

TECHNICAL MEMORANDUM

To: Nevada Environmental Response Trust

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

From: Dana Grady

Date: March 20, 2024

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 January 2024 toward successfully implementing the Las Vegas Wash Zero-Valent Iron (ZVI)-Enhanced Bioremediation Treatability Study.

Task Progress Update: January 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 performance monitoring program began in May 2023 and is ongoing. The performance monitoring program is being implemented in accordance with the NDEP-approved Work Plan Addendum, which 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 16 months. The latest monthly synoptic gauging event was conducted from January 17 to January 18, 2024. The Month 1 groundwater performance monitoring event was completed in May 2023, followed by quarterly performance

monitoring events in August 2023 and November/December 2023. Results from the May and August 2023 performance monitoring events were presented in previous monthly progress reports, while results of the November/December 2023 sampling event (performed approximately eight months after completion of the construction phase) are presented herein. Available 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.

- 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. Notable groundwater results from the November/December 2023 sampling event are provided below.
 - Groundwater samples collected from upgradient monitoring wells screened in the alluvium in November/December 2023 indicated an average perchlorate concentration of 5,243 micrograms per liter ($\mu\text{g/L}$), which is greater than the average October 2022 baseline perchlorate concentration for 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 1,700 $\mu\text{g/L}$ to 3,060 $\mu\text{g/L}$, which represents reductions ranging from 34 percent to 63 percent compared to the average baseline concentration of 4,607 $\mu\text{g/L}$. The lowest November/December 2023 perchlorate concentration within the alluvium at Test Area 1a was measured in the groundwater samples collected from ZTS-MW164, where the perchlorate concentration reduced from 3,740 $\mu\text{g/L}$ in May 2023 to 1,700 $\mu\text{g/L}$ in November/December 2023.
 - Groundwater samples collected from three of the 11 downgradient monitoring wells screened in the alluvium during the November/December 2023 sampling event indicated slight reductions in perchlorate concentrations of up to 26 percent compared to the average baseline perchlorate concentration. These results were generally expected as the bench-scale study 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. The injection of a biological inoculum completed in April 2023 was performed to reduce the lag time associated with acclimation and growth of the microbial community. The perchlorate concentrations within Test Area 1a will continue to be monitored.
 - Concentration reductions of chlorate and nitrate were more pronounced than perchlorate reductions, which is consistent with the conclusions of the bench-scale study (as previously explained). Chlorate concentrations in samples

collected within the continuous ZVI wall indicated reductions ranging from 23 percent to 99 percent compared to baseline concentrations. Nitrate concentrations in groundwater collected from two of the three monitoring wells located within the continuous ZVI wall indicated reductions of 10 percent to 86 percent compared to baseline concentrations. Groundwater samples collected from five out of 11 monitoring wells located 5 to 150 feet downgradient of the continuous ZVI wall indicated chlorate reductions ranging from 36 percent to 73 percent compared to baseline concentrations. Groundwater samples collected from six of the 11 monitoring wells located 5 to 150 feet downgradient of the continuous ZVI wall indicated nitrate concentration reductions ranging from 5 percent to 63 percent.

- 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). Groundwater samples collected from monitoring well ZTS-MW164 (located directly within the continuous ZVI wall) indicated a significantly elevated dissolved hydrogen concentration of 2,100 nM during the Month 1 May 2023 sampling event, which increased to 2,400 nM during the August 2023 sampling. The dissolved hydrogen concentration reduced to 116 nM in November/December 2023, which continues to be elevated compared to the average baseline concentration of 68 nM but is significantly reduced from previous events. Although dissolved hydrogen concentrations above baseline concentrations were not observed in samples collected from monitoring wells ZTS-MW150 and ZTS-MW154, which are also located within the continuous ZVI wall, perchlorate concentrations in groundwater at these locations continued to indicate decreasing perchlorate concentration trends with reductions up to 62 percent compared to the average baseline concentration. Elevated dissolved hydrogen concentrations were not observed in any other monitoring wells located downgradient of the continuous wall within the Test 1a area. Therefore, dissolved hydrogen is likely being produced and consumed within this portion of the continuous ZVI wall.
- 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. Notable groundwater results from the November/December 2023 sampling event are provided below.
 - Groundwater samples collected from upgradient monitoring wells screened in the alluvium in November/December 2023 indicated an average perchlorate concentration of 5,580 µg/L, which is slightly lower than the average October 2022 baseline perchlorate concentration of 7,234 µg/L. Groundwater samples collected from two of the three monitoring wells located within the continuous ZVI wall indicated perchlorate concentrations ranging from 5,370 µg/L to 5,450 µg/L. Although these concentrations represent reductions of approximately 25 percent compared to the average baseline concentration of 7,234 µg/L in October 2022, the November/December 2023 concentrations in the groundwater samples collected from within the continuous ZVI wall are similar to current upgradient perchlorate concentrations. The perchlorate concentration in groundwater collected from ZTS-MW166 (also located within the continuous ZVI wall)

increased to above the baseline concentration to 9,260 µg/L in November/December 2023. Samples collected from nine of the 11 downgradient monitoring wells screened in the alluvium during the November/December 2023 sampling event indicated reductions in perchlorate concentrations ranging from 17 percent to 47 percent compared to the average baseline perchlorate concentration.

- Reductions in chlorate and nitrate concentrations at monitoring wells within Test Area 1b were significantly more pronounced than those observed for perchlorate. Chlorate concentrations in groundwater samples collected from all 14 monitoring wells within Test Area 1b (wells located within the continuous ZVI wall and 5 feet to 150 feet downgradient) reduced by an average of 92 percent compared to the average baseline chlorate concentration. Furthermore, chlorate concentrations reduced to less than the sample detection limit in groundwater samples collected from 11 monitoring wells, including one monitoring well located 100 feet downgradient of the continuous ZVI wall. Similarly, groundwater samples collected from 10 of the 14 monitoring wells located within or downgradient of the continuous ZVI wall indicated nitrate concentration reductions ranging from 28 percent to 97 percent compared to baseline. Nitrate concentrations reduced to less than 5 mg/L in groundwater samples collected from seven of these monitoring wells, which is significantly lower than the average baseline concentration of 19 mg/L.
- Baseline dissolved hydrogen concentrations averaged 21 nM in the alluvium within the Test 1b area. Groundwater samples collected during November/December 2023 from monitoring wells ZTS-MW166 and ZTS-MW178 (both located within the continuous ZVI wall) continued to indicate significantly elevated dissolved hydrogen concentrations of 6,130 nM and 4,140 nM, respectively. In addition, dissolved hydrogen concentrations in groundwater samples collected from monitoring well ZTS-MW171 (also located within the continuous ZVI wall) increased from 12.5 nM in August 2023 to 41 nM in November/December 2023. Elevated dissolved hydrogen concentrations were not observed in any other monitoring wells located downgradient of the continuous wall within the Test 1b area, which suggests hydrogen consumption is occurring at the continuous wall as expected.
- 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. Notable groundwater results from the November/December 2023 sampling event are provided below.
 - The average October 2022 baseline perchlorate concentration in groundwater samples collected from monitoring wells screened in the alluvium within Test Area 2a was 6,798 µg/L. Perchlorate concentration reductions ranging from 12 percent to 34 percent were observed in groundwater samples collected from the three monitoring wells located within and immediately downgradient of the discontinuous ZVI wall, with concentrations ranging from 4,520 µg/L to 5,980 µg/L.
 - Chlorate and nitrate concentration reductions of 27 percent and 56 percent, respectively, were observed in the groundwater sample collected from monitoring well ZTS-MW191, which is located immediately downgradient of the

discontinuous ZVI wall. Chlorate and nitrate concentrations measured in groundwater samples collected from the remaining monitoring wells were similar to or higher than the baseline average concentration of 88,280 µg/L and 19 mg/L, respectively.

- 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 increase in dissolved hydrogen concentration within Test Area 2a was the groundwater sample collected from monitoring well ZTS-MW191 (located immediately downgradient of the discontinuous ZVI wall), which indicated a dissolved hydrogen concentration of 2,400 nM.
- 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 25-45 feet below ground surface (bgs) and from approximately 50 to 65 feet bgs. Notable groundwater results from the November/December 2023 sampling event are provided below.
 - The average baseline perchlorate concentration in groundwater samples collected from monitoring wells screened in the UMCf was 3,156 µg/L. Perchlorate concentration reductions were observed in groundwater samples collected from six of the eight monitoring wells located two to seven feet downgradient of the discontinuous ZVI wall. Perchlorate concentrations in groundwater samples collected from these six monitoring wells ranged from 31 µg/L to 2,410 µg/L during the November/December 2023 sampling event, which represent reductions ranging from 24 percent to 99 percent compared to the average baseline concentration of 3,156 µg/L. In general, monitoring wells screened in the shallow UMCf indicated higher reductions in perchlorate. For example, perchlorate concentrations of 31 µg/L and 43 µg/L, which represent reductions of 99 percent, were measured in groundwater samples collected from shallow UMCf monitoring wells ZTS-MW136 and ZTS-MW198, respectively. Although groundwater samples collected from two downgradient monitoring wells screened in the deep UMCf immediately adjacent to the discontinuous ZVI wall indicated perchlorate concentration reductions ranging from 24 percent to 63 percent, groundwater samples collected from monitoring wells located 5 feet to 15 feet downgradient and screened in the deep UMCf measured greater than the average baseline concentration.
 - Chlorate concentration reductions of 99 percent were observed in groundwater samples collected from four of the eight monitoring wells located two to seven feet downgradient of the discontinuous ZVI wall. Nitrate concentration reductions ranging from 75 percent to 93 percent were observed in samples collected from three out of 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 in the deep UMCf, continued to exhibit elevated dissolved hydrogen concentrations, with a concentration of 3,340 nM in November/December 2023.

- 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. Notable groundwater results from the November/December 2023 sampling event are provided below.
 - The average baseline perchlorate concentration in groundwater samples collected from monitoring wells screened in the alluvium within Test Area 2c was 6,993 µg/L. Slight perchlorate concentration reductions ranging from 9 percent to 25 percent were observed in groundwater samples collected from all nine monitoring wells located within or downgradient of the discontinuous ZVI wall, with concentrations ranging from 5,260 µg/L to 6,330 µg/L during the November/December 2023 sampling event.
 - Slight chlorate reductions were observed in groundwater samples collected in November/December 2023 from six of the nine monitoring wells located within or downgradient of the discontinuous ZVI wall. The most significant chlorate concentration reduction of 28 percent was observed in the groundwater sample collected from monitoring well ZTS-MW143, which is located 5 feet downgradient of the Test Area 2c discontinuous ZVI wall. A slight reduction in nitrate concentration of 13 percent compared to the average baseline concentration of 18 mg/L was observed in the groundwater sample collected from monitoring well ZTS-MW182, which is located within the Test Area 2c discontinuous ZVI wall.
 - Dissolved hydrogen concentrations averaged 5.5 nM during the October 2022 baseline event. Notably elevated dissolved hydrogen concentrations were detected in groundwater samples collected from four monitoring wells screened in the alluvium in Test Area 2c (ZTS-MW141, ZTS-MW142, ZTS-MW182, and ZTS-MW189) with concentrations ranging from 140 to 900 nM during the May 2023 sampling event. However, elevated dissolved hydrogen concentrations were not observed in groundwater samples collected from Test Area 2c monitoring wells during the August and November/December 2023 sampling events.
- 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 January 2023 monthly synoptic monitoring event do not indicate any significant changes to groundwater elevations in monitoring wells located upgradient, within, and 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. The next monthly synoptic event is scheduled for February 19, 2024.
 - 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 February 19 through February 23, 2024.
- Health and Safety

- There were no health and safety incidents related to Task M18 during January 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: 3/20/24

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.



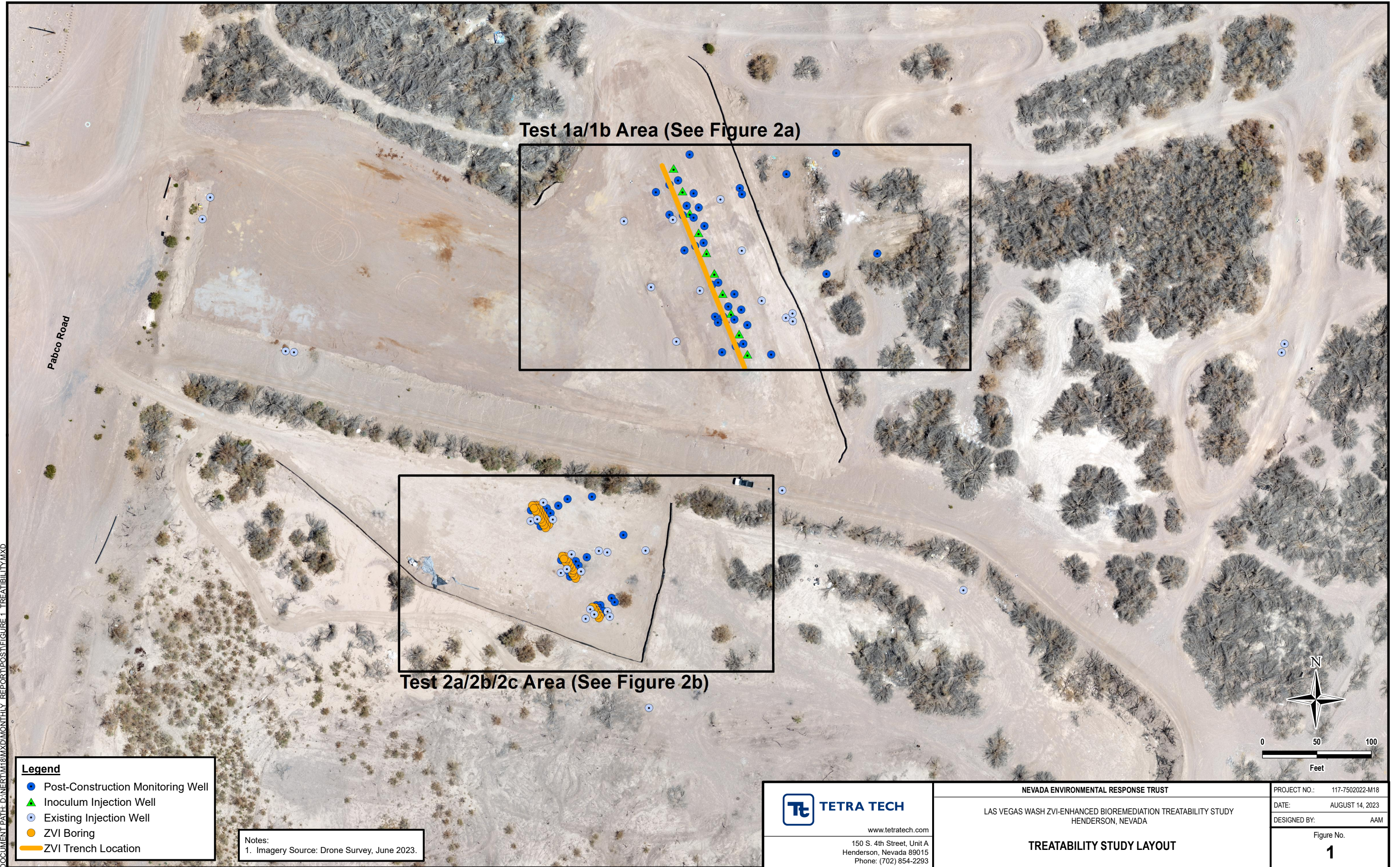
Christopher Hayes, CEM
Environmental Engineer
Tetra Tech, Inc.

March 20, 2024

Date

Nevada CEM Certificate Number: EM2499
Nevada CEM Expiration Date: December 15, 2024

Figures



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

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

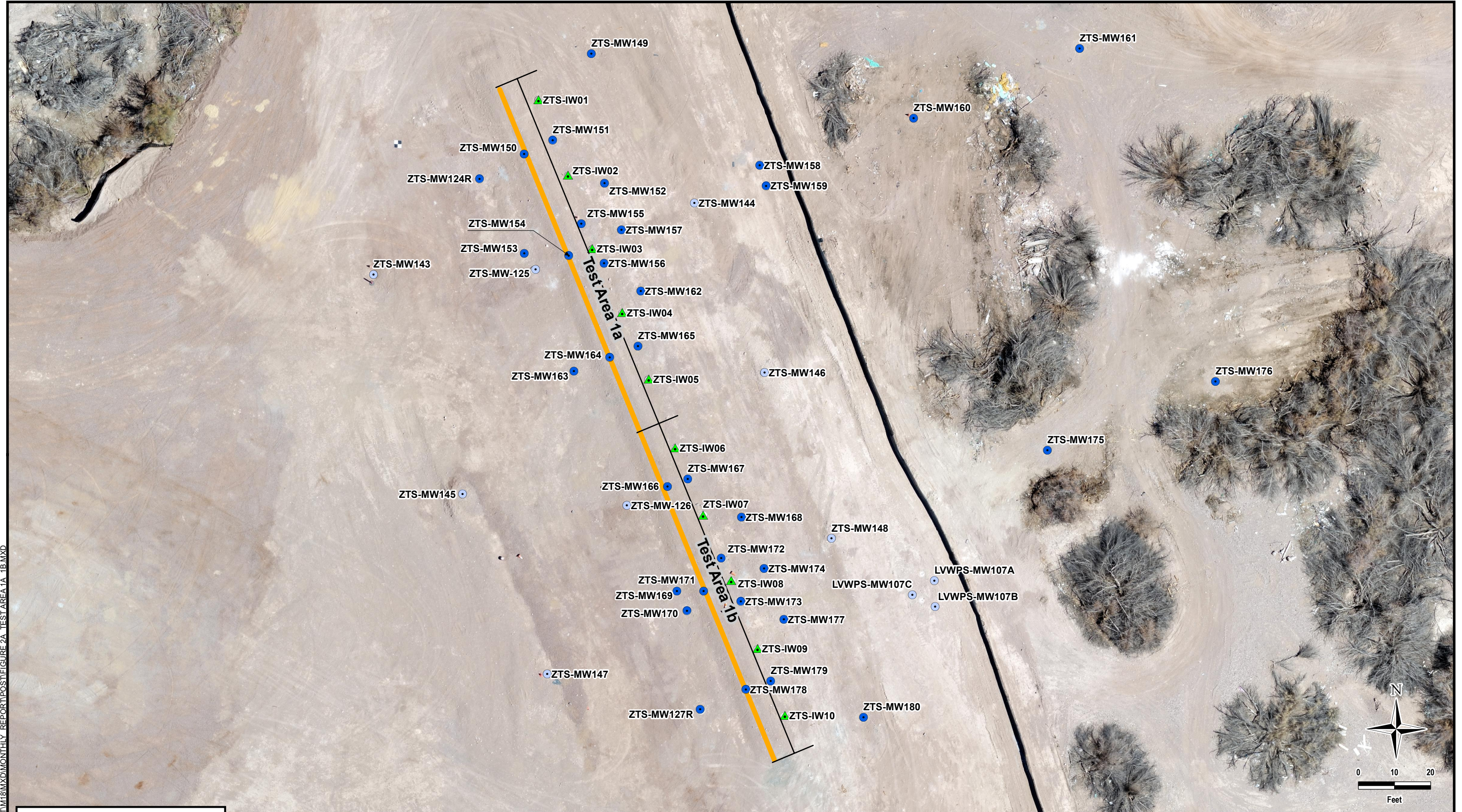
Notes:
 1. Imagery Source: Drone Survey, June 2023.

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

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
Test Area 1A																	
ZTS-MW124R	Alluvium	26732932.91	833021.97	1545.35	1545.24	16.94	1528.30	Schedule 40 PVC	0.020	#3	8	35.0	4	10.0	34.5	34.0	24.5
ZTS-MW125	UMCf	26732907.80	833037.00	1546.94	1546.51	17.84	1528.67	Schedule 40 PVC	0.010	#2/16	8	75	4	10	50.5	50	40
ZTS-MW143	Alluvium	26732906.40	832992.60	1545.04	1544.90	16.13	1528.77	Schedule 40 PVC	0.020	#3	6	35	2	10	33.5	33	23
ZTS-MW144	Alluvium	26732926.25	833081.32	1544.47	1544.52	16.85	1527.67	Schedule 40 PVC	0.020	#3	6	40	2	10	34.5	34	24
ZTS-MW149	Alluvium	26732967.42	833052.83	1544.31	1544.20	16.38	1527.82	Schedule 40 PVC	0.020	#3	6	35.0	2	10.0	33.5	33.0	23.3
ZTS-MW150	Alluvium	26732939.76	833034.23	1546.83	1546.74	18.70	1528.04	Schedule 40 PVC	0.020	#3	6	45.0	2	10.0	34.5	34.0	24.3
ZTS-MW151	Alluvium	26732943.59	833042.18	1545.72	1545.62	17.75	1527.87	Schedule 40 PVC	0.020	#3	6	37.5	2	10.0	34.5	34.0	24.3
ZTS-MW152	Alluvium	26732931.70	833056.48	1545.63	1545.50	17.81	1527.69	Schedule 40 PVC	0.020	#3	6	35.0	2	10.0	33.5	33.0	23.3
ZTS-MW153	Alluvium	26732912.34	833034.31	1545.73	1545.61	17.38	1528.23	Schedule 40 PVC	0.020	#3	6	40.0	2	10.0	34.5	34.0	24.3
ZTS-MW154	Alluvium	26732911.74	833046.57	1546.73	1546.62	18.72	1527.90	Schedule 40 PVC	0.020	#3	6	42.5	2	10.0	32.5	32.0	22.3
ZTS-MW155	Alluvium	26732920.46	833050.08	1545.97	1545.89	18.18	1527.71	Schedule 40 PVC	0.020	#3	6	40.0	2	15.0	35.5	35.0	20.3
ZTS-MW156	UMCf	26732909.63	833056.38	1546.34	1546.30	18.52	1527.78	Schedule 40 PVC	0.010	#2/16	6	55.0	2	10.0	54.0	53.5	43.8
ZTS-MW157	Alluvium	26732918.81	833061.15	1545.95	1545.87	18.21	1527.66	Schedule 40 PVC	0.020	#3	6	35.0	2	10.0	33.5	33.0	23.3
ZTS-MW158	Alluvium	26732936.67	833099.40	1544.15	1544.09	16.70	1527.39	Schedule 40 PVC	0.020	#3	6	35.0	2	10.0	33.5	33.0	23.3
ZTS-MW159	UMCf	26732930.97	833101.22	1544.36	1544.08	16.83	1527.25	Schedule 40 PVC	0.010	#2/16	6	50.0	48	10.0	49.0	48.5	38.8
ZTS-MW160	Alluvium	26732949.66	833141.96	1544.42	1544.11	16.86	1527.25	Schedule 40 PVC	0.020	#3	6	40.0	2	10.0	33.5	33.0	23.3
ZTS-MW161	Alluvium	26732968.87	833187.88	1544.23	1543.99	17.03	1526.96	Schedule 40 PVC	0.020	#3	6	45.0	2	10.0	34.5	34.0	24.3
ZTS-MW162	Alluvium	26732901.90	833066.48	1545.76	1545.61	17.94	1527.67	Schedule 40 PVC	0.020	#3	6	40.0	2	10.0	33.5	33.0	23.3
ZTS-MW163	Alluvium	26732879.80	833048.04	1546.23	1546.18	19.05	1527.13	Schedule 40 PVC	0.020	#3	6	40.0	2	10.0	34.5	34.0	24.3
ZTS-MW164	Alluvium	26732883.65	833057.93	1547.06	1546.96	17.90	1529.06	Schedule 40 PVC	0.020	#3	6	40.0	2	10.0	32.5	32.0	22.3
ZTS-MW165	Alluvium	26732886.70	833065.74	1545.63	1545.50	17.83	1527.67	Schedule 40 PVC	0.020	#3	6	38.0	2	10	32.5	32.0	22.3
Between Test Area 1A and Test Area 1B																	
ZTS-MW145	UMCf	26732845.93	833017.26	1547.43	1547.13	18.20	1528.93	Schedule 40 PVC	0.010	#2/16	8	50	4	10	49.5	49	39
ZTS-MW146	UMCf	26732879.40	833100.75	1548.63	1547.33	19.60	1527.73	Schedule 40 PVC	0.010	#2/16	8	55	4	10	51.5	51	41
Test Area 1B																	
ZTS-MW126	Alluvium	26732842.82	833063.07	1548.61	1548.47	19.35	1529.12	Schedule 40 PVC	0.020	#3	8	40	4	10	30.5	30	20
ZTS-MW127R	Alluvium	26732786.41	833082.92	1548.26	1548.18	19.80	1528.38	Schedule 40 PVC	0.020	#3	8	24.0	4	5.0	23.5	23.0	18.5
ZTS-MW147	Alluvium	26732796.25	833040.66	1547.65	1547.18	18.28	1528.90	Schedule 40 PVC	0.020	#3	6	35	2	10	30.0	29.5	19.5
ZTS-MW148	Alluvium	26732833.56	833119.27	1548.62	1548.41	20.49	1527.92	Schedule 40 PVC	0.020	#3	6	35	2	10	32.5	32.0	22.0
ZTS-MW166	Alluvium	26732847.93	833073.86	1548.22	1548.25	20.30	1527.95	Schedule 40 PVC	0.020	#3	6	38.0	2	10	30.0	29.5	19.8
ZTS-MW167	Alluvium	26732850.05	833079.50	1547.37	1547.33	19.43	1527.90	Schedule 40 PVC	0.020	#3	6	40.0	2	10.0	33.5	33.0	23.3
ZTS-MW168	Alluvium	26732839.48	833094.36	1547.52	1547.63	19.78	1527.85	Schedule 40 PVC	0.020	#3	6	32.0	2	10.0	30.5	30.0	20.3
ZTS-MW169	Alluvium	26732819.11	833076.48	1547.70	1547.57	19.44	1528.13	Schedule 40 PVC	0.020	#3	6	27.5	2	10.0	27.5	27.0	17.1
ZTS-MW170	UMCf	26732813.68	833079.28	1547.58	1547.45	19.32	1528.13	Schedule 40 PVC	0.010	#2/16	6	46.5	2	10.0	41.5	41.0	31.1
ZTS-MW171	Alluvium	26732819.11	833083.89	1548.61	1548.53	20.33	1528.20	Schedule 40 PVC	0.020	#3	6	35.0	2	10.0	29.5	29.0	19.3
ZTS-MW172	Alluvium	26732828.15	833088.77	1547.91	1547.74	19.77	1527.97	Schedule 40 PVC	0.020	#3	6	30.0	2	10.0	27.5	27.0	17.3
ZTS-MW173	UMCf	26732816.29	833094.22	1547.95	1547.78	19.77	1528.01	Schedule 40 PVC	0.010	#2/16	6	46.0	2	10.0	43.5	43.0	33.3
ZTS-MW174	Alluvium	26732825.33	833100.64	1548.30	1548.11	20.20	1527.91	Schedule 40 PVC	0.020	#3	6	31.5	2	10.0	30.0	29.5	19.8
ZTS-MW175	Alluvium	26732857.97	833178.91	1546.18	1546.25	19.24	1527.01	Schedule 40 PVC	0.020	#3	6	61.5	2	10.0	30.0	29.5	19.8
ZTS-MW176	Alluvium	26732876.92	833225.42	1543.90	1543.74	17.04	1526.70	Schedule 40 PVC	0.020	#3	6	32.0	2	10.0	30.0	29.5	19.8
ZTS-MW177	Alluvium	26732811.29	833106.07	1548.22	1548.12	20.17	1527.95	Schedule 40 PVC	0.020	#3	6	31.0	2	10.0	30.5	30.0	20.3
ZTS-MW178	Alluvium	26732791.95	833095.60	1549.21	1549.14	20.91	1528.23	Schedule 40 PVC	0.020	#3	6	34.0	2	10.0	28.0	27.5	17.8
ZTS-MW179	Alluvium	26732794.26	833102.47	1548.62	1548.45	20.23	1528.22	Schedule 40 PVC	0.020	#3	6	27.5	2	5.0	23.5	23.0	18.3
ZTS-MW180	Alluvium	26732784.25	833128.08	1548.42	1548.12	20.21	1527.91	Schedule 40 PVC	0.020	#3	6	25.0	2	5.0	23.0	22.5	17.8
LVWPS-MW107A	Alluvium	26732823.90	833144.18	1548.14	1547.58	19.96	1527.62	Schedule 40 PVC	0.020	#3	8	35.5	4	10	35.0	34.5	24.8
LVWPS-MW107B	UMCf	26732816.68	833144.44	1548.20	1547.82	16.61	1531.21	Schedule 40 PVC	0.010	#2/12	8	67.0	4	20	66.3	65.8	46.0
LVWPS-MW107C	UMCf (Semi-Cons)	26732819.93	833138.10	1548.33	1547.93	5.81	1542.12	Schedule 40 PVC	0.010	#2/12	6	121.0	2	20	120.5	120.0	100.3

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
Test Area 2A																	
ZTS-MW118	Alluvium	26732588.00	832939.61	1547.64	1547.41	16.34	1531.07	Schedule 40 PVC	0.020	#3	8	40	4	10	24	23.5	13.5
ZTS-MW137	Alluvium	26732584.41	832934.77	1547.68	1547.44	16.36	1531.08	Schedule 40 PVC	0.020	#3	6	28	2	10	24.5	24	14
ZTS-MW138	Alluvium	26732585.74	832953.21	1547.68	1547.35	16.37	1530.98	Schedule 40 PVC	0.020	#3	6	25	2	10	24.5	24	14
ZTS-MW139	Alluvium	26732601.13	832944.31	1547.36	1547.07	16.17	1530.90	Schedule 40 PVC	0.020	#3	6	30	2	10	23.5	23	13
ZTS-MW190	Alluvium	26732595.87	832934.90	1547.59	1547.32	16.32	1531.00	Schedule 40 PVC	0.020	#3	6	25.0	2	10.0	25.5	24.0	14.3
ZTS-MW191	Alluvium	26732593.97	832942.42	1548.18	1547.93	17.00	1530.93	Schedule 40 PVC	0.020	#3	6	30.0	2	10.0	25.0	24.5	14.8
ZTS-MW192	Alluvium	26732590.54	832943.15	1548.28	1548.11	17.16	1530.95	Schedule 40 PVC	0.020	#3	6	25.0	2	10.0	24.5	24.0	14.3
ZTS-MW193	Alluvium	26732594.97	832948.47	1547.64	1547.48	16.62	1530.86	Schedule 40 PVC	0.020	#3	6	25.0	2	10.0	23.8	23.3	13.6
ZTS-MW194	Alluvium	26732598.62	832958.35	1547.33	1547.38	16.65	1530.73	Schedule 40 PVC	0.020	#3	6	25.0	2	5.0	23.0	22.5	17.8
ZTS-MW195	Alluvium	26732587.81	832946.10	1548.38	1548.14	17.20	1530.94	Schedule 40 PVC	0.020	#3	6	25.0	2	10.0	24.5	24.0	14.3
ZTS-MW196	Alluvium	26732581.00	832943.16	1547.81	1547.34	16.29	1531.05	Schedule 40 PVC	0.020	#3	6	25.0	2	10.0	24.0	23.5	13.8
ZTS-MW197	Alluvium	26732619.07	832992.11	1547.27	1546.99	16.97	1530.02	Schedule 40 PVC	0.020	#3	6	25.0	2	10.0	23.0	22.5	12.8
ZTS-MW202	UMCf	26732585.08	832941.97	1547.83	1547.46	16.48	1530.98	Schedule 40 PVC	0.010	#2/16	6	40.0	2	10.0	39.0	38.5	28.8
ZTS-MW203	UMCf	26732590.95	832950.78	1547.77	1547.71	16.90	1530.81	Schedule 40 PVC	0.010	#2/16	6	45.0	2	10.0	38.5	38.0	28.3
LVWPS-MW102A	UMCf	26732606.35	832965.93	1547.23	1546.82	10.40	1536.42	Schedule 40 PVC	0.010	#2/12	6	67.5	2	20	67.1	66.6	47.0
LVWPS-MW102B	UMCf (Semi-Cons)	26732605.06	832973.68	1547.14	1546.78	4.77	1542.01	Schedule 40 PVC	0.010	#2/12	6	120.0	2	20	97.0	96.5	76.8
Test Area 2B																	
ZTS-MW117	UMCf	26732546.84	832964.21	1547.64	1547.32	14.75	1532.57	Schedule 40 PVC	0.010	#2/16	8	75	4	15	56	55.5	40.5
ZTS-MW133	UMCf	26732542.30	832957.28	1547.79	1547.51	11.11	1536.40	Schedule 40 PVC	0.010	#2/16	6	75	2	15	69.5	69	54
ZTS-MW134	UMCf	26732551.09	832961.57	1547.75	1547.54	16.31	1531.23	Schedule 40 PVC	0.010	#2/16	6	37	2	10	36.5	36	26
ZTS-MW135	UMCf	26732548.80	832977.51	1547.56	1547.42	10.76	1536.66	Schedule 40 PVC	0.010	#2/16	6	76	2	15	69.5	69	54
ZTS-MW136	UMCf	26732544.12	832979.70	1547.67	1547.29	16.01	1531.28	Schedule 40 PVC	0.010	#2/16	6	55	2	20	47.5	47	27
ZTS-MW198	UMCf	26732554.83	832967.16	1547.78	1547.69	16.64	1531.05	Schedule 40 PVC	0.010	#2/16	6	47.5	2	20.0	46.5	46.0	26.1
ZTS-MW199	UMCf	26732554.62	832970.93	1547.18	1546.84	10.53	1536.31	Schedule 40 PVC	0.010	#2/16	6	68.0	2	15.0	65.5	65.0	50.1
ZTS-MW200	UMCf	26732551.89	832968.94	1547.67	1547.57	11.41	1536.16	Schedule 40 PVC	0.010	#2/16	6	68.0	2	15.0	65.5	65.0	50.1
ZTS-MW201	UMCf	26732549.70	832970.52	1547.59	1547.29	16.03	1531.26	Schedule 40 PVC	0.010	#2/16	6	50.0	2	20.0	47.5	47.0	27.1
ZTS-MW206	UMCf	26732546.67	832971.91	1547.58	1547.61	11.34	1536.27	Schedule 40 PVC	0.010	#2/16	6	70.0	2	15.0	65.5	65.0	50.1
ZTS-MW207	UMCf	26732549.09	832973.98	1547.48	1547.43	16.33	1531.10	Schedule 40 PVC	0.010	#2/16	6	48.0	2	20.0	46.5	46.0	26.1
ZTS-MW208	UMCf	26732561.34	832981.27	1547.35	1547.21	16.41	1530.80	Schedule 40 PVC	0.010	#2/16	6	48.0	2	20.0	46.5	46.0	26.1
ZTS-MW209	UMCf	26732557.71	832983.97	1547.62	1547.30	11.00	1536.30	Schedule 40 PVC	0.010	#2/16	6	69.0	2	15.0	66.0	65.5	50.6
Test Area 2C																	
ZTS-MW119	Alluvium	26732634.25	832912.06	1547.46	1547.12	16.38	1530.74	Schedule 40 PVC	0.020	#3	8	37.5	4	10	25.5	25	15
ZTS-MW140	Alluvium	26732631.52	832907.03	1547.30	1546.73	15.94	1530.79	Schedule 40 PVC	0.020	#3	6	30	2	10	26.0	25.5	15.5
ZTS-MW141	Alluvium	26732633.15	832927.38	1547.65	1547.39	16.70	1530.69	Schedule 40 PVC	0.020	#3	6	30	2	10	25.0	24.5	14.5
ZTS-MW142	Alluvium	26732648.69	832918.45	1547.42	1546.81	16.21	1530.60	Schedule 40 PVC	0.020	#3	6	27	2	10	26.5	26	16
ZTS-MW181	Alluvium	26732641.70	832907.27	1547.62	1547.25	16.67	1530.58	Schedule 40 PVC	0.020	#3	6	27.5	2	10.0	27.5	27.0	17.3
ZTS-MW182	Alluvium	26732637.76	832916.80	1548.07	1547.79	17.17	1530.62	Schedule 40 PVC	0.020	#3	6	35.0	2	10.0	27.8	27.3	17.6
ZTS-MW183	Alluvium	26732641.13	832918.19	1547.72	1547.58	17.00	1530.58	Schedule 40 PVC	0.020	#3	6	28.0	2	10.0	27.5	27.0	17.3
ZTS-MW184	Alluvium	26732643.60	832921.80	1547.60	1547.53	17.02	1530.51	Schedule 40 PVC	0.020	#3	6	27.5	2	10.0	26.5	26.0	16.3
ZTS-MW185	Alluvium	26732645.77	832932.26	1547.59	1547.60	17.11	1530.49	Schedule 40 PVC	0.020	#3	6	27.5	2	10.0	25.5	25.0	15.3
ZTS-MW186	Alluvium	26732651.85	832940.71	1547.27	1547.26	16.87	1530.39	Schedule 40 PVC	0.020	#3	6	27.0	2	10.0	25.5	25.0	15.3
ZTS-MW187	Alluvium	26732635.16	832921.20	1547.70	1547.25	16.70	1530.55	Schedule 40 PVC	0.020	#3	6	28.0	2	10.0	25.5	25.0	15.3
ZTS-MW188	Alluvium	26732626.83	832916.22	1547.30	1546.93	16.25	1530.68	Schedule 40 PVC	0.020	#3	6	27.5	2	10.0	27.5	27.0	17.3
ZTS-MW189	Alluvium	26732654.00	832963.19	1547.16	1547.14	16.98	1530.16	Schedule 40 PVC	0.020	#3	6	27.5	2	10.0	23.5	23.0	12.8
ZTS-MW204	UMCf	26732632.00	832913.21	1547.40	1546.87	16.35	1530.52	Schedule 40 PVC	0.010	#2/16	6	42.5	2	10.0	40.5	40.0	30.3
ZTS-MW205	UMCf	26732638.98	832925.09	1547.61	1547.30	17.00	1530.30	Schedule 40 PVC	0.010	#2/16	6	42.5	2	10.0	40.5	40.0	30.3
General Vicinity																	
ZTS-MW116	UMCf	26732461.29	833014.94	1548.45	1547.92	16.31	1531.61	Schedule 40 PVC	0.010	#2/16	6	55	2	15	48.5	48	33
ZTS-MW128	UMCf	26732659.68	833137.95	1555.83	1555.41	26.67	1528.74	Schedule 40 PVC	0.010	#2/16	6	75	2	10	52.5	52	42

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 Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
						feet		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Test Area 1A																			
Pre-Construction Baseline Results																			
ZTS-MW143	10/18/2022	N	BL02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	4,300	45,000	<7,060	919,000	<1,280	16,800	<840	2,520,000	26,600	11,300	15,300
ZTS-MW124	8/31/2022	N	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	3,730	36,200	----	----	----	16,500	----	2,440,000	----	----	----
ZTS-MW124	8/31/2022	FD	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	3,690	36,900	----	----	----	16,300	----	2,460,000	----	----	----
ZTS-MW124	10/18/2022	N	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	3,930	36,800	<7,060	872,000	<1,280	16,700	<840	2,450,000	17,900	<1,400	15,500
ZTS-MW124	10/18/2022	FD	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	3,970	37,200	<7,060	864,000	<1,280	16,600	<840	2,430,000	17,600	2,560	15,000
ZTS-MW125	8/31/2022	N	BL01	1A	Upgradient	-8	UMCf	40.0 - 50.0	2,890	23,400	----	----	----	12,600	----	2,210,000	----	----	----
ZTS-MW125	10/24/2022	N	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	93	<2,400	<353 R	750,000	1,040	349	<42	1,210,000	<50	<140	<50
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	5,590	41,300	<7,060	1,100,000	<1,280	16,100	<840	2,520,000	18,900	3,590	15,300
Post-Construction Performance Monitoring Results																			
ZTS-MW143	5/26/2023	N	PM01	1A	Upgradient	-50	Alluvium	23.0 - 33.0	4,340	22,400	<7,060	982,000	<1,280	13,000 J-	<840 R	2,510,000	15,000	<700	15,000
ZTS-MW143	8/29/2023	N	PM02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	4,000	26,600	<7,060	1,060,000	<1,280	17,400	<840	2,430,000	15,500	<560	15,500
ZTS-MW143	12/6/2023	N	PM03	1A	Upgradient	-50	Alluvium	23.0 - 33.0	6,090	27,700	4,050 J	1,030,000	<640	14,900	----	2,480,000	12,200	<140	12,200
ZTS-MW124R	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.5 - 34.0	4,460	16,600	<3,530	819,000	<640	13,100 J-	<420 R	2,280,000	17,100	<700	17,100
ZTS-MW124R	8/29/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.5 - 34.0	3,980	20,500	<7,060	875,000	<1,280	16,600	<840	2,160,000	17,700	3,700 J	14,000
ZTS-MW124R	12/5/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.5 - 34.0	4,960	31,600	<3,530	1,000,000	<640	16,800	----	2,340,000	12,700	<1,400	12,700
ZTS-MW125	5/25/2023	N	PM01	1A	Upgradient	-8	UMCf	40.0 - 50.0	173	698 J-	5,540 J	701,000	1,200 J	<480 R	<420 R	1,140,000	645	282	363
ZTS-MW125	8/30/2023	N	PM02	1A	Upgradient	-8	UMCf	40.0 - 50.0	1,110	4,370 J	<3,530	758,000	1,090 J	7,750	<420	1,380,000	3,730	<140	3,730
ZTS-MW125	12/1/2023	N	PM03	1A	Upgradient	-8	UMCf	40.0 - 50.0	1,270	7,270	<3,530	705,000	<640	4,050 J	----	1,250,000	3,740	<140	3,740
ZTS-MW153	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	3,880	18,100	<3,530	863,000	<640	13,100 J-	<420 R	2,360,000	17,200	<700	17,200
ZTS-MW153	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	4,030	21,400	<3,530	912,000	<640	22,000	<420	2,130,000	15,300	<560	15,300
ZTS-MW153	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	5,540	29,100	<3,530	874,000	<640	14,400 J-	----	1,860,000	14,700	<1,400	14,700
ZTS-MW163	5/25/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	3,320 J	19,200	<3,530	925,000	<640	16,600	<420	2,480,000	14,700	<560	14,700
ZTS-MW163	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	4,010	23,400	<3,530	889,000	<640	21,300 J-	<420	2,070,000	15,100	<560 UJ	15,100
ZTS-MW163	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	4,380	34,000	<3530 UJ	962,000	<640	16,000 J-	----	2,410,000	14,700	<1,400	14,700
ZTS-MW150	5/22/2023	N	PM01	1A	Center of Trench	0	Alluvium	24.3 - 34.0	2,580	315	<3,530	829,000	<640	1,110	<420	2,140,000	3,440	3,210	234
ZTS-MW150	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	24.3 - 34.0	1,200	<24	4,520 J	836,000	689 J	3,060 J+	<420	2,040,000	2,760	2,060	697
ZTS-MW150	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	24.3 - 34.0	1,760	26,000	<3,530	985,000	<640	2,270	----	2,330,000	3,210	2,270 J+	937
ZTS-MW154	5/24/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	3,020	<480	<3,530	917,000	<640	<480 UJ	<420 UJ	2,330,000	1,580	1,580	<50
ZTS-MW154	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	2,460	<2,400	4,520 J	929,000	723 J	<480	<420	2,130,000	3,560	3,370	185
ZTS-MW154	11/28/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	3,060	<240	4,150 J	1,060,000	1,050 J	14,900	----	2,290,000	3,970	3,970	<2,500
ZTS-MW164	5/23/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	3,740	2,550	<3,530	904,000	<640	1,370	<420	2,400,000	4,600	2,740	1,860
ZTS-MW164	5/23/2023	FD	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	3,760 J-	3,060	<3,530	911,000	<640	1,300	<420	2,370,000	4,390	2,680	1,710
ZTS-MW164	8/18/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	2,210	2,210 J-	<3,530	946,000	<640	11,400 J-	<420 UJ	2,240,000	3,010	1,680	1,330
ZTS-MW164	8/18/2023	FD	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	2,360	2,550 J-	<3,530	937,000	<640	10,900 J-	<420 UJ	2,230,000	3,220	1,560	1,660
ZTS-MW164	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	1,700	31,500	<3,530	1,050,000	<640	4,480	----	2,490,000	4,440	1,250	3,190
ZTS-MW164	11/27/2023	FD	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	1,880	35,700	<3,530	1,020,000	<640	4,600	----	2,410,000	3,610	1,190	2,420
ZTS-MW151	5/25/2023	N	PM01	1A	Downgradient	5	Alluvium	24.3 - 34.0	3,600	8,050	<3,530	958,000	<640	4,040	<420	2,490,000	4,060	1,280	2,780
ZTS-MW151	8/21/2023	N	PM02	1A	Downgradient	5	Alluvium	24.3 - 34.0	4,230	9,630	8,700 J	897,000	<1,280	7,660 J+	<840	2,320,000	6,620	870	5,750
ZTS-MW151	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	24.3 - 34.0	4,700	64,200	3,980 J	1,010,000	1,280 J	9,420	----	2,310,000	8,850	<140	8,850
ZTS-MW155	5/24/2023	N	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	3,690	3,260	<3,530	977,000	658	632 J	<420 UJ	2,480,000	3,080	1,900 J+	1,180
ZTS-MW155	5/24/2023	FD	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	3,590	3,160	<3,530	982,000	644	636 J	<420 UJ	2,620,000	3,280	2,120	1,160
ZTS-MW155	8/22/2023	N	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	4,530	36,700	<3,530	1,030,000	<640	8,330	<420	2,300,000	7,550	<560	7,550
ZTS-MW155	8/22/2023	FD	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	4,710	35,300	<3,530	1,040,000	<640	8,360	<420	2,310,000	7,750	<560	7,750

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW155	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	5,570	11,100	3,990 J	949,000	1,280 J	6,140	----	2,050,000	5,910	156 J	5,750
ZTS-MW155	11/28/2023	FD	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	7,240	11,300	4,030 J	1,090,000	1,140 J	7,890	----	2,350,000	6,140	343	5,800
ZTS-MW156	5/24/2023	N	PM01	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.3	<24 UJ	<3,530	756,000	1,000	<480 UJ	<420 UJ	1,150,000	<50	<140	<50
ZTS-MW156	8/22/2023	N	PM02	1A	Downgradient	5	UMCf	43.8 - 53.5	94.4	249 J-	<3,530	792,000	<640	1,230	<420	1,190,000	<50	<140	<50
ZTS-MW156	11/29/2023	N	PM03	1A	Downgradient	5	UMCf	43.8 - 53.5	34.4	<240	<353	782,000	816	<48	----	1,390,000	706 J+	462 J+	244
ZTS-MW165	5/31/2023	N	PM01	1A	Downgradient	5	Alluvium	22.3 - 32.0	3,900	6,340	<3,530	<3,790	<640	<480 R	<420 R	<5,940	5,930	1,410	4,520
ZTS-MW165	8/25/2023	N	PM02	1A	Downgradient	5	Alluvium	22.3 - 32.0	4,580	57,400	4,450 J	973,000	827 J	12,000	<420	2,070,000	9,780	<560	9,780
ZTS-MW165	11/30/2023	N	PM03	1A	Downgradient	5	Alluvium	22.3 - 32.0	5,320	85,500	4,060 J	1,040,000	1,400 J	17,700	----	2,380,000	12,600	<700	12,600
ZTS-MW152	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	3,980	7,050	<3,530	970,000	<640	4,020	<420	2,450,000	4,650	1,680	2,970
ZTS-MW152	8/22/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	4,200	38,600	<3,530	992,000	<640	9,300	<420	2,300,000	8,400	<560	8,400
ZTS-MW152	11/28/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	5,700	17,200	3,990 J	1,090,000	1,160 J	15,400	----	2,360,000	8,450	<140	8,450
ZTS-MW157	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	3,530	3,400	<3,530	1,040,000	<640	2,320	500 J	2,430,000	3,050	1,770 J	1,280
ZTS-MW157	8/23/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	4,530	7,770	<3,530	993,000	<640	5,470	<420	1,960,000	5,770	1,270	4,500
ZTS-MW157	11/29/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	3,420 J	51,700 J+	<3,530	1,030,000	<640	8,740	----	2,840,000	6,410	1,890 J+	4,520
ZTS-MW162	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	5,160	6,700	<3,530	1,010,000	<640	2,350 J-	<420 R	2,520,000	5,140	1,930	3,210
ZTS-MW162	8/18/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	4,580	12,400	<3,530	963,000	<640	18,600 J-	<420 UJ	2,380,000	8,250	<560	8,250
ZTS-MW162	11/30/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	5,970	83,800	4,020 J	966,000	1,300 J	16,000	----	2,260,000	11,800	<700	11,800
ZTS-MW149	5/31/2023	N	PM01	1A	Downgradient	25	Alluvium	23.3 - 33.0	3,300	14,300	<3,530	944,000	<640	3,190 J-	<420 R	2,420,000	13,500	<700	13,500
ZTS-MW149	8/24/2023	N	PM02	1A	Downgradient	25	Alluvium	23.3 - 33.0	3,510	54,500	<3,530	707,000	<640	13,900	<420	1,850,000	14,600	<700	14,600
ZTS-MW149	11/30/2023	N	PM03	1A	Downgradient	25	Alluvium	23.3 - 33.0	4,660	89,600	4,010 J	973,000	1,180 J	19,100	----	2,430,000	14,000	<700	14,000
ZTS-MW144	5/31/2023	N	PM01	1A	Downgradient	35	Alluvium	24.0 - 34.0	4,100	4,470	<3,530	1,010,000	<640	2,220 J-	<420 R	2,380,000	6,060	2,820	3,240
ZTS-MW144	8/24/2023	N	PM02	1A	Downgradient	35	Alluvium	24.0 - 34.0	3,140 J	4,460 J	<3530 R	1,010,000	<640 UJ	4,740	<420	2,230,000	5,660	2,060	3,600
ZTS-MW144	11/30/2023	N	PM03	1A	Downgradient	35	Alluvium	24.0 - 34.0	4,810	64,300	4,040 J	1,040,000	1,340 J	10,700	----	2,390,000	7,010	<700	7,010
ZTS-MW158	5/24/2023	N	PM01	1A	Downgradient	50	Alluvium	23.3 - 33.0	4,450	2,110	<3,530	1,010,000	684 J	1,940 J-	<420 UJ	2,460,000	4,680	1,990	2,690
ZTS-MW158	8/25/2023	N	PM02	1A	Downgradient	50	Alluvium	23.3 - 33.0	3,340	38,600	4,510 J	984,000	783 J	4,490	<420	2,070,000	7,350	4,720	2,630
ZTS-MW158	12/1/2023	N	PM03	1A	Downgradient	50	Alluvium	23.3 - 33.0	4,080	15,800	<3,530	984,000	<640	8,610 J-	----	2,410,000	7,230	<560	7,230
ZTS-MW159	5/24/2023	N	PM01	1A	Downgradient	50	UMCf	38.8 - 48.5	391	631	<353	654,000	868	222	42.6 J	1,130,000	730	149 J	581
ZTS-MW159	8/25/2023	N	PM02	1A	Downgradient	50	UMCf	38.8 - 48.5	4,290	47,800	4,450 J	900,000	825 J	11,000	<420	1,870,000	9,080	<560	9,080
ZTS-MW159	12/1/2023	N	PM03	1A	Downgradient	50	UMCf	38.8 - 48.5	4,230	17,500	<3,530	965,000	<640	10,600 J-	----	2,140,000	8,470	<560	8,470
ZTS-MW160	5/24/2023	N	PM01	1A	Downgradient	100	Alluvium	23.3 - 33.0	4,560	9,780	<3,530	924,000	<640	6,110	<420	2,390,000	8,190	386 J-	7,800
ZTS-MW160	8/28/2023	N	PM02	1A	Downgradient	100	Alluvium	23.3 - 33.0	4,810	16,100	4,460 J	937,000	809 J	12,200	<420	2,300,000	10,400	<560	10,400
ZTS-MW160	12/5/2023	N	PM03	1A	Downgradient	100	Alluvium	23.3 - 33.0	5,430	26,100	4,100 J	1,060,000	<640	14,500	----	2,480,000	10,500	<1,400	10,500
ZTS-MW161	5/26/2023	N	PM01	1A	Downgradient	150	Alluvium	24.3 - 34.0	3,890	6,370	<3,530	915,000	<640	2,490 J-	<420 R	2,550,000	4,640	1,090	3,550
ZTS-MW161	8/25/2023	N	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	4,310	49,600	<3,530	854,000	<640	9,060 J-	<420 R	1,900,000	9,690	740 J	8,950
ZTS-MW161	8/25/2023	FD	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	4,130	47,800	<3,530	930,000	<640	9,760 J-	<420 R	2,100,000	10,200	1,270 J	8,910
ZTS-MW161	12/1/2023	N	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	4,220	19,300 J	<3,530	1,030,000	<640	10,400 J-	----	2,570,000	8,700	<280	8,700
ZTS-MW161	12/1/2023	FD	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	4,290	64,200 J	<3,530	1,050,000	<640	10,500 J-	----	2,580,000	8,780	<560	8,780
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	1,630	14,900 J	<3,530	888,000	<640	4,260	<420	1,860,000	3,730	<140	3,730
ZTS-MW146	10/24/2022	N	BL02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	2,820	20,600	<3,530	1,080,000	<640	6,590	<420	2,480,000	5,500	<140	5,500
Post-Construction Performance Monitoring Results																			
ZTS-MW145	5/22/2023	N	PM01	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	18 J-	<24 UJ	<353	117,000	630	540	<42	238,000	695	435 J+	260
ZTS-MW145	8/30/2023	N	PM02	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	58.1	189 J-	<3,530	787,000	906 J	<480	<420	1,500,000	156	<140	156
ZTS-MW145	12/6/2023	N	PM03	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	<0.3	<120	3,560 J	789,000	<640	2,070 J+	----	1,470,000	<50	<140	<50
ZTS-MW146	5/26/2023	N	PM01	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	1,250	2,490 J-	<7,060	886,000	<1,280	1,710 J	<840 R	2,040,000	2,780	<140	2,780
ZTS-MW146	8/25/2023	N	PM02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	<0.3	<2,400	<3,530	1,170,000	<640	<480 R	<420 R	2,210,000	436 J+	436 J+	<50

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
						feet		Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW146	11/30/2023	N	PM03	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	<0.3	<240	3,950 J	1,070,000	1,610 J-	16,500 J-	----	1,950,000	163	163 J	<50
Test Area 1B																			
Pre-Construction Baseline Results																			
ZTS-MW147	10/18/2022	N	BL02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	7,390	93,300	<7,060	1,140,000	<1,280	18,700	<840	2,550,000	21,500	3,950	17,500
ZTS-MW126	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	6,570	71,300	----	----	----	15,600	----	2,650,000	----	----	----
ZTS-MW126	10/18/2022	N	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	7,210	74,600	<7,060	1,130,000	<1,280	17,100	<840	2,630,000	18,600	2,810	15,800
ZTS-MW126	10/18/2022	FD	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	7,450	78,300	<7,060	1,120,000	<1,280	17,000	<840	2,620,000	15,400	<1400 UJ	15,400
ZTS-MW127	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	18.0 - 23.0	8,260	100,000	----	----	----	19,000	----	2,550,000	----	----	----
ZTS-MW127	10/24/2022	N	BL02	1B	Upgradient	-8	Alluvium	18.0 - 23.0	7,100	98,200	<3,530	1,190,000	<640	20,000	<420	2,650,000	18,800	<700	18,800
ZTS-MW148	10/24/2022	N	BL02	1B	Downgradient	35	Alluvium	22.0 - 32.0	7,400	94,800	<3,530	1,150,000	<640	19,300	<420	2,640,000	38,500	20,400	18,100
LVWPS-MW107A	10/24/2022	N	BL02	NA	Downgradient	50	Alluvium	24.8 - 34.5	7,070	91,100	<3,530	1,170,000	<640	19,600	<420	2,650,000	18,000	<700	18,000
LVWPS-MW107B	10/21/2022	N	BL02	NA	Downgradient	50	UMCf	46.0 - 65.8	<30	<2,400	<7,060	1,200,000	<1,280	<960	<840	2,830,000	1,630	1,630	<50
LVWPS-MW107C	10/24/2022	N	BL02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<30	<24,000	<35,300	14,900,000	<6,400	<4,800	<4,200	42,000,000	638	638	<50
Post-Construction Performance Monitoring Results																			
ZTS-MW147	5/26/2023	N	PM01	1B	Upgradient	-50	Alluvium	19.5 - 29.5	7,000	49,900	<3,530	1,070,000	<640	16,500 J-	<420 R	2,570,000	28,000	<700	28,000
ZTS-MW147	8/30/2023	N	PM02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	6,690	55,000	<3,530	1,100,000	735 J	24,900	<420	2,540,000	18,600	<700	18,600
ZTS-MW147	12/1/2023	N	PM03	1B	Upgradient	-50	Alluvium	19.5 - 29.5	5,180	70,400	<3,530	1,080,000	<640	21,500 J-	----	2,600,000	19,300	<1,400	19,300
ZTS-MW126	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	5,920	17,900	<3,530	980,000	<640	13,900	<420	2,640,000	12,000	<560	12,000
ZTS-MW126	8/25/2023	N	PM02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	5,830	58,300	4,480 J	974,000	938 J	14,500	<420	2,950,000	12,500	<700	12,500
ZTS-MW126	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	20.0 - 30.0	5,420	105,000	<3,530	1,030,000	<640	16,800	----	2,620,000	14,200	<700	14,200
ZTS-MW127R	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	18.5 - 23.0	5,880	51,100	<3,530	1,110,000	<640	20,100	<420	2,610,000	17,900	<560	17,900
ZTS-MW127R	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	18.5 - 23.0	6,910	57,800	4,560 J	1,040,000	927 J	19,800	<420	2,450,000	18,400	<560	18,400
ZTS-MW127R	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	18.5 - 23.0	5,760	119,000	3,620 J	1,060,000	<640	21,400	----	2,510,000	22,200	4,020	18,200
ZTS-MW169	5/24/2023	N	PM01	1B	Upgradient	-8	Alluvium	17.1 - 27.0	6,270	54,300	<3,530	1,100,000	<640	16,500	<420	2,490,000	18,100	<700	18,100
ZTS-MW169	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	17.1 - 27.0	7,360	59,300	4,540 J	1,040,000	897 J	19,600	<420	2,410,000	18,600	<560	18,600
ZTS-MW169	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	17.1 - 27.0	5,960	122,000	3,600 J	1,050,000	<640	21,400	----	2,510,000	18,400	<700	18,400
ZTS-MW170	5/24/2023	N	PM01	1B	Upgradient	-8	UMCf	31.1 - 41.0	4,570	17,500	<3,530	830,000	775 J	7,310 J-	<420 UJ	1,940,000	8,750	<280	8,750
ZTS-MW170	8/29/2023	N	PM02	1B	Upgradient	-8	UMCf	31.1 - 41.0	5,500	24,400	<7,060	947,000	<1,280	12,700	<840	2,090,000	15,400	5,140	10,300
ZTS-MW170	11/30/2023	N	PM03	1B	Upgradient	-8	UMCf	31.1 - 41.0	4,690	79,300	<3,530	914,000	<640	13,200	----	2,120,000	11,000	<700	11,000
ZTS-MW166	5/23/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.8 - 29.5	5,850	<240	<3,530	1,130,000	662 J	<480	<420	2,310,000	2,680	2,680 J	<50
ZTS-MW166	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.8 - 29.5	3,090	3,850 J	4,510 J	963,000	765 J	5,530 J+	1,180	2,150,000	5,110	2,060	3,050
ZTS-MW166	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.8 - 29.5	9,260	<120	4,270 J	1,130,000	1,030 J	19,500	----	2,450,000	7,900	7,100 J+	803
ZTS-MW171	5/22/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.3 - 29.0	6,260	<120	<3,530	1,130,000	<640	10,200	<420	2,480,000	14,700	5,600	9,090
ZTS-MW171	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.3 - 29.0	6,080	<2,400	8,920 J	1,090,000	<1,280	7,300 J+	<840	2,480,000	6,950	2,790 J+	4,160
ZTS-MW171	11/27/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.3 - 29.0	5,370	34,300	<3,530	1,100,000	<640	4,430	----	2,560,000	5,120	2,300	2,820
ZTS-MW178	5/25/2023	N	PM01	1B	Center of Trench	0	Alluvium	17.8 - 27.5	5,500	<480	<3,530	1,140,000	<640	1,200	<420	2,550,000	14,500	14,300	222
ZTS-MW178	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	17.8 - 27.5	4,870	<2,400	8,960 J	1,100,000	<1,280	<960	<840	2,510,000	6,260	6,260	<50
ZTS-MW178	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	17.8 - 27.5	5,450	<240	<3,530	1,100,000	<640	2,680 J+	----	2,450,000	9,640	9,640	<50
ZTS-MW167	5/24/2023	N	PM01	1B	Downgradient	5	Alluvium	23.3 - 33.0	5,740	<480	<3,530	1,150,000	894 J	<480	<420	2,760,000	3,120	3,120	<50
ZTS-MW167	8/22/2023	N	PM02	1B	Downgradient	5	Alluvium	23.3 - 33.0	6,210	636 J-	<3,530	1,130,000	<640	<480	<420	2,430,000	5,260	4,940	324
ZTS-MW167	11/28/2023	N	PM03	1B	Downgradient	5	Alluvium	23.3 - 33.0	7,420	<240	<3,530	1,130,000	<640	2,870 J+	----	2,480,000	5,830	5,450	381
ZTS-MW172	5/23/2023	N	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	5,650	<240	<3,530	1,060,000	<640	3,380	<420	2,470,000	16,800	11,900	4,900
ZTS-MW172	5/23/2023	FD	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	5,740	<240	<3,530	1,080,000	652 J	3,530	<420	2,430,000	17,100	12,300	4,820
ZTS-MW172	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	6,590	<48 UJ	<3,530	1,120,000	<640	5,310	<420	2,510,000	14,000	7,200	6,800
ZTS-MW172	8/23/2023	FD	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	6,870	<48 UJ	<3,530	1,100,000	<640	5,470	<420	2,780,000	13,900	6,980	6,940
ZTS-MW172	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	5,350	<240	4,340 J	1,110,000	1,030 J	19,300	----	2,560,000	6,560	6,390	171
ZTS-MW172	11/30/2023	FD	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	5,220	<240	4,290 J	1,050,000	955 J	20,700	----	2,060,000	6,480	6,300	176

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
						feet		Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW173	5/25/2023	N	PM01	1B	Downgradient	5	UMCf	33.3 - 43.0	1,230	2,650	<3,530	874,000	844 J	2,440	686 J	1,830,000	1,750	308	1,440
ZTS-MW173	8/22/2023	N	PM02	1B	Downgradient	5	UMCf	33.3 - 43.0	1,280	1,450 J-	4,450 J	728,000	1,010 J	2,710	<420	1,550,000	2,000	526	1,470
ZTS-MW173	11/29/2023	N	PM03	1B	Downgradient	5	UMCf	33.3 - 43.0	86.6	<240	4,850 J	859,000	1,370 J	12,400	----	1,800,000	729 J+	729 J+	<50
ZTS-MW179	5/25/2023	N	PM01	1B	Downgradient	5	Alluvium	18.3 - 23.0	4,760	<480	<3,530	1,120,000	<640	1,970	<420	2,460,000	17,700	16,600	1,120
ZTS-MW179	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	18.3 - 23.0	6,510	<48 UJ	<3,530	1,100,000	<640	3,330	<420	2,450,000	16,900	13,100	3,840
ZTS-MW179	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	18.3 - 23.0	6,040	<240	4,260 J	1,010,000	961 J	13,300	----	2,030,000	16,000	11,100	4,950
ZTS-MW168	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	5,810	<480	<3,530	1,130,000	<640	5,940	1,350	2,590,000	11,200	7,410	3,760
ZTS-MW168	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	5.98	95.5 J	<3,530	1,120,000	<640	7,050	<420	2,460,000	11,000	6,260	4,740
ZTS-MW168	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	7,450	<48	----	----	----	----	----	----	----	----	----
ZTS-MW168	10/11/2023	FS	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	5,800	----	----	----	----	----	----	----	----	----	----
ZTS-MW168	10/11/2023	FD	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	5,800	----	----	----	----	----	----	----	----	----	----
ZTS-MW168	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	5,340	<240	<3,530	1,120,000	<640	6,780 J+	----	2,620,000	9,100	6,080	3,020
ZTS-MW174	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	5,950	<480	<3,530	1,130,000	656 J	5,350 J-	4,510 J-	2,540,000	12,500	4,140	8,400
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	5.72	<48 UJ	4,670 J	1,070,000	739 J	5,990	<420	2,330,000	11,600	8,360	3,220
ZTS-MW174	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	6,680	<48	----	----	----	----	----	----	----	----	----
ZTS-MW174	10/11/2023	FS	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	5,600	----	----	----	----	----	----	----	----	----	----
ZTS-MW174	10/11/2023	FD	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	6,240	<48	----	----	----	----	----	----	----	----	----
ZTS-MW174	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	19.8 - 29.5	5,060	<240	<3,530	1,100,000	<640	<480	----	2,630,000	6,550	6,460	94 J
ZTS-MW177	5/25/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	5,340	<480	4,450 J	1,130,000	<640	749 J	451 J	2,200,000	6,130	4,950	1,180
ZTS-MW177	8/23/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	6,000	<48 UJ	4,700 J	1,110,000	658 J	3,620	<420	2,450,000	7,840	6,900	939
ZTS-MW177	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	3,850 J	<240	<3,530	1,160,000	<640	<480	----	2,740,000	7,360	6,910	449
ZTS-MW180	5/24/2023	N	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	5,990	54,100	<3,530	1,110,000	733 J	20,600	<420	2,550,000	18,500 J	<700	18,500 J
ZTS-MW180	5/24/2023	FD	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	6,230	54,300	<3,530	1,080,000	725 J	20,000	<420	2,470,000	12,300 J	<700	12,300 J
ZTS-MW180	8/24/2023	N	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	7,460	93,200	<3,530	1,070,000	<640	20,500	<420	2,310,000	18,600	<700	18,600
ZTS-MW180	8/24/2023	FD	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	6,880	89,600	<3,530	1,050,000	<640	20,200	<420	2,240,000	19,100	<700	19,100
ZTS-MW180	11/30/2023	N	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	5,810	59,700	4,130 J	1,100,000	1,160 J	23,000	----	2,410,000	16,200	<700	16,200
ZTS-MW180	11/30/2023	FD	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	5,610	62,900	4,120 J	1,060,000	1,160 J	22,000	----	2,170,000	16,100	<700	16,100
ZTS-MW148	5/25/2023	N	PM01	1B	Downgradient	35	Alluvium	22.0 - 32.0	5,250	<480	5,470 J	1,100,000	945 J	7,010 J-	698 J	2,470,000	13,600	4,480	9,100
ZTS-MW148	8/23/2023	N	PM02	1B	Downgradient	35	Alluvium	22.0 - 32.0	5,940	<48 UJ	4,670 J	1,070,000	690 J	5,580	<420	2,290,000	10,400	6,720	3,660
ZTS-MW148	11/28/2023	N	PM03	1B	Downgradient	35	Alluvium	22.0 - 32.0	7,820	<240	<3,530	1,100,000	<640	3,750 J+	----	2,490,000	7,230	6,300 J+	931
LVWPS-MW107A	5/23/2023	N	PM01	NA	Downgradient	50	Alluvium	24.8 - 34.5	6,410	933 J	<3,530	1,050,000	<640	1,880	<420	2,460,000	9,370	6,360	3,010
LVWPS-MW107A	8/24/2023	N	PM02	NA	Downgradient	50	Alluvium	24.8 - 34.5	4,510	137 J-	<3,530	1,070,000	<640	2,990	<420	2,290,000	8,860	7,270	1,590
LVWPS-MW107A	11/30/2023	N	PM03	NA	Downgradient	50	Alluvium	24.8 - 34.5	4,580	<240	4,240 J	957,000	1,160 J	17,800	----	2,020,000	8,840	7,810	1,030
LVWPS-MW107B	5/23/2023	N	PM01	NA	Downgradient	50	UMCf	46.0 - 65.8	<0.3	<480	<3,530	1,140,000	708 J	<480	<420	2,520,000	423	423	<50
LVWPS-MW107B	8/24/2023	N	PM02	NA	Downgradient	50	UMCf	46.0 - 65.8	11.3	86.6 J	<3,530	671,000	<640	3,790	<420	1,620,000	1,150	765	386
LVWPS-MW107B	12/1/2023	N	PM03	NA	Downgradient	50	UMCf	46.0 - 65.8	8.28	<120	<3,530	270,000	<640	<480 R	----	818,000	1,100	428	675
LVWPS-MW107C	5/23/2023	N	PM01	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<0.3	5,320	<35,300	13,000,000	<6,400	<4,800	<4,200	33,800,000	<50	<140	<50
LVWPS-MW107C	8/24/2023	N	PM02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<0.3	<120 UJ	40,600	9,600,000	<640	<480	<420	31,500,000	<50	<140	<50
LVWPS-MW107C	12/1/2023	N	PM03	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<0.3	<2,400	<3,530	13,100,000	<640	<480 R	----	38,500,000	4,840	4,840	<50
ZTS-MW175	5/26/2023	N	PM01	1B	Downgradient	100	Alluvium	19.8 - 29.5	5,930	1,790	<3,530	1,060,000	<640	6,300 J-	<420 R	2,530,000	8,920	678	8,240
ZTS-MW175	8/25/2023	N	PM02	1B	Downgradient	100	Alluvium	19.8 - 29.5	6,260	<2,400	<3,530	1,050,000	<640	3,150 J-	<420 R	2,030,000	4,230	2,720	1,510
ZTS-MW175	11/30/2023	N	PM03	1B	Downgradient	100	Alluvium	19.8 - 29.5	5,540	<240	4,200 J	943,000	1,240 J	13,700	----	1,930,000	4,550	4,030 J+	520
ZTS-MW176	5/26/2023	N	PM01	1B	Downgradient	150	Alluvium	19.8 - 29.5	6,170	1,920	<3,530	1,090,000	<640	5,170 J-	<420 R	2,590,000	6,720	<140	6,720
ZTS-MW176	8/25/2023	N	PM02	1B	Downgradient	150	Alluvium	19.8 - 29.5	6,750	<2,400	4,650 J	1,120,000	999 J	5,520	<420	2,580,000	4,630	1,390 J+	3,240
ZTS-MW176	12/5/2023	N	PM03	1B	Downgradient	150	Alluvium	19.8 - 29.5	5,710	1,100	3,630 J	1,120,000	690 J	4,230	----	2,530,000	4,690	2,870	1,820

Test Area 2A

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
						feet		Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Pre-Construction Baseline Results																			
ZTS-MW137	10/20/2022	N	BL02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	6,620	95,200	<353	1,160,000	579	18,200	101	2,720,000	18,900	<700	18,900
ZTS-MW118	9/1/2022	N	BL01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	7,160	89,900	----	----	----	19,400	----	2,640,000	----	----	----
ZTS-MW118	10/21/2022	N	BL02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	6,710	86,600	<7,060	1,200,000	<1,280	19,200 J-	<840	2,620,000	18,900	<700	18,900
ZTS-MW138	10/20/2022	N	BL02	2A	Downgradient	5	Alluvium	14.0 - 24.0	6,860	85,100	<353	1,150,000	535	18,100	114	2,640,000	18,800	<700	18,800
ZTS-MW139	10/21/2022	N	BL02	2A	Downgradient	5	Alluvium	13.0 - 23.0	6,970	94,900	<7,060	1,170,000	<1,280	18,700	<840	2,590,000	18,600	<700	18,600
LVWPS-MW102A	10/21/2022	N	BL02	NA	Downgradient	30	UMCf	47.0 - 66.6	3,700	35,400	<3,530	2,320,000	<640	6,230	<420	5,630,000	4,980	337 J	4,640
LVWPS-MW102B	10/21/2022	N	BL02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<30	<24,000	<7,060	12,000,000	<1,280	<960	<840	34,800,000	24,700	44,600	<50
ZTS-MW113	10/25/2022	N	BL02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	6,830	79,600	<3,530	1,180,000	<640	18,500	<420	2,700,000	18,100	<280	18,100
Post-Construction Performance Monitoring Results																			
ZTS-MW137	5/31/2023	N	PM01	2A	Upgradient	-9	Alluvium	14.0 - 24.0	6,140	50,900	<3,530	1,070,000	<640	16,700 J-	<420 R	2,520,000	18,900	<700	18,900
ZTS-MW137	8/24/2023	N	PM02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	6,590	86,300	<3,530	1,040,000	<640	21,900	<420	2,100,000	18,200	<700	18,200
ZTS-MW137	12/1/2023	N	PM03	2A	Upgradient	-9	Alluvium	14.0 - 24.0	6,000	68,000	<3,530	938,000	<640	19,000 J-	----	2,170,000	19,800	<1,400	19,800
ZTS-MW118	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	6,620	53,800	<3,530	1,110,000	<640	16,500 J-	<420 R	2,480,000	18,800	<700	18,800
ZTS-MW118	5/31/2023	FD	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	6,460	53,200	<3,530	1,110,000	<640	16,500 J-	<420 R	2,500,000	19,000	<700	19,000
ZTS-MW118	8/24/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	6,860	97,700	<3,530	1,100,000	<640	20,200	<420	2,390,000	19,600	<700	19,600
ZTS-MW118	8/24/2023	FD	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	7,370	89,800	<3,530	1,100,000	<640	20,400	<420	2,340,000	18,700	<700	18,700
ZTS-MW118	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	5,320	67,400	<3,530	1,150,000	<640	21,600 J-	----	2,700,000 J	19,700	<1,400	19,700
ZTS-MW118	12/1/2023	FD	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	5,050	76,000	<3,530	997,000	<640	19,100 J-	----	1,940,000 J	19,700	<1,400	19,700
ZTS-MW190	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	14.3 - 24.0	5,950	52,300	<3,530	1,070,000	<640	16,600 J-	<420 R	2,500,000	19,400	<1,400	19,400
ZTS-MW190	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	14.3 - 24.0	8,020	94,700	4,550 J	1,030,000	712 J	18,400 J	<420	1,930,000	18,700	<700	18,700
ZTS-MW190	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	14.3 - 24.0	5,980	71,100	<3,530	1,090,000	<640	22,000 J-	----	2,560,000	19,500	<1,400	19,500
ZTS-MW196	5/30/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.8 - 23.5	6,090	51,000	<3,530	1,070,000	<640	16,700 J-	<420 R	2,460,000	19,400	<560	19,400
ZTS-MW196	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.8 - 23.5	7,590	96,100	<3,530	1,010,000	<640	20,100	<420 R	2,350,000	19,200	<700	19,200
ZTS-MW196	11/30/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.8 - 23.5	5,580	123,000	3,650 J	1,040,000	<640	21,800	----	2,470,000	19,400	<1,400	19,400
ZTS-MW202	5/30/2023	N	PM01	2A	Upgradient	-3	UMCf	28.8 - 38.5	5,560	42,600	<3,530	995,000	727 J	12,800	<420	2,200,000	16,200	<700	16,200
ZTS-MW202	8/28/2023	N	PM02	2A	Upgradient	-3	UMCf	28.8 - 38.5	5,880	82,900	4,540 J	958,000	858 J	18,000	<420	2,210,000	16,700	<560	16,700
ZTS-MW202	12/1/2023	N	PM03	2A	Upgradient	-3	UMCf	28.8 - 38.5	91.1 J	34,000	<3,530	869,000	<640	13,600 J-	----	1,950,000	13,200	<1,400	13,200
ZTS-MW192	5/22/2023	N	PM01	2A	Center of Array	0	Alluvium	14.3 - 24.0	6,540	86,100	<3,530	1,090,000	<640	18,300	<420	2,380,000	16,800	<700	16,800
ZTS-MW192	8/21/2023	N	PM02	2A	Center of Array	0	Alluvium	14.3 - 24.0	5,920	90,800	8,820 J	1,050,000	<1,280	20,500	<840	2,480,000	19,200	<700	19,200
ZTS-MW192	11/28/2023	N	PM03	2A	Center of Array	0	Alluvium	14.3 - 24.0	5,980	105,000	4,160 J	1,070,000	1,310 J	21,300	----	2,130,000	20,200	<1,400	20,200
ZTS-MW191	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.8 - 24.5	5,120	10,300	<3,530	1,140,000	<640	3,070 J-	<420 R	2,520,000	9,260	5,290	3,970
ZTS-MW191	8/22/2023	N	PM02	2A	Downgradient	1	Alluvium	14.8 - 24.5	4,310	10,300	<3,530	1,110,000	<640	5,630	<420	2,340,000	9,750	5,460	4,290
ZTS-MW191	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.8 - 24.5	4,520	64,300	<3,530	1,120,000	<640	8,100	----	2,590,000	12,100	5,850	6,200
ZTS-MW195	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.3 - 24.0	6,430	47,500	<3,530	1,100,000	<640	16,800 J-	<420 R	2,560,000	17,800	<700	17,800
ZTS-MW195	8/21/2023	N	PM02	2A	Downgradient	1	Alluvium	14.3 - 24.0	5,930	49,600	8,850 J	1,080,000	<1,280	18,500 J+	<840	2,490,000	17,600	<700	17,600
ZTS-MW195	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.3 - 24.0	5,620	117,000	5,020 J	1,100,000	1,100 J	22,900	----	2,060,000	20,800	1,280 J+	19,500
ZTS-MW138	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	14.0 - 24.0	6,520	53,200	<3,530	1,020,000	705 J	17,300 J-	<420 UJ	2,460,000	19,100	<700	19,100
ZTS-MW138	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	14.0 - 24.0	5,960	53,600	8,810 J	1,040,000	<1,280	21,200	<840	2,480,000	19,700	<700	19,700
ZTS-MW138	11/28/2023	N	PM03	2A	Downgradient	5	Alluvium	14.0 - 24.0	7,390	99,700	4,180 J	1,160,000	1,300 J	23,700	----	2,350,000	20,600	<1,400	20,600
ZTS-MW139	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	13.0 - 23.0	6,000	44,300	<3,530	1,090,000	<640	14,700	<420	2,600,000	16,300	<700	16,300
ZTS-MW139	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	13.0 - 23.0	5,570	50,200	8,830 J	1,060,000	1,360 J	19,600	<840	2,500,000	18,700	<560	18,700
ZTS-MW139	11/29/2023	N	PM03	2A	Downgradient	5	Alluvium	13.0 - 23.0	7,220	115,000	<3,530	1,080,000	<640	19,200	----	2,600,000	18,300	250 J	18,000
ZTS-MW193	5/25/2023	N	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	7,730	51,400	<3,530	1,100,000	<640	20,200	<420	2,560,000	16,900	<700	16,900
ZTS-MW193	5/25/2023	FD	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	6,880	53,600	<3,530	1,110,000	<640	20,400	<420	2,570,000	18,300	<700	18,300
ZTS-MW193	8/22/2023	N	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	5,570	82,100	<3,530	1,070,000	<640	20,300	<420	2,370,000	20,300	<700	20,300

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
						feet		Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW193	8/22/2023	FD	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	4,550	82,000	<3,530	1,070,000	<640	20,200	<420	2,370,000	18,700	<700	18,700
ZTS-MW193	11/30/2023	N	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	5,940	122,000	4,150 J	1,030,000	1,270 J	25,000	----	2,020,000	18,800	<700	18,800
ZTS-MW193	11/30/2023	FD	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	5,900	119,000	4,080 J	873,000	1,040 J	21,100	----	1,830,000	18,400	<700	18,400
ZTS-MW203	5/30/2023	N	PM01	2A	Downgradient	5	UMCf	28.3 - 38.0	5,750	33,100	<3,530	1,020,000	640 J	12,200 J-	<420 R	2,360,000	14,400	<700	14,400
ZTS-MW203	8/23/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	4.89	74,000	<3,530	1,020,000	<640	13,600	<420	2,340,000	14,900	<560	14,900
ZTS-MW203	10/11/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	6,230	46,400	----	----	----	----	----	----	----	----	----
ZTS-MW203	10/11/2023	FS	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	4,900	----	----	----	----	----	----	----	----	----	----
ZTS-MW203	11/30/2023	N	PM03	2A	Downgradient	5	UMCf	28.3 - 38.0	4,440	85,900	4,050 J	881,000	1,380 J	14,900	----	1,800,000	11,500	<700	11,500
ZTS-MW194	5/25/2023	N	PM01	2A	Downgradient	15	Alluvium	17.8 - 22.5	6,250	50,700	<3,530	1,090,000	<640	21,300	763 J	2,630,000	19,100	<700	19,100
ZTS-MW194	8/22/2023	N	PM02	2A	Downgradient	15	Alluvium	17.8 - 22.5	6,100	54,500	<3,530	1,060,000	<640	20,600	<420	2,370,000	20,500	<700	20,500
ZTS-MW194	11/29/2023	N	PM03	2A	Downgradient	15	Alluvium	17.8 - 22.5	4,750	120,000	4,820 J	1,050,000	1,110 J	24,600	----	2,080,000	22,300	1,320 J+	21,000
LVWPS-MW102A	5/30/2023	N	PM01	NA	Downgradient	30	UMCf	47.0 - 66.6	4,190	7,640	<7,060	2,190,000	<1,280	2,800 J	<2100 R	5,350,000	4,950	205 J	4,740
LVWPS-MW102A	8/23/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	4.05	7,910	29,300	2,160,000	<640	3,530	<420	5,030,000	4,980	184 J	4,800
LVWPS-MW102A	10/11/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	5,640	15,200	----	----	----	----	----	----	----	----	----
LVWPS-MW102A	10/11/2023	FS	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	4,400	----	----	----	----	----	----	----	----	----	----
LVWPS-MW102A	12/1/2023	N	PM03	NA	Downgradient	30	UMCf	47.0 - 66.6	4,060	11,400	<3,530	1,960,000	<640	7,750 J-	----	4,710,000	5,540	319	5,220
LVWPS-MW102B	5/26/2023	N	PM01	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<0.3	2,580	<35,300	11,600,000	<6,400	<4800 R	<4200 R	34,900,000	485	485	<50
LVWPS-MW102B	8/23/2023	N	PM02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<0.3	<48 UJ	<3,530	9,630,000	<640	<480	<420	33,100,000	4,730	4,730	<50
LVWPS-MW102B	12/1/2023	N	PM03	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	2.03 J	<2,400	<3,530	11,800,000	<640	<480 R	----	44,200,000	3,670	3,670	<50
ZTS-MW197	5/26/2023	N	PM01	2A	Downgradient	55	Alluvium	12.8 - 22.5	4,420	52,900	<3,530	1,050,000	<640	17,400 J-	<420 R	2,550,000	18,700	<700	18,700
ZTS-MW197	8/22/2023	N	PM02	2A	Downgradient	55	Alluvium	12.8 - 22.5	5,810	87,500	<3,530	1,070,000	<640	20,400	<420	2,370,000	20,300	<700	20,300
ZTS-MW197	11/30/2023	N	PM03	2A	Downgradient	55	Alluvium	12.8 - 22.5	5,930	124,000	4,090 J	924,000	1,260 J	22,200	----	2,150,000	19,000	<700	19,000
ZTS-MW113	5/26/2023	N	PM01	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	6,430	53,800	<3,530	1,040,000	<640	17,200 J-	<420 R	2,510,000	19,200	<700	19,200
ZTS-MW113	8/24/2023	N	PM02	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	6,490	91,500	<3,530	1,080,000	<640	19,300	<420	2,310,000	18,400	<700	18,400
ZTS-MW113	11/30/2023	N	PM03	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	5,960	109,000	4,080 J	977,000	1,160 J	21,400	----	2,110,000	16,600	<700	16,600
Test Area 2B																			
Pre-Construction Baseline Results																			
ZTS-MW133	10/20/2022	N	BL02	2B	Upgradient	-9	UMCf	54.0 - 69.0	2,150	19,800	<7,060	1,350,000	<1,280	3,030	<840	2,750,000	2,020	<140	2,020
ZTS-MW117	9/1/2022	N	BL01	2B	Upgradient	-2	UMCf	40.5 - 55.5	2,840	7,320	----	----	----	3,360	----	1,460,000	----	----	----
ZTS-MW117	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<0.3	<2,400	<353	698,000	994	<48	232	1,100,000	<50	<140	<50
ZTS-MW117	10/19/2022	FD	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<0.3	<2,400	<353	636,000	988	<48	231	1,010,000	<50	<140	<50
ZTS-MW134	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	26.0 - 36.0	6,980	101,000	<3,530	1,150,000	<640	20,200	<420	2,460,000	18,400	<1,400	18,400
ZTS-MW135	10/19/2022	N	BL02	2B	Downgradient	7	UMCf	54.0 - 69.0	2,690	21,700	<3,530	1,350,000	<640	3,710	<420	2,700,000	2,640	<140	2,640
ZTS-MW136	10/20/2022	N	BL02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	805	11,900	<3,530	685,000	<640	2,130	<420	1,180,000	2,330	<140	2,160
Post-Construction Performance Monitoring Results																			
ZTS-MW133	5/23/2023	N	PM01	2B	Upgradient	-9	UMCf	54.0 - 69.0	2,690	4,280	<3,530	1,310,000	663 J	1,730	<420	2,680,000	2,660	<140	2,660 J-
ZTS-MW133	8/30/2023	N	PM02	2B	Upgradient	-9	UMCf	54.0 - 69.0	2,290	4,210 J	<3,530	1,350,000	864 J	9,780 J-	<420	2,700,000	2,820	<140	2,820
ZTS-MW133	12/4/2023	N	PM03	2B	Upgradient	-9	UMCf	54.0 - 69.0	2,520	5,820 J+	<3530 UJ	1,370,000	<640	5,700 J+	----	2,720,000	2,900	<140	2,900
ZTS-MW117	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	40.5 - 55.5	14.4	<480	5,540 J	793,000	1,100 J	<480 R	<420 R	1,530,000	403	403	<50
ZTS-MW117	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<0.3	<24 UJ	<3,530	935,000	<640	<480	<420	1,600,000	<50	<140	<50
ZTS-MW117	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	40.5 - 55.5	<0.3	<240	4,590 J	1,050,000	1,130 J	17,300	----	1,910,000	485 J+	485 J+	<50
ZTS-MW134	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	26.0 - 36.0	6,000	45,700	<3,530	1,090,000	<640	18,500	<420	2,490,000	16,000	<700	16,000
ZTS-MW134	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	26.0 - 36.0	5,760	76,200	<3,530	1,090,000	<640	18,200	<420	2,350,000	17,000	<700	17,000
ZTS-MW134	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	26.0 - 36.0	5,070	52,600	<3,530	934,000	<640	14,500	----	2,090,000	16,800	1,200 J	15,600

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
								feet	Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW198	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	26.1 - 46.0	921	5,290	<3,530	1,060,000	807 J	3,740 J-	1,170	1,840,000	2,450	410 J+	2,040
ZTS-MW198	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	26.1 - 46.0	1,310	3,210 J	8,770 J	1,140,000	<1,280	5,230 J+	<840	2,200,000	3,460	<140	3,460
ZTS-MW198	11/27/2023	N	PM03	2B	Downgradient	2	UMCf	26.1 - 46.0	42.5	<240	<3,530	1,180,000	668 J	1,570	----	2,270,000	400	285	115
ZTS-MW200	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	1,320	<240	<3,530	1,290,000	<640	<480	<420	2,530,000	294	233 J	61.4 J
ZTS-MW200	5/23/2023	FD	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	1,200	<240	<3,530	1,270,000	<640	<480	<420	2,470,000	394	321 J+	73.2 J
ZTS-MW200	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	1,080	<2,400	8,870 J	1,330,000	<1,280	<960	<840	2,520,000	61.6 J	<140	61.6 J
ZTS-MW200	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	1,170	<240	4,190 J	1,310,000	1,030 J	15,200	----	2,380,000	321	321 J+	<50
ZTS-MW201	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	27.1 - 47.0	888	1,120	<3,530	1,030,000	704 J	1,160 J-	<420 UJ	2,050,000	775	488	287
ZTS-MW201	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	27.1 - 47.0	1,350	20,500	<3,530	1,200,000	<640	3,090	<420	2,150,000	1,440	190 J	1,250
ZTS-MW201	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	27.1 - 47.0	1,650	41,400 J+	4,050 J	1,150,000	1,200 J	13,700	----	1,830,000	1,570	239 J	1,340
ZTS-MW206	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	1,340	1,630 J-	<3,530	1,300,000	<640	2,900	<420	2,710,000	1,250	556	698
ZTS-MW206	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	2,150	3,450 J	<3,530	1,330,000	<640	3,690	<420	2,550,000	2,030	<140	2,030
ZTS-MW206	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	2,410	48,800	4,060 J	1,320,000	1,130 J	18,400	----	2,340,000	2,210	141 J	2,070
ZTS-MW199	5/23/2023	N	PM01	2B	Downgradient	5	UMCf	50.1 - 65.0	2,900	6,390	<3,530	1,270,000	<640	1,740	<420	2,640,000	3,110	446	2,660
ZTS-MW199	8/22/2023	N	PM02	2B	Downgradient	5	UMCf	50.1 - 65.0	3,580	27,200	<3,530	1,400,000	<640	4,950	<420	2,620,000	4,100	215 J	3,880
ZTS-MW199	11/28/2023	N	PM03	2B	Downgradient	5	UMCf	50.1 - 65.0	3,790	51,000	4,120 J	1,520,000	1,280 J	21,300	----	2,420,000	3,730	<140	3,730
ZTS-MW207	5/24/2023	N	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	986	2,200 J	<3,530	796,000	670 J	668 J	<420	1,550,000	1,430 J	241 J	1,190 J
ZTS-MW207	5/24/2023	FD	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	1,060	3,220 J	<3,530	878,000	651 J	878 J	<420	1,740,000	1,940 J	230 J	1,710 J
ZTS-MW207	8/23/2023	N	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	272	457 J	<3,530	814,000	<640	554 J	<420	1,530,000	863	462 J+	401
ZTS-MW207	8/23/2023	FD	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	255	348 J	<3,530	811,000	<640	590 J	<420	1,520,000	788	405	383
ZTS-MW207	11/29/2023	N	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	530	330 J	<3,530	878,000	<640	1,830 J+	----	1,940,000	1,030 J+	629 J+	400
ZTS-MW207	11/29/2023	FD	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	565	371 J	<3,530	890,000	<640	1,920 J+	----	1,910,000	1,000 J+	559 J+	443
ZTS-MW135	5/26/2023	N	PM01	2B	Downgradient	7	UMCf	54.0 - 69.0	3,770	6,760	<3,530	1,300,000	<640	2,290 J-	<420 R	2,750,000	3,840	373	3,470
ZTS-MW135	8/24/2023	N	PM02	2B	Downgradient	7	UMCf	54.0 - 69.0	3,660	7,330	<3,530	1,360,000	707 J	6,980	<420	3,100,000	4,020	<140	4,020
ZTS-MW135	11/30/2023	N	PM03	2B	Downgradient	7	UMCf	54.0 - 69.0	4,270	66,100	<3,530	1,390,000	<640	6,860 J+	----	2,840,000	4,350	<140	4,350
ZTS-MW136	5/26/2023	N	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	112 J	597 J	<3,530	576,000	<640	<480 R	<420 R	1,040,000	257 J	<140	257 J
ZTS-MW136	5/26/2023	FD	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	207 J	1,060 J	<1,760	639,000	725 J	<240 R	<210 R	1,190,000	414 J	<140	414 J
ZTS-MW136	8/25/2023	N	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	35.5	9,350	<353 UJ	670,000	822	551 J	<42	1,150,000	81.7 J	<140	81.7 J
ZTS-MW136	8/25/2023	FD	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	30.2	7,250	4,410 J	657,000	1,010 J	<480 UJ	<420	1,150,000	356 J	269 J+	87.3 J
ZTS-MW136	11/29/2023	N	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	30.7	<240	4,650 J	677,000	1,320 J	<480 UJ	----	1,200,000	560 J+	560 J+	<50
ZTS-MW136	11/29/2023	FD	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	28.7	<240	2,690 J	723,000	1,090	9,430 J	----	1,250,000	442 J+	442 J+	<50
ZTS-MW208	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	26.1 - 46.0	4,440	25,200	<3,530	972,000	<640	12,000	726 J	2,130,000	11,300	<700	11,300
ZTS-MW208	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	26.1 - 46.0	4,270	71,700	<3,530	1,050,000	<640	12,800	<420	2,230,000	13,700	<560	13,700
ZTS-MW208	11/28/2023	N	PM03	2B	Downgradient	15	UMCf	26.1 - 46.0	4,110	83,600	<3,530	1,070,000	<640	12,900	----	2,310,000	11,100	<140	11,100
ZTS-MW209	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	50.6 - 65.5	3,660	6,600	<3,530	1,410,000	<640	5,070	931 J	2,840,000	3,970	172 J	3,800
ZTS-MW209	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	50.6 - 65.5	4,790	10,100 J-	4,530 J	1,360,000	782 J	5,310	<420	2,620,000	4,540	<140	4,540
ZTS-MW209	11/29/2023	N	PM03	2B	Downgradient	15	UMCf	50.6 - 65.5	4,300	11,400	<3,530	1,440,000	<640	7,290 J+	----	2,990,000	5,610	450 J+	5,160
Test Area 2C																			
Pre-Construction Baseline Results																			
ZTS-MW140	10/21/2022	N	BL02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	6,650	93,400	<7,060	1,150,000	<1,280	18,500	<840	2,600,000	18,700	<700	18,700
ZTS-MW119	9/1/2022	N	BL01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	6,150	65,500	----	----	----	18,000	----	2,530,000	----	----	----
ZTS-MW119	10/19/2022	N	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	7,530	87,200	<3,530	1,220,000	<640	18,100	<420	2,820,000	17,900	<560	17,900
ZTS-MW119	10/19/2022	FD	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	7,180	93,800	<3,530	1,230,000	<640	18,100	<420	2,770,000	18,300	<700	18,300
ZTS-MW141	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	14.5 - 24.5	7,030	86,300	<3,530	1,180,000	<640	17,400	<420	2,720,000	17,900	<280	17,900
ZTS-MW142	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	16.0 - 26.0	6,760	83,600	<7,060	1,130,000	<1,280	17,400	<840	2,620,000	18,600	<700	18,600
Post-Construction Performance Monitoring Results																			
ZTS-MW140	5/25/2023	N	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	7,160	57,800	<3,530	1,130,000	<640	20,700	<420	2,610,000	18,700	<700	18,700

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
						feet		Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW140	5/25/2023	FD	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	7,260	59,000	<3,530	1,130,000	<640	20,700	<420	2,570,000	18,400	<700	18,400
ZTS-MW140	8/29/2023	N	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	8,940	58,800	<7,060	1,130,000	<1,280	20,200	<840	2,470,000	19,100	<560	19,100
ZTS-MW140	8/29/2023	FD	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	5,760	60,300	<7,060	1,150,000	<1,280	20,400	<840	2,500,000	19,200	<560	19,200
ZTS-MW140	12/4/2023	N	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	7,040	76,100	3,620 J	1,100,000	<640	18,200	----	2,460,000	21,500	2,910	18,600
ZTS-MW140	12/4/2023	FD	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	7,050	71,800	3,590 J	1,120,000	<640	19,000	----	2,470,000	22,900	4,190	18,700
ZTS-MW119	5/24/2023	N	PM01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	6,950	57,000	<3,530	1,070,000	702 J	13,400 J-	<420 UJ	2,480,000	18,200	<700	18,200
ZTS-MW119	8/29/2023	N	PM02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	6,740	61,500	<7,060	1,120,000	<1,280	20,200	<840	2,460,000	19,100	<560	19,100
ZTS-MW119	12/4/2023	N	PM03	2C	Upgradient	-3	Alluvium	15.0 - 25.0	6,900	75,300	<3,530	1,110,000	<640	19,400	----	2,480,000	21,600	2,780	18,800
ZTS-MW181	5/25/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	7,250	51,900	<3,530	1,120,000	<640	12,200	427 J	2,190,000	17,100	<700	17,100
ZTS-MW181	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	7,140	95,600	<353	1,030,000	551	18,300	<42	2,480,000	17,600	<700	17,600
ZTS-MW181	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	7,460	76,300	4,050 J	1,150,000	<640	19,900	----	2,420,000	17,700	<1,400	17,700
ZTS-MW188	5/26/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	6,190	52,800	<3,530	1,040,000	<640	16,300 J-	<420 R	2,520,000	18,300	<700	18,300
ZTS-MW188	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	8,140	99,800	<3,530	1,120,000	<640	19,800 J-	<420 R	2,150,000	18,100	<700	18,100
ZTS-MW188	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	6,620	73,200	4,120 J	1,080,000	<640	21,100	----	2,460,000	18,900	<1,400	18,900
ZTS-MW204	5/25/2023	N	PM01	2C	Upgradient	-3	UMCf	30.3 - 40.0	1,500	14,900	<353 R	624,000	897 J-	3,260	367	1,110,000	3,860	<140	3,860 J-
ZTS-MW204	8/25/2023	N	PM02	2C	Upgradient	-3	UMCf	30.3 - 40.0	3,020	35,100	4,440 J	683,000	1,030 J	6,990	<420	1,370,000	8,340	<280	8,340
ZTS-MW204	12/1/2023	N	PM03	2C	Upgradient	-3	UMCf	30.3 - 40.0	3,650	21,800	<3,530	727,000	<640	8,320 J-	----	1,500,000	7,500	<560	7,500
ZTS-MW182	5/23/2023	N	PM01	2C	Center of Array	0	Alluvium	17.6 - 27.3	6,600	28,900	<3,530	1,070,000	643 J	9,070 J-	<420	2,480,000	11,400	456 J	10,900
ZTS-MW182	8/22/2023	N	PM02	2C	Center of Array	0	Alluvium	17.6 - 27.3	5,830	36,400	<3530 UJ	1,130,000	<640	13,600	<420	2,400,000	12,600	<700	12,600 J+
ZTS-MW182	11/27/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	5,400	80,600	<3530 UJ	1,110,000	<640	15,500 J-	----	2,480,000	14,500	<1,400	14,500
ZTS-MW182	11/28/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	----	----	----	----	----	----	----	----	----	----	----
ZTS-MW183	5/23/2023	N	PM01	2C	Downgradient	1	Alluvium	17.3 - 27.0	5,900	43,400	<3,530	1,080,000	656 J	9,680	435 J	2,300,000	15,700	<700	15,700
ZTS-MW183	8/22/2023	N	PM02	2C	Downgradient	1	Alluvium	17.3 - 27.0	6,500	51,100	<3,530	1,120,000	<640	17,900	<420	2,420,000	17,800	<700	17,800
ZTS-MW183	11/28/2023	N	PM03	2C	Downgradient	1	Alluvium	17.3 - 27.0	5,850	132,000	<3,530	1,120,000	<640	19,700	----	2,510,000	18,000	<1,400	18,000
ZTS-MW187	5/24/2023	N	PM01	2C	Downgradient	1	Alluvium	15.3 - 25.0	5,860	44,800	<3,530	1,050,000	665 J	13,700 J-	<420 UJ	2,430,000	14,700	<700	14,700
ZTS-MW187	8/23/2023	N	PM02	2C	Downgradient	1	Alluvium	15.3 - 25.0	6,370	94,800	<3,530	1,110,000	<640	16,000	<420	2,480,000	16,900	<560	16,900
ZTS-MW187	11/29/2023	N	PM03	2C	Downgradient	1	Alluvium	15.3 - 25.0	5,670	68,600	<3,530	1,080,000	<640	20,000	----	2,640,000	22,800	4,030 J+	18,800
ZTS-MW141	5/25/2023	N	PM01	2C	Downgradient	5	Alluvium	14.5 - 24.5	6,440	56,800	<3,530	1,100,000	<640	14,700	<420	2,600,000	19,400	<700	19,400
ZTS-MW141	8/23/2023	N	PM02	2C	Downgradient	5	Alluvium	14.5 - 24.5	6,890	104,000	<3,530	1,070,000	<640	19,500	<420	2,290,000	35,700	<560	35,700
ZTS-MW141	11/29/2023	N	PM03	2C	Downgradient	5	Alluvium	14.5 - 24.5	6,120	75,800	3,710 J	1,040,000	<640	21,000	----	2,540,000	25,600	5,240 J+	20,400
ZTS-MW142	5/26/2023	N	PM01	2C	Downgradient	5	Alluvium	16.0 - 26.0	7,140	44,500	<3,530	1,070,000	<640	13,900 J-	<420 R	2,590,000	15,800	<700	15,800
ZTS-MW142	8/24/2023	N	PM02	2C	Downgradient	5	Alluvium	16.0 - 26.0	6,580	78,100	<3,530	1,110,000	<640	17,200	<420	2,440,000	16,600	<140	16,600
ZTS-MW142	11/30/2023	N	PM03	2C	Downgradient	5	Alluvium	16.0 - 26.0	6,330	62,300	4,100 J	935,000	1,060 J	20,000	----	1,840,000	15,600	<700	15,600
ZTS-MW184	5/24/2023	N	PM01	2C	Downgradient	5	Alluvium	16.3 - 26.0	6,440	51,400	<3,530	1,050,000	644 J	15,300 J-	<420 UJ	2,430,000	17,200	<700	17,200
ZTS-MW184	8/22/2023	N	PM02	2C	Downgradient	5	Alluvium	16.3 - 26.0	6,490	55,100	<3,530	1,130,000	<640	19,500	<420	2,390,000	19,300	<700	19,300
ZTS-MW184	11/28/2023	N	PM03	2C	Downgradient	5	Alluvium	16.3 - 26.0	5,800	134,000	3,580 J	1,120,000	<640	20,000	----	2,510,000	18,100	<1,400	18,100
ZTS-MW205	5/24/2023	N	PM01	2C	Downgradient	5	UMCf	30.3 - 40.0	338	380 J-	<353	477,000	1,040	62.3 J	<42 UJ	696,000	249	<140	249
ZTS-MW205	8/23/2023	N	PM02	2C	Downgradient	5	UMCf	30.3 - 40.0	299	155 J-	<353 R	478,000	1,100	268	<42	691,000	490	162 J	328
ZTS-MW205	11/29/2023	N	PM03	2C	Downgradient	5	UMCf	30.3 - 40.0	31.3	<240	<353	425,000	89.3 J	62.7 J	----	625,000	450 J+	450 J+	<50
ZTS-MW185	5/25/2023	N	PM01	2C	Downgradient	15	Alluvium	15.3 - 25.0	5,940	55,800	<3,530	1,100,000	651 J	14,400	<420	2,470,000	18,100	<700	18,100
ZTS-MW185	8/24/2023	N	PM02	2C	Downgradient	15	Alluvium	15.3 - 25.0	6,890	74,400	<3,530	1,070,000	687 J	21,200	<420	2,310,000	18,900	<700	18,900
ZTS-MW185	11/30/2023	N	PM03	2C	Downgradient	15	Alluvium	15.3 - 25.0	6,330	72,900	4,070 J	905,000	1,050 J	20,600	----	2,160,000	18,100	<700	18,100
ZTS-MW186	5/25/2023	N	PM01	2C	Downgradient	25	Alluvium	15.3 - 25.0	5,870	55,600	<3,530	1,100,000	683 J	14,600	<420	2,530,000	18,900	<700	18,900
ZTS-MW186	8/24/2023	N	PM02	2C	Downgradient	25	Alluvium	15.3 - 25.0	4,930	96,300	<3,530	1,130,000	787 J	22,500	<420	3,640,000	18,900	<700	18,900
ZTS-MW186	11/30/2023	N	PM03	2C	Downgradient	25	Alluvium	15.3 - 25.0	6,200	128,000	4,100 J	958,000	1,230 J	22,200	----	2,070,000	18,200	<700	18,200
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	<700	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	<700	18,700

Table 2
Groundwater Sampling 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/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	CALC	E351.2	E353.2
									Perchlorate	Chlorate	Bromide	Chloride	Fluoride	Nitrate (as N)	Nitrite (as N)	Sulfate	Nitrogen	Total Kjeldahl Nitrogen (TKN)	Nitrogen, Nitrate-Nitrite
						feet		Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
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-	----	2,850,000	23,200	4,030	19,200
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	<140	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	616	12,000
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	<280	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	<140	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	----	2,660,000	5,970	<1,400	5,970
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	<700	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	<700	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	----	2,510,000	12,000	<1,400	12,000

Notes:

- Distances from the discontinuous or continuous walls are shown as negative values for upgradient monitoring wells, as zero for monitoring wells screened within the walls, and as positive values for monitoring wells located downgradient of the walls.

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

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
									µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Test Area 1A																					
Pre-Construction Baseline Results																					
ZTS-MW143	10/18/2022	N	BL02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	<35	103,000	110	4,570,000	<14	<106	23,700	1,440 J+	33,800	755,000	<18.5	<1.03	52.7
ZTS-MW124	8/31/2022	N	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----	3,020,000	----	----	----	----	----	----	----	----	44
ZTS-MW124	8/31/2022	FD	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----	2,310,000	----	----	----	----	----	----	----	----	43.7
ZTS-MW124	10/18/2022	N	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	<35	102,000	2.6	4,750,000	<14	10,200 J	21,700	1,480 J+	33,200	730,000	<18.5	<1.03	47.1 J
ZTS-MW124	10/18/2022	FD	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	<35	102,000	2.9	4,220,000	<14	1,230 J	23,900	1,580 J+	32,200	710,000	<18.5	<1.03	<0.18 UJ
ZTS-MW125	8/31/2022	N	BL01	1A	Upgradient	-8	UMCf	40.0 - 50.0	----	----	----	3,650,000	----	----	----	----	----	----	----	----	40.1
ZTS-MW125	10/24/2022	N	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	<35 UJ	132,000	7.2	2,930,000	143	<106	30,600	1,020 J+	23,000	387,000	<18.5	<1.03	22.2
ZTS-MW125	10/24/2022	FD	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	----	----	7.2	----	----	----	----	----	----	----	----	----	----
ZTS-MW144	10/18/2022	N	BL02	1A	Downgradient	35	Alluvium	24.0 - 34.0	<35	118,000	92	4,750,000	<14	1,270 J+	27,800	1,560 J+	35,100	770,000	<18.5	<1.03	47.2
Post-Construction Performance Monitoring Results																					
ZTS-MW143	5/26/2023	N	PM01	1A	Upgradient	-50	Alluvium	23.0 - 33.0	89.6 J	110,000	42	5,120,000	16 J	1,200 J+	27,100	1,120 J+	37,300	----	<18.5	<1.03	45.7
ZTS-MW143	8/29/2023	N	PM02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	<35	114,000	<0.49	3,860,000	15 J	1,290 J	25,400	1,050	37,100	----	<18.5	<1.03	46.6
ZTS-MW143	12/6/2023	N	PM03	1A	Upgradient	-50	Alluvium	23.0 - 33.0	74.5 J	119,000	2.6	4,220,000 J	35	1,170 J	27,800	1,140	29,800	----	<18.5	<1.03	49.4
ZTS-MW124R	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.5 - 34.0	<35	110,000	40	4,590,000	26 J	970 J	27,200	1,350 J+	33,100	----	<18.5	<1.03	47.1
ZTS-MW124R	8/29/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.5 - 34.0	<35	112,000	14.2	4,420,000	17 J	1,200 J	25,400	1,070	34,900	----	<18.5	<1.03	50.4
ZTS-MW124R	12/5/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.5 - 34.0	84 J	109,000	7.5	5,540,000	22 J	1,130 J	25,600	1,300 J+	35,300	----	<18.5	<1.03	48.7
ZTS-MW125	5/25/2023	N	PM01	1A	Upgradient	-8	UMCf	40.0 - 50.0	135	126,000	32 J	2,970,000	82	392 J	31,300	571 J	31,200	----	<18.5	<1.03	7.45
ZTS-MW125	8/30/2023	N	PM02	1A	Upgradient	-8	UMCf	40.0 - 50.0	66.8 J	122,000	17.1	3,210,000	87	773 J	28,700	671 J	30,600	----	<18.5	<1.03	10.8
ZTS-MW125	12/1/2023	N	PM03	1A	Upgradient	-8	UMCf	40.0 - 50.0	248 J+	123,000	2.6	2,790,000 J	76	469 J	27,000	779 J	31,900	----	<18.5	<1.03	10.8
ZTS-MW153	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	114	115,000	36	4,840,000	37	955 J	26,600	1,320 J+	35,400	----	<18.5	<1.03	48.3
ZTS-MW153	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	50.3 J	108,000	14	3,810,000	<14	1,350 J	24,100	1,420 J+	33,800	----	<18.5	<1.03	48.1
ZTS-MW153	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	154 J+	121,000	2.3	3,830,000	33	1,080 J	24,600	1,170 J+	35,800	----	24.5 J	<1.03	51.7
ZTS-MW163	5/25/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<35	106,000	49 J	5,370,000	<14	1,150 J+	26,600	889 J	35,800	----	<18.5	<1.03	51.7
ZTS-MW163	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	<35	104,000	2.3	4,140,000	<14	1,010 J	23,200	1,240 J+	34,700	----	<18.5	<1.03	49.2
ZTS-MW163	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	79.9 J	108,000	----	3,850,000	22 J	1,040 J	23,100	1,160 J+	35,900	----	<18.5	<1.03	53.1
ZTS-MW150	5/22/2023	N	PM01	1A	Center of Trench	0	Alluvium	24.3 - 34.0	35.6 J	28,100	<0.49	4,760,000	136	1,130 J+	6,690	2,380 J+	716	----	<18.5	<1.03	<0.18
ZTS-MW150	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<35	30,800	29.3 J-	3,990,000	<14	1,420 J	6,510	1,160 J+	1,270	----	<18.5	<1.03	<0.18
ZTS-MW150	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	24.3 - 34.0	<35	32,100	1.7	4,210,000	<14	970 J	5,650	1,050 J+	1,350	----	<18.5	<1.03	<0.18
ZTS-MW154	5/24/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<35	29,900	30	4,750,000 J-	<14	1,060 J+	5,770	902 J	769	----	<18.5	<1.03	<0.18
ZTS-MW154	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	45.5 J	27,100	28.5 J-	4,170,000	<14	1,390 J	6,200	1,020 J+	599	----	<18.5	<1.03	<0.18
ZTS-MW154	11/28/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	57.4 J	25,500	<0.49	5,120,000	<14	935 J	4,890	992 J	541	----	<18.5	<1.03	<0.18
ZTS-MW164	5/23/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<35	39,700	2,100	4,070,000	<14	828 J	7,630	1,290 J+	4,160	----	<18.5	<1.03	<0.18
ZTS-MW164	5/23/2023	FD	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<35	39,200	----	3,860,000	<14	897 J	7,420	1,310 J+	3,750	----	<18.5	<1.03	<0.18
ZTS-MW164	8/18/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<35	30,500	2,400	5,130,000	<14 UJ	1,230 J	5,210 J-	1,090 J+	2,750 J-	----	<18.5	<1.03	0.27 J
ZTS-MW164	8/18/2023	FD	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	<35	30,200	----	4,620,000	<14 UJ	1,440 J	5,010 J-	1,080 J+	2,800 J-	----	<18.5	<1.03	0.295 J
ZTS-MW164	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	36.9 J	40,600	116	4,180,000	<14	1,110 J+	7,620	1,100	6,580	----	<18.5	<1.03	0.666 J
ZTS-MW164	11/27/2023	FD	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	38.1 J	41,500	----	4,380,000	<14	1,120 J+	7,320	1,050 J+	6,270	----	<18.5	<1.03	0.668 J
ZTS-MW151	5/25/2023	N	PM01	1A	Downgradient	5	Alluvium	24.3 - 34.0	<35	78,300	34 J	5,110,000	31	877 J	17,200	1,040	10,000	----	<18.5	<1.03	8.53
ZTS-MW151	8/21/2023	N	PM02	1A	Downgradient	5	Alluvium	24.3 - 34.0	93.8 J	121,000	42.6 J-	4,680,000	160	2,130 J	20,000	1,060 J+	12,600	----	<18.5	<1.03	8.4
ZTS-MW151	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	24.3 - 34.0	122 J+	130,000	1.4	5,160,000	<14	1,140 J	25,300 J-	1,020 J+	16,000	----	<18.5	<1.03	5.69
ZTS-MW155	5/24/2023	N	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	<35	62,300	26	5,070,000	<14	1,110 J+	14,100	837 J	4,380	----	<18.5	<1.03	0.249
ZTS-MW155	5/24/2023	FD	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	<35	63,200	----	4,860,000	<14	1,110 J+	14,100	829 J	4,590	----	<18.5	<1.03	0.338
ZTS-MW155	8/22/2023	N	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	<35	103,000	18.6 J+	3,060,000 J	<14	1,230 J	24,300	1,180 J+	13,900	----	<18.5	<1.03	4.09
ZTS-MW155	8/22/2023	FD	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	54.1 J	105,000	----	4,280,000 J	<14	1,290 J	24,100	1,190 J+	14,300	----	<18.5	<1.03	4.57

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
								feet	µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
ZTS-MW155	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	51.5 J	104,000	1.4	5,720,000	<14	1,130 J	22,200	1,010 J+	14,600	----	<18.5	<1.03	2.93
ZTS-MW155	11/28/2023	FD	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	43.6 J	105,000	----	6,480,000	<14	1,250 J	22,400	1,010 J+	15,100	----	24.3 J	<1.03	3.27
ZTS-MW156	5/24/2023	N	PM01	1A	Downgradient	5	UMCf	43.8 - 53.5	35.8	115,000	18	4,300,000	<14	500 J	28,200	312 J	32,000	----	<18.5	<1.03	1.23
ZTS-MW156	8/22/2023	N	PM02	1A	Downgradient	5	UMCf	43.8 - 53.5	<35	114,000	24.6 J+	2,710,000 J	17 J	464 J	26,400	561 J	31,800	----	<18.5	<1.03	2.01
ZTS-MW156	11/29/2023	N	PM03	1A	Downgradient	5	UMCf	43.8 - 53.5	63 J	119,000	1.6	2,740,000 J	15 J	425 J	25,700	559 J	31,400	----	<18.5	<1.03	1.05 J
ZTS-MW165	5/31/2023	N	PM01	1A	Downgradient	5	Alluvium	22.3 - 32.0	35.5 J	73,200	40	5,360,000	<14	1,250 J+	17,000	1,410 J+	8,680	----	<18.5	<1.03	2.63
ZTS-MW165	8/25/2023	N	PM02	1A	Downgradient	5	Alluvium	22.3 - 32.0	<35	98,300	<0.49	4,170,000	<14	1,130 J	21,200	1,060 J+	21,400	----	<18.5	<1.03	2 J
ZTS-MW165	11/30/2023	N	PM03	1A	Downgradient	5	Alluvium	22.3 - 32.0	48.9 J	107,000	1.8 J	6,190,000	<14	1,170 J+	22,300	1,270 J+	26,800	----	<18.5	<1.03	1.68 J
ZTS-MW152	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	184	67,000	45 J	5,470,000	159	968 J	16,500	976 J	13,400	----	<18.5	<1.03	29.6
ZTS-MW152	8/22/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	59.6 J	94,400	11.4 J+	5,150,000	32	1,240 J	22,200	1,160 J+	17,300	----	<18.5	<1.03	11.9
ZTS-MW152	11/28/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	63.9 J	117,000	<0.49	5,460,000	33	1,140 J	25,000	1,010 J+	20,100	----	<18.5	<1.03	10.9
ZTS-MW157	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	68 J	62,900	32 J	8,910,000	51	1,120 J+	15,300	841 J	6,140	----	<18.5	<1.03	7.5
ZTS-MW157	8/23/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	<35	82,300	2.1 J-	4,480,000	23 J	1,150 J	18,500	1,080 J+	9,720	----	<18.5	<1.03	4.84
ZTS-MW157	11/29/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	54.4 J	91,500	1.7	4,200,000	<14	1,160 J+	19,000	1,170 J+	13,300	----	<18.5	<1.03	4.85
ZTS-MW162	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	<35	94,200	32 J	5,440,000	30 J	1,020 J+	22,800	936 J	13,200	----	<18.5	<1.03	6.8
ZTS-MW162	8/18/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	<35	105,000	24.8	5,260,000	<14 UJ	1,300 J	24,100	1,130 J+	20,000	----	<18.5	<1.03	5.39
ZTS-MW162	11/30/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	57 J	108,000	<0.49	6,030,000	16 J	1,130 J	23,400	1,100 J+	28,600	----	<18.5	<1.03	3.41
ZTS-MW149	5/31/2023	N	PM01	1A	Downgradient	25	Alluvium	23.3 - 33.0	100 J	111,000	47	4,560,000	42	1,360 J+	26,400	1,450 J+	28,300	----	<18.5	<1.03	30.3
ZTS-MW149	8/24/2023	N	PM02	1A	Downgradient	25	Alluvium	23.3 - 33.0	178 J+	109,000	2.1	4,330,000	73	1,020 J-	25,700	1,240	36,300	----	<18.5	<1.03	39.5
ZTS-MW149	11/30/2023	N	PM03	1A	Downgradient	25	Alluvium	23.3 - 33.0	62.2 J	122,000	1.9 J	6,400,000	31	1,170 J	27,700	1,080 J+	35,500	----	<18.5	3.95 J	37.8
ZTS-MW144	5/31/2023	N	PM01	1A	Downgradient	35	Alluvium	24.0 - 34.0	81.4 J	79,900	52 J	5,330,000	48	1,230 J+	18,500	1,150 J+	10,500	----	<18.5	<1.03	14.9
ZTS-MW144	8/24/2023	N	PM02	1A	Downgradient	35	Alluvium	24.0 - 34.0	39.2 J	75,900	4.9	4,350,000	18 J	1,100 J-	17,400 J-	1,030	15,200	----	<18.5	<1.03	16.3
ZTS-MW144	11/30/2023	N	PM03	1A	Downgradient	35	Alluvium	24.0 - 34.0	75 J	93,400	2.2 J	6,350,000	20 J	1,240 J	20,300 J-	1,250 J+	21,000	----	<18.5	<1.03	14.9
ZTS-MW158	5/24/2023	N	PM01	1A	Downgradient	50	Alluvium	23.3 - 33.0	<35	69,600	18	4,860,000	<14	1,130	16,100	942 J	14,700	----	<18.5	<1.03	17.3
ZTS-MW158	8/25/2023	N	PM02	1A	Downgradient	50	Alluvium	23.3 - 33.0	<35	71,500	4	4,140,000	<14	1,070 J	15,900	1,060 J+	11,000	----	<18.5	<1.03	12.9
ZTS-MW158	12/1/2023	N	PM03	1A	Downgradient	50	Alluvium	23.3 - 33.0	72.7 J	96,400	----	4,090,000	<14	1,230 J	20,500	1,240 J+	16,300	----	<18.5	<1.03	18.9
ZTS-MW159	5/24/2023	N	PM01	1A	Downgradient	50	UMCf	38.8 - 48.5	91.2 J	128,000	40	2,460,000 J	28 J	1,010 J+	29,200	1,120 J+	25,000	----	<18.5	2.04 J	8.4
ZTS-MW159	8/25/2023	N	PM02	1A	Downgradient	50	UMCf	38.8 - 48.5	<35	104,000	2.9	3,990,000	40	1,120 J	23,700	1,020 J+	26,100	----	<18.5	<1.03	24
ZTS-MW159	12/1/2023	N	PM03	1A	Downgradient	50	UMCf	38.8 - 48.5	89.8 J	106,000	2.6	3,780,000	26 J	952 J	25,100	1,110 J+	28,000	----	<18.5	<1.03	26.9
ZTS-MW160	5/24/2023	N	PM01	1A	Downgradient	100	Alluvium	23.3 - 33.0	37.7 J	98,100	18	4,140,000	<14	1,130 J	21,500	1,280 J+	21,300	----	<18.5	<1.03	32.5
ZTS-MW160	8/28/2023	N	PM02	1A	Downgradient	100	Alluvium	23.3 - 33.0	<35	98,200	3.8 J+	3,520,000	21 J	976 J	22,500	1,440	25,700	----	<18.5	<1.03	29.9
ZTS-MW160	12/5/2023	N	PM03	1A	Downgradient	100	Alluvium	23.3 - 33.0	78 J	101,000	1.9	4,460,000	29 J	1,110 J	22,900	1,310 J+	29,400	----	<18.5	<1.03	27.8
ZTS-MW161	5/26/2023	N	PM01	1A	Downgradient	150	Alluvium	24.3 - 34.0	74.4 J	72,700	35	4,950,000	17 J	1,120 J+	16,800 J-	1,280 J+	22,800	----	<18.5	<1.03	34.2
ZTS-MW161	8/25/2023	N	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	<35 UJ	90,400	2.6	5,350,000	20 J-	977 J	20,800	946 J	20,400	----	<18.5	<1.03	29.7
ZTS-MW161	8/25/2023	FD	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	1,860 J	96,000	----	4,380,000	15 J-	952 J	20,700	904 J	20,000	----	<18.5	<1.03	28.3
ZTS-MW161	12/1/2023	N	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	83.3 J	98,800	2	3,810,000	<14	1,070 J	22,000	1,160 J+	20,000	----	<18.5	<1.03	30.4
ZTS-MW161	12/1/2023	FD	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	77 J	96,500	----	4,630,000	<14	1,070 J	22,800	1,230 J+	20,200	----	<18.5	<1.03	30.2
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	<35	114,000	7.3	3,710,000	<14	<106	25,800	<102 UJ	25,100	559,000	<18.5	<1.03	16.3
ZTS-MW146	10/24/2022	N	BL02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	<35	127,000	10	5,180,000	<14	1,390 J+	29,800	1,590 J+	25,000	727,000	<18.5	<1.03	23.1
Post-Construction Performance Monitoring Results																					
ZTS-MW145	5/22/2023	N	PM01	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	35 J	138,000	17	700,000	<14	1,950 J-	31,500 J-	2,150 J+	11,300	----	53.1 J	<1.03	2.25
ZTS-MW145	8/30/2023	N	PM02	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	<35	112,000	<0.49	3,480,000	44	602 J	26,400	453 J	31,300	----	<18.5	<1.03	2.31
ZTS-MW145	12/6/2023	N	PM03	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	55.7 J	112,000	2.1	3,180,000 J-	35	582 J	25,400	278 J	25,800	----	<18.5	<1.03	1.57 J
ZTS-MW146	5/26/2023	N	PM01	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	59.3 J	129,000	41	3,960,000	42	1,310 J+	31,100	1,010 J+	28,900	----	<18.5	<1.03	8.3
ZTS-MW146	8/25/2023	N	PM02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	<35	130,000	2.4	3,660,000	31	718 J	29,700	609 J	32,800	----	<18.5	<1.03	0.586 J

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
									µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW146	11/30/2023	N	PM03	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	66.9 J	127,000	<0.49	5,570,000	28 J	221 J	26,300	779 J	32,700	----	<18.5	<1.03	0.457 J
Test Area 1B																					
Pre-Construction Baseline Results																					
ZTS-MW147	10/18/2022	N	BL02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	<35	102,000	59	4,720,000	<14	1,270 J+	22,800	1,700 J+	39,300	765,000	<18.5	<1.03	59.9
ZTS-MW126	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	----	----	----	3,710,000	----	----	----	----	----	----	----	----	37.3
ZTS-MW126	10/18/2022	N	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	<35 UJ	110,000	2.5	4,720,000	<14	1,390 J+	25,500	1,830 J+	40,000	796,000	<18.5	<1.03	52.4
ZTS-MW126	10/18/2022	FD	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	<35 UJ	110,000	2	5,300,000	<14	1,620 J+	24,900	1,670 J+	39,800	797,000	<18.5	<1.03	58.1
ZTS-MW127	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	18.0 - 23.0	----	----	----	4,660,000	----	----	----	----	----	----	----	----	29.7
ZTS-MW127	10/24/2022	N	BL02	1B	Upgradient	-8	Alluvium	18.0 - 23.0	<35	118,000	27	5,550,000	<14	2,230 J+	24,400	2,430 J+	34,100	791,000	<18.5	<1.03	40.7
ZTS-MW148	10/24/2022	N	BL02	1B	Downgradient	35	Alluvium	22.0 - 32.0	<35	107,000	5.4	5,420,000	41	1,600	27,100	1,800 J+	34,400	780,000	<18.5	<1.03	51.2
LVWPS-MW107A	10/24/2022	N	BL02	NA	Downgradient	50	Alluvium	24.8 - 34.5	<35	106,000	13	5,610,000	<14	1,300	24,800	1,850 J+	33,500	772,000	<18.5	<1.03	49.8
LVWPS-MW107B	10/21/2022	N	BL02	NA	Downgradient	50	UMCf	46.0 - 65.8	<35	97,100	2 J	5,720,000	<14	<106	20,600	<102	24,800	846,000	<18.5	<1.03	<0.18
LVWPS-MW107C	10/24/2022	N	BL02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	139	85,700	36	80,600,000	537	4,390	17,300	4,990 J+	4,040	11,200,000	<18.5	<1.03	2.48
Post-Construction Performance Monitoring Results																					
ZTS-MW147	5/26/2023	N	PM01	1B	Upgradient	-50	Alluvium	19.5 - 29.5	<35	103,000	49	5,380,000	20 J	1,190 J+	24,600	1,550 J+	39,800	----	<18.5	<1.03	52.2
ZTS-MW147	8/30/2023	N	PM02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	<35	98,200	4.4	4,460,000 J	25 J	1,330 J	23,400	1,450 J+	37,800	----	<18.5	<1.03	49.9
ZTS-MW147	12/1/2023	N	PM03	1B	Upgradient	-50	Alluvium	19.5 - 29.5	85.8 J	103,000	40.5	4,740,000	20 J	1,260 J	22,600	1,450 J+	39,400	----	<18.5	<1.03	54.9
ZTS-MW126	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	35.2 J	115,000	34 J	5,650,000	40	1,100 J+	28,500	986 J	43,400	----	<18.5	<1.03	64.4
ZTS-MW126	8/25/2023	N	PM02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	<35	118,000	4.3	6,760,000	24 J	1,210 J	27,000	1,080 J+	44,800	----	<18.5	<1.03	64.4
ZTS-MW126	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	20.0 - 30.0	64.5 J	113,000	2 J	4,260,000	37	1,090 J+	22,700	1,240 J+	42,600	----	<18.5	<1.03	64.3
ZTS-MW127R	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	18.5 - 23.0	<35	108,000	45 J	5,730,000	19 J	1,510 J+	26,100	1,450	40,600	----	<18.5	<1.03	43
ZTS-MW127R	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	18.5 - 23.0	<35	110,000	6.4 J+	4,340,000	24 J	1,610 J	25,100	1,960	40,700	----	<18.5	<1.03	45.4
ZTS-MW127R	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	18.5 - 23.0	<35	111,000	69.6 J	3,470,000	28 J	1,310 J	22,700	1,430 J+	40,200	----	<18.5	<1.03	43.5
ZTS-MW169	5/24/2023	N	PM01	1B	Upgradient	-8	Alluvium	17.1 - 27.0	<35	107,000	45	5,270,000	<14	1,500 J+	24,600	1,230	41,200	----	<18.5	<1.03	49.6
ZTS-MW169	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	17.1 - 27.0	<35	109,000	2.9 J+	4,220,000	24 J	1,540 J	24,800	1,350	41,000	----	<18.5	<1.03	52.9
ZTS-MW169	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	17.1 - 27.0	54.4 J	103,000	26.4 J	4,700,000	26 J	1,110 J+	22,300	1,370 J+	39,500	----	<18.5	<1.03	48.3
ZTS-MW170	5/24/2023	N	PM01	1B	Upgradient	-8	UMCf	31.1 - 41.0	57.7 J	107,000	29	4,390,000	53	997 J	24,800	851 J	37,800	----	<18.5	<1.03	31.3
ZTS-MW170	8/29/2023	N	PM02	1B	Upgradient	-8	UMCf	31.1 - 41.0	50.4 J	110,000	31.9	4,170,000	26 J	1,130 J	24,300	1,300	39,500	----	<18.5	<1.03	38.5
ZTS-MW170	11/30/2023	N	PM03	1B	Upgradient	-8	UMCf	31.1 - 41.0	56.4 J	102,000	4 J	3,760,000	32	980 J	21,600	1,050 J+	37,900	----	<18.5	<1.03	37.7
ZTS-MW166	5/23/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.8 - 29.5	37.5 J	22,300	2,500	4,430,000	<14	922 J	3,310	1,310 J+	323 J+	----	<18.5	<1.03	<0.18
ZTS-MW166	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.8 - 29.5	<35	41,800	1,480 J-	4,530,000	<14	1,620 J	8,150	964 J	5,460	----	50.9 J	<1.03	0.307 J
ZTS-MW166	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.8 - 29.5	60.6 J	25,800	6,130 J	5,850,000	<14	1,140 J	2,110	1,160 J+	371	----	<18.5	<1.03	<0.18
ZTS-MW171	5/22/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.3 - 29.0	39.2 J	36,200	2,400	5,630,000	53	1,460 J+	8,280	1,720 J+	720	----	<18.5	<1.03	0.214 J
ZTS-MW171	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.3 - 29.0	<35	33,200	12.5 J-	4,500,000	<14	1,760 J	7,200	1,280 J+	950	----	<18.5	<1.03	0.198 J
ZTS-MW171	11/27/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.3 - 29.0	56.6 J	32,600	41	4,730,000	<14	1,200 J+	5,670	1,220	815	----	<18.5	<1.03	0.184 J
ZTS-MW178	5/25/2023	N	PM01	1B	Center of Trench	0	Alluvium	17.8 - 27.5	74 J	44,500	<0.49	5,400,000	<14	1,200 J+	752 J	1,060	222	----	<18.5	<1.03	0.221 J
ZTS-MW178	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	17.8 - 27.5	35.9 J	31,000	12,900 J-	5,150,000	<14	1,610 J	1,470 J+	1,110 J+	236 J+	----	<18.5	<1.03	<0.18
ZTS-MW178	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	17.8 - 27.5	71.7 J	41,200	4,140 J	5,460,000	<14	1,030 J	1,000	1,010 J+	244	----	<18.5	<1.03	<0.18
ZTS-MW167	5/24/2023	N	PM01	1B	Downgradient	5	Alluvium	23.3 - 33.0	46.6 J	22,200	<0.49	6,400,000	<14	1,380 J+	4,820	960 J	2,540	----	<18.5	<1.03	3.49 J+
ZTS-MW167	8/22/2023	N	PM02	1B	Downgradient	5	Alluvium	23.3 - 33.0	<35	19,800 J	25.8	4,140,000	<14	3,140 J	2,970 J+	1,150 J+	2,700 J+	----	<18.5	<1.03	2.47
ZTS-MW167	11/28/2023	N	PM03	1B	Downgradient	5	Alluvium	23.3 - 33.0	<35	39,400	12.4 J	5,800,000	<14	1,300 J+	1,960	1,260 J+	2,510	----	<18.5	<1.03	3.2
ZTS-MW172	5/23/2023	N	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	<35	24,900	2.5	4,780,000	<14	1,210	3,910	1,370 J+	8,940	----	<18.5	<1.03	15
ZTS-MW172	5/23/2023	FD	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	37.1 J	25,600	----	4,300,000	<14	1,170	4,370	1,390 J+	9,140	----	<18.5	<1.03	15.2
ZTS-MW172	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	<35	39,300	2.1	5,320,000	<14	1,550 J	8,460	1,210 J+	4,840	----	<18.5	<1.03	6.07
ZTS-MW172	8/23/2023	FD	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	<35	41,600	----	5,500,000	<14	1,500 J	8,640	1,650 J+	4,780	----	<18.5	<1.03	5.87
ZTS-MW172	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	<35	17,500 J	2.2	5,460,000	<14	1,130 J+	2,400	1,200 J+	3,250	----	<18.5	<1.03	4.09
ZTS-MW172	11/30/2023	FD	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	71.7 J	17,900 J	----	5,420,000	<14	1,140 J+	2,480	1,180 J+	3,230	----	56.4 J	<1.03	4.05

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
									µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW173	5/25/2023	N	PM01	1B	Downgradient	5	UMCf	33.3 - 43.0	117	122,000	30	4,700,000	186	1,750 J+	29,300	1,410	24,900	----	<18.5	11.5	13
ZTS-MW173	8/22/2023	N	PM02	1B	Downgradient	5	UMCf	33.3 - 43.0	432	119,000	19.8	2,280,000	153	2,390 J	27,000	2,510 J+	23,600	----	<18.5	17	11.3
ZTS-MW173	11/29/2023	N	PM03	1B	Downgradient	5	UMCf	33.3 - 43.0	266 J+	132,000	21.4	3,490,000	227	3,420	31,300	4,060	26,600	----	<18.5	7.01	10.6
ZTS-MW179	5/25/2023	N	PM01	1B	Downgradient	5	Alluvium	18.3 - 23.0	140	38,100	68	7,200,000	<14	1,250 J+	2,040	1,120	10,100	----	<18.5	<1.03	19.1
ZTS-MW179	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	18.3 - 23.0	88.2 J	22,100	2.9 J-	4,710,000	<14	1,480 J	2,720 J+	1,160 J+	7,180	----	<18.5	<1.03	11.1
ZTS-MW179	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	18.3 - 23.0	61 J	26,200	2.6	5,920,000	<14	1,090 J	1,620	1,170 J+	6,090	----	<18.5	<1.03	7.35
ZTS-MW168	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	40.6 J	31,800	22	6,500,000	<14	1,350 J+	5,400	1,070 J+	6,130	----	<18.5	<1.03	13.8
ZTS-MW168	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	69.4 J	33,100	19.5	3,400,000	<14	1,380 J	6,330	1,180 J+	6,920	----	<18.5	<1.03	8.7
ZTS-MW168	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	30,100	----	----	----	----	----	----	----	----	----	----	----
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	63.4 J	30,400	2.9	3,940,000	<14	1,250 J+	5,960	1,420 J+	6,210	----	<18.5	<1.03	6.96
ZTS-MW174	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	73.9 J	44,200	----	6,200,000	32	1,500 J+	9,940	1,370 J+	9,430	----	<18.5	<1.03	18.6
ZTS-MW174	5/26/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	53	----	----	----	----	----	----	----	----	----	----
ZTS-MW174	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	36.8 J	25,200	19.9	2,950,000	<14	1,320 J+	4,560	1,200 J+	7,540	----	<18.5	<1.03	11.2
ZTS-MW174	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	31,500	----	----	----	----	----	----	----	----	----	----	----
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	----	33,500	----	----	----	----	----	----	----	----	----	----	----
ZTS-MW174	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	19.8 - 29.5	55.6 J	18,000 J	2.9	3,740,000	<14	1,220 J+	2,700	1,180 J+	6,820	----	<18.5	<1.03	10.3
ZTS-MW177	5/25/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	129	33,800	40	6,700,000	32	1,410 J+	5,320	1,140	9,490	----	<18.5	<1.03	11.4
ZTS-MW177	8/23/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	59.2 J	23,800	<0.49 UJ	3,190,000	16 J	1,470 J	3,420 J+	1,230 J+	6,720	----	<18.5	<1.03	8.64
ZTS-MW177	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	82.1 J	21,500	2.6	4,370,000	<14	1,210 J+	3,420	1,580 J+	8,230	----	<18.5	<1.03	9.66
ZTS-MW180	5/24/2023	N	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	<35	102,000	34	6,300,000	<14	1,440 J+	25,600	1,170 J+	34,300	----	35.3 J	<1.03	48.6
ZTS-MW180	5/24/2023	FD	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	47.8 J	100,000	----	5,130,000 J-	<14	1,500 J+	25,900	1,140 J+	34,600	----	<18.5	<1.03	44.9
ZTS-MW180	8/24/2023	N	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	<35	105,000	2.2	5,880,000	24 J	1,370 J-	25,600	1,340	43,400	----	<18.5	<1.03	52.9
ZTS-MW180	8/24/2023	FD	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	<35	105,000	----	5,320,000	23 J	1,630 J-	25,500	1,310	43,300	----	<18.5	<1.03	52.7
ZTS-MW180	11/30/2023	N	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	45.3 J	105,000	3.1	4,390,000 J	<14	1,200 J+	17,600	1,300 J+	40,600	----	<18.5	<1.03	50.5
ZTS-MW180	11/30/2023	FD	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	44.8 J	105,000	----	6,310,000 J	23 J	1,240 J	22,200	1,300 J+	40,700	----	<18.5	<1.03	50.4
ZTS-MW148	5/25/2023	N	PM01	1B	Downgradient	35	Alluvium	22.0 - 32.0	53.8 J	45,700	39	6,600,000	16 J	1,160 J+	9,820	1,160	9,570	----	<18.5	<1.03	20.7
ZTS-MW148	8/23/2023	N	PM02	1B	Downgradient	35	Alluvium	22.0 - 32.0	<35	28,200	13.8 J-	4,070,000	21 J	1,420 J	5,420	1,160 J+	10,600	----	<18.5	<1.03	18.4
ZTS-MW148	11/28/2023	N	PM03	1B	Downgradient	35	Alluvium	22.0 - 32.0	48.6 J	24,500	----	5,720,000	15 J	1,100 J	3,280	1,260 J+	9,630	----	<18.5	<1.03	18.9
LVWPS-MW107A	5/23/2023	N	PM01	NA	Downgradient	50	Alluvium	24.8 - 34.5	<35	32,600	<0.49	3,490,000	<14	1,120	6,070	1,600 J+	7,410	----	43.7 J	<1.03	11.3
LVWPS-MW107A	8/24/2023	N	PM02	NA	Downgradient	50	Alluvium	24.8 - 34.5	<35	23,500	11.9	5,150,000	<14	1,100 J-	3,970	1,250	7,240	----	<18.5	<1.03	11.2
LVWPS-MW107A	11/30/2023	N	PM03	NA	Downgradient	50	Alluvium	24.8 - 34.5	77.5 J	21,800	1.7	5,320,000	16 J	1,100 J+	3,760	1,090 J+	6,530	----	<18.5	<1.03	10.1
LVWPS-MW107B	5/23/2023	N	PM01	NA	Downgradient	50	UMCf	46.0 - 65.8	38.9 J	94,400	7.9	4,210,000	<14	576 J	24,900	797 J	23,900	----	<18.5	<1.03	1.88 J
LVWPS-MW107B	8/24/2023	N	PM02	NA	Downgradient	50	UMCf	46.0 - 65.8	49.9 J	80,900	4.3	2,830,000	52	1,070 J-	16,600	905 J	11,700	----	<18.5	7.76	6.64
LVWPS-MW107B	12/1/2023	N	PM03	NA	Downgradient	50	UMCf	46.0 - 65.8	229 J+	67,800	2.4	1,430,000	83	1,180 J	15,000	1,260 J+	6,810	----	<18.5	13.7	9.03
LVWPS-MW107C	5/23/2023	N	PM01	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	84 J	92,800	11	53,400,000	465	3,740	21,100	4,430	4,320	----	<18.5	<1.03	0.28 J
LVWPS-MW107C	8/24/2023	N	PM02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	74.2 J	118,000	10.8	92,900,000	359	4,780 J-	25,300	4,730	5,190	----	<185	<10.3	5.47 J
LVWPS-MW107C	12/1/2023	N	PM03	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	475 J+	98,800	3.9	64,500,000	451	4,240 J	19,900	4,430 J+	4,740	----	<185	<10.3	<1.8
ZTS-MW175	5/26/2023	N	PM01	1B	Downgradient	100	Alluvium	19.8 - 29.5	91.5 J	57,900	<0.49	5,380,000	31	1,270 J+	11,800	1,550 J+	29,500	----	<18.5	<1.03	46.6
ZTS-MW175	8/25/2023	N	PM02	1B	Downgradient	100	Alluvium	19.8 - 29.5	<35	35,300	3.7	5,730,000	22 J	1,140 J	7,520	1,070 J+	22,500	----	<18.5	<1.03	39.6
ZTS-MW175	11/30/2023	N	PM03	1B	Downgradient	100	Alluvium	19.8 - 29.5	94.8 J	29,900	1.9	5,640,000	20 J	1,120 J	5,260	1,150 J+	17,900	----	<18.5	<1.03	32.3
ZTS-MW176	5/26/2023	N	PM01	1B	Downgradient	150	Alluvium	19.8 - 29.5	52.3 J	58,900	<0.49	5,580,000	20 J	1,200 J+	13,200	2,270 J+	34,000	----	<18.5	<1.03	51.9
ZTS-MW176	8/25/2023	N	PM02	1B	Downgradient	150	Alluvium	19.8 - 29.5	77.8 J	46,300	4.3	5,670,000	20 J	1,190 J	10,000	1,140 J+	27,600	----	<18.5	<1.03	47.5
ZTS-MW176	12/5/2023	N	PM03	1B	Downgradient	150	Alluvium	19.8 - 29.5	78.7 J	38,000	2	5,880,000	19 J	1,140 J	7,460	1,290 J+	22,800	----	<18.5	1.81 J	43.7

Test Area 2A

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic	
									µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Pre-Construction Baseline Results																						
ZTS-MW137	10/20/2022	N	BL02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<35	106,000	21	3,540,000	90	1,690 J+	21,300	2,240 J+	39,200	793,000	<18.5	<1.03	52.4	
ZTS-MW118	9/1/2022	N	BL01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----	8,540,000	----	----	----	----	----	----	----	----	----	36.1
ZTS-MW118	10/21/2022	N	BL02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<35	118,000	7 J+	5,830,000	<14	2,120 J	23,400 J-	2,050	41,400	818,000	<18.5	<1.03	48.8	
ZTS-MW138	10/20/2022	N	BL02	2A	Downgradient	5	Alluvium	14.0 - 24.0	<35	117,000	30	4,720,000	114	1,840 J+	20,400 J-	2,060 J+	36,500	770,000	<18.5	<1.03	44.5	
ZTS-MW139	10/21/2022	N	BL02	2A	Downgradient	5	Alluvium	13.0 - 23.0	<35	111,000	15	6,030,000	40	1,740 J+	25,200	2,030	37,500	795,000	<18.5	<1.03	29.8	
LVWPS-MW102A	10/21/2022	N	BL02	NA	Downgradient	30	UMCf	47.0 - 66.6	132 J	89,000	1.8 J	10,600,000	132	1,050 J+	19,200	<102	28,000	1,630,000	<18.5	<1.03	71.1	
LVWPS-MW102B	10/21/2022	N	BL02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	199 J	96,300	1.6 J	52,600,000	426	4,660 J+	18,900	2,650	<1,400	9,820,000	<18.5	<1.03	<0.18	
ZTS-MW113	10/25/2022	N	BL02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	<35	101,000	0.85 J	4,650,000	<14	1,640 J-	22,700	1,580 J	3,520	69,300	<18.5	<1.03	56.5	
Post-Construction Performance Monitoring Results																						
ZTS-MW137	5/31/2023	N	PM01	2A	Upgradient	-9	Alluvium	14.0 - 24.0	43.2 J	107,000	43	5,930,000	26 J	2,010 J+	25,700	1,820 J+	32,800	----	27.1 J	<1.03	53.1	
ZTS-MW137	8/24/2023	N	PM02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	<35	104,000	21.3	5,740,000	25 J	1,270 J-	24,400	1,290	41,800	----	<18.5	<1.03	58.5	
ZTS-MW137	12/1/2023	N	PM03	2A	Upgradient	-9	Alluvium	14.0 - 24.0	67.9 J	108,000	1.9	4,180,000	43	1,360 J	23,400	1,500 J+	39,400	----	<18.5	<1.03	59.3	
ZTS-MW118	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	36.4 J	114,000	66 J	5,560,000	34	1,630 J+	27,800	1,730 J+	36,000	----	<18.5	<1.03	42.9	
ZTS-MW118	5/31/2023	FD	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	53.4 J	115,000	----	5,790,000	36	1,670 J+	27,800	1,720 J+	36,700	----	<18.5	<1.03	44	
ZTS-MW118	8/24/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	40 J	110,000	7.5	5,480,000	22 J	1,410 J-	26,800	1,340	42,100	----	<18.5	<1.03	50.9	
ZTS-MW118	8/24/2023	FD	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	<35	110,000	----	5,810,000	22 J	1,350 J-	26,600	1,320	42,400	----	<18.5	<1.03	51.7	
ZTS-MW118	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	86.2 J	114,000	4.6	4,180,000	22 J	1,410 J	26,600	1,720 J+	39,800	----	<18.5	<1.03	51.7	
ZTS-MW118	12/1/2023	FD	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	66.9 J	116,000	----	4,350,000	20 J	1,400 J	26,200	1,630 J+	39,000	----	<18.5	<1.03	52.9	
ZTS-MW190	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	14.3 - 24.0	67.1 J	109,000	67 J	5,650,000	31	1,520 J+	26,000	1,640 J+	36,200	----	<18.5	<1.03	48.1	
ZTS-MW190	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	14.3 - 24.0	<35	108,000	2.5	5,100,000	55 J-	1,310 J	24,900	1,370 J+	39,400	----	<18.5	<1.03	50.9	
ZTS-MW190	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	14.3 - 24.0	78.4 J	109,000	1.6	4,840,000	35	1,310 J	25,000	1,490 J+	39,600	----	<18.5	<1.03	56.9	
ZTS-MW196	5/30/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.8 - 23.5	41.4 J	106,000	26	5,410,000	14 J	1,420 J+	26,000	1,670 J+	35,000	----	<18.5	<1.03	52.3	
ZTS-MW196	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.8 - 23.5	42.8 J	107,000	8.2	5,380,000	39	1,440 J	24,500	1,290 J+	40,000	----	<18.5	<1.03	54.5	
ZTS-MW196	11/30/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.8 - 23.5	<35	108,000	<0.49	6,340,000	175	470 J	22,700	1,460 J+	39,300	----	<18.5	1.41 J	54.5	
ZTS-MW202	5/30/2023	N	PM01	2A	Upgradient	-3	UMCf	28.8 - 38.5	97.8 J	105,000	27	5,240,000	35	510 J	25,500	1,600 J+	34,300	----	<18.5	<1.03	41.8	
ZTS-MW202	8/28/2023	N	PM02	2A	Upgradient	-3	UMCf	28.8 - 38.5	61.2 J	105,000	13 J+	4,240,000	45	1,240 J	24,400	1,440	38,900	----	<18.5	<1.03	45.2	
ZTS-MW202	12/1/2023	N	PM03	2A	Upgradient	-3	UMCf	28.8 - 38.5	90 J	106,000	5.3	3,260,000	40	986 J	23,400	1,230 J+	38,000	----	<18.5	1.09 J	35	
ZTS-MW192	5/22/2023	N	PM01	2A	Center of Array	0	Alluvium	14.3 - 24.0	63 J	93,000	8.2	5,950,000	17 J	1,620 J+	21,900	1,830 J+	29,600	----	<18.5	<1.03	35.2	
ZTS-MW192	8/21/2023	N	PM02	2A	Center of Array	0	Alluvium	14.3 - 24.0	<35	101,000	24.3 J-	5,250,000	<14	2,020 J	24,200	1,340 J+	37,000	----	<18.5	<1.03	50.2	
ZTS-MW192	11/28/2023	N	PM03	2A	Center of Array	0	Alluvium	14.3 - 24.0	65.7 J	109,000	14.8	6,040,000	<14	1,340 J	23,400	1,180 J+	35,600	----	<18.5	<1.03	59.4	
ZTS-MW191	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.8 - 24.5	144	41,900	<0.49	5,210,000	22 J	1,240 J+	6,990	2,010 J+	7,120	----	69.1 J	<1.03	3.5	
ZTS-MW191	8/22/2023	N	PM02	2A	Downgradient	1	Alluvium	14.8 - 24.5	62.4 J	39,200	22,500 J+	4,270,000	28 J	1,390 J+	7,050	1,320 J+	8,050	----	<18.5	<1.03	4.83	
ZTS-MW191	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.8 - 24.5	87.9 J	49,000	2,400 J	3,980,000	<14	1,320 J+	8,830	1,390 J+	11,800	----	<18.5	<1.03	11.4	
ZTS-MW195	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.3 - 24.0	349	111,000	1,400	5,500,000	62	1,340 J+	24,400	1,670 J+	36,100	----	<18.5	<1.03	43.9	
ZTS-MW195	8/21/2023	N	PM02	2A	Downgradient	1	Alluvium	14.3 - 24.0	75.6 J	96,400	205 J-	4,600,000	15 J	1,930 J	22,800	1,620 J+	34,500	----	<18.5	<1.03	44.7	
ZTS-MW195	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.3 - 24.0	35.8 J	104,000	9.6	3,430,000	15 J	1,410 J+	23,200	1,640 J+	35,900	----	<18.5	<1.03	53	
ZTS-MW138	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	14.0 - 24.0	52.5 J	103,000	23	5,280,000	45	1,190 J+	23,800	2,430	39,100	----	<18.5	<1.03	56.4	
ZTS-MW138	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	14.0 - 24.0	50.1 J	100,000	34.1 J-	4,880,000	<14	1,850 J	23,500	1,350 J+	37,300	----	27.1 J	<1.03	56.9	
ZTS-MW138	11/28/2023	N	PM03	2A	Downgradient	5	Alluvium	14.0 - 24.0	42.4 J	106,000	11.1	6,050,000	32	1,320 J	22,700	1,220 J+	35,800	----	<18.5	<1.03	64	
ZTS-MW139	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	13.0 - 23.0	92.6 J	94,600	32	5,150,000	51	1,400 J+	21,700	1,180 J+	35,300	----	<18.5	<1.03	45.6	
ZTS-MW139	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	13.0 - 23.0	65.7 J	96,100	37 J-	5,880,000	32	1,660 J	22,200 J-	1,320 J+	34,200	----	<18.5	<1.03	45	
ZTS-MW139	11/29/2023	N	PM03	2A	Downgradient	5	Alluvium	13.0 - 23.0	63.5 J	96,200	7	3,780,000	29 J	1,510 J+	22,200	1,400 J+	34,100	----	<18.5	<1.03	47.3	
ZTS-MW193	5/25/2023	N	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	71.8 J	92,900	28 J	5,330,000	53	1,480 J+	23,900	1,200 J+	36,400	----	<18.5	<1.03	49	
ZTS-MW193	5/25/2023	FD	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	70.1 J	99,900	----	5,130,000	53	1,210 J	23,800	1,450 J+	37,500	----	<18.5	<1.03	48.8	
ZTS-MW193	8/22/2023	N	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	63.3 J	99,600	27.6 J+	4,050,000 J	42	1,550 J	24,300	1,440 J+	35,500	----	<18.5	<1.03	44.7	

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
									µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW193	8/22/2023	FD	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	39.5 J	99,600	----	2,910,000 J	45	1,570 J	24,400	1,430 J+	35,800	----	<18.5	<1.03	47.1
ZTS-MW193	11/30/2023	N	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	97.7 J	103,000	11.7	6,080,000	44	1,250 J+	23,500	1,310 J+	38,800	----	<18.5	<1.03	51.3
ZTS-MW193	11/30/2023	FD	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	69 J	107,000	----	6,420,000	46	1,320 J	22,700	1,340 J+	38,200	----	<18.5	<1.03	48.3
ZTS-MW203	5/30/2023	N	PM01	2A	Downgradient	5	UMCf	28.3 - 38.0	80.2 J	96,900	54 J	4,710,000	48	1,720 J+	23,500	1,370 J+	33,900	----	<18.5	<1.03	38.6
ZTS-MW203	8/23/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	<35	96,700	2.1	5,190,000	34 J+	1,620 J	21,300	1,390 J+	37,600	----	<18.5	<1.03	43.1
ZTS-MW203	10/11/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	----	106,000	----	----	----	----	----	----	----	----	----	----	----
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	80.1 J	103,000	2.9	5,030,000	53	1,060 J+	21,400	1,140 J+	38,400	----	<18.5	<1.03	34.8
ZTS-MW194	5/25/2023	N	PM01	2A	Downgradient	15	Alluvium	17.8 - 22.5	81.6 J	109,000	33 J	5,810,000	76	1,460 J+	24,800	1,310 J+	38,800	----	<18.5	<1.03	58.1
ZTS-MW194	8/22/2023	N	PM02	2A	Downgradient	15	Alluvium	17.8 - 22.5	63.9 J	99,000	31.2 J+	4,480,000	51	1,530 J	21,500	1,390 J+	35,600	----	<18.5	<1.03	53
ZTS-MW194	11/29/2023	N	PM03	2A	Downgradient	15	Alluvium	17.8 - 22.5	64.7 J	109,000	3	3,650,000	36	2,260 J+	24,100	1,430 J+	38,700	----	<18.5	<1.03	62.3
LVWPS-MW102A	5/30/2023	N	PM01	NA	Downgradient	30	UMCf	47.0 - 66.6	124	92,300	47	11,300,000	53	1,250 J+	21,200	1,080 J+	26,200	----	<18.5	<1.03	70.1
LVWPS-MW102A	8/23/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	46 J	91,800	2.4	11,200,000	102 J+	743 J	19,600	706 J	27,900	----	<18.5	<1.03	74.1
LVWPS-MW102A	10/11/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	99,900	----	----	----	----	----	----	----	----	----	----	----
LVWPS-MW102A	10/11/2023	FS	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	----	----	----	----	----	----	----	----	----	----	----	----
LVWPS-MW102A	12/1/2023	N	PM03	NA	Downgradient	30	UMCf	47.0 - 66.6	135 J+	91,200	2.2	5,240,000	42	727 J	19,800	932 J	28,300	----	<18.5	1.19 J	70.4
LVWPS-MW102B	5/26/2023	N	PM01	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	115	100,000	45	64,600,000	405	4,020	19,900	4,050	4,960	----	<18.5	<51.5	0.661 J
LVWPS-MW102B	8/23/2023	N	PM02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	456	102,000	7.9	66,200,000	418	3,780 J	19,400	3,240	4,430	----	<185	<10.3	<1.8
LVWPS-MW102B	12/1/2023	N	PM03	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	542 J+	103,000	2.5	58,500,000	420	3,670 J	19,600	3,860 J+	4,810	----	<185	<10.3	<1.8
ZTS-MW197	5/26/2023	N	PM01	2A	Downgradient	55	Alluvium	12.8 - 22.5	80.1 J	109,000	33	5,670,000	35	1,400 J+	24,500	1,850 J+	38,900	----	<18.5	<1.03	47
ZTS-MW197	8/22/2023	N	PM02	2A	Downgradient	55	Alluvium	12.8 - 22.5	<35	105,000	2.1 J+	4,740,000	33	1,670 J+	25,000	1,440 J+	35,700	----	<18.5	<1.03	51.3
ZTS-MW197	11/30/2023	N	PM03	2A	Downgradient	55	Alluvium	12.8 - 22.5	83.7 J	108,000	10.7	6,240,000	39	1,290 J	23,700	1,350 J+	40,000	----	<18.5	<1.03	53.7
ZTS-MW113	5/26/2023	N	PM01	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	43.1 J	103,000	37	5,370,000	22 J	1,540 J+	24,100	1,920 J+	39,700	----	<18.5	<1.03	56.4
ZTS-MW113	8/24/2023	N	PM02	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	<35	96,600	2.1	5,570,000	20 J	1,370 J-	23,600	1,390	42,900	----	<18.5	<1.03	54.4
ZTS-MW113	11/30/2023	N	PM03	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	66.3 J	98,000	2.5	5,760,000	21 J	1,360 J+	21,700	1,460 J+	38,800	----	<18.5	<1.03	49.8
Test Area 2B																					
Pre-Construction Baseline Results																					
ZTS-MW133	10/20/2022	N	BL02	2B	Upgradient	-9	UMCf	54.0 - 69.0	<35	85,900	35	3,020,000 J-	73	1,180 J+	17,600	1,050 J+	28,300	799,000	<18.5	<1.03	77.1
ZTS-MW117	9/1/2022	N	BL01	2B	Upgradient	-2	UMCf	40.5 - 55.5	----	----	----	2,730,000	----	----	----	----	----	----	----	----	77.9
ZTS-MW117	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<35	109,000	230	2,460,000 J-	64	<106	23,800	<102	29,500	303,000	<18.5	<1.03	39
ZTS-MW117	10/19/2022	FD	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<35	108,000	230	2,460,000	63	<106	23,900	<102	29,000	303,000	<18.5	<1.03	37.9
ZTS-MW134	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	26.0 - 36.0	<35	100,000	<0.49	4,580,000 J-	<14	1,740 J+	21,200	1,540 J+	36,000	768,000	<18.5	<1.03	50.3
ZTS-MW135	10/19/2022	N	BL02	2B	Downgradient	7	UMCf	54.0 - 69.0	<35	90,500	100	5,970,000	62	<106	18,200	<102	28,000	862,000	<18.5	<1.03	78.1
ZTS-MW136	10/20/2022	N	BL02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<35	117,000	28	2,950,000	61	<106	25,000	1,680 J+	32,400	388,000	<18.5	<1.03	8.02
Post-Construction Performance Monitoring Results																					
ZTS-MW133	5/23/2023	N	PM01	2B	Upgradient	-9	UMCf	54.0 - 69.0	55.5 J	89,400	160	4,270,000	24 J	517 J	20,400	740 J	30,400	----	78.2 J	<1.03	82.5
ZTS-MW133	8/30/2023	N	PM02	2B	Upgradient	-9	UMCf	54.0 - 69.0	<35	89,000	2	5,480,000	51	430 J	20,300	451 J	27,800	----	<18.5	<1.03	82.1
ZTS-MW133	12/4/2023	N	PM03	2B	Upgradient	-9	UMCf	54.0 - 69.0	94.9 J	95,000	1.9	4,400,000	53	709 J	19,300	747 J	30,200	----	<18.5	2 J	83.1
ZTS-MW117	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	40.5 - 55.5	83.6 J	98,600	38 J	4,000,000	38	765 J	23,600	758 J	21,200	----	25.2 J	<1.03	7.33
ZTS-MW117	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	40.5 - 55.5	43.3 J	71,500	6	4,060,000	67	524 J	16,800	874 J	27,700	----	<18.5	<1.03	7.12
ZTS-MW117	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	40.5 - 55.5	82.1 J	60,000	5.3	3,130,000	31	458 J	12,000	378 J	23,600	----	138	1.95 J	17.7
ZTS-MW134	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	26.0 - 36.0	43.4 J	102,000	37 J	6,400,000	224	1,410 J+	24,400	1,250	36,300	----	<18.5	<1.03	51
ZTS-MW134	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	26.0 - 36.0	<35	96,300	<0.49	5,690,000	34	1,370 J-	22,100	1,240	41,200	----	<18.5	<1.03	54.9
ZTS-MW134	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	26.0 - 36.0	52.1 J	96,500	1.5	4,210,000	29 J	1,180 J+	21,000	1,140 J+	37,700	----	<18.5	1.18 J	50.8

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
								feet	µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
ZTS-MW198	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	26.1 - 46.0	334	87,700	3.8	5,610,000	141	1,030 J+	20,600	1,500 J+	25,900	----	<18.5	<1.03	13.7
ZTS-MW198	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	26.1 - 46.0	109	72,900	<0.49 UJ	5,190,000	39	1,300 J	16,800	725 J	30,600	----	<18.5	<1.03	14.4
ZTS-MW198	11/27/2023	N	PM03	2B	Downgradient	2	UMCf	26.1 - 46.0	83.4 J	64,500	1.9	4,600,000	60	591 J	13,300	536 J	29,200	----	<18.5	<1.03	13.1
ZTS-MW200	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	169	26,900	4,700	4,440,000	<14	838 J	4,160 J+	1,070 J+	952	----	<18.5	<1.03	0.503 J
ZTS-MW200	5/23/2023	FD	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	137	27,300	----	4,140,000	<14	577 J	3,990 J+	1,130 J+	956	----	<18.5	<1.03	0.486 J
ZTS-MW200	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	42.3 J	16,800 J	12,200 J-	6,000,000	<14	901 J	2,510 J+	502 J	1,020	----	<18.5	<1.03	1.12 J
ZTS-MW200	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	83.6 J	25,400	3,340	6,120,000	40	619 J	3,240	927 J	842	----	<18.5	1.18 J	2.82
ZTS-MW201	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	27.1 - 47.0	322	100,000	32	5,100,000	81	833 J	25,200	742 J	30,600	----	<18.5	1.11 J	32.6
ZTS-MW201	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	27.1 - 47.0	155	84,800	13.7 J+	3,390,000	134	717 J	19,400	657 J	28,600	----	<18.5	<1.03	39.7
ZTS-MW201	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	27.1 - 47.0	121 J+	85,700	2.8	5,220,000	256	483 J	18,800	458 J	27,100	----	<18.5	1.35 J	41.7
ZTS-MW206	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	1,480	105,000	11	4,920,000 J-	<14	735 J	26,000	775 J	28,300	----	28.9 J	<1.03	89.4
ZTS-MW206	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	304	90,600	14.4 J+	4,440,000	244	658 J	20,600	443 J	27,900	----	<18.5	<1.03	70.5
ZTS-MW206	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	248 J+	93,000	2.8	6,630,000	100	431 J	20,800	356 J	25,600	----	<18.5	<1.03	85.9
ZTS-MW199	5/23/2023	N	PM01	2B	Downgradient	5	UMCf	50.1 - 65.0	1,480	94,200	37	4,620,000	1,570	1,070 J+	20,800	1,240 J+	27,200	----	<18.5	<1.03	99.9
ZTS-MW199	8/22/2023	N	PM02	2B	Downgradient	5	UMCf	50.1 - 65.0	146	86,800	19.3 J+	4,920,000 J	146	665 J	20,000	560 J	28,200	----	<18.5	<1.03	71.1
ZTS-MW199	11/28/2023	N	PM03	2B	Downgradient	5	UMCf	50.1 - 65.0	329 J+	88,800	31.8	6,380,000	<14	513 J	20,900	421 J	26,000	----	27.9 J	<1.03	80.6
ZTS-MW207	5/24/2023	N	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	189	123,000	14	4,700,000 J	165	1,150 J+	31,900	868 J	29,800	----	<18.5	<1.03	20.8
ZTS-MW207	5/24/2023	FD	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	170	123,000	----	3,420,000 J	160	1,270 J+	30,800	901 J	32,900	----	<18.5	<1.03	23.5
ZTS-MW207	8/23/2023	N	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	151	111,000	19.7 J-	3,400,000	92 J+	1,130 J	26,000	643 J	33,000	----	<18.5	<1.03	13.6
ZTS-MW207	8/23/2023	FD	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	106	112,000	----	3,200,000	93 J+	863 J	26,000	792 J	33,500	----	20.7 J	<1.03	13.6
ZTS-MW207	11/29/2023	N	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	99.8 J	113,000	1.9	2,070,000 J	74	824 J	23,700	889 J	33,200	----	<18.5	<1.03	16.1
ZTS-MW207	11/29/2023	FD	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	110 J+	112,000	----	3,020,000 J	70	953 J	20,600	979 J	33,300	----	<18.5	<1.03	15.1
ZTS-MW135	5/26/2023	N	PM01	2B	Downgradient	7	UMCf	54.0 - 69.0	670	96,500	41	6,210,000	676	647 J	22,300	934 J	30,300	----	<18.5	<1.03	114
ZTS-MW135	8/24/2023	N	PM02	2B	Downgradient	7	UMCf	54.0 - 69.0	243 J+	88,800	3.8	5,920,000	263	480 J	20,700	652 J	32,200	----	<18.5	<1.03	96.4
ZTS-MW135	11/30/2023	N	PM03	2B	Downgradient	7	UMCf	54.0 - 69.0	178 J	89,200	<0.49	6,850,000	28 J	1,300 J+	18,300	570 J	29,300	----	<18.5	<1.03	83.8
ZTS-MW136	5/26/2023	N	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	76.5 J	111,000	28	2,870,000	43	369 J	26,400	681 J	33,200	----	<18.5	<1.03	6.79
ZTS-MW136	5/26/2023	FD	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	83.3 J	110,000	----	2,930,000	49	999 J	24,600	690 J	34,300	----	<18.5	<1.03	6.76
ZTS-MW136	8/25/2023	N	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	44 J	110,000	2.3	2,840,000	33 J-	525 J	24,200	461 J	35,000	----	<18.5	<1.03	3.56
ZTS-MW136	8/25/2023	FD	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	39.6 J	115,000	----	3,100,000	41 J-	472 J	25,200	456 J	35,400	----	<18.5	<1.03	3.8
ZTS-MW136	11/29/2023	N	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	80 J	102,000	2.6	2,690,000 J	24 J	710 J	20,600	472 J	33,500	----	<18.5	<1.03	4.47
ZTS-MW136	11/29/2023	FD	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	70.9 J	99,900	----	2,680,000	25 J	444 J	22,400	414 J	33,500	----	<18.5	<1.03	4.54
ZTS-MW208	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	26.1 - 46.0	104	100,000	42	5,300,000	114	891 J	24,000	1,200	37,000	----	<18.5	<1.03	46.6
ZTS-MW208	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	26.1 - 46.0	<35	97,400	7.9 J-	3,350,000	44 J+	913 J	22,900	1,490 J+	38,400	----	19.7 J	<1.03	54.6
ZTS-MW208	11/28/2023	N	PM03	2B	Downgradient	15	UMCf	26.1 - 46.0	73.8 J	102,000	3.3	5,370,000	44	952 J	23,600	869 J	33,600	----	<18.5	<1.03	50.7
ZTS-MW209	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	50.6 - 65.5	286	94,200	51 J	6,400,000	380	646 J	20,800	406 J	27,400	----	<18.5	<1.03	120
ZTS-MW209	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	50.6 - 65.5	138	90,800	4.4 J-	6,550,000	151	464 J	20,200	594 J	29,800	----	<18.5	<1.03	93.8
ZTS-MW209	11/29/2023	N	PM03	2B	Downgradient	15	UMCf	50.6 - 65.5	123 J+	89,400	<0.49	5,530,000	109	624 J	16,600	527 J	29,000	----	20.1 J	<1.03	86.7
Test Area 2C																					
Pre-Construction Baseline Results																					
ZTS-MW140	10/21/2022	N	BL02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	<35	106,000	6 J+	5,590,000	139	1,670 J+	22,300 J	1,370	41,400	795,000	<18.5	<1.03	53.4
ZTS-MW119	9/1/2022	N	BL01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	----	----	----	9,080,000	----	----	----	----	----	----	----	----	26.7
ZTS-MW119	10/19/2022	N	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	<35	109,000	1.7 J	3,650,000	<14	1,260 J+	22,900	1,850 J+	21,200 J	2,980 J	<18.5	<1.03	55.6
ZTS-MW119	10/19/2022	FD	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	<35	103,000	1.6 J	3,590,000	<14	1,760 J+	22,100	1,620 J+	40,200 J	800,000 J	<18.5	<1.03	53.3
ZTS-MW141	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	14.5 - 24.5	<35	111,000	8.8	4,950,000	39	1,330 J-	24,800 J-	3,430 J+	3,830	73,800	<18.5	<1.03	45.8
ZTS-MW142	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	16.0 - 26.0	<35	102,000	----	5,500,000	58	1,900 J+	22,100	1,150	41,000	788,000	<18.5	<1.03	56.4
Post-Construction Performance Monitoring Results																					
ZTS-MW140	5/25/2023	N	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	98.9 J	104,000	29 J	4,390,000	24 J	1,050 J+	24,500	1,560	40,400	----	<18.5	<1.03	54.2

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
									µg/L	µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW140	5/25/2023	FD	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	50.5 J	102,000	----	5,050,000	24 J	1,170 J+	24,400	1,130	40,300	----	<18.5	<1.03	54.5
ZTS-MW140	8/29/2023	N	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	<35	108,000	<0.49	4,640,000	17 J	1,410 J	23,500	1,530	40,800	----	<18.5	<1.03	53.9
ZTS-MW140	8/29/2023	FD	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	<35	105,000	----	5,020,000	16 J	1,470 J	23,000	1,340	40,700	----	<18.5	<1.03	53.9
ZTS-MW140	12/4/2023	N	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	67.9 J	114,000	1.6	3,910,000	24 J	1,350 J	24,100	1,490 J+	42,000	----	<18.5	2.03 J	53.5
ZTS-MW140	12/4/2023	FD	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	67.7 J	114,000	----	3,660,000	27 J	1,350 J	24,700	1,510 J+	42,200	----	<18.5	<1.03	52.1
ZTS-MW119	5/24/2023	N	PM01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	60.3 J	102,000	30	5,170,000	22 J	1,490 J+	25,000	1,200	38,800	----	<18.5	<1.03	53.5
ZTS-MW119	8/29/2023	N	PM02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	<35	107,000	3.1	4,590,000	15 J	1,530 J	23,300	1,370	40,600	----	<18.5	<1.03	54.3
ZTS-MW119	12/4/2023	N	PM03	2C	Upgradient	-3	Alluvium	15.0 - 25.0	74.7 J	113,000	2.3	4,310,000	25 J	1,320 J	25,100	1,410 J+	41,500	----	<18.5	<1.03	54.5
ZTS-MW181	5/25/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	96.7 J	107,000	32 J	4,250,000	47	1,320 J+	25,300	1,360	40,500	----	<18.5	<1.03	42.5
ZTS-MW181	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	<35	106,000	18.9	4,650,000	47	1,320 J	24,200	1,270 J+	41,700	----	<18.5	<1.03	44.7
ZTS-MW181	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	61.7 J	118,000	1.8	4,880,000	60	1,410 J	25,000	1,330	32,700	----	<18.5	<1.03	53.6
ZTS-MW188	5/26/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	73.5 J	104,000	73	5,470,000	33	1,500 J+	23,000	1,770 J+	36,000	----	<18.5	<1.03	53.6
ZTS-MW188	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	<35	101,000	10.4	5,240,000	37 J-	1,360 J	22,900	1,270 J+	40,300	----	<18.5	<1.03	53.6
ZTS-MW188	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	<35	108,000	3	4,910,000 J-	43	1,380 J	23,300	1,340	31,900	----	<18.5	<1.03	43.6
ZTS-MW204	5/25/2023	N	PM01	2C	Upgradient	-3	UMCf	30.3 - 40.0	143	117,000	26 J	2,090,000	72	476 J	27,900 J-	726 J	35,200	----	<18.5	<1.03	23.2
ZTS-MW204	8/25/2023	N	PM02	2C	Upgradient	-3	UMCf	30.3 - 40.0	55 J	118,000	15.6	3,540,000	51	711 J	26,300	588 J	37,400	----	<18.5	<1.03	23.5
ZTS-MW204	12/1/2023	N	PM03	2C	Upgradient	-3	UMCf	30.3 - 40.0	111 J+	111,000	<0.49	3,130,000	46	717 J	24,100	917 J	35,800	----	23.5 J	<1.03	20.2
ZTS-MW182	5/23/2023	N	PM01	2C	Center of Array	0	Alluvium	17.6 - 27.3	89.2 J	70,700	140	4,800,000	32	1,380	17,900	3,300	25,000	----	32.8 J	<1.03	24.1
ZTS-MW182	8/22/2023	N	PM02	2C	Center of Array	0	Alluvium	17.6 - 27.3	55.5 J	74,500	<0.49	4,890,000	38	1,490 J	16,000 J-	1,460 J+	24,700	----	<18.5	<1.03	25.4
ZTS-MW182	11/27/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	93.1 J	94,500	----	4,480,000	20 J	1,300 J+	19,900 J-	1,290	31,900	----	<18.5	<1.03	34.3
ZTS-MW182	11/28/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	----	----	39.4 J	----	----	----	----	----	----	----	----	----	----
ZTS-MW183	5/23/2023	N	PM01	2C	Downgradient	1	Alluvium	17.3 - 27.0	96 J	99,800	60	3,710,000	27 J	1,300	23,000	1,280 J+	32,800	----	<18.5	<1.03	31
ZTS-MW183	8/22/2023	N	PM02	2C	Downgradient	1	Alluvium	17.3 - 27.0	79.7 J	94,400	<0.49	4,840,000 J	74	1,570 J	20,200	1,610 J+	33,200	----	<18.5	<1.03	37
ZTS-MW183	11/28/2023	N	PM03	2C	Downgradient	1	Alluvium	17.3 - 27.0	44.7 J	107,000	4.6 J	6,470,000	30 J	1,400 J	24,700	1,440 J+	39,700	----	<18.5	<1.03	46.1
ZTS-MW187	5/24/2023	N	PM01	2C	Downgradient	1	Alluvium	15.3 - 25.0	97.3 J	85,100	2.7	5,120,000	51	1,360 J+	19,700	1,280 J+	33,400	----	<18.5	<1.03	39.8
ZTS-MW187	8/23/2023	N	PM02	2C	Downgradient	1	Alluvium	15.3 - 25.0	56.2 J	93,900	16.8 J-	5,710,000	52 J+	1,760 J	22,300	1,300 J+	34,900	----	<18.5	<1.03	47.3
ZTS-MW187	11/29/2023	N	PM03	2C	Downgradient	1	Alluvium	15.3 - 25.0	46.8 J	102,000	2.8	3,920,000	20 J	1,550 J+	21,300	1,360 J+	36,200	----	<18.5	<1.03	47
ZTS-MW141	5/25/2023	N	PM01	2C	Downgradient	5	Alluvium	14.5 - 24.5	87.9 J	108,000	260 J	7,300,000	479	1,500 J	25,600	1,390	37,500	----	<18.5	<1.03	51.4
ZTS-MW141	8/23/2023	N	PM02	2C	Downgradient	5	Alluvium	14.5 - 24.5	60.3 J	104,000	18 J-	3,600,000	41 J+	1,670 J	24,400	1,330 J+	38,300	----	<18.5	<1.03	51.3
ZTS-MW141	11/29/2023	N	PM03	2C	Downgradient	5	Alluvium	14.5 - 24.5	53.7 J	115,000	13	3,710,000	29 J	1,650 J+	23,900	1,340 J+	39,400	----	<18.5	<1.03	55.4
ZTS-MW142	5/26/2023	N	PM01	2C	Downgradient	5	Alluvium	16.0 - 26.0	141	94,200	900	5,700,000	55	1,380 J+	22,500	1,690 J+	36,400	----	<18.5	<1.03	41.4
ZTS-MW142	8/24/2023	N	PM02	2C	Downgradient	5	Alluvium	16.0 - 26.0	37.5 J	93,600	15.4	5,430,000	60	1,310 J-	20,700	1,210	39,500	----	<18.5	<1.03	48.4
ZTS-MW142	11/30/2023	N	PM03	2C	Downgradient	5	Alluvium	16.0 - 26.0	90.5 J	98,500	1.8	6,170,000	38	1,280 J	21,800	1,310 J+	36,400	----	<18.5	<1.03	43.2
ZTS-MW184	5/24/2023	N	PM01	2C	Downgradient	5	Alluvium	16.3 - 26.0	114	99,700	13	5,280,000	37	1,420 J+	22,800	1,170 J+	38,400	----	<18.5	<1.03	42
ZTS-MW184	8/22/2023	N	PM02	2C	Downgradient	5	Alluvium	16.3 - 26.0	51.1 J	101,000	30.5 J+	4,020,000	59	1,600 J+	22,000	1,430 J+	36,700	----	<18.5	<1.03	37
ZTS-MW184	11/28/2023	N	PM03	2C	Downgradient	5	Alluvium	16.3 - 26.0	107 J+	113,000	4.7 J	6,280,000	27 J	1,450 J	25,600	1,550 J+	41,200	----	<18.5	<1.03	46.8
ZTS-MW205	5/24/2023	N	PM01	2C	Downgradient	5	UMCf	30.3 - 40.0	116	127,000	46	1,890,000	75	546 J	30,000	262 J	32,700	----	<18.5	1.43 J	8.83
ZTS-MW205	8/23/2023	N	PM02	2C	Downgradient	5	UMCf	30.3 - 40.0	77.6 J	124,000	13.6 J-	1,960,000	61 J+	824 J	28,300	351 J	32,900	----	<18.5	<1.03	10.5
ZTS-MW205	11/29/2023	N	PM03	2C	Downgradient	5	UMCf	30.3 - 40.0	72.3 J	127,000	4.8	1,360,000 J	28 J	596 J	27,000	519 J	33,300	----	<18.5	<1.03	6.07
ZTS-MW185	5/25/2023	N	PM01	2C	Downgradient	15	Alluvium	15.3 - 25.0	123	111,000	11 J	7,800,000	89	1,370 J	25,800	2,060	37,200	----	<18.5	<1.03	46.1
ZTS-MW185	8/24/2023	N	PM02	2C	Downgradient	15	Alluvium	15.3 - 25.0	<35	104,000	7.5	5,850,000	41	1,450 J-	24,300	1,460	41,100	----	<18.5	<1.03	51.5
ZTS-MW185	11/30/2023	N	PM03	2C	Downgradient	15	Alluvium	15.3 - 25.0	71.5 J	107,000	8.5	6,350,000	33	1,370 J	24,000	1,400 J+	39,400	----	<18.5	<1.03	48.9
ZTS-MW186	5/25/2023	N	PM01	2C	Downgradient	25	Alluvium	15.3 - 25.0	212	116,000	47 J	6,800,000	89	1,430 J	25,700	1,170	36,200	----	<18.5	<1.03	42.5
ZTS-MW186	8/24/2023	N	PM02	2C	Downgradient	25	Alluvium	15.3 - 25.0	<35	106,000	12.4	6,300,000	<14	1,450 J-	25,200	1,350	42,500	----	<18.5	<1.03	48.7
ZTS-MW186	11/30/2023	N	PM03	2C	Downgradient	25	Alluvium	15.3 - 25.0	73 J	109,000	<0.49	6,370,000	28 J	1,290 J+	24,500	1,330 J+	40,400	----	<18.5	<1.03	45.2
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	55.9 J	108,000	880 J	6,300,000	53	1,120 J	24,000	2,230	38,900	----	<18.5	<1.03	51.4
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	55.1 J	103,000	2	5,180,000	41	1,260 J	23,800	1,340 J+	39,700	----	<18.5	<1.03	56.4

Table 2
Groundwater Sampling 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	E365.4	Alkalinity by SM2320B	AM20	SM2540C	SM4500-P-E	SW9060A/SM5310B	SW9060A/SM5310B	SW9060A/SM5310B	Dissolved Metals by SW6010B	Dissolved Metals by SW6010B	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Phosphorus	Alkalinity as CaCO3	Hydrogen	Total Dissolved Solids	Orthophosphorus as PO4	Dissolved Organic Carbon	Total Inorganic Carbon	Total Organic Carbon	Silicon	Sulfur	Aluminum	Antimony	Arsenic
						µg/L		µg/L	nmol	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	87.1 J	105,000	3.9	4,330,000	30 J	1,390 J	22,600	1,510 J+	38,800	----	<18.5	<1.03	58.7
General Vicinity																					
Pre-Construction Baseline Results																					
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	----	----	----	3,360,000	----	----	----	----	----	----	----	----	33.7
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	<35	94,100	<0.49	4,510,000	89	<106 UJ	21,300	6,160 J+	3,370	77,700	<18.5	<1.03	51.7
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	----	----	3,050,000	----	----	----	----	----	----	----	----	15.6
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	131	96,500	4.9	7,670,000	316	1,120 J-	22,000	<102 UJ	3,160	69,700	<18.5	<1.03	23.4
Post-Construction Performance Monitoring Results																					
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	35.2 J	95,700	39	4,660,000	18 J	966 J	22,400	1,090 J+	36,600	----	<18.5	<1.03	54.7
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	64 J	101,000	9.1	406,000	28 J	991 J	21,700	745 J	37,300	----	<18.5	<1.03	53.6
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	113	96,800	3.1	4,180,000	29 J	659 J	21,500	858 J	36,400	----	24.7 J	<1.03	55.3
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	55.5 J	94,800	17	4,900,000	40	982 J	22,900	911 J	38,100	----	<18.5	<1.03	35.2
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	<35	96,500	3.1	4,510,000	47	1,150 J	22,600	1,100 J+	36,600	----	<18.5	<1.03	40.8
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	82.1 J	102,000	6.6	3,600,000	37	1,080 J	21,700	1,190 J+	39,300	----	<18.5	<1.03	42.3

Notes:

- 1. Distances from the discontinuous or continuous walls are shown as negative values for upgradient monitoring wells, as zero for monitoring wells screened 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
 - 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

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
						feet	Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Test Area 1A																					
Pre-Construction Baseline Results																					
ZTS-MW143	10/18/2022	N	BL02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	20.6	<0.19	2,070	<0.15	641,000	34.1	<0.0596	<1.51	<28.1	<0.849	246,000	6.85	391
ZTS-MW124	8/31/2022	N	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----	----	545,000	31.6	----	----	<28.1	----	----	21.1	----
ZTS-MW124	8/31/2022	FD	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----	----	544,000	30.8	----	----	<28.1	----	----	20	----
ZTS-MW124	10/18/2022	N	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	20.7 J	<0.19	2,370 J	<0.15	574,000 J	32.2 J	<0.0596	<1.51	<28.1	<0.849	205,000 J	<0.704	376 J
ZTS-MW124	10/18/2022	FD	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	87.3 J	<0.19	59.6 J	<0.15	47,400 J	<1.24 UJ	<0.0596	<1.51	<28.1	<0.849	11,300 J	<0.704	<0.348 UJ
ZTS-MW125	8/31/2022	N	BL01	1A	Upgradient	-8	UMCf	40.0 - 50.0	----	----	----	----	466,000	16.1	----	----	<28.1	----	----	105	----
ZTS-MW125	10/24/2022	N	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	33.2	<0.19	1,560 J+	<0.15	199,000	<1.24	<0.0596	<1.51	<28.1	<0.849	142,000	322	83.7
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	20.2	<0.19	2,310	<0.15	717,000	25.2	<0.0596	<1.51	<28.1	<0.849	272,000	27.9	329
Post-Construction Performance Monitoring Results																					
ZTS-MW143	5/26/2023	N	PM01	1A	Upgradient	-50	Alluvium	23.0 - 33.0	22	<0.19	2,490	<0.15	637,000	29.5	0.654 J	5.4	<28.1	<0.849	239,000	<0.704	410
ZTS-MW143	8/29/2023	N	PM02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	20.8	<0.19	2,320	<0.15	605,000	34	0.624 J	<1.51	<28.1	<0.849	234,000	<0.704	401
ZTS-MW143	12/6/2023	N	PM03	1A	Upgradient	-50	Alluvium	23.0 - 33.0	20.7	<0.19	2,640	<0.15	613,000	29.9	0.68 J	<1.51	<28.1	<0.849	246,000	<0.704	289
ZTS-MW124R	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.5 - 34.0	18.4	<0.19	1,920	<0.15	545,000	30.4	0.516 J	1.59 J	<28.1	<0.849	206,000	2.29 J	332
ZTS-MW124R	8/29/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.5 - 34.0	18.1	<0.19	2,050	<0.15	538,000	30.3	0.504 J	<1.51	<28.1	<0.849	201,000	<0.704	334
ZTS-MW124R	12/5/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.5 - 34.0	18.7	<0.19	1,960	<0.15	566,000	342	1.69 J	3.31 J	1,330 J-	<0.849	227,000	20.6 J-	304
ZTS-MW125	5/25/2023	N	PM01	1A	Upgradient	-8	UMCf	40.0 - 50.0	26.8	<0.19	1,380	<0.15	174,000	<1.24	0.0621 J	1.85 J	<28.1	<0.849	147,000	149	34.7
ZTS-MW125	8/30/2023	N	PM02	1A	Upgradient	-8	UMCf	40.0 - 50.0	29.9	<0.19	1,490 J+	<0.15	256,000	<1.24	0.214 J	<1.51	206	<0.849	162,000	150	102
ZTS-MW125	12/1/2023	N	PM03	1A	Upgradient	-8	UMCf	40.0 - 50.0	28	<0.19	1,570	<0.15	285,000	<1.24	0.196 J	<1.51	228 J+	<0.849	162,000	130	98.8
ZTS-MW153	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	16.2	<0.19	2,130	<0.15	556,000	31.5	0.584 J	2.38 J	38.2 J	<0.849	211,000	2.37 J	351
ZTS-MW153	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	17.7	<0.19	2,350	<0.15	551,000	31	0.529 J	<1.51	<28.1	<0.849	216,000	<0.704	346
ZTS-MW153	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	18.9	<0.19	2,290	<0.15	632,000	33.4	0.556 J	<1.51	38.2 J	<4.24	232,000	0.845 J	321
ZTS-MW163	5/25/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	18	<0.19	2,200	<0.15	573,000	33.9	0.576 J	2.33 J	<28.1	<0.849	234,000	<0.704	367
ZTS-MW163	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	17.8	<0.19	2,380	<0.15	548,000	32.2	0.548 J	4.96 J	<28.1	<0.849	215,000	<0.704	342
ZTS-MW163	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	18.6	<0.19	2,360	<0.15	613,000	35.7	0.562 J	<1.51	<28.1	<0.849	242,000	<0.704	338
ZTS-MW150	5/22/2023	N	PM01	1A	Center of Trench	0	Alluvium	24.3 - 34.0	27.1	<0.19	1,770	<0.15	474,000	<1.24	0.206 J	<1.51	5,450	<0.849	203,000	246	69.6
ZTS-MW150	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	24.3 - 34.0	17.4	<0.19	2,040	<0.15	482,000	<1.24	0.27 J	<1.51	2,550	<0.849	218,000	151	144
ZTS-MW150	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	24.3 - 34.0	16.5	<0.19	2,000	<0.15	551,000	<1.24	0.302 J	<1.51	2,320	<0.849	237,000	136	182
ZTS-MW154	5/24/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	25.1	<0.19	2,130	<0.15	509,000	<1.24	0.215	<1.51	<28.1	<0.849	225,000	187	88.7
ZTS-MW154	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	20.6	<0.19	2,070	<0.15	490,000	<1.24	0.24 J	<1.51	4,590	<0.849	231,000	166	177
ZTS-MW154	11/28/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	19.4	<0.19	2,280	<0.15	560,000	<1.24	0.246 J	<1.51	3,960	<0.849	246,000	165	191
ZTS-MW164	5/23/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	29.3	<0.19	2,140	<0.15	524,000	<1.24	0.451 J	<1.51	1,080	<0.849	232,000	322	121
ZTS-MW164	5/23/2023	FD	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	29.2	<0.19	2,180	<0.15	526,000	<1.24	0.44 J	<1.51	1,160	<0.849	228,000	322	117
ZTS-MW164	8/18/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	25.5	<0.19	2,170	<0.15	534,000	<1.24	0.33 J	<1.51	1,090	0.894 J	224,000	220	112
ZTS-MW164	8/18/2023	FD	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	26.2	<0.19	2,100	<0.15	538,000	<1.24	0.299 J	<1.51	1,140	<0.849	234,000	221	116
ZTS-MW164	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	26.5	<0.19	2,230	<0.15	578,000	<1.24	0.419 J	<1.51	546	<0.849	253,000	197	142
ZTS-MW164	11/27/2023	FD	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	25.4	<0.19	2,190	<0.15	576,000	<1.24	0.376 J	<1.51	594	<0.849	256,000	195	136
ZTS-MW151	5/25/2023	N	PM01	1A	Downgradient	5	Alluvium	24.3 - 34.0	24.3	<0.19	2,030	<0.15	558,000	<1.24	0.536 J	<1.51	<28.1	<0.849	215,000	510	254
ZTS-MW151	8/21/2023	N	PM02	1A	Downgradient	5	Alluvium	24.3 - 34.0	21.9	<0.19	2,090	<0.15	559,000	<1.24	0.442 J	<1.51	<28.1	<0.849	230,000	256	316
ZTS-MW151	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	24.3 - 34.0	25.2	<0.19	2,360	<0.15	629,000	<1.24	0.471 J	<1.51	<28.1	<0.849	239,000	178	350
ZTS-MW155	5/24/2023	N	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	58.5	<0.19	2,140	<0.15	575,000	<1.24	4.51	<1.51	<28.1	<0.849	237,000	985	164
ZTS-MW155	5/24/2023	FD	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	58	<0.19	2,300	<0.15	567,000	<1.24	4.29	<1.51	<28.1	<0.849	238,000	892	166
ZTS-MW155	8/22/2023	N	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	22.1	<0.19	2,300	<0.15	555,000	<1.24	0.965 J	<1.51	<28.1	<0.849	239,000	175	282
ZTS-MW155	8/22/2023	FD	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	23.2	<0.19	2,360	<0.15	590,000	<1.24	0.968 J	<1.51	<28.1	<0.849	254,000	178	305

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW155	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	21.9	<0.19	2,480	<0.15	610,000	<1.24	0.805 J	<1.51	<28.1	<0.849	245,000	169	269
ZTS-MW155	11/28/2023	FD	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	22.4	<0.19	2,540	<0.15	683,000	<1.24	0.899 J	<1.51	<28.1	<0.849	266,000	188	280
ZTS-MW156	5/24/2023	N	PM01	1A	Downgradient	5	UMCf	43.8 - 53.5	25.9	<0.19	1,380	<0.15	157,000	<1.24	<0.0596	<1.51	<28.1	<0.849	167,000	52.9	3.17
ZTS-MW156	8/22/2023	N	PM02	1A	Downgradient	5	UMCf	43.8 - 53.5	20	<0.19	1,330	<0.15	174,000	<1.24	0.0696 J	<1.51	78.3 J	<0.849	184,000	26.8	46.7
ZTS-MW156	11/29/2023	N	PM03	1A	Downgradient	5	UMCf	43.8 - 53.5	18.6	<0.19	1,400	<0.15	160,000	<1.24	<0.0596	<1.51	62.8 J	<0.849	158,000	17.3	16.2
ZTS-MW165	5/31/2023	N	PM01	1A	Downgradient	5	Alluvium	22.3 - 32.0	33.3	<0.19	2,200	<0.15	537,000	<1.24	1.52 J	2.92 J	44.1 J	<0.849	246,000	326	226
ZTS-MW165	8/25/2023	N	PM02	1A	Downgradient	5	Alluvium	22.3 - 32.0	21.2	<0.19	2,340	<0.15	571,000	<1.24	0.855 J	<1.51	<28.1	<0.849	227,000	157	285
ZTS-MW165	11/30/2023	N	PM03	1A	Downgradient	5	Alluvium	22.3 - 32.0	21.4 J+	<0.19	2,500	<0.15	577,000	<1.24	0.667 J	<1.51	<28.1	<0.849	231,000	101	227
ZTS-MW152	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	18	<0.19	2,100	0.151 J	585,000	<1.24	1.01 J	<1.51	<28.1	<0.849	222,000	899	271
ZTS-MW152	8/22/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	16.9	<0.19	2,260	<0.15	550,000	<1.24	0.496 J	<1.51	<28.1	<0.849	232,000	316	280
ZTS-MW152	11/28/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	20.5	<0.19	2,530	<0.15	625,000	<1.24	0.743 J	<1.51	<28.1	<0.849	237,000	334	275
ZTS-MW157	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	40.3	<0.19	2,170	<0.15	544,000	<1.24	2.76	1.82 J	28.9 J	<0.849	237,000	679	160
ZTS-MW157	8/23/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	23.5	<0.19	2,410	<0.15	570,000	<1.24	1.06 J	<1.51	<28.1	<0.849	259,000	243	251
ZTS-MW157	11/29/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	21.8	<0.19	2,270	<0.15	582,000	<1.24	0.755 J	<1.51	<28.1	<0.849	237,000	180	198
ZTS-MW162	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	20.7	<0.19	2,260	<0.15	566,000	<1.24	1.02 J	<1.51	<28.1	<0.849	262,000	245	153
ZTS-MW162	8/18/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	20	<0.19	2,190	<0.15	581,000	<1.24	0.737 J	<1.51	<28.1	<0.849	248,000	251	207
ZTS-MW162	11/30/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	21.7 J+	<0.19	2,680	<0.15	584,000	<1.24	0.649 J	<1.51	<28.1	<0.849	242,000	109	212
ZTS-MW149	5/31/2023	N	PM01	1A	Downgradient	25	Alluvium	23.3 - 33.0	23.7	<0.19	1,930	<0.15	528,000	13.5	0.574 J	2.39 J	<28.1	<0.849	204,000	138	334
ZTS-MW149	8/24/2023	N	PM02	1A	Downgradient	25	Alluvium	23.3 - 33.0	28.4	<0.19	2,290	<0.15	580,000	25.8	0.564 J	<1.51	29.2 J	<0.849	234,000	1.22 J	356
ZTS-MW149	11/30/2023	N	PM03	1A	Downgradient	25	Alluvium	23.3 - 33.0	27.4 J+	<0.19	2,450	<0.15	607,000	20.1	0.528 J	<1.51	<28.1	<0.849	217,000	<0.704	321
ZTS-MW144	5/31/2023	N	PM01	1A	Downgradient	35	Alluvium	24.0 - 34.0	20	<0.19	2,000	<0.15	552,000	3.26	0.623 J	2.09 J	<28.1	<0.849	245,000	406	192
ZTS-MW144	8/24/2023	N	PM02	1A	Downgradient	35	Alluvium	24.0 - 34.0	17.5	<0.19	2,310	<0.15	550,000	2.11	0.546 J	<1.51	45.2 J	<0.849	252,000	206	209
ZTS-MW144	11/30/2023	N	PM03	1A	Downgradient	35	Alluvium	24.0 - 34.0	16.4 J+	<0.19	2,360	<0.15	554,000	2.46	0.508 J	<1.51	<28.1	<0.849	245,000	147	193
ZTS-MW158	5/24/2023	N	PM01	1A	Downgradient	50	Alluvium	23.3 - 33.0	19.5	<0.19	2,170	<0.15	553,000	<1.24	0.401 J	<1.51	<28.1	<0.849	255,000	1.7 J	112
ZTS-MW158	8/25/2023	N	PM02	1A	Downgradient	50	Alluvium	23.3 - 33.0	18.3	<0.19	2,220	<0.15	535,000	<1.24	0.489 J	<1.51	<28.1	<0.849	242,000	1.12 J	151
ZTS-MW158	12/1/2023	N	PM03	1A	Downgradient	50	Alluvium	23.3 - 33.0	17.9	<0.19	2,410	<0.15	624,000	<1.24	0.553 J	<1.51	<28.1	<0.849	264,000	18.5	185
ZTS-MW159	5/24/2023	N	PM01	1A	Downgradient	50	UMCf	38.8 - 48.5	37.2	<0.19	1,360	<0.15	241,000	1.33 J	0.934 J	2 J	<28.1	<0.849	146,000	885	62.4
ZTS-MW159	8/25/2023	N	PM02	1A	Downgradient	50	UMCf	38.8 - 48.5	22.3	<0.19	2,070	<0.15	521,000	14	0.693 J	<1.51	<28.1	<0.849	219,000	220	272
ZTS-MW159	12/1/2023	N	PM03	1A	Downgradient	50	UMCf	38.8 - 48.5	21.7	<0.19	2,180	<0.15	556,000	17.9	0.605 J	<1.51	<28.1	<0.849	245,000	102	271
ZTS-MW160	5/24/2023	N	PM01	1A	Downgradient	100	Alluvium	23.3 - 33.0	15.1	<0.19	2,060	<0.15	559,000	10.9	0.509 J	2.57 J	<28.1	<0.849	240,000	3.15 J	237
ZTS-MW160	8/28/2023	N	PM02	1A	Downgradient	100	Alluvium	23.3 - 33.0	15.5	<0.19	2,200	<0.15	534,000	13.5	0.521 J	<1.51	<28.1	<0.849	229,000	26.2	261
ZTS-MW160	12/5/2023	N	PM03	1A	Downgradient	100	Alluvium	23.3 - 33.0	19.2	<0.19	2,410	<0.15	619,000	13.7	0.47 J	<1.51	<28.1	<0.849	261,000	14.4	272
ZTS-MW161	5/26/2023	N	PM01	1A	Downgradient	150	Alluvium	24.3 - 34.0	15.9	<0.19	2,080	<0.15	540,000	2.47	0.331 J	1.65 J	<28.1	<0.849	214,000	5.86	252
ZTS-MW161	8/25/2023	N	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	17.1	<0.19	2,190	<0.15	569,000	7.79	0.438 J	<1.51	<28.1	<0.849	223,000	2.16 J	292
ZTS-MW161	8/25/2023	FD	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	17	<0.19	2,040	<0.15	567,000	6.39	0.445 J	<1.51	<28.1	<0.849	221,000	2.01 J	286
ZTS-MW161	12/1/2023	N	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	16.2	<0.19	2,180	<0.15	626,000	6.31	0.461 J	<1.51	<28.1	<0.849	241,000	26.2	307
ZTS-MW161	12/1/2023	FD	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	16.5	<0.19	2,220	<0.15	624,000	6.05	0.463 J	<1.51	<28.1	<0.849	237,000	26	305
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	27.3	<0.19	1,830 J+	<0.15	355,000	<1.24	<0.0596	<1.51	<28.1	<0.849	208,000	374	168
ZTS-MW146	10/24/2022	N	BL02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	33.1	<0.19	2,250 J+	<0.15	436,000	<1.24	<0.0596	<1.51	<28.1	<0.849	270,000	1,160	156
Post-Construction Performance Monitoring Results																					
ZTS-MW145	5/22/2023	N	PM01	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	92	<0.19	387	<0.15	101,000	1.5 J	<0.0596	5.59	<28.1	<0.849	62,900	12.1	9.92
ZTS-MW145	8/30/2023	N	PM02	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	19.2	<0.19	1,400 J+	<0.15	206,000	<1.24	<0.0596	<1.51	126	<0.849	181,000	179	10.2
ZTS-MW145	12/6/2023	N	PM03	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	17.4	<0.19	1,500	<0.15	198,000	<1.24	<0.0596	<1.51	130	<0.849	193,000	142	4.34 J
ZTS-MW146	5/26/2023	N	PM01	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	38.7	<0.19	1,650	<0.15	279,000	<1.24	0.23 J	3.93 J	140	<0.849	259,000	426	46.8
ZTS-MW146	8/25/2023	N	PM02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	23.5	<0.19	1,750	<0.15	228,000	<1.24	<0.0596	<1.51	132	<0.849	301,000	435	2.2 J

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW146	11/30/2023	N	PM03	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	24 J+	<0.19	1,880	<0.15	227,000	<1.24	<0.0596	<1.51	112	<0.849	288,000	338	1.79 J
Test Area 1B																					
Pre-Construction Baseline Results																					
ZTS-MW147	10/18/2022	N	BL02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	27	<0.19	2,540	<0.15	691,000	100	<0.0596	<1.51	<28.1	<0.849	264,000	10.6	99.7
ZTS-MW126	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	----	----	----	----	600,000	43.3	----	----	<28.1	----	----	388	----
ZTS-MW126	10/18/2022	N	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	24.7	<0.19	2,460	<0.15	643,000	73.4	<0.0596	<1.51	<28.1	<0.849	255,000	33.6	122
ZTS-MW126	10/18/2022	FD	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	24.1	<0.19	2,550	<0.15	696,000	77.8	<0.0596	<1.51	<28.1	<0.849	289,000	37.6	119
ZTS-MW127	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	18.0 - 23.0	----	----	----	----	632,000	74.4	----	----	<28.1	----	----	245	----
ZTS-MW127	10/24/2022	N	BL02	1B	Upgradient	-8	Alluvium	18.0 - 23.0	20.4	<0.19	3,270 J+	<0.15	660,000	74.8	<0.0596	<1.51	<28.1	<0.849	241,000	45.6	91.8
ZTS-MW148	10/24/2022	N	BL02	1B	Downgradient	35	Alluvium	22.0 - 32.0	25.3	<0.19	3,220 J+	<0.15	643,000	86.8	<0.0596	<1.51	<28.1	<0.849	244,000	20.9	95.9
LVWPS-MW107A	10/24/2022	N	BL02	NA	Downgradient	50	Alluvium	24.8 - 34.5	23.6	<0.19	3,330 J+	<0.15	643,000	87.6	<0.0596	<1.51	<28.1	<0.849	248,000	<0.704	92.1
LVWPS-MW107B	10/21/2022	N	BL02	NA	Downgradient	50	UMCf	46.0 - 65.8	21.2	<0.19	1,720	<0.15	257,000	<1.24	<0.0596	<1.51	<28.1	<0.849	387,000	14.5	<0.348
LVWPS-MW107C	10/24/2022	N	BL02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	2,760	<19	11,000 J+	<0.15	531,000	<1.24	<0.0596	<1.51	<28.1	<84.9	6,410,000	314	<34.8
Post-Construction Performance Monitoring Results																					
ZTS-MW147	5/26/2023	N	PM01	1B	Upgradient	-50	Alluvium	19.5 - 29.5	24.8	<0.19	2,600	<0.15	604,000	86.5	0.683 J	2 J	<28.1	<0.849	243,000	<0.704	93.4
ZTS-MW147	8/30/2023	N	PM02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	26.7	<0.19	2,750	<0.15	632,000	87.3	0.636 J	<1.51	<28.1	<0.849	228,000	<0.704	96.1
ZTS-MW147	12/1/2023	N	PM03	1B	Upgradient	-50	Alluvium	19.5 - 29.5	25.9	<0.19	2,650	<0.15	642,000	101	0.631 J	<1.51	<28.1	<0.849	237,000	<0.704	95.4
ZTS-MW126	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	24.5	<0.19	2,370	<0.15	591,000	37.6	0.705 J	<1.51	<28.1	<0.849	270,000	<0.704	151
ZTS-MW126	8/25/2023	N	PM02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	25.4	<0.19	2,300	<0.15	616,000	38.3	0.63 J	<1.51	<28.1	<0.849	262,000	<0.704	148
ZTS-MW126	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	20.0 - 30.0	24.8 J+	<0.19	2,720	<0.15	585,000	71	0.673 J	<1.51	<28.1	<0.849	265,000	<0.704	136
ZTS-MW127R	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	18.5 - 23.0	21	<0.19	2,610	<0.15	635,000	79.6	0.732 J	2.35 J	<28.1	<0.849	243,000	2.04 J	93.3
ZTS-MW127R	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	18.5 - 23.0	19.5	<0.19	2,840	<0.15	633,000	93.1	0.749 J	<1.51	47.7 J	<0.849	229,000	1.95 J	88.6
ZTS-MW127R	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	18.5 - 23.0	19.5 J+	<0.19	2,890	<0.15	608,000	89.3	0.742 J	<1.51	<28.1	<0.849	223,000	1.25 J	85.9
ZTS-MW169	5/24/2023	N	PM01	1B	Upgradient	-8	Alluvium	17.1 - 27.0	22.3	<0.19	2,770	<0.15	644,000	81.6	0.631 J	<1.51	<28.1	<0.849	246,000	1.36 J	95.9
ZTS-MW169	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	17.1 - 27.0	23	<0.19	2,730	<0.15	620,000	95.9	0.691 J	<1.51	<28.1	<0.849	240,000	<0.704	94.1
ZTS-MW169	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	17.1 - 27.0	22.2 J+	<0.19	2,850	<0.15	601,000	94.5	1.19 J	<1.51	77.5 J	<0.849	229,000	6.88 J+	93.5
ZTS-MW170	5/24/2023	N	PM01	1B	Upgradient	-8	UMCf	31.1 - 41.0	19.2	<0.19	1,890	<0.15	408,000	25	0.493 J	<1.51	<28.1	<0.849	232,000	44.6	56.4
ZTS-MW170	8/29/2023	N	PM02	1B	Upgradient	-8	UMCf	31.1 - 41.0	19.1	<0.19	2,000	<0.15	475,000	44.5	0.591 J	<1.51	<28.1	<0.849	232,000	9.37	74.3
ZTS-MW170	11/30/2023	N	PM03	1B	Upgradient	-8	UMCf	31.1 - 41.0	18.8 J+	<0.19	2,170	<0.15	453,000	51.3	0.466 J	1.52 J	<28.1	<0.849	233,000	2.28 J	68.4
ZTS-MW166	5/23/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.8 - 29.5	32.9	<0.19	2,520	<0.15	567,000	<1.24	0.302 J	<1.51	309	<0.849	253,000	554	35.3
ZTS-MW166	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.8 - 29.5	24.7	<0.19	2,160	<0.15	515,000	<1.24	0.428 J	<1.51	1,380	<0.849	237,000	202	145
ZTS-MW166	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.8 - 29.5	23.9	<0.19	2,770	<0.15	624,000	<1.24	0.311 J	<1.51	155	<0.849	257,000	280	39
ZTS-MW171	5/22/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.3 - 29.0	24.6	<0.19	2,300	<0.15	559,000	<1.24	0.675 J	<1.51	2,590	<0.849	233,000	297	56.9
ZTS-MW171	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.3 - 29.0	18	<0.19	2,360	<0.15	567,000	<1.24	0.454 J	<1.51	532	<0.849	241,000	183	55.4
ZTS-MW171	11/27/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.3 - 29.0	16.6	<0.19	2,560	<0.15	597,000	<1.24	0.449 J	<1.51	468	<0.849	242,000	172	56.9
ZTS-MW178	5/25/2023	N	PM01	1B	Center of Trench	0	Alluvium	17.8 - 27.5	36	<0.19	2,460	<0.15	573,000	<1.24	0.207 J	<1.51	215	<0.849	229,000	442	16.4
ZTS-MW178	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	17.8 - 27.5	29.5	<0.19	2,310	<0.15	563,000	<1.24	0.149 J	<1.51	59.7 J	<0.849	227,000	316	15.3
ZTS-MW178	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	17.8 - 27.5	30.5	<0.19	2,590	<0.15	564,000	<1.24	0.171 J	<1.51	168	<0.849	204,000	382	11.9
ZTS-MW167	5/24/2023	N	PM01	1B	Downgradient	5	Alluvium	23.3 - 33.0	54.9	<0.19	2,170 J+	<0.15	572,000	<1.24	2 J	<1.51	<28.1	<0.849	259,000	931	40
ZTS-MW167	8/22/2023	N	PM02	1B	Downgradient	5	Alluvium	23.3 - 33.0	24.2	<0.19	2,540	<0.15	525,000	<1.24	0.544 J	<1.51	<28.1	<0.849	240,000	192	50.2
ZTS-MW167	11/28/2023	N	PM03	1B	Downgradient	5	Alluvium	23.3 - 33.0	24.8	<0.19	2,590	<0.15	588,000	<1.24	0.552 J	<1.51	207	<0.849	250,000	156	47.1
ZTS-MW172	5/23/2023	N	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	19.5	<0.19	2,680	<0.15	603,000	<1.24	0.617 J	<1.51	<28.1	<0.849	230,000	340	40
ZTS-MW172	5/23/2023	FD	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	20.1	<0.19	2,620	<0.15	599,000	<1.24	0.594 J	<1.51	<28.1	<0.849	227,000	354	38.9
ZTS-MW172	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	29.7	<0.19	2,530	<0.15	599,000	<1.24	0.853 J	<1.51	<28.1	<0.849	241,000	605	29.2
ZTS-MW172	8/23/2023	FD	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	30.5	<0.19	2,640	<0.15	599,000	<1.24	0.806 J	<1.51	<28.1	<0.849	242,000	607	29.8
ZTS-MW172	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	21.9 J+	<0.19	2,580	<0.15	544,000	<1.24	0.456 J	<1.51	<28.1	<0.849	219,000	121	40.5
ZTS-MW172	11/30/2023	FD	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	21.9 J+	<0.19	2,530	<0.15	529,000	<1.24	0.43 J	<1.51	<28.1	<0.849	211,000	118	38.9

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
						feet	Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW173	5/25/2023	N	PM01	1B	Downgradient	5	UMCf	33.3 - 43.0	54.2	<0.19	1,480	<0.15	316,000	6.45	0.872 J	<1.51	39.2 J	<0.849	205,000	307	50.8
ZTS-MW173	8/22/2023	N	PM02	1B	Downgradient	5	UMCf	33.3 - 43.0	38.9	<0.19	1,850	<0.15	278,000	3.36 J+	0.551 J	<1.51	40.8 J	<0.849	206,000	248	31
ZTS-MW173	11/29/2023	N	PM03	1B	Downgradient	5	UMCf	33.3 - 43.0	32.9	<0.19	1,420	<0.15	246,000	3.03	0.358 J	<1.51	87 J	<0.849	196,000	250	9.39
ZTS-MW179	5/25/2023	N	PM01	1B	Downgradient	5	Alluvium	18.3 - 23.0	27.6	<0.19	2,360	<0.15	584,000	<1.24	1.17 J	<1.51	<28.1	<0.849	218,000	614	24.7
ZTS-MW179	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	18.3 - 23.0	31	<0.19	2,690	<0.15	625,000	<1.24	0.638 J	<1.51	<28.1	<0.849	231,000	201	29.5
ZTS-MW179	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	18.3 - 23.0	30.2 J+	<0.19	2,720	<0.15	551,000	<1.24	0.519 J	<1.51	<28.1	<0.849	207,000	193	26.8
ZTS-MW168	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	21.7	<0.19	2,190 J+	<0.15	588,000	<1.24	0.738 J	<1.51	<28.1	<0.849	234,000	284	55.8
ZTS-MW168	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	21.5	<0.19	2,560	<0.15	575,000	<1.24	0.549 J	<1.51	<28.1	<0.849	243,000	185	49.8
ZTS-MW168	10/11/2023	N	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	19	<0.19	2,540	<0.15	520,000	<1.24	0.473 J	<1.51	<28.1	<0.849	199,000	214	34.3
ZTS-MW174	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	25.8	<0.19	2,270	<0.15	611,000	<1.24	0.601 J	<1.51	<28.1	<0.849	235,000	262	65.8
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	19.2	<0.19	2,590	<0.15	536,000	<1.24	0.412 J	<1.51	<28.1	<0.849	227,000	197	40.6
ZTS-MW174	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----	----	----	----	----	----	----	----	----	----	----
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	18.7	<0.19	2,330	<0.15	521,000	<1.24	0.435 J	<1.51	<28.1	<0.849	202,000	113	36.5
ZTS-MW177	5/25/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	22.3	<0.19	2,580	<0.15	571,000	<1.24	0.635 J	1.68 J	<28.1	<0.849	228,000	258	59.3
ZTS-MW177	8/23/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	18.1	<0.19	2,590	<0.15	604,000	1.5 J	0.528 J	<1.51	<28.1	<0.849	243,000	141	44.8
ZTS-MW177	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	16.4	<0.19	2,340	<0.15	524,000	<1.24	0.385 J	<1.51	<28.1	<0.849	196,000	101	29.1
ZTS-MW180	5/24/2023	N	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	18.3	<0.19	2,690	<0.15	656,000	86.4	0.769 J	<1.51	<28.1	<0.849	233,000	1.43 J	85.2
ZTS-MW180	5/24/2023	FD	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	16.8	<0.19	2,260	<0.15	599,000	81	0.753 J	<1.51	<28.1	<0.849	209,000	1.39 J	78.8
ZTS-MW180	8/24/2023	N	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	17	<0.19	2,810	<0.15	660,000	102	0.831 J	<1.51	<28.1	<0.849	231,000	1.09 J	84.5
ZTS-MW180	8/24/2023	FD	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	17.4	<0.19	2,700	<0.15	676,000	102	0.832 J	<1.51	<28.1	<0.849	238,000	0.744 J	83.4
ZTS-MW180	11/30/2023	N	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	17.8 J+	<0.19	2,740	<0.15	619,000	78.7	0.669 J	<1.51	<28.1	<0.849	212,000	<0.704	78.7
ZTS-MW180	11/30/2023	FD	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	17.5 J+	<0.19	2,800	<0.15	622,000	77.5	0.679 J	<1.51	<28.1	<0.849	215,000	<0.704	79.5
ZTS-MW148	5/25/2023	N	PM01	1B	Downgradient	35	Alluvium	22.0 - 32.0	19.5	<0.19	2,510	<0.15	587,000	<1.24	0.418 J	<1.51	<28.1	<0.849	232,000	14.5	71.3
ZTS-MW148	8/23/2023	N	PM02	1B	Downgradient	35	Alluvium	22.0 - 32.0	18.6	<0.19	2,590	<0.15	590,000	2.04 J+	0.47 J	<1.51	<28.1	<0.849	248,000	90.6	53.2
ZTS-MW148	11/28/2023	N	PM03	1B	Downgradient	35	Alluvium	22.0 - 32.0	17	<0.19	2,650	<0.15	590,000	<1.24	0.376 J	<1.51	<28.1	<0.849	232,000	43.2	47
LVWPS-MW107A	5/23/2023	N	PM01	NA	Downgradient	50	Alluvium	24.8 - 34.5	19.2	<0.19	2,560	<0.15	575,000	<1.24	0.44 J	<1.51	<28.1	<0.849	228,000	174	58.7
LVWPS-MW107A	8/24/2023	N	PM02	NA	Downgradient	50	Alluvium	24.8 - 34.5	21.8	<0.19	2,460	<0.15	569,000	<1.24	0.432 J	<1.51	<28.1	<0.849	237,000	84.8	45.5
LVWPS-MW107A	11/30/2023	N	PM03	NA	Downgradient	50	Alluvium	24.8 - 34.5	20.5 J+	<0.19	2,560	<0.15	542,000	1.32 J	0.333 J	<1.51	<28.1	<0.849	206,000	86.6	31.7
LVWPS-MW107B	5/23/2023	N	PM01	NA	Downgradient	50	UMCf	46.0 - 65.8	16.2	<0.19	1,820	<0.15	252,000	<1.24	<0.0596	<1.51	39.1 J	<0.849	369,000	12.8	0.62 J
LVWPS-MW107B	8/24/2023	N	PM02	NA	Downgradient	50	UMCf	46.0 - 65.8	56.9	<0.19	919	<0.15	172,000	8.44	0.135 J	<1.51	68.5 J	<0.849	161,000	14.7	3.03 J
LVWPS-MW107B	12/1/2023	N	PM03	NA	Downgradient	50	UMCf	46.0 - 65.8	81.7	<0.19	479	<0.15	163,000	<1.24	<0.0596	1.9 J	<28.1	<0.849	76,100	1.71 J	4.55 J
LVWPS-MW107C	5/23/2023	N	PM01	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	23.4	<0.19	11,300	<0.15	544,000	<1.24	0.132 J	<1.51	50.8 J	<17	5,950,000	206	<0.348
LVWPS-MW107C	8/24/2023	N	PM02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	47.5	<1.9	10,200	<1.5	552,000	<12.4	<0.596	<15.1	<281	<8.49	6,020,000	263 J+	19.2 J
LVWPS-MW107C	12/1/2023	N	PM03	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	20.7 J+	<1.9	10,200	<1.5	492,000	<12.4	<0.596	<15.1	<281	<8.49	5,590,000	187	<3.48
ZTS-MW175	5/26/2023	N	PM01	1B	Downgradient	100	Alluvium	19.8 - 29.5	19.9	<0.19	2,620	<0.15	579,000	1.44 J	0.43 J	<1.51	<28.1	<0.849	224,000	6.99	99.9
ZTS-MW175	8/25/2023	N	PM02	1B	Downgradient	100	Alluvium	19.8 - 29.5	21.3	<0.19	2,370	<0.15	577,000	<1.24	0.385 J	<1.51	<28.1	<0.849	216,000	1.06 J	84.2
ZTS-MW175	11/30/2023	N	PM03	1B	Downgradient	100	Alluvium	19.8 - 29.5	19.2 J+	<0.19	2,500	<0.15	507,000	<1.24	0.323 J	<1.51	<28.1	<0.849	197,000	0.802 J	57
ZTS-MW176	5/26/2023	N	PM01	1B	Downgradient	150	Alluvium	19.8 - 29.5	20	<0.19	2,490	<0.15	582,000	4.97	0.379 J	<1.51	<28.1	<0.849	227,000	<0.704	133
ZTS-MW176	8/25/2023	N	PM02	1B	Downgradient	150	Alluvium	19.8 - 29.5	21.4	<0.19	2,350	<0.15	611,000	4.34	0.404 J	<1.51	<28.1	<0.849	230,000	<0.704	111
ZTS-MW176	12/5/2023	N	PM03	1B	Downgradient	150	Alluvium	19.8 - 29.5	21.3	<0.19	2,460	<0.15	602,000	3.82 J+	0.404 J	<1.51	<28.1	<0.849	249,000	1.55 J	92.7

Test Area 2A

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Pre-Construction Baseline Results																					
ZTS-MW137	10/20/2022	N	BL02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	29.1	<0.19	2,710	<0.15	633,000	95.3	<0.0596	<1.51	<28.1	<0.849	234,000	33.9	85.8
ZTS-MW118	9/1/2022	N	BL01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----	----	687,000	48.7	----	----	<28.1	----	----	71.2	----
ZTS-MW118	10/21/2022	N	BL02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	27.1	<0.19	3,190	<0.15	702,000	61.7	<0.0596	<1.51	<28.1	<0.849	254,000	<0.704	82.4
ZTS-MW138	10/20/2022	N	BL02	2A	Downgradient	5	Alluvium	14.0 - 24.0	39.1	<0.19	2,630	<0.15	662,000	97.6	<0.0596	<1.51	<28.1	<0.849	214,000	73.3	76.9
ZTS-MW139	10/21/2022	N	BL02	2A	Downgradient	5	Alluvium	13.0 - 23.0	39	<0.19	2,970	<0.15	732,000	56.3	<0.0596	<1.51	<28.1	<0.849	248,000	317	80.5
LVWPS-MW102A	10/21/2022	N	BL02	NA	Downgradient	30	UMCf	47.0 - 66.6	11.2	<0.19	2,360	<0.15	529,000	14.6	<0.0596	<1.51	<28.1	<0.849	910,000	20	73.1
LVWPS-MW102B	10/21/2022	N	BL02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<38.1	<0.19	12,400	<0.15	552,000	<1.24	<0.0596	<1.51	<28.1	<84.9	5,840,000	204	<34.8
ZTS-MW113	10/25/2022	N	BL02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	25.8	<0.19	2,660	<0.15	628,000	102	<0.0596	<1.51	<28.1	<0.849	210,000	<0.704	73.7
Post-Construction Performance Monitoring Results																					
ZTS-MW137	5/31/2023	N	PM01	2A	Upgradient	-9	Alluvium	14.0 - 24.0	23.7	<0.19	2,790	<0.15	627,000	89.9	0.681 J	2.43 J	<28.1	<0.849	235,000	1.35 J	83.2
ZTS-MW137	8/24/2023	N	PM02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	23.9	<0.19	2,910	<0.15	635,000	103	0.705 J	<1.51	<28.1	<0.849	239,000	<0.704	86.6
ZTS-MW137	12/1/2023	N	PM03	2A	Upgradient	-9	Alluvium	14.0 - 24.0	22.1	<0.19	2,770	<0.15	632,000	92.1	0.628 J	<1.51	30.6 J	<0.849	224,000	0.974 J	85.1
ZTS-MW118	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	23.2	<0.19	2,600	<0.15	607,000	65	0.713 J	2.26 J	<28.1	<0.849	223,000	0.901 J	73.3
ZTS-MW118	5/31/2023	FD	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	24.7	<0.19	2,870	<0.15	657,000	67	0.732 J	<1.51	<28.1	<0.849	247,000	<0.704	80
ZTS-MW118	8/24/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	25.2	<0.19	2,860	<0.15	627,000	80.2	0.777 J	<1.51	<28.1	<0.849	246,000	<0.704	82.6
ZTS-MW118	8/24/2023	FD	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	25.4	0.656 J	2,940	0.643 J	633,000	79.2	1.41 J	<1.51	<28.1	<0.849	248,000	0.955 J	83.6
ZTS-MW118	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	24.5	<0.19	2,850	<0.15	671,000	73.6	0.683 J	<1.51	<28.1	<0.849	230,000	<0.704	80.9
ZTS-MW118	12/1/2023	FD	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	24.8	<0.19	2,920	<0.15	677,000	74.3	0.714 J	<1.51	<28.1	<0.849	235,000	<0.704	81.9
ZTS-MW190	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	14.3 - 24.0	23.4	<0.19	2,920	<0.15	623,000	85.4	0.613 J	1.78 J	<28.1	<0.849	240,000	2.94 J	85.7
ZTS-MW190	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	14.3 - 24.0	22.3	<0.19	2,690	<0.15	616,000	90.6	0.664 J	<1.51	<28.1	<0.849	220,000	1.35 J	88.6
ZTS-MW190	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	14.3 - 24.0	22.3	<0.19	2,670	<0.15	657,000	86.9	0.631 J	<1.51	<28.1	<0.849	232,000	<0.704	88.4
ZTS-MW196	5/30/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.8 - 23.5	24.1	<0.19	2,770	<0.15	598,000	90.7	0.628 J	1.83 J	<28.1	<0.849	218,000	0.707 J	78.7
ZTS-MW196	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.8 - 23.5	25	<0.19	2,530	<0.15	640,000	94.5	0.678 J	1.52 J	<28.1	<0.849	218,000	0.831 J	82
ZTS-MW196	11/30/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.8 - 23.5	23.8 J+	<0.19	2,790	<0.15	603,000	99.2	0.638 J	<1.51	<28.1	<0.849	212,000	<0.704	81
ZTS-MW202	5/30/2023	N	PM01	2A	Upgradient	-3	UMCf	28.8 - 38.5	21.9	<0.19	2,400	<0.15	558,000	87	0.635 J	1.89 J	<28.1	<0.849	219,000	20.2	71.6
ZTS-MW202	8/28/2023	N	PM02	2A	Upgradient	-3	UMCf	28.8 - 38.5	19.5	<0.19	2,470	<0.15	551,000	87.9	0.636 J	<1.51	60.8 J	<0.849	203,000	7.82	72.7
ZTS-MW202	12/1/2023	N	PM03	2A	Upgradient	-3	UMCf	28.8 - 38.5	24.9	<0.19	2,370	<0.15	522,000	73.8	0.493 J	1.72 J	<28.1	<0.849	219,000	11.2 J+	56
ZTS-MW192	5/22/2023	N	PM01	2A	Center of Array	0	Alluvium	14.3 - 24.0	39.3	<0.19	2,350	<0.15	618,000	56.5	0.913 J	2.26 J	<28.1	<0.849	215,000	168	77.6
ZTS-MW192	8/21/2023	N	PM02	2A	Center of Array	0	Alluvium	14.3 - 24.0	26.7	<0.19	2,720	<0.15	607,000	85.7	0.662 J	<1.51	<28.1	<0.849	222,000	12	80.9
ZTS-MW192	11/28/2023	N	PM03	2A	Center of Array	0	Alluvium	14.3 - 24.0	25.9	<0.19	3,060	<0.15	643,000	96.6	0.665 J	<1.51	31.3 J	<0.849	227,000	4.72 J	86
ZTS-MW191	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.8 - 24.5	36.9	<0.19	2,320	<0.15	568,000	1.43 J	0.339 J	4.15 J	65.7 J	<0.849	212,000	392	37.6
ZTS-MW191	8/22/2023	N	PM02	2A	Downgradient	1	Alluvium	14.8 - 24.5	30.4	<0.19	2,130	<0.15	509,000	3.77	0.284 J	<1.51	54.9 J	<0.849	196,000	269	29.1
ZTS-MW191	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.8 - 24.5	30.4	<0.19	2,620	<0.15	592,000	8.43	0.428 J	<1.51	30.6 J	<0.849	206,000	273	45
ZTS-MW195	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.3 - 24.0	28.2	<0.19	2,830	<0.15	606,000	72.3	0.639 J	1.77 J	<28.1	<0.849	213,000	70.3	74.3
ZTS-MW195	8/21/2023	N	PM02	2A	Downgradient	1	Alluvium	14.3 - 24.0	30.1	<0.19	2,510	<0.15	617,000	76.6	0.708 J	<1.51	<28.1	<0.849	225,000	108	73.8
ZTS-MW195	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.3 - 24.0	26.8	<0.19	2,760	<0.15	633,000	86.6	0.61 J	<1.51	<28.1	<0.849	207,000	54.9	78.4
ZTS-MW138	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	14.0 - 24.0	26.3	<0.19	2,730	<0.15	626,000	92.1	0.681 J	<1.51	<28.1	<0.849	217,000	9.67	80
ZTS-MW138	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	14.0 - 24.0	24.9	<0.19	2,590	<0.15	625,000	102	0.678 J	3.44 J	49.8 J	<0.849	222,000	1.45 J	78.3
ZTS-MW138	11/28/2023	N	PM03	2A	Downgradient	5	Alluvium	14.0 - 24.0	28.1	<0.19	3,210	<0.15	673,000	113	0.753 J	<1.51	37.1 J	<0.849	220,000	1.34 J	82.1
ZTS-MW139	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	13.0 - 23.0	26	<0.19	2,730	<0.15	630,000	69.8	0.641 J	<1.51	<28.1	<0.849	220,000	96.1	85.5
ZTS-MW139	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	13.0 - 23.0	24.3	<0.19	2,670	<0.15	615,000	75.3	0.553 J	1.76 J	<28.1	<0.849	223,000	20.1	81
ZTS-MW139	11/29/2023	N	PM03	2A	Downgradient	5	Alluvium	13.0 - 23.0	22.4	<0.19	2,800	<0.15	576,000	72.4	0.599 J	<1.51	29.7 J	<0.849	194,000	26.8	68.9
ZTS-MW193	5/25/2023	N	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	26.8	<0.19	2,780	<0.15	642,000	83.4	0.697 J	6.52	38.2 J	<0.849	215,000	8.14	79.3
ZTS-MW193	5/25/2023	FD	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	27.1	<0.19	2,700	<0.15	618,000	82.2	0.7 J	6.56	58.2 J	<0.849	222,000	9.8	79.6
ZTS-MW193	8/22/2023	N	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	23.4	<0.19	2,700	<0.15	597,000	76.5	0.543 J	<1.51	<28.1	<0.849	224,000	2.25 J	75.5

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
						feet	Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW193	8/22/2023	FD	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	25.1	<0.19	2,760	<0.15	615,000	79	0.551 J	<1.51	<28.1	<0.849	225,000	2.42 J	76.6
ZTS-MW193	11/30/2023	N	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	25.6 J+	<0.19	2,990	<0.15	607,000	87.9	0.595 J	<1.51	29.3 J	<0.849	210,000	2.5 J	76.7
ZTS-MW193	11/30/2023	FD	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	24.7 J+	<0.19	2,890	<0.15	565,000	82.9	0.572 J	<1.51	33.5 J	<0.849	198,000	2 J	73.4
ZTS-MW203	5/30/2023	N	PM01	2A	Downgradient	5	UMCf	28.3 - 38.0	18.3	<0.19	2,120	<0.15	584,000	62.7	0.892 J	2.16 J	<28.1	<0.849	229,000	27.3	67.8
ZTS-MW203	8/23/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	16.2	<0.19	2,230	<0.15	581,000	75.3	0.92 J	<1.51	<28.1	<0.849	233,000	9.99	72.3
ZTS-MW203	10/11/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	----	----	----	----	----	----	----	----	----	----	----	----	----
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	17.7 J+	<0.19	2,210	<0.15	487,000	48	0.586 J	<1.51	<28.1	<0.849	183,000	30.2 J+	54
ZTS-MW194	5/25/2023	N	PM01	2A	Downgradient	15	Alluvium	17.8 - 22.5	23.8	<0.19	2,870	<0.15	615,000	99.1	0.714 J	6.45	<28.1	<0.849	211,000	13	79.5
ZTS-MW194	8/22/2023	N	PM02	2A	Downgradient	15	Alluvium	17.8 - 22.5	23.6	<0.19	2,790	<0.15	612,000	88.1	0.6 J	<1.51	<28.1	<0.849	229,000	0.915 J	77.4
ZTS-MW194	11/29/2023	N	PM03	2A	Downgradient	15	Alluvium	17.8 - 22.5	25.3	<0.19	2,900	<0.15	608,000	100	0.64 J	<1.51	<28.1	<0.849	202,000	0.791 J	80
LVWPS-MW102A	5/30/2023	N	PM01	NA	Downgradient	30	UMCf	47.0 - 66.6	10.3	<0.19	2,320	<0.15	499,000	13.8	0.138 J	<1.51	<28.1	<0.849	874,000	23.9	81.8
LVWPS-MW102A	8/23/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	10.1	<0.19	2,380	<0.15	511,000	18	0.126 J	<1.51	<28.1	<0.849	876,000	23.7	85
LVWPS-MW102A	10/11/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	----	----	----	----	----	----	----	----	----	----	----	----
LVWPS-MW102A	10/11/2023	FS	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	----	----	----	----	----	----	----	----	----	----	----	----
LVWPS-MW102A	12/1/2023	N	PM03	NA	Downgradient	30	UMCf	47.0 - 66.6	9.62	<0.19	2,100	<0.15	516,000	17.2	0.142 J	2.84 J	28.8 J	<0.849	699,000	20.3	88.7
LVWPS-MW102B	5/26/2023	N	PM01	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	27.3 J	<0.19	11,800	<0.15	513,000	1.37 J	0.0623 J	<1.51	89.9 J	<42.4	5,920,000	183	<17.4
LVWPS-MW102B	8/23/2023	N	PM02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	22	<1.9	11,400	<1.5	504,000	<12.4	<0.596	<15.1	<281	<8.49	5,840,000	183	<3.48
LVWPS-MW102B	12/1/2023	N	PM03	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	20.6 J+	<1.9	10,900	<1.5	503,000	<12.4	<0.596	<15.1	<281	<8.49	5,330,000	178	<3.48
ZTS-MW197	5/26/2023	N	PM01	2A	Downgradient	55	Alluvium	12.8 - 22.5	24.8	<0.19	2,540	<0.15	604,000	85.9	0.74 J	1.62 J	<28.1	<0.849	208,000	6.28	75.9
ZTS-MW197	8/22/2023	N	PM02	2A	Downgradient	55	Alluvium	12.8 - 22.5	23.7	<0.19	2,740	<0.15	593,000	83.8	0.647 J	2.15 J	<28.1	<0.849	210,000	0.837 J	72.4
ZTS-MW197	11/30/2023	N	PM03	2A	Downgradient	55	Alluvium	12.8 - 22.5	26 J+	<0.19	2,910	<0.15	585,000	89.3	0.614 J	1.65 J	<28.1	<0.849	202,000	<0.704	76
ZTS-MW113	5/26/2023	N	PM01	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	25.9	<0.19	2,810	<0.15	628,000	95.8	0.666 J	<1.51	<28.1	<0.849	209,000	0.954 J	77.9
ZTS-MW113	8/24/2023	N	PM02	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	22.3	<0.19	2,570	<0.15	643,000	101	0.838 J	<1.51	<28.1	<0.849	240,000	0.943 J	78.7
ZTS-MW113	11/30/2023	N	PM03	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	21.7 J+	<0.19	2,660	<0.15	610,000	79.5	0.741 J	<1.51	<28.1	<0.849	219,000	1.97 J	68.8
Test Area 2B																					
Pre-Construction Baseline Results																					
ZTS-MW133	10/20/2022	N	BL02	2B	Upgradient	-9	UMCf	54.0 - 69.0	12.9	<0.19	1,250	<0.15	464,000	5.13	<0.0596	<1.51	<28.1	<0.849	397,000	21.7	75
ZTS-MW117	9/1/2022	N	BL01	2B	Upgradient	-2	UMCf	40.5 - 55.5	----	----	----	----	229,000	10.8	----	----	<28.1	----	----	122	----
ZTS-MW117	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	23.5	<0.19	1,110	<0.15	182,000	<24.8	<0.0596	<1.51	<28.1	<0.849	137,000	123	27.4
ZTS-MW117	10/19/2022	FD	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	23.1	<0.19	1,110	<0.15	176,000	<12.4	<0.0596	<1.51	<28.1	<0.849	135,000	117	27.5
ZTS-MW134	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	26.0 - 36.0	28.9	<0.19	2,570	<0.15	785,000	<62	<0.0596	<1.51	<28.1	<0.849	238,000	26.6	71.6
ZTS-MW135	10/19/2022	N	BL02	2B	Downgradient	7	UMCf	54.0 - 69.0	13.1	<0.19	1,490	<0.15	579,000	<24.8	<0.0596	<1.51	<28.1	<0.849	431,000	30.7	54.7
ZTS-MW136	10/20/2022	N	BL02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	38.5	<0.19	1,330	<0.15	258,000	10.2	<0.0596	<1.51	<28.1	<0.849	155,000	361	31.2
Post-Construction Performance Monitoring Results																					
ZTS-MW133	5/23/2023	N	PM01	2B	Upgradient	-9	UMCf	54.0 - 69.0	10.6	<0.19	1,650	<0.15	465,000	7.38	0.0868 J	2.03 J	41.1 J	<0.849	398,000	6.45	108
ZTS-MW133	8/30/2023	N	PM02	2B	Upgradient	-9	UMCf	54.0 - 69.0	9.14	<0.19	1,500 J+	<0.15	457,000	6.41	0.0864 J	<1.51	<28.1	<0.849	410,000	5.68	104
ZTS-MW133	12/4/2023	N	PM03	2B	Upgradient	-9	UMCf	54.0 - 69.0	10.1	<0.19	1,640	<0.15	462,000	8.01	0.0998 J	<1.51	<28.1	<0.849	407,000	6.56 J+	128
ZTS-MW117	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	40.5 - 55.5	52.4	<0.19	870	<0.15	202,000	<1.24	<0.0596	<1.51	104	<0.849	151,000	65.5	12.1
ZTS-MW117	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	40.5 - 55.5	25.1	<0.19	1,150	<0.15	299,000	<1.24	<0.0596	<1.51	250	<0.849	237,000	73.9	15
ZTS-MW117	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	40.5 - 55.5	45.8	23.1	1,250 J+	12.6	376,000	6.57	34.1	34.7	223	28.9	295,000	89.3	23.8
ZTS-MW134	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	26.0 - 36.0	22.6	<0.19	2,400	<0.15	628,000	82.9	0.796 J	2.37 J	<28.1	<0.849	229,000	17.7	72.1
ZTS-MW134	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	26.0 - 36.0	21.6	<0.19	2,600	<0.15	644,000	92.7	0.81 J	<1.51	<28.1	<0.849	242,000	4.9 J	72.3
ZTS-MW134	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	26.0 - 36.0	21	<0.19	2,490	<0.15	610,000	74	0.715 J	<1.51	<28.1	<0.849	228,000	14.7	64.7

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
ZTS-MW198	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	26.1 - 46.0	30.4	<0.19	1,240	<0.15	390,000	2.49	0.704 J	<1.51	<28.1	<0.849	262,000	187	29.8	
ZTS-MW198	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	26.1 - 46.0	21.4	<0.19	1,460	<0.15	475,000	15.5	0.323 J	<1.51	45.7 J	<0.849	272,000	82.9	35.2	
ZTS-MW198	11/27/2023	N	PM03	2B	Downgradient	2	UMCf	26.1 - 46.0	19.3	<0.19	1,180	<0.15	466,000	<1.24	0.344 J	<1.51	404	<0.849	329,000	155	16.3	
ZTS-MW200	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	30.9	<0.19	1,070	<0.15	455,000	<1.24	0.0735 J	<1.51	72.2 J	<0.849	351,000	493	35	
ZTS-MW200	5/23/2023	FD	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	31.3	<0.19	1,110	<0.15	456,000	<1.24	0.0701 J	<1.51	72.7 J	<0.849	346,000	484	34.7	
ZTS-MW200	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	28.2	<0.19	1,190	<0.15	437,000	1.29 J	0.307 J	<1.51	200	<0.849	359,000	595	28.9	
ZTS-MW200	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	27.6	<0.19	1,520	<0.15	480,000	<1.24	<0.0596	<1.51	316	<0.849	382,000	630	28.7	
ZTS-MW201	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	27.1 - 47.0	31.8	<0.19	1,410	<0.15	367,000	<1.24	0.342 J	<1.51	<28.1	<0.849	284,000	218	79.2	
ZTS-MW201	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	27.1 - 47.0	19.2	<0.19	1,300	<0.15	384,000	<1.24	0.83 J	<1.51	43.7 J	<0.849	311,000	312	79.3	
ZTS-MW201	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	27.1 - 47.0	20	<0.19	1,390	<0.15	435,000	<1.24	0.594 J	<1.51	29.9 J	<0.849	340,000	203	91	
ZTS-MW206	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	21.9	<0.19	1,490	<0.15	463,000	<1.24	1.15 J	<1.51	<28.1	<0.849	381,000	527	82.2	
ZTS-MW206	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	13.3	<0.19	1,310	<0.15	433,000	<1.24	0.807 J	<1.51	<28.1	<0.849	381,000	287	74.9	
ZTS-MW206	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	13.7	<0.19	1,720	<0.15	491,000	1.96 J	0.712 J	<1.51	<28.1	<0.849	407,000	239	87.8	
ZTS-MW199	5/23/2023	N	PM01	2B	Downgradient	5	UMCf	50.1 - 65.0	16.1	<0.19	1,560	<0.15	492,000	2.34	1.05 J	<1.51	<28.1	<0.849	396,000	281	95.8	
ZTS-MW199	8/22/2023	N	PM02	2B	Downgradient	5	UMCf	50.1 - 65.0	9.71	<0.19	1,530	<0.15	450,000	2.74	0.532 J	<1.51	<28.1	<0.849	379,000	107	82.4	
ZTS-MW199	11/28/2023	N	PM03	2B	Downgradient	5	UMCf	50.1 - 65.0	11.7	<0.19	1,830	<0.15	514,000	2.83	0.425 J	<1.51	<28.1	<0.849	405,000	67.4	97	
ZTS-MW207	5/24/2023	N	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	37	<0.19	1,510	<0.15	292,000	1.49 J	0.696 J	<1.51	<28.1	<0.849	182,000	228	59.8	
ZTS-MW207	5/24/2023	FD	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	40.7	<0.19	1,610	<0.15	337,000	2.4	0.784 J	<1.51	<28.1	<0.849	209,000	266	67.7	
ZTS-MW207	8/23/2023	N	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	23.2	<0.19	1,470	<0.15	274,000	<1.24	0.298 J	<1.51	171	<0.849	222,000	109	113	
ZTS-MW207	8/23/2023	FD	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	23.7	<0.19	1,520	<0.15	268,000	<1.24	0.308 J	<1.51	181	1.23 J	210,000	111	115	
ZTS-MW207	11/29/2023	N	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	19.4	<0.19	1,320	<0.15	270,000	1.45 J	0.156 J	<1.51	50 J	<0.849	202,000	58.4	154	
ZTS-MW207	11/29/2023	FD	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	20.6	<0.19	1,420 J+	<0.15	280,000	<1.24	0.234 J	<1.51	72.6 J	<0.849	222,000	60.7	165	
ZTS-MW135	5/26/2023	N	PM01	2B	Downgradient	7	UMCf	54.0 - 69.0	13.6	<0.19	1,670	<0.15	523,000	8.72	0.914 J	<1.51	<28.1	<0.849	435,000	505	123	
ZTS-MW135	8/24/2023	N	PM02	2B	Downgradient	7	UMCf	54.0 - 69.0	12.1	<0.19	1,790	<0.15	505,000	9.05	0.509 J	<1.51	<28.1	<0.849	434,000	261	114	
ZTS-MW135	11/30/2023	N	PM03	2B	Downgradient	7	UMCf	54.0 - 69.0	10 J+	<0.19	1,710	<0.15	479,000	10.2	0.36 J	<1.51	<28.1	2.85	400,000	153	122	
ZTS-MW136	5/26/2023	N	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	20.1	<0.19	1,220	<0.15	179,000	<1.24	0.218 J	<1.51	147	<0.849	150,000	153	80.4	
ZTS-MW136	5/26/2023	FD	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	20.5	<0.19	1,220	<0.15	182,000	<1.24	0.194 J	<1.51	141	<0.849	153,000	152	80.7	
ZTS-MW136	8/25/2023	N	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	19.6	<0.19	1,240	<0.15	188,000	<1.24 UJ	0.069 J	<1.51	161	<0.849	157,000	104	125	
ZTS-MW136	8/25/2023	FD	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	19.7	<0.19	1,210	<0.15	190,000	4.38 J	0.098 J	<1.51	189	<0.849	156,000	109	127	
ZTS-MW136	11/29/2023	N	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	18.3	<0.19	1,290 J+	<0.15	206,000	<1.24	0.061 J	<1.51	129	<0.849	174,000	79.4	193	
ZTS-MW136	11/29/2023	FD	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	18.2	<0.19	1,320 J+	<0.15	203,000	<1.24	0.0609 J	<1.51	137	<0.849	177,000	76.8	190	
ZTS-MW208	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	26.1 - 46.0	19.9	<0.19	2,220	<0.15	509,000	58.2	0.624 J	2.27 J	<28.1	<0.849	228,000	58.4	64.3	
ZTS-MW208	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	26.1 - 46.0	20.4	<0.19	2,520	<0.15	590,000	78.2	0.672 J	1.81 J	44.5 J	<0.849	247,000	10.4	75.7	
ZTS-MW208	11/28/2023	N	PM03	2B	Downgradient	15	UMCf	26.1 - 46.0	18.5	<0.19	2,500	<0.15	563,000	57.7	0.425 J	<1.51	<28.1	<0.849	248,000	7.95	71.2	
ZTS-MW209	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	50.6 - 65.5	10.4	<0.19	1,580	<0.15	508,000	5.18	0.295 J	<1.51	<28.1	<0.849	431,000	186	158	
ZTS-MW209	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	50.6 - 65.5	9.92	<0.19	1,850	<0.15	515,000	8.76 J+	0.255 J	<1.51	43.1 J	<0.849	436,000	127	156	
ZTS-MW209	11/29/2023	N	PM03	2B	Downgradient	15	UMCf	50.6 - 65.5	10	<0.19	1,830	<0.15	520,000	6.47	0.295 J	<1.51	29.5 J	<0.849	431,000	89.4	161	
Test Area 2C																						
Pre-Construction Baseline Results																						
ZTS-MW140	10/21/2022	N	BL02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	32.1	<0.19	2,710	<0.15	668,000	94.9	<0.0596	<1.51	<28.1	<0.849	267,000	43.3	96.9	
ZTS-MW119	9/1/2022	N	BL01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	----	----	----	----	663,000	44.9	----	----	<28.1	----	----	95.2	----	
ZTS-MW119	10/19/2022	N	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	28.9	<0.19	2,440	<0.15	711,000	91.8	<0.0596	<1.51	<28.1	<0.849	243,000	<0.704	102	
ZTS-MW119	10/19/2022	FD	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	29.2	<0.19	3,000	<0.15	750,000	<62	<0.0596	9.21	<28.1	<0.849	263,000	<0.704	96.8	
ZTS-MW141	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	14.5 - 24.5	30.9	<0.19	2,660	<0.15	614,000	69.8	<0.0596	<1.51	<28.1	<0.849	241,000	28.8	96.8	
ZTS-MW142	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	16.0 - 26.0	29.5	<0.19	2,520	<0.15	659,000	88.6	<0.0596	<1.51	<28.1	<0.849	268,000	5.99	110	
Post-Construction Performance Monitoring Results																						
ZTS-MW140	5/25/2023	N	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	23.5	<0.19	2,570	<0.15	625,000	105	0.712 J	6.51	<28.1	<0.849	245,000	<0.704	98.8	

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
						feet		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW140	5/25/2023	FD	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	23.9	<0.19	2,760	<0.15	637,000	104	0.737 J	5.81	<28.1	<0.849	234,000	<0.704	101
ZTS-MW140	8/29/2023	N	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	23.7	<0.19	2,560	<0.15	621,000	102	0.671 J	<1.51	<28.1	<0.849	238,000	<0.704	101
ZTS-MW140	8/29/2023	FD	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	24.7	<0.19	2,730	<0.15	636,000	99.1	0.659 J	<1.51	<28.1	<0.849	229,000	<0.704	98.9
ZTS-MW140	12/4/2023	N	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	23.2	<0.19	3,020	<0.15	612,000	99.7	0.759 J	<1.51	<28.1	<0.849	258,000	0.837 J	98.3
ZTS-MW140	12/4/2023	FD	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	23.3	<0.19	3,020	<0.15	613,000	99.5	0.686 J	<1.51	<28.1	<0.849	246,000	<0.704	98.6
ZTS-MW119	5/24/2023	N	PM01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	24.8	<0.19	2,690	<0.15	603,000	99.1	0.637 J	1.94 J	<28.1	<0.849	232,000	0.704 J	95.5
ZTS-MW119	8/29/2023	N	PM02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	24.6	<0.19	2,810	<0.15	637,000	101	0.634 J	1.74 J	<28.1	<0.849	231,000	<0.704	101
ZTS-MW119	12/4/2023	N	PM03	2C	Upgradient	-3	Alluvium	15.0 - 25.0	23.5	<0.19	3,020	<0.15	628,000	101	0.663 J	<1.51	<28.1	<0.849	242,000	<0.704	97.9
ZTS-MW181	5/25/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	28.3	<0.19	2,610	<0.15	630,000	85.2	0.815 J	5.96	<28.1	<0.849	244,000	2 J	102
ZTS-MW181	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	28.6	<0.19	2,590	<0.15	633,000	87.5	0.719 J	<1.51	<28.1	<0.849	237,000	<0.704	100
ZTS-MW181	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	22.9	<0.19	2,930	<0.15	605,000	102	0.594 J	<1.51	<28.1	<0.849	236,000	0.951 J	92.1
ZTS-MW188	5/26/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	26	<0.19	2,630	<0.15	630,000	104	0.717 J	2.13 J	34.8 J	<0.849	238,000	2.33 J	95
ZTS-MW188	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	25.4	<0.19	2,640	<0.15	615,000	103	0.614 J	<1.51	<28.1	<0.849	228,000	<0.704	97.6
ZTS-MW188	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	25.6	<0.19	3,140	<0.15	634,000	77	0.762 J	<1.51	43.9 J	<0.849	251,000	3.01 J	95.2
ZTS-MW204	5/25/2023	N	PM01	2C	Upgradient	-3	UMCf	30.3 - 40.0	39.1	<0.19	1,710	<0.15	304,000	36.9	0.572 J	3.98 J	<28.1	<0.849	173,000	273	41.5
ZTS-MW204	8/25/2023	N	PM02	2C	Upgradient	-3	UMCf	30.3 - 40.0	40.7	<0.19	1,900	<0.15	346,000	45.5	0.447 J	<1.51	<28.1	<0.849	191,000	229	51.5
ZTS-MW204	12/1/2023	N	PM03	2C	Upgradient	-3	UMCf	30.3 - 40.0	34.5	<0.19	1,640	<0.15	320,000	38	0.335 J	<1.51	95.2 J	<0.849	179,000	159	34.5
ZTS-MW182	5/23/2023	N	PM01	2C	Center of Array	0	Alluvium	17.6 - 27.3	35.5	<0.19	2,780	<0.15	608,000	34.1	0.665 J	1.8 J	243 J+	<0.849	231,000	165	78
ZTS-MW182	8/22/2023	N	PM02	2C	Center of Array	0	Alluvium	17.6 - 27.3	31.5	<0.19	2,660	<0.15	603,000	38	0.618 J	4.26 J	29.8 J	<0.849	244,000	83.5	77.1
ZTS-MW182	11/27/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	26.9	<0.19	2,780	<0.15	635,000	49.4	0.643 J	<1.51	73.7 J	<0.849	243,000	89.4	86.7
ZTS-MW182	11/28/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	----	----	----	----	----	----	----	----	----	----	----	----	----
ZTS-MW183	5/23/2023	N	PM01	2C	Downgradient	1	Alluvium	17.3 - 27.0	29.5	<0.19	2,850	<0.15	617,000	52.1	0.727 J	2.43 J	<28.1	<0.849	231,000	54.4	91.9
ZTS-MW183	8/22/2023	N	PM02	2C	Downgradient	1	Alluvium	17.3 - 27.0	23.9	<0.19	2,650	<0.15	607,000	63.1	0.608 J	<1.51	<28.1	<0.849	233,000	6.42	88.7
ZTS-MW183	11/28/2023	N	PM03	2C	Downgradient	1	Alluvium	17.3 - 27.0	24	<0.19	3,070	<0.15	674,000	75	0.625 J	<1.51	<28.1	<0.849	255,000	2.86 J	100
ZTS-MW187	5/24/2023	N	PM01	2C	Downgradient	1	Alluvium	15.3 - 25.0	34.1	<0.19	2,500	<0.15	623,000	69	0.599 J	<1.51	<28.1	<0.849	226,000	89.4	88.2
ZTS-MW187	8/23/2023	N	PM02	2C	Downgradient	1	Alluvium	15.3 - 25.0	28.1	<0.19	2,860	<0.15	648,000	95.6	0.72 J	<1.51	51 J	<0.849	252,000	54.8	93.4
ZTS-MW187	11/29/2023	N	PM03	2C	Downgradient	1	Alluvium	15.3 - 25.0	24.3	<0.19	2,840	<0.15	570,000	80.5	0.512 J	<1.51	<28.1	<0.849	197,000	19.5	82.1
ZTS-MW141	5/25/2023	N	PM01	2C	Downgradient	5	Alluvium	14.5 - 24.5	24.3	<0.19	2,800	<0.15	627,000	88.6	0.774 J	2.54 J	33.9 J	<0.849	242,000	28.4	92.7
ZTS-MW141	8/23/2023	N	PM02	2C	Downgradient	5	Alluvium	14.5 - 24.5	26.7	<0.19	2,870	<0.15	667,000	96.2	0.747 J	<1.51	<28.1	0.875 J	250,000	0.895 J	96.3
ZTS-MW141	11/29/2023	N	PM03	2C	Downgradient	5	Alluvium	14.5 - 24.5	24	<0.19	2,740	<0.15	617,000	93.2	0.593 J	<1.51	<28.1	<0.849	210,000	<0.704	92.2
ZTS-MW142	5/26/2023	N	PM01	2C	Downgradient	5	Alluvium	16.0 - 26.0	26.6	<0.19	2,650	<0.15	587,000	69.2	0.764 J	2.37 J	30.8 J	<0.849	225,000	78.9	97.6
ZTS-MW142	8/24/2023	N	PM02	2C	Downgradient	5	Alluvium	16.0 - 26.0	30.9	<0.19	2,870	<0.15	636,000	84.9	0.696 J	<1.51	<28.1	<0.849	253,000	34	100
ZTS-MW142	11/30/2023	N	PM03	2C	Downgradient	5	Alluvium	16.0 - 26.0	28.7 J+	<0.19	2,970	<0.15	610,000	73.5	0.577 J	<1.51	<28.1	<0.849	223,000	33 J+	86.3
ZTS-MW184	5/24/2023	N	PM01	2C	Downgradient	5	Alluvium	16.3 - 26.0	28.2	<0.19	2,710	<0.15	644,000	72.3	0.708 J	<1.51	<28.1	<0.849	227,000	8.31	94.1
ZTS-MW184	8/22/2023	N	PM02	2C	Downgradient	5	Alluvium	16.3 - 26.0	25.2	<0.19	2,540	<0.15	574,000	65.7	0.671 J	<1.51	<28.1	<0.849	216,000	5.39	79.2
ZTS-MW184	11/28/2023	N	PM03	2C	Downgradient	5	Alluvium	16.3 - 26.0	29	<0.19	3,080	<0.15	701,000	76.8	0.691 J	<1.51	<28.1	<0.849	250,000	1.03 J	100
ZTS-MW205	5/24/2023	N	PM01	2C	Downgradient	5	UMCf	30.3 - 40.0	29.6	<0.19	1,020	<0.15	121,000	<1.24	0.316 J	<1.51	<28.1	<0.849	87,100	318	6.42
ZTS-MW205	8/23/2023	N	PM02	2C	Downgradient	5	UMCf	30.3 - 40.0	30.7	<0.19	1,170	<0.15	126,000	2.12 J+	0.323 J	<1.51	52.2 J	<0.849	99,600	446	8.67
ZTS-MW205	11/29/2023	N	PM03	2C	Downgradient	5	UMCf	30.3 - 40.0	27.7	<0.19	1,120	<0.15	105,000	<1.24	0.17 J	<1.51	97.4 J	<0.849	76,200	425	3.64 J
ZTS-MW185	5/25/2023	N	PM01	2C	Downgradient	15	Alluvium	15.3 - 25.0	28.1	<0.19	2,720	<0.15	639,000	83.5	0.848 J	1.77 J	35.5 J	<0.849	240,000	8.18	89.2
ZTS-MW185	8/24/2023	N	PM02	2C	Downgradient	15	Alluvium	15.3 - 25.0	27.6	<0.19	2,880	<0.15	644,000	96.7	0.719 J	<1.51	<28.1	<0.849	254,000	1.02 J	95.1
ZTS-MW185	11/30/2023	N	PM03	2C	Downgradient	15	Alluvium	15.3 - 25.0	23.6 J+	<0.19	2,990	<0.15	577,000	88.3	0.536 J	<1.51	<28.1	<0.849	210,000	<0.704	83.4
ZTS-MW186	5/25/2023	N	PM01	2C	Downgradient	25	Alluvium	15.3 - 25.0	26.1	<0.19	2,800	<0.15	629,000	82.2	0.794 J	<1.51	<28.1	<0.849	235,000	6.18	91.5
ZTS-MW186	8/24/2023	N	PM02	2C	Downgradient	25	Alluvium	15.3 - 25.0	26.6	<0.19	2,970	<0.15	645,000	92.7	0.716 J	<1.51	<28.1	<0.849	245,000	0.725 J	95.2
ZTS-MW186	11/30/2023	N	PM03	2C	Downgradient	25	Alluvium	15.3 - 25.0	23.3 J+	<0.19	2,890	<0.15	580,000	80.7	0.586 J	<1.51	<28.1	<0.849	208,000	<0.704	85.4
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	29.3	<0.19	2,600	<0.15	609,000	93.1	0.698 J	1.7 J	<28.1	<0.849	227,000	8.02	85.6
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	29	<0.19	2,590	<0.15	630,000	101	0.599 J	<1.51	<28.1	<0.849	220,000	0.742 J	85.8

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020
									Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum
						feet		Screened Interval	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	26.3	<0.19	2,810	<0.15	620,000	90.5	0.584 J	<1.51	<28.1	<0.849	220,000	<0.704	85.8
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	----	----	132	----
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	14.7	<0.19	2,440	<0.15	424,000	33	<0.0596	<1.51	<28.1	<0.849	241,000	20.4	71
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	----	----	----	344,000	4.76	----	----	<28.1	----	----	379	----
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	27.8	<0.19	2,190	<0.15	498,000	22.9	<0.0596	<1.51	<28.1	<0.849	269,000	172	31.3
Post-Construction Performance Monitoring Results																					
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	15.1	<0.19	2,500	<0.15	439,000	35.8	0.171 J	<1.51	<28.1	<0.849	255,000	17.8	77.8
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	14.5	<0.19	2,280	<0.15	443,000	35.2	0.183 J	<1.51	<28.1	<0.849	258,000	11.3	75.7
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	14.3	<0.19	2,500	<0.15	469,000	136	0.651 J	<1.51	424	<0.849	272,000	14.3	83
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	20.5	<0.19	2,000	<0.15	496,000	31.1	0.606 J	<1.51	<28.1	<0.849	271,000	53.6	29.5
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	17.2	<0.19	2,110 J+	<0.15	531,000	45.4	0.616 J	<1.51	<28.1	<0.849	262,000	6.53	31.9
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	15.4	<0.19	2,040	<0.15	584,000	57.6	0.734 J	<1.51	<28.1	<0.849	284,000	3.89 J	36.5

Notes:

- Distances from the discontinuous or continuous walls are shown as negative values for upgradient monitoring wells, as zero for monitoring wells screened 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
 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

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
Test Area 1A																					
Pre-Construction Baseline Results																					
ZTS-MW143	10/18/2022	N	BL02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	2.03	66,100	51.2	<0.07	695,000	12,100	<0.121	<0.655	<2.18	27	91.5	4.62	4.28
ZTS-MW124	8/31/2022	N	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	----	----	----	----	----	----	----	----	----	----	6.3	3.9
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	2.19 J+	61,800 J	47.6 J	<0.07	591,000 J	12,400 J	<0.121	<0.655	<2.18	25.2 J	<3.02	6.208	4.32
ZTS-MW124	10/18/2022	FD	BL02	1A	Upgradient	-8	Alluvium	24.0 - 34.0	<0.816	<108 UJ	<0.3 UJ	<0.07	4,440 J	91.5 J	<0.121	<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
ZTS-MW125	10/24/2022	N	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	<0.816	145,000	4.28	<0.07	501,000	11,800	<0.121	<0.655	<2.18	<0.664	<3.02	3.123	1.61
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	2.85	69,000	51.3	<0.07	768,000	13,900	<0.121	<0.655	<2.18	23.5	125	4.384	2.79
Post-Construction Performance Monitoring Results																					
ZTS-MW143	5/26/2023	N	PM01	1A	Upgradient	-50	Alluvium	23.0 - 33.0	1.7 J	63,300	60.4	<0.07	671,000	12,200	<0.121	0.951 J	<2.18	24.4	<3.02	7.019	3.68
ZTS-MW143	8/29/2023	N	PM02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	1.87 J	64,700	61.2	<0.07	619,000	12,400	<0.121	1.91 J	<2.18	24.7	<3.02	6.855	3.61
ZTS-MW143	12/6/2023	N	PM03	1A	Upgradient	-50	Alluvium	23.0 - 33.0	3.12	66,700	40.4	<0.07	675,000	13,500	<0.121	<0.655	<2.18	27.1	<3.02	7.23	1.79
ZTS-MW124R	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.5 - 34.0	4.2	65,200	49.6	<0.07	598,000	10,400	<0.121	0.761 J	<2.18	25.3	<3.02	6.982	4.37
ZTS-MW124R	8/29/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.5 - 34.0	1.64 J	64,700	48.7	<0.07	548,000	10,300	<0.121	<0.655	<2.18	25.3	<3.02	5.955	3.94
ZTS-MW124R	12/5/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.5 - 34.0	142 J-	67,000	52.4	<0.07	605,000	11,700	<0.121	<0.655	<2.18	25	<3.02	6.638	3.63
ZTS-MW125	5/25/2023	N	PM01	1A	Upgradient	-8	UMCf	40.0 - 50.0	1.65 J	162,000	2.07	<0.07	473,000	12,100	<0.121	0.743 J	<2.18	1.77 J	12.2 J	5.464	0.59
ZTS-MW125	8/30/2023	N	PM02	1A	Upgradient	-8	UMCf	40.0 - 50.0	0.942 J	143,000	14.1	<0.07	488,000	12,400	<0.121	<0.655	<2.18	2.21 J	<3.02	3.785	0.43
ZTS-MW125	12/1/2023	N	PM03	1A	Upgradient	-8	UMCf	40.0 - 50.0	1.77 J	154,000	15.8	<0.07	494,000	14,000	<0.121	<0.655	<2.18	1.48 J	<3.02	3.982	0.31
ZTS-MW153	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	3.79	64,600	51.3	<0.07	641,000	11,400	<0.121	1.15 J	<2.18	25.5	<3.02	6.979	4.71
ZTS-MW153	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	1.59 J	61,600	52.9	<0.07	574,000	12,300	<0.121	<0.655	<2.18	24.3	3.14 J	5.612	3.55
ZTS-MW153	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	2.4	70,700	50.9	<0.07	637,000	12,900	<0.605	<0.655	<2.18	25.4	<3.02	6.179	2.77
ZTS-MW163	5/25/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	1.77 J	70,000	50	<0.07	643,000	12,000	0.124 J	<0.655	<2.18	25.8	<3.02	7.291	3.76
ZTS-MW163	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	1.6 J	63,800	52.7	0.0734 J	578,000	12,100	0.248 J	0.661 J	<2.18	24.3	4.01 J	5.529	3.67
ZTS-MW163	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	1.82 J	69,600	53.9	<0.07	627,000	13,000	0.152 J	<0.655	<2.18	25.9	<3.02	6.299	3.08
ZTS-MW150	5/22/2023	N	PM01	1A	Center of Trench	0	Alluvium	24.3 - 34.0	1.94 J	65,400	1.85 J	<0.07	575,000	9,940	<0.121	<0.655	<2.18	<0.664	<3.02	4.896	0.17
ZTS-MW150	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	24.3 - 34.0	1.55 J	64,400	6.42	<0.07	558,000	10,500	<0.121	<0.655	<2.18	<0.664	3.58 J	5.112	0.56
ZTS-MW150	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	24.3 - 34.0	1.76 J	69,700	11	<0.07	634,000	11,500	<0.121	<0.655	<2.18	<0.664	<3.02	6.322	0.03
ZTS-MW154	5/24/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	2.28	66,900	1.61	<0.07	628,000	10,400	<0.121	<0.655	<2.18	<0.664	6.88	5.789	0.19
ZTS-MW154	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	1.93 J	65,300	2.46	<0.07	590,000	10,800	<0.121	<0.655	<2.18	<0.664	<3.02	5.508	0.34
ZTS-MW154	11/28/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	1.86 J	75,200	5.02	<0.07	651,000	12,900	<0.121	<0.655	<2.18	<0.664	<3.02	7.218	-0.03
ZTS-MW164	5/23/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	3.12	65,500	10.5	<0.07	646,000	11,500	<0.121	<0.655	<2.18	<0.664	<3.02	6.482	0.46
ZTS-MW164	5/23/2023	FD	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	3.06	64,800	9.63	<0.07	638,000	11,400	<0.121	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	2.59	67,100	6.82	<0.07	633,000	12,400	<0.121	<0.655	<2.18	<0.664	16.1 J	6.159	0.35
ZTS-MW164	8/18/2023	FD	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	2.73	65,700	7.53	<0.07	635,000	11,200	<0.121	<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	2.56	79,800	14.5	<0.07	680,000	12,100	<0.121	<0.655	<2.18	<0.664	<3.02	6.568	1.38
ZTS-MW164	11/27/2023	FD	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	2.57	78,100	13.6	<0.07	689,000	11,700	<0.121	<0.655	<2.18	<0.664	<3.02	----	----
ZTS-MW151	5/25/2023	N	PM01	1A	Downgradient	5	Alluvium	24.3 - 34.0	4.76	62,500	29.6	<0.07	641,000	11,400	0.124 J	<0.655	<2.18	6.68	<3.02	8.659	0.73
ZTS-MW151	8/21/2023	N	PM02	1A	Downgradient	5	Alluvium	24.3 - 34.0	5.09	61,300	44.6	<0.07	598,000	11,400	<0.121	<0.655	<2.18	7.15	3.52 J	5.561	6.12
ZTS-MW151	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	24.3 - 34.0	7.27	71,100	50.4	<0.07	649,000	13,300	<0.121	<0.655	<2.18	5.91	<3.02	7.456	0.07
ZTS-MW155	5/24/2023	N	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	6.04	65,000	13.2	<0.07	651,000	11,200	0.147	<0.655	<2.18	<0.664	3.97	5.914	0.57
ZTS-MW155	5/24/2023	FD	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	5.89	65,000	13.4	<0.07	650,000	11,700	<0.121	<0.655	<2.18	<0.664	5.79	----	----
ZTS-MW155	8/22/2023	N	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	4.74	58,600	44.6	<0.07	613,000	11,900	<0.121	<0.655	<2.18	3.89 J	3.14 J	5.914	1
ZTS-MW155	8/22/2023	FD	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	4.77	62,300	47	<0.07	664,000	12,500	<0.121	<0.655	<2.18	4.25 J	3.56 J	----	----

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
ZTS-MW155	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	7.58	69,600	30	<0.07	671,000	13,600	<0.121	<0.655	<2.18	3.38 J	<3.02	7.756	0.17
ZTS-MW155	11/28/2023	FD	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	8.15	72,000	32.4	<0.07	715,000	14,000	<0.121	<0.655	<2.18	3.49 J	<3.02	----	----
ZTS-MW156	5/24/2023	N	PM01	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.816	185,000	<0.3	<0.07	476,000	6,190	<0.121	0.688	<2.18	<0.664	4.42	4.892	0.39
ZTS-MW156	8/22/2023	N	PM02	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.816	171,000	7.34	<0.07	464,000	6,540	<0.121	<0.655	<2.18	<0.664	<3.02	4.194	3.67
ZTS-MW156	11/29/2023	N	PM03	1A	Downgradient	5	UMCf	43.8 - 53.5	<0.816	178,000	2.65	<0.07	452,000	6,270	<0.121	<0.655	<2.18	<0.664	<3.02	4.851	0.12
ZTS-MW165	5/31/2023	N	PM01	1A	Downgradient	5	Alluvium	22.3 - 32.0	4.46	73,100	25.6	<0.07	671,000	10,900	<0.121	<0.655	<2.18	2.76 J	4.21 J	8.746	0.25
ZTS-MW165	8/25/2023	N	PM02	1A	Downgradient	5	Alluvium	22.3 - 32.0	7.01	72,600	39.1	<0.07	640,000	12,100	<0.121	<0.655	<2.18	2.53 J	<3.02	5.684	0.52
ZTS-MW165	11/30/2023	N	PM03	1A	Downgradient	5	Alluvium	22.3 - 32.0	6.7	80,900	42.9	<0.07	622,000	12,600	<0.121	<0.655	<2.18	2.13 J	<3.02	6.715	0.16
ZTS-MW152	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	6.44	66,600	31	<0.07	654,000	11,700	<0.121	0.904 J	<2.18	14.5	<3.02	8.979	0.75
ZTS-MW152	8/22/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	4.21	59,000	43.1	<0.07	603,000	11,700	<0.121	<0.655	<2.18	10.4	3.52 J	5.78	0.5
ZTS-MW152	11/28/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	6.45	69,700	33.6	<0.07	653,000	13,500	<0.121	<0.655	<2.18	10.8	<3.02	7.75	0.16
ZTS-MW157	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	5.38	62,400	16.1	<0.07	692,000	11,700	0.145 J	<0.655	<2.18	5.33	<3.02	9.444	0.79
ZTS-MW157	8/23/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	4.34	68,200	32.5	<0.07	738,000	12,600	<0.121	<0.655	<2.18	5.14	<3.02	5.956	0.45
ZTS-MW157	11/29/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	4.89	68,900	22.9	<0.07	617,000	12,100	<0.121	<0.655	<2.18	4.56 J	<3.02	7.213	0.16
ZTS-MW162	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	5.14	68,600	20.8	<0.07	668,000	12,500	<0.121	<0.655	<2.18	6.12	<3.02	9.658	0.8
ZTS-MW162	8/18/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	5.92	68,200	28.2	<0.07	626,000	10,900	<0.121	0.761 J	<2.18	5.59	20.4 J	6.662	0.35
ZTS-MW162	11/30/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	5.98	75,700	36.2	<0.07	624,000	13,500	<0.121	<0.655	<2.18	3.85 J	<3.02	6.479	0.31
ZTS-MW149	5/31/2023	N	PM01	1A	Downgradient	25	Alluvium	23.3 - 33.0	3.21	56,900	45.5	<0.07	591,000	10,600	<0.121	<0.655	<2.18	20	<3.02	8.418	4.42
ZTS-MW149	8/24/2023	N	PM02	1A	Downgradient	25	Alluvium	23.3 - 33.0	2.03	62,700	53.6	<0.07	629,000	11,800	<0.121	<0.655	<2.18	25	4.61 J	5.539	4.01
ZTS-MW149	11/30/2023	N	PM03	1A	Downgradient	25	Alluvium	23.3 - 33.0	1.7 J	63,900	52.8	<0.07	586,000	12,700	<0.121	<0.655	<2.18	22.2	<3.02	6.467	2
ZTS-MW144	5/31/2023	N	PM01	1A	Downgradient	35	Alluvium	24.0 - 34.0	6.03	63,400	21.4	<0.07	679,000	11,000	0.121 J	<0.655	<2.18	9.21	<3.02	9.078	1.38
ZTS-MW144	8/24/2023	N	PM02	1A	Downgradient	35	Alluvium	24.0 - 34.0	4.06	63,100	22.4	<0.07	678,000	12,200	0.192 J	<0.655	<2.18	10.8	15.5 J	5.716	2.93
ZTS-MW144	11/30/2023	N	PM03	1A	Downgradient	35	Alluvium	24.0 - 34.0	4.16	68,100	26	<0.07	654,000	12,800	0.149 J	<0.655	<2.18	10.6	<3.02	6.549	0.21
ZTS-MW158	5/24/2023	N	PM01	1A	Downgradient	50	Alluvium	23.3 - 33.0	2.9	65,600	14.5	<0.07	681,000	12,800	<0.121	<0.655	<2.18	10.3	<3.02	7.49	0.42
ZTS-MW158	8/25/2023	N	PM02	1A	Downgradient	50	Alluvium	23.3 - 33.0	2.75	63,300	11.9	<0.07	653,000	12,100	<0.121	<0.655	<2.18	8.4	<3.02	6.138	0.45
ZTS-MW158	12/1/2023	N	PM03	1A	Downgradient	50	Alluvium	23.3 - 33.0	3.36	65,900	21.5	<0.07	649,000	13,500	<0.121	<0.655	<2.18	12.8	<3.02	8.139	0.02
ZTS-MW159	5/24/2023	N	PM01	1A	Downgradient	50	UMCf	38.8 - 48.5	2.85	107,000	6.64	<0.07	451,000	10,300	<0.121	<0.655	<2.18	2.51 J	5.36 J	4.995	0.85
ZTS-MW159	8/25/2023	N	PM02	1A	Downgradient	50	UMCf	38.8 - 48.5	2.6	77,000	37.6	<0.07	620,000	11,300	<0.121	<0.655	<2.18	12.4	<3.02	5.288	0.84
ZTS-MW159	12/1/2023	N	PM03	1A	Downgradient	50	UMCf	38.8 - 48.5	2.78	75,300	38.7	<0.07	678,000	12,700	<0.121	<0.655	<2.18	14.7	3.18 J	7.407	0.64
ZTS-MW160	5/24/2023	N	PM01	1A	Downgradient	100	Alluvium	23.3 - 33.0	2.39	64,900	31.9	<0.07	613,000	12,400	0.161 J	<0.655	<2.18	16.8	<3.02	6.523	0.57
ZTS-MW160	8/28/2023	N	PM02	1A	Downgradient	100	Alluvium	23.3 - 33.0	2.62	62,700	36.1	<0.07	614,000	12,100	0.259 J	<0.655	<2.18	17	<3.02	6.404	0.38
ZTS-MW160	12/5/2023	N	PM03	1A	Downgradient	100	Alluvium	23.3 - 33.0	2.1	72,600	41.5	<0.07	681,000	13,100	0.204 J	<0.655	<2.18	16.6	7.45 J	6.615	1.32
ZTS-MW161	5/26/2023	N	PM01	1A	Downgradient	150	Alluvium	24.3 - 34.0	1.89 J	66,400	22.8	<0.07	634,000	11,100	<0.121	0.75 J	<2.18	18.1	<3.02	3.943	1.02
ZTS-MW161	8/25/2023	N	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	2.57	66,200	40.9	<0.07	616,000	11,600	<0.121	<0.655	<2.18	15.8	<3.02	6.394	0.41
ZTS-MW161	8/25/2023	FD	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	1.96 J	66,100	39.9	<0.07	614,000	11,100	<0.121	<0.655	<2.18	15.7	3.07 J	----	----
ZTS-MW161	12/1/2023	N	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	2.4	68,500	43.7	<0.07	646,000	12,700	<0.121	<0.655	<2.18	17.4	<3.02	6878	0
ZTS-MW161	12/1/2023	FD	PM03	1A	Downgradient	150	Alluvium	24.3 - 34.0	2.52	67,000	41.9	<0.07	643,000	13,000	<0.121	<0.655	<2.18	17	<3.02	----	----
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	2.07	121,000	12.5	<0.07	549,000	6,830	<0.121	<0.655	<2.18	<0.664	<3.02	4.985	0.47
ZTS-MW146	10/24/2022	N	BL02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	5.01	170,000	16	<0.07	669,000	11,600	<0.121	<0.655	<2.18	6.72	<3.02	3.424	2.24
Post-Construction Performance Monitoring Results																					
ZTS-MW145	5/22/2023	N	PM01	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	3.34	41,600	1.45 J	<0.07	192,000	1,880	<0.121	0.946 J	<2.18	1.17 J	20.7 J	1.198	6.32
ZTS-MW145	8/30/2023	N	PM02	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	<0.816	156,000	0.81 J	<0.07	491,000	4,320	<0.121	<0.655	<2.18	<0.664	<3.02	4.453	0.41
ZTS-MW145	12/6/2023	N	PM03	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	<0.816	161,000	<0.3	<0.07	535,000	4,730	<0.121	<0.655	<2.18	<0.664	<3.02	5.144	0.12
ZTS-MW146	5/26/2023	N	PM01	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	1.11 J	238,000	8.37	<0.07	634,000	7,920	<0.121	0.778 J	<2.18	<0.664	3.14 J	6.142	1.47
ZTS-MW146	8/25/2023	N	PM02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	<0.816	328,000	<0.3	<0.07	707,000	9,820	<0.121	<0.655	<2.18	<0.664	5.77 J	6.447	0.81

**Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						feet		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L		
ZTS-MW146	11/30/2023	N	PM03	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	<0.816	329,000	<0.3	<0.07	654,000	10,000	<0.121	<0.655	<2.18	<0.664	<3.02	6.64	0.26
Test Area 1B																					
Pre-Construction Baseline Results																					
ZTS-MW147	10/18/2022	N	BL02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	4.72	139,000	40.2	<0.07	770,000	14,100	<0.121	<0.655	<2.18	20.8	<3.02	4.784	4.99
ZTS-MW126	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	----	----	----	----	----	----	----	----	----	----	----	7.382	1.91
ZTS-MW126	10/18/2022	N	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	4.31 J+	108,000	36.7	<0.07	680,000	13,100	<0.121	<0.655	<2.18	21.2	<3.02	7.111	3.65
ZTS-MW126	10/18/2022	FD	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	3.19	112,000	39.2	<0.07	770,000	15,600	<0.121	<0.655	<2.18	22.7	<3.02	----	----
ZTS-MW127	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	18.0 - 23.0	----	----	----	----	----	----	----	----	----	----	----	7.583	2.86
ZTS-MW127	10/24/2022	N	BL02	1B	Upgradient	-8	Alluvium	18.0 - 23.0	9.01	90,500	42.9	<0.07	685,000	14,500	<0.121	2.39	<2.18	19.2	<3.02	4.654	2.58
ZTS-MW148	10/24/2022	N	BL02	1B	Downgradient	35	Alluvium	22.0 - 32.0	2.38	125,000	39.3	<0.07	672,000	14,000	<0.121	<0.655	<2.18	19.5	<3.02	6.419	8.1
LVWPS-MW107A	10/24/2022	N	BL02	NA	Downgradient	50	Alluvium	24.8 - 34.5	2.01	123,000	38.8	<0.07	670,000	13,800	<0.121	<0.655	<2.18	20.8	<3.02	6.222	5.9
LVWPS-MW107B	10/21/2022	N	BL02	NA	Downgradient	50	UMCf	46.0 - 65.8	<0.816	546,000	<0.3	<0.07	736,000	7,290	<0.121	<0.655	<2.18	<0.664	<3.02	7.344	2.22
LVWPS-MW107C	10/24/2022	N	BL02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<0.816	5,770,000	<0.3	<7	9,210,000	7,650	<12.1	<65.5	<2.18	<0.664	<3.02	63.475	3.92
Post-Construction Performance Monitoring Results																					
ZTS-MW147	5/26/2023	N	PM01	1B	Upgradient	-50	Alluvium	19.5 - 29.5	3.36	127,000	38	<0.07	726,000	12,600	0.137 J	1.19 J	<2.18	19.9	<3.02	8.526	1.07
ZTS-MW147	8/30/2023	N	PM02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	1.97 J	128,000	36.5	<0.07	686,000	11,800	0.131 J	0.683 J	<2.18	18.3	<3.02	6.851	3.09
ZTS-MW147	12/1/2023	N	PM03	1B	Upgradient	-50	Alluvium	19.5 - 29.5	2.35	130,000	36.7	<0.07	712,000	12,000	0.138 J	<0.655	<2.18	20	<3.02	6.567	4.2
ZTS-MW126	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	3.44	99,900	30.7	<0.07	652,000	13,900	0.212 J	<0.655	<2.18	26.1	3.26 J	8.193	1.5
ZTS-MW126	8/25/2023	N	PM02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	3.02	103,000	32	<0.07	665,000	12,200	0.141 J	<0.655	<2.18	24.1	4.03 J	6.176	2.93
ZTS-MW126	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	20.0 - 30.0	2.46	102,000	31.7	<0.07	699,000	13,500	0.146 J	<0.655	<2.18	25.5	11.2 J	0.075	7.65
ZTS-MW127R	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	18.5 - 23.0	5.76	106,000	37.4	<0.07	711,000	15,300	<0.121	<0.655	<2.18	19.7	<3.02	7.884	4.31
ZTS-MW127R	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	18.5 - 23.0	2.22	110,000	37.7	<0.07	712,000	15,300	<0.121	<0.655	<2.18	20.8	<3.02	7.334	4.76
ZTS-MW127R	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	18.5 - 23.0	5.97	109,000	35.8	<0.07	717,000	14,700	<0.121	<0.655	<2.18	21	7 J	6.707	3.25
ZTS-MW169	5/24/2023	N	PM01	1B	Upgradient	-8	Alluvium	17.1 - 27.0	6.95	132,000	40.9	<0.07	745,000	15,000	<0.121	0.762 J	<2.18	18.5	5.26 J	8.117	2.89
ZTS-MW169	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	17.1 - 27.0	2.07	134,000	38.7	<0.07	736,000	13,000	<0.121	<0.655	<2.18	21.1	<3.02	7.244	3.59
ZTS-MW169	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	17.1 - 27.0	30.9	125,000	35.6	<0.07	711,000	12,800	<0.121	<0.655	<2.18	19.9	10.2 J	6.582	3.85
ZTS-MW170	5/24/2023	N	PM01	1B	Upgradient	-8	UMCf	31.1 - 41.0	18.3	108,000	20.7	<0.07	587,000	11,000	0.134 J	<0.655	<2.18	15.5	6.72 J	6.764	1.22
ZTS-MW170	8/29/2023	N	PM02	1B	Upgradient	-8	UMCf	31.1 - 41.0	2.19	102,000	25.4	0.0773 J	593,000	11,200	0.246 J	0.835 J	<2.18	19	<3.02	5.938	0.91
ZTS-MW170	11/30/2023	N	PM03	1B	Upgradient	-8	UMCf	31.1 - 41.0	2.16	99,700	24.9	<0.07	632,000	12,100	0.137 J	<0.655	<2.18	19.9	8.12 J	5.581	1.09
ZTS-MW166	5/23/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.8 - 29.5	2.2	91,500	<0.3	<0.07	711,000	13,500	<0.121	<0.655	<2.18	<0.664	<3.02	7.856	0.25
ZTS-MW166	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.8 - 29.5	2.7	65,800	13.3	<0.07	617,000	10,900	<0.121	<0.655	<2.18	<0.664	<3.02	5.824	0.33
ZTS-MW166	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.8 - 29.5	2.19	121,000	1.46 J	<0.07	752,000	13,800	<0.121	<0.655	<2.18	<0.664	<3.02	6.741	1.15
ZTS-MW171	5/22/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.3 - 29.0	2.62	131,000	8.47	<0.07	713,000	13,300	<0.121	0.831 J	<2.18	<0.664	<3.02	5.916	1.4
ZTS-MW171	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.3 - 29.0	2.18	130,000	13.5	<0.07	678,000	11,600	<0.121	0.703 J	<2.18	<0.664	3.71 J	6.72	0.48
ZTS-MW171	11/27/2023	N	PM03	1B	Center of Trench	0	Alluvium	19.3 - 29.0	2.42	140,000	11.9	<0.07	749,000	11,600	<0.121	<0.655	<2.18	<0.664	<3.02	7.163	0.1
ZTS-MW178	5/25/2023	N	PM01	1B	Center of Trench	0	Alluvium	17.8 - 27.5	1.96 J	122,000	<0.3	<0.07	702,000	14,300	<0.121	<0.655	<2.18	<0.664	<3.02	6.683	0.05
ZTS-MW178	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	17.8 - 27.5	1.86 J	128,000	<0.3	<0.07	677,000	12,200	<0.121	<0.655	<2.18	<0.664	3.81 J	7.036	0.3
ZTS-MW178	11/28/2023	N	PM03	1B	Center of Trench	0	Alluvium	17.8 - 27.5	1.87 J	139,000	<0.3	<0.07	660,000	13,200	<0.121	<0.655	<2.18	<0.664	<3.02	6804	0
ZTS-MW167	5/24/2023	N	PM01	1B	Downgradient	5	Alluvium	23.3 - 33.0	3.38	116,000	0.468 J	<0.07	711,000	13,600	0.175 J	<0.655	<2.18	3.28 J	<3.02	6.449	0.23
ZTS-MW167	8/22/2023	N	PM02	1B	Downgradient	5	Alluvium	23.3 - 33.0	2.05	108,000	1.51 J	<0.07	646,000	11,900	<0.121	<0.655	<2.18	2.42 J	<3.02	6.669	1.11
ZTS-MW167	11/28/2023	N	PM03	1B	Downgradient	5	Alluvium	23.3 - 33.0	2.26	127,000	1.68 J	<0.07	759,000	12,900	<0.121	<0.655	<2.18	3.37 J	29.1	6997	0.1
ZTS-MW172	5/23/2023	N	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	2.46	115,000	1.51 J	<0.07	717,000	13,800	0.149 J	<0.655	<2.18	12	<3.02	6.918	0.23
ZTS-MW172	5/23/2023	FD	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	2.35	113,000	1.5 J	<0.07	707,000	13,400	0.134 J	<0.655	<2.18	12.2	<3.02	----	----
ZTS-MW172	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	3.44	126,000	6.81	<0.07	754,000	13,200	0.13 J	<0.655	<2.18	6.23	4.21 J	6.884	0.41
ZTS-MW172	8/23/2023	FD	PM02	1B	Downgradient	5	Alluvium	17.3 - 27.0	3.48	130,000	6.56	<0.07	774,000	13,300	0.159 J	<0.655	<2.18	5.91	<3.02	----	----
ZTS-MW172	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	2.26	123,000	1.31 J	<0.07	698,000	12,500	0.136 J	<0.655	<2.18	4.29 J	<3.02	6882	0.2
ZTS-MW172	11/30/2023	FD	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	2.16	118,000	1.28 J	<0.07	670,000	11,900	0.125 J	<0.655	<2.18	4.17 J	<3.02	----	----

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	
ZTS-MW173	5/25/2023	N	PM01	1B	Downgradient	5	UMCf	33.3 - 43.0	2.18	122,000	6.02	<0.07	532,000	9,080	<0.121	0.941 J	<2.18	5.38	3.46 J	4.497	0.29	
ZTS-MW173	8/22/2023	N	PM02	1B	Downgradient	5	UMCf	33.3 - 43.0	3	139,000	5.27	<0.07	526,000	9,020	<0.121	0.851 J	<2.18	3.86 J	7.7 J	7.005	3.37	
ZTS-MW173	11/29/2023	N	PM03	1B	Downgradient	5	UMCf	33.3 - 43.0	5.24	158,000	2.64	<0.07	500,000	9,820	<0.121	<0.655	<2.18	2.23 J	<3.02	5270	2.8	
ZTS-MW179	5/25/2023	N	PM01	1B	Downgradient	5	Alluvium	18.3 - 23.0	2.62	123,000	0.483 J	<0.07	680,000	14,600	0.306 J	<0.655	<2.18	12.9	<3.02	6.227	0.25	
ZTS-MW179	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	18.3 - 23.0	2.38	133,000	0.844 J	<0.07	770,000	14,500	0.235 J	<0.655	<2.18	9.52	<3.02	6.842	0.39	
ZTS-MW179	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	18.3 - 23.0	2.17	130,000	0.581 J	<0.07	689,000	14,100	0.169 J	<0.655	<2.18	6.26	<3.02	6942	0.5	
ZTS-MW168	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	2.33	125,000	2.21 J	<0.07	728,000	13,300	0.233 J	<0.655	<2.18	9.61 J+	3.32 J	6.583	0.18	
ZTS-MW168	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	2.32	119,000	5.19	<0.07	695,000	11,900	0.134 J	<0.655	<2.18	6.8	<3.02	6.812	0.44	
ZTS-MW168	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	----	----	----	----	----	----	----	----	----	----	5.681	0.56	
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	2.93	111,000	1.03 J	<0.07	648,000	12,300	0.142 J	<0.655	<2.18	5.73	<3.02	6737	0.1	
ZTS-MW174	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	2.99	137,000	8.8	<0.07	732,000	13,700	0.196 J	<0.655	<2.18	9.17 J+	4.25 J	7.138	0.35	
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	2.27	120,000	1.46 J	<0.07	648,000	12,000	0.15 J	1.08 J	<2.18	6.94	10.7 J	6.894	0.36	
ZTS-MW174	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	----	----	----	----	----	----	----	----	----	----	5.686	0.27	
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	3.34	123,000	<0.3	<0.07	653,000	11,300	0.188 J	<0.655	<2.18	7.56	6.4 J	6691	0	
ZTS-MW177	5/25/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	3.02	118,000	4.65	<0.07	708,000	14,200	0.184 J	0.774 J	<2.18	8.16	<3.02	6.585	0.39	
ZTS-MW177	8/23/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	2.92	124,000	2.44 J+	<0.07	784,000	13,900	0.174 J	<0.655	<2.18	9.29	<3.02	7.059	0.39	
ZTS-MW177	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	1.45 J	115,000	2	<0.07	631,000	13,100	<0.121	<0.655	<2.18	9.01	<3.02	6729	0.1	
ZTS-MW180	5/24/2023	N	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	2.44	136,000	41.1	<0.07	674,000	13,700	<0.121	<0.655	<2.18	22.2	4.21 J	6.314	2.63	
ZTS-MW180	5/24/2023	FD	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	1.88 J	125,000	39.9	<0.07	646,000	14,100	0.138 J	<0.655	<2.18	20.8	<3.02	----	----	
ZTS-MW180	8/24/2023	N	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	3.36	133,000	41.9	<0.07	661,000	14,600	<0.121	<0.655	<2.18	24.2	5.27 J	7.011	3.43	
ZTS-MW180	8/24/2023	FD	PM02	1B	Downgradient	25	Alluvium	17.8 - 22.5	2.37	134,000	42	<0.07	671,000	14,000	<0.121	<0.655	<2.18	24.5	<3.02	----	----	
ZTS-MW180	11/30/2023	N	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	1.82 J	143,000	35	<0.07	657,000	14,000	<0.121	<0.655	<2.18	21.2	<3.02	7125	2.1	
ZTS-MW180	11/30/2023	FD	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	1.87 J	146,000	36.6	<0.07	677,000	14,400	<0.121	<0.655	<2.18	21.3	<3.02	----	----	
ZTS-MW148	5/25/2023	N	PM01	1B	Downgradient	35	Alluvium	22.0 - 32.0	2.49	130,000	10	<0.07	708,000	13,400	0.189 J	<0.655	<2.18	10.4	<3.02	6.532	2.2	
ZTS-MW148	8/23/2023	N	PM02	1B	Downgradient	35	Alluvium	22.0 - 32.0	3.23	137,000	2.41 J+	<0.07	779,000	13,400	0.25 J	<0.655	<2.18	10.7	4.61 J	7.1	0.41	
ZTS-MW148	11/28/2023	N	PM03	1B	Downgradient	35	Alluvium	22.0 - 32.0	2.4	138,000	<0.3	<0.07	733,000	12,800	0.231 J	<0.655	<2.18	11.8	<3.02	6987	0.2	
LVWPS-MW107A	5/23/2023	N	PM01	NA	Downgradient	50	Alluvium	24.8 - 34.5	2.65	122,000	6.31	<0.07	689,000	13,200	0.258 J	<0.655	<2.18	7.23	<3.02	7.217	0.49	
LVWPS-MW107A	8/24/2023	N	PM02	NA	Downgradient	50	Alluvium	24.8 - 34.5	2.36	126,000	2.03	<0.07	683,000	13,100	0.251 J	<0.655	<2.18	8.43	<3.02	7.181	0.52	
LVWPS-MW107A	11/30/2023	N	PM03	NA	Downgradient	50	Alluvium	24.8 - 34.5	2.1	131,000	1.64 J	<0.07	662,000	13,100	0.221 J	<0.655	<2.18	6.94	<3.02	6856	0.1	
LVWPS-MW107B	5/23/2023	N	PM01	NA	Downgradient	50	UMCf	46.0 - 65.8	<0.816	492,000	<0.3	<0.07	746,000	7,710	<0.121	<0.655	<2.18	<0.664	<3.02	8.326	0.94	
LVWPS-MW107B	8/24/2023	N	PM02	NA	Downgradient	50	UMCf	46.0 - 65.8	3.97	211,000	1.31 J	<0.07	308,000	4,310	<0.121	<0.655	<2.18	5.72	<3.02	4.333	5.77	
LVWPS-MW107B	12/1/2023	N	PM03	NA	Downgradient	50	UMCf	46.0 - 65.8	<0.816	113,000	2.17	<0.07	171,000	3,130	<0.121	<0.655	<2.18	6.49	<3.02	2666	2.4	
LVWPS-MW107C	5/23/2023	N	PM01	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<0.816	5,590,000	<0.3	<0.07	8,170,000	8,290	<2.42	<0.655	<2.18	<0.664	<3.02	65.406	0.37	
LVWPS-MW107C	8/24/2023	N	PM02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<8.16	5,510,000	<3	<0.7	8,350,000	9,480	<1.21	<6.55	<21.8	<6.64	<30.2	66.679	5.95	
LVWPS-MW107C	12/1/2023	N	PM03	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	<8.16	5,340,000	<3	<0.7	8,100,000	8,280	<1.21	<6.55	<21.8	<6.64	<30.2	63026	0.2	
ZTS-MW175	5/26/2023	N	PM01	1B	Downgradient	100	Alluvium	19.8 - 29.5	1.99 J	120,000	12.7	<0.07	733,000	13,500	0.137 J	0.892 J	<2.18	19.5	<3.02	5.253	1.18	
ZTS-MW175	8/25/2023	N	PM02	1B	Downgradient	100	Alluvium	19.8 - 29.5	2.13	121,000	1.06 J	<0.07	685,000	13,400	0.132 J	<0.655	<2.18	17.1	<3.02	7.034	0.39	
ZTS-MW175	11/30/2023	N	PM03	1B	Downgradient	100	Alluvium	19.8 - 29.5	1.72 J	115,000	0.604 J	<0.07	629,000	12,700	0.131 J	<0.655	<2.18	14.6	<3.02	6911	0.5	
ZTS-MW176	5/26/2023	N	PM01	1B	Downgradient	150	Alluvium	19.8 - 29.5	2.46	104,000	10.2	<0.07	724,000	14,200	0.212 J	1.03 J	<2.18	21.7	<3.02	4.807	1.27	
ZTS-MW176	8/25/2023	N	PM02	1B	Downgradient	150	Alluvium	19.8 - 29.5	2.26	109,000	5.13	<0.07	698,000	13,400	0.153 J	<0.655	<2.18	20.2	<3.02	7.196	0.43	
ZTS-MW176	12/5/2023	N	PM03	1B	Downgradient	150	Alluvium	19.8 - 29.5	2.02	119,000	9.43	<0.07	745,000	13,700	0.16 J	<0.655	<2.18	19.5	<3.02	6.791	1.55	

Test Area 2A

**Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L		
Pre-Construction Baseline Results																					
ZTS-MW137	10/20/2022	N	BL02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	4.69	157,000	42.8	<0.07	718,000	12,400	<0.121	<0.655	<2.18	18.4	<3.02	4.917	5.37
ZTS-MW118	9/1/2022	N	BL01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	----	----	----	----	----	----	----	----	----	----	7.639	3.07
ZTS-MW118	10/21/2022	N	BL02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	3.14	117,000	42.3	<0.07	780,000	16,700	<0.121	<0.655	<2.18	18	<3.02	4.031	3.4
ZTS-MW138	10/20/2022	N	BL02	2A	Downgradient	5	Alluvium	14.0 - 24.0	3.16	162,000	42.3	<0.07	717,000	11,600	<0.121	<0.655	<2.18	14.7	<3.02	5.205	4.22
ZTS-MW139	10/21/2022	N	BL02	2A	Downgradient	5	Alluvium	13.0 - 23.0	6.12	129,000	41.1	<0.07	762,000	14,900	<0.121	<0.655	<2.18	12.5	<3.02	4.133	3.25
LVWPS-MW102A	10/21/2022	N	BL02	NA	Downgradient	30	UMCf	47.0 - 66.6	<0.816	519,000	56.5	<0.07	1,250,000	10,600	<0.121	<0.655	<2.18	27.5	<3.02	11.664	0.55
LVWPS-MW102B	10/21/2022	N	BL02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<0.816	4,840,000	<0.3	<7	8,060,000	10,400	<12.1	<65.5	<2.18	<0.664	<3.02	49.317	0.48
ZTS-MW113	10/25/2022	N	BL02	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	2.85	155,000	46.2	<0.07	635,000	13,200	<0.121	<0.655	<2.18	19.2	<3.02	7.997	2.89
Post-Construction Performance Monitoring Results																					
ZTS-MW137	5/31/2023	N	PM01	2A	Upgradient	-9	Alluvium	14.0 - 24.0	2.22	131,000	38.2	<0.07	726,000	11,400	<0.121	<0.655	<2.18	18	<3.02	7.054	4.96
ZTS-MW137	8/24/2023	N	PM02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	2.17	126,000	40	<0.07	677,000	11,500	<0.121	<0.655	<2.18	20.9	3.6 J	6.633	4.84
ZTS-MW137	12/1/2023	N	PM03	2A	Upgradient	-9	Alluvium	14.0 - 24.0	2.51	122,000	39.8	<0.07	713,000	11,000	<0.121	<0.655	<2.18	20	<3.02	6.965	4.99
ZTS-MW118	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	2.21	105,000	38.7	<0.07	688,000	14,300 J	2.09	<0.655	<2.18	15.2	<3.02	6.733	3.67
ZTS-MW118	5/31/2023	FD	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	2.16	114,000	40.6	<0.07	752,000	14,100	1.85 J	<0.655	<2.18	15.9	<3.02	----	----
ZTS-MW118	8/24/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	2.21	112,000	43	<0.07	788,000	13,900	<0.121	<0.655	<2.18	19.1	<3.02	6.614	3.19
ZTS-MW118	8/24/2023	FD	PM02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	2.76	115,000	44	0.137 J	699,000	14,000	0.703 J	0.932 J	<2.18	19.5	<3.02	----	----
ZTS-MW118	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	2.57	123,000	42.7	<0.07	717,000	13,200	<0.121	<0.655	<2.18	18.1	<3.02	7.272	3.3
ZTS-MW118	12/1/2023	FD	PM03	2A	Upgradient	-3	Alluvium	13.5 - 23.5	2.64	122,000	43.2	<0.07	723,000	13,100	<0.121	<0.655	<2.18	18.5	<3.02	----	----
ZTS-MW190	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	14.3 - 24.0	2.17	128,000	36.9	<0.07	727,000	12,400	<0.121	<0.655	<2.18	16.9	<3.02	6.859	4.29
ZTS-MW190	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	14.3 - 24.0	2.07	123,000	38.8	<0.07	711,000	12,400	<0.121	<0.655	<2.18	18	<3.02	6.398	4.38
ZTS-MW190	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	14.3 - 24.0	2.06	128,000	41	<0.07	724,000	11,300	<0.121	<0.655	<2.18	19.6	<3.02	7.017	3.31
ZTS-MW196	5/30/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.8 - 23.5	1.97 J	134,000	35.8	<0.07	686,000	11,500	<0.121	<0.655	<2.18	16.9	<3.02	7.466	4.85
ZTS-MW196	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.8 - 23.5	2.27	134,000	38.5	<0.07	706,000	10,500	<0.121	<0.655	<2.18	17.9	<3.02	6.539	4.14
ZTS-MW196	11/30/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.8 - 23.5	2.11	122,000	37.3	<0.07	709,000	11,500	<0.121	<0.655	<2.18	19.2	9.95 J	6.832	3.6
ZTS-MW202	5/30/2023	N	PM01	2A	Upgradient	-3	UMCf	28.8 - 38.5	2.16	136,000	34.8	<0.07	662,000	9,400	0.152 J	<0.655	<2.18	14.6	3.2 J	7.119	4.56
ZTS-MW202	8/28/2023	N	PM02	2A	Upgradient	-3	UMCf	28.8 - 38.5	2.1	122,000	33.2	<0.07	637,000	9,750	0.194 J	<0.655	<2.18	15.7	7.3 J	6.112	4.69
ZTS-MW202	12/1/2023	N	PM03	2A	Upgradient	-3	UMCf	28.8 - 38.5	2.26	115,000	29.6	<0.07	623,000	10,500	<0.121	<0.655	<2.18	10.6	<3.02	4.958	1.26
ZTS-MW192	5/22/2023	N	PM01	2A	Center of Array	0	Alluvium	14.3 - 24.0	3.29	133,000	36.4	<0.07	706,000	11,500	<0.121	1.15 J	<2.18	11.6	<3.02	6.886	4.71
ZTS-MW192	8/21/2023	N	PM02	2A	Center of Array	0	Alluvium	14.3 - 24.0	2.14	129,000	42.1	<0.07	665,000	11,400	<0.121	<0.655	<2.18	16.8	5.17 J	6.556	4.38
ZTS-MW192	11/28/2023	N	PM03	2A	Center of Array	0	Alluvium	14.3 - 24.0	3.71	137,000	40	<0.07	710,000	12,100	<0.121	<0.655	<2.18	19.3	<3.02	7.121	4.38
ZTS-MW191	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.8 - 24.5	2.7	122,000	8.63	<0.07	741,000	12,300	<0.121	0.667 J	<2.18	1.23 J	<3.02	6.105	1.63
ZTS-MW191	8/22/2023	N	PM02	2A	Downgradient	1	Alluvium	14.8 - 24.5	1.96 J	103,000	10.5	<0.07	642,000	11,100	<0.121	<0.655	<2.18	1.62 J	7.71 J	7.178	3.98
ZTS-MW191	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.8 - 24.5	3.23	117,000	14.4	<0.07	713,000	12,200	<0.121	<0.655	<2.18	4.2 J	<3.02	6.73	1.58
ZTS-MW195	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.3 - 24.0	2.7	127,000	34.5	<0.07	714,000	12,400	<0.121	<0.655	<2.18	14.4	<3.02	5.918	3.42
ZTS-MW195	8/21/2023	N	PM02	2A	Downgradient	1	Alluvium	14.3 - 24.0	2.24	124,000	37.8	<0.07	674,000	11,800	0.193 J	<0.655	<2.18	15.2	<3.02	6.624	3.67
ZTS-MW195	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.3 - 24.0	3.41	130,000	39.6	<0.07	678,000	11,400	<0.121	<0.655	<2.18	17.3	<3.02	7.055	3.29
ZTS-MW138	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	14.0 - 24.0	3.84	147,000	39.5	<0.07	684,000	10,900	0.13 J	<0.655	<2.18	17.6	3.79 J	7.03	4.93
ZTS-MW138	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	14.0 - 24.0	2.72	134,000	40.1	<0.07	676,000	9,660	<0.121	0.802 J	<2.18	18	5.22 J	6.578	5.09
ZTS-MW138	11/28/2023	N	PM03	2A	Downgradient	5	Alluvium	14.0 - 24.0	2.9	134,000	40.6	<0.07	726,000	11,800	<0.121	<0.655	<2.18	20.3	<3.02	7.104	5.39
ZTS-MW139	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	13.0 - 23.0	2.98	136,000	32.7	<0.07	693,000	11,300	<0.121	<0.655	<2.18	16	6.02 J	7.002	1.14
ZTS-MW139	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	13.0 - 23.0	2.28	123,000	36.1	<0.07	684,000	11,600	<0.121	<0.655	<2.18	15.5	<3.02	6.712	2.64
ZTS-MW139	11/29/2023	N	PM03	2A	Downgradient	5	Alluvium	13.0 - 23.0	4	113,000	36.8	<0.07	635,000	11,900	<0.121	<0.655	<2.18	16.2	<3.02	6.829	2.75
ZTS-MW193	5/25/2023	N	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	3	129,000	38.5	<0.07	709,000	12,500	0.124 J	0.66 J	<2.18	15.4	<3.02	7.165	1.54
ZTS-MW193	5/25/2023	FD	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	2.71	124,000	39.1	<0.07	690,000	12,200	<0.121	<0.655	<2.18	15.9	<3.02	----	----
ZTS-MW193	8/22/2023	N	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	1.87 J	126,000	38.5	<0.07	664,000	11,400	<0.121	<0.655	<2.18	14.9	<3.02	6.559	2.56

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
ZTS-MW193	8/22/2023	FD	PM02	2A	Downgradient	5	Alluvium	13.6 - 23.3	1.73 J	130,000	38.4	<0.07	694,000	11,700	<0.121	<0.655	<2.18	15.6	<3.02	----	----
ZTS-MW193	11/30/2023	N	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	2.75	127,000	36.2	<0.07	679,000	11,700	<0.121	<0.655	<2.18	16.9	<3.02	7.096	4.78
ZTS-MW193	11/30/2023	FD	PM03	2A	Downgradient	5	Alluvium	13.6 - 23.3	2.75	120,000	36	<0.07	646,000	11,500	<0.121	<0.655	<2.18	15.6	<3.02	----	----
ZTS-MW203	5/30/2023	N	PM01	2A	Downgradient	5	UMCf	28.3 - 38.0	2.97	124,000	30.3	<0.07	652,000	10,400	0.153 J	<0.655	<2.18	15.5	3.85 J	6.503	0.85
ZTS-MW203	8/23/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	3.04	122,000	32.4	<0.07	713,000	10,900	0.21 J	<0.655	<2.18	17.7	21.3 J	6.047	1.27
ZTS-MW203	10/11/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	----	----	----	----	----	----	----	----	----	----	----	5.285	0.69
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	2.17	103,000	22.9	<0.07	554,000	9,660	<0.121	<0.655	<2.18	13.7	<3.02	5.538	1.33
ZTS-MW194	5/25/2023	N	PM01	2A	Downgradient	15	Alluvium	17.8 - 22.5	2.64	145,000	39.9	<0.07	683,000	11,000	0.152 J	<0.655	<2.18	17.7	<3.02	6.727	3.82
ZTS-MW194	8/22/2023	N	PM02	2A	Downgradient	15	Alluvium	17.8 - 22.5	1.74 J	139,000	41.6	<0.07	681,000	10,400	0.136 J	<0.655	<2.18	16.4	<3.02	6.483	4.64
ZTS-MW194	11/29/2023	N	PM03	2A	Downgradient	15	Alluvium	17.8 - 22.5	2.9	133,000	41.3	<0.07	651,000	10,900	0.137 J	<0.655	<2.18	18.7	<3.02	7.008	5.14
LVWPS-MW102A	5/30/2023	N	PM01	NA	Downgradient	30	UMCf	47.0 - 66.6	<0.816	514,000	55.8	<0.07	1,240,000	10,900	<0.121	<0.655	<2.18	27.2	<3.02	12.755	0.65
LVWPS-MW102A	8/23/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	0.842 J	491,000	65.5	<0.07	1,280,000	12,000	0.146 J	<0.655	<2.18	29.3	<3.02	11.692	0.42
LVWPS-MW102A	10/11/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	----	----	----	----	----	----	----	----	----	----	9.654	0.3
LVWPS-MW102A	10/11/2023	FS	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	----	----	----	----	----	----	----	----	----	----	----	----
LVWPS-MW102A	12/1/2023	N	PM03	NA	Downgradient	30	UMCf	47.0 - 66.6	1.25 J	401,000	62.1	<0.07	1,160,000	11,700	<0.121	<0.655	<2.18	27	<3.02	11.474	1.2
LVWPS-MW102B	5/26/2023	N	PM01	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<0.816	4,840,000	<0.3	<3.5	8,030,000	10,900	<6.05	<32.8	<2.18	<0.664	<3.02	57.269	0.51
LVWPS-MW102B	8/23/2023	N	PM02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<8.16	4,790,000	5.59 J	<0.7	7,900,000	11,500	<1.21	<6.55	<21.8	<6.64	<30.2	52.223	0.3
LVWPS-MW102B	12/1/2023	N	PM03	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	<8.16	4,590,000	<3	<0.7	7,310,000	11,200	<1.21	<6.55	<21.8	<6.64	<30.2	54.624	1.03
ZTS-MW197	5/26/2023	N	PM01	2A	Downgradient	55	Alluvium	12.8 - 22.5	2.01	127,000	36.6	<0.07	680,000	12,100	0.131 J	<0.655	<2.18	15.3	<3.02	6.438	3.92
ZTS-MW197	8/22/2023	N	PM02	2A	Downgradient	55	Alluvium	12.8 - 22.5	1.65 J	128,000	37.9	<0.07	649,000	11,500	<0.121	<0.655	<2.18	16.2	<3.02	6.552	4
ZTS-MW197	11/30/2023	N	PM03	2A	Downgradient	55	Alluvium	12.8 - 22.5	1.92 J	130,000	36	<0.07	657,000	11,600	<0.121	<0.655	<2.18	17.1	<3.02	6.737	5.74
ZTS-MW113	5/26/2023	N	PM01	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	2.54	149,000	38.8	<0.07	684,000	11,300	0.162 J	0.847 J	<2.18	17.7	<3.02	6.666	4.65
ZTS-MW113	8/24/2023	N	PM02	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	2.51	120,000	39.6	<0.07	720,000	12,400	0.131 J	<0.655	<2.18	21.9	<3.02	6.159	3.03
ZTS-MW113	11/30/2023	N	PM03	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	2.97	109,000	34.2	<0.07	611,000	12,400	0.147 J	<0.655	<2.18	18.8	<3.02	6.75	4.54
Test Area 2B																					
Pre-Construction Baseline Results																					
ZTS-MW133	10/20/2022	N	BL02	2B	Upgradient	-9	UMCf	54.0 - 69.0	<0.816	151,000	35.1	<0.07	780,000	8,890	<0.121	<0.655	<2.18	23.8	<3.02	4.71	1.35
ZTS-MW117	9/1/2022	N	BL01	2B	Upgradient	-2	UMCf	40.5 - 55.5	----	----	----	----	----	----	----	----	----	----	----	5.788	2.29
ZTS-MW117	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<0.816	94,700	<0.3	<0.07	426,000	3,420	<0.121	<0.655	<2.18	<0.664	<3.02	2.013	1.7
ZTS-MW117	10/19/2022	FD	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<0.816	93,800	<0.3	<0.07	416,000	3,380	<0.121	<0.655	<2.18	<0.664	<3.02	----	----
ZTS-MW134	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	26.0 - 36.0	2.85	179,000	40.4	<0.07	704,000	11,400	<0.121	<0.655	<2.18	16.3	162	3.823	4.84
ZTS-MW135	10/19/2022	N	BL02	2B	Downgradient	7	UMCf	54.0 - 69.0	<0.816	153,000	38.8	<0.07	765,000	11,100	<0.121	<0.655	<2.18	24.9	39.8	4.194	1.41
ZTS-MW136	10/20/2022	N	BL02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.816	102,000	8.42	<0.07	458,000	5,240	<0.121	<0.655	<2.18	<0.664	<3.02	3.095	1.23
Post-Construction Performance Monitoring Results																					
ZTS-MW133	5/23/2023	N	PM01	2B	Upgradient	-9	UMCf	54.0 - 69.0	<0.816	152,000	40.1	<0.07	743,000	11,200	<0.121	7.29	<2.18	24.8	19.3 J	4.27	1.18
ZTS-MW133	8/30/2023	N	PM02	2B	Upgradient	-9	UMCf	54.0 - 69.0	<0.816	151,000	39.8	<0.07	718,000	10,100	<0.121	<0.655	<2.18	24.6	<3.02	6.904	0.53
ZTS-MW133	12/4/2023	N	PM03	2B	Upgradient	-9	UMCf	54.0 - 69.0	<0.816	148,000	41.6	<0.07	781,000	11,200	<0.121	<0.655	<2.18	26	<3.02	7.645	1.69
ZTS-MW117	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	40.5 - 55.5	1.01 J	80,200	<0.3	<0.07	381,000	4,330	<0.121	0.844 J	<2.18	<0.664	3.16 J	4.048	2.35
ZTS-MW117	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	40.5 - 55.5	<0.816	113,000	<0.3	<0.07	575,000	6,240	<0.121	<0.655	<2.18	0.989 J	4.87 J	5.283	0.88
ZTS-MW117	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	40.5 - 55.5	32.9	134,000	6.62	1.61 J	641,000	8,210	12.9	2.11	<2.18	5.8	40.9	5.959	0.32
ZTS-MW134	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	26.0 - 36.0	3.32	138,000	35.4	<0.07	657,000	11,600	<0.121	0.869 J	<2.18	17.5	8.21 J	8.134	4
ZTS-MW134	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	26.0 - 36.0	2.63	128,000	36.3	<0.07	703,000	11,300	<0.121	<0.655	<2.18	19.4	7.76 J	6.522	4.13
ZTS-MW134	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	26.0 - 36.0	2.26	126,000	30.7	<0.07	648,000	11,200	<0.121	<0.655	<2.18	17.5	<3.02	6.205	2.13

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
ZTS-MW198	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	26.1 - 46.0	3	120,000	4.73	<0.07	622,000	8,550	<0.121	1.05 J	<2.18	4.53 J	3.27 J	6.361	9.99
ZTS-MW198	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	26.1 - 46.0	1.22 J	124,000	11.4	<0.07	643,000	9,590	<0.121	<0.655	<2.18	5.63	8.68 J	5.124	1.55
ZTS-MW198	11/27/2023	N	PM03	2B	Downgradient	2	UMCf	26.1 - 46.0	0.947 J	147,000	0.888 J	<0.07	726,000	9,310	<0.121	<0.655	<2.18	3.97 J	<3.02	6.544	2.53
ZTS-MW200	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	0.903 J	134,000	0.873 J	<0.07	753,000	10,200	<0.121	0.957 J	<2.18	<0.664	<3.02	7.098	5.5
ZTS-MW200	5/23/2023	FD	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	0.855 J	137,000	0.781 J	<0.07	739,000	10,100	<0.121	<0.655	<2.18	<0.664	<3.02	----	----
ZTS-MW200	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	20.1	142,000	0.904 J	<0.07	724,000	9,620	<0.121	<0.655	<2.18	<0.664	7.39 J	0.058	8.08
ZTS-MW200	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	<0.816	154,000	0.733 J	<0.07	790,000	11,200	<0.121	<0.655	<2.18	<0.664	<3.02	13.345	0.23
ZTS-MW201	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	27.1 - 47.0	3.15	127,000	7.21	<0.07	617,000	8,300	<0.121	<0.655	<2.18	2.17 J	8.27 J	6.689	1.43
ZTS-MW201	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	27.1 - 47.0	1.6 J	120,000	21.4	<0.07	713,000	8,900	<0.121	0.766 J	<2.18	6.67	3.19 J	5.686	0.91
ZTS-MW201	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	27.1 - 47.0	1.09 J	138,000	21.1	<0.07	603,000	10,400	<0.121	<0.655	<2.18	8.86	<3.02	13.359	0.29
ZTS-MW206	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	3.28	153,000	19.1	<0.07	733,000	9,800	<0.121	<0.655	<2.18	15	4.15 J	8.368	0.44
ZTS-MW206	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	1.59 J	141,000	35.3	<0.07	685,000	8,940	<0.121	<0.655	<2.18	18.4	3.03 J	0.05	7.45
ZTS-MW206	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	1.48 J	162,000	36.8	<0.07	760,000	11,500	<0.121	<0.655	<2.18	23.9	<3.02	15.213	0.25
ZTS-MW199	5/23/2023	N	PM01	2B	Downgradient	5	UMCf	50.1 - 65.0	1.96 J	130,000	44.2	<0.07	758,000	11,100	<0.121	0.817 J	<2.18	21.6	<3.02	7.899	5.73
ZTS-MW199	8/22/2023	N	PM02	2B	Downgradient	5	UMCf	50.1 - 65.0	0.986 J	126,000	48.6	<0.07	699,000	10,300	0.135 J	<0.655	<2.18	22.8	<3.02	6.159	0.94
ZTS-MW199	11/28/2023	N	PM03	2B	Downgradient	5	UMCf	50.1 - 65.0	<0.816	143,000	51.8	<0.07	771,000	12,700	0.137 J	<0.655	<2.18	27.2	<3.02	15.341	0.18
ZTS-MW207	5/24/2023	N	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	2.17	108,000	5.59	<0.07	526,000	6,520	<0.121	<0.655	<2.18	4.77 J	8.01 J	5.178	2.32
ZTS-MW207	5/24/2023	FD	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	2.45	122,000	6.02	<0.07	548,000	7,440	<0.121	<0.655	<2.18	5.16	7.63 J	----	----
ZTS-MW207	8/23/2023	N	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	1.26 J	119,000	2.96 J+	<0.07	575,000	6,490	<0.121	<0.655	<2.18	1.74 J	<3.02	3.904	1.11
ZTS-MW207	8/23/2023	FD	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	1.27 J	117,000	2.86 J+	<0.07	565,000	6,400	<0.121	<0.655	<2.18	1.93 J	<3.02	----	----
ZTS-MW207	11/29/2023	N	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	<0.816	115,000	3.6	<0.07	508,000	6,170	<0.121	<0.655	<2.18	1.58 J	<3.02	4.53	0.25
ZTS-MW207	11/29/2023	FD	PM03	2B	Downgradient	5	UMCf	26.1 - 46.0	0.902 J	119,000	3.22	<0.07	543,000	6,700	<0.121	<0.655	<2.18	1.42 J	3.08 J	----	----
ZTS-MW135	5/26/2023	N	PM01	2B	Downgradient	7	UMCf	54.0 - 69.0	3.35	138,000	54.3	<0.07	796,000	11,700	0.165 J	0.982 J	<2.18	25.9	<3.02	7.334	0.48
ZTS-MW135	8/24/2023	N	PM02	2B	Downgradient	7	UMCf	54.0 - 69.0	1.87 J	138,000	57.7	<0.07	825,000	11,700	0.156 J	<0.655	<2.18	28.6	<3.02	7.108	0.78
ZTS-MW135	11/30/2023	N	PM03	2B	Downgradient	7	UMCf	54.0 - 69.0	4.47	134,000	57	<0.07	773,000	11,900	0.154 J	<0.655	<2.18	27.3	9.41 J	7.452	0.22
ZTS-MW136	5/26/2023	N	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.816	99,300	0.76 J	<0.07	428,000	4,130	<0.121	<0.655	<2.18	<0.664	<3.02	3.703	1.01
ZTS-MW136	5/26/2023	FD	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.816	103,000	0.761 J	<0.07	429,000	4,010	<0.121	<0.655	<2.18	<0.664	<3.02	----	----
ZTS-MW136	8/25/2023	N	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.816	103,000	0.518 J	<0.07	432,000	4,210	<0.121	<0.655	<2.18	<0.664	<3.02	0.034	7.83
ZTS-MW136	8/25/2023	FD	PM02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	2.23	101,000	0.569 J	<0.07	434,000	3,980	<0.121	<0.655	<2.18	<0.664	<3.02	----	----
ZTS-MW136	11/29/2023	N	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.816	106,000	0.448 J	<0.07	450,000	4,680	<0.121	<0.655	<2.18	<0.664	<3.02	3.95	0.19
ZTS-MW136	11/29/2023	FD	PM03	2B	Cross Gradient	7	UMCf	27.0 - 47.0	<0.816	110,000	<0.3	<0.07	451,000	4,580	<0.121	<0.655	<2.18	<0.664	<3.02	----	----
ZTS-MW208	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	26.1 - 46.0	4.11	134,000	26.9	<0.07	626,000	10,800	0.138 J	0.75 J	<2.18	14.4	6.16 J	6.576	4.63
ZTS-MW208	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	26.1 - 46.0	2.97	140,000	32.4	<0.07	734,000	11,300	0.197 J	<0.655	<2.18	17.8	3.9 J	5.642	2.93
ZTS-MW208	11/28/2023	N	PM03	2B	Downgradient	15	UMCf	26.1 - 46.0	1.51 J	140,000	29.4	<0.07	689,000	12,100	0.126 J	<0.655	<2.18	16	<3.02	12.933	1.61
ZTS-MW209	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	50.6 - 65.5	1.44 J	146,000	52.9	<0.07	807,000	12,100	<0.121	<0.655	<2.18	23.9	<3.02	8.446	0.79
ZTS-MW209	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	50.6 - 65.5	1.84 J	144,000	64.8	<0.07	881,000	12,100	<0.121	<0.655	<2.18	28.7	6.68 J	6.601	0.83
ZTS-MW209	11/29/2023	N	PM03	2B	Downgradient	15	UMCf	50.6 - 65.5	1.02 J	139,000	66.3	<0.07	804,000	12,300	0.27 J	<0.655	<2.18	29	<3.02	7.22	0.28
Test Area 2C																					
Pre-Construction Baseline Results																					
ZTS-MW140	10/21/2022	N	BL02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	3.26	141,000	40.2	<0.07	782,000	12,100	<0.121	<0.655	<2.18	19.9	<3.02	4.139	4.97
ZTS-MW119	9/1/2022	N	BL01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	----	----	----	----	----	----	----	----	----	----	----	7.085	3.05
ZTS-MW119	10/19/2022	N	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	2.42	131,000	39.7	<0.07	701,000	13,300	<0.121	<0.655	<2.18	20.1	<3.02	6.421	4.57
ZTS-MW119	10/19/2022	FD	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	2.23	137,000	40.2	<0.07	755,000	13,900	<0.121	<0.655	<2.18	19.7	<3.02	----	----
ZTS-MW141	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	14.5 - 24.5	2.94	116,000	43	<0.07	716,000	13,900	<0.121	<0.655	<2.18	18.4	<3.02	8.367	3.42
ZTS-MW142	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	16.0 - 26.0	2.79	135,000	39.5	<0.07	686,000	12,100	<0.121	<0.655	<2.18	22.2	<3.02	4.16	4.54
Post-Construction Performance Monitoring Results																					
ZTS-MW140	5/25/2023	N	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	2.25	118,000	39.9	<0.07	698,000	11,300	<0.121	0.726 J	<2.18	19.9	<3.02	3.4	5.48

**Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
									µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
ZTS-MW140	5/25/2023	FD	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	2.28	118,000	40.9	<0.07	728,000	11,900	<0.121	<0.655	<2.18	19.6	<3.02	----	----
ZTS-MW140	8/29/2023	N	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	2.05	116,000	37.7	<0.07	705,000	10,600	<0.121	<0.655	<2.18	19.8	<3.02	6.113	5.57
ZTS-MW140	8/29/2023	FD	PM02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	2.02	116,000	38.6	<0.07	672,000	11,500	<0.121	<0.655	<2.18	19.6	<3.02	----	----
ZTS-MW140	12/4/2023	N	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	2.3	117,000	38.7	<0.07	793,000	12,100	0.156 J	<0.655	<2.18	22.1	5.55 J	7.244	4.78
ZTS-MW140	12/4/2023	FD	PM03	2C	Upgradient	-9	Alluvium	15.5 - 25.5	2.19	114,000	37.8	<0.07	784,000	11,800	<0.121	<0.655	<2.18	21.8	4.92 J	----	----
ZTS-MW119	5/24/2023	N	PM01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	2.4	121,000	39.1	<0.07	689,000	11,000	<0.121	<0.655	<2.18	19.6	4.28 J	5.041	5.51
ZTS-MW119	8/29/2023	N	PM02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	2.2	113,000	38.6	<0.07	682,000	11,800	<0.121	<0.655	<2.18	20	<3.02	6.166	5.36
ZTS-MW119	12/4/2023	N	PM03	2C	Upgradient	-3	Alluvium	15.0 - 25.0	2.21	118,000	37.8	<0.07	781,000	12,100	<0.121	<0.655	<2.18	21.8	5.35 J	7.193	4.99
ZTS-MW181	5/25/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	2.48	96,300	40	<0.07	703,000	12,500	<0.121	<0.655	<2.18	17.8	<3.02	4.69	4.79
ZTS-MW181	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	2.29	100,000	36.9	<0.07	718,000	12,700	<0.121	<0.655	<2.18	18.4	<3.02	7.204	4.54
ZTS-MW181	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	2.23	115,000	36.3	<0.07	749,000	11,800	<0.121	<0.655	<2.18	21.5	<3.02	7.776	3.65
ZTS-MW188	5/26/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	3.82	122,000	39.5	<0.07	729,000	11,500	<0.121	0.732 J	<2.18	20.1	<3.02	6.728	5.46
ZTS-MW188	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	2.26	122,000	36.7	<0.07	711,000	11,300	<0.121	<0.655	<2.18	20.1	<3.02	6.991	5.64
ZTS-MW188	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	2.46	103,000	37.4	<0.07	777,000	13,900	<0.121	<0.655	<2.18	20	4.17 J	7.57	4.92
ZTS-MW204	5/25/2023	N	PM01	2C	Upgradient	-3	UMCf	30.3 - 40.0	1.56 J	86,500	16.9	<0.07	480,000	6,380	<0.121	<0.655	<2.18	7.13	<3.02	2.65	1.3
ZTS-MW204	8/25/2023	N	PM02	2C	Upgradient	-3	UMCf	30.3 - 40.0	1.64 J	93,000	19	<0.07	515,000	7,430	<0.121	<0.655	<2.18	6.71	<3.02	4.587	1.49
ZTS-MW204	12/1/2023	N	PM03	2C	Upgradient	-3	UMCf	30.3 - 40.0	1.28 J	87,300	17.4	<0.07	493,000	6,700	<0.121	<0.655	<2.18	6.07	<3.02	3.951	0.99
ZTS-MW182	5/23/2023	N	PM01	2C	Center of Array	0	Alluvium	17.6 - 27.3	3.05	114,000	28.1	<0.07	709,000	13,100	<0.121	0.881 J	<2.18	9.68	12.6 J	5.733	2.29
ZTS-MW182	8/22/2023	N	PM02	2C	Center of Array	0	Alluvium	17.6 - 27.3	2.36	112,000	26.2	<0.07	711,000	12,400	0.143 J	<0.655	<2.18	9.81	<3.02	6.96	2.36
ZTS-MW182	11/27/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	2.24	120,000	32.3	<0.07	756,000	12,600	<0.121	<0.655	<2.18	14.2	<3.02	----	----
ZTS-MW182	11/28/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	----	----	----	----	----	----	----	----	----	----	----	----	----
ZTS-MW183	5/23/2023	N	PM01	2C	Downgradient	1	Alluvium	17.3 - 27.0	3.53	112,000	31.8	<0.07	709,000	13,300	<0.121	0.799 J	<2.18	12.4	15 J	6.083	2.17
ZTS-MW183	8/22/2023	N	PM02	2C	Downgradient	1	Alluvium	17.3 - 27.0	1.94 J	108,000	34.7	0.108 J	700,000	12,200	0.186 J	<0.655	<2.18	14.1	<3.02	7.209	4.1
ZTS-MW183	11/28/2023	N	PM03	2C	Downgradient	1	Alluvium	17.3 - 27.0	2.17	126,000	40.9	<0.07	771,000	12,800	<0.121	<0.655	<2.18	18.7	<3.02	8.325	2.47
ZTS-MW187	5/24/2023	N	PM01	2C	Downgradient	1	Alluvium	15.3 - 25.0	2.25	119,000	31.1	<0.07	693,000	11,700	<0.121	<0.655	<2.18	14.7	6.17 J	5.845	4.41
ZTS-MW187	8/23/2023	N	PM02	2C	Downgradient	1	Alluvium	15.3 - 25.0	2.69	120,000	39.7	<0.07	797,000	12,700	<0.121	<0.655	<2.18	18.2	<3.02	6.9	3.31
ZTS-MW187	11/29/2023	N	PM03	2C	Downgradient	1	Alluvium	15.3 - 25.0	1.09 J	113,000	36.5	<0.07	628,000	11,400	<0.121	<0.655	<2.18	16.4	5.5 J	8.812	3.69
ZTS-MW141	5/25/2023	N	PM01	2C	Downgradient	5	Alluvium	14.5 - 24.5	10.1	119,000	37.4	<0.07	711,000	13,000	<0.121	<0.655	<2.18	18.4	<3.02	0.064	7.42
ZTS-MW141	8/23/2023	N	PM02	2C	Downgradient	5	Alluvium	14.5 - 24.5	2.43	116,000	41.4	<0.07	830,000	12,900	<0.121	<0.655	<2.18	19.7	3.27 J	7.071	4.86
ZTS-MW141	11/29/2023	N	PM03	2C	Downgradient	5	Alluvium	14.5 - 24.5	1.46 J	116,000	40.9	<0.07	669,000	11,000	<0.121	<0.655	<2.18	19.2	<3.02	9.12	4.63
ZTS-MW142	5/26/2023	N	PM01	2C	Downgradient	5	Alluvium	16.0 - 26.0	7.89	113,000	32.4	<0.07	711,000	12,200	<0.121	0.679 J	<2.18	16.4	<3.02	6.48	2.78
ZTS-MW142	8/24/2023	N	PM02	2C	Downgradient	5	Alluvium	16.0 - 26.0	2.71	117,000	36	<0.07	789,000	13,100	<0.121	<0.655	<2.18	20.7	9.45 J	6.953	3.05
ZTS-MW142	11/30/2023	N	PM03	2C	Downgradient	5	Alluvium	16.0 - 26.0	2.48	111,000	33.3	<0.07	697,000	13,100	<0.121	<0.655	<2.18	18.1	<3.02	8.581	2.14
ZTS-MW184	5/24/2023	N	PM01	2C	Downgradient	5	Alluvium	16.3 - 26.0	2.47	101,000	36.3	<0.07	699,000	14,000	<0.121	<0.655	<2.18	17.1	4.74 J	5.921	2.7
ZTS-MW184	8/22/2023	N	PM02	2C	Downgradient	5	Alluvium	16.3 - 26.0	1.86 J	88,600	36.1	<0.07	638,000	13,100	<0.121	<0.655	<2.18	15.9	<3.02	7.23	2.91
ZTS-MW184	11/28/2023	N	PM03	2C	Downgradient	5	Alluvium	16.3 - 26.0	2.32	116,000	40.5	<0.07	783,000	14,400	<0.121	<0.655	<2.18	21	<3.02	8.408	2.21
ZTS-MW205	5/24/2023	N	PM01	2C	Downgradient	5	UMCf	30.3 - 40.0	1.63 J	63,500	0.524 J	<0.07	324,000	2,930	<0.121	<0.655	<2.18	2.65 J	5.8 J	2.703	2.04
ZTS-MW205	8/23/2023	N	PM02	2C	Downgradient	5	UMCf	30.3 - 40.0	1.01 J	67,700	1.29 J	<0.07	374,000	2,980	<0.121	<0.655	<2.18	3.39 J	3.04 J	2.826	0.27
ZTS-MW205	11/29/2023	N	PM03	2C	Downgradient	5	UMCf	30.3 - 40.0	<0.816	61,700	<0.3	<0.07	294,000	2,470	<0.121	<0.655	<2.18	<0.664	<3.02	3.474	0.18
ZTS-MW185	5/25/2023	N	PM01	2C	Downgradient	15	Alluvium	15.3 - 25.0	8.23	104,000	36.4	<0.07	719,000	14,800	0.143 J	0.718 J	<2.18	17.3	3.45 J	6.051	5.64
ZTS-MW185	8/24/2023	N	PM02	2C	Downgradient	15	Alluvium	15.3 - 25.0	2.18	109,000	40.4	<0.07	789,000	13,100	<0.121	<0.655	<2.18	20.2	5.61 J	6.967	5.48
ZTS-MW185	11/30/2023	N	PM03	2C	Downgradient	15	Alluvium	15.3 - 25.0	1.81 J	105,000	34.8	<0.07	658,000	11,600	<0.121	<0.655	<2.18	17.7	<3.02	8.65	4.95
ZTS-MW186	5/25/2023	N	PM01	2C	Downgradient	25	Alluvium	15.3 - 25.0	6.08	111,000	34.7	<0.07	707,000	14,400	<0.121	<0.655	<2.18	16.4	<3.02	6.186	5.54
ZTS-MW186	8/24/2023	N	PM02	2C	Downgradient	25	Alluvium	15.3 - 25.0	2.13	114,000	38.9	<0.07	768,000	13,300	<0.121	<0.655	<2.18	19.3	3.11 J	7.107	5.23
ZTS-MW186	11/30/2023	N	PM03	2C	Downgradient	25	Alluvium	15.3 - 25.0	1.81 J	107,000	35.5	<0.07	667,000	12,600	<0.121	<0.655	<2.18	16.9	<3.02	8.738	4.29
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	6.98	143,000	36.3	<0.07	688,000	12,500	<0.121	<0.655	<2.18	17	3.65 J	6.172	3.91
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	2.04	139,000	36.2	<0.07	709,000	11,200	<0.121	<0.655	<2.18	18.2	3.94 J	7.064	4.98

Table 2
Groundwater Sampling 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	Dissolved Metals by SW6020	Dissolved Metals by SW6020	FIELD TESTS	FIELD TESTS
									Nickel	Potassium	Selenium	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						feet		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L		
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	2.1	134,000	38.1	<0.07	698,000	11,500	<0.121	<0.655	<2.18	18.9	<3.02	8.395	2.7
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
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	2.28	189,000	16.4	<0.07	703,000	11,500	<0.121	<0.655	<2.18	15.4	<3.02	7.049	0.46
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	----	----	----	----	----	----	----	----	----	----	7.153	0.53
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	3.66	139,000	30.5	<0.07	665,000	12,700	<0.121	<0.655	<2.18	11	<3.02	7.65	0.65
Post-Construction Performance Monitoring Results																					
ZTS-MW116	5/24/2023	N	PM01	NA	NA	NA	UMCf	33.0 - 48.0	1.32 J	204,000	14.4	<0.07	667,000	10,900	0.269 J	<0.655	<2.18	15.9	4.24 J	3.951	1.13
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	1.3 J	197,000	14.8	<0.07	656,000	10,400	0.284 J	<0.655	<2.18	15.5	11.1 J	5.763	2.05
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	45.5	205,000	16.3	<0.07	726,000	10,900	0.272 J	<0.655	<2.18	16.4	<3.02	6.326	0.09
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	2.42	145,000	26.9	<0.07	645,000	11,600	0.215 J	<0.655	<2.18	16.4	7.14 J	4.951	1.18
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	2.29	129,000	28.2	<0.07	603,000	12,200	0.202 J	<0.655	<2.18	17.7	<3.02	5.846	0.95
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	2.41	130,000	31	<0.07	667,000	13,000	0.202 J	<0.655	<2.18	18	<3.02	6.634	1.63

Notes:

- 1. Distances from the discontinuous or continuous walls are shown as negative values for upgradient monitoring wells, as zero for monitoring wells screened 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
 - 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

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		Screened Interval	mg/L	mV	SU	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	218.2	7.08	0 U	24.8	7.2
ZTS-MW124	8/31/2022	N	BL01	1A	Upgradient	-8	Alluvium	24.0 - 34.0	----	134.4	7.04	----	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	106.3	7.16	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	----	117.1	7.17	----	31.2	7.5
ZTS-MW125	10/24/2022	N	BL02	1A	Upgradient	-8	UMCf	40.0 - 50.0	0 U	-17.9	7.4	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	146.8	7.05	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	124.3	7.02	0 U	24.1	7.5
ZTS-MW143	8/29/2023	N	PM02	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	329.7	6.97	0 U	26.7	11.2
ZTS-MW143	12/6/2023	N	PM03	1A	Upgradient	-50	Alluvium	23.0 - 33.0	0 U	184.1	6.92	0 U	23.5	6.2
ZTS-MW124R	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0 U	145.3	7.1	0 U	25.8	11.1
ZTS-MW124R	8/29/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.5 - 34.0	0 U	410.5	7.03	0 U	25.4	14.6
ZTS-MW124R	12/5/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.5 - 34.0	----	130.4	7.13	----	23.9	28.4
ZTS-MW125	5/25/2023	N	PM01	1A	Upgradient	-8	UMCf	40.0 - 50.0	0 U	66.5	7.46	0.1	30.5	7.2
ZTS-MW125	8/30/2023	N	PM02	1A	Upgradient	-8	UMCf	40.0 - 50.0	0 U	-122.7	7.34	0 U	25.1	7.3
ZTS-MW125	12/1/2023	N	PM03	1A	Upgradient	-8	UMCf	40.0 - 50.0	0 U	-158.3	7.44	0 U	23.1	3.4
ZTS-MW153	5/26/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	134.8	7.11	0 U	24.1	57.2
ZTS-MW153	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	406.7	7.01	0 U	24.8	153
ZTS-MW153	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	43.8	7.04	0 U	23.6	79.4
ZTS-MW163	5/25/2023	N	PM01	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	184.5	7.17	0 U	25.4	5.4
ZTS-MW163	8/31/2023	N	PM02	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	135.5	7.15	0 U	25.9	14.8
ZTS-MW163	12/1/2023	N	PM03	1A	Upgradient	-8	Alluvium	24.3 - 34.0	0 U	75.2	7.06	0 U	23.5	1.6
ZTS-MW150	5/22/2023	N	PM01	1A	Center of Trench	0	Alluvium	24.3 - 34.0	6.5	-386.4	8.09	0 U	25.7	73.9
ZTS-MW150	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	24.3 - 34.0	2	-260.3	8.08	0 U	24.8	91.7
ZTS-MW150	11/27/2023	N	PM03	1A	Center of Trench	0	Alluvium	24.3 - 34.0	3.5	-277.9	8.17	0 U	23.2	9.1
ZTS-MW154	5/24/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	6.5	-346.5	8.4	0 U	26.3	110.5
ZTS-MW154	8/21/2023	N	PM02	1A	Center of Trench	0	Alluvium	22.3 - 32.0	4	-303.1	7.88	0 U	25.8	75.9
ZTS-MW154	11/28/2023	N	PM03	1A	Center of Trench	0	Alluvium	22.3 - 32.0	3.5	-306.6	7.86	0 U	23.3	24.5
ZTS-MW164	5/23/2023	N	PM01	1A	Center of Trench	0	Alluvium	22.3 - 32.0	0.5	-241.1	8.27	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	-240.7	8.22	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	-190.2	8.17	0 U	23.2	21.7
ZTS-MW164	11/27/2023	FD	PM03	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	11.4	6.87	0 U	24	16.7
ZTS-MW151	8/21/2023	N	PM02	1A	Downgradient	5	Alluvium	24.3 - 34.0	0 U	79.3	7.47	0 U	25.9	75.6
ZTS-MW151	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	24.3 - 34.0	0.5	20	7.26	0 U	24	64.2
ZTS-MW155	5/24/2023	N	PM01	1A	Downgradient	5	Alluvium	20.3 - 35.0	1	-37.6	7.07	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	29.5	7.39	0 U	24.8	8.1
ZTS-MW155	8/22/2023	FD	PM02	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----	----	----	----

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		mg/L	mV	SU	mg/L	C	NTU	
ZTS-MW155	11/28/2023	N	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	1	59.6	7.34	0 U	23.9	13.8
ZTS-MW155	11/28/2023	FD	PM03	1A	Downgradient	5	Alluvium	20.3 - 35.0	----	----	----	----	----	----
ZTS-MW156	5/24/2023	N	PM01	1A	Downgradient	5	UMCf	43.8 - 53.5	1.5	-205.4	7.55	0 U	33	162.9
ZTS-MW156	8/22/2023	N	PM02	1A	Downgradient	5	UMCf	43.8 - 53.5	0 U	-113.3	7.55	0 U	27.3	1.8
ZTS-MW156	11/29/2023	N	PM03	1A	Downgradient	5	UMCf	43.8 - 53.5	0 U	-187.4	7.44	0.6	23	2.6
ZTS-MW165	5/31/2023	N	PM01	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	5.9	7.5	0 U	23.7	-0.6
ZTS-MW165	8/25/2023	N	PM02	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	-9.3	7.42	0 U	25.2	4.1
ZTS-MW165	11/30/2023	N	PM03	1A	Downgradient	5	Alluvium	22.3 - 32.0	0 U	138.2	7.34	0 U	23.7	3.9
ZTS-MW152	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	66	6.5	0 U	24.8	36.6
ZTS-MW152	8/22/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	36	7.39	0 U	24.6	4
ZTS-MW152	11/28/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	0.5	44.6	7.2	0 U	24.1	13.8
ZTS-MW157	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	93.5	6.46	0 U	25.6	10.7
ZTS-MW157	8/23/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	89.5	7.43	0 U	26	10.9
ZTS-MW157	11/29/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	-24.2	7.42	0 U	22.9	2
ZTS-MW162	5/25/2023	N	PM01	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	102.3	6.86	0 U	26.1	8.6
ZTS-MW162	8/18/2023	N	PM02	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	310.8	7.22	0 U	27.8	58.4
ZTS-MW162	11/30/2023	N	PM03	1A	Downgradient	15	Alluvium	23.3 - 33.0	0 U	127	7.22	0 U	22	3.3
ZTS-MW149	5/31/2023	N	PM01	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	93.5	7.28	0 U	24.8	52.6
ZTS-MW149	8/24/2023	N	PM02	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	89.7	7.12	0 U	26.1	15.2
ZTS-MW149	11/30/2023	N	PM03	1A	Downgradient	25	Alluvium	23.3 - 33.0	0 U	157.3	7.04	0 U	23.5	6.9
ZTS-MW144	5/31/2023	N	PM01	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	78.6	7.38	0 U	24.7	-1
ZTS-MW144	8/24/2023	N	PM02	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	41.7	7.31	0 U	25.1	43.6
ZTS-MW144	11/30/2023	N	PM03	1A	Downgradient	35	Alluvium	24.0 - 34.0	0 U	105.7	7.3	0 U	23.5	10.2
ZTS-MW158	5/24/2023	N	PM01	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	107.3	7.44	0 U	26.1	35.5
ZTS-MW158	8/25/2023	N	PM02	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	186.7	7.09	0 U	26.7	39.7
ZTS-MW158	12/1/2023	N	PM03	1A	Downgradient	50	Alluvium	23.3 - 33.0	0 U	465.3	7.28	0 U	23.1	3.2
ZTS-MW159	5/24/2023	N	PM01	1A	Downgradient	50	UMCf	38.8 - 48.5	0 U	49.4	7.71	0 U	33.7	4.5
ZTS-MW159	8/25/2023	N	PM02	1A	Downgradient	50	UMCf	38.8 - 48.5	0 U	166.1	7.17	0 U	26.3	11.4
ZTS-MW159	12/1/2023	N	PM03	1A	Downgradient	50	UMCf	38.8 - 48.5	0 U	367.9	7.21	0 U	23	3.6
ZTS-MW160	5/24/2023	N	PM01	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	170.6	7.43	0 U	24.8	2.6
ZTS-MW160	8/28/2023	N	PM02	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	409.3	7.07	0 U	25.2	20.4
ZTS-MW160	12/5/2023	N	PM03	1A	Downgradient	100	Alluvium	23.3 - 33.0	0 U	155.8	7.07	0 U	24.1	2.4
ZTS-MW161	5/26/2023	N	PM01	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	189.1	7.33	0 U	22.7	17.9
ZTS-MW161	8/25/2023	N	PM02	1A	Downgradient	150	Alluvium	24.3 - 34.0	0 U	180.3	7.02	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	63.9	7.18	0 U	24.3	143.7
ZTS-MW161	12/1/2023	FD	PM03	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	-1.5	7.38	0 U	23.3	9.5
ZTS-MW146	10/24/2022	N	BL02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	0 U	36	7.26	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	142.7	8.04	0 U	29.2	2.9
ZTS-MW145	8/30/2023	N	PM02	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	0 U	-91	7.32	0 U	24.8	2.7
ZTS-MW145	12/6/2023	N	PM03	1A/1B	Upgradient	-50	UMCf	39.0 - 49.0	0 U	-138.7	7.36	0 U	22.9	3
ZTS-MW146	5/26/2023	N	PM01	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	0 U	-146.5	7.49	0 U	24.8	5.3
ZTS-MW146	8/25/2023	N	PM02	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	0 U	-160.9	7.54	0.2	28.6	2.4

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		Screened Interval	mg/L	mV	SU	mg/L	C	NTU
ZTS-MW146	11/30/2023	N	PM03	1A/1B	Downgradient	35	UMCf	41.0 - 51.0	0 U	-176	7.5	0.4	23.4	3.5
Test Area 1B														
Pre-Construction Baseline Results														
ZTS-MW147	10/18/2022	N	BL02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	142.2	7.16	0 U	23.3	34.8
ZTS-MW126	8/31/2022	N	BL01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	----	111.1	7.25	----	26.9	5
ZTS-MW126	10/18/2022	N	BL02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	102.8	7.19	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	----	124	7.01	----	28	6.3
ZTS-MW127	10/24/2022	N	BL02	1B	Upgradient	-8	Alluvium	18.0 - 23.0	0 U	51.2	6.95	0 U	22.4	12.9
ZTS-MW148	10/24/2022	N	BL02	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	107.4	7.37	0 U	23.1	20.8
LVWPS-MW107A	10/24/2022	N	BL02	NA	Downgradient	50	Alluvium	24.8 - 34.5	0 U	84	7.12	0 U	21.7	5.6
LVWPS-MW107B	10/21/2022	N	BL02	NA	Downgradient	50	UMCf	46.0 - 65.8	0 U	-170	7.28	0 U	26.6	8.9
LVWPS-MW107C	10/24/2022	N	BL02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0 U	-5.8	7.46	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	81.9	7.1	0 U	26.8	7.4
ZTS-MW147	8/30/2023	N	PM02	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	209.7	7.01	0 U	28.1	6.6
ZTS-MW147	12/1/2023	N	PM03	1B	Upgradient	-50	Alluvium	19.5 - 29.5	0 U	179	7.07	0 U	22.6	6.5
ZTS-MW126	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	128.8	7.13	0 U	27.7	14.1
ZTS-MW126	8/25/2023	N	PM02	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	237.9	7	0 U	26.1	9
ZTS-MW126	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	20.0 - 30.0	0 U	92.8	7.19	0 U	22.6	21
ZTS-MW127R	5/25/2023	N	PM01	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	141	7.13	0 U	23.8	13.8
ZTS-MW127R	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	421.1	7.02	0 U	27.2	7.8
ZTS-MW127R	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	18.5 - 23.0	0 U	83.1	7.04	0 U	23.6	8.3
ZTS-MW169	5/24/2023	N	PM01	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	85.2	7.29	0 U	27	9.8
ZTS-MW169	8/28/2023	N	PM02	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	351.7	7	0 U	26.5	10.9
ZTS-MW169	11/30/2023	N	PM03	1B	Upgradient	-8	Alluvium	17.1 - 27.0	0 U	69.9	7.06	0 U	23.3	27
ZTS-MW170	5/24/2023	N	PM01	1B	Upgradient	-8	UMCf	31.1 - 41.0	0 U	77.7	7.47	0 U	26.7	20.5
ZTS-MW170	8/29/2023	N	PM02	1B	Upgradient	-8	UMCf	31.1 - 41.0	0 U	375.6	7.12	0 U	24.6	11.3
ZTS-MW170	11/30/2023	N	PM03	1B	Upgradient	-8	UMCf	31.1 - 41.0	0 U	64	7.2	0 U	23	13.2
ZTS-MW166	5/23/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.8 - 29.5	0.5	-226.4	8.43	0 U	32.1	13.1
ZTS-MW166	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.8 - 29.5	1	-243.8	8.12	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	-195.2	9.03	0 U	23.1	4.8
ZTS-MW171	5/22/2023	N	PM01	1B	Center of Trench	0	Alluvium	19.3 - 29.0	1.5	-163.5	7.28	0 U	25.5	255
ZTS-MW171	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	19.3 - 29.0	0 U	-180	8.06	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	-210.1	8.14	0 U	23.4	28.9
ZTS-MW178	5/25/2023	N	PM01	1B	Center of Trench	0	Alluvium	17.8 - 27.5	1.5	-234.7	9.24	0 U	27.4	74.7
ZTS-MW178	8/21/2023	N	PM02	1B	Center of Trench	0	Alluvium	17.8 - 27.5	1	-282.5	9.27	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	-435	9.21	0 U	22.6	2.5
ZTS-MW167	5/24/2023	N	PM01	1B	Downgradient	5	Alluvium	23.3 - 33.0	0.5	33.3	8.17	0 U	25.1	8.4
ZTS-MW167	8/22/2023	N	PM02	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	134.9	8.33	0 U	24.5	70.1
ZTS-MW167	11/28/2023	N	PM03	1B	Downgradient	5	Alluvium	23.3 - 33.0	0 U	63.3	8.48	0 U	23.7	7.8
ZTS-MW172	5/23/2023	N	PM01	1B	Downgradient	5	Alluvium	17.3 - 27.0	0.2	38.5	8.26	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	34.5	7.67	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	187	8.22	0 U	23.7	7.8
ZTS-MW172	11/30/2023	FD	PM03	1B	Downgradient	5	Alluvium	17.3 - 27.0	----	----	----	----	----	----

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		mg/L	mV	SU	mg/L	C	NTU	
ZTS-MW173	5/25/2023	N	PM01	1B	Downgradient	5	UMCf	33.3 - 43.0	0 U	-58.2	7.29	0 U	23.6	14.5
ZTS-MW173	8/22/2023	N	PM02	1B	Downgradient	5	UMCf	33.3 - 43.0	0 U	-82.1	7.52	0.2	32.4	22.7
ZTS-MW173	11/29/2023	N	PM03	1B	Downgradient	5	UMCf	33.3 - 43.0	0 U	-143.7	7.33	0.3	21.8	5.7
ZTS-MW179	5/25/2023	N	PM01	1B	Downgradient	5	Alluvium	18.3 - 23.0	0.2	21.7	8.34	0 U	24	8.1
ZTS-MW179	8/23/2023	N	PM02	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	-32.3	8.25	0 U	25.3	8.2
ZTS-MW179	11/30/2023	N	PM03	1B	Downgradient	5	Alluvium	18.3 - 23.0	0 U	165.8	8.35	0 U	23.9	5.7
ZTS-MW168	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	51.1	8.14	0 U	25.9	11.2
ZTS-MW168	8/22/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	99	7.97	0 U	25.4	14.8
ZTS-MW168	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	----	142.4	8.21	----	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	152.2	8.11	0 U	23.4	3.8
ZTS-MW174	5/24/2023	N	PM01	1B	Downgradient	15	Alluvium	19.8 - 29.5	0.2	93.5	7.6	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	16.1	7.75	0 U	26.2	17.9
ZTS-MW174	10/11/2023	N	PM02	1B	Downgradient	15	Alluvium	19.8 - 29.5	----	150.1	8.24	----	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	145.3	8.19	0 U	23.5	7.4
ZTS-MW177	5/25/2023	N	PM01	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	57.8	7.76	0 U	26.3	66.5
ZTS-MW177	8/23/2023	N	PM02	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	61.8	7.98	0 U	27	43
ZTS-MW177	11/29/2023	N	PM03	1B	Downgradient	15	Alluvium	20.3 - 30.0	0 U	147.1	8.22	0 U	24.4	15.1
ZTS-MW180	5/24/2023	N	PM01	1B	Downgradient	25	Alluvium	17.8 - 22.5	0.2	104.1	7.1	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	213.3	6.88	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	195.7	7.11	0 U	23.8	5.7
ZTS-MW180	11/30/2023	FD	PM03	1B	Downgradient	25	Alluvium	17.8 - 22.5	----	----	----	----	----	----
ZTS-MW148	5/25/2023	N	PM01	1B	Downgradient	35	Alluvium	22.0 - 32.0	0.2	87.6	7.59	0 U	25.3	8.9
ZTS-MW148	8/23/2023	N	PM02	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	76.5	7.6	0 U	26.9	6.4
ZTS-MW148	11/28/2023	N	PM03	1B	Downgradient	35	Alluvium	22.0 - 32.0	0 U	52.7	7.94	0 U	24.1	5.7
LVWPS-MW107A	5/23/2023	N	PM01	NA	Downgradient	50	Alluvium	24.8 - 34.5	0.2	66.9	7.8	0 U	27.1	6.2
LVWPS-MW107A	8/24/2023	N	PM02	NA	Downgradient	50	Alluvium	24.8 - 34.5	0 U	150.5	7.88	0 U	27.7	8.6
LVWPS-MW107A	11/30/2023	N	PM03	NA	Downgradient	50	Alluvium	24.8 - 34.5	0 U	161.6	8.21	0 U	23.6	9.1
LVWPS-MW107B	5/23/2023	N	PM01	NA	Downgradient	50	UMCf	46.0 - 65.8	0 U	-183.7	7.4	0 U	28	10.9
LVWPS-MW107B	8/24/2023	N	PM02	NA	Downgradient	50	UMCf	46.0 - 65.8	0 U	-137.6	7.32	0.2	27.4	45.8
LVWPS-MW107B	12/1/2023	N	PM03	NA	Downgradient	50	UMCf	46.0 - 65.8	0 U	54.4	7.64	0 U	19.5	7.8
LVWPS-MW107C	5/23/2023	N	PM01	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0 U	-236	7.47	0 U	26.8	94.3
LVWPS-MW107C	8/24/2023	N	PM02	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0.5	-131.4	6.98	1.2	34.6	8
LVWPS-MW107C	12/1/2023	N	PM03	NA	Downgradient	50	UMCf (Semi-Cons)	100.3 - 120.0	0 U	-220.7	7.36	0.3	15.8	7
ZTS-MW175	5/26/2023	N	PM01	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	171.3	7.38	0 U	23.4	53
ZTS-MW175	8/25/2023	N	PM02	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	144.6	7.45	0 U	25.2	41.7
ZTS-MW175	11/30/2023	N	PM03	1B	Downgradient	100	Alluvium	19.8 - 29.5	0 U	179.8	7.77	0 U	23.9	66.2
ZTS-MW176	5/26/2023	N	PM01	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	265.1	7.38	0 U	22.3	8.6
ZTS-MW176	8/25/2023	N	PM02	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	120.3	7.32	0 U	26.3	5.9
ZTS-MW176	12/5/2023	N	PM03	1B	Downgradient	150	Alluvium	19.8 - 29.5	0 U	146.5	7.45	0 U	24.3	1.4

Test Area 2A

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		Screened Interval	mg/L	mV	SU	mg/L	C	NTU
Pre-Construction Baseline Results														
ZTS-MW137	10/20/2022	N	BL02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	106.5	7.07	0 U	23.4	35.6
ZTS-MW118	9/1/2022	N	BL01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	----	105.5	7.06	----	27.1	17
ZTS-MW118	10/21/2022	N	BL02	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	94.6	6.98	0 U	22.6	6.8
ZTS-MW138	10/20/2022	N	BL02	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	117.7	8.02	0 U	23.5	68.3
ZTS-MW139	10/21/2022	N	BL02	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	76.8	7.05	0 U	23.5	21.2
LVWPS-MW102A	10/21/2022	N	BL02	NA	Downgradient	30	UMCf	47.0 - 66.6	0 U	-35	7.26	0 U	23	146
LVWPS-MW102B	10/21/2022	N	BL02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0 U	-240.7	7.38	0 U	23.9	116.3
ZTS-MW113	10/25/2022	N	BL02	2A	Cross/Downgradient	60	Alluvium	20.0 - 30.0	0 U	91.9	7.13	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	76.1	7.01	0 U	26.7	32.7
ZTS-MW137	8/24/2023	N	PM02	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	299.7	7.09	0 U	27.2	18.5
ZTS-MW137	12/1/2023	N	PM03	2A	Upgradient	-9	Alluvium	14.0 - 24.0	0 U	135.7	6.95	0 U	23.1	11.2
ZTS-MW118	5/31/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.5 - 23.5	0 U	95.4	7.01	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	367.4	7.08	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	90.7	6.92	0 U	24	2
ZTS-MW118	12/1/2023	FD	PM03	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	75	6.99	0 U	25.3	33
ZTS-MW190	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	365.5	7.01	0 U	24.9	23.7
ZTS-MW190	12/1/2023	N	PM03	2A	Upgradient	-3	Alluvium	14.3 - 24.0	0 U	132.7	7.11	0 U	24.2	14.1
ZTS-MW196	5/30/2023	N	PM01	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0.5	123.9	7.1	0 U	25.5	63.8
ZTS-MW196	8/25/2023	N	PM02	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	72.8	7.14	0 U	28	70.5
ZTS-MW196	11/30/2023	N	PM03	2A	Upgradient	-3	Alluvium	13.8 - 23.5	0 U	76.1	7.11	0 U	23.3	23.7
ZTS-MW202	5/30/2023	N	PM01	2A	Upgradient	-3	UMCf	28.8 - 38.5	0.5	101.5	7.19	0 U	25.9	20
ZTS-MW202	8/28/2023	N	PM02	2A	Upgradient	-3	UMCf	28.8 - 38.5	0 U	54.1	7.23	0 U	27.4	7.7
ZTS-MW202	12/1/2023	N	PM03	2A	Upgradient	-3	UMCf	28.8 - 38.5	0 U	100.8	7.33	0 U	22.9	8.1
ZTS-MW192	5/22/2023	N	PM01	2A	Center of Array	0	Alluvium	14.3 - 24.0	0 U	148.3	7.58	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	139.7	7.2	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	165.2	7.05	0 U	24.2	23.8
ZTS-MW191	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	-246	8.47	0 U	25	70.1
ZTS-MW191	8/22/2023	N	PM02	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	-100	8.44	0 U	27.3	54.1
ZTS-MW191	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.8 - 24.5	0 U	-116.2	8.04	0 U	23.1	8.3
ZTS-MW195	5/26/2023	N	PM01	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	73.2	7.16	0 U	23.1	346.9
ZTS-MW195	8/21/2023	N	PM02	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	-81.9	7.29	0 U	25.1	34.3
ZTS-MW195	11/29/2023	N	PM03	2A	Downgradient	1	Alluvium	14.3 - 24.0	0 U	139.2	7.02	0 U	23.9	16.7
ZTS-MW138	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	108.5	7.18	0 U	26.1	18.9
ZTS-MW138	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	386.4	7.02	0 U	25.1	10.9
ZTS-MW138	11/28/2023	N	PM03	2A	Downgradient	5	Alluvium	14.0 - 24.0	0 U	180	7.08	0 U	24.5	36.5
ZTS-MW139	5/24/2023	N	PM01	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	36.4	7.12	0 U	25.8	25.3
ZTS-MW139	8/21/2023	N	PM02	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	335.1	6.99	0 U	26	13.6
ZTS-MW139	11/29/2023	N	PM03	2A	Downgradient	5	Alluvium	13.0 - 23.0	0 U	234.8	6.98	0 U	22.6	6.9
ZTS-MW193	5/25/2023	N	PM01	2A	Downgradient	5	Alluvium	13.6 - 23.3	0 U	26.4	7.01	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	339.9	7.03	0 U	24.9	25.5

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		mg/L	mV	SU	mg/L	C	NTU	
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	218.9	6.99	0 U	24.2	69.7
ZTS-MW193	11/30/2023	FD	PM03	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	19.5	6.98	0 U	26.5	19
ZTS-MW203	8/23/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	0 U	428	7.01	0 U	24.5	4.3
ZTS-MW203	10/11/2023	N	PM02	2A	Downgradient	5	UMCf	28.3 - 38.0	----	149.3	7.36	----	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	165.6	7.12	0 U	23.7	16.2
ZTS-MW194	5/25/2023	N	PM01	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	71.3	6.97	0 U	24.6	22.1
ZTS-MW194	8/22/2023	N	PM02	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	367.3	7.01	0 U	24.4	11.8
ZTS-MW194	11/29/2023	N	PM03	2A	Downgradient	15	Alluvium	17.8 - 22.5	0 U	209.4	7.02	0 U	23.8	10.4
LVWPS-MW102A	5/30/2023	N	PM01	NA	Downgradient	30	UMCf	47.0 - 66.6	0 U	24.9	7.1	0 U	24	199
LVWPS-MW102A	8/23/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	0 U	262.9	7.2	0 U	24.5	172.7
LVWPS-MW102A	10/11/2023	N	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	111.2	7.46	----	25	767.9
LVWPS-MW102A	10/11/2023	FS	PM02	NA	Downgradient	30	UMCf	47.0 - 66.6	----	----	----	----	----	----
LVWPS-MW102A	12/1/2023	N	PM03	NA	Downgradient	30	UMCf	47.0 - 66.6	0 U	160	7.08	0 U	22.6	205.1
LVWPS-MW102B	5/26/2023	N	PM01	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0 U	-179.9	7.35	0.6	27.2	85.5
LVWPS-MW102B	8/23/2023	N	PM02	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0 U	-150	7.38	0.2	25.9	350.6
LVWPS-MW102B	12/1/2023	N	PM03	NA	Downgradient	30	UMCf (Semi-Cons)	76.8 - 96.5	0 U	-217.3	7.34	0.2	22.8	160.7
ZTS-MW197	5/26/2023	N	PM01	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	81.7	6.99	0 U	22.8	40.4
ZTS-MW197	8/22/2023	N	PM02	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	303.9	7.04	0 U	24.8	11.8
ZTS-MW197	11/30/2023	N	PM03	2A	Downgradient	55	Alluvium	12.8 - 22.5	0 U	275.5	6.92	0 U	22.5	72.8
ZTS-MW113	5/26/2023	N	PM01	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	0 U	91.2	7.07	0 U	24	2.4
ZTS-MW113	8/24/2023	N	PM02	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	0 U	336.5	7.12	0 U	24.1	2.5
ZTS-MW113	11/30/2023	N	PM03	2A	Cross/ Downgradient	60	Alluvium	20.0 - 30.0	0 U	252.7	7.02	0 U	23.1	2.9
Test Area 2B														
Pre-Construction Baseline Results														
ZTS-MW133	10/20/2022	N	BL02	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	19.7	7.25	0 U	21.1	115.7
ZTS-MW117	9/1/2022	N	BL01	2B	Upgradient	-2	UMCf	40.5 - 55.5	----	88.4	7.3	----	34.6	25
ZTS-MW117	10/19/2022	N	BL02	2B	Upgradient	-2	UMCf	40.5 - 55.5	0 U	-116.3	7.43	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	136	7.18	0 U	24.6	8.4
ZTS-MW135	10/19/2022	N	BL02	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	18.2	7.31	0 U	24.4	98.2
ZTS-MW136	10/20/2022	N	BL02	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0 U	-128.5	7.4	0 U	23	71.9
Post-Construction Performance Monitoring Results														
ZTS-MW133	5/23/2023	N	PM01	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	79.3	7.36	0 U	23	33
ZTS-MW133	8/30/2023	N	PM02	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	-17	7.28	0 U	26.9	31.2
ZTS-MW133	12/4/2023	N	PM03	2B	Upgradient	-9	UMCf	54.0 - 69.0	0 U	6.6	7.18	0 U	23.4	48.2
ZTS-MW117	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	40.5 - 55.5	0.2	-129.2	7.49	0.1	30.4	2
ZTS-MW117	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	40.5 - 55.5	0 U	-149.5	6.18	0 U	25.2	21.4
ZTS-MW117	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	40.5 - 55.5	0 U	-168.5	7.39	0 U	22.6	5.3
ZTS-MW134	5/25/2023	N	PM01	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	112	7.27	0 U	30.1	28.7
ZTS-MW134	8/24/2023	N	PM02	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	175.1	6.1	0 U	28.1	26.8
ZTS-MW134	11/29/2023	N	PM03	2B	Upgradient	-2	UMCf	26.0 - 36.0	0 U	-0.8	7.12	0 U	23.1	7

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		mg/L	mV	SU	mg/L	C	NTU	
ZTS-MW198	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	-42.4	7.72	0 U	26.8	55.2
ZTS-MW198	8/21/2023	N	PM02	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	53.7	70	0 U	25.3	34.2
ZTS-MW198	11/27/2023	N	PM03	2B	Downgradient	2	UMCf	26.1 - 46.0	0 U	-109.5	7.29	0 U	23.3	4
ZTS-MW200	5/23/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	-224.7	8.46	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	-8.5	6.79	0 U	28.7	11
ZTS-MW200	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	-271.7	7.55	0.2	18.9	4.9
ZTS-MW201	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	27.1 - 47.0	0.2	-54.3	7.32	0 U	25.3	15.1
ZTS-MW201	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	143.4	7.41	0 U	27.8	28.2
ZTS-MW201	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	27.1 - 47.0	0 U	-126.2	7.3	0 U	22.9	13.3
ZTS-MW206	5/24/2023	N	PM01	2B	Downgradient	2	UMCf	50.1 - 65.0	0.2	-161.4	7.25	0 U	25.4	15.9
ZTS-MW206	8/22/2023	N	PM02	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	122.5	7.8	0 U	30.1	9.5
ZTS-MW206	11/28/2023	N	PM03	2B	Downgradient	2	UMCf	50.1 - 65.0	0 U	-85.4	7.24	0 U	23.3	18.5
ZTS-MW199	5/23/2023	N	PM01	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	-48.6	7.26	0 U	29.4	16.7
ZTS-MW199	8/22/2023	N	PM02	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	85.9	7.29	0 U	24.6	26.5
ZTS-MW199	11/28/2023	N	PM03	2B	Downgradient	5	UMCf	50.1 - 65.0	0 U	-161	7.11	0.2	22.2	77.7
ZTS-MW207	5/24/2023	N	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	-69.2	7.45	0 U	25.2	9.6
ZTS-MW207	5/24/2023	FD	PM01	2B	Downgradient	5	UMCf	26.1 - 46.0	----	----	----	----	----	----
ZTS-MW207	8/23/2023	N	PM02	2B	Downgradient	5	UMCf	26.1 - 46.0	0 U	45.8	7.29	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	-80.8	7.24	0 U	21.8	19.8
ZTS-MW207	11/29/2023	FD	PM03	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	-95.1	7.34	0 U	23.1	20.7
ZTS-MW135	8/24/2023	N	PM02	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	108.9	6.11	0 U	25.7	94.8
ZTS-MW135	11/30/2023	N	PM03	2B	Downgradient	7	UMCf	54.0 - 69.0	0 U	109.5	7.21	0 U	22.2	62
ZTS-MW136	5/26/2023	N	PM01	2B	Cross Gradient	7	UMCf	27.0 - 47.0	0.5	-139	7.58	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	14.3	7.49	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	-159.8	7.36	0 U	23.2	24.2
ZTS-MW136	11/29/2023	FD	PM03	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	103.8	7.33	0 U	23.6	50.4
ZTS-MW208	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	267.9	7.38	0 U	29.8	41.8
ZTS-MW208	11/28/2023	N	PM03	2B	Downgradient	15	UMCf	26.1 - 46.0	0 U	-3	7.17	0 U	23.5	42.3
ZTS-MW209	5/25/2023	N	PM01	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	90.4	7.38	0 U	24.9	71.5
ZTS-MW209	8/23/2023	N	PM02	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	247.1	7.37	0 U	25.8	51.4
ZTS-MW209	11/29/2023	N	PM03	2B	Downgradient	15	UMCf	50.6 - 65.5	0 U	2	7.21	0 U	22.1	40.5
Test Area 2C														
Pre-Construction Baseline Results														
ZTS-MW140	10/21/2022	N	BL02	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	112.3	7.08	0 U	23.6	82.3
ZTS-MW119	9/1/2022	N	BL01	2C	Upgradient	-3	Alluvium	15.0 - 25.0	----	115.6	7.03	----	26	33.3
ZTS-MW119	10/19/2022	N	BL02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	164.2	7.04	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	98.6	7.1	0 U	24.2	38.6
ZTS-MW142	10/21/2022	N	BL02	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	111.6	7.06	0 U	24.3	106.7
Post-Construction Performance Monitoring Results														
ZTS-MW140	5/25/2023	N	PM01	2C	Upgradient	-9	Alluvium	15.5 - 25.5	0 U	198.2	6.91	0 U	21.5	59.8

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		mg/L	mV	SU	mg/L	C	NTU	
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	88.8	7.14	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	184	7.13	0 U	24.1	19.4
ZTS-MW140	12/4/2023	FD	PM03	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	171.1	6.45	0 U	24.5	22.1
ZTS-MW119	8/29/2023	N	PM02	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	52.8	7.11	0 U	25.1	11
ZTS-MW119	12/4/2023	N	PM03	2C	Upgradient	-3	Alluvium	15.0 - 25.0	0 U	199.6	7.09	0 U	24	6.7
ZTS-MW181	5/25/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	171.3	6.9	0 U	22.7	127.1
ZTS-MW181	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	127.1	7.13	0 U	25.1	107.3
ZTS-MW181	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	110.8	7.04	0 U	24.1	20.6
ZTS-MW188	5/26/2023	N	PM01	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	85.9	7.28	0 U	24.5	19.3
ZTS-MW188	8/25/2023	N	PM02	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	143.6	7.12	0 U	24	17.5
ZTS-MW188	12/6/2023	N	PM03	2C	Upgradient	-3	Alluvium	17.3 - 27.0	0 U	95	7.06	0 U	24	72.3
ZTS-MW204	5/25/2023	N	PM01	2C	Upgradient	-3	UMCf	30.3 - 40.0	0 U	-14.8	7.24	0 U	23.3	56
ZTS-MW204	8/25/2023	N	PM02	2C	Upgradient	-3	UMCf	30.3 - 40.0	0 U	34.3	7.22	0 U	27.4	11
ZTS-MW204	12/1/2023	N	PM03	2C	Upgradient	-3	UMCf	30.3 - 40.0	0 U	-10.3	7.39	0 U	21.8	16.8
ZTS-MW182	5/23/2023	N	PM01	2C	Center of Array	0	Alluvium	17.6 - 27.3	0 U	103.9	7.11	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	12.1	7.24	0 U	24.4	42.7
ZTS-MW182	11/27/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	----	----	----	----	----	----
ZTS-MW182	11/28/2023	N	PM03	2C	Center of Array	0	Alluvium	17.6 - 27.3	----	----	----	----	----	----
ZTS-MW183	5/23/2023	N	PM01	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	154.5	6.98	0 U	27.9	41.1
ZTS-MW183	8/22/2023	N	PM02	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	111.9	7.17	0 U	25.3	34
ZTS-MW183	11/28/2023	N	PM03	2C	Downgradient	1	Alluvium	17.3 - 27.0	0 U	500.7	7.13	0 U	23.4	13.2
ZTS-MW187	5/24/2023	N	PM01	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	170.6	7.08	0 U	25.2	31.6
ZTS-MW187	8/23/2023	N	PM02	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	136.8	7.08	0 U	24.2	29.8
ZTS-MW187	11/29/2023	N	PM03	2C	Downgradient	1	Alluvium	15.3 - 25.0	0 U	484.2	7.08	0 U	22.5	6.5
ZTS-MW141	5/25/2023	N	PM01	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	177.3	7.98	0 U	31.7	112.3
ZTS-MW141	8/23/2023	N	PM02	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	120.4	7.08	0 U	25	6.1
ZTS-MW141	11/29/2023	N	PM03	2C	Downgradient	5	Alluvium	14.5 - 24.5	0 U	368.9	7.07	0 U	23.8	5.8
ZTS-MW142	5/26/2023	N	PM01	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	115	7.09	0 U	26.8	-0.8
ZTS-MW142	8/24/2023	N	PM02	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	133.3	7.15	0 U	24.6	24
ZTS-MW142	11/30/2023	N	PM03	2C	Downgradient	5	Alluvium	16.0 - 26.0	0 U	473.8	7.17	0 U	23	8.1
ZTS-MW184	5/24/2023	N	PM01	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	161.6	6.9	0 U	25.3	68.6
ZTS-MW184	8/22/2023	N	PM02	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	92.6	7.15	0 U	25.5	29.5
ZTS-MW184	11/28/2023	N	PM03	2C	Downgradient	5	Alluvium	16.3 - 26.0	0 U	486.8	7.12	0 U	23.8	7.5
ZTS-MW205	5/24/2023	N	PM01	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	112.4	7.31	0 U	30.7	72.6
ZTS-MW205	8/23/2023	N	PM02	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	-111.6	7.48	0 U	24.7	9.5
ZTS-MW205	11/29/2023	N	PM03	2C	Downgradient	5	UMCf	30.3 - 40.0	0 U	-20.9	7.48	0 U	22.1	7.3
ZTS-MW185	5/25/2023	N	PM01	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	172.6	7.21	0 U	23.1	107.2
ZTS-MW185	8/24/2023	N	PM02	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	139.9	7.16	0 U	24.7	14.8
ZTS-MW185	11/30/2023	N	PM03	2C	Downgradient	15	Alluvium	15.3 - 25.0	0 U	466.9	7.19	0 U	23.7	6.7
ZTS-MW186	5/25/2023	N	PM01	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	190.7	7.23	0 U	24.6	152
ZTS-MW186	8/24/2023	N	PM02	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	119.1	7.15	0 U	25.6	14.5
ZTS-MW186	11/30/2023	N	PM03	2C	Downgradient	25	Alluvium	15.3 - 25.0	0 U	485.6	7.16	0 U	23.9	12.8
ZTS-MW189	5/25/2023	N	PM01	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	140.5	7.2	0 U	24.4	9
ZTS-MW189	8/25/2023	N	PM02	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	130.6	7.1	0 U	24.9	11.2

Table 2
Groundwater Sampling 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	FIELD TESTS	FIELD TESTS	FIELD TESTS
									Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity
						feet		Screened Interval	mg/L	mV	SU	mg/L	C	NTU
ZTS-MW189	12/1/2023	N	PM03	2C	Downgradient	55	Alluvium	12.8 - 23.0	0 U	497.3	7.11	0 U	23.5	11
General Vicinity														
Pre-Construction Baseline Results														
ZTS-MW116	9/1/2022	N	BL01	NA	NA	NA	UMCf	33.0 - 48.0	----	-0.2	7.34	----	27	478.2
ZTS-MW116	10/25/2022	N	BL02	NA	NA	NA	UMCf	33.0 - 48.0	0 U	-17.7	7.35	0 U	21.5	36.8
ZTS-MW128	9/1/2022	N	BL01	NA	NA	NA	UMCf	42.0 - 52.0	----	85.2	7.34	----	35.2	55.2
ZTS-MW128	10/25/2022	N	BL02	NA	NA	NA	UMCf	42.0 - 52.0	0 U	40.8	7.22	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	68.3	6.82	0 U	23.2	25.3
ZTS-MW116	8/29/2023	N	PM02	NA	NA	NA	UMCf	33.0 - 48.0	0 U	39.1	7.33	0 U	26.4	49.9
ZTS-MW116	12/5/2023	N	PM03	NA	NA	NA	UMCf	33.0 - 48.0	0 U	127.2	7.31	0 U	21.5	37.7
ZTS-MW128	5/24/2023	N	PM01	NA	NA	NA	UMCf	42.0 - 52.0	0 U	47.5	6.58	0 U	26.1	8.8
ZTS-MW128	8/30/2023	N	PM02	NA	NA	NA	UMCf	42.0 - 52.0	0 U	24.2	7.2	0 U	26.3	15.7
ZTS-MW128	12/5/2023	N	PM03	NA	NA	NA	UMCf	42.0 - 52.0	0 U	151.7	7.22	0 U	21.6	208

Notes:

- 1. Distances from the discontinuous or continuous walls are shown as negative values for upgradient monitoring wells, as zero for monitoring wells screened 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
 - 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