020

Approximate Plume Core (100 µg/L TCE) for January/February/March 2019

Feet

0 600 1,200

- Notes**
- TCE = Trichloroethene; µg/L = micrograms per liter; J = Estimated value; Dup = duplicate sample.
 - Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
 - Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).
 - Approximate Protective Concentration Limit Exceedance (PCLE) zone boundary contours from 2019 Annual Groundwater Monitoring Report, submitted by Wood Environment & Infrastructure Solutions, Inc. in April 2020.
 - Concentrations of TCE in the C-Zone were below the groundwater ingestion PCL in 2021, therefore a PCLE zone is not mapped for 2021.

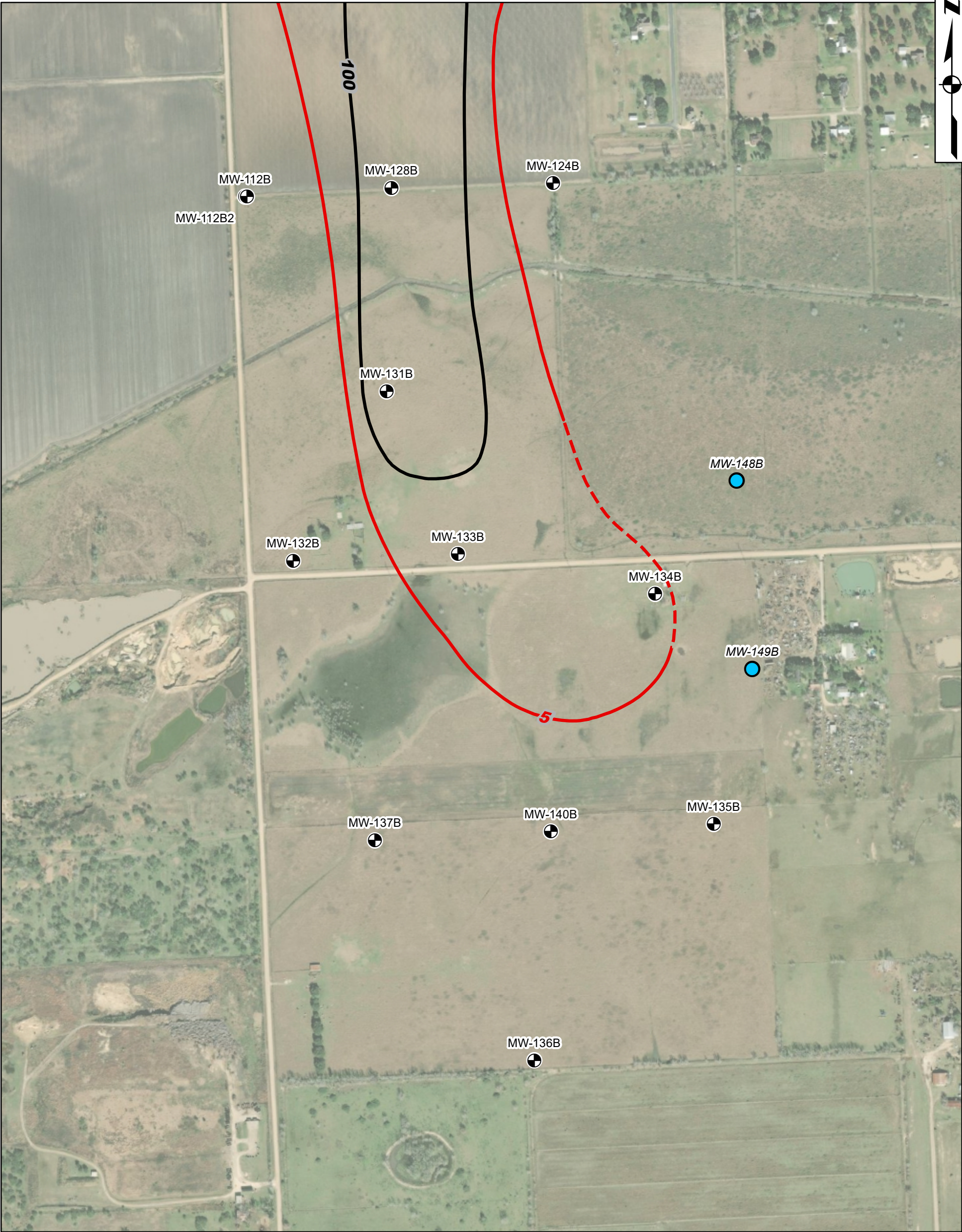


TRICHLOROETHENE
GROUNDWATER PCLE ZONE
BETWEEN 2019 AND 2021 - C-ZONE

Former El Campo Aluminum Facility
El Campo, Texas

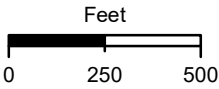
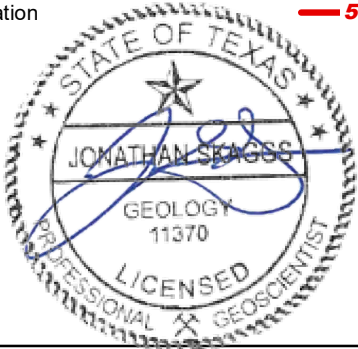
GSI Job No.	5452-015	Drawn By:	CDM/AV
Issued:	30-Mar-2022	Chk'd By:	ARD
Map ID:	016_20	Appv'd By:	

FIGURE 25



LEGEND

-  Monitoring well location
-  Proposed monitoring well location
-  **100** TCE isoconcentration contour (µg/L)
-  **5** TCE PCLE Zone (5 µg/L)



Notes

1. Background Imagery: ESRI World Imagery – 1m Color InfraRed NAIP Imagery. Modified 8/30/2019. Sources: Esri, DigitalGlobe, GeoEye, et al.
2. Projected Coordinate System: NAD 1983, StatePlane Texas South Central 4204 (feet).



PROPOSED B-ZONE/MONITORING WELL LOCATIONS

Former El Campo Aluminum Facility
El Campo, Texas

GSI Job No.	5452-015	Drawn By:	CDM
Issued:	30-Mar-2022	Chk'd By:	EKR/ARD
Map ID:	016_21	Appv'd By:	

FIGURE 26

APPENDICES

Appendix A: Data Usability Summaries and Groundwater Analytical Laboratory Reports

Appendix B: Well Plugging Reports

APPENDIX A: DATA USABILITY SUMMARIES AND GROUNDWATER ANALYTICAL LABORATORY REPORTS

APPENDIX B: WELL PLUGGING REPORTS

STATE OF TEXAS PLUGGING REPORT for Tracking #211562

Owner:	Whittaker Corporation	Owner Well #:	MW-104B
Address:	1955 N Surveyor Ave. Simi Valley, CA 93063	Grid #:	66-54-6
Well Location:	1414 Palacios St. El Campo, TX 77437	Latitude:	29° 10' 20.19" N
Well County:	Wharton	Longitude:	096° 16' 30.57" W
		Elevation:	No Data
Well Type:	Monitor		

Drilling Information

Company:	UNIVERSAL DRILLING	Date Drilled:	10/30/2002
Driller:	UNKNOWN	License Number:	UNKNOWN

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	8	0	122

Plugging Information

Date Plugged: **6/25/2021** Plugger: **Calistro Campozano**

Plug Method: **Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet**

Casing Left in Well:

Dia (in.)	Top (ft.)	Bottom (ft.)
0	0	0

Plug(s) Placed in Well:

Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
0	122	CEMENT BENTONITE GROUT 12 Bags/Sacks

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **BEST DRILLING SERVICES, INC.**

**P.O. BOX 70822
Houston, TX 77270**

Driller Name:	Ali Firouzbakht	License Number:	4997
Apprentice Name:	Calistro Campozano	Apprentice Number:	56591
Comments:	No Data		

STATE OF TEXAS PLUGGING REPORT for Tracking #211560

Owner:	Whittaker Corporation	Owner Well #:	MW-138B
Address:	1955 N Surveyor Ave Simi Valley , CA 93063	Grid #:	66-54-9
Well Location:	1414 Palacios St. El Campo, TX 77437	Latitude:	29° 08' 45.16" N
Well County:	Wharton	Longitude:	096° 17' 20.81" W
		Elevation:	No Data
Well Type:	Monitor		

Drilling Information

Company:	BOART LONGYER	Date Drilled:	10/1/2011
Driller:	UNKNOWN	License Number:	UNKNOWN

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	8	0	120

Plugging Information

Date Plugged: **6/25/2021** Plugger: **Calistro Campozano**

Plug Method: **Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet**

Casing Left in Well:

Dia (in.)	Top (ft.)	Bottom (ft.)
2	10	120

Plug(s) Placed in Well:

Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
0	120	CEMENT BENTONITE GROUT 11 Bags/Sacks

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **BEST DRILLING SERVICES, INC.**
P.O. BOX 70822
Houston, TX 77270

Driller Name:	Ali Firoubakht	License Number:	4997
Apprentice Name:	Calistro Campozano	Apprentice Number:	56591
Comments:	No Data		

STATE OF TEXAS PLUGGING REPORT for Tracking #211561

Owner:	Whittaker Corporation	Owner Well #:	MW-139B
Address:	1955 N Surveyor Ave. Simi Valley, CA 93063	Grid #:	66-54-9
Well Location:	1414 Palacios St. El Campo, TX 77437	Latitude:	29° 08' 53.26" N
Well County:	Wharton	Longitude:	096° 17' 21.02" W
		Elevation:	No Data
Well Type:	Monitor		

Drilling Information

Company:	BOART LONGYEAR	Date Drilled:	10/2/2011
Driller:	UNKNOWN	License Number:	UNKNOWN

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	8	0	119

Plugging Information

Date Plugged: **6/25/2021** Plugger: **Calistro Campozano**

Plug Method: **Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet**

Casing Left in Well:

Dia (in.)	Top (ft.)	Bottom (ft.)
2	10	119

Plug(s) Placed in Well:

Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
0	119	CEMENT BENTONITE GROUT 10 Bags/Sacks

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **BEST DRILLING SERVICES, INC.**
P.O. BOX 70822
Houston, TX 77270

Driller Name:	Ali Firouzbakht	License Number:	4997
Apprentice Name:	Calistro Campozano	Apprentice Number:	56591
Comments:	No Data		