

PARTNER

Engineering and Science, Inc.



1ST QUARTER 2015 WDR MONITORING AND REPORTING

O'NEIL DATA SYSTEMS, INC.

12655 Beatrice Street

Los Angeles, California 90066

April 8, 2015

LARWQCB Case Number 882

Compliance File Number CI-9622

Partner Project Number 13-64269

Prepared For

LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

Attention: Groundwater Permitting Unit

320 West 4th Street, Suite 200

Los Angeles, California 90013



On Behalf Of

CITICORP NORTH AMERICA, INC.

444 South Flower Street, 1st Floor

Los Angeles, California 90071

April 8, 2015

Dr. Ann Chang
Los Angeles Regional Water Quality Control Board
Attention: Groundwater Permitting Unit
320 West 4th Street, Suite 200
Los Angeles, California 90013

Subject: 1st Quarter 2015 WDR Monitoring and Reporting
O'Neil Data Systems, Inc.
12655 Beatrice Street
Los Angeles, California 90066
LARWQCB Case Number 882
Compliance File Number CI-9622
Partner Project Number 13-64269

Dear Dr. Chang:

Partner Engineering and Science, Inc. (Partner), on behalf of Citicorp North America, Inc., has prepared this 1st Quarter 2015 Waste Discharge Requirements (WDR) Monitoring and Reporting for the above-referenced property for review by the Los Angeles Regional Water Quality Control Board (LARWQCB). During the 1st Quarter 2015, Partner performed the first groundwater sampling event after the implementation (in December 2014) of the Additional In-Situ Chemical Oxidation Workplan (Workplan) prepared by Partner dated August 26, 2014. Work performed during this quarter was in accordance with General WDR Order Number R4-2014-0187 and revised Monitoring and Reporting Program (MRP) Number CI-9622 (effective date of November 17, 2014).

Summary of Non-Compliance

Citicorp North America, Inc. was in compliance with the WDR for the 1st Quarter 2015.

Potassium Permanganate Injection Monitoring

No discharges or injections were conducted during this reporting period.

Groundwater Monitoring

On March 19, 2015, Partner subcontracted with Blaine Tech Services, Inc. (BlaineTech) to provide and operate well sampling equipment and perform groundwater monitoring on the six WDR monitoring wells (MW-1, MW-2, MW-9, TW-3, RW-2, and RW-3). Please see Figure 1 for a map of the WDR monitoring wells, Table 1 for a summary of the WDR monitoring well construction details, and Appendix A for a discussion of general field procedures for the groundwater elevation measurements, well purging, and sampling. Conventional purging and sampling was performed for this site. Purge water parameters were measured in the field with a

HACH turbidity meter and a YSI 556 multi-parameter meter and flow-through cell. BlaineTech calibrated the field instruments prior to use.

Groundwater Levels and Field Measurements

In the six WDR monitoring wells, the average depth to groundwater was 20.68 feet below top of casing (TOC), the average groundwater elevation was 1.12 feet above mean sea level (amsl), and the localized groundwater hydraulic gradient was approximately 0.007 feet per foot (ft/ft) to the south. Please see Figure 1 for the groundwater potentiometric surface contours, Table 2 for a summary of depth-to-groundwater and groundwater elevation data for this reporting period, and Table 3 for a cumulative summary of data collected from the WDR monitoring wells to date.

The groundwater parameters temperature, pH, specific conductivity, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured with field instruments during well purging. Please see Table 2 for a summary of the field instrument readings for this reporting period and Table 3 for a cumulative summary of readings collected from the WDR monitoring wells to date.

Laboratory Analyses

On March 19, 2015, Partner transferred the six collected groundwater samples in an iced cooler under chain-of-custody protocol to Alpha Scientific Corporation (ASC), a state-certified laboratory (State Water Resources Control Board [SWRCB] Environmental Laboratory Accreditation Program [ELAP] certificate number 2633) in Cerritos, California, for analysis. Each groundwater sample was analyzed for volatile organic compounds (VOCs) in accordance with Environmental Protection Agency (EPA) Method 8260B; total organic carbon in accordance with Standard Method (SM) 5310B; manganese and boron in accordance with EPA Method 6010B; total dissolved solids (TDS) in accordance with EPA Method 160.1; and sulfate, chloride, nitrate, and nitrite in accordance with EPA Method 300.0. ASC subcontracted the analysis for total organic carbon to Associated Laboratories (Associated) (ELAP certificate number 1338) in Orange, California, and the analyses for sulfate, chloride, nitrate, and nitrite to A&R Laboratories (ARL) (LAP certificate numbers 2789, 2790, and 2122) in Ontario, California.

Analyses were conducted at a laboratory certified for such analyses by the SWRCB and in accordance with current United States EPA procedures or as specified in this MRP.

Laboratory Analysis Results

ASC, ARL, and Associated reported the laboratory analysis results on March 26, March 25, and April 7, 2015, respectively. Please see Appendix B for the laboratory analysis reports, which include chain-of-custody and laboratory quality assurance / quality control (QA/QC)

documentation. Laboratory QA/QC data were within acceptable limits and/or did not affect the data interpretation.

Please see Table 2 for a summary of the laboratory analysis results for this reporting period and Table 3 for a cumulative summary of the laboratory analysis results to date. Table 3 includes relevant historical data for constituents required under the revised MRP that was collected under the prior version of the MRP and WDR Order Number R4-2007-0019. The full archived data set that was generated under the prior version of the MRP and WDR Order is presented in Table 4.

Planned Activities

The next episode of groundwater monitoring is planned for May 2015. The results of the 2nd Quarter 2015 WDR Monitoring and Reporting will be submitted to the LARWQCB on or before July 30, 2015.

Limitations

This report presents a summary of work performed by Partner, which includes observations of site conditions encountered and the analytical results provided by independent third-party laboratories of samples collected during the course of the project(s). The number and location of samples were selected to provide the required information. However, it cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations provided in this report are based on observations, the governing regulations, and/or available information from regulatory agencies, previous field investigations, and/or laboratory testing of soil, soil gas, and/or groundwater samples. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were performed in accordance with generally accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

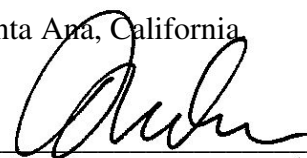
Reports, both verbal and written, as they pertain to the property located at 12655 Beatrice Street in Los Angeles, California, are for the sole use and benefit of the LARWQCB and/or Citicorp North America, Inc. This report has no other purpose and may not be relied upon by another person or entity without the written consent of Partner.

Certification Statement

The registered professional in charge, Mr. Robert Traylor, PG, CHg, has at least five (5) years hydrogeologic experience and actually supervised the work associated with the 1st Quarter 2015 WDR Monitoring and Reporting.

I certify under penalty of law that this document, including attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the 8th day of April 2015 at 1761 East Garry Avenue, Santa Ana, California.



Robert Traylor, PG, CHg
Principal – Site Mitigation

Signatures of Participating Professionals

Thank you for the opportunity to be of service. If you have questions regarding this report, please contact the undersigned at (310) 615-4500.

Sincerely,



Rodolfo Nadres, EIT
Project Manager



Robert Traylor, PG, CHg
Principal – Site Mitigation



Attachments:

Tables 1. Well Construction Details
 2. Summary of Current Waste Discharge Requirements Monitoring Results
 3. Cumulative Summary of Waste Discharge Requirements Monitoring Results
 4. Archived Waste Discharge Requirements Monitoring Results

Figures 1. Groundwater Potentiometric Surface

Appendices A. General Field Procedures for Well Purging and Groundwater Sampling
 B. Laboratory Reports
 C. Perjury Statement

cc: Citicorp North America, Inc.
 c/o Mr. Justin Archuleta
 Cushman & Wakefield
 444 South Flower Street, 1st Floor
 Los Angeles, California 90071

Tables

Table 1: Well Construction Details

Well Identification	Casing Diameter (inches)	Casing Material	Well Depth (feet bgs)	Screen Length (feet)	Screened Interval (feet bgs)	TOC Elevation (feet amsl)
MW-1	4	PVC	39.5	20	19.5-39.5	22.05
MW-2	4	PVC	39.5	20	19.5-39.5	22.41
MW-9	2	PVC	40	25	15-40	19.88
TW-3	2	PVC	40	30	10-40	21.36
RW-2	4	PVC	35	25	10-35	22.59
RW-3	4	PVC	35	25	10-35	22.50

Notes:

bgs = below ground surface

TOC = top of well casing

amsl = above mean sea level

PVC = polyvinyl chloride

Table 2: Summary of Current Waste Discharge Requirements Monitoring Results

Method		Water Level Meter		Field Instruments*						EPA 8260B								SM 5310B	EPA 6010B		EPA 160.1	EPA 300.0			
Well Identification	Sampling Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet amsl)	Temperature (°C)	pH	Specific Conductivity (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	1,1,1-TCA (µg/L)	Other VOCs (µg/L)	Total Organic Carbon (mg/L)	Manganese (mg/L)	Boron (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)
MW-1	03/19/15	20.91	1.14	21.4	6.86	2.04	13	0.31	298.1	14.9	5.1	15.5	<1	<1	1.6J	<1	ND	2.4	0.580	<0.010	1,070	170	300	<0.55	<0.75
MW-2	03/19/15	21.98	0.43	21.5	6.44	12.50	1	0.25	48.0	2.5	4.4	5.1	<1	5.8	1.0J	<1	ND	4.2	2.32	0.420	2,040	250	380	<0.55	<0.75
MW-9	03/19/15	17.79	2.09	20.9	6.76	1.81	2	0.56	181.4	<1	<1	<1	<1	<1	<1	<1	ND	2.3	2.32	<0.010	1,090	320	180	<0.55	<0.75
TW-3	03/19/15	20.30	1.06	22.1	6.78	2.24	143	0.20	162.1	4.6	6.7	32.0	<1	3.7J	6.6	<1	ND	6.6	5.160	<0.010	1,010	230	190	<0.55	<0.75
RW-2	03/19/15	21.60	0.99	21.9	6.69	2.40	>1,000	0.19	-32.4	176	38.1	199	3.4J	3.8J	14.9	<1	ND	11.2	1.53	<0.010	1,670	88	97	<0.55	<0.75
RW-3	03/19/15	21.51	0.99	21.3	6.76	2.04	4	0.16	-224.1	6.3	3.4	15.1	<1	<1	3.8J	<1	ND	13.9	5.98	0.076	430	5.8	19	<0.55	<0.75

Notes:

*Field instruments included a HACH turbidity meter and a YSI 556 multi-parameter meter; tabulated values are the final stabilized instrument readings during well purging

EPA = Environmental Protection Agency

SM = Standard Method

TOC = top of casing

amsl = above mean sea level

°C = degrees Celcius

mS/cm = millisiemens per centimeter

NTUs = Nephelometric Turbidity Units

DO = dissolved oxygen

mg/L = milligrams per liter

ORP = oxidation-reduction potential

mV = millivolts

µg/L = micrograms per liter

PCE = tetrachloroethene

TCE = trichloroethene

DCE = dichloroethene

DCA = dichloroethane

TCA = trichloroethane

VOCs = volatile organic compounds

< = not detected above indicated laboratory Method Detection Limit (MDL)

J = trace level (below laboratory Practical Quantitation Limit [PQL])

ND = not detected above laboratory MDLs

Table 3: Cumulative Summary of Waste Discharge Requirements Monitoring Results

Well Identification	Sampling Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet amsl)	Temperature (°C)	pH	Specific Conductivity (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	1,1,1-TCA (µg/L)	Other VOCs (µg/L)	Total Organic Carbon (mg/L)	Manganese (mg/L)	Boron (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)
MW-1	05/02/11	19.81	2.17	21.60	7.92	2.17	N/A	N/A	185	181	287	280	13.0	3.7J	9.1	<1	ND	N/A	0.840	N/A	607	11	17.8	0.135	N/A
	09/22/11	20.97	1.77	21.69	6.87	2.17	N/A	N/A	47	23.4	407	806	141	7.2J	19.8	<1	ND	N/A	1.68	N/A	543	11	27.2	<0.01	N/A
	12/14/11	20.26	1.72	20.70	6.89	2.16	N/A	N/A	52	23.7	546	771	223	8.2J	17.5J	<1	ND	N/A	1.61	N/A	616	58	27.2	<0.01	N/A
	03/15/12	20.41	1.57	21.11	6.89	2.22	N/A	N/A	-62.1	11.6	317	743	147	6.9J	16.1J	<1	ND	N/A	0.659	N/A	691	62.8	27.2	<0.01	N/A
	06/08/12	20.34	1.64	20.89	6.70	2.09	N/A	N/A	51.6	23.4	357	639	104	5.0J	13.0J	<1	ND	N/A	1.57	N/A	742	176	61.4	<0.50	N/A
	09/20/12	20.48	1.50	21.22	6.85	2.12	N/A	N/A	71.8	5.3	254	555	99.0	4.1J	28.6	<1	ND	N/A	0.523	N/A	743	117	65.9	3.74	N/A
	12/04/12	20.97	1.01	19.70	6.99	1.93	N/A	N/A	-214.2	12.9	213	531	112	10.6J	24.8	<1	ND	N/A	0.397	N/A	725	166	58.3	5.90	N/A
	03/11/13	20.69	1.29	23.41	6.87	1.83	N/A	N/A	-70.9	30.6	235	390	64.6	<1	13.7J	<1	ND	N/A	1.33	N/A	719	120	45.2	5.16	N/A
	06/10/13	20.61	1.37	21.20	6.84	1.87	N/A	N/A	102.7	40.0	133	290	33.5	<1	6.5	<1	ND	N/A	1.02	N/A	715	269	79.7	5.29	N/A
	09/10/13	20.72	1.26	21.00	6.79	1.99	N/A	N/A	-133.5	105	54.3	232	<1	19.9	19.0	<1	ND	N/A	1.26	N/A	778	162	89.7	7.2	N/A
	12/17/13	20.92	1.06	21.55	6.91	1.84	N/A	N/A	-340.2	51.3	47.2	334	41.1	<1	14.3	<1	ND	N/A	1.45	N/A	672	293	111	6.7	N/A
	03/20/14	20.75	1.23	21.00	6.74	1.86	N/A	N/A	-98.7	32.1	25.5	236	8.4J	<1	5.6J	<1	ND	N/A	1.51	N/A	784	201	144	5.7	N/A
	06/26/14	20.85	1.13	21.00	6.90	1.96	N/A	N/A	-123.4	52.3	7.2	40.2	<1	<1	3.9J	<1	ND	N/A	1.39	N/A	880	390	198	7.5	N/A
	09/09/14	20.82	1.16	20.90	6.81	1.84	N/A	N/A	50	43.2	6.7	36.9	<1	<1	3.7J	<1	ND	N/A	1.37	N/A	857	212	240	<0.50	N/A
12/04/14	20.64	1.41	21.04	7.01	1.83	1	0.49	58.1	11.3	9.3	41.0	<1	<1	1.9J	<1	ND	51	1.22	<0.010	825	194	230	<0.55	<0.75	
03/19/15	20.91	1.14	21.40	6.86	2.04	13	0.31	298.1	14.9	5.1	15.5	<1	<1	1.6J	<1	ND	2.4	0.580	<0.010	1,070	170	300	<0.55	<0.75	
MW-2	05/02/11	21.00	1.45	21.50	7.67	2.80	N/A	N/A	48	36.0	4.8	35.6	<1	2.5J	3.5J	<1	ND	N/A	1.16	N/A	1,030	26	216	0.171	<0.75
	09/22/11	21.34	1.11	21.31	6.76	2.64	N/A	N/A	-20	36.9	5.3	77.8	1.3J	5.8	8.4	<1	ND	N/A	1.11	N/A	876	95	267	< 0.01	<0.75
	12/14/11	21.23	1.22	21.30	6.79	2.58	N/A	N/A	58	24.5	2.0	54.1	<1	4.4J	3.3J	<1	ND	N/A	1.24	N/A	988	111	250	<0.01	<0.76
	03/15/12	21.47	0.98	21.35	6.82	2.78	N/A	N/A	-34.5	32.6	5.2	42.2	<1	4.1J	3.7J	<1	ND	N/A	0.761	N/A	1,040	333	259	0.054	<0.77
	06/08/12	21.35	1.10	21.21	6.64	2.76	N/A	N/A	13.1	35.4	2.9	21.7	<1	1.8J	3.4J	<1	ND	N/A	1.20	N/A	991	476	245	1.54	<0.78
	09/20/12	21.73	0.72	21.23	6.71	2.79	N/A	N/A	25.8	31.3	4.5	38.3	<1	3.8J	3.1J	<1	ND	N/A	1.14	N/A	1,020	292	266	5.38	<0.79
	12/04/12	22.01	0.44	20.70	6.81	3.16	N/A	N/A	-164.8	20.0	3.4	31.1	<1	4.4J	3.2J	<1	ND	N/A	0.235	N/A	950	322	222	4.49	<0.80
	03/11/13	21.82	0.63	21.30	6.72	2.93	N/A	N/A	-107.2	34.2	4.3	33.8	<1	2.5J	3.3J	<1	ND	N/A	1.14	N/A	854	307	207	4.82	<0.81
	06/10/13	21.60	0.85	21.10	6.70	3.32	N/A	N/A	128	26.1	4.6	25.3	<1	1.8J	2.8J	<1	ND	N/A	1.57	N/A	881	215	201	13.3	<0.82
	09/10/13	21.98	0.47	21.10	6.62	6.18	N/A	N/A	103	9.6	7.4	8.0	<1	<1	<1	<1	ND	N/A	0.740	N/A	992	253	173	10.2	<0.83
	12/17/13	22.24	0.21	21.65	6.50	6.80	N/A	N/A	-145.1	5.2	6.4	7.4	<1	1.7J	<1	<1	ND	N/A	1.36	N/A	1,000	378	189	7.2	<0.84
	03/20/14	21.94	0.51	21.18	6.42	7.29	N/A	N/A	-0.2	4.0	7.3	7.5	<1	3.2J	<1	<1	ND	N/A	1.75	N/A	1,040	395	246	6.2	<0.85
	06/26/14	21.87	0.58	21.20	6.65	7.54	N/A	N/A	34.7	2.8	7.4	5.4	<1	4.0J	1.1J	<1	ND	N/A	0.620	N/A	1,090	386	177	2.7	<0.86
	09/09/14	21.79	0.66	21.30	6.55	8.76	N/A	N/A	103.8	7.8	1.5J	3.5J	<1	<1	<1	<1	ND	N/A	4.56	N/A	3,150	663	2,800	1.8	<0.87
12/04/14	21.40	1.01	21.35	6.78	11.39	2	0.86	90.7	1.2J	3.1J	3.7J	<1	3.3J	1.2J	<1	ND	110	1.91	0.156	1,250	287	45	3.5	<0.75	
03/19/15	21.98	0.43	21.50	6.44	12.50	1	0.25	48.0	2.5	4.4	5.1	<1	5.8	1.0J	<1	ND	4.2	2.32	0.420	2,040	250	380	<0.55	<0.75	
MW-9	12/04/14	17.54	2.34	20.98	6.53	1.78	48	0.71	109.1	<1	<1	<1	<1	<1	<1	<1	ND	50	1.47	<0.010	832	188	250	<0.55	<0.75
	03/19/15	17.79	2.09	20.90	6.76	1.81	2	0.56	181.4	<1	<1	<1	<1	<1	<1	<1	ND	2.3	2.32	<0.010	1,090	180	320	<0.55	<0.75
TW-3	05/02/11	19.04	N/A	23.70	8.34	2.26	N/A	N/A	-105	28.7	27.2	148	1.4J	14.8	13.2	<1	ND	N/A	1.05	N/A	1,020	108	250	0.182	N/A
	09/22/11	19.45	N/A	21.66	6.79	2.30	N/A	N/A	54	47.3	15.8	164	1.7J	20.0	17.5	<1	ND	N/A	1.80	N/A	928	81			

Table 3: Cumulative Summary of Waste Discharge Requirements Monitoring Results

Well Identification	Sampling Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet amsl)	Temperature (°C)	pH	Specific Conductivity (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	1,1,1-TCA (µg/L)	Other VOCs (µg/L)	Total Organic Carbon (mg/L)	Manganese (mg/L)	Boron (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)
RW-3	09/09/14	21.44	N/A	21.40	6.65	1.66	N/A	N/A	58.7	148	21.4	111	1.8J	6.0	18.2	<1	ND	N/A	3.26	N/A	735	162	160	1.2	N/A
	12/04/14	21.33	1.26	21.13	6.68	1.63	5	0.42	-1.5	245	61.3	162	2.2J	6.1	17.5	1.9J	ND	63	1.00	<0.010	588	106	350	<0.55	<0.75
	03/19/15	21.60	0.99	21.90	6.69	2.40	>1,000	0.19	-32.4	176	38.1	199	3.4J	3.8J	14.9	<1	ND	11.2	1.53	<0.010	1,670	88	97	<0.55	<0.75
	12/04/14	21.31	1.19	19.57	6.95	0.46	15.6	0.22	-73.8	31.7	10.0	25.4	<1	1.1J	2.7J	<1	ND	16	0.455	0.012	689	10.9	13	<0.55	<0.75
	03/19/15	21.51	0.99	21.30	6.76	2.04	4	0.16	-224.1	6.3	3.4	15.1	<1	<1	3.8J	<1	ND	13.9	5.98	0.076	430	5.8	19	<0.55	<0.75

Notes:
EPA = Environmental Protection Agency
SM = Standard Method
TOC = top of casing
amsl = above mean sea level
°C = degrees Celcius
mS/cm = millisiemens per centimeter
NTUs = Nephelometric Turbidity Units
DO = dissolved oxygen
mg/L = milligrams per liter
ORP = oxidation-reduction potential
mV = millivolts
µg/L = micrograms per liter
PCE = tetrachloroethene
TCE = trichloroethene
DCE = dichloroethene
DCA = dichloroethane
TCA = trichloroethane
VOCs = volatile organic compounds
N/A = not available
< = not detected above indicated laboratory Method Detection Limit (MDL)
J = trace level (below laboratory Practical Quantitation Limit [PQL])
ND = not detected above laboratory MDLs

Table 4: Archived Waste Discharge Requirements Monitoring Results

Well Identification	Sampling Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet amsl)	Temperature (°F)	pH	Specific Conductivity (µmhos/cm)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)	Carbon Tetrachloride (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,2,4-TMB (µg/L)	Naphthalene (µg/L)	Other VOCs (µg/L)	Dissolved Organic Carbon (µg/L)	Manganese (µg/L)	Total Iron (µg/L)	Ferrous Iron (µg/L)	Alkalinity (µg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Nitrate (mg/L)	Carbon Dioxide (mg/L)	1,4-Dioxane (µg/L)	1,2,3-TCP (µg/L)	Hexavalent Chromium (µg/L)		
MW-1	05/02/11	19.81	2.17	70.88	7.92	2,167	185	181	287	280	13.0	3.7J	<0.5	<0.5	<1	<1	9.1	<0.5	<1	<1	ND	3,700	840	<25	<50	470,000	607	11	17.8	0.135	44.7	23.4	<0.00500	<0.3		
	09/22/11	20.97	1.77	71.04	6.87	2,170	47	23.4	407	806	141	7.2J	<0.5	<0.5	<1	<1	19.8	<0.5	<1	<1	ND	4,700	1,680	<25	640	605,000	543	11	27.2	<0.01	63.7	81.0	N/A	N/A		
	12/14/11	20.26	1.72	69.26	6.89	2,160	52	23.7	546	771	223	8.2J	<0.5	<0.5	<1	<1	17.5J	<0.5	<1	<1	ND	5,100	1,610	256	<50	640,000	616	58	27.2	<0.01	79.6	61.2	N/A	N/A		
	03/15/12	20.41	1.57	70.00	6.89	2,215	62.1	11.6	317	743	147	6.9J	<0.5	<0.5	<1	<1	16.1J	<0.5	<1	<1	ND	3,600	659	<25	<50	645,000	691	62.8	27.2	<0.01	69.5	53.2	N/A	N/A		
	06/08/12	20.34	1.64	69.60	6.70	2,088	-51.6	23.4	357	639	104	5.0J	<0.5	<0.5	<1	<1	13.0J	<0.5	<1	<1	ND	4,400	1,570	<25	<50	645,000	742	176	61.4	<0.50	57.7	65.6	N/A	N/A		
	09/20/12	20.48	1.50	70.20	6.85	2,117	71.8	5.3	254	555	99.0	4.1J	<0.5	<0.5	<1	<1	28.6	<0.5	<1	<1	ND	4,900	523	<25	132	640,000	743	117	65.9	3.74	57.8	92.7	N/A	N/A		
	12/04/12	20.97	1.01	67.46	6.99	1,927	-214.2	12.9	213	531	112	10.6J	<0.5	<0.5	<1	<1	24.8	<0.5	<1	<1	ND	4,550	397	<25	<50	595,000	725	166	58.3	5.90	50.2	52.7	N/A	N/A		
	03/11/13	20.69	1.29	74.14	6.87	1,832	-70.9	30.6	235	390	64.6	<1	<0.5	<0.5	<1	<1	13.7J	<0.5	<1	<1	ND	4,540	1,330	<25	<50	660,000	719	120	45.2	5.16	57.7	72.0	N/A	N/A		
	06/10/13	20.61	1.37	70.16	6.84	1,870	102.7	40.0	133	290	33.5	<1	<0.5	<0.5	<1	<1	6.5	<0.5	<1	<1	ND	2,770	1,020	<25	<50	633,000	715	269	79.7	5.29	41.4	21.9	N/A	N/A		
	09/10/13	20.72	1.26	69.80	6.79	1,989	-133.5	105	54.3	232	<1	19.9	<0.5	<0.5	<1	<1	19.0	<0.5	<1	<1	ND	3,190	1,260	<25	<50	550,000	778	162	89.7	7.2	41.1	20.5	N/A	N/A		
	12/17/13	20.92	1.06	70.79	6.91	1,835	-340.2	51.3	47.2	334	41.1	<1	<0.5	<0.5	<1	<1	14.3	<0.5	<1	<1	ND	2,820	1,450	<25	<50	565,000	672	293	111	6.7	40.2	16.2	N/A	N/A		
	03/20/14	20.75	1.23	69.80	6.74	1,858	-98.7	32.1	25.5	236	8.4J	<1	<0.5	<0.5	<1	<1	5.6J	<0.5	<1	<1	ND	2,280	1,510	<25	<50	535,000	784	201	144	5.7	32.5	11.7	N/A	N/A		
	06/26/14	20.85	1.13	69.80	6.90	1,956	-123.4	52.3	7.2	40.2	<1	<1	<0.5	<0.5	<1	<1	3.9J	<0.5	<1	<1	ND	1,700	1,390	<25	<50	492,000	880	390	198	7.5	39.5	9.5	N/A	N/A		
	09/09/14	20.82	1.16	69.62	6.81	1,840	50	43.2	6.7	36.9	<1	<1	<0.5	<0.5	<1	<1	3.7J	<0.5	<1	<1	ND	33,000	1,370	<25	<50	400,000	857	212	240	<0.50	28.5	8.3	N/A	N/A		
	MW-2	05/02/11	21.00	1.45	70.70	7.67	2,804	48	36.0	4.8	35.6	<1	2.5J	<0.5	<0.5	<1	<1	3.5J	<0.5	<1	<1	ND	2,600	1,160	<25	<50	505,000	1,030	26	216	0.171	52.4	10.0	<0.00500	<0.3	
		09/22/11	21.34	1.11	70.36	6.76	2,638	-20	36.9	5.3	77.8	1.3J	5.8	<0.5	<0.5	<1	<1	8.4	<0.5	<1	1.7J	ND	2,400	1,110	<25	<50	510,000	876	95	267	<0.01	54.0	14.3	N/A	N/A	
		12/14/11	21.23	1.22	70.34	6.79	2,580	58	24.5	2.0	54.1	<1	4.4J	<0.5	<0.5	<1	<1	3.3J	<0.5	<1	<1	ND	2,200	1,240	<25	<50	480,000	988	111	250	<0.01	76.5	21.0	N/A	N/A	
		03/15/12	21.47	0.98	70.43	6.82	2,779	-34.5	32.6	5.2	42.2	<1	4.1J	<0.5	<0.5	<1	<1	3.7J	<0.5	<1	<1	ND	2,200	761	<25	<50	535,000	1,040	333	259	0.054	72.8	12.5	N/A	N/A	
		06/08/12	21.35	1.10	70.18	6.64	2,760	13.1	35.4	2.9	21.7	<1	1.8J	<0.5	<0.5	<1	<1	3.4J	<0.5	<1	<1	ND	2,300	1,200	<25	<50	545,000	991	476	245	1.54	61.6	19.7	N/A	N/A	
		09/20/12	21.73	0.72	70.21	6.71	2,791	25.8	31.3	4.5	38.3	<1	3.1J	<0.5	<0.5	<1	<1	3.1J	<0.5	<1	<1	ND	2,300	1,140	<25	<50	535,000	1,020	292	266	5.38	50.5	7.7	N/A	N/A	
12/04/12		22.01	0.44	69.26	6.81	3,158	-164.8	20.0	3.4	31.1	<1	4.4J	<0.5	<0.5	<1	<1	3.2J	<0.5	<1	<1	ND	2,210	235	<25	<50	513,000	950	322	222	4.49	45.3	7.0	N/A	N/A		
03/11/13		21.82	0.63	70.34	6.72	2,931	-107.2	34.2	4.3	33.8	<1	2.5J	<0.5	<0.5	<1	<1	3.3J	<0.5	<1	<1	ND	2,000	1,140	<25	<50	525,000	854	307	207	4.82	57.3	6.9	N/A	N/A		
06/10/13		21.60	0.85	69.98	6.70	3,315	128	26.1	4.6	25.3	<1	1.8J	<0.5	<0.5	<1	<1	2.8J	<0.5	<1	<1	ND	1,840	1,570	149	<50	540,000	881	215	201	13.3	34.4	4.6	N/A	N/A		
09/10/13		21.98	0.47	69.98	6.62	6,183	103	9.6	7.4	8.0	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	ND	2,600	740	<25	<50	625,000	992	253	173	10.2	79.4	3.8	N/A	N/A		
12/17/13		22.24	0.21	70.97	6.50	6,798	-145.1	5.2	6.4	7.4	<1	1.7J	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	ND	2,870	1,360	<25	<50	750,000	1,000	378	189	7.2	112	5.4	N/A	N/A		
03/20/14		21.94	0.51	70.12	6.42	7,287	-0.2	4.0	7.3	7.5	<1	3.2J	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	ND	2,750	1,750	<25	<50	825,000	1,040	395	246	6.2	96.9	6.5	N/A	N/A		
06/26/14		21.87	0.58	70.16	6.65	7,539	34.7	2.8	7.4	5.4	<1	4.0J	<0.5	<0.5	<1	<1	1.1J	<0.5	<1	<1	ND	2,170	620	<25	<50	890,000	1,090	386	177	2.7	136	6.4	N/A	N/A		
09/09/14		21.79	0.66	70.34	6.55	8,760	103.8	7.8	1.5J	3.5J	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	ND	19,000	4,560	<25	<50	350,000	3,150	663	2,800	1.8	36.7	3.4	N/A	N/A		
MW-3		05/02/11	20.30	1.20	71.42	7.73	2,977	47	3.3	<1	4.0J	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	ND	4,300	740	<25	<50	620,000	1,270	81	262	0.090	81.7	2.9	<0.00500	<0.3	
		09/22/11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		12/14/11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		03/15/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		06/08/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		09/20/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/04/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	03/11/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	06/10/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	09/10/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	12/17/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	03/20/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	06/26/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	09/09/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	MW-4	05/02/11	18.33	1.43	70.88	7.24	4,099	-2	<1	<1	<1	<1	<1	<0.5	<																					

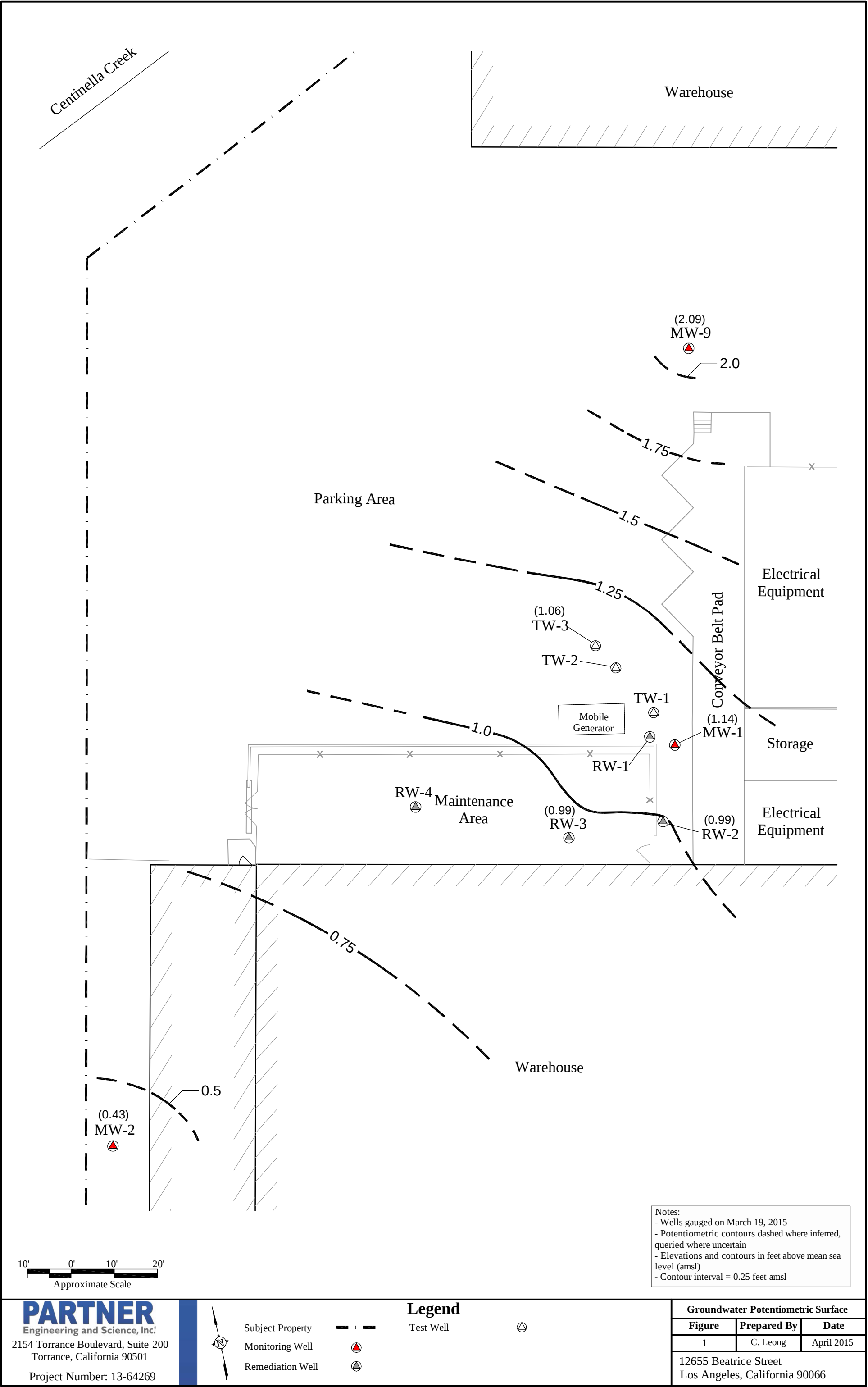
Table 4: Archived Waste Discharge Requirements Monitoring Results

Well Identification	Sampling Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet amsl)	Temperature (°F)	pH	Specific Conductivity (µmhos/cm)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)	Carbon Tetrachloride (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,2,4-TMB (µg/L)	Naphthalene (µg/L)	Other VOCs (µg/L)	Dissolved Organic Carbon (µg/L)	Manganese (µg/L)	Total Iron (µg/L)	Ferrous Iron (µg/L)	Alkalinity (µg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Nitrate (mg/L)	Carbon Dioxide (mg/L)	1,4-Dioxane (µg/L)	1,2,3-TCP (µg/L)	Hexavalent Chromium (µg/L)	
	12/04/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	03/11/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	06/10/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	09/10/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	12/17/13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	03/20/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	06/26/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	09/09/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TW-3	05/02/11	19.04	N/A	74.66	8.34	2,255	-105	28.7	27.2	148	1.4J	14.8	<0.5	<0.5	<1	<1	13.2	<0.5	<1	<1	ND	3,400	1,050	<25	<50	515,000	1,020	108	250	0.182	42.4	50.3	<0.00500	<0.3
	09/22/11	19.45	N/A	70.99	6.79	2,298	54	47.3	15.8	164	1.7J	20.0	<0.5	<0.5	<1	<1	17.5	<0.5	<1	<1	<1	ND	2,600	1,800	<25	<50	475,000	928	81	270	<0.01	53.0	79.7	N/A	N/A
12/14/11	19.49	N/A	69.26	6.84	1,822	119	9.8	7.0	42.0	<1	5.2	<0.5	<0.5	<1	<1	5.1	<0.5	<1	<1	<1	ND	6,400	1,510	<25	<50	170,000	867	42.8	22	1,170	30.3	12.1	N/A	N/A	
03/15/12	19.75	N/A	71.11	6.82	2,315	-37.6	32.4	16.0	191	2.1J	27.6	<0.5	<0.5	<1	<1	22.6	<0.5	<1	<1	<1	ND	20,000	4,380	<25	<50	531,000	957	237	218	<0.01	48.6	33.5	N/A	N/A	
06/08/12	19.62	N/A	70.97	6.76	2,187	4.2	67.1	33.0	168	1.4J	23.8	<0.5	<0.5	<1	<1	27.3	<0.5	<1	<1	<1	ND	3,100	3,530	<25	<50	540,000	1,000	330	231	<0.50	75.3	74.4	N/A	N/A	
09/20/12	19.84	N/A	70.32	6.97	2,339	5.2	60.7	56.4	382	3.9J	44.2	<0.5	<0.5	<1	<1	31.8	<0.5	<1	<1	<1	ND	2,500	313	<25	123.00	545,000	986	250	213	7.640	57.8	60.7	N/A	N/A	
12/04/12	20.65	N/A	67.64	6.80	2,020	-198.7	26.5	85.8	249	4.9J	39.7	<0.5	<0.5	<1	<1	34.3	<0.5	<1	<1	<1	ND	3,500	246	<25	<50	530,000	956	185	168	5.01	52.2	53.6	N/A	N/A	
03/11/13	20.09	N/A	75.40	6.84	1,996	-106.1	25.4	56.8	248	4.7J	12.3	<0.5	<0.5	<1	<1	20.7	<0.5	<1	<1	<1	ND	2,640	2,210	<25	<50	555,000	841	249	195	2.60	59.0	60.4	N/A	N/A	
06/10/13	19.98	N/A	71.24	6.70	1,928	-48.3	41.9	56.2	236	3.8J	21.9	<0.5	<0.5	<1	<1	21.0	<0.5	<1	<1	<1	ND	2,200	1,660	<25	<50	590,000	897	221	174	6.03	48.3	39.6	N/A	N/A	
09/10/13	20.01	N/A	70.88	6.71	2,049	-51.2	44.1	46.6	216	1.9J	22.9	<0.5	<0.5	<1	<1	19.6	<0.5	<1	<1	<1	ND	3,100	2,110	<25	<50	548,000	904	257	127	4.2	52.8	36.1	N/A	N/A	
12/17/13	20.35	N/A	70.77	6.79	1,868	-325.1	47.1	40.4	195	1.6J	15.7	<0.5	<0.5	<1	<1	17.5	<0.5	<1	<1	<1	ND	6,930	2,060	<25	<50	497,000	679	276	108	9.8	54.0	35.3	N/A	N/A	
03/20/14	20.20	N/A	71.28	6.61	1,841	-106.3	24.9	21.3	90.6	<1	6.5	<0.5	<0.5	<1	<1	10.1	<0.5	<1	<1	<1	ND	3,190	1,620	<25	<50	460,000	781	291	139	7.5	49.5	14.7	N/A	N/A	
06/26/14	20.17	N/A	70.88	6.90	1,895	-92.4	4.2	30.8	76.2	<1	5.1	<0.5	<0.5	<1	<1	6.9	<0.5	<1	<1	<1	ND	1,680	960	<25	<50	495,000	857	356	181	1.6	35.6	17.5	N/A	N/A	
09/09/14	20.23	N/A	70.34	6.73	1,810	23.4	14.5	16.7	97.7	<1	11.1	<0.5	<0.5	<1	<1	8.5	<0.5	<1	<1	<1	ND	21,000	1,160	<25	<50	400,000	862	237	230	15.4	38.5	13.9	N/A	N/A	
RW-1	05/02/11	20.12	N/A	73.76	8.50	1,708	-76	92.7	15.8	92.6	5.5	1.9J	<0.5	<0.5	2.4J	<1	5.1	<0.5	<1	<1	ND	2,800	740	<25	<50	365,000	514	51	23.1	0.180	45.0	24.3	<0.00500	<0.3	
09/22/11	20.20	N/A	70.20	6.84	1,995	60	88.1	34.0	200	12.9	2.3J	<0.5	<0.5	<1	<1	9.4	<0.5	<1	<1	<1	ND	4,700	5,090	<25	<50	40,000	572	53	291	<0.01	58.7	31.7	N/A	N/A	
12/14/11	21.15	N/A	69.44	6.80	1,912	94	81.6	30.2	113	4.5J	<1	<0.5	<0.5	<1	<1	5.2	<0.5	<1	<1	<1	ND	4,100	620	<25	<50	370,000	580	110	15	0.185	48.4	9.2	N/A	N/A	
03/15/12	20.44	N/A	70.21	6.83	2,052	-16.3	98.3	44.9	130	11.6	<1	<0.5	<0.5	<1	<1	8.0	<0.5	<1	<1	<1	ND	6,900	475	<25	<50	510,000	643	226	30.0	0.189	55.1	15.5	N/A	N/A	
06/08/12	20.45	N/A	69.60	6.59	1,859	132.6	126	33.3	58.7	3.6J	1.0J	<0.5	<0.5	1.3J	<1	7.1	<0.5	<1	<1	<1	ND	3,400	1,290	<25	<50	440,000	629	284	208	32.0	83.9	16.6	N/A	N/A	
09/20/12	20.50	N/A	69.73	6.85	2,034	137.4	130	47.8	194	14.9	2.3J	<0.5	<0.5	<1	<1	9.9	<0.5	<1	<1	<1	ND	3,500	1,												

Table 4: Archived Waste Discharge Requirements Monitoring Results

Well Identification	Sampling Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet amsl)	Temperature (°F)	pH	Specific Conductivity (µmhos/cm)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)	Carbon Tetra-chloride (µg/L)	1,1,1-TCA (µg/L)	1,1,2-TCA (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)	1,2,4-TMB (µg/L)	Naph-thalene (µg/L)	Other VOCs (µg/L)	Dissolved Organic Carbon (µg/L)	Manganese (µg/L)	Total Iron (µg/L)	Ferrous Iron (µg/L)	Alkalinity (µg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Nitrate (mg/L)	Carbon Dioxide (mg/L)	1,4-Dioxane (µg/L)	1,2,3-TCP (µg/L)	Hexavalent Chromium (µg/L)			
VOCs = volatile organic compounds mg/L = milligrams per liter TCP = trichloropropane < = not detected above indicated laboratory Method Detection Limit (MDL) ND = not detected above laboratory MDLs J = trace level (below laboratory Practical Quantitation Limit [PQL]) N/A = not available																																					

Figures



Appendix A:

General Field Procedures for Well Purging and Groundwater Sampling

General Field Procedures For Well Purging and Groundwater Sampling

These general guidelines will be followed unless additional directives are provided by the Client and/or regulatory agency and/or are warranted based on previous on-site experience. Deviations will be noted in the associated groundwater monitoring report.

The sequence of the monitoring activities will be followed as specified by the project manager. In general, gauging, purging, and sampling activities will be conducted in order from the least to the most impacted wells, whenever feasible, as based on previous on-site experience and/or historical information.

Decontamination

Nitrile gloves will be worn during gauging, purging, and sampling activities. Gloves will be changed at least after each well or more often as required.

Equipment that could come into contact with fluids and/or residue from wells will be dedicated to specific wells, decontaminated between uses, and/or discarded following a single use. Equipment decontamination will consist of a wash in a solution of Liquinox detergent and water followed by a double water rinse, each of which will be performed in a separate container. Care will be taken to decontaminate equipment prior to use on the first well, before use in a subsequent well, and prior to demobilizing from the site.

Groundwater Elevation Measurements

Each well to be monitored will be located based on the provided site map. Well boxes will be opened and debris and/or fluids present in the well box will be removed prior to removal of the well cap. If identified, damages to the well box and/or top of casing (TOC) will be recorded in the field sheets.

Measurements will be recorded to within 0.01 foot using a water level indicator or an interface meter if the presence of light or dense non-aqueous phase liquid (LNAPL or DNAPL, respectively) is known or suspected. A permanent survey mark on the TOC will be used as a constant reference point or the north side of the TOC if a survey mark is not available. NAPL thickness (if encountered), depth to groundwater, and total well length will be recorded for each well in the field sheets.

If LNAPL is not present (<0.02 foot), the well will be purged and sampled as discussed in the proceeding sections. If LNAPL is encountered (>0.02 foot), the total well length will not be measured and the well will not be purged or sampled, though LNAPL will be removed as practical and time permitting with a bailer and placed in a separate, grounded container for disposal.

Conventional Groundwater Purging

The purge volume of each well will be calculated based on the depth to groundwater, well diameter, and total well length. A purge volume equivalent to three well column volumes of groundwater will be removed from the well by vacuum truck, submersible pump, or bailer. The groundwater parameters temperature, pH, conductivity, turbidity, dissolved oxygen, and/or oxidation-reduction potential (ORP) will be periodically recorded at a rate of no less than one reading per well column volume while purging.

Purging may be discontinued prior to removing the calculated purge volume if the well is pumped dry (i.e., dewatered). Sampling may proceed after the water column height has recovered to at least 80% of the pre-purge groundwater level or after 2 hours, whichever is sooner.

Low-Flow Purging

The purpose of low flow sampling is to minimize disturbances to groundwater chemistry during the purging process sample collection and to reduce the amount of investigation-derived waste (IDW) that is generated.

The pump will be set at the desired extraction point within the well prior to purging. This depth will be recorded and the pump will be set at the same depth during future sampling events. Unless otherwise specified, the default depth of the pump in wells will be near the midpoint of the well screened interval.

At least one system volume (i.e., pump tubing volume) will be removed prior to recording groundwater parameters. The groundwater parameters temperature, pH, conductivity, turbidity, dissolved oxygen, and/or ORP will be periodically recorded at a rate of one reading every 3 to 5 minutes. Purging may cease once groundwater parameters stabilize. Groundwater parameter stabilization is considered to be fluctuations of less than 3% in temperature; 10% in conductivity, turbidity, and dissolved oxygen; 0.1 units in pH; and 10 millivolts in ORP over three consecutive readings.

The depth to water (DTW) will be recorded with a water level meter during purging to monitor the water column drawdown. The pump will purge groundwater from the well at a flow rate of no more than 500 milliliters per minute (typically between 200 and 500 milliliters per minute) that results in a stabilized water column drawdown of no greater than 0.33 feet after purging the initial system volume.

Sampling may begin once groundwater parameters and well column drawdown stabilize.

For wells where the water column drawdown is unable to stabilize, the pump will be shut off for 15 minutes after removing one system volume to allow groundwater to recharge before restarting the well purging. This will be performed for up to two iterations. In the event that the well drawdown cannot stabilize after two iterations, the well may be sampled during the third attempt at well purging.

Sample Collection

For wells that have been conventionally purged, a sample will be collected once the water column height has recovered to at least 80% of the pre-purge groundwater level by lowering a new, disposable bailer beneath the groundwater surface to allow water to enter the bailer (bailers used to sample wells for volatile organics analysis will not be fully submerged). The water-filled bailer will be retrieved from the well and groundwater will be conveyed into laboratory-supplied sample containers

For low-flow purged wells, groundwater will be conveyed directly from the pump discharge tubing into laboratory-supplied containers. The pump flow rate will be maintained or reduced slightly during sampling. The pump will be shut off and downhole sampling equipment will be retrieved from the well after sampling.

The type and number of sample containers to be collected will be based on the analyses to be conducted. Care will be taken while conveying the sample into the containers to avoid excessive turbulence and/or aeration. Containers for analysis of volatile compounds will be filled with no observable headspace or air bubbles to minimize the potential for volatilization. Sample containers will be sealed, labeled for identification, placed into a plastic bag, and stored in an iced cooler. The samples will be transported in

an iced cooler (if necessary based on the target analyte[s]) under chain-of-custody protocol to the laboratory for analysis.

Each well cap and well box lid will be securely replaced prior to demobilizing from the site.

Trip Blanks and Duplicate Samples

Trip blanks can be used to identify systematic sources of cross-contamination and will be prepared prior to sample collection, if required for the project. The trip blank containers, which will be filled with deionized water, will be stored in the iced cooler for the duration of the monitoring episode and submitted to the laboratory for analysis along with the collected samples.

Duplicate samples can be used to assess the precision of the laboratory analyses and can be collected, if required for the project. The duplicate samples will be collected consecutively to minimize variations between the samples. Sample collection will be performed as described in the previous sections and the sample will be labeled with a unique identification to disassociate the two samples.

Investigation-Derived Wastes

Generated decontamination and purge water will be containerized in labeled and sealed 55-gallon steel drums. The drums of IDW will remain on-site in a secure location until transportation to an appropriate off-site receiving facility for treatment, recycling, and/or disposal can be arranged.

Appendix B:

Laboratory Reports



Alpha Scientific Corporation

Environmental Laboratories

03-26-2015

Mr. Rodolfo Nadres
Partner Engineering & Science
2154 Torrance Boulevard
Torrance, CA 90501

Project: 13-64269.29
Project Site: 12655 Beatrice Street, Los Angeles, CA 90066
Sample Date: 03-19-2015
Lab Job No.: PA503040

Dear Mr. Nadres:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 03-19-2015 and analyzed by the following EPA methods:

EPA 8260B (VOCs by GC/MS)

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



Alpha Scientific Corporation

Environmental Laboratories

Client: Partner Engineering & Science
Project: 13-64269.29

Lab Job No.: PA503040
Matrix: Water

Date Reported: 03-26-2015
Date Sampled: 03-19-2015

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/L (ppb)

Date ANALYZED			03-23-15	03-23-15	03-23-15	03-23-15	03-23-15
DILUTION FACTOR			1	1	1	1	1
LAB SAMPLE I.D.				PA503040-1	PA503040-2	PA503040-3	PA503040-4
CLIENT SAMPLE I.D.				MW-1-GW	MW-2-GW	MW-9-GW	TW-3-GW
COMPOUND	MDL	POL	MB				
Dichlorodifluoromethane	1	5	ND	ND	ND	ND	ND
Chloromethane	1	5	ND	ND	ND	ND	ND
Vinyl Chloride	0.5	1	ND	ND	ND	ND	ND
Bromomethane	1	5	ND	ND	ND	ND	ND
Chloroethane	1	5	ND	ND	ND	ND	ND
Trichlorofluoromethane	1	5	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	5	ND	ND	5.8	ND	3.7J
Iodomethane	1	5	ND	ND	ND	ND	ND
Methylene Chloride	2	5	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1	5	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	5	ND	1.6J	1.0J	ND	6.6
2,2-Dichloropropane	1	5	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1	5	ND	15.5	5.1	ND	32.0
Bromochloromethane	1	5	ND	ND	ND	ND	ND
Chloroform	1	5	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	5	ND	ND	ND	ND	ND
Carbon tetrachloride	0.5	5	ND	ND	ND	ND	ND
1,1-Dichloropropene	1	5	ND	ND	ND	ND	ND
Benzene	0.5	1	ND	ND	ND	ND	ND
Trichloroethene	1	2	ND	5.1	4.4	ND	6.7
1,2-Dichloropropane	1	5	ND	ND	ND	ND	ND
Bromodichloromethane	1	5	ND	ND	ND	ND	ND
Dibromomethane	1	5	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	1	5	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.5	5	ND	ND	ND	ND	ND
Dibromochloromethane	1	5	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	1	5	ND	ND	ND	ND	ND
Bromoform	1	5	ND	ND	ND	ND	ND
Isopropylbenzene	1	5	ND	ND	ND	ND	ND
Bromobenzene	1	5	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Partner Engineering & Science
Project:13-64269.29

Lab Job No.: PA503040
Matrix: Water

Date Reported: 03-26-2015
Date Sampled:03-19-2015

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	PQL	MB	MW-1-GW	MW-2-GW	MW-9-GW	TW-3-GW
Toluene	0.5	1	ND	ND	ND	ND	ND
Tetrachloroethene	1	2	ND	14.9	2.5	ND	4.6
1,2-Dibromoethane(EDB)	1	5	ND	ND	ND	ND	ND
Chlorobenzene	1	5	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1	5	ND	ND	ND	ND	ND
Ethylbenzene	0.5	1	ND	ND	ND	ND	ND
Total Xylenes	1	2	ND	ND	ND	ND	ND
Styrene	1	5	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	5	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1	5	ND	ND	ND	ND	ND
n-Propylbenzene	1	5	ND	ND	ND	ND	ND
2-Chlorotoluene	1	5	ND	ND	ND	ND	ND
4-Chlorotoluene	1	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1	5	ND	ND	ND	ND	ND
tert-Butylbenzene	1	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1	5	ND	ND	ND	ND	ND
Sec-Butylbenzene	1	5	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1	5	ND	ND	ND	ND	ND
p-Isopropyltoluene	1	5	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1	5	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1	5	ND	ND	ND	ND	ND
n-Butylbenzene	1	5	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1	5	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	1	5	ND	ND	ND	ND	ND
Hexachlorobutadiene	1	5	ND	ND	ND	ND	ND
Naphthalene	1	5	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1	5	ND	ND	ND	ND	ND
Acetone	25	50	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
Carbon disulfide	25	50	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	25	50	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
MTBE	1	2	ND	ND	ND	ND	ND
ETBE	1	2	ND	ND	ND	ND	ND
DIPE	1	2	ND	ND	ND	ND	ND
TAME	1	2	ND	ND	ND	ND	ND
t-Butyl Alcohol	10	20	ND	ND	ND	ND	ND

MB=Method Blank; MDL=Method Detection Limit; PQL=Practical Quantitation Limit; ND=Not Detected (below DF × MDL). * Result from a higher dilution analysis. J=Result is between DF × MDL & DF × PQL.Client:



Alpha Scientific Corporation

Environmental Laboratories

Client: Partner Engineering & Science
Project: 13-64269.29

Lab Job No.: PA503040
Matrix: Water

Date Reported: 03-26-2015
Date Sampled: 03-19-2015

EPA 8260B (VOCs by GC/MS, Page 1 of 2)

Reporting Unit: µg/L (ppb)

Date ANALYZED			03-23-15	03-23-15	03-23-15	03-23-15	03-23-15
DILUTION FACTOR			1	2	1	1	1
LAB SAMPLE I.D.				PA503040-5	PA503040-6	PA503040-7	PA503040-8
CLIENT SAMPLE I.D.				RW-2-GW	RW-3-GW	MW-GW-DUP-1	TB-1
COMPOUND	MDL	POL	MB				
Dichlorodifluoromethane	1	5	ND	ND	ND	ND	ND
Chloromethane	1	5	ND	ND	ND	ND	ND
Vinyl Chloride	0.5	1	ND	ND	ND	ND	ND
Bromomethane	1	5	ND	ND	ND	ND	ND
Chloroethane	1	5	ND	ND	ND	ND	ND
Trichlorofluoromethane	1	5	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	5	ND	3.8J	ND	ND	ND
Iodomethane	1	5	ND	ND	ND	ND	ND
Methylene Chloride	2	5	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1	5	ND	3.4J	ND	ND	ND
1,1-Dichloroethane	1	5	ND	14.9	3.5J	3.8J	ND
2,2-Dichloropropane	1	5	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1	5	ND	199	13.1	15.1	ND
Bromochloromethane	1	5	ND	ND	ND	ND	ND
Chloroform	1	5	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	5	ND	ND	ND	ND	ND
Carbon tetrachloride	0.5	5	ND	ND	ND	ND	ND
1,1-Dichloropropene	1	5	ND	ND	ND	ND	ND
Benzene	0.5	1	ND	ND	ND	ND	ND
Trichloroethene	1	2	ND	38.1	3.3	3.4	ND
1,2-Dichloropropane	1	5	ND	ND	ND	ND	ND
Bromodichloromethane	1	5	ND	ND	ND	ND	ND
Dibromomethane	1	5	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	1	5	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.5	5	ND	ND	ND	ND	ND
Dibromochloromethane	1	5	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	1	5	ND	ND	ND	ND	ND
Bromoform	1	5	ND	ND	ND	ND	ND
Isopropylbenzene	1	5	ND	ND	ND	ND	ND
Bromobenzene	1	5	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Partner Engineering & Science
Project: 13-64269.29

Lab Job No.: PA503040
Matrix: Water

Date Reported: 03-26-2015
Date Sampled: 03-19-2015

EPA 8260B (VOCs by GC/MS, Page 2 of 2)

Reporting Unit: ppb

COMPOUND	MDL	PQL	MB	RW-2-GW	RW-3-GW	MW-GW-DUP-1	TB-1
Toluene	0.5	1	ND	ND	ND	ND	ND
Tetrachloroethene	1	2	ND	176	6.3	6.0	ND
1,2-Dibromoethane(EDB)	1	5	ND	ND	ND	ND	ND
Chlorobenzene	1	5	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1	5	ND	ND	ND	ND	ND
Ethylbenzene	0.5	1	ND	ND	ND	ND	ND
Total Xylenes	1	2	ND	ND	ND	ND	ND
Styrene	1	5	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	5	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1	5	ND	ND	ND	ND	ND
n-Propylbenzene	1	5	ND	ND	ND	ND	ND
2-Chlorotoluene	1	5	ND	ND	ND	ND	ND
4-Chlorotoluene	1	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1	5	ND	ND	ND	ND	ND
tert-Butylbenzene	1	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1	5	ND	ND	ND	ND	ND
Sec-Butylbenzene	1	5	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1	5	ND	ND	ND	ND	ND
p-Isopropyltoluene	1	5	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1	5	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1	5	ND	ND	ND	ND	ND
n-Butylbenzene	1	5	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1	5	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	1	5	ND	ND	ND	ND	ND
Hexachlorobutadiene	1	5	ND	ND	ND	ND	ND
Naphthalene	1	5	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1	5	ND	ND	ND	ND	ND
Acetone	25	50	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
Carbon disulfide	25	50	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	25	50	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
MTBE	1	2	ND	ND	ND	ND	ND
ETBE	1	2	ND	ND	ND	ND	ND
DIPE	1	2	ND	ND	ND	ND	ND
TAME	1	2	ND	ND	ND	ND	ND
t-Butyl Alcohol	10	20	ND	ND	ND	ND	ND

MB=Method Blank; MDL=Method Detection Limit; PQL=Practical Quantitation Limit; ND=Not Detected (below DF × MDL). * Result from a higher dilution analysis. J=Result is between DF × MDL & DF × PQL.



Alpha Scientific Corporation

Environmental Laboratories

03-26-2015

EPA 8260B Batch QA/QC Report

Client: Partner Engineering & Science
Project: 13-64269.29
Matrix: Water
Batch No: 0323-VOBW1

Lab Job No.: PA503040
Lab Sample ID: PA503040-3
Date Analyzed: 03-23-2015

I. MS/MSD Report Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	24.4	22.7	122.0	113.5	7.2	30	70-130
Benzene	ND	20	21.6	18.0	108.0	90.0	18.2	30	70-130
Trichloro-ethene	ND	20	21.5	18.8	107.5	94.0	13.4	30	70-130
Toluene	ND	20	21.9	18.5	109.5	92.5	16.8	30	70-130
Chlorobenzene	ND	20	24.5	21.0	122.5	105.0	15.4	30	70-130

II. LCS Result Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	22.3	20.0	111.5	80-120
Benzene	19.1	20.0	95.5	80-120
Trichloro-ethene	17.9	20.0	89.5	80-120
Toluene	19.3	20.0	96.5	80-120
Chlorobenzene	19.9	20.0	99.5	80-120

ND: Not Detected (at the specified limit)



Alpha Scientific Corporation

Environmental Laboratories

03-26-2015

Mr. Rodolfo Nadres
Partner Engineering & Science
2154 Torrance Boulevard
Torrance, CA 90501

Project: 13-64269.29
Project Site: 12655 Beatrice Street, Los Angeles, CA 90066
Sample Date: 03-19-2015
Lab Job No.: PA503040

Dear Mr. Nadres:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 03-19-2015 and analyzed by the following EPA methods:

EPA 6010B (Manganese)
EPA 6010B (Boron)
EPA 160.1 (Total Dissolved Solids)
EPA 300.0 (Chloride, Nitrate & Nitrite, Sulfate)
SM 5310 (TOC-Total Organic Carbon)

EPA 300.0 and TOC analyses were subcontracted to A & R Laboratories (ELAP #2789) and Associated Laboratories (ELAP #1338). Their original report will be attached.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



Alpha Scientific Corporation

Environmental Laboratories

Client: Partner Engineering & Science
Project: 13-64269.29
Project Site: 12655 Beatrice Street, Los Angeles, CA 90066
Matrix: Water
Extraction Method: EPA 3010C
Batch No.: 0320-MW1

Lab Job No.: PA503040
Date Sampled: 03-19-2015
Date Received: 03-19-2015
Date Extracted: 03-20-2015
Date Analyzed: 03-20-2015
Date Reported: 03-26-2015

EPA 6010B (Mn & B, TTLC)
Reporting Unit: mg/L (ppm)

Sample ID	Lab ID	Manganese (Mn)	Boron (B)
MDL		0.005	0.010
PQL		0.010	0.020
MB		ND	ND
MW-1-GW	PA503040-1	0.58	ND
MW-2-GW	PA503040-2	2.32	0.420
MW-9-GW	PA503040-3	2.32	ND
TW-3-GW	PA503040-4	5.16	ND
RW-2-GW	PA503040-5	1.53	ND
RW-3-GW	PA503040-6	5.98	0.076

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
ND: Not Detected (below MDL).



Alpha Scientific Corporation

Environmental Laboratories

Client: Partner Engineering & Science
Project: 13-64269.29
Project Site: 12655 Beatrice Street, Los Angeles, CA 90066
Matrix: Water

Lab Job No.: PA503040
Date Sampled: 03-19-2015
Date Received: 03-19-2015
Date Reported: 03-26-2015

Analytical Test Results

Analyte	EPA Method	Date Analyzed	Method Blank	PA503040-1	PA503040-2	PA503040-3	PA503040-4	Reporting	Reporting
				MW-1-GW	MW-2-GW	MW-9-GW	TW-3-GW	Unit	Limit
Total Dissolved Solids	160.1	03-19-2015	ND	1,070	2,040	1,090	1,010	mg/L	5.0

Analyte	EPA Method	Date Analyzed	Method Blank	PA503040-5	PA503040-6			Reporting	Reporting
				RW-2-GW	RW-3-GW			Unit	Limit
Total Dissolved Solids	160.1	03-19-2015	ND	1,670	430			mg/L	5.0

ND: Not Detected (Below RL).



Alpha Scientific Corporation

Environmental Laboratories

03-26-2015

EPA 6010B(Mn & B) Batch QA/QC Report

Client: Partner Engineering & Science
Project: 13-64269.29
Matrix: Water
Batch No.: 0320-MW1

Lab Job No.: PA503040
Lab Sample I.D.: A503039-1
Date Analyzed: 03-20-2015

I. MS/MSD Report Unit: ppm

Analyte	EPA Method	MB Conc.	Spike Conc.	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Manganese (Mn)	6010B	ND	0.1	95.2	95.5	0.3	30	70-130
Boron (B)	6010B	ND	0.1	111.3	128.2	14.1	30	70-130

II. LCS Result Unit: ppm

Analyte	EPA Method	LCS Value	True Value	Rec.%	Accept. Limit
Manganese (Mn)	6010B	0.1037	0.1	103.7	80-120
Boron (B)	6010B	0.0969	0.1	96.9	80-120

ND:Not Detected (at the specified limit).



A & R Laboratories

Formerly Microbac Southern California

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ONTARIO, CA 91761

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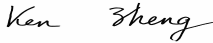
FAX 951-779-0344

office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#s	2789
	2790
	2122

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CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	 Ken Zheng, President 03/25/2015 11:04:57
Laboratory Job No. (Certificate of Analysis No.)	1503-00068
Project Name / No.	PA503040
Dates Sampled (from/to)	03/19/15 To 03/19/15
Dates Received (from/to)	03/19/15 To 03/19/15
Dates Reported (from/to)	03/25/15 To 3/25/2015
Chains of Custody Received	Yes
Comments:	
Subcontracting Inorganic Analyses No analyses sub-contracted	
Sample Condition(s) All samples intact	
Positive Results (Organic Compounds) None	



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CERTIFICATE OF ANALYSIS

1503-00068

ALPHA SCIENTIFIC CORPORATION
ROGER WANG
16760 GRIDLEY ROAD
CERRITOS, CA 90703

Date Reported 03/25/15
Date Received 03/19/15
Invoice No. 73111
Cust # A183
Permit Number
Customer P.O.

Project: PA503040

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 MW-1					Date & Time Sampled:		03/19/15	@ 10:49
Sample Matrix: Aqueous								
Nitrite, N	<0.75		mg/L	EPA 300.0	5	0.75	03/20/15	TLB
Nitrate, N	<0.55		mg/L	EPA 300.0	5	0.55	03/20/15	TLB
Sulfate	170		mg/L	EPA 300.0	25	13	03/20/15	TLB
Chloride	300		mg/L	EPA 300.0	25	13	03/20/15	TLB
Sample: 002 MW-2					Date & Time Sampled:		03/19/15	@ 10:18
Sample Matrix: Aqueous								
Nitrite, N	<0.75		mg/L	EPA 300.0	5	0.75	03/20/15	TLB
Nitrate, N	<0.55		mg/L	EPA 300.0	5	0.55	03/20/15	TLB
Sulfate	250		mg/L	EPA 300.0	25	13	03/20/15	TLB
Chloride	380		mg/L	EPA 300.0	25	13	03/20/15	TLB
Sample: 003 MW-9					Date & Time Sampled:		03/19/15	@ 9:38
Sample Matrix: Aqueous								
Nitrite, N	<0.75		mg/L	EPA 300.0	5	0.75	03/20/15	TLB
Nitrate, N	<0.55		mg/L	EPA 300.0	5	0.55	03/20/15	TLB
Sulfate	180		mg/L	EPA 300.0	25	13	03/20/15	TLB
Chloride	320		mg/L	EPA 300.0	25	13	03/20/15	TLB
Sample: 004 TW-3					Date & Time Sampled:		03/19/15	@ 11:14
Sample Matrix: Aqueous								
Nitrite, N	<0.75		mg/L	EPA 300.0	5	0.75	03/20/15	TLB
Nitrate, N	<0.55		mg/L	EPA 300.0	5	0.55	03/20/15	TLB
Sulfate	230		mg/L	EPA 300.0	25	13	03/20/15	TLB
Chloride	190		mg/L	EPA 300.0	25	13	03/20/15	TLB
Sample: 005 RW-2					Date & Time Sampled:		03/19/15	@ 12:16
Sample Matrix: Aqueous								
Nitrite, N	<0.75		mg/L	EPA 300.0	5	0.75	03/20/15	TLB
Nitrate, N	<0.55		mg/L	EPA 300.0	5	0.55	03/20/15	TLB
Sulfate	88		mg/L	EPA 300.0	10	5.0	03/20/15	TLB
Chloride	97		mg/L	EPA 300.0	10	5.0	03/20/15	TLB



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CERTIFICATE OF ANALYSIS

1503-00068

ALPHA SCIENTIFIC CORPORATION
ROGER WANG
16760 GRIDLEY ROAD
CERRITOS, CA 90703

Date Reported 03/25/15
Date Received 03/19/15
Invoice No. 73111
Cust # A183
Permit Number
Customer P.O.

Project: PA503040

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 RW-3							Date & Time Sampled: 03/19/15 @ 11:45	
Sample Matrix: Aqueous								
Nitrite, N	<0.75		mg/L	EPA 300.0	5	0.75	03/20/15	TLB
Nitrate, N	<0.55		mg/L	EPA 300.0	5	0.55	03/20/15	TLB
Sulfate	5.8		mg/L	EPA 300.0	5	2.5	03/20/15	TLB
Chloride	19		mg/L	EPA 300.0	5	2.5	03/20/15	TLB

Respectfully Submitted:

Ken Zheng

Ken Zheng - Lab Director

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications. The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



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QUALITY CONTROL DATA REPORT

ALPHA SCIENTIFIC CORPORATION

1503-00068

ROGER WANG

16760 GRIDLEY ROAD

CERRITOS, CA 90703

Date Reported 03/25/2015

Date Received 03/19/2015

Date Sampled 03/19/2015

Invoice No. 73111

Customer # A183

Customer P.O.

Project: PA503040

Method # EPA 300.0

QC Reference # 46596 Date Analyzed: 3/20/2015 Technician: TLB

Samples 001 002 003 004 005 006

Results

LCS %REC LCS %DUP LCS %RPD

Chloride 99 99 0.1

Control Ranges

LCS %REC LCS %RPD

80 - 120 0 - 25

QC Reference # 46597 Date Analyzed: 3/20/2015 Technician: TLB

Samples 001 002 003 004 005 006

Results

LCS %REC LCS %DUP LCS %RPD

Nitrite, N 97 96 0.3

Control Ranges

LCS %REC LCS %RPD

80 - 120 0 - 25

QC Reference # 46598 Date Analyzed: 3/20/2015 Technician: TLB

Samples 001 002 003 004 005 006

Results

LCS %REC LCS %DUP LCS %RPD

Nitrate, N 100 99 0.9

Control Ranges

LCS %REC LCS %RPD

80 - 120 0 - 25

QC Reference # 46599 Date Analyzed: 3/20/2015 Technician: TLB

Samples 001 002 003 004 005 006

Results

LCS %REC LCS %DUP LCS %RPD

Sulfate 101 102 1.0

Control Ranges

LCS %REC LCS %RPD

80 - 120 0 - 25

No method blank results were above reporting limit

Respectfully Submitted:

Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



Associated Laboratories
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info@associatedlabs.com



Client: Alpha Scientific Corporation
Address: 16760 Gridley Road
Cerritos, CA 90703

Attn: Roger Wang

Comments: #PA503040
Los Angeles, CA

Lab Request: 354342
Report Date: 04/07/2015
Date Received: 03/27/2015
Client ID: 11577

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
354342-001	MW-1-GW
354342-002	MW-2-GW
354342-003	MW-9-GW
354342-004	TW-3-GW
354342-005	RW-2-GW
354342-006	RW-3-GW

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Approved By:

Helene Gardner, Ph.D. / Technical Director or
Hongling Cao / District Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date reported.

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Matrix: Water	Client: Alpha Scientific Corporation	Collector: Client
Sampled: 03/19/2015 10:49	Site:	
Sample #: <u>354342-001</u>	Client Sample #: MW-1-GW	Sample Type:

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: SM 5310B	Prep Method: Method						QCBatchID: QC1154256
Total Organic Carbon (TOC)	2.4	1	1	mg/L	03/30/15	nina	

Matrix: Water	Client: Alpha Scientific Corporation	Collector: Client
Sampled: 03/19/2015 10:18	Site:	
Sample #: <u>354342-002</u>	Client Sample #: MW-2-GW	Sample Type:

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: SM 5310B	Prep Method: Method						QCBatchID: QC1154256
Total Organic Carbon (TOC)	4.2	1	1	mg/L	03/30/15	nina	

Matrix: Water	Client: Alpha Scientific Corporation	Collector: Client
Sampled: 03/19/2015 09:38	Site:	
Sample #: <u>354342-003</u>	Client Sample #: MW-9-GW	Sample Type:

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: SM 5310B	Prep Method: Method						QCBatchID: QC1154256
Total Organic Carbon (TOC)	2.3	1	1	mg/L	03/30/15	nina	

Matrix: Water	Client: Alpha Scientific Corporation	Collector: Client
Sampled: 03/19/2015 11:14	Site:	
Sample #: <u>354342-004</u>	Client Sample #: TW-3-GW	Sample Type:

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: SM 5310B	Prep Method: Method						QCBatchID: QC1154256
Total Organic Carbon (TOC)	6.6	1	1	mg/L	03/30/15	nina	

Matrix: Water	Client: Alpha Scientific Corporation	Collector: Client
Sampled: 03/19/2015 12:16	Site:	
Sample #: <u>354342-005</u>	Client Sample #: RW-2-GW	Sample Type:

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: SM 5310B	Prep Method: Method						QCBatchID: QC1154256
Total Organic Carbon (TOC)	11.2	1	1	mg/L	03/30/15	nina	

Matrix: Water	Client: Alpha Scientific Corporation	Collector: Client
Sampled: 03/19/2015 11:45	Site:	
Sample #: <u>354342-006</u>	Client Sample #: RW-3-GW	Sample Type:

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: SM 5310B	Prep Method: Method						QCBatchID: QC1154256
Total Organic Carbon (TOC)	13.9	1	1	mg/L	03/30/15	nina	



QCBatchID: QC1154256	Analyst: nina	Method: SM 5310B
Matrix: Water	Analyzed: 03/30/2015	Instrument: CHEM (group)

Blank Summary						
Analyte	Blank Result	Units		RDL	Notes	
QC1154256MB1						
Total Organic Carbon (TOC)	ND	mg/L		1		

Lab Control Spike/ Lab Control Spike Duplicate Summary											
Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1154256LCS1											
Total Organic Carbon (TOC)	10		9.4		mg/L	94			80-120		

Matrix Spike/Matrix Spike Duplicate Summary												
Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1154256MS1, QC1154256MSD1											Source: 354340-001	
Total Organic Carbon (TOC)	7.9	10	10	17.6	17.6	mg/L	97	97	0.0	80-120	20	



Data Qualifiers and Definitions

Qualifiers

B	Analyte was present in an associated method blank. Associated sample data was reported with qualifier.
B1	Analyte was present in an sample and associated method blank greater than MDL but less than DRL. Associated sample data was reported with qualifier.
BQ1	No valid test replicates. Result may be greater. Best result was reported with qualifier. Sample toxicity possible.
BQ2	No valid test replicates.
BQ3	Minimum DO is less than 1.0 mg/L. Result may be greater and reported with qualifier.
C	Laboratory Contamination.
D	RPD was not within control limits, the sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied
DW	Sample result is calculated on a dry weigh basis
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
Q1	Analyte Calibration Verification exceeds criteria and the result was reported with qualifier.
Q2	Analyte calibration was not verified and the result was estimated and reported with qualifier.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated and reported with qualifier.
Q4	Analyte result out of calibration range and was reported with qualifier
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request
T4	Sample was analyzed out of hold time per client's request
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit
ND	Analyte was not detected or was less than the detection limit.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds





COMPANY: Alpha Scientific Corp		PROJECT NAME:	
SEND REPORT TO:		NUMBER: PA503040	
EMAIL: asc90703@gmail.com		ADDRESS: 103 Angeles, CA	
ADDRESS: 16760 Gridley Rd		P.O. #:	
Cerritos, CA 90703		SAMPLED BY: Calvin	
PHONE: 562-801-8880		FAX:	

REQUIRED TURN AROUND TIME: Standard: ✓
72 Hours: _____ 48 Hours: _____ 24 Hours: _____

SEND REPORT TO:						NUMBER: PA503040																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Total No. of Samples: _____ Method of Shipment: _____ Preservative: 1 = Ice 2 = HCl 3 = HNO₃ 4 = H₂SO₄ 5 = NaOH 6 = Other

Relinquished by	1.	Received By:	1.	Relinquished by	2.	Received By:	2.	Relinquished by	3.	Received By:	3.
Signature:		Signature:		Signature:		Signature:		Signature:		Signature:	
Printed Name:		Printed Name:		Printed Name:		Printed Name:		Printed Name:		Printed Name:	
Date:		Date:		Date:		Date:		Date:		Date:	
Time:		Time:		Time:		Time:		Time:		Time:	

Appendix C:
Perjury Statement

CALIFORNIA WATER CODE § 13267 PERJURY STATEMENT

O'NEIL DATA SYSTEMS, INC., 12655 BEATRICE STREET, LOS ANGELES, CA 90066

I, Kenneth VanEngen, do hereby declare under penalty of perjury under the laws of California, that I am the Vice President for *Citicorp North America, Inc.* ("CITICORP"), that I am authorized to attest to the veracity of the information contained in the reports described herein, and that the information contained in the report entitled "1st Quarter 2015 WDR Monitoring and Reporting" for O'Neil Data Systems, Inc., 12655 Beatrice Street, Los Angeles, California 90066 dated April 8, 2015, is true and correct, and that this declaration was executed at 10500 Ambassador Drive in Kansas City, MO, on April 17, 2015.

Kenneth VanEngen

Signature