

TECHNICAL MEMORANDUM

To: Nevada Environmental Response Trust

Cc: Nevada Division of Environmental Protection
United States Environmental Protection Agency

From: Dana Grady

Date: January 17, 2025

Subject: Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study Monthly Progress Report

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this memorandum to summarize Tetra Tech's progress during November 2024 toward successfully implementing the Las Vegas Wash Zero-Valent Iron (ZVI)-Enhanced Bioremediation Treatability Study.

Task Progress Update: November 2024

Task M18 – Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

- Current Status –

The Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study is being conducted to evaluate the effectiveness of ZVI-enhanced bioremediation of perchlorate-contaminated groundwater that has migrated downgradient of the NERT site toward the Las Vegas Wash. The general treatability study layout, including locations of the continuous and discontinuous ZVI walls and associated injection well and monitoring well network, is presented on **Figures 1, 2a, and 2b**. Well construction details are provided in **Table 1**. The construction phase of the treatability study was completed on April 24, 2023 and the performance monitoring phase is ongoing.

- Performance Monitoring – The performance monitoring program included a pre-construction, baseline groundwater sampling event completed in October 2022 prior to installation of the continuous and discontinuous ZVI walls and performance monitoring network. Following construction of the ZVI walls, installation of the performance monitoring network, and injection of biological inoculum and nutrient solution (completed in February through April 2023), the post-construction performance monitoring program began in May 2023 and is ongoing. The original 16-month performance monitoring program outlined in the NDEP-approved Work Plan Addendum, which was scheduled to end in August 2024, was extended through May 2025 as presented in the NDEP-approved Treatability/Pilot Study Modification No. 10 (Modification No. 10). The performance monitoring program includes monthly synoptic gauging events to evaluate hydrologic changes over time and groundwater sampling events approximately one month after

completion of the construction phase and quarterly thereafter for a total of 24 months. To date, the following has been completed:

- Eighteen monthly synoptic gauging events, with the most recent on November 18 through November 19, 2024.
- Six groundwater performance monitoring events have been completed, with the Month 1 event completed in May 2023, followed by quarterly events in August 2023, November/December 2023, February 2024, May 2024, and September 2024.

The results of the sixth performance monitoring event conducted from September 5 through September 19, 2024 (approximately 17 months after completion of the construction phase) are summarized herein. The September 2024 monitoring event was the first performance monitoring event that included analysis of dissolved hydrogen by the alternative field method utilizing sensors developed by Unisense (Aarhus, Denmark) in accordance with Modification No. 10. Draft groundwater analytical results from the baseline sampling event and the subsequent performance monitoring events are presented in **Table 2**. It should be noted that in accordance with Section 7.6.4 of the NDEP-approved Work Plan Addendum, the majority of the performance monitoring network had to be installed after emplacement of the ZVI to prevent damage to well infrastructure. As a result, pre-construction baseline concentrations are not available on a well-by-well basis for all performance monitoring wells. Therefore, performance is being evaluated by comparing constituent concentrations from individual monitoring wells to the average October 2022 baseline concentration within each treatability study test area. For example, samples collected from each performance monitoring well installed in Test Area 1a are compared to the average concentration of samples collected from existing pre-construction wells within Test Area 1a during the October 2022 baseline sampling event.

- Groundwater Monitoring Results – Notable groundwater results from the September 2024 sampling event are provided below for each Test Area.
 - Test Area 1a – Test Area 1a includes the northernmost 100 feet of the 3-foot wide, 200-foot-long continuous ZVI wall installed in the alluvium via one pass trenching, which was backfilled with 10 percent ZVI by weight.
 - Groundwater samples collected from upgradient monitoring wells screened in the alluvium in September 2024 indicated an average perchlorate concentration of 4,833 micrograms per liter ($\mu\text{g/L}$), which is slightly higher than the average October 2022 baseline perchlorate concentration for the alluvium in Test Area 1a of 4,607 $\mu\text{g/L}$. Results of the groundwater samples collected from monitoring wells located directly within the continuous ZVI wall indicated perchlorate concentrations ranging from 2,730 $\mu\text{g/L}$ to 4,170 $\mu\text{g/L}$, which represents reductions ranging from 9 percent to 41 percent compared to the average baseline concentration of 4,607 $\mu\text{g/L}$. Groundwater samples collected from the 11 downgradient monitoring wells screened in the alluvium during the September 2024 sampling event did not indicate significant reductions compared to the average baseline perchlorate concentration and were generally in line with the average perchlorate concentration reported in groundwater samples collected from upgradient monitoring wells. In contrast, perchlorate concentration reductions in groundwater samples collected from downgradient monitoring wells within the Test 1b study area, which was constructed as a continuous wall with 30% ZVI, have been much more pronounced, as discussed below.

- Concentration reductions of chlorate and nitrate were more pronounced than perchlorate reductions, which is consistent with the conclusions of the bench-scale study that indicated that the removal of nitrate and chlorate can be rapid due to abiotic processes occurring primarily on the ZVI surface, while the reduction of perchlorate is slower and performed predominantly by autotrophic perchlorate-reducing bacteria using hydrogen generated at the ZVI surface. Groundwater samples collected from the three monitoring wells located within the continuous ZVI wall indicated chlorate concentration reductions ranging from 92 percent to greater than 99 percent and nitrate concentrations reductions of 56 percent to 95 percent when compared to baseline concentrations. Groundwater samples collected from all 11 monitoring wells located 5 to 25 feet downgradient of the continuous ZVI wall indicated chlorate concentrations reductions ranging from 13 percent to 63 percent and averaging 39 percent when compared to baseline. Groundwater samples collected from eight of the 11 monitoring wells located 5 to 25 feet downgradient of the continuous ZVI wall indicated nitrate concentration reductions ranging from 7 percent to 70 percent when compared to baseline concentrations.
- Lastly, dissolved hydrogen is another key indicator parameter that is being monitored during the treatability study because it is produced from the slow corrosion of ZVI and can be used as an electron donor by perchlorate reducing bacteria for degradation of perchlorate. The baseline dissolved hydrogen concentrations within the Test 1a area averaged 68 nanomolar (nM). The groundwater sample collected from monitoring well ZTS-MW154 (located directly within the continuous ZVI wall) indicated a slightly elevated dissolved hydrogen concentration of 220 nM compared to the average baseline concentration of 68 nM. This increase in dissolved hydrogen concentration is unlikely due to the change in dissolved hydrogen test method, as the increase in dissolved hydrogen correlates with significant reductions in perchlorate, chlorate, and nitrate concentrations reported in groundwater samples collected from monitoring well ZTS-MW154, which were the lowest concentrations of all groundwater samples collected from the alluvium in Test Area 1a during the September 2024 monitoring event. Despite low dissolved hydrogen concentrations in groundwater samples collected from monitoring wells ZTS-MW150 and ZTS-MW164 (also located within the continuous ZVI wall), perchlorate concentrations in groundwater at these locations continue to indicate perchlorate concentration reductions of up to 34 percent compared to the average baseline concentration. A slightly elevated dissolved hydrogen concentration of 200 nM was also reported in the groundwater sample collected from monitoring well ZTS-MW157, which is located 15 feet downgradient of the continuous ZVI wall within the Test Area 1a. This result generally correlates with perchlorate concentrations in the groundwater sample collected from this location, which showed a perchlorate concentration reduction of 24 percent compared to baseline concentrations. Dissolved hydrogen concentrations were also slightly elevated at concentrations greater than 100 nM in groundwater samples collected from three farther

downgradient monitoring wells. However, perchlorate concentration reductions were not reported in groundwater samples collected from these same locations.

- Test Area 1b –Test Area 1b includes the southernmost 100 feet of the 3-foot wide, 200-foot-long continuous ZVI wall installed in the alluvium via one pass trenching, which was backfilled with 30 percent ZVI by weight.
 - Groundwater samples collected from upgradient monitoring wells screened in the alluvium in September 2024 indicated an average perchlorate concentration of 6,165 µg/L, which is slightly lower than the average October 2022 baseline perchlorate concentration of 7,234 µg/L. Groundwater samples collected from the three monitoring wells located within the continuous ZVI wall indicated perchlorate concentrations ranging from 5,320 µg/L to 6,010 µg/L. Although these concentrations represent reductions ranging from 17 percent to 26 percent compared to the average baseline concentration of 7,234 µg/L, the September 2024 concentrations in the groundwater samples collected from within the continuous ZVI wall are only approximately 9 percent lower than the current upgradient perchlorate concentrations. Perchlorate concentration reductions were more pronounced in the groundwater samples collected from the 11 downgradient alluvium monitoring wells, which indicated reductions in perchlorate concentrations ranging from 16 percent to 73 percent when compared to the average baseline perchlorate concentration. Of these, the perchlorate concentrations in groundwater samples collected from downgradient monitoring wells ZTS-MW179 and ZTS-MW180 measured 1,950 µg/L and 2,870 µg/L, respectively, which are the lowest perchlorate concentrations reported to date in groundwater collected from these monitoring wells.
 - Reductions in chlorate and nitrate concentrations in groundwater samples collected from monitoring wells within Test Area 1b were significantly more pronounced than those reported for perchlorate. Chlorate concentrations in groundwater samples collected from all 14 of the monitoring wells within Test Area 1b (wells located both within the continuous ZVI wall and downgradient) reduced by an average of 94 percent compared to the average baseline chlorate concentration. Furthermore, chlorate concentrations reduced to less than the laboratory detection limit in groundwater samples collected from eight monitoring wells. Similarly, groundwater samples collected from 13 of the 14 monitoring wells located within or downgradient of the continuous ZVI wall indicated nitrate concentration reductions averaging 77 percent and ranging from 34 percent to greater than 99 percent compared to baseline.
 - Baseline dissolved hydrogen concentrations averaged 21 nM in the alluvium within the Test Area 1b. Groundwater samples collected during September 2024 from all three monitoring wells located within the continuous ZVI wall indicated elevated dissolved hydrogen concentrations ranging from 100 nM to 39,550 nM. The highest dissolved hydrogen concentration of 39,550 nM was measured in the groundwater sample collected from ZTS-MW178 and represents the highest dissolved

hydrogen concentration measured to date in samples collected from this location. This elevated dissolved hydrogen concentration using the new testing method generally correlates with previously measured elevated dissolved hydrogen concentrations in groundwater collected from this well, with a February 2024 dissolved hydrogen concentration of 20,200 nM reported using the previous laboratory analytical method for dissolved hydrogen. Elevated dissolved hydrogen concentrations of 500 nM and 220 nM were also present in groundwater samples collected from ZTS-MW167 and ZTS-MW172, respectively, which are both located 5 feet downgradient of the continuous ZVI wall. This suggests that dissolved hydrogen is available for perchlorate reduction downgradient of the ZVI wall, which is consistent with the observed spatial distribution of perchlorate reduction (i.e., slightly greater perchlorate reduction reported in groundwater samples collected from downgradient monitoring wells compared to concentrations reported immediately within the continuous ZVI wall).

- Test Area 2a –Test Area 2a is a 24-foot long, discontinuous ZVI wall that targets the alluvium and is comprised of seventeen 12-inch diameter ZVI-filled borings installed along two staggered rows, with each boring backfilled with 50% ZVI by weight.
 - Groundwater samples collected from upgradient monitoring wells screened in the alluvium in September 2024 indicated an average perchlorate concentration of 5,865 µg/L, which is less than the average October 2022 baseline perchlorate concentration for Test Area 2a of 6,798 µg/L. The most notable perchlorate concentration reduction of 41 percent when compared to baseline concentrations was reported in the groundwater sample collected from ZTS-MW191 (located immediately downgradient of the discontinuous ZVI wall), with a concentration of 4,000 µg/L during the September 2024 sampling event.
 - Chlorate and nitrate concentration reductions of up to 71 percent and 48 percent, respectively, were reported in the groundwater samples collected from monitoring wells located immediately downgradient of the discontinuous ZVI wall. Chlorate and nitrate concentrations in groundwater samples collected from the remaining downgradient monitoring wells were similar to or slightly higher than the upgradient average concentrations.
 - The baseline dissolved hydrogen concentrations in groundwater samples collected from monitoring wells located within Test Area 2a during the October 2022 baseline sampling event averaged 15 nM. The most notable elevated dissolved hydrogen concentrations within Test Area 2a during the September 2024 monitoring event were the groundwater samples collected from monitoring wells ZTS-MW191 and ZTS-MW192 (located within and immediately downgradient of the discontinuous ZVI wall), which indicated dissolved hydrogen concentrations of 520 nM and 560 nM, respectively. These results generally correlate with the perchlorate, chlorate, and nitrate concentration trends observed at these same locations.

- Test Area 2b – Test Area 2b is a 12-foot long, discontinuous ZVI wall that targets the Upper Muddy Creek formation (UMCf) and is comprised of nine 12-inch diameter ZVI-filled borings installed along two staggered rows, with each boring backfilled with 50% ZVI by weight. Due to the large, saturated thickness of the targeted UMCf treatment interval, paired performance monitoring wells were installed at two depth intervals from approximately 25 to 45 feet below ground surface (bgs) and from approximately 50 to 65 feet bgs.
 - The average baseline perchlorate concentration in groundwater samples collected from monitoring wells screened in the UMCf was 3,156 µg/L. Notable perchlorate concentration reductions were reported in groundwater samples collected from four of the eight monitoring wells located two to seven feet downgradient of the discontinuous ZVI wall, with reductions ranging from 40 percent to 98 percent compared to baseline. In general, monitoring wells screened in the shallow UMCf have generally indicated higher reductions in perchlorate compared to the deeper UMCf. For example, perchlorate concentration reductions greater than 99 percent have been observed in groundwater samples collected from three downgradient shallow UMCf monitoring wells compared to a maximum concentration reduction of 66 percent in groundwater samples collected from one downgradient deep UMCf monitoring well since the study began.
 - Chlorate concentration reductions of greater than 50 percent were reported in groundwater samples collected from all eight monitoring wells located two to seven feet downgradient of the discontinuous ZVI wall, with reductions greater than 90 percent in groundwater samples collected from three of these downgradient monitoring wells. Nitrate concentrations measured less than 1 mg/L (which represents reductions of greater than 85 percent compared to the average baseline concentration) in groundwater samples collected from four of the eight monitoring wells located two to seven feet downgradient of the discontinuous ZVI wall.
 - Dissolved hydrogen concentrations averaged 79 nM during the October 2022 baseline event. The groundwater sample collected from downgradient monitoring well ZTS-MW200, which is located two feet downgradient of the discontinuous ZVI wall and screened in the deep UMCf, continued to exhibit significantly elevated dissolved hydrogen concentrations, with a concentration of 9,690 nM in September 2024. Slightly elevated dissolved hydrogen concentrations ranging from 130 nM to 360 nM were reported in five of the seven remaining monitoring wells located two to seven feet downgradient.
- Test Area 2c – Test Area 2c is a 24-foot long, discontinuous ZVI wall that targets the alluvium and is comprised of twenty-five 12-inch diameter ZVI-filled borings installed along three staggered rows, with each boring backfilled with 50% ZVI by weight.
 - Groundwater samples collected from upgradient monitoring wells screened in the alluvium in September 2024 indicated an average perchlorate concentration of 6,348 µg/L, which is slightly less than the average October 2022 baseline perchlorate concentration for Test Area

- 2c of 6,993 µg/L. Perchlorate concentrations reported in groundwater samples collected from eight of the nine monitoring wells located within or downgradient of the discontinuous ZVI wall were similar to upgradient concentrations, with an average perchlorate concentration of 6,395 µg/L during the September 2024 sampling event. The exception was the perchlorate concentration of 3,260 µg/L reported for the groundwater sample collected from monitoring well ZTS-MW185 (located 15 feet downgradient of the discontinuous ZVI wall), which represents a reduction of 53 percent compared to baseline conditions.
- Slight chlorate reductions of up to 16 percent were reported in groundwater samples collected from within and immediately downgradient of the Test Area 2c discontinuous ZVI wall compared to the average upgradient concentration of 56,425 µg/L in September 2024. Nitrate concentrations in groundwater samples collected from within and immediately downgradient of the discontinuous wall were generally similar to the average upgradient concentration of 23.3 mg/L in September 2024.
 - Dissolved hydrogen concentrations averaged 5.5 nM during the October 2022 baseline event. Despite an initial increase in dissolved hydrogen concentrations reported in groundwater samples collected from several monitoring wells during the May 2023 sampling event (one month following construction completion), dissolved hydrogen concentrations returned to baseline levels in the subsequent monitoring events. Groundwater samples collected during the September 2024 monitoring event indicated increases in dissolved hydrogen concentrations ranging from 120 nM to 740 nM in groundwater samples collected from seven of the nine monitoring wells located within and downgradient of the discontinuous ZVI wall. Although these are notable increases, only slight reductions of perchlorate concentrations were reported during the September 2024 monitoring event. Data collection through the remaining study extension timeframe will provide additional data to determine if these recent dissolved hydrogen increases are sustained and/or correlate with perchlorate concentration trends.
 - Monthly Synoptic Monitoring – Monthly synoptic monitoring is being performed to evaluate any changes in horizontal and vertical gradients, assess for potential groundwater mounding upgradient of the ZVI reactive zone, assess hydraulic effects of seasonal precipitation, and evaluate potential non-uniform flow. Results of the November 2024 monthly synoptic monitoring event do not indicate any significant changes to groundwater elevations in monitoring wells located upgradient, within, and/or downgradient of ZVI reactive zones.
- Schedule and Progress Updates
 - Groundwater levels will continue to be measured on a monthly basis for the duration of the treatability study.
 - Groundwater samples will continue to be collected on a quarterly basis to generate time-series data to evaluate the treatment effectiveness of the ZVI installations with respect to the design performance criteria. The next quarterly groundwater sampling event is planned for December 2 through December 13, 2024.
 - Health and Safety
 - There were no health and safety incidents related to Task M18 during November 2024.

CERTIFICATION

Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study Monthly Progress Report

**Nevada Environmental Response Trust Site
(Former Tronox LLC Site)
Henderson, Nevada**

Nevada Environmental Response Trust (NERT) Representative Certification

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the systems(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

**Not Individually, but Solely
as President of the Trustee**

Signature: Jay A. Steinberg, President, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

Name: Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

Title: Solely as President and not individually

Company: Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

Date: 11/17/25

CERTIFICATION

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Description of Services Provided: Prepared Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study Monthly Progress Report.



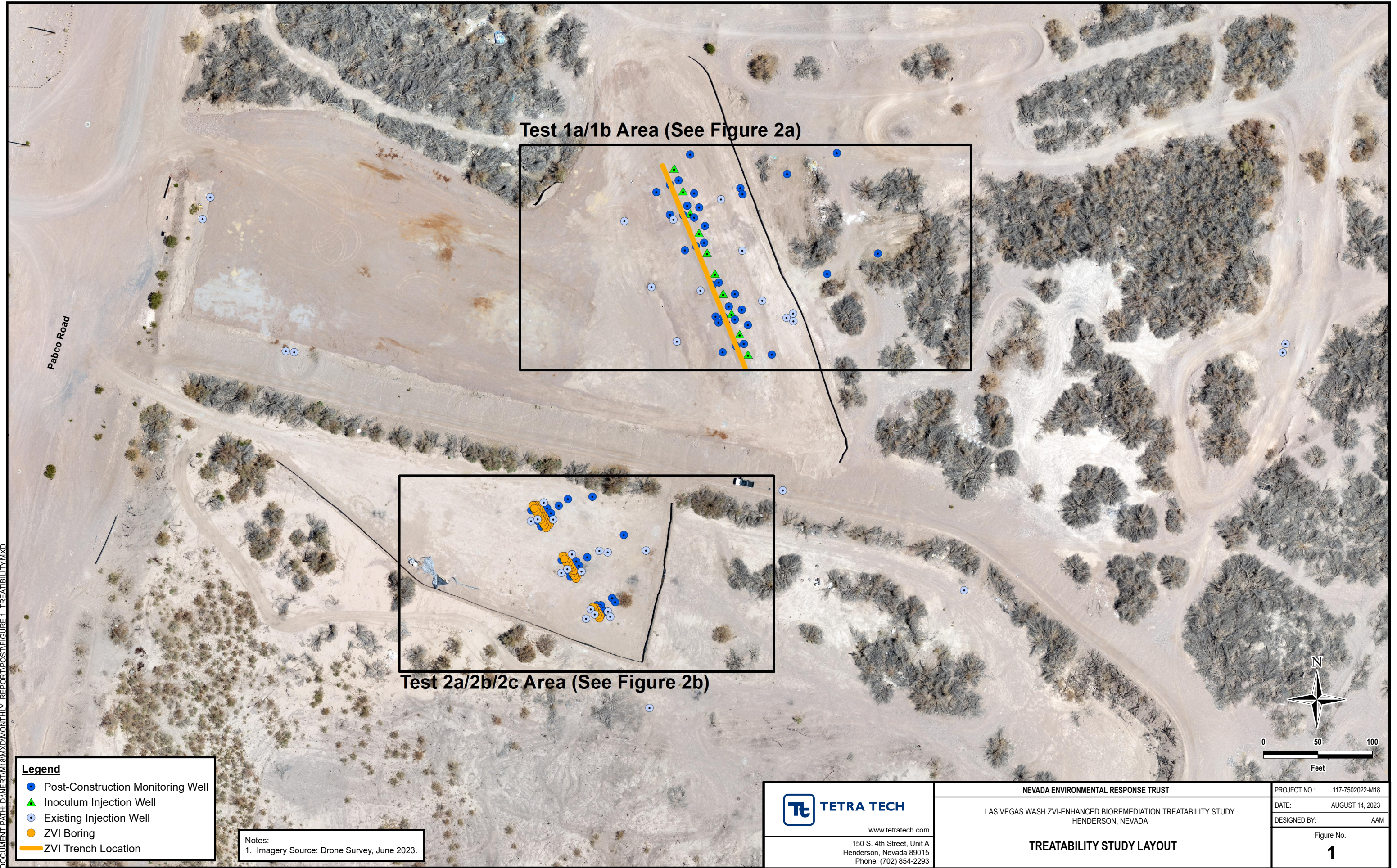
Christopher Hayes, CEM
Environmental Engineer
Tetra Tech, Inc.

January 17, 2025

Date

Nevada CEM Certificate Number: EM2499
Nevada CEM Expiration Date: December 15, 2026

Figures



DOCUMENT PATH: D:\NERT\18\18\MONTHLY REPORT\POST\FIGURE 1_TREATABILITY.MXD

Legend

- Post-Construction Monitoring Well
- ▲ Inoculum Injection Well
- Existing Injection Well
- ZVI Boring
- ZVI Trench Location

Notes:
 1. Imagery Source: Drone Survey, June 2023.

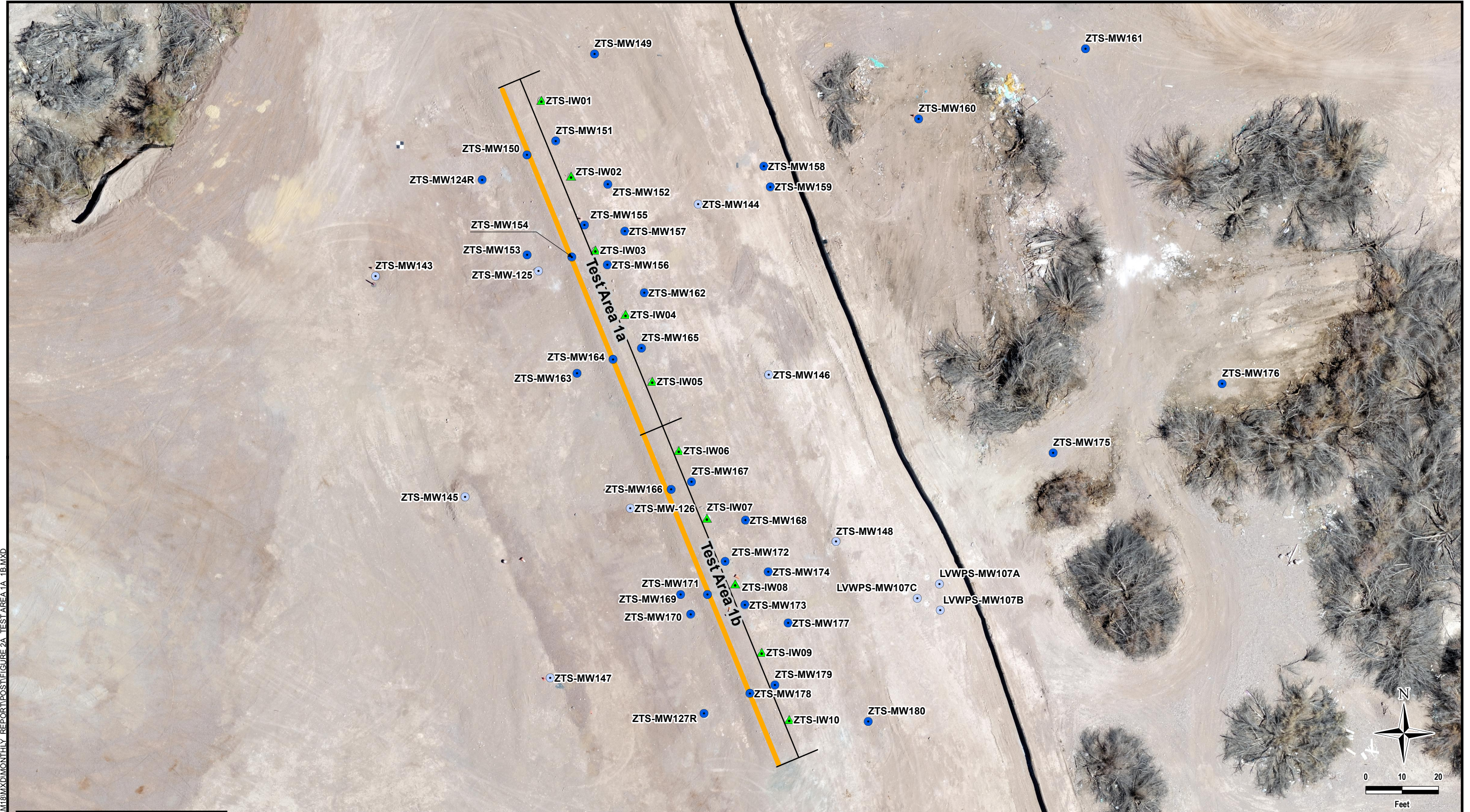
TETRA TECH
 www.tetrattech.com
 150 S. 4th Street, Unit A
 Henderson, Nevada 89015
 Phone: (702) 854-2293

NEVADA ENVIRONMENTAL RESPONSE TRUST
 LAS VEGAS WASH ZVI-ENHANCED BIOREMEDIATION TREATABILITY STUDY
 HENDERSON, NEVADA

TREATABILITY STUDY LAYOUT

PROJECT NO.: 117-7502022-M18
 DATE: AUGUST 14, 2023
 DESIGNED BY: AAM

Figure No.
1



DOCUMENT PATH: D:\NERT\M18\MXD\MONTHLY REPORT\POST\FIGURE 2A TEST AREA 1A 1B.MXD

Legend

- Post-Construction Monitoring Well
- ▲ Inoculum Injection Well
- Existing Monitoring Well
- ZVI Trench Location

Notes:
1. Imagery Source: Drone Survey, June 2023.

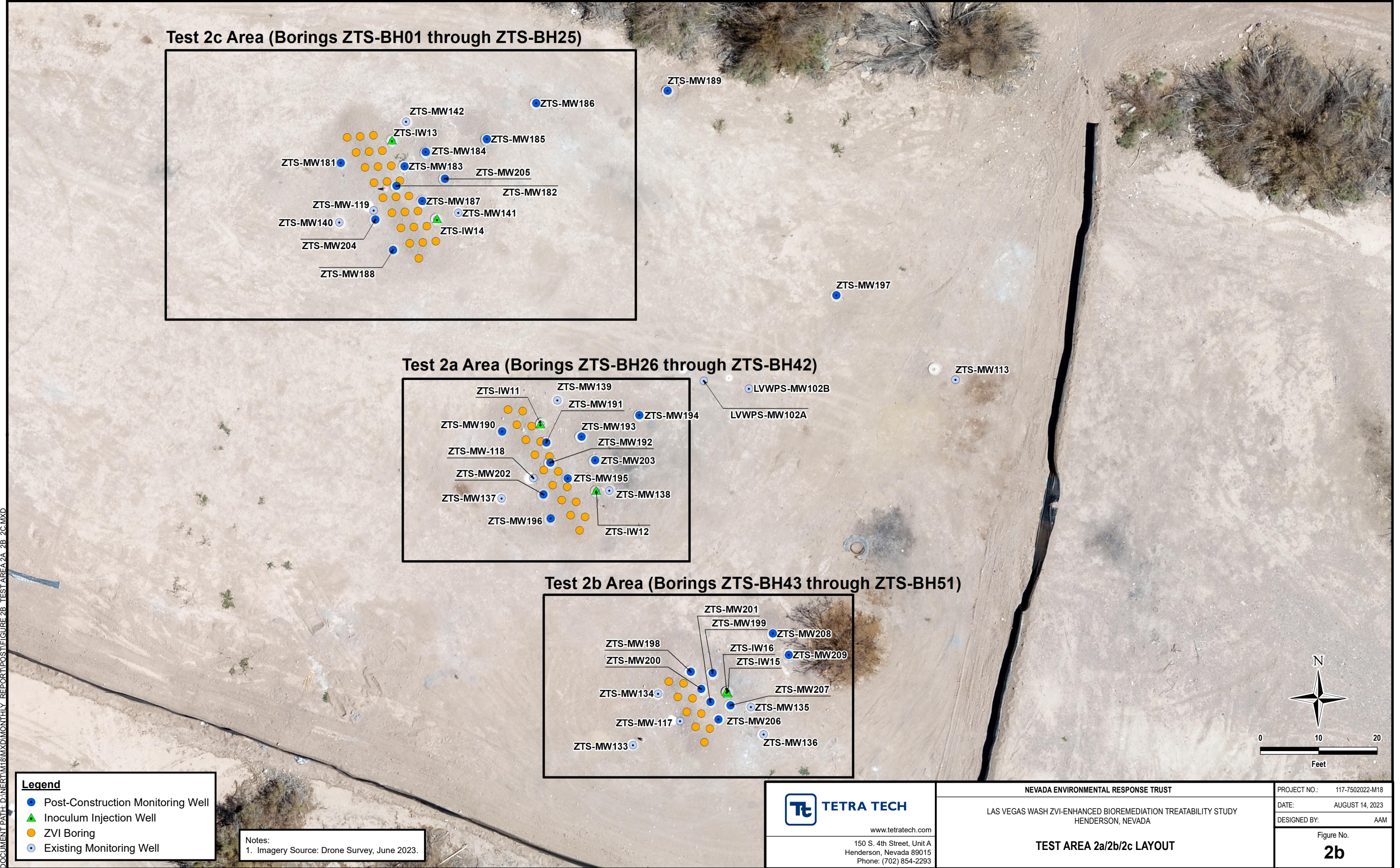
TETRA TECH
www.tetrattech.com
150 S. 4th Street, Unit A
Henderson, Nevada 89015
Phone: (702) 854-2293

NEVADA ENVIRONMENTAL RESPONSE TRUST
LAS VEGAS WASH ZVI-ENHANCED BIOREMEDIATION TREATABILITY STUDY
HENDERSON, NEVADA

TEST AREA 1a/1b LAYOUT

PROJECT NO.: 117-7502022-M18
DATE: AUGUST 14, 2023
DESIGNED BY: AAM

Figure No.
2a



Test 2c Area (Borings ZTS-BH01 through ZTS-BH25)

Test 2a Area (Borings ZTS-BH26 through ZTS-BH42)

Test 2b Area (Borings ZTS-BH43 through ZTS-BH51)

Legend

- Post-Construction Monitoring Well
- ▲ Inoculum Injection Well
- ZVI Boring
- Existing Monitoring Well

Notes:
1. Imagery Source: Drone Survey, June 2023.

TETRA TECH
www.tetrattech.com
150 S. 4th Street, Unit A
Henderson, Nevada 89015
Phone: (702) 854-2293

NEVADA ENVIRONMENTAL RESPONSE TRUST	PROJECT NO.: 117-7502022-M18
LAS VEGAS WASH ZVI-ENHANCED BIOREMEDIATION TREATABILITY STUDY HENDERSON, NEVADA	DATE: AUGUST 14, 2023
TEST AREA 2a/2b/2c LAYOUT	DESIGNED BY: AAM
	Figure No. 2b

DOCUMENT PATH: D:\NERT\M18\MXD\MONTHLY REPORT\POST\FIGURE 2B TEST AREA 2A 2B 2C.MXD

Tables

Table 1
Well Construction Details
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well ID	Screened Lithology	Northing	Easting	Ground Surface Elevation	Top of Casing Elevation	Depth to Water ¹	Groundwater Elevation	Casing Material	Slot Size	Filter Pack Gradation	Nominal Borehole Diameter	Borehole Total Depth	Well Diameter	Nominal Screen Length	Well Total Depth	Bottom of Screen	Top of Screen
				feet amsl	feet amsl	ft bTOC	amsl		inches		inches	feet bgs	inches	feet	feet bgs	feet bgs	feet bgs
Injection Wells																	
ZTS-IW01	Alluvium	26732954.69	833038.19	1545.73	1545.62	NM	NM	Schedule 40 PVC	0.020	#3	6	40.0	2	15.0	36.0	35.5	20.8
ZTS-IW02	Alluvium	26732933.88	833046.37	1545.63	1545.70	NM	NM	Schedule 40 PVC	0.020	#3	6	37.5	2	15.0	35.5	35.0	20.3
ZTS-IW03	Alluvium	26732913.63	833053.06	1546.39	1546.35	NM	NM	Schedule 40 PVC	0.020	#3	6	40.0	2	15.0	36.0	35.5	20.8
ZTS-IW04	Alluvium	26732895.95	833061.35	1545.81	1545.64	NM	NM	Schedule 40 PVC	0.020	#3	6	38.0	2	15.0	36.0	35.5	20.8
ZTS-IW05	Alluvium	26732877.62	833068.66	1546.34	1546.32	NM	NM	Schedule 40 PVC	0.020	#3	6	37.5	2	15.0	36.0	35.5	20.8
ZTS-IW06	Alluvium	26732858.63	833075.96	1547.14	1546.96	NM	NM	Schedule 40 PVC	0.020	#3	6	35.0	2	15.0	35.0	34.5	19.8
ZTS-IW07	Alluvium	26732840.03	833083.70	1547.73	1547.48	NM	NM	Schedule 40 PVC	0.020	#3	6	30.0	2	5.0	27.5	27.0	22.3
ZTS-IW08	Alluvium	26732822.00	833091.44	1547.88	1547.75	NM	NM	Schedule 40 PVC	0.020	#3	6	31.0	2	5.0	27.5	27.0	22.3
ZTS-IW09	Alluvium	26732803.17	833098.78	1548.14	1548.30	NM	NM	Schedule 40 PVC	0.020	#3	6	27.0	2	5.0	26.5	26.0	21.3
ZTS-IW10	Alluvium	26732784.72	833106.32	1548.63	1548.48	NM	NM	Schedule 40 PVC	0.020	#3	6	25.0	2	5.0	25.0	24.5	19.8
ZTS-IW11	Alluvium	26732597.13	832941.47	1547.80	1547.86	NM	NM	Schedule 40 PVC	0.020	#3	6	25.0	2	5.0	23.5	23.0	18.3
ZTS-IW12	Alluvium	26732585.78	832951.00	1547.51	1547.54	NM	NM	Schedule 40 PVC	0.020	#3	6	26.0	2	5.0	25.0	24.5	19.8
ZTS-IW13	Alluvium	26732645.58	832916.08	1547.54	1547.64	NM	NM	Schedule 40 PVC	0.020	#3	6	30.0	2	10.0	29.5	29.0	19.3
ZTS-IW14	Alluvium	26732632.18	832923.75	1547.50	1547.55	NM	NM	Schedule 40 PVC	0.020	#3	6	30.0	2	10.0	27.3	26.8	17.1
ZTS-IW15	UMCf	26732551.24	832973.58	1547.33	1547.34	NM	NM	Schedule 40 PVC	0.010	#2/16	10	68.0	2	15.0	46.5	46.0	26.3
ZTS-IW16	UMCf	26732551.53	832973.34	1547.37	1547.44	NM	NM	Schedule 40 PVC	0.010	#2/16			2	20.0	67.5	67.0	52.3

Notes
 amsl - above mean sea level
 bgs - below ground surface
 bTOC - below top of casing
 NM - not measured
 PVC - polyvinyl chloride
 UMCf - Upper Muddy Creek formation
 Semi-Cons - Semi-Consolidated
 1. Depth to water collected on May 16-17, 2023.

Table 2 Groundwater Analytical Results Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with 18 columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, E314.0 (Perchlorate), E300.1 (Chlorate), Anions by E300.0/SW9065 A (Bromide), Anions by E300.0/SW9065 A (Chloride), Anions by E300.0/SW9065 A (Fluoride), Anions by E300.0/SW9065 A (Nitrate as N), Anions by E300.0/SW9065 A (Nitrite as N), Anions by E300.0/SW9065 A (Sulfate), and CALC (Nitrogen). Rows include data for wells ZTS-MW207 through ZTS-MW209 and LVVPS-MW102A/B, categorized by Test Area 2C Pre-Construction Baseline Results and Post-Construction Performance Monitoring Results.

**Table 2
Groundwater Analytical Results**
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	E314.0	E300.1	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	CALC
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LVWPS-MW102B	2/27/2024	N	PM04	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	9.44	<480	<35,300	10,800,000	<6,400	<4,800	11,000	31,700,000	98 J
LVWPS-MW102B	5/23/2024	N	PM05	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<30	<2,400	<3,530	12,700,000	<640	<480 R	<420 R	32,900,000	157
LVWPS-MW102B	9/17/2024	N	PM06	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<80	<1,580	<6,800	11,700,000	<761	<884	<794	39,100,000	2,120
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	5,870	53,600	5,470 J	1,030,000	877 J	16,100 J-	<420 R	2,410,000	19,700
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	6,440	94,800	4,600 J	1,030,000	854 J	20,400	<420	2,060,000	18,700
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	5,260	69,900	<3,530	1,110,000	<640	22,000 J-	<420 R	2,850,000	23,200
ZTS-MW189	2/23/2024	N	PM04	2C	Downgradient	55	Alluvium	12.8 - 23.0	5,550	76,500	<3,530	1,010,000	950 J	20,400 J-	747 J	2,770,000	21,100
ZTS-MW189	5/24/2024	N	PM05	2C	Downgradient	55	Alluvium	12.8 - 23.0	5,960	82,400	<35,300	940,000	12,300 J	25,500	<4,200	2,400,000	19,800
ZTS-MW189	9/10/2024	N	PM06	2C	Downgradient	55	Alluvium	12.8 - 23.0	5,010	55,800	<680	1,020,000	586	22,500	<79.4	2,510,000	19,300
General Vicinity																	
Pre-Construction Baseline Results																	
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	3,510	12,600	----	----	----	6,710	----	2,660,000	----
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	4,110	21,600	<3,530	862,000	<640	5,110	<420	2,760,000	5,650
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	4,710	13,300	----	----	----	7,250	----	2,060,000	----
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	6,060	51,400	<3,530	1,060,000	<640	11,600	<420	2,630,000	12,600
Post-Construction Performance Monitoring Results																	
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	3,720	6,730	<3,530	816,000	765 J	4,340 J-	<420 UJ	2,490,000	5,520
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	4,080	4,740 J	<3,530	878,000	<640	7,230	<420	2,330,000	5,740
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	4,390	6,490	<3,530	898,000	699 J	8,760	<420	2,660,000	5,970
ZTS-MW116	2/27/2024	N	PM04	NA	NA	NA	UMCf	33.0 - 48.0	4,460	36,100	<3,530	911,000	994 J	10,700 J-	1,030 J-	2,410,000	6,950
ZTS-MW116	5/24/2024	N	PM05	NA	NA	NA	UMCf	33.0 - 48.0	4,500	23,000	<35,300	808,000	8,490 J	11,900	<4,200	2,460,000	6,850
ZTS-MW116	9/12/2024	N	PM06	NA	NA	NA	UMCf	33.0 - 48.0	4,610	15,200	<680	936,000	856	4,200	<79.4	2,680,000	8,700
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	6,110	21,600	<3,530	961,000	794 J	10,100 J-	<420 UJ	2,290,000	11,600
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	7,360	30,100	<3,530	995,000	717 J	19,000	<420	2,320,000	13,100
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	6,440	45,700	4,060 J	1,100,000	665 J	16,100	<420	2,510,000	12,000
ZTS-MW128	2/28/2024	N	PM04	NA	NA	NA	UMCf	42.0 - 52.0	4,470	14,000	<3,530	883,000	942 J	17,600	<420	2,040,000	8,670
ZTS-MW128	5/28/2024	N	PM05	NA	NA	NA	UMCf	42.0 - 52.0	5,370	48,400	<7,060	968,000	1,440 J	14,700	<42	2,530,000	12,600
ZTS-MW128	9/12/2024	N	PM06	NA	NA	NA	UMCf	42.0 - 52.0	5,810	40,000	<680	986,000	806	9,480	<79.4	2,350,000	11,500

Notes:

bgs - below ground surface

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

< The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

mg/L - milligram per liter

mS/cm - milliSiemens per centimeter

mV - millivolts

nmol - nanomol

SU - standard units

N - normal field sample

µg/L - micrograms per liter

UMCf - Upper Muddy Creek formation

FD - field duplicate

FS - field split

PM05 Hydrogen samples cancelled with lab due to instrument failure.

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with 18 columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, E351.2 (Total Kjeldahl Nitrogen), E353.2 (Nitrogen, Nitrate-Nitrite), E365.4 (Phosphorus), Alkalinity by SM2320B (Alkalinity as CaCO3), AM20 (Hydrogen), Field Lab Test (Hydrogen), SM2540C (Total Dissolved Solids), SM4500-P-E (Orthophosphorus as PO4), and SW9060A/SM5310B/5310 C-2000 (Dissolved Organic Carbon). Rows include Pre-Construction Baseline Results and Post-Construction Performance Monitoring Results.

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with 19 columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, E351.2 (Total Kjeldahl Nitrogen), E353.2 (Nitrogen, Nitrate-Nitrite), E365.4 (Phosphorus), Alkalinity by SM2320B (Alkalinity as CaCO3), AM20 (Hydrogen), Field Lab Test (Hydrogen), SM2540C (Total Dissolved Solids), SM4500-P-E (Orthophosphorus as PO4), SW9060A/SM5310B/5310 C-2000 (Dissolved Organic Carbon).

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with 19 columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, E351.2 (Total Kjeldahl Nitrogen), E353.2 (Nitrogen), E365.4 (Phosphorus), Alkalinity by SM2320B (Alkalinity as CaCO3), AM20 (Hydrogen), Field Lab Test (Hydrogen), SM2540C (Total Dissolved Solids), SM4500-P-E (Orthophosphorus), SW9060A/SM5310B/5310 C-2000 (Dissolved Organic Carbon).

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	E351.2	E353.2	E365.4	Alkalinity by SM2320B	AM20	Field Lab Test	SM2540C	SM4500-P-E	SW9060A/SM5310B/5310 C-2000
									Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite	Phosphorus	Alkalinity as CaCO3	Hydrogen	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon
									µg/L	µg/L	µg/L	µg/L	nmol	nmol	µg/L	µg/L	µg/L
LWWPS-MW102B	2/27/2024	N	PM04	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<140 UJ	98 J	127	101,000	2.2	----	----	431	23,100
LWWPS-MW102B	5/23/2024	N	PM05	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	157 J	<50	140	96,600	----	----	25,500,000 J-	437	3,630 J
LWWPS-MW102B	9/17/2024	N	PM06	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	2,120	<50	618 J+	107,000	----	80	69,000,000	422	4,150 J-
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	<700	19,700	55.9 J	108,000	880 J	----	6,300,000	53	1,120 J
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	<700	18,700	55.1 J	103,000	2	----	5,180,000	41	1,260 J
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	4,030	19,200	87.1 J	105,000	3.9	----	4,330,000	30 J	1,390 J
ZTS-MW189	2/23/2024	N	PM04	2C	Downgradient	55	Alluvium	12.8 - 23.0	<1,400	18,100	<35	107,000	3.1	----	5,720,000	24 J	15,200 J-
ZTS-MW189	5/24/2024	N	PM05	2C	Downgradient	55	Alluvium	12.8 - 23.0	<140	19,800	35.3 J	107,000	----	----	5,900,000	29 J	1,320 J
ZTS-MW189	9/10/2024	N	PM06	2C	Downgradient	55	Alluvium	12.8 - 23.0	<2,800	19,300	<35	108,000	----	220	5,790,000	34	1,310 J
General Vicinity																	
Pre-Construction Baseline Results																	
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	----	----	----	----	----	----	3,360,000	----	----
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	<140	5,650	<35	94,100	<0.49	----	4,510,000	89	<106 UJ
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	----	----	----	----	----	3,050,000	----	----
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	616	12,000	131	96,500	4.9	----	7,670,000	316	1,120 J-
Post-Construction Performance Monitoring Results																	
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	<280	5,520	35.2 J	95,700	39	----	4,660,000	18 J	966 J
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	<140	5,740	64 J	101,000	9.1	----	406,000	28 J	991 J
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	<1,400	5,970	113	96,800	3.1	----	4,180,000	29 J	659 J
ZTS-MW116	2/27/2024	N	PM04	NA	NA	NA	UMCf	33.0 - 48.0	<280	6,950	52.5 J	96,700	11.3	----	4,360,000	21 J	20,700
ZTS-MW116	5/24/2024	N	PM05	NA	NA	NA	UMCf	33.0 - 48.0	<280	6,850	69.2 J	95,200	----	----	5,630,000	43	719 J
ZTS-MW116	9/12/2024	N	PM06	NA	NA	NA	UMCf	33.0 - 48.0	2,840 J+	5,860	49 J	94,700	----	280	5,600,000	<14	728 J
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	<700	11,600	55.5 J	94,800	17	----	4,900,000	40	982 J
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	<700	13,100	<35	96,500	3.1	----	4,510,000	47	1,150 J
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	<1,400	12,000	82.1 J	102,000	6.6	----	3,600,000	37	1,080 J
ZTS-MW128	2/28/2024	N	PM04	NA	NA	NA	UMCf	42.0 - 52.0	<560	8,670	76.3 J	97,700	24.5	----	4,660,000	66	918 J
ZTS-MW128	5/28/2024	N	PM05	NA	NA	NA	UMCf	42.0 - 52.0	<1,400	12,600	<35	98,900	----	----	3,910,000	25 J	19,700 J-
ZTS-MW128	9/12/2024	N	PM06	NA	NA	NA	UMCf	42.0 - 52.0	<1,400	11,500	39.3 J	97,200	----	380	5,410,000	18 J	924 J

Notes:

bgs - below ground surface

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

< The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

mg/L - milligram per liter

mS/cm - milliSiemens per centimeter

mV - millivolts

nmol - nanomol

SU - standard units

N - normal field sample

µg/L - micrograms per liter

UMCf - Upper Muddy Creek formation

FD - field duplicate

FS - field split

PM05 Hydrogen samples cancelled with lab due to instrument failure.

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with 18 columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, SW9060A/SM5 310B/5310 C-2000 (Total Inorganic Carbon, µg/L), SW9060A/SM5 310B/5310 C-2000 (Total Organic Carbon, µg/L), Dissolved Metals by SW6010B (Silicon, µg/L), Dissolved Metals by SW6010B (Sulfur, µg/L), Dissolved Metals by SW6020 (Aluminum, µg/L), Dissolved Metals by SW6020 (Antimony, µg/L), Dissolved Metals by SW6020 (Arsenic, µg/L), Dissolved Metals by SW6020 (Barium, µg/L), Dissolved Metals by SW6020 (Beryllium, µg/L). Rows include various monitoring wells (ZTS-MW139 to ZTS-MW136) with detailed data on sampling dates, locations, and analytical results.

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	SW9060A/SM5 310B/5310 C-2000	SW9060A/SM5 310B/5310 C-2000	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	
									Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic	Barium	Beryllium	
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LWVPS-MW102B	2/27/2024	N	PM04	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	18,400	3,390	4,690	----	<18.5	<10.3	0.548 J	22.7	<1.9	
LWVPS-MW102B	5/23/2024	N	PM05	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	20,100	3,400 J+	4,720	----	<18.5	<1.03	0.476 J	29.6	<0.19	
LWVPS-MW102B	9/17/2024	N	PM06	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	20,400	3,120 J+	4,240	----	<185	<10.3	<1.8	20.8 J+	<1.9	
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	24,000	2,230	38,900	----	<18.5	<1.03	51.4	29.3	<0.19	
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	23,800	1,340 J+	39,700	----	<18.5	<1.03	56.4	29	<0.19	
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	22,600	1,510 J+	38,800	----	<18.5	<1.03	58.7	26.3	<0.19	
ZTS-MW189	2/23/2024	N	PM04	2C	Downgradient	55	Alluvium	12.8 - 23.0	23,300	1,060 J+	33,600	----	<18.5	<1.03	57.1	27.4	<0.19	
ZTS-MW189	5/24/2024	N	PM05	2C	Downgradient	55	Alluvium	12.8 - 23.0	23,900	1,030 J+	31,900	----	<18.5	<1.03	53.1	24.9	<0.19	
ZTS-MW189	9/10/2024	N	PM06	2C	Downgradient	55	Alluvium	12.8 - 23.0	24,500	1,110 J+	36,300	----	<18.5	<1.03	51.4	22.6	<0.19	
General Vicinity																		
Pre-Construction Baseline Results																		
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	----	----	----	----	----	----	33.7	----	----	
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	21,300	6,160 J+	3,370	77,700	<18.5	<1.03	51.7	14.7	<0.19	
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	----	----	----	----	----	15.6	----	----	
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	22,000	<102 UJ	3,160	69,700	<18.5	<1.03	23.4	27.8	<0.19	
Post-Construction Performance Monitoring Results																		
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	22,400	1,090 J+	36,600	----	<18.5	<1.03	54.7	15.1	<0.19	
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	21,700	745 J	37,300	----	<18.5	<1.03	53.6	14.5	<0.19	
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	21,500	858 J	36,400	----	24.7 J	<1.03	55.3	14.3	<0.19	
ZTS-MW116	2/27/2024	N	PM04	NA	NA	NA	UMCf	33.0 - 48.0	20,100	676 J	37,200	----	<18.5	<1.03	56.3	16.1	<0.19	
ZTS-MW116	5/24/2024	N	PM05	NA	NA	NA	UMCf	33.0 - 48.0	22,200	625 J	30,000	----	<18.5	<1.03	53.2	13.8	<0.19	
ZTS-MW116	9/12/2024	N	PM06	NA	NA	NA	UMCf	33.0 - 48.0	20,700	1,230 J+	32,000	----	<18.5	<1.03	53.2	15	<0.19	
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	22,900	911 J	38,100	----	<18.5	<1.03	35.2	20.5	<0.19	
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	22,600	1,100 J+	36,600	----	<18.5	<1.03	40.8	17.2	<0.19	
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	21,700	1,190 J+	39,300	----	<18.5	<1.03	42.3	15.4	<0.19	
ZTS-MW128	2/28/2024	N	PM04	NA	NA	NA	UMCf	42.0 - 52.0	21,100 J-	1,070 J+	35,900	----	<18.5	<1.03	38.4	19	<0.19	
ZTS-MW128	5/28/2024	N	PM05	NA	NA	NA	UMCf	42.0 - 52.0	22,200	757 J	34,400	----	194	<1.03	43.1	18	<0.19	
ZTS-MW128	9/12/2024	N	PM06	NA	NA	NA	UMCf	42.0 - 52.0	21,200	1,480 J+	26,200	----	<18.5	<1.03	42.6	14.6	<0.19	

Notes:

bgs - below ground surface

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

< The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

mg/L - milligram per liter

mS/cm - milliSiemens per centimeter

mV - millivolts

nmol - nanomol

SU - standard units

N - normal field sample

µg/L - micrograms per liter

UMCf - Upper Muddy Creek formation

FD - field duplicate

FS - field split

PM05 Hydrogen samples cancelled with lab due to instrument failure.

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with 18 columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, and concentrations of Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, and Magnesium (µg/L).

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, and various Dissolved Metals by SW6020 (Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium) in units of µg/L or J.

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LVWPS-MW102B	2/27/2024	N	PM04	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	11,700	<0.15	563,000	<1.24	0.157 J	<1.51	61.8 J	<8.49	5,790,000
LVWPS-MW102B	5/23/2024	N	PM05	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	11,400 J+	<1.5	574,000	<1.24	0.112 J	<1.51	<28.1	<8.49	6,090,000
LVWPS-MW102B	9/17/2024	N	PM06	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	10,400 J+	<1.5	547,000	<12.4	<0.596	<15.1	<281	<8.49	5,830,000
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	2,600	<0.15	609,000	93.1	0.698 J	1.7 J	<28.1	<0.849	227,000
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	2,590	<0.15	630,000	101	0.599 J	<1.51	<28.1	<0.849	220,000
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	2,810	<0.15	620,000	90.5	0.584 J	<1.51	<28.1	<0.849	220,000
ZTS-MW189	2/23/2024	N	PM04	2C	Downgradient	55	Alluvium	12.8 - 23.0	2,490	<0.15	688,000	93.6	0.631 J	<1.51	<28.1	<0.849	247,000
ZTS-MW189	5/24/2024	N	PM05	2C	Downgradient	55	Alluvium	12.8 - 23.0	2,990	<0.15	616,000	93.5	0.566 J	<1.51	<28.1	<0.849	222,000
ZTS-MW189	9/10/2024	N	PM06	2C	Downgradient	55	Alluvium	12.8 - 23.0	2,690 J+	<0.15	637,000	91.6	0.543 J	<1.51	<28.1	<0.849	230,000
General Vicinity																	
Pre-Construction Baseline Results																	
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	----	----	436,000	21.6	----	----	<28.1	----	----
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	2,440	<0.15	424,000	33	<0.0596	<1.51	<28.1	<0.849	241,000
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	----	344,000	4.76	----	----	<28.1	----	----
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	2,190	<0.15	498,000	22.9	<0.0596	<1.51	<28.1	<0.849	269,000
Post-Construction Performance Monitoring Results																	
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	2,500	<0.15	439,000	35.8	0.171 J	<1.51	<28.1	<0.849	255,000
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	2,280	<0.15	443,000	35.2	0.183 J	<1.51	<28.1	<0.849	258,000
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	2,500	<0.15	469,000	136	0.651 J	<1.51	424	<0.849	272,000
ZTS-MW116	2/27/2024	N	PM04	NA	NA	NA	UMCf	33.0 - 48.0	2,450	<0.15	500,000	45.7	0.192 J	2.02 J	<28.1	<0.849	285,000
ZTS-MW116	5/24/2024	N	PM05	NA	NA	NA	UMCf	33.0 - 48.0	2,430	<0.15	454,000	40.9	0.223 J	<7.55	<28.1	<0.849	258,000
ZTS-MW116	9/12/2024	N	PM06	NA	NA	NA	UMCf	33.0 - 48.0	2,550	<0.15	486,000	43	0.193 J	9.87	<28.1	<0.849	288,000
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	2,000	<0.15	496,000	31.1	0.606 J	<1.51	<28.1	<0.849	271,000
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	2,110 J+	<0.15	531,000	45.4	0.616 J	<1.51	<28.1	<0.849	262,000
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	2,040	<0.15	584,000	57.6	0.734 J	<1.51	<28.1	<0.849	284,000
ZTS-MW128	2/28/2024	N	PM04	NA	NA	NA	UMCf	42.0 - 52.0	1,600	<0.15	427,000	21.9	0.295 J	2.16 J	<28.1	<0.849	245,000
ZTS-MW128	5/28/2024	N	PM05	NA	NA	NA	UMCf	42.0 - 52.0	2,290	<0.15	536,000	55.1	0.769 J	2.39 J	98.6 J	<0.849	264,000
ZTS-MW128	9/12/2024	N	PM06	NA	NA	NA	UMCf	42.0 - 52.0	2,190	<0.15	531,000	55.9	0.583 J	8.85	<28.1	<0.849	281,000

Notes:

bgs - below ground surface

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

< The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

mg/L - milligram per liter

mS/cm - milliSiemens per centimeter

mV - millivolts

nmol - nanomol

SU - standard units

N - normal field sample

µg/L - micrograms per liter

UMCf - Upper Muddy Creek formation

FD - field duplicate

FS - field split

PM05 Hydrogen samples cancelled with lab due to instrument failure.

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Table with 18 columns: Well, Sample Date, QC Type, Event, Test Area, Location, Approximate Distance from ZVI Wall (feet), Screened Lithology, Screened Interval, and Dissolved Metals by SW6020 (Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium). Rows include Pre-Construction Baseline Results and Post-Construction Performance Monitoring Results.

**Table 2
Groundwater Analytical Results**
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LVWPS-MW102B	2/27/2024	N	PM04	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	217	<3.48	<0.816	4,910,000	<0.3	<0.7	7,580,000	11,700	<1.21
LVWPS-MW102B	5/23/2024	N	PM05	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	204	<0.348	<0.816	4,910,000	<0.3	0.083 J	7,480,000	11,700	<1.21
LVWPS-MW102B	9/17/2024	N	PM06	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	195	<3.48	<8.16	4,700,000	<3	<0.7	7,690,000	9,660	<1.21
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	8.02	85.6	6.98	143,000	36.3	<0.07	688,000	12,500	<0.121
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	0.742 J	85.8	2.04	139,000	36.2	<0.07	709,000	11,200	<0.121
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.704	85.8	2.1	134,000	38.1	<0.07	698,000	11,500	<0.121
ZTS-MW189	2/23/2024	N	PM04	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.704	83.7	2.26	137,000	36.9	<0.07	766,000	11,700	<0.121
ZTS-MW189	5/24/2024	N	PM05	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.704	84.9	1.99 J	127,000	36.1	<0.07	722,000	11,300	<0.121
ZTS-MW189	9/10/2024	N	PM06	2C	Downgradient	55	Alluvium	12.8 - 23.0	4.06 J	83.4	2.22	121,000	34.4	<0.07	745,000	11,200	<0.121
General Vicinity																	
Pre-Construction Baseline Results																	
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	132	----	----	----	----	----	----	----	----
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	20.4	71	2.28	189,000	16.4	<0.07	703,000	11,500	<0.121
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	379	----	----	----	----	----	----	----	----
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	172	31.3	3.66	139,000	30.5	<0.07	665,000	12,700	<0.121
Post-Construction Performance Monitoring Results																	
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	17.8	77.8	1.32 J	204,000	14.4	<0.07	667,000	10,900	0.269 J
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	11.3	75.7	1.3 J	197,000	14.8	<0.07	656,000	10,400	0.284 J
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	14.3	83	45.5	205,000	16.3	<0.07	726,000	10,900	0.272 J
ZTS-MW116	2/27/2024	N	PM04	NA	NA	NA	UMCf	33.0 - 48.0	5.31	84.9	1.24 J	219,000	18.7	<0.07	719,000	12,200	0.295 J
ZTS-MW116	5/24/2024	N	PM05	NA	NA	NA	UMCf	33.0 - 48.0	3.13 J	75.7	1.13 J	209,000	15.4	0.0858 J	663,000	11,600	0.3 J
ZTS-MW116	9/12/2024	N	PM06	NA	NA	NA	UMCf	33.0 - 48.0	1.76 J	81.5	1.33 J	217,000	16.5	<0.07	731,000	12,400	0.292 J
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	53.6	29.5	2.42	145,000	26.9	<0.07	645,000	11,600	0.215 J
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	6.53	31.9	2.29	129,000	28.2	<0.07	603,000	12,200	0.202 J
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	3.89 J	36.5	2.41	130,000	31	<0.07	667,000	13,000	0.202 J
ZTS-MW128	2/28/2024	N	PM04	NA	NA	NA	UMCf	42.0 - 52.0	49.5	24.6	2.06	148,000	19.1	<0.07	553,000	9,760	0.163 J
ZTS-MW128	5/28/2024	N	PM05	NA	NA	NA	UMCf	42.0 - 52.0	26.4	33.3	2.58	133,000	27	<0.07	698,000	12,900	0.185 J
ZTS-MW128	9/12/2024	N	PM06	NA	NA	NA	UMCf	42.0 - 52.0	1.93 J	32.9	2.43	141,000	27.5	<0.07	668,000	13,000	0.206 J

Notes:

bgs - below ground surface

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

< The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

mg/L - milligram per liter

mS/cm - milliSiemens per centimeter

mV - millivolts

nmol - nanomol

SU - standard units

N - normal field sample

µg/L - micrograms per liter

UMCf - Upper Muddy Creek formation

FD - field duplicate

FS - field split

PM05 Hydrogen samples cancelled with lab due to instrument failure.

DRAFT

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH
									µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV	SU
Test Area 1A																	
Pre-Construction Baseline Results																	
ZTS-MW143	10/18/2022	N	BL02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	<0.655	<2.18	27	91.5	4.62	4.28	0 U	218.2	7.08
ZTS-MW124	8/31/2022	N	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----	----	6.3	3.9	----	134.4	7.04
ZTS-MW124	8/31/2022	FD	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----	----	----	----	----	----	----
ZTS-MW124	10/18/2022	N	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	<0.655	<2.18	25.2 J	<3.02	6.208	4.32	0 U	106.3	7.16
ZTS-MW124	10/18/2022	FD	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	<0.655	<2.18	<0.664 UJ	<3.02	----	----	----	----	----
ZTS-MW125	8/31/2022	N	BL01	1A	Upgradient	-8	UMCf	40.0 - 50.0	----	----	----	----	6.736	1.97	----	117.1	7.17
ZTS-MW125	10/24/2022	N	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	<0.655	<2.18	<0.664	<3.02	3.123	1.61	0 U	-17.9	7.4
ZTS-MW125	10/24/2022	FD	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	----	----	----	----	----	----	----	----	----
ZTS-MW144	10/18/2022	N	BL02	1A	Downgradient	35	Alluvium	24.0 - 34.0	<0.655	<2.18	23.5	125	4.384	2.79	0 U	146.8	7.05
Post-Construction Performance Monitoring Results																	
ZTS-MW143	5/26/2023	N	PM01	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0.951 J	<2.18	24.4	<3.02	7.019	3.68	0 U	124.3	7.02
ZTS-MW143	8/29/2023	N	PM02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	1.91 J	<2.18	24.7	<3.02	6.855	3.61	0 U	329.7	6.97
ZTS-MW143	12/6/2023	N	PM03	1A	Upgradient	-50	Alluvium	23.0 - 33.0	<0.655	<2.18	27.1	<3.02	7.23	1.79	0 U	184.1	6.92
ZTS-MW143	2/21/2024	N	PM04	1A	Upgradient	-50	Alluvium	23.0 - 33.0	<0.655	<2.18	28.8	<3.02	7.264	3.11	0 U	191.2	6.95
ZTS-MW143	5/20/2024	N	PM05	1A	Upgradient	-50	Alluvium	23.0 - 33.0	<0.655	<2.18	25.3	<3.02	6.272	5.02	0 U	396.9	7.19
ZTS-MW143	9/13/2024	N	PM06	1A	Upgradient	-50	Alluvium	23.0 - 33.0	<0.655	<2.18	26.1	<3.02	5.838	3.9	0 U	121.5	6.9
ZTS-MW124R	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0.761 J	<2.18	25.3	<3.02	6.982	4.37	0 U	145.3	7.1
ZTS-MW124R	8/29/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.5 - 34.0	<0.655	<2.18	25.3	<3.02	5.955	3.94	0 U	410.5	7.03
ZTS-MW124R	12/5/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.5 - 34.0	<0.655	<2.18	25	<3.02	6.638	3.63	----	130.4	7.13
ZTS-MW124R	2/27/2024	N	PM04	1A	Upgradient	-8	Alluvium	24.5 - 34.0	<0.655	<2.18	25.3	3.24 J	6.087	2.93	0 U	155	7.03
ZTS-MW124R	5/20/2024	N	PM05	1A	Upgradient	-8	Alluvium	24.5 - 34.0	<0.655	<2.18	24.2	<3.02	5.759	5.21	0 U	439.1	7.28
ZTS-MW124R	9/16/2024	N	PM06	1A	Upgradient	-8	Alluvium	24.5 - 34.0	<0.655	<2.18	24.4	<3.02	6.483	4.3	0 U	499.4	7.19
ZTS-MW125	5/25/2023	N	PM01	1A	Upgradient	-8	UMCf	40.0 - 50.0	0.743 J	<2.18	1.77 J	12.2 J	5.464	0.59	0 U	66.5	7.46
ZTS-MW125	8/30/2023	N	PM02	1A	Upgradient	-8	UMCf	40.0 - 50.0	<0.655	<2.18	2.21 J	<3.02	3.785	0.43	0 U	-122.7	7.34
ZTS-MW125	12/1/2023	N	PM03	1A	Upgradient	-8	UMCf	40.0 - 50.0	<0.655	<2.18	1.48 J	<3.02	3.982	0.31	0 U	-158.3	7.44
ZTS-MW125	2/26/2024	N	PM04	1A	Upgradient	-8	UMCf	40.0 - 50.0	<0.655	<2.18	<0.664	<3.02	3.624	0.26	0 U	-146.3	7.36
ZTS-MW125	5/24/2024	N	PM05	1A	Upgradient	-8	UMCf	40.0 - 50.0	<0.655	<2.18	0.972 J	<3.02	4.081	0.37	0 U	-151.5	7.39
ZTS-MW125	9/16/2024	N	PM06	1A	Upgradient	-8	UMCf	40.0 - 50.0	1.2 J	<2.18	<0.664	7.19 J	1.253	0.36	0 U	277.9	7.23
ZTS-MW153	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	1.15 J	<2.18	25.5	<3.02	6.979	4.71	0 U	134.8	7.11
ZTS-MW153	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	24.3	3.14 J	5.612	3.55	0 U	406.7	7.01
ZTS-MW153	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	25.4	<3.02	6.179	2.77	0 U	43.8	7.04
ZTS-MW153	2/27/2024	N	PM04	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	25.6	<3.02	6.072	3.06	0 U	158.8	7
ZTS-MW153	5/28/2024	N	PM05	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	26	<3.02	5.947	3.84	0 U	214.4	7.08
ZTS-MW153	9/16/2024	N	PM06	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	24.9	<3.02	5.952	3.17	0 U	77.4	7
ZTS-MW163	5/25/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	25.8	<3.02	7.291	3.76	0 U	184.5	7.17
ZTS-MW163	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0.661 J	<2.18	24.3	4.01 J	5.529	3.67	0 U	135.5	7.15
ZTS-MW163	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	25.9	<3.02	6.299	3.08	0 U	75.2	7.06
ZTS-MW163	2/27/2024	N	PM04	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	26.8	<3.02	5.952	4.93	0 U	160.3	7.09
ZTS-MW163	5/28/2024	N	PM05	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	26.3	<3.02	6.081	4.08	0 U	212.6	7.12
ZTS-MW163	9/16/2024	N	PM06	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<0.655	<2.18	24.8	<3.02	6.616	-39.61	0 U	334.9	6.91
ZTS-MW150	5/22/2023	N	PM01	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<0.655	<2.18	<0.664	<3.02	4.896	0.17	6.5	-386.4	8.09
ZTS-MW150	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<0.655	<2.18	<0.664	3.58 J	5.112	0.56	2	-260.3	8.08
ZTS-MW150	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<0.655	<2.18	<0.664	<3.02	6.322	0.03	3.5	-277.9	8.17
ZTS-MW150	2/19/2024	N	PM04	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<0.655	<2.18	<0.664	<3.02	6.634	0.03	0 U	-320.6	8.06
ZTS-MW150	5/20/2024	N	PM05	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<0.655	<2.18	<0.664	<3.02	5.926	0	1.5	-283.9	8.35
ZTS-MW150	9/5/2024	N	PM06	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<0.655	<2.18	<0.664	<3.02	5.43	0.27	1	-232	8.14
ZTS-MW154	5/24/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	6.88	5.789	0.19	6.5	-346.5	8.4
ZTS-MW154	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	5.508	0.34	4	-303.1	7.88
ZTS-MW154	11/28/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	7.218	-0.03	3.5	-306.6	7.86

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH
									µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV	SU
ZTS-MW154	2/20/2024	N	PM04	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	6.188	0.11	0.5	-283.3	8
ZTS-MW154	5/20/2024	N	PM05	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	6.232	0.1	0.5	-249.8	8.29
ZTS-MW154	9/5/2024	N	PM06	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	5.583	0.1	1	-277.6	8.25
ZTS-MW164	5/23/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	6.482	0.46	0.5	-241.1	8.27
ZTS-MW164	5/23/2023	FD	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	1.79 J	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW164	8/18/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	16.1 J	6.159	0.35	0 U	-240.7	8.22
ZTS-MW164	8/18/2023	FD	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	17.1 J	----	----	----	----	----
ZTS-MW164	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	6.568	1.38	0 U	-190.2	8.17
ZTS-MW164	11/27/2023	FD	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW164	2/20/2024	N	PM04	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	6548	0.39	0 U	-258.2	8.55
ZTS-MW164	2/20/2024	FD	PM04	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	3.36 J	----	----	----	----	----
ZTS-MW164	5/20/2024	N	PM05	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	5.852	0.18	0 U	-226.2	8.33
ZTS-MW164	5/20/2024	FD	PM05	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW164	9/6/2024	N	PM06	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	5.803	0.2	0 U	-162.3	8.44
ZTS-MW164	9/6/2024	FD	PM06	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW151	5/25/2023	N	PM01	1A	Downgradient	5	Alluvium	24.3 - 34.0	<0.655	<2.18	6.68	<3.02	8.659	0.73	0 U	11.4	6.87
ZTS-MW151	8/21/2023	N	PM02	1A	Downgradient	5	Alluvium	24.3 - 34.0	<0.655	<2.18	7.15	3.52 J	5.561	6.12	0 U	79.3	7.47
ZTS-MW151	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	24.3 - 34.0	<0.655	<2.18	5.91	<3.02	7.456	0.07	0.5	20	7.26
ZTS-MW151	2/20/2024	N	PM04	1A	Downgradient	5	Alluvium	24.3 - 34.0	<0.655	<2.18	4.28 J	<3.02	6.505	0.3	0 U	5.2	7.22
ZTS-MW151	5/21/2024	N	PM05	1A	Downgradient	5	Alluvium	24.3 - 34.0	<0.655	<2.18	4.27 J	<3.02	6.283	0.13	0.2	146.3	7.39
ZTS-MW151	9/11/2024	N	PM06	1A	Downgradient	5	Alluvium	24.3 - 34.0	<0.655	<2.18	4.29 J	<3.02	5.591	0.17	0.5	101.7	7.32
ZTS-MW155	5/24/2023	N	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	<0.664	3.97	5.914	0.57	1	-37.6	7.07
ZTS-MW155	5/24/2023	FD	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	<0.664	5.79	----	----	----	----	----
ZTS-MW155	8/22/2023	N	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	3.89 J	3.14 J	5.914	1	0 U	29.5	7.39
ZTS-MW155	8/22/2023	FD	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	4.25 J	3.56 J	----	----	----	----	----
ZTS-MW155	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	3.38 J	<3.02	7.756	0.17	1	59.6	7.34
ZTS-MW155	11/28/2023	FD	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	3.49 J	<3.02	----	----	----	----	----
ZTS-MW155	2/21/2024	N	PM04	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	2.95 J	<3.02	6.631	0.33	0 U	82.5	7.33
ZTS-MW155	2/21/2024	FD	PM04	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	2.8 J	<3.02	----	----	----	----	----
ZTS-MW155	5/21/2024	N	PM05	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	2.91 J	<3.02	6.37	0.19	0 U	89.5	7.46
ZTS-MW155	5/21/2024	FD	PM05	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	2.97 J	<3.02	----	----	----	----	----
ZTS-MW155	9/10/2024	N	PM06	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	1.86 J	<3.02	5.848	2.21	0 U	90	7.4
ZTS-MW155	9/10/2024	FD	PM06	1A	Downgradient	5	Alluvium	20.3 - 35.0	<0.655	<2.18	1.82 J	<3.02	----	----	----	----	----
ZTS-MW156	5/24/2023	N	PM01	1A	Downgradient	5	UMCf	43.8 - 53.5	0.688	<2.18	<0.664	4.42	4.892	0.39	1.5	-205.4	7.55
ZTS-MW156	8/22/2023	N	PM02	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.655	<2.18	<0.664	<3.02	4.194	3.67	0 U	-113.3	7.55
ZTS-MW156	11/29/2023	N	PM03	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.655	<2.18	<0.664	<3.02	4.851	0.12	0 U	-187.4	7.44
ZTS-MW156	2/21/2024	N	PM04	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.655	<2.18	<0.664	<3.02	4.619	0.24	0 U	-208.3	7.34
ZTS-MW156	5/22/2024	N	PM05	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.655	<2.18	<0.664	<3.02	4.621	0.1	0 U	-152.5	7.5
ZTS-MW156	9/9/2024	N	PM06	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.655	<2.18	<0.664	3.07 J	4.509	0.8	0.5	-167.6	7.86
ZTS-MW165	5/31/2023	N	PM01	1A	Downgradient	5	Alluvium	22.3 - 32.0	<0.655	<2.18	2.76 J	4.21 J	8.746	0.25	0 U	5.9	7.5
ZTS-MW165	8/25/2023	N	PM02	1A	Downgradient	5	Alluvium	22.3 - 32.0	<0.655	<2.18	2.53 J	<3.02	5.684	0.52	0 U	-9.3	7.42
ZTS-MW165	11/30/2023	N	PM03	1A	Downgradient	5	Alluvium	22.3 - 32.0	<0.655	<2.18	2.13 J	<3.02	6.715	0.16	0 U	138.2	7.34
ZTS-MW165	2/23/2024	N	PM04	1A	Downgradient	5	Alluvium	22.3 - 32.0	<0.655	<2.18	2.15 J	<3.02	6.265	0.35	0 U	-15.9	7.3
ZTS-MW165	5/23/2024	N	PM05	1A	Downgradient	5	Alluvium	22.3 - 32.0	<0.655	<2.18	2.15 J	<3.02	6.326	0.17	0 U	133.5	7.36
ZTS-MW165	9/6/2024	N	PM06	1A	Downgradient	5	Alluvium	22.3 - 32.0	<0.655	<2.18	2.72 J	3.56 J	5.905	0.44	0.5	21	7.27
ZTS-MW152	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	0.904 J	<2.18	14.5	<3.02	8.979	0.75	0 U	66	6.5
ZTS-MW152	8/22/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	<0.655	<2.18	10.4	3.52 J	5.78	0.5	0 U	36	7.39
ZTS-MW152	11/28/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	<0.655	<2.18	10.8	<3.02	7.75	0.16	0.5	44.6	7.2
ZTS-MW152	2/20/2024	N	PM04	1A	Downgradient	15	Alluvium	23.3 - 33.0	<0.655	<2.18	8.86	<3.02	6.509	0.36	0 U	35.2	7.16
ZTS-MW152	5/21/2024	N	PM05	1A	Downgradient	15	Alluvium	23.3 - 33.0	<0.655	<2.18	8.4	<3.02	6.543	0.19	0 U	130.1	7.22
ZTS-MW152	9/10/2024	N	PM06	1A	Downgradient	15	Alluvium	23.3 - 33.0	<0.655	<2.18	7.61	<3.02	6.037	0.22	0 U	79.1	7.1

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH
									µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV	SU
ZTS-MW173	5/21/2024	N	PM05	1B	Downgradient	5	UMCf	33.3 - 43.0	<0.655	<2.18	10.1	<3.02	9.601	0.3	0 U	84.7	7.45
ZTS-MW173	9/12/2024	N	PM06	1B	Downgradient	5	UMCf	33.3 - 43.0	<0.655	<2.18	6.67	<3.02	4.894	0.59	0 U	174.7	7.46
ZTS-MW179	5/25/2023	N	PM01	1B	Downgradient	5	Alluvium	18.3 - 23.0	<0.655	<2.18	12.9	<3.02	6.227	0.25	0.2	21.7	8.34
ZTS-MW179	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	18.3 - 23.0	<0.655	<2.18	9.52	<3.02	6.842	0.39	0 U	-32.3	8.25
ZTS-MW179	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	18.3 - 23.0	<0.655	<2.18	6.26	<3.02	6942	0.5	0 U	165.8	8.35
ZTS-MW179	2/22/2024	N	PM04	1B	Downgradient	5	Alluvium	18.3 - 23.0	<0.655	<2.18	3.91 J	<3.02	6.185	1.18	0 U	-52	8.18
ZTS-MW179	5/22/2024	N	PM05	1B	Downgradient	5	Alluvium	18.3 - 23.0	<0.655	<2.18	3.74 J	<3.02	10.176	2.7	0 U	45.2	8.43
ZTS-MW179	9/10/2024	N	PM06	1B	Downgradient	5	Alluvium	18.3 - 23.0	<0.655	<2.18	3.1 J	<3.02	5.643	0.53	0 U	387.9	8.63
ZTS-MW168	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	9.61 J+	3.32 J	6.583	0.18	0 U	51.1	8.14
ZTS-MW168	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	6.8	<3.02	6.812	0.44	0 U	99	7.97
ZTS-MW168	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	----	----	----	5.681	0.56	----	142.4	8.21
ZTS-MW168	10/11/2023	FS	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	----	----	----	----	----	----	----	----
ZTS-MW168	10/11/2023	FD	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	----	----	----	----	----	----	----	----
ZTS-MW168	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	5.73	<3.02	6737	0.1	0 U	152.2	8.11
ZTS-MW168	2/21/2024	N	PM04	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	6.08	<3.02	6.202	1.18	0 U	63.7	8.23
ZTS-MW168	5/23/2024	N	PM05	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	5.82	<3.02	9.678	0.09	0 U	96.6	8.27
ZTS-MW168	9/6/2024	N	PM06	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	6.73	<3.02	5.772	0.71	0 U	290	8.51
ZTS-MW174	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	<0.655	<2.18	9.17 J+	4.25 J	7.138	0.35	0.2	93.5	7.6
ZTS-MW174	5/26/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----	----	----	----	----	----	----
ZTS-MW174	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	1.08 J	<2.18	6.94	10.7 J	6.894	0.36	0 U	16.1	7.75
ZTS-MW174	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----	----	5.686	0.27	----	150.1	8.24
ZTS-MW174	10/11/2023	FS	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----	----	----	----	----	----	----
ZTS-MW174	10/11/2023	FD	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----	----	----	----	----	----	----
ZTS-MW174	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	19.8 - 29.5	<0.655	<2.18	7.56	6.4 J	6691	0	0 U	145.3	8.19
ZTS-MW174	2/21/2024	N	PM04	1B	Downgradient	15	Alluvium	19.8 - 29.5	<0.655	<2.18	7.98	<3.02	6.278	1.06	0 U	-16.8	8.16
ZTS-MW174	5/24/2024	N	PM05	1B	Downgradient	15	Alluvium	19.8 - 29.5	<0.655	<2.18	6.71	<3.02	8.6	0.25	0 U	115.7	8.36
ZTS-MW174	9/11/2024	N	PM06	1B	Downgradient	15	Alluvium	19.8 - 29.5	<0.655	<2.18	6.19	<3.02	5.815	0.14	0 U	355.9	8.57
ZTS-MW177	5/25/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	0.774 J	<2.18	8.16	<3.02	6.585	0.39	0 U	57.8	7.76
ZTS-MW177	8/23/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	9.29	<3.02	7.059	0.39	0 U	61.8	7.98
ZTS-MW177	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	9.01	<3.02	6729	0.1	0 U	147.1	8.22
ZTS-MW177	2/21/2024	N	PM04	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	7.5	<3.02	6.335	1.12	0 U	8.3	8.35
ZTS-MW177	5/22/2024	N	PM05	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	7.32	<3.02	11.476	0.06	0 U	2.7	8.48
ZTS-MW177	9/10/2024	N	PM06	1B	Downgradient	15	Alluvium	20.3 - 30.0	<0.655	<2.18	5.7	<3.02	5.67	0.17	0 U	270.9	8.79
ZTS-MW180	5/24/2023	N	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	22.2	4.21 J	6.314	2.63	0.2	104.1	7.1
ZTS-MW180	5/24/2023	FD	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	20.8	<3.02	----	----	----	----	----
ZTS-MW180	8/24/2023	N	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	24.2	5.27 J	7.011	3.43	0 U	213.3	6.88
ZTS-MW180	8/24/2023	FD	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	24.5	<3.02	----	----	----	----	----
ZTS-MW180	11/30/2023	N	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	21.2	<3.02	7125	2.1	0 U	195.7	7.11
ZTS-MW180	11/30/2023	FD	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	21.3	<3.02	----	----	----	----	----
ZTS-MW180	2/22/2024	N	PM04	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	21.3	<3.02	6.561	4.3	0 U	70.2	7.04
ZTS-MW180	2/22/2024	FD	PM04	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	22	<3.02	----	----	----	----	----
ZTS-MW180	5/24/2024	N	PM05	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	21.3	<3.02	8.602	5.26	0 U	163.5	7.02
ZTS-MW180	5/24/2024	FD	PM05	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	21.5	<3.02	----	----	----	----	----
ZTS-MW180	9/10/2024	N	PM06	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	21.4	<3.02	5.725	4.54	0 U	572.4	7.24
ZTS-MW180	9/10/2024	FD	PM06	1B	Downgradient	25	Alluvium	17.8 - 22.5	<0.655	<2.18	21.6	<3.02	----	----	----	----	----
ZTS-MW148	5/25/2023	N	PM01	1B	Downgradient	35	Alluvium	22.0 - 32.0	<0.655	<2.18	10.4	<3.02	6.532	2.2	0.2	87.6	7.59
ZTS-MW148	8/23/2023	N	PM02	1B	Downgradient	35	Alluvium	22.0 - 32.0	<0.655	<2.18	10.7	4.61 J	7.1	0.41	0 U	76.5	7.6
ZTS-MW148	11/28/2023	N	PM03	1B	Downgradient	35	Alluvium	22.0 - 32.0	<0.655	<2.18	11.8	<3.02	6987	0.2	0 U	52.7	7.94
ZTS-MW148	2/20/2024	N	PM04	1B	Downgradient	35	Alluvium	22.0 - 32.0	<0.655	<2.18	9.73	<3.02	6.183	1.14	0 U	25	8.14
ZTS-MW148	5/23/2024	N	PM05	1B	Downgradient	35	Alluvium	22.0 - 32.0	<0.655	<2.18	8.04	<3.02	9.367	5.93	0 U	120.8	7.95
ZTS-MW148	9/12/2024	N	PM06	1B	Downgradient	35	Alluvium	22.0 - 32.0	<0.655	<2.18	10.3	<3.02	6.621	0.19	0 U	494.5	8.32

**Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study**

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH
									µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV	SU
LWVPS-MW107A	5/23/2023	N	PM01	1B	Downgradient	50	Alluvium	24.8 - 34.5	<0.655	<2.18	7.23	<3.02	7.217	0.49	0.2	66.9	7.8
LWVPS-MW107A	8/24/2023	N	PM02	1B	Downgradient	50	Alluvium	24.8 - 34.5	<0.655	<2.18	8.43	<3.02	7.181	0.52	0 U	150.5	7.88
LWVPS-MW107A	11/30/2023	N	PM03	1B	Downgradient	50	Alluvium	24.8 - 34.5	<0.655	<2.18	6.94	<3.02	6856	0.1	0 U	161.6	8.21
LWVPS-MW107A	2/22/2024	N	PM04	1B	Downgradient	50	Alluvium	24.8 - 34.5	<0.655	<2.18	7.83	<3.02	5.585	5.54	0 U	75	8.1
LWVPS-MW107A	5/28/2024	N	PM05	1B	Downgradient	50	Alluvium	24.8 - 34.5	<0.655	<2.18	5.99	<3.02	6.487	0.23	0 U	67	8.22
LWVPS-MW107A	9/12/2024	N	PM06	1B	Downgradient	50	Alluvium	24.8 - 34.5	<0.655	<2.18	6.69	<3.02	6.751	0.27	0 U	286.2	8.46
LWVPS-MW107B	5/23/2023	N	PM01	1B	Downgradient	50	UMCf	46.0 - 65.8	<0.655	<2.18	<0.664	<3.02	8.326	0.94	0 U	-183.7	7.4
LWVPS-MW107B	8/24/2023	N	PM02	1B	Downgradient	50	UMCf	46.0 - 65.8	<0.655	<2.18	5.72	<3.02	4.333	5.77	0 U	-137.6	7.32
LWVPS-MW107B	12/1/2023	N	PM03	1B	Downgradient	50	UMCf	46.0 - 65.8	<0.655	<2.18	6.49	<3.02	2666	2.4	0 U	54.4	7.64
LWVPS-MW107B	2/23/2024	N	PM04	1B	Downgradient	50	UMCf	46.0 - 65.8	<0.655	<2.18	<0.664	<3.02	6.442	1.46	0 U	-188.7	7.4
LWVPS-MW107B	5/24/2024	N	PM05	1B	Downgradient	50	UMCf	46.0 - 65.8	<0.655	<2.18	<0.664	<3.02	7.865	0.7	0 U	-179.7	7.44
LWVPS-MW107B	9/12/2024	N	PM06	1B	Downgradient	50	UMCf	46.0 - 65.8	<0.655	<2.18	<0.664	<3.02	7.81	0.39	0 U	-263.3	7.51
LWVPS-MW107C	5/23/2023	N	PM01	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<0.655	<2.18	<0.664	<3.02	65.406	0.37	0 U	-236	7.47
LWVPS-MW107C	8/24/2023	N	PM02	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<6.55	<21.8	<6.64	<30.2	66.679	5.95	0.5	-131.4	6.98
LWVPS-MW107C	12/1/2023	N	PM03	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<6.55	<21.8	<6.64	<30.2	63026	0.2	0 U	-220.7	7.36
LWVPS-MW107C	2/23/2024	N	PM04	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<13.1	<43.6	<13.3	<60.4	60.847	1.2	0.5	-160.9	7.49
LWVPS-MW107C	5/28/2024	N	PM05	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<0.655	<2.18	18.8	<3.02	63.053	0.35	0 U	-189.8	7.45
LWVPS-MW107C	9/13/2024	N	PM06	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<6.55	<21.8	<6.64	<30.2	60.419	0.26	0 U	-274.3	7.65
ZTS-MW175	5/26/2023	N	PM01	1B	Downgradient	100	Alluvium	19.8 - 29.5	0.892 J	<2.18	19.5	<3.02	5.253	1.18	0 U	171.3	7.38
ZTS-MW175	8/25/2023	N	PM02	1B	Downgradient	100	Alluvium	19.8 - 29.5	<0.655	<2.18	17.1	<3.02	7.034	0.39	0 U	144.6	7.45
ZTS-MW175	11/30/2023	N	PM03	1B	Downgradient	100	Alluvium	19.8 - 29.5	<0.655	<2.18	14.6	<3.02	6911	0.5	0 U	179.8	7.77
ZTS-MW175	2/28/2024	N	PM04	1B	Downgradient	100	Alluvium	19.8 - 29.5	<0.655	<2.18	17.1	<3.02	6.149	0.26	0 U	41	7.73
ZTS-MW175	5/28/2024	N	PM05	1B	Downgradient	100	Alluvium	19.8 - 29.5	<0.655	<2.18	17.1	<3.02	4.841	0.23	0 U	80.5	7.89
ZTS-MW175	9/12/2024	N	PM06	1B	Downgradient	100	Alluvium	19.8 - 29.5	<0.655	<2.18	15.4	<3.02	6.731	0.3	0 U	104	8.04
ZTS-MW176	5/26/2023	N	PM01	1B	Downgradient	150	Alluvium	19.8 - 29.5	1.03 J	<2.18	21.7	<3.02	4.807	1.27	0 U	265.1	7.38
ZTS-MW176	8/25/2023	N	PM02	1B	Downgradient	150	Alluvium	19.8 - 29.5	<0.655	<2.18	20.2	<3.02	7.196	0.43	0 U	120.3	7.32
ZTS-MW176	12/5/2023	N	PM03	1B	Downgradient	150	Alluvium	19.8 - 29.5	<0.655	<2.18	19.5	<3.02	6.791	1.55	0 U	146.5	7.45
ZTS-MW176	2/27/2024	N	PM04	1B	Downgradient	150	Alluvium	19.8 - 29.5	<0.655	<2.18	21	<3.02	6.239	0.34	0 U	134.1	7.55
ZTS-MW176	5/24/2024	N	PM05	1B	Downgradient	150	Alluvium	19.8 - 29.5	<0.655	<2.18	18.8	<3.02	9.701	2.9	0 U	103.6	7.52
ZTS-MW176	9/13/2024	N	PM06	1B	Downgradient	150	Alluvium	19.8 - 29.5	<0.655	<2.18	17.8	7.04 J	6.653	0.24	0 U	161.2	7.81
Test Area 2A																	
Pre-Construction Baseline Results																	
ZTS-MW137	10/20/2022	N	BL02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<0.655	<2.18	18.4	<3.02	4.917	5.37	0 U	106.5	7.07
ZTS-MW118	9/1/2022	N	BL01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----	----	7.639	3.07	----	105.5	7.06
ZTS-MW118	10/21/2022	N	BL02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<0.655	<2.18	18	<3.02	4.031	3.4	0 U	94.6	6.98
ZTS-MW138	10/20/2022	N	BL02	2A	Downgradient	5	Alluvium	14.0 - 24.0	<0.655	<2.18	14.7	<3.02	5.205	4.22	0 U	117.7	8.02
ZTS-MW139	10/21/2022	N	BL02	2A	Downgradient	5	Alluvium	13.0 - 23.0	<0.655	<2.18	12.5	<3.02	4.133	3.25	0 U	76.8	7.05
ZTS-MW113	10/25/2022	N	BL02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	<0.655	<2.18	19.2	<3.02	7.997	2.89	0 U	91.9	7.13
Post-Construction Performance Monitoring Results																	
ZTS-MW137	5/31/2023	N	PM01	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<0.655	<2.18	18	<3.02	7.054	4.96	0 U	76.1	7.01
ZTS-MW137	8/24/2023	N	PM02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<0.655	<2.18	20.9	3.6 J	6.633	4.84	0 U	299.7	7.09
ZTS-MW137	12/1/2023	N	PM03	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<0.655	<2.18	20	<3.02	6.965	4.99	0 U	135.7	6.95
ZTS-MW137	2/23/2024	N	PM04	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<0.655	<2.18	20.3	<3.02	6837	5.52	0 U	122.3	7.22
ZTS-MW137	5/24/2024	N	PM05	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<0.655	<2.18	21.6	<3.02	7.035	5.44	0 U	141.1	7.09
ZTS-MW137	9/16/2024	N	PM06	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<0.655	<2.18	19.3	<3.02	7.297	5.12	0 U	187.5	6.32
ZTS-MW118	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<0.655	<2.18	15.2	<3.02	6.733	3.67	0 U	95.4	7.01
ZTS-MW118	5/31/2023	FD	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<0.655	<2.18	15.9	<3.02	----	----	----	----	----
ZTS-MW118	8/24/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<0.655	<2.18	19.1	<3.02	6.614	3.19	0 U	367.4	7.08
ZTS-MW118	8/24/2023	FD	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0.932 J	<2.18	19.5	<3.02	----	----	----	----	----
ZTS-MW118	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<0.655	<2.18	18.1	<3.02	7.272	3.3	0 U	90.7	6.92
ZTS-MW118	12/1/2023	FD	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<0.655	<2.18	18.5	<3.02	----	----	----	----	----

Table 2
Groundwater Analytical Results
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH
									µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV	SU
ZTS-MW139	2/21/2024	N	PM04	2A	Downgradient	5	Alluvium	13.0 - 23.0	<0.655	<2.18	18.1	<3.02	6599	3.18	0 U	86.4	7.08
ZTS-MW139	5/21/2024	N	PM05	2A	Downgradient	5	Alluvium	13.0 - 23.0	<0.655	<2.18	18.1	<3.02	7.092	2.03	0 U	150.7	7.05
ZTS-MW139	9/18/2024	N	PM06	2A	Downgradient	5	Alluvium	13.0 - 23.0	<0.655	<2.18	18	<3.02	12.421	2.5	0 U	180.1	6.99
ZTS-MW193	5/25/2023	N	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	0.66 J	<2.18	15.4	<3.02	7.165	1.54	0 U	26.4	7.01
ZTS-MW193	5/25/2023	FD	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	15.9	<3.02	----	----	----	----	----
ZTS-MW193	8/22/2023	N	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	14.9	<3.02	6.559	2.56	0 U	339.9	7.03
ZTS-MW193	8/22/2023	FD	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	15.6	<3.02	----	----	----	----	----
ZTS-MW193	11/30/2023	N	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	16.9	<3.02	7.096	4.78	0 U	218.9	6.99
ZTS-MW193	11/30/2023	FD	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	15.6	<3.02	----	----	----	----	----
ZTS-MW193	2/22/2024	N	PM04	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	18.4	<3.02	6918	4.6	0 U	136.3	7.19
ZTS-MW193	2/22/2024	FD	PM04	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	18.6	<3.02	----	----	----	----	----
ZTS-MW193	5/22/2024	N	PM05	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	16.9	<3.02	6.991	2.24	0 U	112.8	7
ZTS-MW193	5/22/2024	FD	PM05	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	17.7	<3.02	----	----	----	----	----
ZTS-MW193	9/18/2024	N	PM06	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	18.3	<3.02	12.482	2.21	0 U	158	6.99
ZTS-MW193	9/18/2024	FD	PM06	2A	Downgradient	5	Alluvium	13.6 - 23.3	<0.655	<2.18	17.3	<3.02	----	----	----	----	----
ZTS-MW203	5/30/2023	N	PM01	2A	Downgradient	5	UMCF	28.3 - 38.0	<0.655	<2.18	15.5	3.85 J	6.503	0.85	0 U	19.5	6.98
ZTS-MW203	8/23/2023	N	PM02	2A	Downgradient	5	UMCF	28.3 - 38.0	<0.655	<2.18	17.7	21.3 J	6.047	1.27	0 U	428	7.01
ZTS-MW203	10/11/2023	N	PM02	2A	Downgradient	5	UMCF	28.3 - 38.0	----	----	----	----	5.285	0.69	----	149.3	7.36
ZTS-MW203	10/11/2023	FS	PM02	2A	Downgradient	5	UMCF	28.3 - 38.0	----	----	----	----	----	----	----	----	----
ZTS-MW203	11/30/2023	N	PM03	2A	Downgradient	5	UMCF	28.3 - 38.0	<0.655	<2.18	13.7	<3.02	5.538	1.33	0 U	165.6	7.12
ZTS-MW203	2/22/2024	N	PM04	2A	Downgradient	5	UMCF	28.3 - 38.0	<0.655	<2.18	10.9	<3.02	4646	1.23	0 U	94.6	7.42
ZTS-MW203	5/23/2024	N	PM05	2A	Downgradient	5	UMCF	28.3 - 38.0	<0.655	<2.18	18.2	<3.02	6.432	1.85	0 U	188.4	6.98
ZTS-MW203	9/17/2024	N	PM06	2A	Downgradient	5	UMCF	28.3 - 38.0	<0.655	<2.18	17.4	<3.02	11.07	0.5	0 U	168.1	7.16
ZTS-MW194	5/25/2023	N	PM01	2A	Downgradient	15	Alluvium	17.8 - 22.5	<0.655	<2.18	17.7	<3.02	6.727	3.82	0 U	71.3	6.97
ZTS-MW194	8/22/2023	N	PM02	2A	Downgradient	15	Alluvium	17.8 - 22.5	<0.655	<2.18	16.4	<3.02	6.483	4.64	0 U	367.3	7.01
ZTS-MW194	11/29/2023	N	PM03	2A	Downgradient	15	Alluvium	17.8 - 22.5	<0.655	<2.18	18.7	<3.02	7.008	5.14	0 U	209.4	7.02
ZTS-MW194	2/22/2024	N	PM04	2A	Downgradient	15	Alluvium	17.8 - 22.5	<0.655	<2.18	19.1	<3.02	6888	5.64	0 U	161	7.18
ZTS-MW194	5/22/2024	N	PM05	2A	Downgradient	15	Alluvium	17.8 - 22.5	<0.655	<2.18	18.4	<3.02	6.928	5.09	0 U	139.4	7.03
ZTS-MW194	9/18/2024	N	PM06	2A	Downgradient	15	Alluvium	17.8 - 22.5	<0.655	<2.18	18.4	<3.02	12.363	4.62	0 U	174.7	7.03
ZTS-MW197	5/26/2023	N	PM01	2A	Downgradient	55	Alluvium	12.8 - 22.5	<0.655	<2.18	15.3	<3.02	6.438	3.92	0 U	81.7	6.99
ZTS-MW197	8/22/2023	N	PM02	2A	Downgradient	55	Alluvium	12.8 - 22.5	<0.655	<2.18	16.2	<3.02	6.552	4	0 U	303.9	7.04
ZTS-MW197	11/30/2023	N	PM03	2A	Downgradient	55	Alluvium	12.8 - 22.5	<0.655	<2.18	17.1	<3.02	6.737	5.74	0 U	275.5	6.92
ZTS-MW197	2/22/2024	N	PM04	2A	Downgradient	55	Alluvium	12.8 - 22.5	<0.655	<2.18	18.9	<3.02	6893	5.73	0 U	134.1	7.23
ZTS-MW197	5/22/2024	N	PM05	2A	Downgradient	55	Alluvium	12.8 - 22.5	<0.655	<2.18	18	<3.02	6.94	5.53	0 U	145	7.05
ZTS-MW197	9/17/2024	N	PM06	2A	Downgradient	55	Alluvium	12.8 - 22.5	<0.655	<2.18	18.6	<3.02	6.745	4.53	0 U	64.6	7.05
ZTS-MW113	5/26/2023	N	PM01	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0.847 J	<2.18	17.7	<3.02	6.666	4.65	0 U	91.2	7.07
ZTS-MW113	8/24/2023	N	PM02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	<0.655	<2.18	21.9	<3.02	6.159	3.03	0 U	336.5	7.12
ZTS-MW113	11/30/2023	N	PM03	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	<0.655	<2.18	18.8	<3.02	6.75	4.54	0 U	252.7	7.02
ZTS-MW113	2/23/2024	N	PM04	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	<0.655	<2.18	19	<3.02	7024	0.82	0 U	109.9	7.26
ZTS-MW113	5/23/2024	N	PM05	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	<0.655	<2.18	19	<3.02	7.017	5.51	0 U	140.2	7.01
ZTS-MW113	9/19/2024	N	PM06	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	<0.655	<2.18	23.6	<3.02	124.393	1.28	0 U	163.2	7.03
Test Area 2B																	
Pre-Construction Baseline Results																	
ZTS-MW133	10/20/2022	N	BL02	2B	Upgradient	-9	UMCF	54.0 - 69.0	<0.655	<2.18	23.8	<3.02	4.71	1.35	0 U	19.7	7.25
ZTS-MW117	9/1/2022	N	BL01	2B	Upgradient	-2	UMCF	40.5 - 55.5	----	----	----	----	5.788	2.29	----	88.4	7.3
ZTS-MW117	10/19/2022	N	BL02	2B	Upgradient	-2	UMCF	40.5 - 55.5	<0.655	<2.18	<0.664	<3.02	2.013	1.7	0 U	-116.3	7.43
ZTS-MW117	10/19/2022	FD	BL02	2B	Upgradient	-2	UMCF	40.5 - 55.5	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW134	10/19/2022	N	BL02	2B	Upgradient	-2	UMCF	26.0 - 36.0	<0.655	<2.18	16.3	162	3.823	4.84	0 U	136	7.18
ZTS-MW135	10/19/2022	N	BL02	2B	Downgradient	7	UMCF	54.0 - 69.0	<0.655	<2.18	24.9	39.8	4.194	1.41	0 U	18.2	7.31
ZTS-MW136	10/20/2022	N	BL02	2B	Cross Gradient	7	UMCF	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	3.095	1.23	0 U	-128.5	7.4
Post-Construction Performance Monitoring Results																	

**Table 2
Groundwater Analytical Results**
Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH
									µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV	SU
ZTS-MW207	8/23/2023	N	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.74 J	<3.02	3.904	1.11	0 U	45.8	7.29
ZTS-MW207	8/23/2023	FD	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.93 J	<3.02	----	----	----	----	----
ZTS-MW207	11/29/2023	N	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.58 J	<3.02	4.53	0.25	0 U	-80.8	7.24
ZTS-MW207	11/29/2023	FD	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.42 J	3.08 J	----	----	----	----	----
ZTS-MW207	2/22/2024	N	PM04	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.46 J	<3.02	4.677	0.61	0 U	69	7.24
ZTS-MW207	2/22/2024	FD	PM04	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.55 J	<3.02	----	----	----	----	----
ZTS-MW207	5/22/2024	N	PM05	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.36 J	3.36 J	5.348	0.5	0 U	172.1	7.21
ZTS-MW207	5/22/2024	FD	PM05	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	1.26 J	3.07 J	----	----	----	----	----
ZTS-MW207	9/17/2024	N	PM06	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	2.98 J	<3.02	7.268	5.96	0 U	200	7.47
ZTS-MW207	9/17/2024	FD	PM06	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.655	<2.18	3 J	<3.02	----	----	----	----	----
ZTS-MW135	5/26/2023	N	PM01	2B	Downgradient	7	UMCf	54.0 - 69.0	0.982 J	<2.18	25.9	<3.02	7.334	0.48	0 U	-95.1	7.34
ZTS-MW135	8/24/2023	N	PM02	2B	Downgradient	7	UMCf	54.0 - 69.0	<0.655	<2.18	28.6	<3.02	7.108	0.78	0 U	108.9	6.11
ZTS-MW135	11/30/2023	N	PM03	2B	Downgradient	7	UMCf	54.0 - 69.0	<0.655	<2.18	27.3	9.41 J	7.452	0.22	0 U	109.5	7.21
ZTS-MW135	2/22/2024	N	PM04	2B	Downgradient	7	UMCf	54.0 - 69.0	<0.655	<2.18	28.9	<3.02	7.105	0.18	0 U	-6.6	7.21
ZTS-MW135	5/22/2024	N	PM05	2B	Downgradient	7	UMCf	54.0 - 69.0	<0.655	<2.18	26.3	<3.02	7.458	0.44	0 U	43.4	7.21
ZTS-MW135	9/17/2024	N	PM06	2B	Downgradient	7	UMCf	54.0 - 69.0	<0.655	<2.18	28.8	<3.02	9.589	0.24	0 U	216.2	7.38
ZTS-MW136	5/26/2023	N	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	3.703	1.01	0.5	-139	7.58
ZTS-MW136	5/26/2023	FD	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW136	8/25/2023	N	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	0.034	7.83	0 U	14.3	7.49
ZTS-MW136	8/25/2023	FD	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW136	11/29/2023	N	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	3.95	0.19	0 U	-159.8	7.36
ZTS-MW136	11/29/2023	FD	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW136	2/22/2024	N	PM04	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	1.12 J	31.2 J+	3.848	0.19	0 U	-188.5	7.34
ZTS-MW136	2/22/2024	FD	PM04	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	1.13 J	<3.02	----	----	----	----	----
ZTS-MW136	5/21/2024	N	PM05	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	0.935 J	<3.02	4.301	0.38	0 U	-188.5	7.34
ZTS-MW136	5/21/2024	FD	PM05	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	0.914 J	<3.02	----	----	----	----	----
ZTS-MW136	9/12/2024	N	PM06	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	4.215	0.02	0 U	-200.2	7.5
ZTS-MW136	9/12/2024	FD	PM06	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.655	<2.18	<0.664	<3.02	----	----	----	----	----
ZTS-MW208	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	26.1 - 46.0	0.75 J	<2.18	14.4	6.16 J	6.576	4.63	0 U	103.8	7.33
ZTS-MW208	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	26.1 - 46.0	<0.655	<2.18	17.8	3.9 J	5.642	2.93	0 U	267.9	7.38
ZTS-MW208	11/28/2023	N	PM03	2B	Downgradient	15	UMCf	26.1 - 46.0	<0.655	<2.18	16	<3.02	12.933	1.61	0 U	-3	7.17
ZTS-MW208	2/22/2024	N	PM04	2B	Downgradient	15	UMCf	26.1 - 46.0	<0.655	<2.18	11.1	<3.02	5.378	1.72	0 U	77.2	7.23
ZTS-MW208	5/23/2024	N	PM05	2B	Downgradient	15	UMCf	26.1 - 46.0	<0.655	<2.18	14	16.8 J	6.033	2.27	0 U	181.5	7.2
ZTS-MW208	9/18/2024	N	PM06	2B	Downgradient	15	UMCf	26.1 - 46.0	<0.655	<2.18	12.7	<3.02	10.02	0.67	0 U	243.2	7.25
ZTS-MW209	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	50.6 - 65.5	<0.655	<2.18	23.9	<3.02	8.446	0.79	0 U	90.4	7.38
ZTS-MW209	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	50.6 - 65.5	<0.655	<2.18	28.7	6.68 J	6.601	0.83	0 U	247.1	7.37
ZTS-MW209	11/29/2023	N	PM03	2B	Downgradient	15	UMCf	50.6 - 65.5	<0.655	<2.18	29	<3.02	7.22	0.28	0 U	2	7.21
ZTS-MW209	2/22/2024	N	PM04	2B	Downgradient	15	UMCf	50.6 - 65.5	<0.655	<2.18	29.2	<3.02	7.171	0.19	0 U	66.4	7.2
ZTS-MW209	5/23/2024	N	PM05	2B	Downgradient	15	UMCf	50.6 - 65.5	<0.655	<2.18	27	<3.02	7.676	0.29	0 U	189.1	7.18
ZTS-MW209	9/18/2024	N	PM06	2B	Downgradient	15	UMCf	50.6 - 65.5	<3.28	<10.9	28.7	<15.1	13.324	0.32	0 U	259.3	7.29
Test Area 2C																	
Pre-Construction Baseline Results																	
ZTS-MW140	10/21/2022	N	BL02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	<0.655	<2.18	19.9	<3.02	4.139	4.97	0 U	112.3	7.08
ZTS-MW119	9/1/2022	N	BL01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	----	----	----	----	7.085	3.05	----	115.6	7.03
ZTS-MW119	10/19/2022	N	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	<0.655	<2.18	20.1	<3.02	6.421	4.57	0 U	164.2	7.04
ZTS-MW119	10/19/2022	FD	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	<0.655	<2.18	19.7	<3.02	----	----	----	----	----
ZTS-MW141	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	14.5 - 24.5	<0.655	<2.18	18.4	<3.02	8.367	3.42	0 U	98.6	7.1
ZTS-MW142	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	16.0 - 26.0	<0.655	<2.18	22.2	<3.02	4.16	4.54	0 U	111.6	7.06
LVWPS-MW102A	10/21/2022	N	BL02	2C	Downgradient	30	UMCf	47.0 - 66.6	<0.655	<2.18	27.5	<3.02	11.664	0.55	0 U	-35	7.26
LVWPS-MW102B	10/21/2022	N	BL02	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<65.5	<2.18	<0.664	<3.02	49.317	0.48	0 U	-240.7	7.38
Post-Construction Performance Monitoring Results																	

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH
									µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV	SU
LVWPS-MW102B	2/27/2024	N	PM04	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<6.55	<2.18	<0.664	<3.02	54.219	0.37	0 U	-208.2	7.39
LVWPS-MW102B	5/23/2024	N	PM05	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<0.655	<2.18	0.76 J	<3.02	57.083	0.54	0 U	-172.5	7.25
LVWPS-MW102B	9/17/2024	N	PM06	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<6.55	<21.8	<6.64	<30.2	52.118	0.13	0 U	-206.8	7.35
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.655	<2.18	17	3.65 J	6.172	3.91	0 U	140.5	7.2
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.655	<2.18	18.2	3.94 J	7.064	4.98	0 U	130.6	7.1
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.655	<2.18	18.9	<3.02	8.395	2.7	0 U	497.3	7.11
ZTS-MW189	2/23/2024	N	PM04	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.655	<2.18	19	<3.02	9.343	4.48	0 U	173.9	7.17
ZTS-MW189	5/24/2024	N	PM05	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.655	<2.18	17.8	<3.02	6.808	4.78	0 U	507.3	7.19
ZTS-MW189	9/10/2024	N	PM06	2C	Downgradient	55	Alluvium	12.8 - 23.0	<0.655	<2.18	17.7	<3.02	184.563	1.85	0 U	354.7	6.95
General Vicinity																	
Pre-Construction Baseline Results																	
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	----	----	----	----	6.685	0.36	----	-0.2	7.34
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	<0.655	<2.18	15.4	<3.02	7.049	0.46	0 U	-17.7	7.35
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	----	----	----	7.153	0.53	----	85.2	7.34
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	<0.655	<2.18	11	<3.02	7.65	0.65	0 U	40.8	7.22
Post-Construction Performance Monitoring Results																	
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	<0.655	<2.18	15.9	4.24 J	3.951	1.13	0 U	68.3	6.82
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	<0.655	<2.18	15.5	11.1 J	5.763	2.05	0 U	39.1	7.33
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	<0.655	<2.18	16.4	<3.02	6.326	0.09	0 U	127.2	7.31
ZTS-MW116	2/27/2024	N	PM04	NA	NA	NA	UMCf	33.0 - 48.0	<0.655	<2.18	16.4	<3.02	7.149	0.44	0 U	-37.6	7.28
ZTS-MW116	5/24/2024	N	PM05	NA	NA	NA	UMCf	33.0 - 48.0	<0.655	<2.18	15.1	<3.02	6.935	0.43	0 U	53	7.27
ZTS-MW116	9/12/2024	N	PM06	NA	NA	NA	UMCf	33.0 - 48.0	<0.655	<2.18	16.3	<3.02	5.954	0.18	0 U	106.1	7.45
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	<0.655	<2.18	16.4	7.14 J	4.951	1.18	0 U	47.5	6.58
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	<0.655	<2.18	17.7	<3.02	5.846	0.95	0 U	24.2	7.2
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	<0.655	<2.18	18	<3.02	6.634	1.63	0 U	151.7	7.22
ZTS-MW128	2/28/2024	N	PM04	NA	NA	NA	UMCf	42.0 - 52.0	<0.655	<2.18	16.2	<3.02	5.345	0.37	0 U	20.9	7.24
ZTS-MW128	5/28/2024	N	PM05	NA	NA	NA	UMCf	42.0 - 52.0	<0.655	4.83 J	19.8	<3.02	6.39	0.8	0 U	96.4	7.25
ZTS-MW128	9/12/2024	N	PM06	NA	NA	NA	UMCf	42.0 - 52.0	<0.655	<2.18	19	<3.02	5.762	1	0 U	139.2	7.31

Notes:

bgs - below ground surface

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

< The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

mg/L - milligram per liter

mS/cm - milliSiemens per centimeter

mV - millivolts

nmol - nanomol

SU - standard units

N - normal field sample

µg/L - micrograms per liter

UMCf - Upper Muddy Creek formation

FD - field duplicate

FS - field split

PM05 Hydrogen samples cancelled with lab due to instrument failure.

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
Test Area 1A											
Pre-Construction Baseline Results											
ZTS-MW143	10/18/2022	N	BL02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	24.8	7.2
ZTS-MW124	8/31/2022	N	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	26.7	-3.7
ZTS-MW124	8/31/2022	FD	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----
ZTS-MW124	10/18/2022	N	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	0 U	25.7	3.5
ZTS-MW124	10/18/2022	FD	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----
ZTS-MW125	8/31/2022	N	BL01	1A	Upgradient	-8	UMCF	40.0 - 50.0	----	31.2	7.5
ZTS-MW125	10/24/2022	N	BL02	1A	Upgradient	-8	UMCF	40.0 - 50.0	0 U	19.2	22.1
ZTS-MW125	10/24/2022	FD	BL02	1A	Upgradient	-8	UMCF	40.0 - 50.0	----	----	----
ZTS-MW144	10/18/2022	N	BL02	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	22.9	8.2
Post-Construction Performance Monitoring Results											
ZTS-MW143	5/26/2023	N	PM01	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	24.1	7.5
ZTS-MW143	8/29/2023	N	PM02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	26.7	11.2
ZTS-MW143	12/6/2023	N	PM03	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	23.5	6.2
ZTS-MW143	2/21/2024	N	PM04	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	23.2	-99 E
ZTS-MW143	5/20/2024	N	PM05	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	26.1	174.6
ZTS-MW143	9/13/2024	N	PM06	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	26.1	191.8
ZTS-MW124R	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0 U	25.8	11.1
ZTS-MW124R	8/29/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0 U	25.4	14.6
ZTS-MW124R	12/5/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.5 - 34.0	----	23.9	28.4
ZTS-MW124R	2/27/2024	N	PM04	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0 U	23.9	45.2
ZTS-MW124R	5/20/2024	N	PM05	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0 U	26.1	9.1
ZTS-MW124R	9/16/2024	N	PM06	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0 U	25.2	22.5
ZTS-MW125	5/25/2023	N	PM01	1A	Upgradient	-8	UMCF	40.0 - 50.0	0.1	30.5	7.2
ZTS-MW125	8/30/2023	N	PM02	1A	Upgradient	-8	UMCF	40.0 - 50.0	0 U	25.1	7.3
ZTS-MW125	12/1/2023	N	PM03	1A	Upgradient	-8	UMCF	40.0 - 50.0	0 U	23.1	3.4
ZTS-MW125	2/26/2024	N	PM04	1A	Upgradient	-8	UMCF	40.0 - 50.0	0 U	23.8	4.8
ZTS-MW125	5/24/2024	N	PM05	1A	Upgradient	-8	UMCF	40.0 - 50.0	0 U	29.4	3.1
ZTS-MW125	9/16/2024	N	PM06	1A	Upgradient	-8	UMCF	40.0 - 50.0	0 U	26.4	0.7
ZTS-MW153	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	24.1	57.2
ZTS-MW153	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	24.8	153
ZTS-MW153	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	23.6	79.4
ZTS-MW153	2/27/2024	N	PM04	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	23.6	13
ZTS-MW153	5/28/2024	N	PM05	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	24.6	18.2
ZTS-MW153	9/16/2024	N	PM06	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	25.9	43.7
ZTS-MW163	5/25/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	25.4	5.4
ZTS-MW163	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	25.9	14.8
ZTS-MW163	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	23.5	1.6
ZTS-MW163	2/27/2024	N	PM04	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	23.3	2.7
ZTS-MW163	5/28/2024	N	PM05	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	25.4	2.5
ZTS-MW163	9/16/2024	N	PM06	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	25.1	0.8
ZTS-MW150	5/22/2023	N	PM01	1A	Center of Trench	0	Alluvium	24.3 - 34.0	0 U	25.7	73.9
ZTS-MW150	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	24.3 - 34.0	0 U	24.8	91.7
ZTS-MW150	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	24.3 - 34.0	0 U	23.2	9.1
ZTS-MW150	2/19/2024	N	PM04	1A	Center of Trench	0	Alluvium	24.3 - 34.0	0 U	24.5	15.7
ZTS-MW150	5/20/2024	N	PM05	1A	Center of Trench	0	Alluvium	24.3 - 34.0	0 U	26	293.9
ZTS-MW150	9/5/2024	N	PM06	1A	Center of Trench	0	Alluvium	24.3 - 34.0	0 U	28	22.8
ZTS-MW154	5/24/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	26.3	110.5
ZTS-MW154	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	25.8	75.9
ZTS-MW154	11/28/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	23.3	24.5

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW154	2/20/2024	N	PM04	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	22.1	26.5
ZTS-MW154	5/20/2024	N	PM05	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	26.8	261.3
ZTS-MW154	9/5/2024	N	PM06	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	29.1	87.3
ZTS-MW164	5/23/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	28.2	77.7
ZTS-MW164	5/23/2023	FD	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	----	----	----
ZTS-MW164	8/18/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	26.9	74.4
ZTS-MW164	8/18/2023	FD	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	----	----	----
ZTS-MW164	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	23.2	21.7
ZTS-MW164	11/27/2023	FD	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	----	----	----
ZTS-MW164	2/20/2024	N	PM04	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	22.7	24.2
ZTS-MW164	2/20/2024	FD	PM04	1A	Center of Trench	0	Alluvium	22.3 - 32.0	----	----	----
ZTS-MW164	5/20/2024	N	PM05	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	26	88
ZTS-MW164	5/20/2024	FD	PM05	1A	Center of Trench	0	Alluvium	22.3 - 32.0	----	----	----
ZTS-MW164	9/6/2024	N	PM06	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0 U	29	48.9
ZTS-MW164	9/6/2024	FD	PM06	1A	Center of Trench	0	Alluvium	22.3 - 32.0	----	----	----
ZTS-MW151	5/25/2023	N	PM01	1A	Downgradient	5	Alluvium	24.3 - 34.0	0 U	24	16.7
ZTS-MW151	8/21/2023	N	PM02	1A	Downgradient	5	Alluvium	24.3 - 34.0	0 U	25.9	75.6
ZTS-MW151	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	24.3 - 34.0	0 U	24	64.2
ZTS-MW151	2/20/2024	N	PM04	1A	Downgradient	5	Alluvium	24.3 - 34.0	0 U	22.3	3.9
ZTS-MW151	5/21/2024	N	PM05	1A	Downgradient	5	Alluvium	24.3 - 34.0	0 U	25.3	19.9
ZTS-MW151	9/11/2024	N	PM06	1A	Downgradient	5	Alluvium	24.3 - 34.0	0 U	26.3	23.1
ZTS-MW155	5/24/2023	N	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	0 U	24.3	169.9
ZTS-MW155	5/24/2023	FD	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----
ZTS-MW155	8/22/2023	N	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	0 U	24.8	8.1
ZTS-MW155	8/22/2023	FD	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----
ZTS-MW155	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	0 U	23.9	13.8
ZTS-MW155	11/28/2023	FD	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----
ZTS-MW155	2/21/2024	N	PM04	1A	Downgradient	5	Alluvium	20.3 - 35.0	0 U	22.6	4.1
ZTS-MW155	2/21/2024	FD	PM04	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----
ZTS-MW155	5/21/2024	N	PM05	1A	Downgradient	5	Alluvium	20.3 - 35.0	0 U	24.7	14.4
ZTS-MW155	5/21/2024	FD	PM05	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----
ZTS-MW155	9/10/2024	N	PM06	1A	Downgradient	5	Alluvium	20.3 - 35.0	0 U	26.2	34.1
ZTS-MW155	9/10/2024	FD	PM06	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----
ZTS-MW156	5/24/2023	N	PM01	1A	Downgradient	5	UMCf	43.8 - 53.5	0 U	33	162.9
ZTS-MW156	8/22/2023	N	PM02	1A	Downgradient	5	UMCf	43.8 - 53.5	0 U	27.3	1.8
ZTS-MW156	11/29/2023	N	PM03	1A	Downgradient	5	UMCf	43.8 - 53.5	0.6	23	2.6
ZTS-MW156	2/21/2024	N	PM04	1A	Downgradient	5	UMCf	43.8 - 53.5	0 U	23.8	26.5
ZTS-MW156	5/22/2024	N	PM05	1A	Downgradient	5	UMCf	43.8 - 53.5	0 U	26.4	13
ZTS-MW156	9/9/2024	N	PM06	1A	Downgradient	5	UMCf	43.8 - 53.5	0 U	41.3	86.6
ZTS-MW165	5/31/2023	N	PM01	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	23.7	-0.6
ZTS-MW165	8/25/2023	N	PM02	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	25.2	4.1
ZTS-MW165	11/30/2023	N	PM03	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	23.7	3.9
ZTS-MW165	2/23/2024	N	PM04	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	23.4	3.1
ZTS-MW165	5/23/2024	N	PM05	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	24.1	1.9
ZTS-MW165	9/6/2024	N	PM06	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	26.7	0.7
ZTS-MW152	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	24.8	36.6
ZTS-MW152	8/22/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	24.6	4
ZTS-MW152	11/28/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	24.1	13.8
ZTS-MW152	2/20/2024	N	PM04	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	22	3
ZTS-MW152	5/21/2024	N	PM05	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	24.8	7
ZTS-MW152	9/10/2024	N	PM06	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	27.4	15.7

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
						feet			Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW157	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	25.6	10.7
ZTS-MW157	8/23/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	26	10.9
ZTS-MW157	11/29/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	22.9	2
ZTS-MW157	2/21/2024	N	PM04	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	22.9	2.4
ZTS-MW157	5/22/2024	N	PM05	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	25.1	5.2
ZTS-MW157	9/10/2024	N	PM06	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	25.7	15.1
ZTS-MW162	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	26.1	8.6
ZTS-MW162	8/18/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	27.8	58.4
ZTS-MW162	11/30/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	22	3.3
ZTS-MW162	2/21/2024	N	PM04	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	23.7	3
ZTS-MW162	5/22/2024	N	PM05	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	26.4	6.3
ZTS-MW162	9/9/2024	N	PM06	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	26.5	8.5
ZTS-MW149	5/31/2023	N	PM01	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	24.8	52.6
ZTS-MW149	8/24/2023	N	PM02	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	26.1	15.2
ZTS-MW149	11/30/2023	N	PM03	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	23.5	6.9
ZTS-MW149	2/23/2024	N	PM04	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	22.7	6.1
ZTS-MW149	5/22/2024	N	PM05	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	24.9	8.7
ZTS-MW149	9/11/2024	N	PM06	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	27.1	20.4
ZTS-MW144	5/31/2023	N	PM01	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	24.7	-1
ZTS-MW144	8/24/2023	N	PM02	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	25.1	43.6
ZTS-MW144	11/30/2023	N	PM03	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	23.5	10.2
ZTS-MW144	2/23/2024	N	PM04	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	23.6	5.6
ZTS-MW144	5/22/2024	N	PM05	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	25.1	12.1
ZTS-MW144	9/11/2024	N	PM06	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	26.6	16.4
ZTS-MW158	5/24/2023	N	PM01	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	26.1	35.5
ZTS-MW158	8/25/2023	N	PM02	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	26.7	39.7
ZTS-MW158	12/1/2023	N	PM03	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	23.1	3.2
ZTS-MW158	2/27/2024	N	PM04	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	23.7	4.2
ZTS-MW158	5/21/2024	N	PM05	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	25.4	4.4
ZTS-MW158	9/12/2024	N	PM06	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	26.8	29.2
ZTS-MW159	5/24/2023	N	PM01	1A	Downgradient	50	UMCF	38.8 - 48.5	0 U	33.7	4.5
ZTS-MW159	8/25/2023	N	PM02	1A	Downgradient	50	UMCF	38.8 - 48.5	0 U	26.3	11.4
ZTS-MW159	12/1/2023	N	PM03	1A	Downgradient	50	UMCF	38.8 - 48.5	0 U	23	3.6
ZTS-MW159	2/27/2024	N	PM04	1A	Downgradient	50	UMCF	38.8 - 48.5	0 U	23.6	5.7
ZTS-MW159	5/21/2024	N	PM05	1A	Downgradient	50	UMCF	38.8 - 48.5	0 U	24.8	7.1
ZTS-MW159	9/12/2024	N	PM06	1A	Downgradient	50	UMCF	38.8 - 48.5	0 U	26.9	45
ZTS-MW160	5/24/2023	N	PM01	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	24.8	2.6
ZTS-MW160	8/28/2023	N	PM02	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	25.2	20.4
ZTS-MW160	12/5/2023	N	PM03	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	24.1	2.4
ZTS-MW160	2/27/2024	N	PM04	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	24.6	3.3
ZTS-MW160	5/21/2024	N	PM05	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	26.4	6.5
ZTS-MW160	9/13/2024	N	PM06	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	26.5	9.6
ZTS-MW161	5/26/2023	N	PM01	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	22.7	17.9
ZTS-MW161	8/25/2023	N	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	24.7	11
ZTS-MW161	8/25/2023	FD	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	----	----	----
ZTS-MW161	12/1/2023	N	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	24.3	143.7
ZTS-MW161	12/1/2023	FD	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	----	----	----
ZTS-MW161	2/23/2024	N	PM04	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	24	112.4
ZTS-MW161	2/23/2024	FD	PM04	1A	Downgradient	150	Alluvium	24.3 - 34.0	----	----	----
ZTS-MW161	5/28/2024	N	PM05	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	25.3	41.4
ZTS-MW161	5/28/2024	FD	PM05	1A	Downgradient	150	Alluvium	24.3 - 34.0	----	----	----

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW161	9/13/2024	N	PM06	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	24.8	142.1
ZTS-MW161	9/13/2024	FD	PM06	1A	Downgradient	150	Alluvium	24.3 - 34.0	----	----	----
Between Test Area 1A and Test Area 1B											
Pre-Construction Baseline Results											
ZTS-MW145	10/24/2022	N	BL02	1A/1B	Upgradient	-50	UMCF	39.0 - 49.0	0 U	23.3	9.5
ZTS-MW146	10/24/2022	N	BL02	1A/1B	Downgradient	35	UMCF	41.0 - 51.0	0 U	18.1	5
Post-Construction Performance Monitoring Results											
ZTS-MW145	5/22/2023	N	PM01	1A/1B	Upgradient	-50	UMCF	39.0 - 49.0	0 U	29.2	2.9
ZTS-MW145	8/30/2023	N	PM02	1A/1B	Upgradient	-50	UMCF	39.0 - 49.0	0 U	24.8	2.7
ZTS-MW145	12/6/2023	N	PM03	1A/1B	Upgradient	-50	UMCF	39.0 - 49.0	0 U	22.9	3
ZTS-MW145	2/21/2024	N	PM04	1A/1B	Upgradient	-50	UMCF	39.0 - 49.0	0 U	23.3	17
ZTS-MW145	5/20/2024	N	PM05	1A/1B	Upgradient	-50	UMCF	39.0 - 49.0	0 U	28.1	0.9
ZTS-MW145	9/16/2024	N	PM06	1A/1B	Upgradient	-50	UMCF	39.0 - 49.0	0 U	27.1	6
ZTS-MW146	5/26/2023	N	PM01	1A/1B	Downgradient	35	UMCF	41.0 - 51.0	0 U	24.8	5.3
ZTS-MW146	8/25/2023	N	PM02	1A/1B	Downgradient	35	UMCF	41.0 - 51.0	0.2	28.6	2.4
ZTS-MW146	11/30/2023	N	PM03	1A/1B	Downgradient	35	UMCF	41.0 - 51.0	0.4	23.4	3.5
ZTS-MW146	2/23/2024	N	PM04	1A/1B	Downgradient	35	UMCF	41.0 - 51.0	0.1	21.9	3.3
ZTS-MW146	5/23/2024	N	PM05	1A/1B	Downgradient	35	UMCF	41.0 - 51.0	0.1	25.5	2.6
ZTS-MW146	9/12/2024	N	PM06	1A/1B	Downgradient	35	UMCF	41.0 - 51.0	0.1	26.9	4
Test Area 1B											
Pre-Construction Baseline Results											
ZTS-MW147	10/18/2022	N	BL02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	23.3	34.8
ZTS-MW126	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	----	26.9	5
ZTS-MW126	10/18/2022	N	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	24.8	14.2
ZTS-MW126	10/18/2022	FD	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	----	----	----
ZTS-MW127	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	18.0 - 23.0	----	28	6.3
ZTS-MW127	10/24/2022	N	BL02	1B	Upgradient	-8	Alluvium	18.0 - 23.0	0 U	22.4	12.9
ZTS-MW148	10/24/2022	N	BL02	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	23.1	20.8
LVWPS-MW107A	10/24/2022	N	BL02	1B	Downgradient	50	Alluvium	24.8 - 34.5	0 U	21.7	5.6
LVWPS-MW107B	10/21/2022	N	BL02	1B	Downgradient	50	UMCF	46.0 - 65.8	0 U	26.6	8.9
LVWPS-MW107C	10/24/2022	N	BL02	1B	Downgradient	50	UMCF (Semi-Cons)	100.3 - 120.0	0 U	21.3	333.7
Post-Construction Performance Monitoring Results											
ZTS-MW147	5/26/2023	N	PM01	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	26.8	7.4
ZTS-MW147	8/30/2023	N	PM02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	28.1	6.6
ZTS-MW147	12/1/2023	N	PM03	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	22.6	6.5
ZTS-MW147	2/23/2024	N	PM04	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	23.2	25
ZTS-MW147	5/28/2024	N	PM05	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	26.5	6.4
ZTS-MW147	9/16/2024	N	PM06	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	25.6	90.8
ZTS-MW126	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	27.7	14.1
ZTS-MW126	8/25/2023	N	PM02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	26.1	9
ZTS-MW126	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	22.6	21
ZTS-MW126	2/23/2024	N	PM04	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	22.5	3.7
ZTS-MW126	5/23/2024	N	PM05	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	29.2	4.7
ZTS-MW126	9/13/2024	N	PM06	1B	Upgradient	-8	Alluvium	20.0 - 30.0	8	26.1	103.5
ZTS-MW127R	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	23.8	13.8
ZTS-MW127R	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	27.2	7.8
ZTS-MW127R	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	23.6	8.3
ZTS-MW127R	2/23/2024	N	PM04	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	22.9	6.8
ZTS-MW127R	5/23/2024	N	PM05	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	25.8	5.7
ZTS-MW127R	9/16/2024	N	PM06	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	27.4	17.7
ZTS-MW169	5/24/2023	N	PM01	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	27	9.8

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW169	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	26.5	10.9
ZTS-MW169	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	23.3	27
ZTS-MW169	2/23/2024	N	PM04	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	23.4	18.4
ZTS-MW169	5/24/2024	N	PM05	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	25.2	31.8
ZTS-MW169	9/16/2024	N	PM06	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	25.1	55.5
ZTS-MW170	5/24/2023	N	PM01	1B	Upgradient	-8	UMCF	31.1 - 41.0	0 U	26.7	20.5
ZTS-MW170	8/29/2023	N	PM02	1B	Upgradient	-8	UMCF	31.1 - 41.0	0 U	24.6	11.3
ZTS-MW170	11/30/2023	N	PM03	1B	Upgradient	-8	UMCF	31.1 - 41.0	0 U	23	13.2
ZTS-MW170	2/23/2024	N	PM04	1B	Upgradient	-8	UMCF	31.1 - 41.0	0.2	23.1	7.2
ZTS-MW170	5/24/2024	N	PM05	1B	Upgradient	-8	UMCF	31.1 - 41.0	0 U	24.4	6.7
ZTS-MW170	9/16/2024	N	PM06	1B	Upgradient	-8	UMCF	31.1 - 41.0	0 U	24.9	7.5
ZTS-MW166	5/23/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.8 - 29.5	0 U	32.1	13.1
ZTS-MW166	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.8 - 29.5	0 U	24.9	44.3
ZTS-MW166	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.8 - 29.5	0 U	23.1	4.8
ZTS-MW166	2/20/2024	N	PM04	1B	Center of Trench	0	Alluvium	19.8 - 29.5	0 U	21.5	31
ZTS-MW166	5/20/2024	N	PM05	1B	Center of Trench	0	Alluvium	19.8 - 29.5	0.2	26.4	262.6
ZTS-MW166	9/6/2024	N	PM06	1B	Center of Trench	0	Alluvium	19.8 - 29.5	0 U	26.2	39
ZTS-MW171	5/22/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.3 - 29.0	0 U	25.5	255
ZTS-MW171	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.3 - 29.0	0.5	24.8	33.1
ZTS-MW171	11/27/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.3 - 29.0	0 U	23.4	28.9
ZTS-MW171	2/19/2024	N	PM04	1B	Center of Trench	0	Alluvium	19.3 - 29.0	0 U	24.7	33.9
ZTS-MW171	5/21/2024	N	PM05	1B	Center of Trench	0	Alluvium	19.3 - 29.0	0 U	25.4	51.6
ZTS-MW171	9/5/2024	N	PM06	1B	Center of Trench	0	Alluvium	19.3 - 29.0	0 U	27.5	44.6
ZTS-MW178	5/25/2023	N	PM01	1B	Center of Trench	0	Alluvium	17.8 - 27.5	0 U	27.4	74.7
ZTS-MW178	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	17.8 - 27.5	0.4	27.7	16.9
ZTS-MW178	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	17.8 - 27.5	0 U	22.6	2.5
ZTS-MW178	2/20/2024	N	PM04	1B	Center of Trench	0	Alluvium	17.8 - 27.5	0 U	22.8	6.8
ZTS-MW178	5/22/2024	N	PM05	1B	Center of Trench	0	Alluvium	17.8 - 27.5	0.6	25.1	30
ZTS-MW178	9/5/2024	N	PM06	1B	Center of Trench	0	Alluvium	17.8 - 27.5	0 U	29	4.3
ZTS-MW167	5/24/2023	N	PM01	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	25.1	8.4
ZTS-MW167	8/22/2023	N	PM02	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	24.5	70.1
ZTS-MW167	11/28/2023	N	PM03	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	23.7	7.8
ZTS-MW167	2/20/2024	N	PM04	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	22.5	2.3
ZTS-MW167	5/23/2024	N	PM05	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	25.5	19.4
ZTS-MW167	9/6/2024	N	PM06	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	27.5	10.2
ZTS-MW172	5/23/2023	N	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	0 U	24	7.7
ZTS-MW172	5/23/2023	FD	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	----	----	----
ZTS-MW172	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	0 U	24.8	3.4
ZTS-MW172	8/23/2023	FD	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	----	----	----
ZTS-MW172	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	0 U	23.7	7.8
ZTS-MW172	11/30/2023	FD	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	----	----	----
ZTS-MW172	2/22/2024	N	PM04	1B	Downgradient	5	Alluvium	17.3 - 27.0	0 U	22	3.2
ZTS-MW172	2/22/2024	FD	PM04	1B	Downgradient	5	Alluvium	17.3 - 27.0	----	----	----
ZTS-MW172	5/21/2024	N	PM05	1B	Downgradient	5	Alluvium	17.3 - 27.0	0 U	24.7	11.7
ZTS-MW172	5/21/2024	FD	PM05	1B	Downgradient	5	Alluvium	17.3 - 27.0	----	----	----
ZTS-MW172	9/11/2024	N	PM06	1B	Downgradient	5	Alluvium	17.3 - 27.0	0 U	26.3	6
ZTS-MW172	9/11/2024	FD	PM06	1B	Downgradient	5	Alluvium	17.3 - 27.0	----	----	----
ZTS-MW173	5/25/2023	N	PM01	1B	Downgradient	5	UMCF	33.3 - 43.0	0 U	23.6	14.5
ZTS-MW173	8/22/2023	N	PM02	1B	Downgradient	5	UMCF	33.3 - 43.0	0.2	32.4	22.7
ZTS-MW173	11/29/2023	N	PM03	1B	Downgradient	5	UMCF	33.3 - 43.0	0.3	21.8	5.7
ZTS-MW173	2/21/2024	N	PM04	1B	Downgradient	5	UMCF	33.3 - 43.0	0 U	23.7	14.5

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
						feet			Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW173	5/21/2024	N	PM05	1B	Downgradient	5	UMCf	33.3 - 43.0	0 U	24.7	41
ZTS-MW173	9/12/2024	N	PM06	1B	Downgradient	5	UMCf	33.3 - 43.0	0 U	25.2	147.5
ZTS-MW179	5/25/2023	N	PM01	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	24	8.1
ZTS-MW179	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	25.3	8.2
ZTS-MW179	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	23.9	5.7
ZTS-MW179	2/22/2024	N	PM04	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	22.9	3.5
ZTS-MW179	5/22/2024	N	PM05	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	24.8	10
ZTS-MW179	9/10/2024	N	PM06	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	25.4	12.6
ZTS-MW168	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	25.9	11.2
ZTS-MW168	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	25.4	14.8
ZTS-MW168	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	24.9	285
ZTS-MW168	10/11/2023	FS	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	----	----
ZTS-MW168	10/11/2023	FD	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	----	----
ZTS-MW168	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	23.4	3.8
ZTS-MW168	2/21/2024	N	PM04	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	22.2	6.9
ZTS-MW168	5/23/2024	N	PM05	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	24.7	24.3
ZTS-MW168	9/6/2024	N	PM06	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	27.2	9.9
ZTS-MW174	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	0 U	23.5	55.2
ZTS-MW174	5/26/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----
ZTS-MW174	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	0 U	26.2	17.9
ZTS-MW174	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	25.4	192.7
ZTS-MW174	10/11/2023	FS	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----
ZTS-MW174	10/11/2023	FD	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----
ZTS-MW174	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	19.8 - 29.5	0 U	23.5	7.4
ZTS-MW174	2/21/2024	N	PM04	1B	Downgradient	15	Alluvium	19.8 - 29.5	0 U	23.4	7.9
ZTS-MW174	5/24/2024	N	PM05	1B	Downgradient	15	Alluvium	19.8 - 29.5	0 U	24.9	41.7
ZTS-MW174	9/11/2024	N	PM06	1B	Downgradient	15	Alluvium	19.8 - 29.5	0 U	25.9	8.7
ZTS-MW177	5/25/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	26.3	66.5
ZTS-MW177	8/23/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	27	43
ZTS-MW177	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	24.4	15.1
ZTS-MW177	2/21/2024	N	PM04	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	23.4	16.1
ZTS-MW177	5/22/2024	N	PM05	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	25.6	12.5
ZTS-MW177	9/10/2024	N	PM06	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	27.5	14.4
ZTS-MW180	5/24/2023	N	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	0 U	23.8	7
ZTS-MW180	5/24/2023	FD	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	----	----	----
ZTS-MW180	8/24/2023	N	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	0 U	24.7	7
ZTS-MW180	8/24/2023	FD	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	----	----	----
ZTS-MW180	11/30/2023	N	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	0 U	23.8	5.7
ZTS-MW180	11/30/2023	FD	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	----	----	----
ZTS-MW180	2/22/2024	N	PM04	1B	Downgradient	25	Alluvium	17.8 - 22.5	0 U	23.7	7.3
ZTS-MW180	2/22/2024	FD	PM04	1B	Downgradient	25	Alluvium	17.8 - 22.5	----	----	----
ZTS-MW180	5/24/2024	N	PM05	1B	Downgradient	25	Alluvium	17.8 - 22.5	0 U	24.7	3.8
ZTS-MW180	5/24/2024	FD	PM05	1B	Downgradient	25	Alluvium	17.8 - 22.5	----	----	----
ZTS-MW180	9/10/2024	N	PM06	1B	Downgradient	25	Alluvium	17.8 - 22.5	0 U	26.3	6.5
ZTS-MW180	9/10/2024	FD	PM06	1B	Downgradient	25	Alluvium	17.8 - 22.5	----	----	----
ZTS-MW148	5/25/2023	N	PM01	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	25.3	8.9
ZTS-MW148	8/23/2023	N	PM02	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	26.9	6.4
ZTS-MW148	11/28/2023	N	PM03	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	24.1	5.7
ZTS-MW148	2/20/2024	N	PM04	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	22.4	5
ZTS-MW148	5/23/2024	N	PM05	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	24.9	210.6
ZTS-MW148	9/12/2024	N	PM06	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	25.1	9.9

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
LVWPS-MW107A	5/23/2023	N	PM01	1B	Downgradient	50	Alluvium	24.8 - 34.5	0 U	27.1	6.2
LVWPS-MW107A	8/24/2023	N	PM02	1B	Downgradient	50	Alluvium	24.8 - 34.5	0 U	27.7	8.6
LVWPS-MW107A	11/30/2023	N	PM03	1B	Downgradient	50	Alluvium	24.8 - 34.5	0 U	23.6	9.1
LVWPS-MW107A	2/22/2024	N	PM04	1B	Downgradient	50	Alluvium	24.8 - 34.5	0 U	23.6	48.4
LVWPS-MW107A	5/28/2024	N	PM05	1B	Downgradient	50	Alluvium	24.8 - 34.5	0 U	26.7	29.7
LVWPS-MW107A	9/12/2024	N	PM06	1B	Downgradient	50	Alluvium	24.8 - 34.5	0 U	27.6	14.7
LVWPS-MW107B	5/23/2023	N	PM01	1B	Downgradient	50	UMCf	46.0 - 65.8	0 U	28	10.9
LVWPS-MW107B	8/24/2023	N	PM02	1B	Downgradient	50	UMCf	46.0 - 65.8	0.2	27.4	45.8
LVWPS-MW107B	12/1/2023	N	PM03	1B	Downgradient	50	UMCf	46.0 - 65.8	0 U	19.5	7.8
LVWPS-MW107B	2/23/2024	N	PM04	1B	Downgradient	50	UMCf	46.0 - 65.8	0.2	18.3	10.3
LVWPS-MW107B	5/24/2024	N	PM05	1B	Downgradient	50	UMCf	46.0 - 65.8	0 U	29.1	12.5
LVWPS-MW107B	9/12/2024	N	PM06	1B	Downgradient	50	UMCf	46.0 - 65.8	0 U	27	14.3
LVWPS-MW107C	5/23/2023	N	PM01	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0 U	26.8	94.3
LVWPS-MW107C	8/24/2023	N	PM02	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	1.2	34.6	8
LVWPS-MW107C	12/1/2023	N	PM03	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0.3	15.8	7
LVWPS-MW107C	2/23/2024	N	PM04	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0.2	21.1	157.5
LVWPS-MW107C	5/28/2024	N	PM05	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0.4	27.2	147.7
LVWPS-MW107C	9/13/2024	N	PM06	1B	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0.2	25.6	123.5
ZTS-MW175	5/26/2023	N	PM01	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	23.4	53
ZTS-MW175	8/25/2023	N	PM02	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	25.2	41.7
ZTS-MW175	11/30/2023	N	PM03	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	23.9	66.2
ZTS-MW175	2/28/2024	N	PM04	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	24.2	9.1
ZTS-MW175	5/28/2024	N	PM05	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	24.6	18.6
ZTS-MW175	9/12/2024	N	PM06	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	27.1	7.8
ZTS-MW176	5/26/2023	N	PM01	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	22.3	8.6
ZTS-MW176	8/25/2023	N	PM02	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	26.3	5.9
ZTS-MW176	12/5/2023	N	PM03	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	24.3	1.4
ZTS-MW176	2/27/2024	N	PM04	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	24.1	2.6
ZTS-MW176	5/24/2024	N	PM05	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	25.6	16.9
ZTS-MW176	9/13/2024	N	PM06	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	25	2.5
Test Area 2A											
Pre-Construction Baseline Results											
ZTS-MW137	10/20/2022	N	BL02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	23.4	35.6
ZTS-MW118	9/1/2022	N	BL01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	27.1	17
ZTS-MW118	10/21/2022	N	BL02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	22.6	6.8
ZTS-MW138	10/20/2022	N	BL02	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	23.5	68.3
ZTS-MW139	10/21/2022	N	BL02	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	23.5	21.2
ZTS-MW113	10/25/2022	N	BL02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	22.9	4.1
Post-Construction Performance Monitoring Results											
ZTS-MW137	5/31/2023	N	PM01	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	26.7	32.7
ZTS-MW137	8/24/2023	N	PM02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	27.2	18.5
ZTS-MW137	12/1/2023	N	PM03	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	23.1	11.2
ZTS-MW137	2/23/2024	N	PM04	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	23.2	55.4
ZTS-MW137	5/24/2024	N	PM05	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	24.6	22
ZTS-MW137	9/16/2024	N	PM06	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	25.7	25.9
ZTS-MW118	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	24.1	5.9
ZTS-MW118	5/31/2023	FD	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----
ZTS-MW118	8/24/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	26.6	8.6
ZTS-MW118	8/24/2023	FD	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----
ZTS-MW118	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	24	2
ZTS-MW118	12/1/2023	FD	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW118	2/23/2024	N	PM04	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	23.7	3.8
ZTS-MW118	2/23/2024	FD	PM04	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----
ZTS-MW118	5/24/2024	N	PM05	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	23.2	6.2
ZTS-MW118	5/24/2024	FD	PM05	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----
ZTS-MW118	9/16/2024	N	PM06	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	25.3	3.6
ZTS-MW118	9/16/2024	FD	PM06	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----
ZTS-MW190	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	25.3	33
ZTS-MW190	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	24.9	23.7
ZTS-MW190	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	24.2	14.1
ZTS-MW190	2/22/2024	N	PM04	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	23.8	17.3
ZTS-MW190	5/23/2024	N	PM05	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	25.4	22.6
ZTS-MW190	9/17/2024	N	PM06	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	24.9	20.9
ZTS-MW196	5/30/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	25.5	63.8
ZTS-MW196	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	28	70.5
ZTS-MW196	11/30/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	23.3	23.7
ZTS-MW196	2/26/2024	N	PM04	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	24.1	17.9
ZTS-MW196	5/23/2024	N	PM05	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	26.6	162.9
ZTS-MW196	9/17/2024	N	PM06	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	26.3	20.6
ZTS-MW202	5/30/2023	N	PM01	2A	Upgradient	-3	UMCF	28.8 - 38.5	0 U	25.9	20
ZTS-MW202	8/28/2023	N	PM02	2A	Upgradient	-3	UMCF	28.8 - 38.5	0 U	27.4	7.7
ZTS-MW202	12/1/2023	N	PM03	2A	Upgradient	-3	UMCF	28.8 - 38.5	0 U	22.9	8.1
ZTS-MW202	2/27/2024	N	PM04	2A	Upgradient	-3	UMCF	28.8 - 38.5	0 U	22.7	13.1
ZTS-MW202	5/23/2024	N	PM05	2A	Upgradient	-3	UMCF	28.8 - 38.5	0 U	26.4	36.6
ZTS-MW202	9/16/2024	N	PM06	2A	Upgradient	-3	UMCF	28.8 - 38.5	0 U	25.1	28.4
ZTS-MW192	5/22/2023	N	PM01	2A	Center of Array	0	Alluvium	14.3 - 24.0	0 U	26.4	22.7
ZTS-MW192	8/21/2023	N	PM02	2A	Center of Array	0	Alluvium	14.3 - 24.0	0 U	24.2	35.7
ZTS-MW192	11/28/2023	N	PM03	2A	Center of Array	0	Alluvium	14.3 - 24.0	0 U	24.2	23.8
ZTS-MW192	2/20/2024	N	PM04	2A	Center of Array	0	Alluvium	14.3 - 24.0	0 U	21.4	195
ZTS-MW192	5/21/2024	N	PM05	2A	Center of Array	0	Alluvium	14.3 - 24.0	0 U	23.3	10.3
ZTS-MW192	9/17/2024	N	PM06	2A	Center of Array	0	Alluvium	14.3 - 24.0	0 U	25.5	43.1
ZTS-MW191	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	25	70.1
ZTS-MW191	8/22/2023	N	PM02	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	27.3	54.1
ZTS-MW191	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	23.1	8.3
ZTS-MW191	2/21/2024	N	PM04	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	22.8	63.8
ZTS-MW191	5/22/2024	N	PM05	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	23.3	29.5
ZTS-MW191	9/18/2024	N	PM06	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	26.2	32.1
ZTS-MW195	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	23.1	346.9
ZTS-MW195	8/21/2023	N	PM02	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	25.1	34.3
ZTS-MW195	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	23.9	16.7
ZTS-MW195	2/21/2024	N	PM04	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	23.4	8.1
ZTS-MW195	5/21/2024	N	PM05	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	24.9	14.7
ZTS-MW195	9/19/2024	N	PM06	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	24.6	39.4
ZTS-MW138	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	26.1	18.9
ZTS-MW138	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	25.1	10.9
ZTS-MW138	11/28/2023	N	PM03	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	24.5	36.5
ZTS-MW138	2/21/2024	N	PM04	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	22.7	30.5
ZTS-MW138	5/21/2024	N	PM05	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	24	13.7
ZTS-MW138	9/17/2024	N	PM06	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	25.6	126.6
ZTS-MW139	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	25.8	25.3
ZTS-MW139	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	26	13.6
ZTS-MW139	11/29/2023	N	PM03	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	22.6	6.9

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW139	2/21/2024	N	PM04	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	22.6	11.7
ZTS-MW139	5/21/2024	N	PM05	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	24	15.7
ZTS-MW139	9/18/2024	N	PM06	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	24	19.2
ZTS-MW193	5/25/2023	N	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	0 U	27.2	81.5
ZTS-MW193	5/25/2023	FD	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	----	----	----
ZTS-MW193	8/22/2023	N	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	0 U	24.9	25.5
ZTS-MW193	8/22/2023	FD	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	----	----	----
ZTS-MW193	11/30/2023	N	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	0 U	24.2	69.7
ZTS-MW193	11/30/2023	FD	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	----	----	----
ZTS-MW193	2/22/2024	N	PM04	2A	Downgradient	5	Alluvium	13.6 - 23.3	0 U	23.5	47.4
ZTS-MW193	2/22/2024	FD	PM04	2A	Downgradient	5	Alluvium	13.6 - 23.3	----	----	----
ZTS-MW193	5/22/2024	N	PM05	2A	Downgradient	5	Alluvium	13.6 - 23.3	0 U	25.2	9.6
ZTS-MW193	5/22/2024	FD	PM05	2A	Downgradient	5	Alluvium	13.6 - 23.3	----	----	----
ZTS-MW193	9/18/2024	N	PM06	2A	Downgradient	5	Alluvium	13.6 - 23.3	0 U	24.5	21.4
ZTS-MW193	9/18/2024	FD	PM06	2A	Downgradient	5	Alluvium	13.6 - 23.3	----	----	----
ZTS-MW203	5/30/2023	N	PM01	2A	Downgradient	5	UMCF	28.3 - 38.0	0 U	26.5	19
ZTS-MW203	8/23/2023	N	PM02	2A	Downgradient	5	UMCF	28.3 - 38.0	0 U	24.5	4.3
ZTS-MW203	10/11/2023	N	PM02	2A	Downgradient	5	UMCF	28.3 - 38.0	----	24.4	10.1
ZTS-MW203	10/11/2023	FS	PM02	2A	Downgradient	5	UMCF	28.3 - 38.0	----	----	----
ZTS-MW203	11/30/2023	N	PM03	2A	Downgradient	5	UMCF	28.3 - 38.0	0 U	23.7	16.2
ZTS-MW203	2/22/2024	N	PM04	2A	Downgradient	5	UMCF	28.3 - 38.0	0 U	23.4	35.4
ZTS-MW203	5/23/2024	N	PM05	2A	Downgradient	5	UMCF	28.3 - 38.0	0 U	23.9	51.7
ZTS-MW203	9/17/2024	N	PM06	2A	Downgradient	5	UMCF	28.3 - 38.0	0 U	25.8	142.5
ZTS-MW194	5/25/2023	N	PM01	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	24.6	22.1
ZTS-MW194	8/22/2023	N	PM02	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	24.4	11.8
ZTS-MW194	11/29/2023	N	PM03	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	23.8	10.4
ZTS-MW194	2/22/2024	N	PM04	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	21.7	40.6
ZTS-MW194	5/22/2024	N	PM05	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	23.8	17.4
ZTS-MW194	9/18/2024	N	PM06	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	25.7	18.9
ZTS-MW197	5/26/2023	N	PM01	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	22.8	40.4
ZTS-MW197	8/22/2023	N	PM02	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	24.8	11.8
ZTS-MW197	11/30/2023	N	PM03	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	22.5	72.8
ZTS-MW197	2/22/2024	N	PM04	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	22.6	55.8
ZTS-MW197	5/22/2024	N	PM05	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	24.2	19.1
ZTS-MW197	9/17/2024	N	PM06	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	25.5	85.8
ZTS-MW113	5/26/2023	N	PM01	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	24	2.4
ZTS-MW113	8/24/2023	N	PM02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	24.1	2.5
ZTS-MW113	11/30/2023	N	PM03	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	23.1	2.9
ZTS-MW113	2/23/2024	N	PM04	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	23.2	9
ZTS-MW113	5/23/2024	N	PM05	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	23.4	0.8
ZTS-MW113	9/19/2024	N	PM06	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	23.7	5.5
Test Area 2B											
Pre-Construction Baseline Results											
ZTS-MW133	10/20/2022	N	BL02	2B	Upgradient	-9	UMCF	54.0 - 69.0	0 U	21.1	115.7
ZTS-MW117	9/1/2022	N	BL01	2B	Upgradient	-2	UMCF	40.5 - 55.5	----	34.6	25
ZTS-MW117	10/19/2022	N	BL02	2B	Upgradient	-2	UMCF	40.5 - 55.5	0 U	21.1	8.3
ZTS-MW117	10/19/2022	FD	BL02	2B	Upgradient	-2	UMCF	40.5 - 55.5	----	----	----
ZTS-MW134	10/19/2022	N	BL02	2B	Upgradient	-2	UMCF	26.0 - 36.0	0 U	24.6	8.4
ZTS-MW135	10/19/2022	N	BL02	2B	Downgradient	7	UMCF	54.0 - 69.0	0 U	24.4	98.2
ZTS-MW136	10/20/2022	N	BL02	2B	Cross Gradient	7	UMCF	27.0 - 47.0	0 U	23	71.9
Post-Construction Performance Monitoring Results											

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW133	5/23/2023	N	PM01	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	23	33
ZTS-MW133	8/30/2023	N	PM02	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	26.9	31.2
ZTS-MW133	12/4/2023	N	PM03	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	23.4	48.2
ZTS-MW133	2/23/2024	N	PM04	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	21.8	17.2
ZTS-MW133	5/24/2024	N	PM05	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	24.8	40.7
ZTS-MW133	9/17/2024	N	PM06	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	24.3	6
ZTS-MW117	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	40.5 - 55.5	0.1	30.4	2
ZTS-MW117	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	40.5 - 55.5	0 U	25.2	21.4
ZTS-MW117	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	40.5 - 55.5	0 U	22.6	5.3
ZTS-MW117	2/23/2024	N	PM04	2B	Upgradient	-2	UMCf	40.5 - 55.5	0.6	18.7	4.8
ZTS-MW117	5/22/2024	N	PM05	2B	Upgradient	-2	UMCf	40.5 - 55.5	0.04 U	30.9	26.4
ZTS-MW117	9/17/2024	N	PM06	2B	Upgradient	-2	UMCf	40.5 - 55.5	0 U	25.4	1
ZTS-MW134	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	30.1	28.7
ZTS-MW134	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	28.1	26.8
ZTS-MW134	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	23.1	7
ZTS-MW134	2/23/2024	N	PM04	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	18.2	18.4
ZTS-MW134	5/22/2024	N	PM05	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	27.7	18.8
ZTS-MW134	9/19/2024	N	PM06	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	24	7.6
ZTS-MW198	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	26.8	55.2
ZTS-MW198	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	25.3	34.2
ZTS-MW198	11/27/2023	N	PM03	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	23.3	4
ZTS-MW198	2/20/2024	N	PM04	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	21	38.5
ZTS-MW198	5/20/2024	N	PM05	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	30.3	26.6
ZTS-MW198	9/18/2024	N	PM06	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	26.7	57.5
ZTS-MW200	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	26.3	104
ZTS-MW200	5/23/2023	FD	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	----	----	----
ZTS-MW200	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	28.7	11
ZTS-MW200	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	0.2	18.9	4.9
ZTS-MW200	2/20/2024	N	PM04	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	17.6	37.5
ZTS-MW200	5/20/2024	N	PM05	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	33.9	65.8
ZTS-MW200	9/18/2024	N	PM06	2B	Downgradient	2	UMCf	50.1 - 65.0	0.2	28.2	207.4
ZTS-MW201	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	25.3	15.1
ZTS-MW201	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	27.8	28.2
ZTS-MW201	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	22.9	13.3
ZTS-MW201	2/22/2024	N	PM04	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	20.8	22.2
ZTS-MW201	5/21/2024	N	PM05	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	25.4	1.8
ZTS-MW201	9/18/2024	N	PM06	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	25.3	19.5
ZTS-MW206	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	25.4	15.9
ZTS-MW206	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	30.1	9.5
ZTS-MW206	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	23.3	18.5
ZTS-MW206	2/22/2024	N	PM04	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	21.2	40.1
ZTS-MW206	5/21/2024	N	PM05	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	25.6	13.5
ZTS-MW206	9/18/2024	N	PM06	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	23.7	170
ZTS-MW199	5/23/2023	N	PM01	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	29.4	16.7
ZTS-MW199	8/22/2023	N	PM02	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	24.6	26.5
ZTS-MW199	11/28/2023	N	PM03	2B	Downgradient	5	UMCf	50.1 - 65.0	0.2	22.2	77.7
ZTS-MW199	2/20/2024	N	PM04	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	19.9	8.1
ZTS-MW199	5/20/2024	N	PM05	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	32.6	14.9
ZTS-MW199	9/19/2024	N	PM06	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	25.6	13.3
ZTS-MW207	5/24/2023	N	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	25.2	9.6
ZTS-MW207	5/24/2023	FD	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	----	----	----

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW207	8/23/2023	N	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	25.2	30.5
ZTS-MW207	8/23/2023	FD	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	----	----	----
ZTS-MW207	11/29/2023	N	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	21.8	19.8
ZTS-MW207	11/29/2023	FD	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	----	----	----
ZTS-MW207	2/22/2024	N	PM04	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	20.4	23.9
ZTS-MW207	2/22/2024	FD	PM04	2B	Downgradient	5	UMCf	26.1 - 46.0	----	----	----
ZTS-MW207	5/22/2024	N	PM05	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	25.1	16.7
ZTS-MW207	5/22/2024	FD	PM05	2B	Downgradient	5	UMCf	26.1 - 46.0	----	----	----
ZTS-MW207	9/17/2024	N	PM06	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	26.3	33.5
ZTS-MW207	9/17/2024	FD	PM06	2B	Downgradient	5	UMCf	26.1 - 46.0	----	----	----
ZTS-MW135	5/26/2023	N	PM01	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	23.1	20.7
ZTS-MW135	8/24/2023	N	PM02	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	25.7	94.8
ZTS-MW135	11/30/2023	N	PM03	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	22.2	62
ZTS-MW135	2/22/2024	N	PM04	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	22.2	37.5
ZTS-MW135	5/22/2024	N	PM05	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	26	46.2
ZTS-MW135	9/17/2024	N	PM06	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	26	57.3
ZTS-MW136	5/26/2023	N	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0 U	24	13.7
ZTS-MW136	5/26/2023	FD	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	----	----	----
ZTS-MW136	8/25/2023	N	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0 U	26.5	23.2
ZTS-MW136	8/25/2023	FD	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	----	----	----
ZTS-MW136	11/29/2023	N	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0 U	23.2	24.2
ZTS-MW136	11/29/2023	FD	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	----	----	----
ZTS-MW136	2/22/2024	N	PM04	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0.2	21.2	83.2
ZTS-MW136	2/22/2024	FD	PM04	2B	Cross Gradient	7	UMCf	27.0 - 47.0	----	----	----
ZTS-MW136	5/21/2024	N	PM05	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0 U	29.8	47.9
ZTS-MW136	5/21/2024	FD	PM05	2B	Cross Gradient	7	UMCf	27.0 - 47.0	----	----	----
ZTS-MW136	9/12/2024	N	PM06	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0 U	25.6	7
ZTS-MW136	9/12/2024	FD	PM06	2B	Cross Gradient	7	UMCf	27.0 - 47.0	----	----	----
ZTS-MW208	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	23.6	50.4
ZTS-MW208	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	29.8	41.8
ZTS-MW208	11/28/2023	N	PM03	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	23.5	42.3
ZTS-MW208	2/22/2024	N	PM04	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	22.6	42.2
ZTS-MW208	5/23/2024	N	PM05	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	24.8	305
ZTS-MW208	9/18/2024	N	PM06	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	24.3	15.4
ZTS-MW209	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	24.9	71.5
ZTS-MW209	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	25.8	51.4
ZTS-MW209	11/29/2023	N	PM03	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	22.1	40.5
ZTS-MW209	2/22/2024	N	PM04	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	22.6	16.7
ZTS-MW209	5/23/2024	N	PM05	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	23.9	30.6
ZTS-MW209	9/18/2024	N	PM06	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	25	7.2
Test Area 2C											
Pre-Construction Baseline Results											
ZTS-MW140	10/21/2022	N	BL02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	23.6	82.3
ZTS-MW119	9/1/2022	N	BL01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	----	26	33.3
ZTS-MW119	10/19/2022	N	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	23.9	15.2
ZTS-MW119	10/19/2022	FD	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	----	----	----
ZTS-MW141	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	24.2	38.6
ZTS-MW142	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	24.3	106.7
LVWPS-MW102A	10/21/2022	N	BL02	2C	Downgradient	30	UMCf	47.0 - 66.6	0 U	23	146
LVWPS-MW102B	10/21/2022	N	BL02	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0 U	23.9	116.3
Post-Construction Performance Monitoring Results											

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW140	5/25/2023	N	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	21.5	59.8
ZTS-MW140	5/25/2023	FD	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	----	----	----
ZTS-MW140	8/29/2023	N	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	24.7	22.5
ZTS-MW140	8/29/2023	FD	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	----	----	----
ZTS-MW140	12/4/2023	N	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	24.1	19.4
ZTS-MW140	12/4/2023	FD	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	----	----	----
ZTS-MW140	2/22/2024	N	PM04	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	23.2	11.2
ZTS-MW140	2/22/2024	FD	PM04	2C	Upgradient	-9	Alluvium	15.5 - 25.5	----	----	----
ZTS-MW140	5/24/2024	N	PM05	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	24	427.1
ZTS-MW140	5/24/2024	FD	PM05	2C	Upgradient	-9	Alluvium	15.5 - 25.5	----	----	----
ZTS-MW140	9/11/2024	N	PM06	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	25.1	24
ZTS-MW140	9/11/2024	FD	PM06	2C	Upgradient	-9	Alluvium	15.5 - 25.5	----	----	----
ZTS-MW119	5/24/2023	N	PM01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	24.5	22.1
ZTS-MW119	8/29/2023	N	PM02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	25.1	11
ZTS-MW119	12/4/2023	N	PM03	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	24	6.7
ZTS-MW119	2/22/2024	N	PM04	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	23.3	7.5
ZTS-MW119	5/24/2024	N	PM05	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	24.8	21.9
ZTS-MW119	9/11/2024	N	PM06	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	25.7	9.9
ZTS-MW181	5/25/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	22.7	127.1
ZTS-MW181	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	25.1	107.3
ZTS-MW181	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	24.1	20.6
ZTS-MW181	2/28/2024	N	PM04	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	23	23.2
ZTS-MW181	5/24/2024	N	PM05	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	23.8	37.7
ZTS-MW181	9/11/2024	N	PM06	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	25.1	31.5
ZTS-MW188	5/26/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	24.5	19.3
ZTS-MW188	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	24	17.5
ZTS-MW188	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	24	72.3
ZTS-MW188	2/23/2024	N	PM04	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	21.2	93
ZTS-MW188	5/22/2024	N	PM05	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	24.1	25.6
ZTS-MW188	9/11/2024	N	PM06	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	25.5	22.9
ZTS-MW204	5/25/2023	N	PM01	2C	Upgradient	-3	UMCF	30.3 - 40.0	0 U	23.3	56
ZTS-MW204	8/25/2023	N	PM02	2C	Upgradient	-3	UMCF	30.3 - 40.0	0 U	27.4	11
ZTS-MW204	12/1/2023	N	PM03	2C	Upgradient	-3	UMCF	30.3 - 40.0	0 U	21.8	16.8
ZTS-MW204	2/22/2024	N	PM04	2C	Upgradient	-3	UMCF	30.3 - 40.0	0 U	23.7	17.9
ZTS-MW204	5/24/2024	N	PM05	2C	Upgradient	-3	UMCF	30.3 - 40.0	0 U	28.9	29.2
ZTS-MW204	9/11/2024	N	PM06	2C	Upgradient	-3	UMCF	30.3 - 40.0	0 U	28.8	13.6
ZTS-MW182	5/23/2023	N	PM01	2C	Center of Array	0	Alluvium	17.6 - 27.3	0 U	24.8	145.5
ZTS-MW182	8/22/2023	N	PM02	2C	Center of Array	0	Alluvium	17.6 - 27.3	0 U	24.4	42.7
ZTS-MW182	11/27/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	----	23.5	23.4
ZTS-MW182	11/28/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	0 U	22.6	13.1
ZTS-MW182	2/19/2024	N	PM04	2C	Center of Array	0	Alluvium	17.6 - 27.3	0 U	23.9	116.7
ZTS-MW182	5/23/2024	N	PM05	2C	Center of Array	0	Alluvium	17.6 - 27.3	0 U	23.4	43.5
ZTS-MW182	9/6/2024	N	PM06	2C	Center of Array	0	Alluvium	17.6 - 27.3	0 U	25.8	43.2
ZTS-MW183	5/23/2023	N	PM01	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	27.9	41.1
ZTS-MW183	8/22/2023	N	PM02	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	25.3	34
ZTS-MW183	11/28/2023	N	PM03	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	23.4	13.2
ZTS-MW183	2/20/2024	N	PM04	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	21.8	16.2
ZTS-MW183	5/23/2024	N	PM05	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	24.3	13.4
ZTS-MW183	9/6/2024	N	PM06	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	28.1	27.8
ZTS-MW187	5/24/2023	N	PM01	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	25.2	31.6
ZTS-MW187	8/23/2023	N	PM02	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	24.2	29.8

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
						feet			Sulfide	Temperature	Turbidity
									mg/L	C	NTU
ZTS-MW187	11/29/2023	N	PM03	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	22.5	6.5
ZTS-MW187	2/20/2024	N	PM04	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	22.3	7.7
ZTS-MW187	5/22/2024	N	PM05	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	25.8	13.8
ZTS-MW187	9/6/2024	N	PM06	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	25.7	74.7
ZTS-MW141	5/25/2023	N	PM01	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	31.7	112.3
ZTS-MW141	8/23/2023	N	PM02	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	25	6.1
ZTS-MW141	11/29/2023	N	PM03	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	23.8	5.8
ZTS-MW141	2/22/2024	N	PM04	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	23.5	15.7
ZTS-MW141	5/22/2024	N	PM05	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	28.4	60.5
ZTS-MW141	9/9/2024	N	PM06	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	26.2	57
ZTS-MW142	5/26/2023	N	PM01	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	26.8	-0.8
ZTS-MW142	8/24/2023	N	PM02	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	24.6	24
ZTS-MW142	11/30/2023	N	PM03	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	23	8.1
ZTS-MW142	2/22/2024	N	PM04	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	23.9	19
ZTS-MW142	5/24/2024	N	PM05	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	24.2	228.6
ZTS-MW142	9/9/2024	N	PM06	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	29.4	246.9
ZTS-MW184	5/24/2023	N	PM01	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	25.3	68.6
ZTS-MW184	8/22/2023	N	PM02	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	25.5	29.5
ZTS-MW184	11/28/2023	N	PM03	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	23.8	7.5
ZTS-MW184	2/20/2024	N	PM04	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	22.6	15.3
ZTS-MW184	5/23/2024	N	PM05	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	26.1	20.6
ZTS-MW184	9/6/2024	N	PM06	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	27.6	70.1
ZTS-MW205	5/24/2023	N	PM01	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	30.7	72.6
ZTS-MW205	8/23/2023	N	PM02	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	24.7	9.5
ZTS-MW205	11/29/2023	N	PM03	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	22.1	7.3
ZTS-MW205	2/22/2024	N	PM04	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	23.1	11.9
ZTS-MW205	5/23/2024	N	PM05	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	24.6	8.8
ZTS-MW205	9/9/2024	N	PM06	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	26.6	34.7
ZTS-MW185	5/25/2023	N	PM01	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	23.1	107.2
ZTS-MW185	8/24/2023	N	PM02	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	24.7	14.8
ZTS-MW185	11/30/2023	N	PM03	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	23.7	6.7
ZTS-MW185	2/22/2024	N	PM04	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	22.6	68.6
ZTS-MW185	5/24/2024	N	PM05	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	23.3	16.5
ZTS-MW185	9/10/2024	N	PM06	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	26.5	-123.9
ZTS-MW186	5/25/2023	N	PM01	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	24.6	152
ZTS-MW186	8/24/2023	N	PM02	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	25.6	14.5
ZTS-MW186	11/30/2023	N	PM03	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	23.9	12.8
ZTS-MW186	2/23/2024	N	PM04	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	21.1	74
ZTS-MW186	5/24/2024	N	PM05	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	24.8	24.1
ZTS-MW186	9/10/2024	N	PM06	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	29.5	60.5
LVWPS-MW102A	5/30/2023	N	PM01	2C	Downgradient	30	UMCf	47.0 - 66.6	0 U	24	199
LVWPS-MW102A	8/23/2023	N	PM02	2C	Downgradient	30	UMCf	47.0 - 66.6	0 U	24.5	172.7
LVWPS-MW102A	10/11/2023	N	PM02	2C	Downgradient	30	UMCf	47.0 - 66.6	----	25	767.9
LVWPS-MW102A	10/11/2023	FS	PM02	2C	Downgradient	30	UMCf	47.0 - 66.6	----	----	----
LVWPS-MW102A	12/1/2023	N	PM03	2C	Downgradient	30	UMCf	47.0 - 66.6	0 U	22.6	205.1
LVWPS-MW102A	2/27/2024	N	PM04	2C	Downgradient	30	UMCf	47.0 - 66.6	0 U	22.3	95.7
LVWPS-MW102A	5/23/2024	N	PM05	2C	Downgradient	30	UMCf	47.0 - 66.6	0 U	23.9	178.3
LVWPS-MW102A	9/17/2024	N	PM06	2C	Downgradient	30	UMCf	47.0 - 66.6	0 U	25.5	225.7
LVWPS-MW102B	5/26/2023	N	PM01	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0.6	27.2	85.5
LVWPS-MW102B	8/23/2023	N	PM02	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0.2	25.9	350.6
LVWPS-MW102B	12/1/2023	N	PM03	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0.2	22.8	160.7

Table 2
Groundwater Analytical Results
 Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Test Area	Location	Approximate Distance from ZVI Wall ⁽¹⁾	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Sulfide	Temperature	Turbidity
									mg/L	C	NTU
LVWPS-MW102B	2/27/2024	N	PM04	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0.1	21.3	42
LVWPS-MW102B	5/23/2024	N	PM05	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0.3	29.4	87.7
LVWPS-MW102B	9/17/2024	N	PM06	2C	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0.2	26.2	292.3
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	24.4	9
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	24.9	11.2
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	23.5	11
ZTS-MW189	2/23/2024	N	PM04	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	23.5	12.4
ZTS-MW189	5/24/2024	N	PM05	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	24.4	8.9
ZTS-MW189	9/10/2024	N	PM06	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	25.9	-186.3
General Vicinity											
Pre-Construction Baseline Results											
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	----	27	478.2
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	0 U	21.5	36.8
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	35.2	55.2
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	0 U	23.3	41.3
Post-Construction Performance Monitoring Results											
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	0 U	23.2	25.3
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	0 U	26.4	49.9
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	0 U	21.5	37.7
ZTS-MW116	2/27/2024	N	PM04	NA	NA	NA	UMCf	33.0 - 48.0	0 U	24.6	19.4
ZTS-MW116	5/24/2024	N	PM05	NA	NA	NA	UMCf	33.0 - 48.0	0 U	26.9	44.7
ZTS-MW116	9/12/2024	N	PM06	NA	NA	NA	UMCf	33.0 - 48.0	0 U	25.3	24.5
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	0 U	26.1	8.8
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	0 U	26.3	15.7
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	0 U	21.6	208
ZTS-MW128	2/28/2024	N	PM04	NA	NA	NA	UMCf	42.0 - 52.0	0 U	22.8	24.5
ZTS-MW128	5/28/2024	N	PM05	NA	NA	NA	UMCf	42.0 - 52.0	0 U	28	26.6
ZTS-MW128	9/12/2024	N	PM06	NA	NA	NA	UMCf	42.0 - 52.0	0 U	27.9	24.4

Notes:

bgs - below ground surface

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

< The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

mg/L - milligram per liter

mS/cm - milliSiemens per centimeter

mV - millivolts

nmol - nanomol

SU - standard units

N - normal field sample

µg/L - micrograms per liter

UMCf - Upper Muddy Creek formation

FD - field duplicate

FS - field split

PM05 Hydrogen samples cancelled with lab due to instrument failure.