MCG Investments, LLC
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May 15, 2015

Mr. Mark Detterman
Hazardous Materials Specialist
Alameda County Environmental Health Services
Environmental Protection, Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Letter of Transmittal for First Semiannual 2015 Groundwater Monitoring Report, Former McGrath Steel, 6655 Hollis Street, Emeryville, California 94608, ACEH Fuel Leak Case No. RO0000063, GeoTracker Global ID No. T0600102099**

Dear Mr. Detterman:

As required in your letter of September 15, 2014, we submit this transmittal letter and accompanying *First Semiannual 2015 Groundwater Monitoring Report*.

I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

We request reducing the frequency of groundwater monitoring at the subject site from semiannual to annual, and also request discontinuing interim mitigation by passive product skimming and monthly product thickness monitoring.

Sincerely,

MCG Investments LLC,
A California Limited Liability Company

Walter F. Merkle
Authorized Agent

AllWest Environmental, Inc.

Specialists in Physical Due
Diligence and Remedial Services

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FIRST SEMIANNUAL 2015 GROUNDWATER MONITORING REPORT

Former McGrath Steel
6655 Hollis Street and 1471 67th Street
Emeryville, California

Alameda County Fuel Leak Case # RO0000063
GeoTracker Facility Global ID # T0600102099

PREPARED FOR:

Mr. Walter F. Merkle
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ALLWEST PROJECT 15006.28
May 15, 2015

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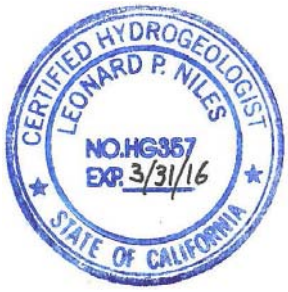

AllWest

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FIRST SEMIANNUAL 2015 GROUNDWATER MONITORING REPORT

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I. INTRODUCTION

AllWest conducted semiannual groundwater monitoring on February 28, 2015 at the property referenced above ("the subject site", Figure 1). The monitoring was performed to evaluate potential free product and concentrations of petroleum hydrocarbons and volatile organic compounds (VOCs) in groundwater at the subject site.

II. PROJECT BACKGROUND

The subject property is located at the southwest corner of the intersection of Hollis and 67th Streets in a commercial and industrial district of the City of Emeryville, Alameda County, California. A site vicinity map is included as Figure 1.

The subject property consists of two parcels (Assessor's Parcel Numbers 049-1511-01 and 049-1511-014). Parcel 01, on the southwest corner of Hollis and 67th Streets at the 6655 Hollis Street address, is developed with an approximately 4,100 square foot two-story commercial office building constructed in 1947, and a smaller metal tool shed building. Parcel 14, to the west of Parcel 1 at the 1471 67th Street address, is developed with an approximately 15,246 square foot light industrial warehouse building constructed circa 1946 (Stellar, 2011).

The subject property was last occupied by CMC Rebar and is currently vacant. Two USTs formerly present under the sidewalk in front of the warehouse at 1471 67th Street were removed in 1996. A site plan with former UST locations and historical and current boring and monitoring well locations is included as Figure 2.

Several subsurface investigations and groundwater monitoring events have been performed since 1996. Data indicate the petroleum hydrocarbon plume in groundwater extends beneath the subject property buildings.

Site location and description, background information, and a summary of previous investigations, remedial actions and monitoring activities have been summarized in our *Additional Site Characterization and Interim Remedial Action Workplan* (AllWest, 2011), *Additional Site Characterization Workplan Addendum* (AllWest, 2012a), *Subsurface Investigation* (AllWest, 2013b), *Additional Site Characterization and Monitoring Well Installation Report* (AllWest, 2013e), and *Second Quarter 2014 Groundwater Monitoring* (AllWest, 2014f).

On December 31, 2013, a Geotech PRC 1-liter capacity product recovery canister-type passive skimming device was placed in well MW-3 (AllWest, 2014a).

AllWest conducted indoor air quality (IAQ) monitoring in June, 2014 at the subject property (AllWest, 2014e). One outdoor ambient air (OAA) control sample was collected outside the subject site in a secure location. Benzene concentrations detected in four of the five collected IAQ samples exceeded the RWQCB indoor air commercial ESL for benzene of 0.42 µg/m^3. Carbon tetrachloride exceeded its applicable ESL of 0.29 µg/m^3 in all five indoor air samples as well as the outdoor ambient air (OAA) sample OAA-1. Naphthalene exceeded its applicable ESL of 0.36 µg/m^3 in one indoor air sample. None of the other detected VOC concentrations exceeded their respective applicable RWQCB commercial indoor air ESLs. AllWest concluded that benzene, carbon tetrachloride and several other detected VOCs were atmospheric contaminants and do not originate from the UST source area.

ACEH, in their letter dated September 15, 2014, reduced groundwater monitoring to a semiannual basis in February and August. A focused SCM and Data Gap Investigation Work Plan was also requested to be submitted.

On February 5, 2015, the passive skimming device was removed from monitoring well MW-3.

III. PURPOSE AND SCOPE OF WORK

The purpose of this investigation was the monitoring and interim mitigation of LNAPL, dissolved-phase petroleum hydrocarbons in groundwater in the vicinity of the former UST at the subject property, and in the hydraulically down-gradient and cross-gradient directions. The scope of work, as proposed, consisted of the following tasks:

1. On January 30 and February 5, 2015, monitored and emptied the passive LNAPL skimming device in monitoring well MW-3;

2. Measured groundwater levels and potential free product (LNAPL) thickness, purged a minimum of three casing volumes and collected groundwater samples from groundwater monitoring wells AMW-1, AMW-2 and AMW-3, and MW-3;

3. Maintained groundwater samples under chain-of-custody and transported them to a Department of Health Services (DHS) certified analytical laboratory for chemical analyses. Analyzed one groundwater sample from each monitoring well for total petroleum hydrocarbons as gasoline (TPH-g) and total petroleum hydrocarbons as mineral spirits (TPH-ms) by analytical method SW8021B/8015Bm, for total petroleum hydrocarbons as diesel (TPH-d) by analytical method 8015 with silica gel cleanup, for VOCs by analytical method SW8260B (full scan) and for polynuclear aromatic hydrocarbons (PNAs/PAHs) by analytical method SW8270C-SIM;

4. Prepared a written report describing the sampling event, laboratory data, investigation findings, conclusions and recommendations.

IV. FIELD ACTIVITIES

On January 30, 2015, AllWest visited the subject site to remove a bailer that had gotten stuck in the well casing on the previous monitoring event in June 2014, and to monitor the passive skimming device in monitoring well MW-3. It is not possible to measure depth to water or free product in MW-3 with the passive skimming device in place. After removing the skimmer from the well, an electric oil/water interface sounding probe was lowered into the well casing to measure the depth to water and thickness of any potential floating free product to the nearest 0.01 feet below top of casing (TOC). The depth to water in the well was measured at 9.91 feet below TOC. The passive skimming device in MW-3 displaces approximately one liter of water; approximately 20 minutes after removing the passive skimming device and the stuck bailer, the water level in MW-3 rose to 7.87 feet bgs. No floating free product layer (LNAPL) was measured in the well casing; however, a product sheen was observed in the passive skimming device. One liter of groundwater containing a sheen was removed from the skimmer canister and contained in a 55-gallon drum onsite. During this monitoring event, AllWest replaced the one-liter skimmer canister with a smaller, 0.125-liter canister because it appeared the one-liter skimmer canister was displacing too much water in the well casing to effectively remove the thin sheen of LNAPL present.

On February 5, 2015, AllWest returned to the site to replace a broken well cap on MW-3. No depth to water measurements were taken. The new, smaller skimmer canister was again full of well water. AllWest removed the passive skimming device on February 5, 2015 since there was insufficient LNAPL present to be effectively removed.

On February 28, 2015, prior to well purging, an electric oil/water interface sounding probe was lowered into all four well casings to measure the depth to the water and

thickness of any potential floating free product to the nearest 0.01 feet below TOC. Depth to groundwater ranged from 6.30 feet below TOC in AMW-2 to 7.61 feet below TOC in AMW-1. No product or sheen were detected or observed in any of the monitoring wells AMW-1, AMW-2 or AMW-3. No floating free product (LNAPL) was detected in monitoring well MW-3 by the electric oil/water interface probe; however, a product sheen was observed. Depth to groundwater and free product thickness data are included in Table 2.

A new, disposable polyethylene bailer was lowered into each well casing and partially submerged. Upon bailer retrieval, the surface water was retained and examined for any floating product or product sheen. After all initial measurements were completed and recorded, a minimum of three well casing volumes of groundwater were purged with a new, disposable polyethylene bailer. Groundwater characteristics, temperature, pH and conductivity were monitored at each well volume interval. Purging was continued until groundwater parameters stabilized to within 10%.

Groundwater sampling was conducted after water levels recovered to at least 80% of initial level, recorded prior to purging. Groundwater samples were collected from each well with new, disposable polyethylene bailers. Upon bailer retrieval, the water was transferred to appropriate sample bottles furnished by the analytical laboratory. 40-milliliter (ml) volatile organic analysis (VOA) glass vials preserved with hydrochloric acid (HCl) were used for TPH-g, TPH-ms, and VOC analysis. Each sample for TPH-d analysis was collected in one 1-liter amber glass bottle preserved with HCl solution. Each sample for PNAs/PAHs analysis was collected in one 1-liter unpreserved amber glass bottle. All sample bottles for VOA had Teflon lined septum/caps and were filled so that no headspace was present. The sample bottles were then labeled and placed in an iced cooler for transport under chain-of-custody control to the analytical laboratory.

To help prevent cross-contamination, all groundwater sampling equipment that came into contact with groundwater was decontaminated prior to sampling. To minimize the possibility of cross-contamination, a new disposable bailer was used to collect each groundwater sample. Well purge water was temporarily stored at the property in a 55-gallon drum, awaiting test results to determine the proper disposal method.

Standard groundwater sampling procedures are included in Appendix A. Groundwater purging and sampling field logs are included in Appendix B.

V. QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

A. Sample Preservation, Storage and Handling

To prevent the loss of constituents of interest, all groundwater samples were preserved by storing in an ice chest cooled to 4°C with crushed ice immediately after their collection and during transportation to the laboratory. Samples were

stored within the cooler in separate zip-lock plastic bags to avoid cross-contamination.

B. Chain-Of-Custody Program

All samples collected for this project were transported under chain-of-custody protocol. The chain-of-custody program allows for the tracing of possession and handling of individual samples from the time of field collection through laboratory analysis. The document includes the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, parameters requested for analysis, signatures of persons and inclusive dates involved in the chain of possession. Upon delivery to the laboratory the document also includes the name of the person receiving the samples, and date and time samples were received. Copies of chain-of-custody documentation are included in Appendix C.

VI. ANALYTICAL METHODS

Groundwater samples from the monitoring wells AMW-1, AMW-2, AMW-3 and MW-3 were analyzed for TPH-g and TPH-ms by analytical method SW8021B/8015Bm, for TPH-d by analytical method SW8015B with silica gel cleanup, for VOCs by analytical method 8260B, and for PNAs/PAHs by analytical method SW8270C-SIM.

All samples were analyzed by a State of California certified independent analytical laboratory, McCampbell Analytical, Inc., of Pittsburg, California. All samples were analyzed on standard five-day turn-around time. Chain of custody documents and laboratory analytical reports are included in Appendix C.

VII. ASSESSMENT FINDINGS

A. Groundwater Observations

No floating free product (LNAPL) was measured or observed in monitoring well MW-3 on the January 30, February 5, or February 28, 2015 events; however, a sheen was observed on these dates. Depth to water in well MW-3 after the removal of the product skimmer on January 30, 2015 was initially measured at 9.91 feet below TOC due to displacement from the skimming device, but rose to a static level of 7.87 feet below TOC after equilibrating for approximately 20 minutes.

On February 28, 2015, depths to groundwater ranged from 6.30 feet below TOC in AMW-2 to 7.61 feet below TOC in AMW-1. No LNAPL was measured or observed in monitoring well MW-3; a sheen was observed in the bailer in water

collected from MW-3. The well with the highest groundwater elevation was MW-3 at 18.03 feet above NAVD 1988 datum; the well with the lowest groundwater elevation was AMW-1 at 14.48 feet above NAVD 1988 datum.

The wellhead elevation data along with depth to water measurements were used to calculate local groundwater flow direction and gradient. The direction of groundwater flow was to the west-northwest at a gradient of 0.0107 feet per foot. A groundwater elevation contour map is included as Figure 3.

B. Groundwater Analytical Data

TPH-g was detected in groundwater samples from AMW-2, AMW-3 and MW-3 at a maximum concentration of 84,000 micrograms per liter (µg/L) in monitoring well MW-3. TPH-ms was detected in groundwater samples from AMW-2, AMW-3 and MW-3 at a maximum concentration of 21,000 µg/L in the groundwater sample from monitoring well MW-3; however, this concentration probably represents TPH-g within the TPH-ms (C9-C12) range, since gasoline was characterized as significant, and mineral spirits were not historically stored in the McGrath USTs.

TPH-d with gasoline range compounds characterized as significant was detected in groundwater samples from AMW-3 and MW-3 at a maximum concentration of 1,400 µg/L in the groundwater sample from MW-3.

Benzene was detected in AMW-2, AMW-3 and MW-3 at a maximum concentration of 7,700 µg/L in the groundwater sample collected from monitoring well MW-3. Toluene was detected in MW-2 and AMW-3 at a maximum concentration of 4,700 µg/L in MW-3. Ethylbenzene was detected in MW-3 and AMW-3 at a maximum concentration of 1,300 µg/L in MW-3. Total xylenes were detected in AMW-2, AMW-3 and MW-3 at a maximum concentration of 6,000 µg/L in MW-3.

MTBE was detected in AMW-1, AMW-2 and MW-3 at a maximum concentration of 5,200 µg/L in the groundwater sample from MW-3.

Other VOCs detected in groundwater samples collected from all four site wells, and the maximum concentration of each VOC detected during this investigation, are listed below:

VOC Detected in Site Groundwater, February 28, 2015	Maximum Concentration (µg/L)
Tertiary butyl alcohol (TBA)	3,400
n-Butyl benzene	4.4
1,1-Dichloroethane	3.6
1,2-Dichloroethane (1,2-DCA)	0.82
1,1-Dichloroethene	77
Diisopropyl ether (DIPE)	0.59
Isopropylbenzene	3.1
Naphthalene	430
n-Propyl benzene	150
Tetrachloroethene (PCE)	0.59
1,1,1-trichloroethane	4.0
Trichloroethene (TCE)	13
1,2,4-trimethylbenzene	1,400
1,3,5-trimethylbenzene	380

Groundwater analytical results for total petroleum hydrocarbons and VOCs are summarized in Table 3 and on Figures 4, 5 and 6.

PNAs/PAHs detected in groundwater samples collected during this investigation were 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene from AMW-2, AMW-3 and MW-3 at maximum respective concentrations of 700 µg/L, 1,400 µg/L and 1,100 µg/L in MW-3. PNA/PAH groundwater analytical results are summarized in Table 4. No other COCs were detected at or above laboratory reporting limits in any groundwater samples analyzed during this investigation. Laboratory analytical reports and chain of custody documents are included in Appendix C.

C. Laboratory QA/QC

A review of groundwater laboratory internal quality assurance/quality control (QA/QC) reports indicates the method blank and sample spike data for all analyses were within the laboratory recovery limits. The samples were also analyzed within the acceptable EPA holding times. The data from the McCampbell Laboratories are considered to be of good quality. Laboratory analytical reports and chain-of-custody records are included in this report as Appendix C.

VIII. DISCUSSION

Groundwater elevations increased by an average of approximately 1.62 feet overall between the second quarter 2014 and first quarter 2015 monitoring events (Table 2). Groundwater flow direction shifted slightly from the west-southwest to the west-northwest between the second quarter 2014 and first quarter 2015 monitoring events (Figure 3).

No free floating layer of light non-aqueous phase liquid (LNAPL) hydrocarbons (free product) was measured in monitoring well MW-3 in the former UST vicinity during the January 30, 2015 monitoring event or February 28, 2015 groundwater sampling event; however, sheen was observed in groundwater from the well on both dates. No measurable thickness of free product has been observed since December 2013.

To assess if the identified constituents of concern (COCs) in soil and groundwater pose a risk to human health and the environment, concentrations were compared with ESLs for commercial/industrial land use where groundwater is not a potential drinking water resource compiled by the SFRWQCB in *User's Guide: Derivation and Application of Environmental Screening Levels,* Interim Final – December 2013. Although the SFRWQCB *Basin Plan* has designated groundwater in the site vicinity as a potential drinking water resource (SFRWQCB, June 2013), groundwater in the subject site vicinity is not currently used as a drinking water resource. According to the City of Emeryville Public Works Department, a City ordinance prohibits use of groundwater for drinking water purposes due to widespread regional contamination, and no plans exist for future beneficial use.

AllWest compared groundwater sample analytical results to the SFRWQCB ESLs from *Table F-1b, Groundwater Screening Levels, Groundwater is not a Current or Potential Source of Drinking Water;* and *Table E-1, Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion, Commercial/Industrial Land Use* (RWQCB, Interim Final – December 2013).

TPH-g was detected in concentrations exceeding its non-drinking water ESL of 500 µg/L in two groundwater samples collected during this monitoring event, at a maximum concentration of 84,000 µg/L in monitoring well MW-3. TPH-ms exceeded its non-drinking water ESL of 500 µg/L in one groundwater sample collected during this investigation at a concentration of 21,000 µg/L in monitoring well MW-3; however, this probably represents TPH-g within the TPH-ms range. TPH-d exceeded its non-drinking water ESL of 640 µg/L in one groundwater sample collected during this investigation at a concentration of 1,400 µg/L in monitoring well MW-3. Groundwater vapor intrusion ESLs have not been established for TPH-g, TPH-ms or TPH-d.

Benzene exceeded its non-drinking water ESL of 27 µg/L and exceeded its vapor intrusion ESL of 270 µg/L in one sample, at a concentration of 7,700 µg/L in MW-3. Toluene exceeded its non-drinking water ESL of 130 µg/L in one sample, at a

concentration of 4,700 µg/L in MW-3. The commercial/industrial vapor intrusion ESL has not been established for toluene, however it was not detected at a concentration exceeding its residential vapor intrusion ESL of 95,000 µg/L. Ethylbenzene was detected at a concentration exceeding its non-drinking water ESL of 43 µg/L in one groundwater sample at a concentration of 1,300 µg/L in monitoring well MW-3, but not exceeding its vapor intrusion ESL of 3,100 µg/L. Total xylenes were detected at concentrations exceeding its non-drinking water ESL of 100 µg/L in one groundwater sample, at a concentration of 6,000 µg/L in monitoring well MW-3. The commercial/industrial vapor intrusion ESL has not been established for xylenes; however, it was not detected at a concentration exceeding its residential vapor intrusion ESL of 37,000 µg/L.

MTBE was detected at a concentration exceeding its non-drinking water ESL of 1,800 µg/L in one groundwater sample at a concentration of 5,200 in MW-3. MTBE did not exceed its vapor intrusion ESL of 100,000 µg/L in any of the groundwater samples collected. 1,1-dichloroethene was detected at a concentration exceeding its non-drinking water ESL of 25 µg/L in two groundwater samples at a maximum concentration of 77 µg/L in AMW-3. 1,1-dichloroethene did not exceed its vapor intrusion ESL of 130,000 µg/L in any of the groundwater samples collected.

2-methylnaphthalene was detected at concentrations exceeding its non-drinking water ESL of 2.1 µg/L in two groundwater samples at a maximum concentration of 1,400 µg/L in MW-3. Vapor intrusion ESLs have not been established for 2-methylnaphthalene. Naphthalene was detected at a concentration exceeding its non-drinking water ESL of 24 µg/L in one groundwater sample at a concentration of 1,100 µg/L; naphthalene did not exceed its vapor intrusion ESL of 1,600 µg/L in any of the groundwater samples collected.

No other COCs were detected in groundwater samples analyzed in this investigation at concentrations exceeding established applicable ESLs. Groundwater analytical data and drinking water, non-drinking water and vapor intrusion ESLs are summarized in Tables 3 and 4. TPH-g, TPH-d and benzene isoconcentration maps are shown as Figures 4, 5 and 6, respectively. Historical groundwater elevation and hydrocarbon concentration graphs are presented in Appendix D.

IX. CONCLUSIONS AND RECOMMENDATIONS

AllWest conducted semiannual monitoring of four groundwater monitoring wells (AMW-1, AMW-2, AMW-3 and MW-3) at the subject site to further assess the extent of LNAPL, adsorbed and dissolved-phase petroleum hydrocarbons in groundwater in the vicinity of the former UST and dispenser source area at the subject property, and in the hydraulically down-gradient and cross-gradient directions.

TPH-g, TPH-ms, TPH-d, benzene, toluene, ethylbenzene, total xylenes, MTBE, 2-methylnaphthalene, naphthalene, and 1,1-dichloroethene were identified in groundwater

samples at concentrations exceeding corresponding and applicable SFRWQCB commercial/industrial non-drinking water ESL values. Benzene was detected in groundwater sample MW-1 exceeding corresponding commercial/industrial vapor intrusion ESLs.

The down-gradient extent of the adsorbed and dissolved phase petroleum hydrocarbon plume in soil and groundwater is largely defined and extends from the vicinity of the former McGrath Steel USTs to the west along 67th Street to the vicinity of monitoring well AMW-1 west of the former Clearprint Paper Company USTs. The highest COC concentrations occur in monitoring well MW-3 in the vicinity of the former McGrath Steel USTs. The cross-gradient extent of the adsorbed and dissolved phase hydrocarbon plume has not been fully defined, particularly south of 67th Street. Measurable free product thickness was not observed in well MW-3 during this quarter, although product sheen was observed in water samples taken from the well. Measurable free product has not been observed since December 2013. Graphs plotting the historical hydrocarbon concentrations and water levels in each well are attached in Appendix D.

The chlorinated solvents 1,1-dichloroethane, 1,1-dichloroethene, 1,1,1-trichloroethane, PCE and TCE, detected in monitoring wells AMW-1 and AMW-3, do not appear to have originated from the subject site, since they have not been detected in monitoring well MW-3 in the former UST vicinity. However, detection limits for VOCs were elevated for MW-3 due to elevated concentrations of BTEX and MTBE, so an up-gradient source is possible.

AllWest recommends reducing the frequency of groundwater monitoring at the subject site from semiannual to annual in the monitoring wells AMW-1, AMW-2, AMW-3, and MW-3. AllWest also recommends discontinuing interim mitigation by passive product skimming and monthly product thickness monitoring in monitoring well MW-3 due to the lack of measurable LNAPL since December 2013.

X. LIMITATIONS

The work described in this report is performed in accordance with the Environmental Consulting Agreement between MCG Investments, LLC (Client) and AllWest Environmental, Inc, dated September 2014. AllWest has prepared this report for the exclusive use of the Client for this particular project and in accordance with generally accepted practices at the time of the work. No other warranties, certifications or representations, either expressed or implied are made as to the professional advice offered. The services provided for the Client were limited to their specific requirements; the limited scope allows for AllWest to form no more than an opinion of the actual site conditions. No matter how much research and sampling may be performed, the only way to know about the actual composition and condition of the subsurface of a site is through excavation.

The conclusions and recommendations contained in this report are made based on observed conditions existing at the site, laboratory test results of the submitted samples, and interpretation of a limited data set. It must be recognized that changes can occur in subsurface conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the subsurface can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest is not responsible for the accuracy of the test data from an independent laboratory, or for any analyte quantities falling below the recognized standard detection limits or for the method utilized by the independent laboratories.

Background information that AllWest has used in preparing this report, including but not limited to previous field measurements, analytical results, site plans, and other data, has been furnished to AllWest by the Client, its previous consultants, and/or third parties. AllWest has relied on this information as furnished. AllWest is not responsible for nor has it confirmed the accuracy of this information.

XI. REFERENCES

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TABLES

TABLE 1

Summary of Well Construction Details

Former McGrath Steel

6655 Hollis Street

Emeryville, California

AllWest Project No. 15006.28

Well Number	Casing Diameter (inches)	Borehole Diameter (inches)	Total Depth of Well (feet bgs)	Top-Bottom of Screen (feet bgs)	Screen Length (feet)	Top-Bottom of Filter Pack (feet bgs)
MW-3	2	8	29	9-29	20	7-29.5
AMW-1	2	8	24	9-24	15	7-24
AMW-2	2	8	24	9-24	15	7-24
AMW-3	2	8	23	8-23	15	6-23

Notes:

bgs below ground surface

TABLE 2

Summary of Groundwater Elevation Data

Former McGrath Steel

6655 Hollis Street

Emeryville, California

AllWest Project No. 15006.28

Well Number	Date	TOC Elevation (feet msl)	Ground Surface Elevation (feet msl)	Depth to Groundwater (feet below TOC)	Product Thickness (feet)	Groundwater Surface Elevation (feet msl)[a]
MW-3	10/17/1995	22.73	23.17	9.42	0.00	13.31
MW-3	11/21/1995	22.73	23.17	9.85	0.00	12.88
MW-3	12/23/1995	22.73	23.17	8.52	0.00	14.21
MW-3	1/15/1996	22.73	23.17	8.72	0.00	14.01
MW-3	2/16/1996	22.73	23.17	7.08	0.04	15.68
MW-3	3/28/1996	22.73	23.17	6.78	0.03	15.97
MW-3	8/22/2005	22.73	23.17	12.36	0.00	10.37
MW-3	12/20/2005	22.73	23.17	10.82	0.00	11.91
MW-3	9/14/2011*	22.73	23.17	11.05	3	13.93
MW-3	7/30/2012	22.73	23.17	11.52	2.65	13.20
MW-3	8/2/2012	22.73	23.17	9.22	1.12	14.35
MW-3	12/18/2012	22.73	23.17	8.91	0.00	13.82
MW-3	3/27/2013	22.73	23.17	8.57	0.20	14.31
MW-3	6/27/2013	22.73	23.17	9.90	0.00	12.83
MW-3	8/7/2013	25.55	26.00	9.09	0.41	16.77
MW-3	11/6/2013	25.55	26.00	9.30	0.15	16.36
MW-3	12/31/2013*	25.55	26.00	9.16	0.01	16.40
MW-3	2/26/2014*	25.55	26.00	8.92	0.00	16.63
MW-3	3/19/2014	25.55	26.00	8.81	0.00	16.74
MW-3	4/22/2014	25.55	26.00	7.75	0.00	17.80
MW-3	5/29/2014	25.55	26.00	8.28	0.00	17.27
MW-3	6/20/2014	25.55	26.00	8.45	0.00	17.10
MW-3	**1/30/2015**	**25.55**	**26.00**	**9.91**	**0.00**	**15.64**
MW-3	**2/28/2015**	**25.55**	**26.00**	**7.52**	**0.00**	**18.03**
AMW-1	8/7/2013	22.09	22.54	9.54	0.00	12.55
AMW-1	11/6/2013	22.09	22.54	9.62	0.00	12.47
AMW-1	3/19/2014	22.09	22.54	7.73	0.00	14.36
AMW-1	6/20/2014	22.09	22.54	8.81	0.00	13.28
AMW-1	**2/28/2015**	**22.09**	**22.54**	**7.61**	**0.00**	**14.48**
AMW-2	8/7/2013	23.43	23.73	9.96	0.00	13.47

TABLE 2

Summary of Groundwater Elevation Data

Former McGrath Steel

6655 Hollis Street

Emeryville, California

AllWest Project No. 15006.28

Well Number	Date	TOC Elevation (feet msl)	Ground Surface Elevation (feet msl)	Depth to Groundwater (feet below TOC)	Product Thickness (feet)	Groundwater Surface Elevation (feet msl)[a]
AMW-2	11/6/2013	23.43	23.73	10.36	0.00	13.07
AMW-2	3/19/2014	23.43	23.73	8.50	0.00	14.93
AMW-2	6/20/2014	23.43	23.73	9.51	0.00	13.92
AMW-2	**2/28/2015**	**23.43**	**23.73**	**6.30**	**0.00**	**17.13**
AMW-3	8/7/2013	25.16	25.50	8.94	0.00	16.22
AMW-3	11/6/2013	25.16	25.50	9.34	0.00	15.82
AMW-3	3/19/2014	25.16	25.50	7.25	0.00	17.91
AMW-3	6/20/2014	25.16	25.50	8.37	0.00	16.79
AMW-3	**2/28/2015**	**25.16**	**25.50**	**7.26**	**0.00**	**17.90**

Notes:

*****	Groundwater level measurement only, no sampling
TOC	Top of Well Casing
feet msl	Well MW-3 ground surface and TOC elevations surveyed to feet above mean sea level (msl) per City of Emeryville Datum, BM#5 by Triad/Holmes Associates October 17, 1995. All ground surface and TOC elevations re-surveyed to NAD 1983 and NAVD 1988 datum by Morrow Surveying, Inc., August 13, 2013.
a	Groundwater elevation corrected for free product thickness, assuming density of 0.75 for gasoline.
NM	Not Measured

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 15006.28

Sample / Field Point Name	Date Sampled	TPH-g (µg/L)	TPH-ms (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other VOCs (µg/L)
MW-3	10/17/1995	**8,600**	ND <100	**220**	NA	**730**	**2,100**	**270**	**1,400**	NA	NA
MW-3	8/22/2005	**39,000**	NA	**2,500** L,Y	NA	**3,100**	**3,800**	**1,100**	**4,700**	**7,200**	Oxygenates - ND (varies)
MW-3 qualifiers	12/20/2005	**54,000**	NA	**2,600** L,Y	NA	**6,000**	**10,000**	**1,700**	**9,600**	**12,000**	Oxygenates - ND (varies)
MW-3 qualifiers	8/2/2012	**27,000**	**14,000** d1	**33,000** e4, e2	**680** e4, e2	**1,300**	**3,800**	**400**	**4,500**	**630**	**400 (TBA), 110 (trans-1,3-dichloropropene), 250 (naphthalene), 1,100 (1,2,4-trimethylbenzene), 280 (1,3,5-trimethylbenzene),** ND (others - varies)
MW-3 qualifiers	12/18/2012	**21,000**	**12,000** d1	**2,600** e4	ND <250 e4	**830**	**1,400**	**450**	**2,600**	**840**	**140 (naphthalene), 630 (1,2,4-trimethylbenzene), 78 (n-propyl benzene), 190 (1,3,5-trimethylbenzene),** ND (others - varies)
MW-3 qualifiers	6/27/2013	**18,000**	NA	**2,300** e4	NA	**1,900**	**2,000**	**540**	**2,700**	**1,900**	**520 (TBA), 170 (naphthalene), 650 (1,2,4-trimethylbenzene), 84 (n-propyl benzene), 200 (1,3,5-trimethylbenzene), ND, reporting limits vary (others)**
MW-3 qualifiers	8/7/2013	**130,000** d1, b6	**54,000** d1, b6	**24,000** e4, b6	NA	**9,800** b6, c8	**16,000** b6, c8	**4,200** b6, c8	**24,000** b6, c8	**6,300** b6, c8	**1,100 (naphthalene), 5,200 (1,2,4-trimethylbenzene), 620 (n-propyl benzene), 1,500 (1,3,5-trimethylbenzene),** others ND, reporting limits vary b6, c8
MW-3 qualifiers	11/6/2013	**49,000** d1, b6	**19,000** d1, b6	**6,400** e4	NA	**3,200** c8	**4,900** c8	**2,100** c8	**11,000** c8	**2,600** c8	**700 (TBA), 140 (n-butyl benzene), 130 (isopropylbenzene), 690 (naphthalene), 460 (n-propyl benzene), 3,200 (1,2,4-trimethylbenzene) 1,000 (1,3,5-trimethylbenzene),** others ND, reporting limits vary c8
MW-3 qualifiers	3/19/2014	**87,000** d1	**40,000** d1	**11,000** e4	NA	**5,500**	**7,200**	**2,000**	**11,000**	**4,400**	**1,500 (TBA), 480 (naphthalene), 340 (n-propyl benzene), 2,600 (1,2,4-trimethylbenzene) 780 (1,3,5-trimethylbenzene),** others ND, reporting limits vary
MW-3 qualifiers	6/20/2014	**54,000** d1	**26,000** d1	**12,000** e4	NA	**1,100**	ND <100	ND <100	**5,700**	**2,700**	**790 (TBA), 420 (naphthalene), 2,300 (1,2,4-trimethylbenzene) 610 (1,3,5-trimethylbenzene),** others ND, reporting limits vary

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 15006.28

Sample / Field Point Name	Date Sampled	TPH-g (µg/L)	TPH-ms (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other VOCs (µg/L)
MW-3	2/28/2015	**84,000**	**21,000**	**1,400**	NA	**7,700**	**4,700**	**1,300**	**6,000**	**5,200**	**3,400 (TBA), 430 (naphthalene), 150 (n-propyl benzene), 1,400 (1,2,4-trimethylbenzene), 380 (1,3,5-trimethylbenzene),** others ND, reporting limits vary
qualifiers		d1	d1	e4							
AMW-1	8/7/2013	ND <50	ND <50	**110**	NA	ND <1.2	ND <1.2	ND <1.2	ND <1.2	**2.5**	**2.0 (1,1-dichloroethane), 39 (1,1-dichloroethene), 7.3 (TCE),** ND (others, reporting limits vary)
qualifiers		b1	b1	e7, e1, b1		b1	b1	b1	b1	b1	b1
AMW-1	11/6/2013	ND <50	ND <50	ND <50	NA	ND <1.0	ND <1.0	ND <1.0	ND <1.0	**2.4**	**2.0 (1,1-dichloroethane), 50 (1,1-dichloroethene), 7.6 (TCE),** ND (others, reporting limits vary)
qualifiers		c4	c4								
AMW-1	3/19/2014	ND <50	ND <50	ND <50	NA	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	**83 (1,1-dichloroethene), 7.2 (TCE),** ND (others, reporting limits vary)
qualifiers		c2, b1	c2, b1	b1		b1	b1	b1	b1	b1	b1
AMW-1	6/20/2014	ND <50	ND <50	ND <100	NA	ND <1.0	ND <1.0	ND <1.0	ND <1.0	**2.3**	**1.8 (1,1-dichloroethane), 21 (1,1-dichloroethene), 5.4 (TCE),** ND (others, reporting limits vary)
qualifiers		c2, S	c2, S								
AMW-1	2/28/2015	ND <50	ND <50	ND <50	NA	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**2.1**	**2.1 (1,1-dichloroethane), 0.82 (1,2-DCA), 36 (1,1-dichloroethene), 0.59 (DIPE), 0.59 (PCE), 6.8 (TCE),** ND (others, reporting limits vary)
AMW-2	8/7/2013	**1,300**	**550**	**210**	NA	**66**	**74**	**48**	**280**	**350**	**22 (naphthalene), 46 (1,2,4-trimethylbenzene), 6.4 (n-propyl benzene), 29 (1,3,5-trimethylbenzene,** ND (others, reporting limits vary)
qualifiers		d1, b1	d1, b1	e4, e2, b1		b1	b1	b1	b1	b1	b1
AMW-2	11/6/2013	**2,200**	**1,400**	**330**	NA	**130**	**16**	**120**	**270**	**330**	**7.2 (n-butyl benzene), 7.2 (isopropylbenzene), 54 (naphthalene), 23 (n-propyl benzene), 150 (1,2,4-trimethylbenzene), 49 (1,3,5-trimethylbenzene,** ND (others, reporting limits vary)
qualifiers		d1	d1	e4							
AMW-2	3/19/2014	**550**	**430**	**190**	NA	**30**	ND <5.0	**17**	**19**	**300**	**14 (naphthalene), 6.2 (n-propyl benzene), 38 (1,2,4-trimethylbenzene), 6.0 (1,3,5-trimethylbenzene,** ND (others, reporting limits vary)
qualifiers		d1	d1	e4							
AMW-2	6/20/2014	**370**	**270**	**110**	NA	**22**	ND <5.0	**11**	**44**	**380**	**8.4 (naphthalene), 40 (1,2,4-trimethylbenzene),** ND (others, reporting limits vary)
qualifiers		d1	d1	e4							
AMW-2	2/28/2015	**120**	**77**	ND <50	NA	**5.1**	ND <5.0	ND <5.0	**5.1**	**260**	**7.4 (1,2,4-trimethylbenzene),** ND (others, reporting limits vary)
qualifiers		d1	d1								

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 15006.28

Sample / Field Point Name	Date Sampled	TPH-g (µg/L)	TPH-ms (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other VOCs (µg/L)
AMW-3	8/7/2013	**2,000**	**1,000**	**340**	NA	**17**	**72**	**83**	**360**	ND <5.0	**7.4 (n-butyl benzene), 18 (naphthalene), 76 (1,2,4-trimethylbenzene), 5.2 (1,1-dichloroethane), 140 (1,1-dichloroethene), 18 (n-propyl benzene), 5.3 (1,1,1-trichloroethane), 20 (TCE), 39 (1,3,5-trimethylbenzene),** ND (others, reporting limits vary)
qualifiers		d1, b1	d1, b1	e4, e2, b1							
AMW-3	11/6/2013	**110**	**99**	**130**	NA	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	**5.4 (1,1-dichloroethane), 180 (1,1-dichloroethene), 6.1 (1,1,1-trichloroethane), 22 (TCE),** ND (others, reporting limits vary)
qualifiers		d1, c4	d1, c4	e4		c8	c8	c8	c8	c8	c8
AMW-3	3/19/2014	**140**	**110**	**130**	NA	ND <5.0	ND <5.0	**9.3**	ND <5.0	ND <5.0	**240 (1,1-dichloroethene), 9.0 (naphthalene), 19 (TCE),** ND (others, reporting limits vary)
qualifiers		d1, c4	d1, c4	e4							c8
AMW-3	6/20/2014	**320**	**250**	**220**	NA	**13**	ND <2.5	**44**	**2.9**	ND <2.5	**3.4 (1,1-dichloroethane), 74 (1,1-dichloroethene), 12 (naphthalene), 7.5 (n-propyl benzene), 2.8 (1,1,1-trichloroethane), 9.9 (TCE), 6.8 (1,2,4-trimethylbenzene),** ND (others, reporting limits vary)
qualifiers		d1, c4, S	d1, c4, S	e4							
AMW-3	2/28/2015	**770**	**560**	**240**	NA	**7.4**	**3.0**	**28**	**100**	ND <2.5	**4.4 (n-butyl benzene), 3.6 (1,1-dichloroethane), 77 (1,1-dichloroethene), 3.1 (isopropylbenzene), 16 (naphthalene), 8.9 (n-propyl benzene), 4.0 (1,1,1-trichloroethane), 13 (TCE), 57 (1,2,4-trimethylbenzene), 17 (1,3,5-trimethylbenzene),** ND (others, reporting limits vary)
qualifiers		d1, c4	d1, c4	e4							
RWQCB Commercial/Industrial ESLs, drinking water*		**100**	**100**	**100**	**100**	**1.0**	**40**	**30**	**20**	**5.0**	**0.5 (1,2-DCA), 12 (TBA), 5.0 (PCE), 5.0 (TCE), 0.5 (1,3-dichloropropene) 6.1 (naphthalene), 5.0 (1,1-dichloroethane), 6.0 (1,1-dichloroethene), 62 (1,1,1-trichloroethane), NE or varies (others)**
RWQCB Commercial/Industrial ESLs, non-drinking water*		**500**	**500**	**640**	**640**	**27**	**130**	**43**	**100**	**1,800**	**100 (1,2-DCA), 18,000 (TBA), 63 (PCE), 130 (TCE), 24 (1,3-dichloropropene) 24 (naphthalene), 47 (1,1-dichloroethane), 25 (1,1-dichloroethene), 62 (1,1,1-trichloroethane), NE or vary (others)**
RWQCB Commercial/Industrial ESLs, vapor intrusion		**NE**	**NE**	**NE**	**NE**	**270**	**NE (95,000**)**	**3,100**	**NE (37,000**)**	**100,000**	**1,000 (1,2-DCA), 640 (PCE) 1,300 (TCE), 260 (1,3-dichloropropene) 1,600 (naphthalene), 130,000 (1,1-dichloroethene), NE or vary (others)**

Notes:

All results are reported in micrograms per liter (µg/L) except where noted.
1,2-DCA 1,2-dichloroethane, Analytical Method SW8260B

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 15006.28

Sample / Field Point Number	Date Sampled	TPH-g (µg/L)	TPH-ms (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other VOCs (µg/L)

DIPE	Diisopropyl ether, Analytical Method SW8260B
PCE	Tetrachloroethene, Analytical Method SW8260B
TCE	Trichloroethene, Analytical Method SW8260B
TPH-g	Total petroleum hydrocarbons as gasoline, Analytical Method SW8260B, except samples collected on 10/17/95, 8/22/05 and 12/20/05 Analytical Method SW8015Bm
TPH-ms	Total petroleum hydrocarbons Mineral Spirits Range (C9-C12), Analytical Method SW8015Bm
TPH-d	Total petroleum hydrocarbons as diesel, C10-C23, Analytical Method SW8015B with silica gel cleanup
TPH-mo	Total petroleum hydrocarbons as motor oil, C18-C36, Analytical Method SW8015B with silica gel cleanup
MTBE	Methyl tertiary butyl ether, Analytical Method SW8260B
TBA	Tertiary butyl alcohol, Analytical Method SW8260B
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes, Analytical Method SW8021B on 10/17/95 only; Analytical Method SW8260B on all other dates
VOCs	Volatile organic compounds, Analytical Method SW8260B
ND <100	Not detected at or above listed reporting limit
NE	Not established
NA	Not analyzed

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is a potential drinking water resource from Table F-1a, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - December 2013.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is not a potential drinking water resource from Table F-1b, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - December 2013.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion (Volatile Chemicals Only), commercial/industrial land use, fine-coarse mix from Table E-1, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - December 2013.

* The subject site lies within the City of Emeryville, where groundwater use as a drinking water resource is currently prohibited by City ordinance due to widespread regional contamination, and no plans exist for future benefical groundwater use.

** Residential vapor intrusion ESL - commercial ESL for vapor intrusion not established, soil gas sampling recommended.

Laboratory Qualifiers:

L - lighter hydrocarbons contributed to the quantitation
Y - sample exhibits chromatographic pattern which does not resemble standard
b1 - aqueous sample that contains greater than ~1 vol. % sediment
b6 - lighter than water immiscible sheen/product is present
c2 - low surrogate recovery caused by matrix interference.
c4 - surrogate recovery outside of the control limits due to coelution with another peak(s)/cluttered chromatogram.
c8 - sample pH is greater than 2
d1 - weakly modified or unmodified gasoline is significant
d2 - heavier gasoline range compounds are significant (aged gasoline?)
e2 - diesel range compounds are significant; no recognizable pattern
e4 - gasoline-range compounds are significant
e7 - oil range compounds are significant
S - spike recovery outside accepted recovery limits

TABLE 4
Summary of Groundwater Analytical Data
PNAs/PAHs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 15006.28

Sample / Field Point Name	Date Sampled	Benzo (a) anthracene (µg/L)	Fluoranthene (µg/L)	1-Methylnaphthalene (µg/L)	2-Methylnaphthalene (µg/L)	Naphthalene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)	Other PNAs/PAHs (µg/L)
MW-3	8/7/2013	ND <50	ND <50	**390**	**710**	**890**	ND <50	ND <50	ND <50
qualifiers	b6								
MW-3	11/6/2013	ND <25	ND <25	**330**	**620**	**1,100**	ND <25	ND <25	ND <25
qualifiers	c1								
MW-3	3/19/2014	ND <10	ND <10	**80**	**150**	**360**	ND <10	ND <10	ND <10
MW-3	6/20/2014	ND <21	ND <21	**110**	**210**	**410**	ND <21	ND <21	ND <21
MW-3	2/28/2015	ND <25	ND <25	**700**	**1,400**	**1,100**	ND <25	ND <25	ND <25
qualifiers	c1								
AMW-1	8/7/2013	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5
qualifiers	b1								
AMW-1	11/6/2013	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50
AMW-1	3/19/2014	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50
AMW-1	6/20/2014	ND <2.1	ND <2.1	ND <11	ND <2.1	ND <2.1	ND <2.1	ND <2.1	ND <2.1
AMW-1	2/28/2015	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50
AMW-2	8/7/2013	ND <0.5	ND <0.5	**1.5**	**1.6**	**7.7**	ND <0.5	ND <0.5	ND <0.5
qualifiers	b1								
AMW-2	11/6/2013	ND <0.50	ND <0.50	**5.4**	**9.2**	**26**	ND <0.50	ND <0.50	ND <0.50
AMW-2	3/19/2014	ND <0.50	ND <0.50	**2.3**	**2.6**	**13**	ND <0.50	ND <0.50	ND <0.50
AMW-2	6/20/2014	ND <2.1	ND <2.1	ND <10	ND <2.1	**2.1**	ND <2.1	ND <2.1	ND <2.1
AMW-2	2/28/2015	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**0.96**	ND <0.50	ND <0.50	ND <0.50
AMW-3	8/7/2013	ND <0.5	ND <0.5	**3.2**	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5
qualifiers	b1								
AMW-3	11/6/2013	ND <0.50	ND <0.50	**1.5**	**2.6**	**7.5**	ND <0.50	ND <0.50	ND <0.50
AMW-3	3/19/2014	ND <0.50	ND <0.50	**2.7**	**2.8**	**6.3**	ND <0.50	ND <0.50	ND <0.50
AMW-3	6/20/2014	ND <1.5	ND <1.5	ND <7.4	ND <1.5	**2.3**	ND <1.5	ND <1.5	ND <1.5
AMW-3	2/28/2015	ND <0.50	ND <0.50	**4.4**	**6.7**	**9.4**	ND <0.50	ND <0.50	ND <0.50
RWQCB Commercial/Industrial ESLs, drinking water*		**0.027**	**8.0**	**NE**	**2.1**	**6.1**	**4.6**	**2.0**	**Vary**
RWQCB Commercial/Industrial ESLs, non-drinking water*		**0.027**	**8.0**	**NE**	**2.1**	**24**	**4.6**	**2.0**	**Vary**
RWQCB Commercial/Industrial ESLs, vapor intrusion		**NE**	**NE**	**NE**	**NE**	**1,600**	**NE**	**NE**	**Vary**

Notes: All results are reported in micrograms per liter (µg/L) except where noted.
All samples analyzed by McCampbell Analytical, Inc., Pittsburg, California
PNAs/PAHs = Polynuclear Aromatic Hydrocarbons/Polycyclic Aromatic Hydrocarbons by analytical method SW8270C-SIM
ND <0.50 - Not detected at or above listed reporting limit
NE - Not established

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is a potential drinking water resource from Table F-1a, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - December 2013.

TABLE 4
Summary of Groundwater Analytical Data
PNAs/PAHs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 15006.28

Sample / Field Point Name	Date Sampled	Benzo (a) anthracene (µg/L)	Fluoranthene (µg/L)	1-Methylnaphthalene (µg/L)	2-Methylnaphthalene (µg/L)	Naphthalene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)	Other PNAs/PAHs (µg/L)

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is not a potential drinking water resource from Table F-1b, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - December 2013.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for evaluation of potential vapor intrusion, commercial/industrial land use, fine-coarse mix from Table E-1, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - December 2013.

Laboratory Qualifiers:

b1 - Aqueous sample that contains greater than ~1 vol. % sediment

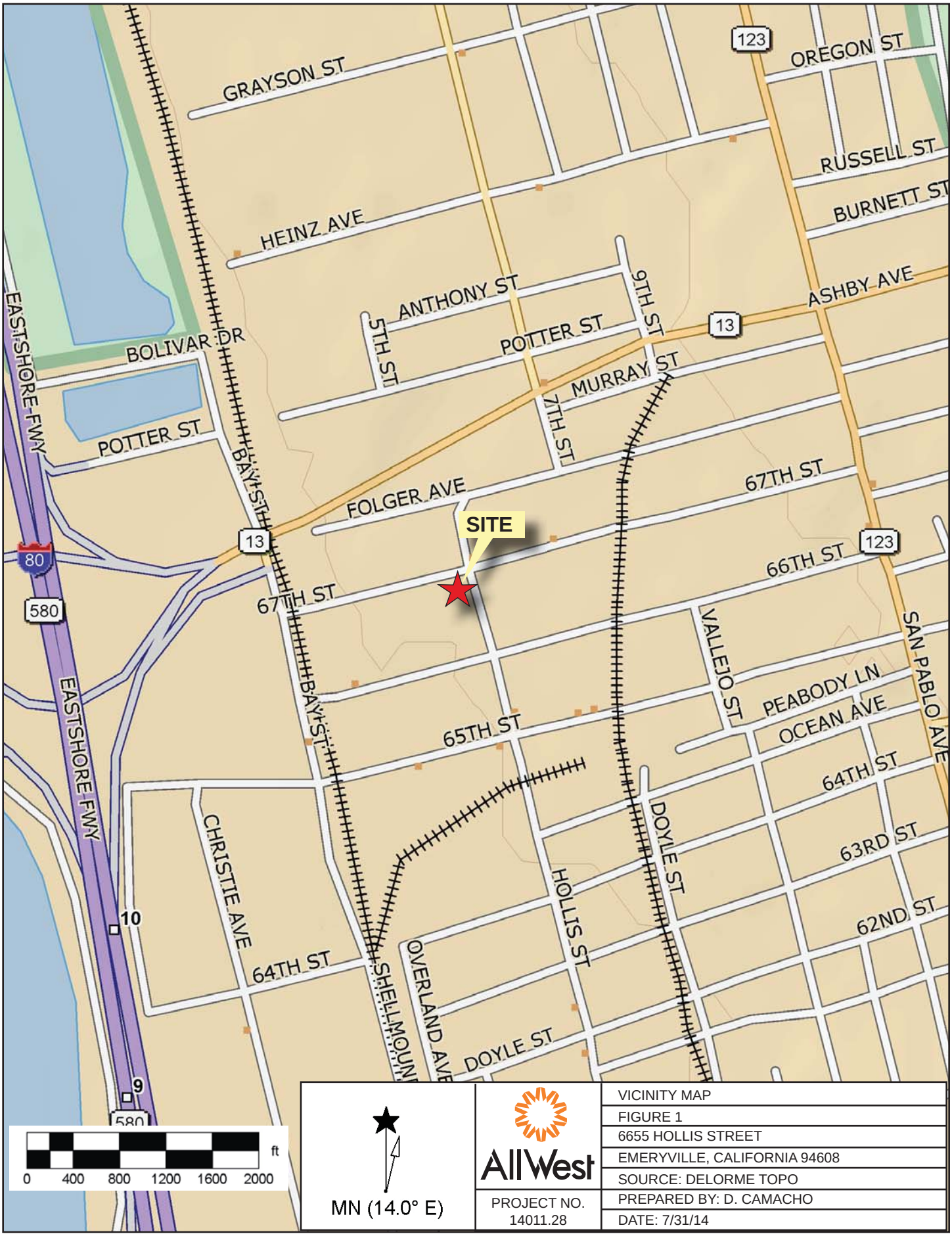
b6 - Lighter than water immiscible sheen/product is present.

c1 - surrogate recovery outside of the control limits due to the dilution of the sample.

FIGURES

DELORME

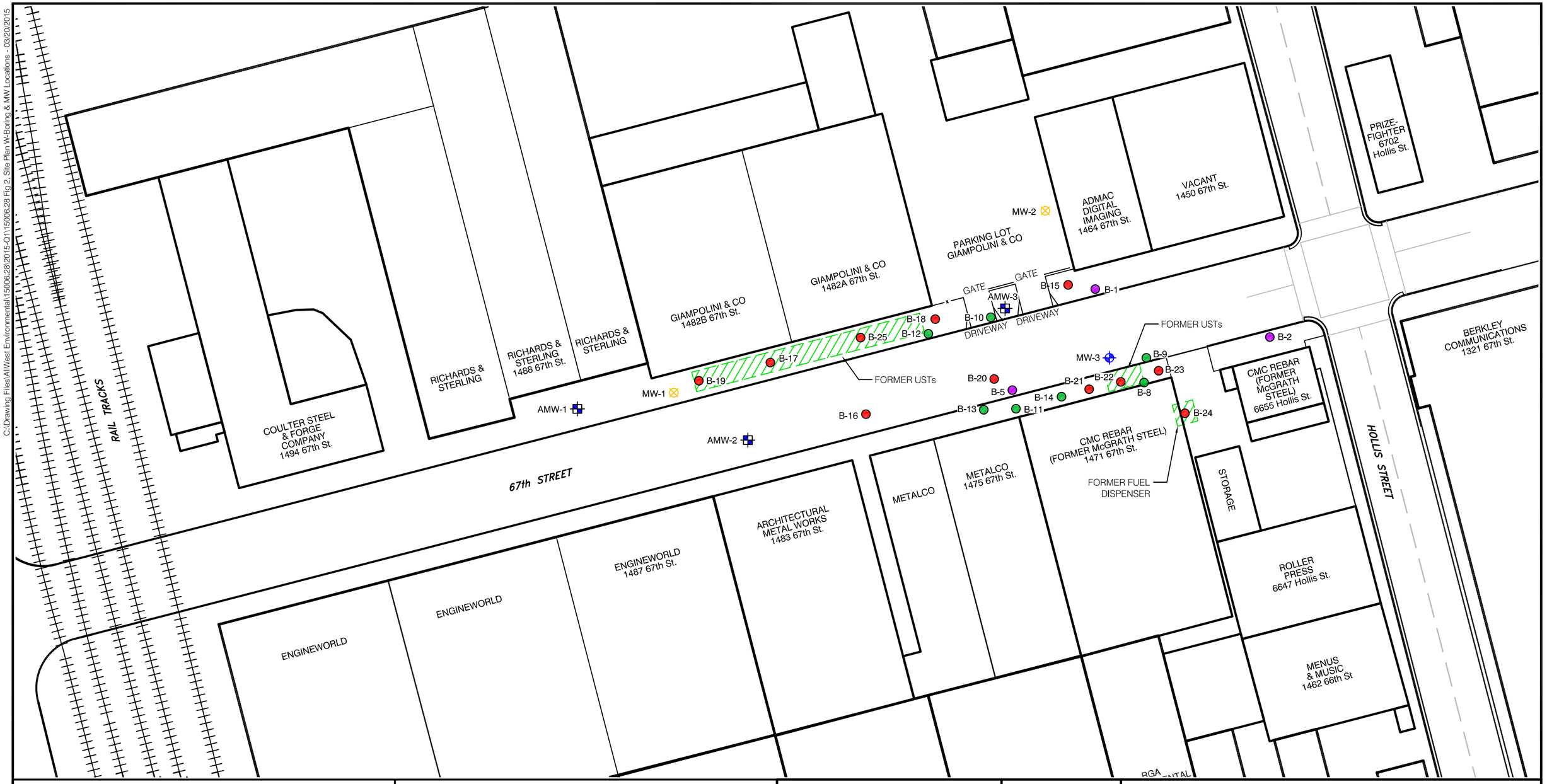
Topo USA® 8



AllWest

PROJECT NO. 14011.28	VICINITY MAP
	FIGURE 1
	6655 HOLLIS STREET
	EMERYVILLE, CALIFORNIA 94608
	SOURCE: DELORME TOPO
	PREPARED BY: D. CAMACHO
	DATE: 7/31/14

C:\Drawing Files\AllWest Environmental\15006.28\2015-01\15006.28 Fig 2, Site Plan W-Boring & MW Locations - 03/20/2015



LEGEND

- MW-2 ⊠ MONITORING WELL (CLEARPRINT/ESC - DESTROYED, 2005)
- MW-3 ⊕ MONITORING WELL (ESC, 1995)
- AMW-3 ⊕ MONITORING WELL (ALLWEST, 2013)
- B-5 ● SOIL BORING (WEISS ASSOCIATES, 1998)
- B-14 ● SOIL BORING (WEISS ASSOCIATES, 2005)
- B-25 ● SOIL BORING (JANUARY 16, 17, & 18, 2013)

- ▨ FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- —x— FENCE

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 15006.28

FIGURE 2
SITE PLAN WITH BORING AND MONITORING WELL LOCATIONS

Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (03/20/2015)

C:\Drawing Files\AllWest Environmental\15006.28\2015-Q1\15006.28 Fig 3, GW Elevation Contours 02-28-2015 - 03/23/2015

RAIL TRACKS

67th STREET

HOLLIS STREET

COULTER STEEL & FORGE COMPANY 1494 67th St.

RICHARDS & STERLING

RICHARDS & STERLING 1488 67th St.

RICHARDS & STERLING

GIAMPOLINI & CO 1482B 67th St.

GIAMPOLINI & CO 1482A 67th St.

PARKING LOT GIAMPOLINI & CO

ADMAC DIGITAL IMAGING 1464 67th St.

VACANT 1450 67th St.

PRIZE-FIGHTER 6702 Hollis St.

BERKLEY COMMUNICATIONS 1321 67th St.

CMC REBAR (FORMER McGRATH STEEL) 6655 Hollis St.

CMC REBAR (FORMER McGRATH STEEL) 1471 67th St.

METALCO

METALCO 1475 67th St.

ARCHITECTURAL METAL WORKS 1483 67th St.

ENGINEWORLD 1487 67th St.

ENGINEWORLD

ENGINEWORLD

STORAGE

ROLLER PRESS 6647 Hollis St.

MENUS & MUSIC 1462 66th St

FORMER FUEL DISPENSER

FORMER USTs

FORMER USTs

GATE

GATE

DRIVEWAY

DRIVEWAY

APPARENT GW FLOW
AVG GRAD = 0.0107

MW-1

MW-2

MW-3
18.03

AMW-1
14.48

AMW-2
17.13

AMW-3
17.90

15.00

16.00

17.00

18.00

B-1 B-2 B-5 B-8 B-9 B-10 B-11 B-12 B-13 B-14 B-15 B-16 B-17 B-18 B-19 B-20 B-21 B-22 B-23 B-24 B-25

LEGEND

- MW-2 — MONITORING WELL (CLEARPRINT/ESC - DESTROYED, 2005)
- MW-3 — MONITORING WELL (ESC, 1995)
- AMW-3 17.90 — MONITORING WELL (ALLWEST, 2013) AND GROUNDWATER ELEVATION (ft.) NAVD 88 DATUM
- B-5 — SOIL BORING (WEISS ASSOCIATES, 1998)
- B-14 — SOIL BORING (WEISS ASSOCIATES, 2005)
- B-25 — SOIL BORING (JANUARY 16, 17, & 18, 2013)

- GROUNDWATER FLOW DIRECTION IN FEET PER FOOT
- FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- x — FENCE

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 15006.28

FIGURE 3
GROUNDWATER ELEVATION CONTOURS FEBRUARY 28, 2015

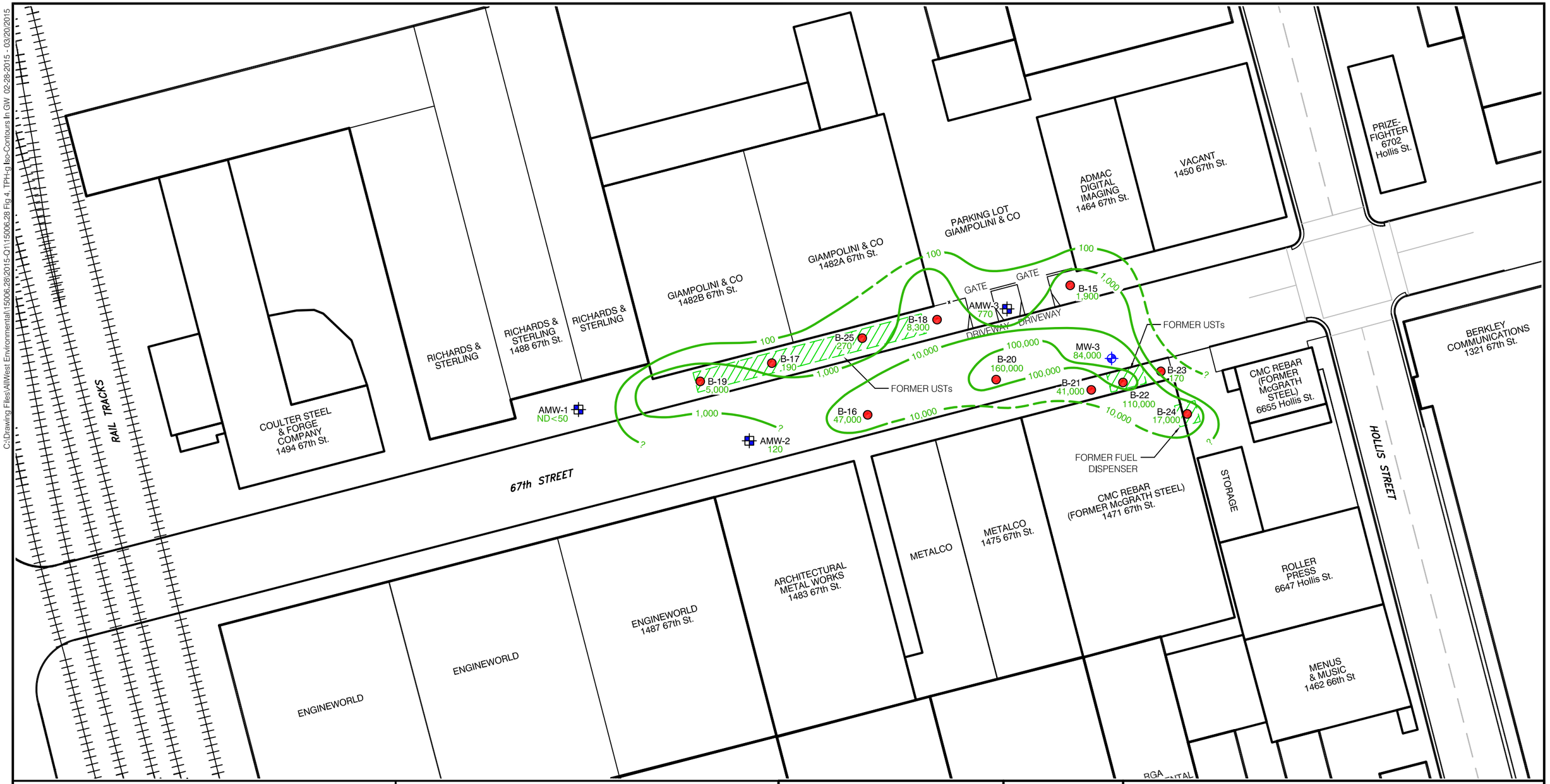
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (03/20/2015)

C:\Drawing Files\AllWest Environmental\15006.28\2015-Q1\15006.28 Fig 4, TPH-g Iso-Contours In GW 02-28-2015 - 03/20/2015



LEGEND

- MW-3 84,000 — MONITORING WELL (ESC, 1995) WITH TPH-g CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- AMW-3 770 — MONITORING WELL (ALLWEST, 2013) WITH TPH-g CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- B-25 270 — SOIL BORING (JANUARY 16, 17, & 18, 2013)WITH TPH-g CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- x — FENCE

NOTE:

TPH-g- Total Petroleum Hydrocarbons as Gasoline

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 15006.28

FIGURE 4
TPH-g ISOCONCENTRATION CONTOURS IN GROUNDWATER FEBUARY 28, 2015

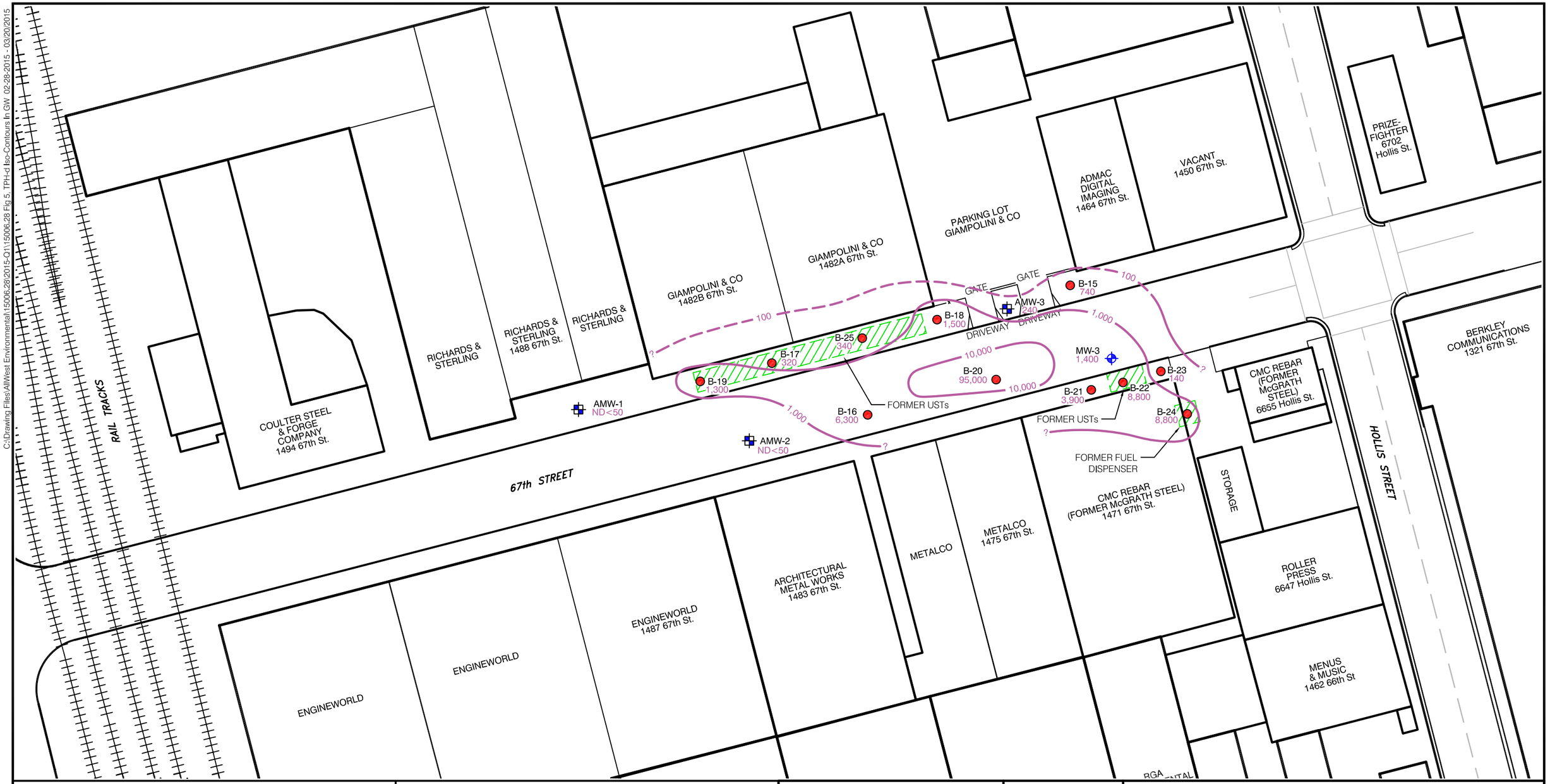
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (03/20/2015)

C:\Drawing Files\AllWest Environmental\15006.28\2015-Q1\15006.28 Fig 5, TPH-d Iso-Contours In GW 02-28-2015 - 03/20/2015



LEGEND

- MW-3 1,400 — MONITORING WELL (ESC, 1995) WITH TPH-d CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- AMW-3 240 — MONITORING WELL (ALLWEST, 2013) WITH TPH-d CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- B-25 340 — SOIL BORING (JANUARY 16, 17, & 18, 2013)WITH TPH-d CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- x — FENCE

NOTE:

TPH-d - Total Petroleum Hydrocarbons as Diesel

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 15006.28

FIGURE 5
TPH-d ISOCONCENTRATION CONTOURS IN GROUNDWATER FEBRUARY 28, 2015

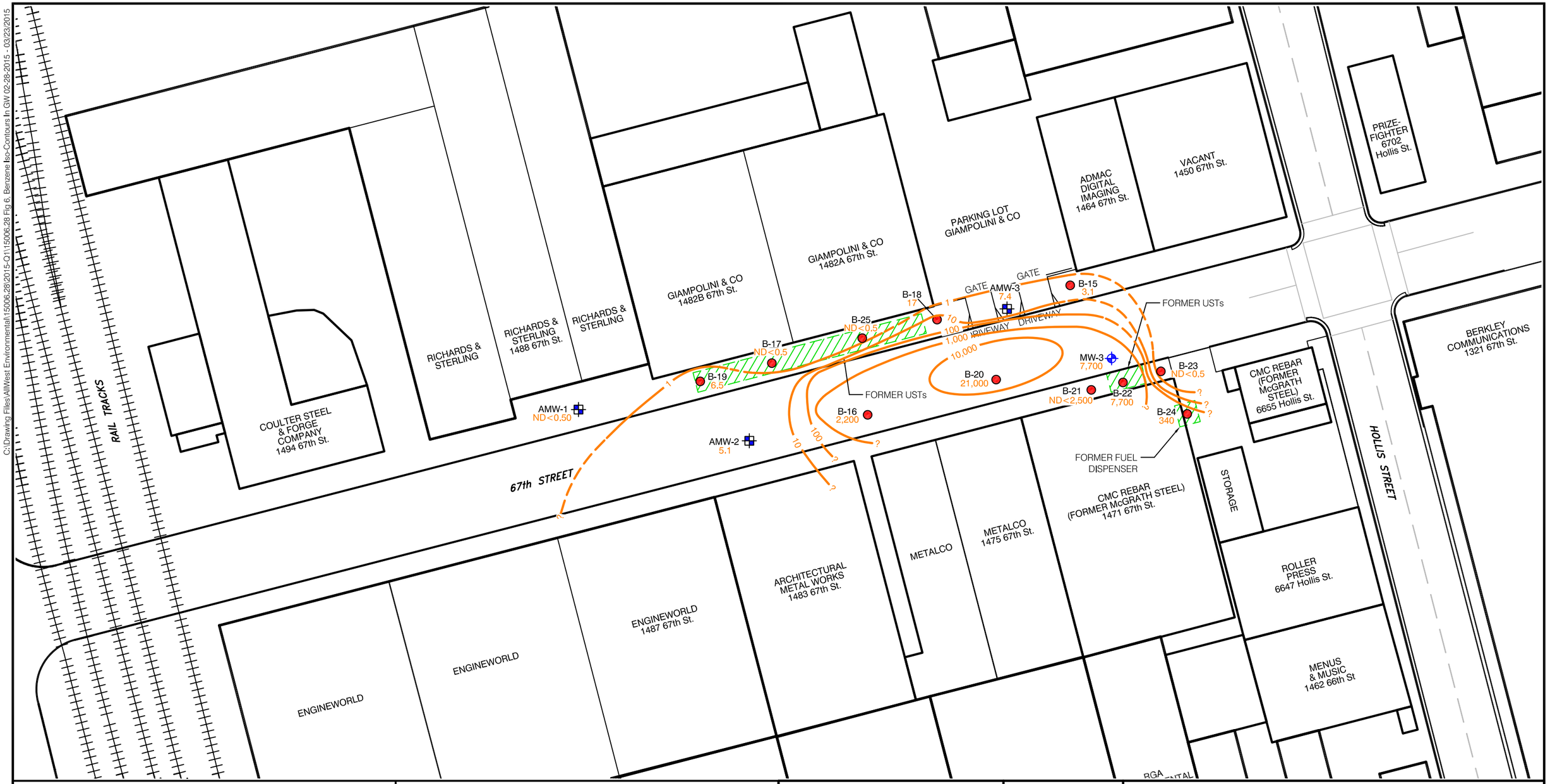
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (03/20/2015)

C:\Drawing Files\AllWest Environmental\15006.28\2015-Q1\15006.28 Fig 6. Benzene Iso-Contours In GW 02-28-2015 - 03/23/2015



LEGEND

MW-3 7,700 — MONITORING WELL (ESC, 1995) WITH BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED

AMW-3 7.4 — MONITORING WELL (ALLWEST, 2013) WITH BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED

B-25 ND<0.5 — SOIL BORING (JANUARY 16, 17, & 18, 2013)WITH BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED

FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)

—— x —— FENCE

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 15006.28

FIGURE 6
BENZENE ISOCONCENTRATION CONTOURS IN GROUNDWATER FEBRUARY 28, 2015

Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (03/20/2015)

APPENDIX A

Groundwater Monitoring Well Development and Sampling

Groundwater monitoring wells will be developed with the combination of surging and pumping actions. The wells will be alternately surged with a surging block for five minutes and pumped with a submersible pump for two minutes. The physical characteristics of the groundwater, such as water color and clarity, pH, temperature, and conductivity, will be monitored during well development. Well development will be considered complete when the groundwater is relatively sediment-free and groundwater characteristic indicators are stabilized (consecutive readings within 10% of each other).

Groundwater will be sampled from the developed wells no sooner than 48 hours after well development to allow stabilization of groundwater conditions. Prior to groundwater sampling, a proper purging process will be performed at each well. The purpose of well purging is to remove fine grained materials from the well casing and to allow fresh and more representative water to recharge the well. Prior to well purging, an electric water depth sounder will be lowered into the well casing to measure the depth to the water to the nearest 0.01 feet. A clear poly bailer will then be lowered into the well casing and partially submerged. Upon retrieval of the clear bailer, the surface of the water column retained in the bailer will be carefully examined for any floating product or product sheen.

After all initial measurements are completed and recorded, the well will be purged by an electrical submersible pump or a bailer. A minimum of 3 well volumes of groundwater will be purged and groundwater characteristics (temperature, pH, and conductivity) monitored at each well volume interval. Purging is considered complete when indicators are stabilized (consecutive readings within 10% of each other) and the purged water is relatively free of sediments.

Groundwater sampling will be conducted after the water level has recovered to at least 80% of the initial level, recorded prior to purging. The groundwater sample will be collected by a disposable bailer. Upon retrieval of the bailer, the retained water will be carefully transferred to appropriate sample bottle furnished by the analytical laboratory. All sample bottles will have a Teflon lined septum/cap and be filled such that no headspace is present. Then the sample bottles will be labeled and immediately placed on ice to preserve the chemical characteristics of its content.

To prevent cross contamination, all groundwater sampling equipment that comes in contact with the groundwater will be thoroughly decontaminated prior to sampling. A disposable bailer will be used to collect the groundwater samples. Sample handling, storage, and transport procedures described in the following sections will be employed. All well development and purging water will be temporarily stored on-site in 55-gallon drums awaiting test results to determine the proper disposal method.

APPENDIX B

AllWest

Date: 1/30/15
Project #: 15006.28
Site Loc: Harlis - Emeryville
Page 1 of 1

1/30/15 Visited site for product skimming MW-3

Have not been on site since 6/20/14. Bailer lost down MW-3 at that time. Need to remove.

Well box completely filled with rain water. Both bolt holes are stripped. Well box should be repaired/replaced.

Well lock and cap completely rusted stuck. Managed to get lock open but cap is stuck.

Finally removed cap but it will no longer expand/contract. Needs replacement.

Switched product skimmer reservoir for a smaller one. Removed stuck bailer.

Initial DTW = 9.91 ft bgs.
Rose to 7.87 feet bgs approx. 20 min after bailer removal. Sheen in bailer.

Could not secure cap so left it loosely fitted above casing. Re-adjusted skimmer height. Closed well box.

2/5/15 Returned to site to replace well cap. Skimmer was again filled with water (no product). Does not appear to be working properly. Removed from well. Installed new snug-fitting well cap (rain forecast for 2/6/15.)

AllWest

PURGE TABLE

WELL ID: AMW-3
Page 1 of 1

SITE NAME: Hollis – Emeryville	LOCATION: Emeryville CA
PROJECT NO: 150062.8	DATE PURGED: 2/28/15
PURGED/SAMPLED BY: CNA	DATE SAMPLED: 2/28/15
TIME SAMPLED: 0955	DEPTH TO BOTTOM (feet): 22.22
DEPTH TO WATER (feet): 7.26	WATER COLUMN HEIGHT (feet): 14.96
CALCULATED PURGE (gallons): 7.18	CASING VOLUME (gallons): 2.39
ACTUAL PURGE (gallons) 7.5	

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

0.16 (14.96) = 2.3936 × 3 = 7.18

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (µS)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
2	0915	19.3	6.43	968		Clear/cloudy
4	0928	19.7	6.39	985		cloudy
6	0943	19.6	6.39	927		cloudy

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 7.33 Analyses: TPH-g, mns, diesel, VOCs, PNAs PAHs
80% RECHARGE: Y/N SAMPLE TURBIDITY: cloudy
ODOR: Slight HC SAMPLE BOTTLE/PRESERVATIVE: 4 VOAs, 1 Amber/HCl 1 Amber-none

PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

Comments: Well box Completely flooded to Surface with rain/runoff

AllWest

PURGE TABLE

WELL ID: MW-3
Page 1 of 1

SITE NAME: Hollis - Emeryville	LOCATION: Emeryville, CA
PROJECT NO: 15006.28	DATE PURGED: 2/28/15
PURGED/SAMPLED BY: MA	DATE SAMPLED: 2/28/15
TIME SAMPLED: 1138	DEPTH TO BOTTOM (feet): 29.50
DEPTH TO WATER (feet): 7.52	WATER COLUMN HEIGHT (feet): 21.98
CALCULATED PURGE (gallons): 10.55	CASING VOLUME (gallons): 3.52
ACTUAL PURGE (gallons) 11	

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

0.16(21.98) = 3.5168 x 3 = 10.55

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (µS)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
2	1020	18.8	6.23	1857		Clear
4	1030	18.4	6.18	1831		Cloudy
6	1041	17.4	6.32	1629		Silty
8	1058	18.2	6.23	1637		Silty
10	1110	18.5	6.21	1598		Silty

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 9.50 Analyses: TPH-g, ms, d, VOCs, PNAs/DAHs
80% RECHARGE: Y/N SAMPLE TURBIDITY: Cloudy / silty
ODOR: Strong HC SAMPLE BOTTLE/PRESERVATIVE: 4 VOAs, 1 amber/AGI / 1 unpr. bmb.

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___Centrifugal Pump	___Bailer (Teflon)	___Centrifugal Pump	___Bailer (Teflon)
___Submersible Pump	✓ Bailer (PVC or disposable)	___Submersible Pump	✓ Bailer (PVC or disposable)
___Peristaltic Pump	___Bailer (Stainless Steel)	___Peristaltic Pump	___Bailer (Stainless Steel)
___Purge Pump		___Purge Pump	
Other: _____		Other: _____	

Comments: No measureable product. Sheen observed. Well box completely flooded with rainwater/runoff. Bailed to 12.50 ft bgs. Allowed to recharge to 9.50 before sampling.

AllWest

PURGE TABLE

WELL ID: AMW-2
Page 1 of 1

SITE NAME: Hollis - Emeryville	LOCATION: Emeryville, CA
PROJECT NO: 150060.28	DATE PURGED: 2/28/15
PURGED/SAMPLED BY: CMA	DATE SAMPLED: 2/28/15
TIME SAMPLED: 1402	DEPTH TO BOTTOM (feet): 29.90
DEPTH TO WATER (feet): 6.30	WATER COLUMN HEIGHT (feet): 23.60
CALCULATED PURGE (gallons): 11.32	CASING VOLUME (gallons): 3.78
ACTUAL PURGE (gallons) 12	

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

0.16 (23.60) = 3.776 x 3 = 11.32

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (µS)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
2	1312	18.0	6.67	1852		Clear/cloudy
4	1322	19.2	6.39	1802		Cloudy
6	1335	19.3	6.38	1627		Cloudy
8	1346	19.3	6.37	1666		Cloudy
10	1355	19.3	6.38	1635		Cloudy

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 6.34 Analyses: TPH-g, ms, d, VOCs, PNAs/PAHs
80% RECHARGE: (Y/N) SAMPLE TURBIDITY: cloudy
ODOR: None SAMPLE BOTTLE/PRESERVATIVE: 4 VOAs/HCl, 1 Amber/HCl, 1 Amber/none

PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

____Bailer (Teflon)
✓ Bailer (PVC or disposable)
____Bailer (Stainless Steel)

SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

Comments: _____

AllWest

PURGE TABLE

WELL ID: AMW-1
Page 1 of 1

SITE NAME: Hollis- Emeryville	LOCATION: Emeryville, CA
PROJECT NO: 150006.28	DATE PURGED:
PURGED/SAMPLED BY: CAA	DATE SAMPLED:
TIME SAMPLED: 1555	DEPTH TO BOTTOM (feet): 23.43
DEPTH TO WATER (feet): 7.61	WATER COLUMN HEIGHT (feet): 15.82
CALCULATED PURGE (gallons): 7.59	CASING VOLUME (gallons): 2.53
ACTUAL PURGE (gallons) 8	

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

0.16(15.82) = 2.5312 x 3 = 7.59

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (µS)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
2	1440	20.5	6.54	1238		clear/cloudy
4	1501	20.3	6.53	1250		cloudy
6	1512	20.7	6.49	1247		silty

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 7.63 Analyses: TPH-g, ms, d, VOCs, PNAs, PAHs
80% RECHARGE: Y/N SAMPLE TURBIDITY: silty
ODOR: None SAMPLE BOTTLE/PRESERVATIVE: 4 VOAs/HCl 1 Amber/HCl, 1 super. Amber

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___Centrifugal Pump	___Bailer (Teflon)	___Centrifugal Pump	___Bailer (Teflon)
___Submersible Pump	✓ Bailer (PVC or disposable)	___Submersible Pump	✓ Bailer (PVC or disposable)
___Peristaltic Pump	___Bailer (Stainless Steel)	___Peristaltic Pump	___Bailer (Stainless Steel)
___Purge Pump		___Purge Pump	
Other: _____		Other: _____	

Comments: Well box flooded with rain/runoff. Bailed down to 8.90 ft bgs. Allowed to recharge to 7.63 ft bgs before sampling.

APPENDIX C

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1503033

Report Created for: All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110

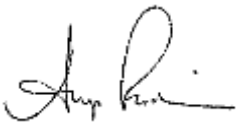
Project Contact: Christopher Houlihan
Project P.O.:
Project Name: #15006.28; Hollis St. Emeryville

Project Received: 03/02/2015

Analytical Report reviewed & approved for release on 03/06/2015 by:

Question about your data?

Click here to email McCampbell



Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: All West Environmental, Inc
Project: #15006.28; Hollis St. Emeryville
WorkOrder: 1503033

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

S	spike recovery outside accepted recovery limits
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
e4	gasoline range compounds are significant.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-1	**1503033-001A**	**Water**	**02/28/2015 15:55**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	03/04/2015 01:42
tert-Amyl methyl ether (TAME)	ND	0.50	1	03/04/2015 01:42
Benzene	ND	0.50	1	03/04/2015 01:42
Bromobenzene	ND	0.50	1	03/04/2015 01:42
Bromochloromethane	ND	0.50	1	03/04/2015 01:42
Bromodichloromethane	ND	0.50	1	03/04/2015 01:42
Bromoform	ND	0.50	1	03/04/2015 01:42
Bromomethane	ND	0.50	1	03/04/2015 01:42
2-Butanone (MEK)	ND	2.0	1	03/04/2015 01:42
t-Butyl alcohol (TBA)	ND	2.0	1	03/04/2015 01:42
n-Butyl benzene	ND	0.50	1	03/04/2015 01:42
sec-Butyl benzene	ND	0.50	1	03/04/2015 01:42
tert-Butyl benzene	ND	0.50	1	03/04/2015 01:42
Carbon Disulfide	ND	0.50	1	03/04/2015 01:42
Carbon Tetrachloride	ND	0.50	1	03/04/2015 01:42
Chlorobenzene	ND	0.50	1	03/04/2015 01:42
Chloroethane	ND	0.50	1	03/04/2015 01:42
Chloroform	ND	0.50	1	03/04/2015 01:42
Chloromethane	ND	0.50	1	03/04/2015 01:42
2-Chlorotoluene	ND	0.50	1	03/04/2015 01:42
4-Chlorotoluene	ND	0.50	1	03/04/2015 01:42
Dibromochloromethane	ND	0.50	1	03/04/2015 01:42
1,2-Dibromo-3-chloropropane	ND	0.20	1	03/04/2015 01:42
1,2-Dibromoethane (EDB)	ND	0.50	1	03/04/2015 01:42
Dibromomethane	ND	0.50	1	03/04/2015 01:42
1,2-Dichlorobenzene	ND	0.50	1	03/04/2015 01:42
1,3-Dichlorobenzene	ND	0.50	1	03/04/2015 01:42
1,4-Dichlorobenzene	ND	0.50	1	03/04/2015 01:42
Dichlorodifluoromethane	ND	0.50	1	03/04/2015 01:42
1,1-Dichloroethane	**2.1**	0.50	1	03/04/2015 01:42
1,2-Dichloroethane (1,2-DCA)	**0.82**	0.50	1	03/04/2015 01:42
1,1-Dichloroethene	**36**	0.50	1	03/04/2015 01:42
cis-1,2-Dichloroethene	ND	0.50	1	03/04/2015 01:42
trans-1,2-Dichloroethene	ND	0.50	1	03/04/2015 01:42
1,2-Dichloropropane	ND	0.50	1	03/04/2015 01:42
1,3-Dichloropropane	ND	0.50	1	03/04/2015 01:42
2,2-Dichloropropane	ND	0.50	1	03/04/2015 01:42
1,1-Dichloropropene	ND	0.50	1	03/04/2015 01:42

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-1	**1503033-001A**	**Water**	**02/28/2015 15:55**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	03/04/2015 01:42
trans-1,3-Dichloropropene	ND	0.50	1	03/04/2015 01:42
Diisopropyl ether (DIPE)	**0.59**	0.50	1	03/04/2015 01:42
Ethylbenzene	ND	0.50	1	03/04/2015 01:42
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	03/04/2015 01:42
Freon 113	ND	0.50	1	03/04/2015 01:42
Hexachlorobutadiene	ND	0.50	1	03/04/2015 01:42
Hexachloroethane	ND	0.50	1	03/04/2015 01:42
2-Hexanone	ND	0.50	1	03/04/2015 01:42
Isopropylbenzene	ND	0.50	1	03/04/2015 01:42
4-Isopropyl toluene	ND	0.50	1	03/04/2015 01:42
Methyl-t-butyl ether (MTBE)	**2.1**	0.50	1	03/04/2015 01:42
Methylene chloride	ND	0.50	1	03/04/2015 01:42
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	03/04/2015 01:42
Naphthalene	ND	0.50	1	03/04/2015 01:42
n-Propyl benzene	ND	0.50	1	03/04/2015 01:42
Styrene	ND	0.50	1	03/04/2015 01:42
1,1,1,2-Tetrachloroethane	ND	0.50	1	03/04/2015 01:42
1,1,2,2-Tetrachloroethane	ND	0.50	1	03/04/2015 01:42
Tetrachloroethene	**0.59**	0.50	1	03/04/2015 01:42
Toluene	ND	0.50	1	03/04/2015 01:42
1,2,3-Trichlorobenzene	ND	0.50	1	03/04/2015 01:42
1,2,4-Trichlorobenzene	ND	0.50	1	03/04/2015 01:42
1,1,1-Trichloroethane	ND	0.50	1	03/04/2015 01:42
1,1,2-Trichloroethane	ND	0.50	1	03/04/2015 01:42
Trichloroethene	**6.8**	0.50	1	03/04/2015 01:42
Trichlorofluoromethane	ND	0.50	1	03/04/2015 01:42
1,2,3-Trichloropropane	ND	0.50	1	03/04/2015 01:42
1,2,4-Trimethylbenzene	ND	0.50	1	03/04/2015 01:42
1,3,5-Trimethylbenzene	ND	0.50	1	03/04/2015 01:42
Vinyl Chloride	ND	0.50	1	03/04/2015 01:42
Xylenes, Total	ND	0.50	1	03/04/2015 01:42

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-1	**1503033-001A**	**Water**	**02/28/2015 15:55**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	110	80-124		03/04/2015 01:42
Toluene-d8	91	75-110		03/04/2015 01:42
4-BFB	88	69-114		03/04/2015 01:42

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-2	**1503033-002A**	**Water**	**02/28/2015 14:02**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	100	10	03/04/2015 16:43
tert-Amyl methyl ether (TAME)	ND	5.0	10	03/04/2015 16:43
Benzene	**5.1**	5.0	10	03/04/2015 16:43
Bromobenzene	ND	5.0	10	03/04/2015 16:43
Bromochloromethane	ND	5.0	10	03/04/2015 16:43
Bromodichloromethane	ND	5.0	10	03/04/2015 16:43
Bromoform	ND	5.0	10	03/04/2015 16:43
Bromomethane	ND	5.0	10	03/04/2015 16:43
2-Butanone (MEK)	ND	20	10	03/04/2015 16:43
t-Butyl alcohol (TBA)	ND	20	10	03/04/2015 16:43
n-Butyl benzene	ND	5.0	10	03/04/2015 16:43
sec-Butyl benzene	ND	5.0	10	03/04/2015 16:43
tert-Butyl benzene	ND	5.0	10	03/04/2015 16:43
Carbon Disulfide	ND	5.0	10	03/04/2015 16:43
Carbon Tetrachloride	ND	5.0	10	03/04/2015 16:43
Chlorobenzene	ND	5.0	10	03/04/2015 16:43
Chloroethane	ND	5.0	10	03/04/2015 16:43
Chloroform	ND	5.0	10	03/04/2015 16:43
Chloromethane	ND	5.0	10	03/04/2015 16:43
2-Chlorotoluene	ND	5.0	10	03/04/2015 16:43
4-Chlorotoluene	ND	5.0	10	03/04/2015 16:43
Dibromochloromethane	ND	5.0	10	03/04/2015 16:43
1,2-Dibromo-3-chloropropane	ND	2.0	10	03/04/2015 16:43
1,2-Dibromoethane (EDB)	ND	5.0	10	03/04/2015 16:43
Dibromomethane	ND	5.0	10	03/04/2015 16:43
1,2-Dichlorobenzene	ND	5.0	10	03/04/2015 16:43
1,3-Dichlorobenzene	ND	5.0	10	03/04/2015 16:43
1,4-Dichlorobenzene	ND	5.0	10	03/04/2015 16:43
Dichlorodifluoromethane	ND	5.0	10	03/04/2015 16:43
1,1-Dichloroethane	ND	5.0	10	03/04/2015 16:43
1,2-Dichloroethane (1,2-DCA)	ND	5.0	10	03/04/2015 16:43
1,1-Dichloroethene	ND	5.0	10	03/04/2015 16:43
cis-1,2-Dichloroethene	ND	5.0	10	03/04/2015 16:43
trans-1,2-Dichloroethene	ND	5.0	10	03/04/2015 16:43
1,2-Dichloropropane	ND	5.0	10	03/04/2015 16:43
1,3-Dichloropropane	ND	5.0	10	03/04/2015 16:43
2,2-Dichloropropane	ND	5.0	10	03/04/2015 16:43
1,1-Dichloropropene	ND	5.0	10	03/04/2015 16:43

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-2	**1503033-002A**	**Water**	**02/28/2015 14:02**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0	10	03/04/2015 16:43
trans-1,3-Dichloropropene	ND	5.0	10	03/04/2015 16:43
Diisopropyl ether (DIPE)	ND	5.0	10	03/04/2015 16:43
Ethylbenzene	ND	5.0	10	03/04/2015 16:43
Ethyl tert-butyl ether (ETBE)	ND	5.0	10	03/04/2015 16:43
Freon 113	ND	5.0	10	03/04/2015 16:43
Hexachlorobutadiene	ND	5.0	10	03/04/2015 16:43
Hexachloroethane	ND	5.0	10	03/04/2015 16:43
2-Hexanone	ND	5.0	10	03/04/2015 16:43
Isopropylbenzene	ND	5.0	10	03/04/2015 16:43
4-Isopropyl toluene	ND	5.0	10	03/04/2015 16:43
Methyl-t-butyl ether (MTBE)	**260**	5.0	10	03/04/2015 16:43
Methylene chloride	ND	5.0	10	03/04/2015 16:43
4-Methyl-2-pentanone (MIBK)	ND	5.0	10	03/04/2015 16:43
Naphthalene	ND	5.0	10	03/04/2015 16:43
n-Propyl benzene	ND	5.0	10	03/04/2015 16:43
Styrene	ND	5.0	10	03/04/2015 16:43
1,1,1,2-Tetrachloroethane	ND	5.0	10	03/04/2015 16:43
1,1,2,2-Tetrachloroethane	ND	5.0	10	03/04/2015 16:43
Tetrachloroethene	ND	5.0	10	03/04/2015 16:43
Toluene	ND	5.0	10	03/04/2015 16:43
1,2,3-Trichlorobenzene	ND	5.0	10	03/04/2015 16:43
1,2,4-Trichlorobenzene	ND	5.0	10	03/04/2015 16:43
1,1,1-Trichloroethane	ND	5.0	10	03/04/2015 16:43
1,1,2-Trichloroethane	ND	5.0	10	03/04/2015 16:43
Trichloroethene	ND	5.0	10	03/04/2015 16:43
Trichlorofluoromethane	ND	5.0	10	03/04/2015 16:43
1,2,3-Trichloropropane	ND	5.0	10	03/04/2015 16:43
1,2,4-Trimethylbenzene	**7.4**	5.0	10	03/04/2015 16:43
1,3,5-Trimethylbenzene	ND	5.0	10	03/04/2015 16:43
Vinyl Chloride	ND	5.0	10	03/04/2015 16:43
Xylenes, Total	**5.1**	5.0	10	03/04/2015 16:43

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-2	**1503033-002A**	**Water**	**02/28/2015 14:02**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	108	80-124		03/04/2015 16:43
Toluene-d8	91	75-110		03/04/2015 16:43
4-BFB	89	69-114		03/04/2015 16:43

Analyst(s): KF

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Angela Rydelius, Lab Manager

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-3	**1503033-003A**	**Water**	**02/28/2015 09:55**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	50	5	03/04/2015 17:25
tert-Amyl methyl ether (TAME)	ND	2.5	5	03/04/2015 17:25
Benzene	**7.4**	2.5	5	03/04/2015 17:25
Bromobenzene	ND	2.5	5	03/04/2015 17:25
Bromochloromethane	ND	2.5	5	03/04/2015 17:25
Bromodichloromethane	ND	2.5	5	03/04/2015 17:25
Bromoform	ND	2.5	5	03/04/2015 17:25
Bromomethane	ND	2.5	5	03/04/2015 17:25
2-Butanone (MEK)	ND	10	5	03/04/2015 17:25
t-Butyl alcohol (TBA)	ND	10	5	03/04/2015 17:25
n-Butyl benzene	**4.4**	2.5	5	03/04/2015 17:25
sec-Butyl benzene	ND	2.5	5	03/04/2015 17:25
tert-Butyl benzene	ND	2.5	5	03/04/2015 17:25
Carbon Disulfide	ND	2.5	5	03/04/2015 17:25
Carbon Tetrachloride	ND	2.5	5	03/04/2015 17:25
Chlorobenzene	ND	2.5	5	03/04/2015 17:25
Chloroethane	ND	2.5	5	03/04/2015 17:25
Chloroform	ND	2.5	5	03/04/2015 17:25
Chloromethane	ND	2.5	5	03/04/2015 17:25
2-Chlorotoluene	ND	2.5	5	03/04/2015 17:25
4-Chlorotoluene	ND	2.5	5	03/04/2015 17:25
Dibromochloromethane	ND	2.5	5	03/04/2015 17:25
1,2-Dibromo-3-chloropropane	ND	1.0	5	03/04/2015 17:25
1,2-Dibromoethane (EDB)	ND	2.5	5	03/04/2015 17:25
Dibromomethane	ND	2.5	5	03/04/2015 17:25
1,2-Dichlorobenzene	ND	2.5	5	03/04/2015 17:25
1,3-Dichlorobenzene	ND	2.5	5	03/04/2015 17:25
1,4-Dichlorobenzene	ND	2.5	5	03/04/2015 17:25
Dichlorodifluoromethane	ND	2.5	5	03/04/2015 17:25
1,1-Dichloroethane	**3.6**	2.5	5	03/04/2015 17:25
1,2-Dichloroethane (1,2-DCA)	ND	2.5	5	03/04/2015 17:25
1,1-Dichloroethene	**77**	2.5	5	03/04/2015 17:25
cis-1,2-Dichloroethene	ND	2.5	5	03/04/2015 17:25
trans-1,2-Dichloroethene	ND	2.5	5	03/04/2015 17:25
1,2-Dichloropropane	ND	2.5	5	03/04/2015 17:25
1,3-Dichloropropane	ND	2.5	5	03/04/2015 17:25
2,2-Dichloropropane	ND	2.5	5	03/04/2015 17:25
1,1-Dichloropropene	ND	2.5	5	03/04/2015 17:25

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-3	**1503033-003A**	**Water**	**02/28/2015 09:55**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	2.5	5	03/04/2015 17:25
trans-1,3-Dichloropropene	ND	2.5	5	03/04/2015 17:25
Diisopropyl ether (DIPE)	ND	2.5	5	03/04/2015 17:25
Ethylbenzene	**28**	2.5	5	03/04/2015 17:25
Ethyl tert-butyl ether (ETBE)	ND	2.5	5	03/04/2015 17:25
Freon 113	ND	2.5	5	03/04/2015 17:25
Hexachlorobutadiene	ND	2.5	5	03/04/2015 17:25
Hexachloroethane	ND	2.5	5	03/04/2015 17:25
2-Hexanone	ND	2.5	5	03/04/2015 17:25
Isopropylbenzene	**3.1**	2.5	5	03/04/2015 17:25
4-Isopropyl toluene	ND	2.5	5	03/04/2015 17:25
Methyl-t-butyl ether (MTBE)	ND	2.5	5	03/04/2015 17:25
Methylene chloride	ND	2.5	5	03/04/2015 17:25
4-Methyl-2-pentanone (MIBK)	ND	2.5	5	03/04/2015 17:25
Naphthalene	**16**	2.5	5	03/04/2015 17:25
n-Propyl benzene	**8.9**	2.5	5	03/04/2015 17:25
Styrene	ND	2.5	5	03/04/2015 17:25
1,1,1,2-Tetrachloroethane	ND	2.5	5	03/04/2015 17:25
1,1,2,2-Tetrachloroethane	ND	2.5	5	03/04/2015 17:25
Tetrachloroethene	ND	2.5	5	03/04/2015 17:25
Toluene	**3.0**	2.5	5	03/04/2015 17:25
1,2,3-Trichlorobenzene	ND	2.5	5	03/04/2015 17:25
1,2,4-Trichlorobenzene	ND	2.5	5	03/04/2015 17:25
1,1,1-Trichloroethane	**4.0**	2.5	5	03/04/2015 17:25
1,1,2-Trichloroethane	ND	2.5	5	03/04/2015 17:25
Trichloroethene	**13**	2.5	5	03/04/2015 17:25
Trichlorofluoromethane	ND	2.5	5	03/04/2015 17:25
1,2,3-Trichloropropane	ND	2.5	5	03/04/2015 17:25
1,2,4-Trimethylbenzene	**57**	2.5	5	03/04/2015 17:25
1,3,5-Trimethylbenzene	**17**	2.5	5	03/04/2015 17:25
Vinyl Chloride	ND	2.5	5	03/04/2015 17:25
Xylenes, Total	**100**	2.5	5	03/04/2015 17:25

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-3	**1503033-003A**	**Water**	**02/28/2015 09:55**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	106	80-124		03/04/2015 17:25
Toluene-d8	90	75-110		03/04/2015 17:25
4-BFB	84	69-114		03/04/2015 17:25

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	**1503033-004A**	**Water**	**02/28/2015 11:38**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	2500	250	03/04/2015 18:08
tert-Amyl methyl ether (TAME)	ND	120	250	03/04/2015 18:08
Benzene	**7700**	120	250	03/04/2015 18:08
Bromobenzene	ND	120	250	03/04/2015 18:08
Bromochloromethane	ND	120	250	03/04/2015 18:08
Bromodichloromethane	ND	120	250	03/04/2015 18:08
Bromoform	ND	120	250	03/04/2015 18:08
Bromomethane	ND	120	250	03/04/2015 18:08
2-Butanone (MEK)	ND	500	250	03/04/2015 18:08
t-Butyl alcohol (TBA)	**3400**	500	250	03/04/2015 18:08
n-Butyl benzene	ND	120	250	03/04/2015 18:08
sec-Butyl benzene	ND	120	250	03/04/2015 18:08
tert-Butyl benzene	ND	120	250	03/04/2015 18:08
Carbon Disulfide	ND	120	250	03/04/2015 18:08
Carbon Tetrachloride	ND	120	250	03/04/2015 18:08
Chlorobenzene	ND	120	250	03/04/2015 18:08
Chloroethane	ND	120	250	03/04/2015 18:08
Chloroform	ND	120	250	03/04/2015 18:08
Chloromethane	ND	120	250	03/04/2015 18:08
2-Chlorotoluene	ND	120	250	03/04/2015 18:08
4-Chlorotoluene	ND	120	250	03/04/2015 18:08
Dibromochloromethane	ND	120	250	03/04/2015 18:08
1,2-Dibromo-3-chloropropane	ND	50	250	03/04/2015 18:08
1,2-Dibromoethane (EDB)	ND	120	250	03/04/2015 18:08
Dibromomethane	ND	120	250	03/04/2015 18:08
1,2-Dichlorobenzene	ND	120	250	03/04/2015 18:08
1,3-Dichlorobenzene	ND	120	250	03/04/2015 18:08
1,4-Dichlorobenzene	ND	120	250	03/04/2015 18:08
Dichlorodifluoromethane	ND	120	250	03/04/2015 18:08
1,1-Dichloroethane	ND	120	250	03/04/2015 18:08
1,2-Dichloroethane (1,2-DCA)	ND	120	250	03/04/2015 18:08
1,1-Dichloroethene	ND	120	250	03/04/2015 18:08
cis-1,2-Dichloroethene	ND	120	250	03/04/2015 18:08
trans-1,2-Dichloroethene	ND	120	250	03/04/2015 18:08
1,2-Dichloropropane	ND	120	250	03/04/2015 18:08
1,3-Dichloropropane	ND	120	250	03/04/2015 18:08
2,2-Dichloropropane	ND	120	250	03/04/2015 18:08
1,1-Dichloropropene	ND	120	250	03/04/2015 18:08

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	**1503033-004A**	**Water**	**02/28/2015 11:38**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	120	250	03/04/2015 18:08
trans-1,3-Dichloropropene	ND	120	250	03/04/2015 18:08
Diisopropyl ether (DIPE)	ND	120	250	03/04/2015 18:08
Ethylbenzene	**1300**	120	250	03/04/2015 18:08
Ethyl tert-butyl ether (ETBE)	ND	120	250	03/04/2015 18:08
Freon 113	ND	120	250	03/04/2015 18:08
Hexachlorobutadiene	ND	120	250	03/04/2015 18:08
Hexachloroethane	ND	120	250	03/04/2015 18:08
2-Hexanone	ND	120	250	03/04/2015 18:08
Isopropylbenzene	ND	120	250	03/04/2015 18:08
4-Isopropyl toluene	ND	120	250	03/04/2015 18:08
Methyl-t-butyl ether (MTBE)	**5200**	120	250	03/04/2015 18:08
Methylene chloride	ND	120	250	03/04/2015 18:08
4-Methyl-2-pentanone (MIBK)	ND	120	250	03/04/2015 18:08
Naphthalene	**430**	120	250	03/04/2015 18:08
n-Propyl benzene	**150**	120	250	03/04/2015 18:08
Styrene	ND	120	250	03/04/2015 18:08
1,1,1,2-Tetrachloroethane	ND	120	250	03/04/2015 18:08
1,1,2,2-Tetrachloroethane	ND	120	250	03/04/2015 18:08
Tetrachloroethene	ND	120	250	03/04/2015 18:08
Toluene	**4700**	120	250	03/04/2015 18:08
1,2,3-Trichlorobenzene	ND	120	250	03/04/2015 18:08
1,2,4-Trichlorobenzene	ND	120	250	03/04/2015 18:08
1,1,1-Trichloroethane	ND	120	250	03/04/2015 18:08
1,1,2-Trichloroethane	ND	120	250	03/04/2015 18:08
Trichloroethene	ND	120	250	03/04/2015 18:08
Trichlorofluoromethane	ND	120	250	03/04/2015 18:08
1,2,3-Trichloropropane	ND	120	250	03/04/2015 18:08
1,2,4-Trimethylbenzene	**1400**	120	250	03/04/2015 18:08
1,3,5-Trimethylbenzene	**380**	120	250	03/04/2015 18:08
Vinyl Chloride	ND	120	250	03/04/2015 18:08
Xylenes, Total	**6000**	120	250	03/04/2015 18:08

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8260B
Date Prepared:	3/4/15	**Unit:**	µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	**1503033-004A**	**Water**	**02/28/2015 11:38**	**GC16**	**101848**

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	105	80-124		03/04/2015 18:08
Toluene-d8	89	75-110		03/04/2015 18:08
4-BFB	86	69-114		03/04/2015 18:08

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW3510C
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8270C-SIM
Date Prepared:	3/3/15	**Unit:**	µg/L

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-1	**1503033-001C**	**Water**	**02/28/2015 15:55**	**GC35**	**101855**

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	1	03/03/2015 20:40
Acenaphthylene	ND	0.50	1	03/03/2015 20:40
Anthracene	ND	0.50	1	03/03/2015 20:40
Benzo (a) anthracene	ND	0.50	1	03/03/2015 20:40
Benzo (b) fluoranthene	ND	0.50	1	03/03/2015 20:40
Benzo (k) fluoranthene	ND	0.50	1	03/03/2015 20:40
Benzo (g,h,i) perylene	ND	0.50	1	03/03/2015 20:40
Benzo (a) pyrene	ND	0.50	1	03/03/2015 20:40
Chrysene	ND	0.50	1	03/03/2015 20:40
Dibenzo (a,h) anthracene	ND	0.50	1	03/03/2015 20:40
Fluoranthene	ND	0.50	1	03/03/2015 20:40
Fluorene	ND	0.50	1	03/03/2015 20:40
Indeno (1,2,3-cd) pyrene	ND	0.50	1	03/03/2015 20:40
1-Methylnaphthalene	ND	0.50	1	03/03/2015 20:40
2-Methylnaphthalene	ND	0.50	1	03/03/2015 20:40
Naphthalene	ND	0.50	1	03/03/2015 20:40
Phenanthrene	ND	0.50	1	03/03/2015 20:40
Pyrene	ND	0.50	1	03/03/2015 20:40

Surrogates	REC (%)	Limits	
1-Fluoronapthalene	98	30-130	03/03/2015 20:40
2-Fluorobiphenyl	110	30-130	03/03/2015 20:40

Analyst(s): HK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW3510C
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8270C-SIM
Date Prepared:	3/3/15	**Unit:**	µg/L

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-2	**1503033-002C**	**Water**	**02/28/2015 14:02**	**GC35**	**101855**

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	1	03/03/2015 20:15
Acenaphthylene	ND	0.50	1	03/03/2015 20:15
Anthracene	ND	0.50	1	03/03/2015 20:15
Benzo (a) anthracene	ND	0.50	1	03/03/2015 20:15
Benzo (b) fluoranthene	ND	0.50	1	03/03/2015 20:15
Benzo (k) fluoranthene	ND	0.50	1	03/03/2015 20:15
Benzo (g,h,i) perylene	ND	0.50	1	03/03/2015 20:15
Benzo (a) pyrene	ND	0.50	1	03/03/2015 20:15
Chrysene	ND	0.50	1	03/03/2015 20:15
Dibenzo (a,h) anthracene	ND	0.50	1	03/03/2015 20:15
Fluoranthene	ND	0.50	1	03/03/2015 20:15
Fluorene	ND	0.50	1	03/03/2015 20:15
Indeno (1,2,3-cd) pyrene	ND	0.50	1	03/03/2015 20:15
1-Methylnaphthalene	ND	0.50	1	03/03/2015 20:15
2-Methylnaphthalene	ND	0.50	1	03/03/2015 20:15
Naphthalene	**0.96**	0.50	1	03/03/2015 20:15
Phenanthrene	ND	0.50	1	03/03/2015 20:15
Pyrene	ND	0.50	1	03/03/2015 20:15

Surrogates	REC (%)	Limits	
1-Fluoronapthalene	93	30-130	03/03/2015 20:15
2-Fluorobiphenyl	80	30-130	03/03/2015 20:15

Analyst(s): HK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW3510C
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8270C-SIM
Date Prepared:	3/3/15	**Unit:**	µg/L

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-3	**1503033-003C**	**Water**	**02/28/2015 09:55**	**GC35**	**101855**

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	1	03/03/2015 19:50
Acenaphthylene	ND	0.50	1	03/03/2015 19:50
Anthracene	ND	0.50	1	03/03/2015 19:50
Benzo (a) anthracene	ND	0.50	1	03/03/2015 19:50
Benzo (b) fluoranthene	ND	0.50	1	03/03/2015 19:50
Benzo (k) fluoranthene	ND	0.50	1	03/03/2015 19:50
Benzo (g,h,i) perylene	ND	0.50	1	03/03/2015 19:50
Benzo (a) pyrene	ND	0.50	1	03/03/2015 19:50
Chrysene	ND	0.50	1	03/03/2015 19:50
Dibenzo (a,h) anthracene	ND	0.50	1	03/03/2015 19:50
Fluoranthene	ND	0.50	1	03/03/2015 19:50
Fluorene	ND	0.50	1	03/03/2015 19:50
Indeno (1,2,3-cd) pyrene	ND	0.50	1	03/03/2015 19:50
1-Methylnaphthalene	**4.4**	0.50	1	03/03/2015 19:50
2-Methylnaphthalene	**6.7**	0.50	1	03/03/2015 19:50
Naphthalene	**9.4**	0.50	1	03/03/2015 19:50
Phenanthrene	ND	0.50	1	03/03/2015 19:50
Pyrene	ND	0.50	1	03/03/2015 19:50

Surrogates	REC (%)	Limits	
1-Fluoronapthalene	103	30-130	03/03/2015 19:50
2-Fluorobiphenyl	95	30-130	03/03/2015 19:50

Analyst(s): HK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW3510C
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8270C-SIM
Date Prepared:	3/3/15	**Unit:**	µg/L

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	**1503033-004C**	**Water**	**02/28/2015 11:38**	**GC35**	**101855**

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	25	50	03/03/2015 21:05
Acenaphthylene	ND	25	50	03/03/2015 21:05
Anthracene	ND	25	50	03/03/2015 21:05
Benzo (a) anthracene	ND	25	50	03/03/2015 21:05
Benzo (b) fluoranthene	ND	25	50	03/03/2015 21:05
Benzo (k) fluoranthene	ND	25	50	03/03/2015 21:05
Benzo (g,h,i) perylene	ND	25	50	03/03/2015 21:05
Benzo (a) pyrene	ND	25	50	03/03/2015 21:05
Chrysene	ND	25	50	03/03/2015 21:05
Dibenzo (a,h) anthracene	ND	25	50	03/03/2015 21:05
Fluoranthene	ND	25	50	03/03/2015 21:05
Fluorene	ND	25	50	03/03/2015 21:05
Indeno (1,2,3-cd) pyrene	ND	25	50	03/03/2015 21:05
1-Methylnaphthalene	**700**	25	50	03/03/2015 21:05
2-Methylnaphthalene	**1400**	25	50	03/03/2015 21:05
Naphthalene	**1100**	25	50	03/03/2015 21:05
Phenanthrene	ND	25	50	03/03/2015 21:05
Pyrene	ND	25	50	03/03/2015 21:05

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: c1
1-Fluoronapthalene	173	S	30-130	03/03/2015 21:05
2-Fluorobiphenyl	77		30-130	03/03/2015 21:05

Analyst(s): HK

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	3/3/15	**Unit:**	µg/L

Gasoline(C6-C12) & Mineral Spirits(C9_C12) Rang Volatile Hydrocarbons as Gasoline&Mineral Spirits

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-1	**1503033-001B**	**Water**	**02/28/2015 15:55**	**GC3**	**101843**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	03/03/2015 19:29
TPH(mineral spirits)	ND	50	1	03/03/2015 19:29
MTBE	---	5.0	1	03/03/2015 19:29
Benzene	---	0.50	1	03/03/2015 19:29
Toluene	---	0.50	1	03/03/2015 19:29
Ethylbenzene	---	0.50	1	03/03/2015 19:29
Xylenes	---	0.50	1	03/03/2015 19:29

Surrogates	REC (%)	Limits	
aaa-TFT_2	116	70-130	03/03/2015 19:29

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-2	**1503033-002B**	**Water**	**02/28/2015 14:02**	**GC3**	**101843**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**120**	50	1	03/03/2015 02:51
TPH(mineral spirits)	**77**	50	1	03/03/2015 02:51
MTBE	---	5.0	1	03/03/2015 02:51
Benzene	---	0.50	1	03/03/2015 02:51
Toluene	---	0.50	1	03/03/2015 02:51
Ethylbenzene	---	0.50	1	03/03/2015 02:51
Xylenes	---	0.50	1	03/03/2015 02:51

Surrogates	REC (%)	Limits	Analytical Comments: d1	
aaa-TFT_2	114	70-130		03/03/2015 02:51

Analyst(s): IA

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW5030B
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	3/3/15	**Unit:**	µg/L

Gasoline(C6-C12) & Mineral Spirits(C9_C12) Rang Volatile Hydrocarbons as Gasoline&Mineral Spirits

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-3	**1503033-003B**	**Water**	**02/28/2015 09:55**	**GC3**	**101843**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**770**	50	1	03/03/2015 03:20
TPH(mineral spirits)	**560**	50	1	03/03/2015 03:20
MTBE	**---**	5.0	1	03/03/2015 03:20
Benzene	**---**	0.50	1	03/03/2015 03:20
Toluene	**---**	0.50	1	03/03/2015 03:20
Ethylbenzene	**---**	0.50	1	03/03/2015 03:20
Xylenes	**---**	0.50	1	03/03/2015 03:20

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: d1,c4	
aaa-TFT_2	267	S	70-130		03/03/2015 03:20

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	**1503033-004B**	**Water**	**02/28/2015 11:38**	**GC3**	**101843**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**84,000**	5000	100	03/03/2015 02:22
TPH(mineral spirits)	**21,000**	5000	100	03/03/2015 02:22
MTBE	**---**	500	100	03/03/2015 02:22
Benzene	**---**	50	100	03/03/2015 02:22
Toluene	**---**	50	100	03/03/2015 02:22
Ethylbenzene	**---**	50	100	03/03/2015 02:22
Xylenes	**---**	50	100	03/03/2015 02:22

Surrogates	REC (%)	Limits	Analytical Comments: d1	
aaa-TFT_2	111	70-130		03/03/2015 02:22

Analyst(s): IA

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Project:	#15006.28; Hollis St. Emeryville	**Extraction Method:**	SW3510C/3630C
Date Received:	3/2/15 18:29	**Analytical Method:**	SW8015B
Date Prepared:	3/2/15	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-1	**1503033-001B**	**Water**	**02/28/2015 15:55**	**GC2B**	**101828**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	03/03/2015 17:03

Surrogates	REC (%)	Limits	
C9	108	70-130	03/03/2015 17:03

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-2	**1503033-002B**	**Water**	**02/28/2015 14:02**	**GC2A**	**101828**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	03/03/2015 17:03

Surrogates	REC (%)	Limits	
C9	107	70-130	03/03/2015 17:03

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AMW-3	**1503033-003B**	**Water**	**02/28/2015 09:55**	**GC2B**	**101828**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**240**	50	1	03/03/2015 15:39

Surrogates	REC (%)	Limits	Analytical Comments: e4	
C9	106	70-130		03/03/2015 15:39

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	**1503033-004B**	**Water**	**02/28/2015 11:38**	**GC2A**	**101828**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1400**	50	1	03/03/2015 18:26

Surrogates	REC (%)	Limits	Analytical Comments: e4	
C9	110	70-130		03/03/2015 18:26

Analyst(s): TK

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Date Prepared:	3/3/15	**BatchID:**	101848
Date Analyzed:	3/3/15	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#15006.28; Hollis St. Emeryville	**Sample ID:**	MB/LCS-101848 1503039-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	9.87	0.50	10	-	99	54-140
Benzene	ND	9.65	0.50	10	-	96	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	39.1	2.0	40	-	98	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	8.87	0.50	10	-	89	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	8.93	0.50	10	-	89	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	10.5	0.50	10	-	105	66-125
1,1-Dichloroethene	ND	9.01	0.50	10	-	90	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Date Prepared:	3/3/15	**BatchID:**	101848
Date Analyzed:	3/3/15	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#15006.28; Hollis St. Emeryville	**Sample ID:**	MB/LCS-101848 1503039-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	9.47	0.50	10	-	95	57-136
Ethanol	ND	-	50	-	-	-	-
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.98	0.50	10	-	100	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	9.88	0.50	10	-	99	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.13	0.50	10	-	91	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.20	0.50	10	-	92	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	26.5	26.6		25	106	106	65-135
Toluene-d8	23.2	22.6		25	93	90	64-112
4-BFB	2.23	2.28		2.5	89	91	59-139

(Cont.)

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Date Prepared:	3/3/15	**BatchID:**	101848
Date Analyzed:	3/3/15	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#15006.28; Hollis St. Emeryville	**Sample ID:**	MB/LCS-101848 1503039-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.5	9.70	10	ND	105	97	69-139	7.64	20
Benzene	9.65	8.90	10	ND	96	89	69-141	8.09	20
t-Butyl alcohol (TBA)	43.9	42.7	40	ND	110	107	41-152	2.92	20
Chlorobenzene	9.00	8.34	10	ND	90	83	77-120	7.68	20
1,2-Dibromoethane (EDB)	9.59	8.77	10	ND	96	88	76-135	8.87	20
1,2-Dichloroethane (1,2-DCA)	11.2	10.4	10	ND	108	100	73-139	7.78	20
1,1-Dichloroethene	9.49	8.70	10	ND	95	87	59-140	8.66	20
Diisopropyl ether (DIPE)	9.63	9.05	10	ND	96	91	72-140	6.20	20
Ethyl tert-butyl ether (ETBE)	10.5	9.82	10	ND	105	98	71-140	6.57	20
Methyl-t-butyl ether (MTBE)	10.5	9.93	10	ND	103	97	73-139	5.95	20
Toluene	9.08	8.36	10	ND	91	84	71-128	8.22	20
Trichloroethene	9.52	8.70	10	ND	95	87	64-132	8.92	20
Surrogate Recovery									
Dibromofluoromethane	26.9	26.4	25		108	106	80-124	1.91	20
Toluene-d8	22.4	22.5	25		90	90	75-110	0	20
4-BFB	2.22	2.21	2.5		89	88	69-114	0.208	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Date Prepared:	3/3/15	**BatchID:**	101855
Date Analyzed:	3/3/15	**Extraction Method:**	SW3510C
Instrument:	GC35	**Analytical Method:**	SW8270C-SIM
Matrix:	Water	**Unit:**	µg/L
Project:	#15006.28; Hollis St. Emeryville	**Sample ID:**	MB/LCS-101855

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	-	0.50	-	-	-	-
Acenaphthylene	ND	-	0.50	-	-	-	-
Anthracene	ND	-	0.50	-	-	-	-
Benzo (a) anthracene	ND	-	0.50	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.50	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.50	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.50	-	-	-	-
Benzo (a) pyrene	ND	9.52	0.50	10	-	95	30-130
Chrysene	ND	6.58	0.50	10	-	66	30-130
Dibenzo (a,h) anthracene	ND	-	0.50	-	-	-	-
Fluoranthene	ND	-	0.50	-	-	-	-
Fluorene	ND	-	0.50	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.50	-	-	-	-
1-Methylnaphthalene	ND	8.80	0.50	10	-	88	30-130
2-Methylnaphthalene	ND	8.28	0.50	10	-	83	30-130
Naphthalene	ND	-	0.50	-	-	-	-
Phenanthrene	ND	8.45	0.50	10	-	84	30-130
Pyrene	ND	5.22	0.50	10	-	52	30-130
Surrogate Recovery							
1-Fluoronapthalene	22.6	23.2		25	91	93	30-130
2-Fluorobiphenyl	23.2	20.0		25	93	80	30-130

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Date Prepared:	3/2/15	**BatchID:**	101843
Date Analyzed:	3/2/15	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	#15006.28; Hollis St. Emeryville	**Sample ID:**	MB/LCS-101843 1502968-050BMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	70.1	40	60	-	117	70-130
MTBE	ND	11.0	5.0	10	-	110	70-130
Benzene	ND	10.4	0.50	10	-	104	70-130
Toluene	ND	10.6	0.50	10	-	106	70-130
Ethylbenzene	ND	10.6	0.50	10	-	106	70-130
Xylenes	ND	32.4	0.50	30	-	107	70-130
Surrogate Recovery							
aaa-TFT_2	9.90	9.89		10	99	99	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	64.8	69.8	60	ND	108	116	70-130	7.52	20
MTBE	10.5	10.6	10	ND	105	106	70-130	0.482	20
Benzene	9.87	10.3	10	ND	99	103	70-130	4.41	20
Toluene	10.0	10.4	10	ND	96	100	70-130	4.20	20
Ethylbenzene	10.3	10.7	10	ND	102	106	70-130	3.47	20
Xylenes	31.4	32.3	30	ND	103	107	70-130	2.92	20
Surrogate Recovery									
aaa-TFT_2	9.39	9.54	10		94	95	70-130	1.58	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1503033
Date Prepared:	3/2/15	**BatchID:**	101828
Date Analyzed:	3/3/15	**Extraction Method:**	SW3510C/3630C
Instrument:	GC11A	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	#15006.28; Hollis St. Emeryville	**Sample ID:**	MB/LCS-101828

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	1000	50	1000	-	101	59-151
TPH-Motor Oil (C18-C36)	ND	-	250	-	-	-	-
Surrogate Recovery							
C9	629	625		625	101	100	77-130

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1503033 **ClientCode: AWE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Christopher Houlihan
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
(415) 391-2510 FAX: (415) 391-2008

Email: choulihan@allwest1.com
cc/3rd Party:
PO:
ProjectNo: #15006.28; Hollis St. Emeryville

Bill to:
Darlene Torio
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
darlene@allwest1.com

Requested TAT: 5 days

Date Received: **03/02/2015**
Date Printed: **03/09/2015**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1503033-001	AMW-1	Water	2/28/2015 15:55	☐	A	C	B	A	B							
1503033-002	AMW-2	Water	2/28/2015 14:02	☐	A	C	B		B							
1503033-003	AMW-3	Water	2/28/2015 9:55	☐	A	C	B		B							
1503033-004	MW-3	Water	2/28/2015 11:38	☐	A	C	B		B							

Test Legend:

1	8260B_W	2	8270_PNA_W	3	G-MBTEX_W	4	PREDF REPORT	5	TPH(DMO)WSG_W
6		7		8		9		10	
11		12							

The following SampIDs: 001B, 002B, 003B, 004B contain testgroup.

Prepared by: Shana Carter

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC
Project: #15006.28; Hollis St. Emeryville
Comments:

QC Level: LEVEL 2
Client Contact: Christopher Houlihan
Contact's Email: choulihan@allwest1.com

Work Order: 1503033
Date Received: 3/2/2015

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1503033-001A	AMW-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	2/28/2015 15:55	5 days	Present	☐	
1503033-001B	AMW-1	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	VOA w/ HCl	☐	2/28/2015 15:55	5 days	Present	☐	
1503033-001C	AMW-1	Water	SW8270C (PAHs/PNAs)	1	1LA	☐	2/28/2015 15:55	5 days	Present	☐	
				1	1LA w/ HCl	☐			Present	☐	
1503033-002A	AMW-2	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	2/28/2015 14:02	5 days	Present	☐	
1503033-002B	AMW-2	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	VOA w/ HCl	☐	2/28/2015 14:02	5 days	Present	☐	
1503033-002C	AMW-2	Water	SW8270C (PAHs/PNAs)	1	1LA	☐	2/28/2015 14:02	5 days	Present	☐	
				1	1LA w/ HCl	☐			Present	☐	
1503033-003A	AMW-3	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	2/28/2015 9:55	5 days	Present	☐	
1503033-003B	AMW-3	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	VOA w/ HCl	☐	2/28/2015 9:55	5 days	Present	☐	
1503033-003C	AMW-3	Water	SW8270C (PAHs/PNAs)	1	1LA	☐	2/28/2015 9:55	5 days	Present	☐	
				1	1LA w/ HCl	☐			Present	☐	
1503033-004A	MW-3	Water	SW8260B (VOCs)	2	VOA w/ HCl	☐	2/28/2015 11:38	5 days	Present	☐	
1503033-004B	MW-3	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	VOA w/ HCl	☐	2/28/2015 11:38	5 days	Present	☐	
1503033-004C	MW-3	Water	SW8270C (PAHs/PNAs)	1	1LA	☐	2/28/2015 11:38	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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WORK ORDER SUMMARY

Client Name: ALL WEST ENVIRONMENTAL, INC
Project: #15006.28; Hollis St. Emeryville
Comments:

QC Level: LEVEL 2
Client Contact: Christopher Houlihan
Contact's Email: choulihan@allwest1.com

Work Order: 1503033
Date Received: 3/2/2015

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1503033-004C	MW-3	Water		1	1LA w/ HCl	☐	2/28/2015 11:38		Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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Geotracker Global ID #T0600102099

1503033

PAGE 1 of 2

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☑

GeoTracker EDF ☑ PDF ☑ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #_____

Report To: Christopher Houlihan — **Bill To:** darlene@allwest1.com

Company: AllWest

2141 Mission St Ste 100, SF, CA 94110

Tele: (415) 391-2510 — **E-Mail:** choulihan@allwest1.com

Project #: 15006.28 — **Project Name:** Hollis St. Emeryville

Project Location: Emeryville, CA — **Purchase Order#**

Sampler Signature:

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other
AMW-1	AMW-1	2/28/15	1555	2	X								X		
AMW-1	AMW-1	2/28/15	1555	2	X								X		
AMW-1	AMW-1	2/28/15	1555	1	X								X		
AMW-1	AMW-1	2/28/15	1555	1	X										
AMW-2	AMW-2	2/28/15	1402	2	X								X		
AMW-2	AMW-2	2/28/15	1402	2	X								X		
AMW-2	AMW-2	2/28/15	1402	1	X								X		
AMW-2	AMW-2	2/28/15	1402	1	X										
AMW-3	AMW-3	2/28/15	0955	2	X								X		
AMW-3	AMW-3	2/28/15	0955	2	X								X		
AMW-3	AMW-3	2/28/15	0955	1	X								X		

Analysis Request

BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) w/silica gel	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)***	LUFT 5 Metals (200.8 / 6020)***	Metals (200.8 / 6020)***	Lab to Filter sample for Dissolved metals analysis	TPH-g, TPH-mineral spirits by 8015/8021
								X							
															X
	X														
										X					
								X							
															X
	X														
										X					
								X							
															X
	X														

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

***** If metals are requested for water samples and the water type is not specified on the chain of custody, then MAI will default to metals by E200.8.**

Relinquished By:	Date:	Time:	Received By:
	3-2-15	1800	
Relinquished By:	Date:	Time:	Received By:
	3-2-15	1850	Shana Carter
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2

GOOD CONDITION_____

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

APPROPRIATE CONTAINERS_____

PRESERVED IN LAB_____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:

PRESERVATION_____ pH<2_____

McCampbell Analytical, Inc. 1503033 CHAIN OF CUSTODY RECORD

1534 Willow Pass Rd. / Pittsburg, CA 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

PAGE 2 of 2

Geotracker Global ID #T0600102099

TURN AROUND TIME: RUSH ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☑

GeoTracker EDF ☑ PDF ☑ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

Effluent Sample Requiring "J" flag ☐ **UST Clean Up Fund Project** ☐ ; **Claim #**_____

Report To: Christopher Houlihan — **Bill To:** darlene@allwest1.com

Company: AllWest

2141 Mission St Ste 100, SF, CA 94110

Tele: (415) 391-2510 — **E-Mail:** choulihan@allwest1.com

Project #: 15006.28 — **Project Name:** Hollis St. Emeryville

Project Location: Emeryville, CA — **Purchase Order#**

Sampler Signature:

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other
AMW-3	AMW-3	2/28/15	0955	1	X										
MW-3	MW-3	2/28/15	1138	2	X								X		
MW-3	MW-3	2/28/15	1138	2	X								X		
MW-3	MW-3	2/28/15	1138	1	X								X		
MW-3	MW-3	2/28/15	1138	1	X										

Analysis Request

SAMPLE ID	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) w/ silica gel	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)***	LUFT 5 Metals (200.8 / 6020)***	Metals (200.8 / 6020)***	Lab to Filter sample for Dissolved metals analysis	TPH-g and TPH-mineral spirits by 8015/8021
AMW-3											X					
MW-3									X							
MW-3																X
MW-3		X														
MW-3											X					

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

***** If metals are requested for water samples and the water type is not specified on the chain of custody, then MAI will default to metals by E200.8.**

Relinquished By:	Date:	Time:	Received By:
	2-2-15	1200	
Relinquished By:	Date:	Time:	Received By:
	2-2-15	1510	Shaila Carter
Relinquished By:	Date:	Time:	Received By:

ICE/t° 12

GOOD CONDITION_____

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

APPROPRIATE CONTAINERS_____

PRESERVED IN LAB_____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:

PRESERVATION_____ pH<2_____

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **All West Environmental, Inc**
Date and Time Received: **3/2/2015 6:29:20 PM**

Project Name: **#15006.28; Hollis St. Emeryville**
LogIn Reviewed by: Shana Carter

WorkOrder №: **1503033** Matrix: Water
Carrier: Bernie Cummins (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Sample/Temp Blank temperature	Temp: 2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	NA ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	
	(Ice Type: WET ICE)		

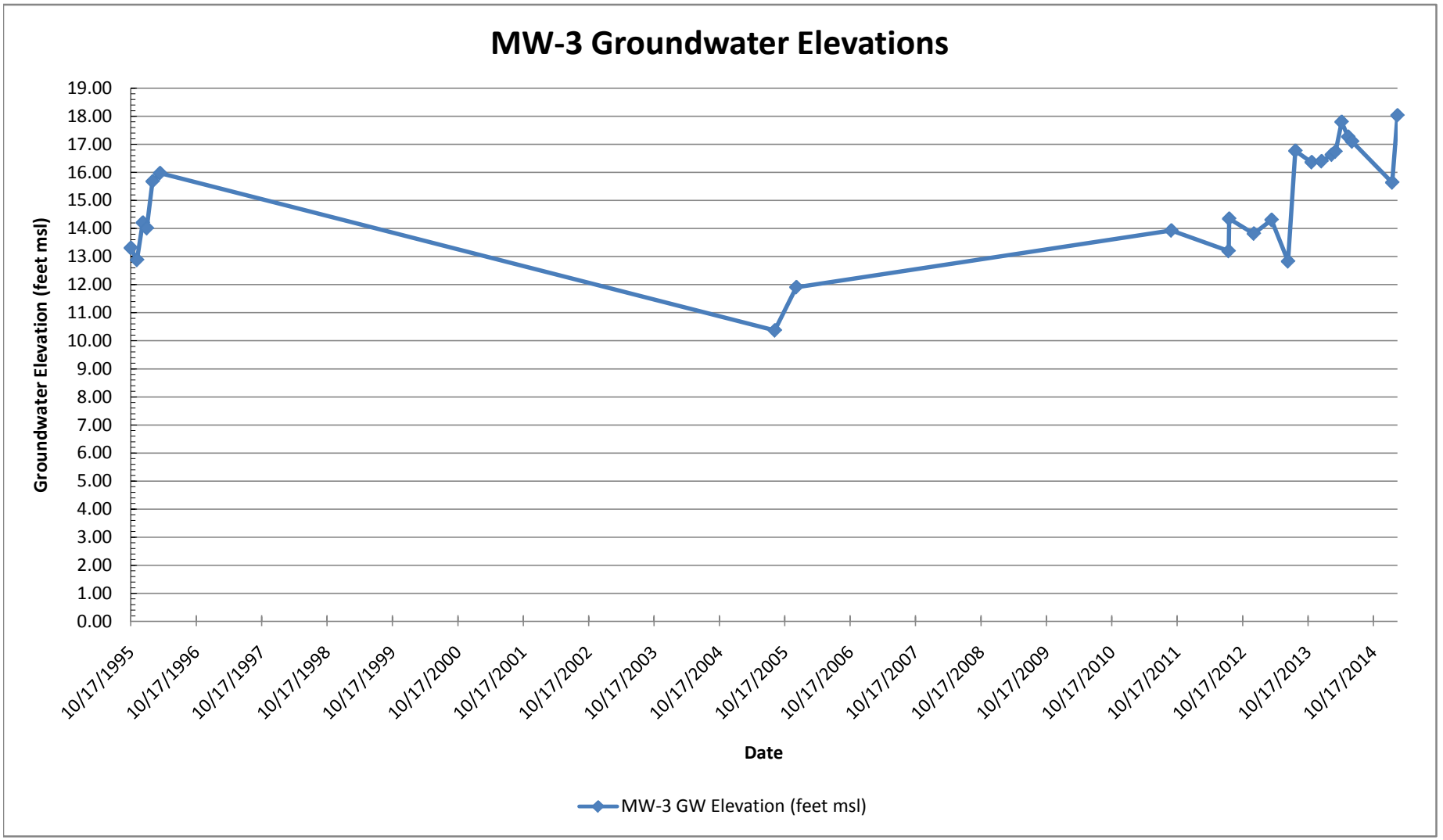
UCMR3 Samples:

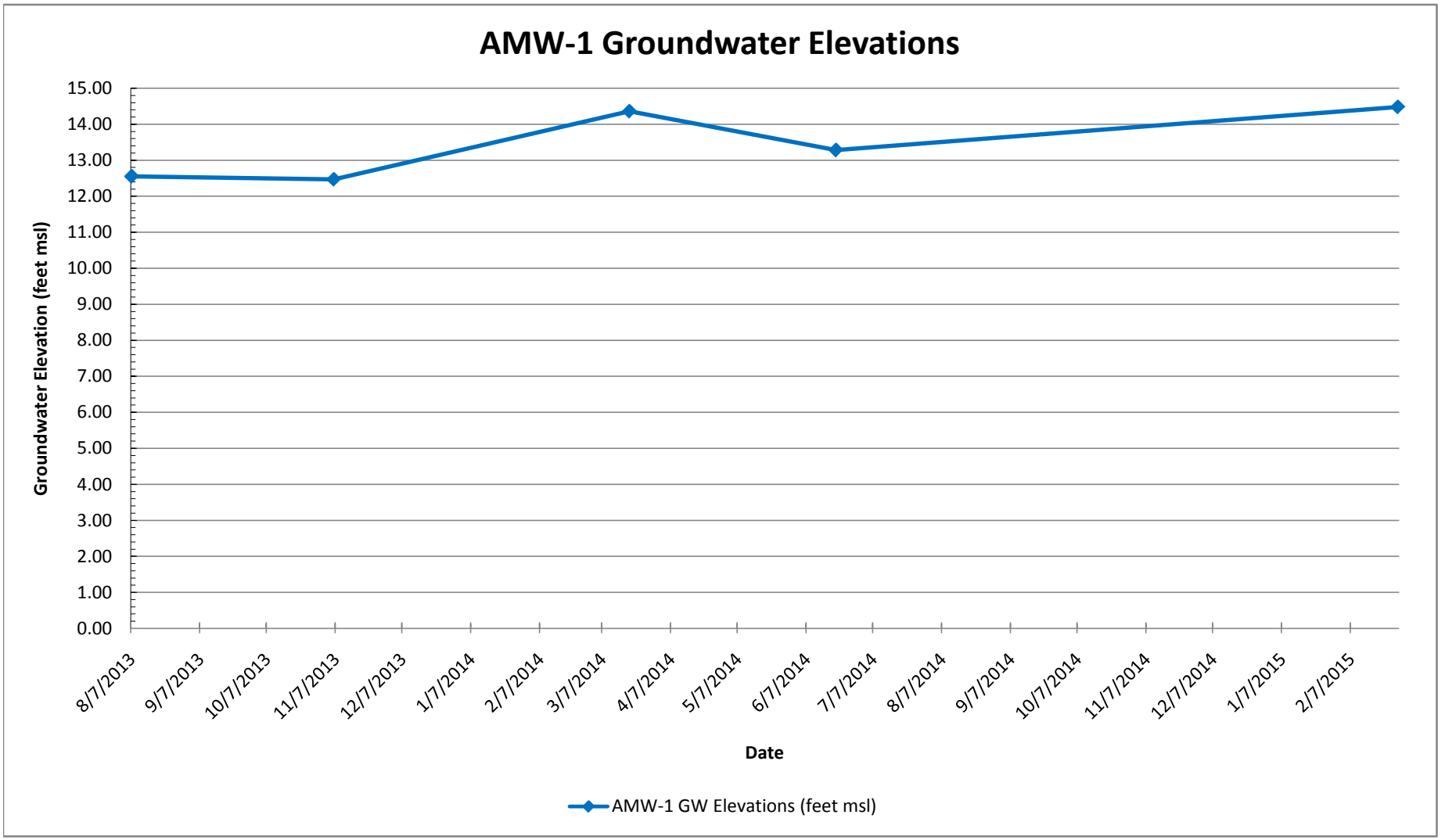
Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes ☐	No ☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes ☐	No ☐	NA ☑

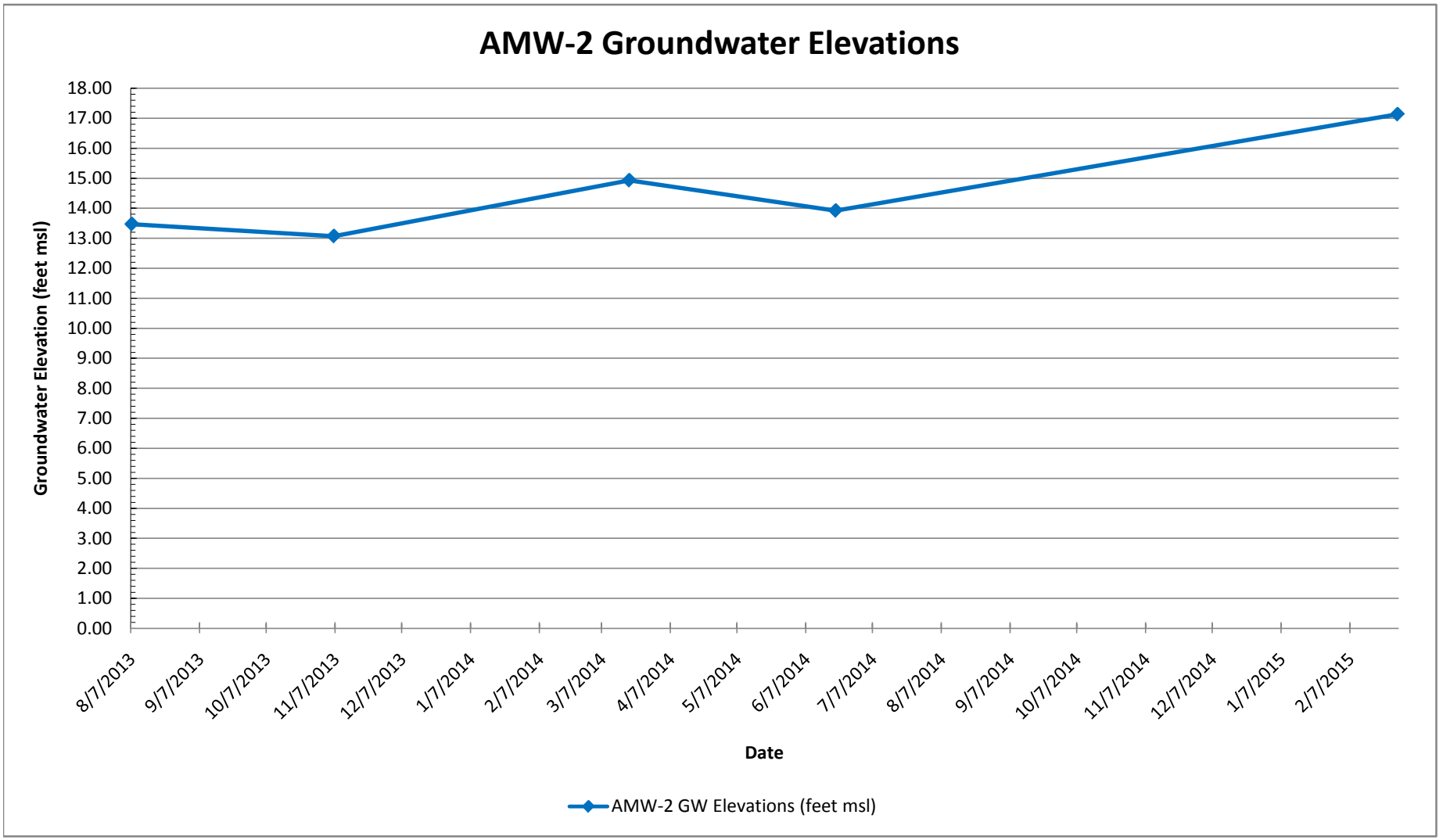
** NOTE: If the "No" box is checked, see comments below.*

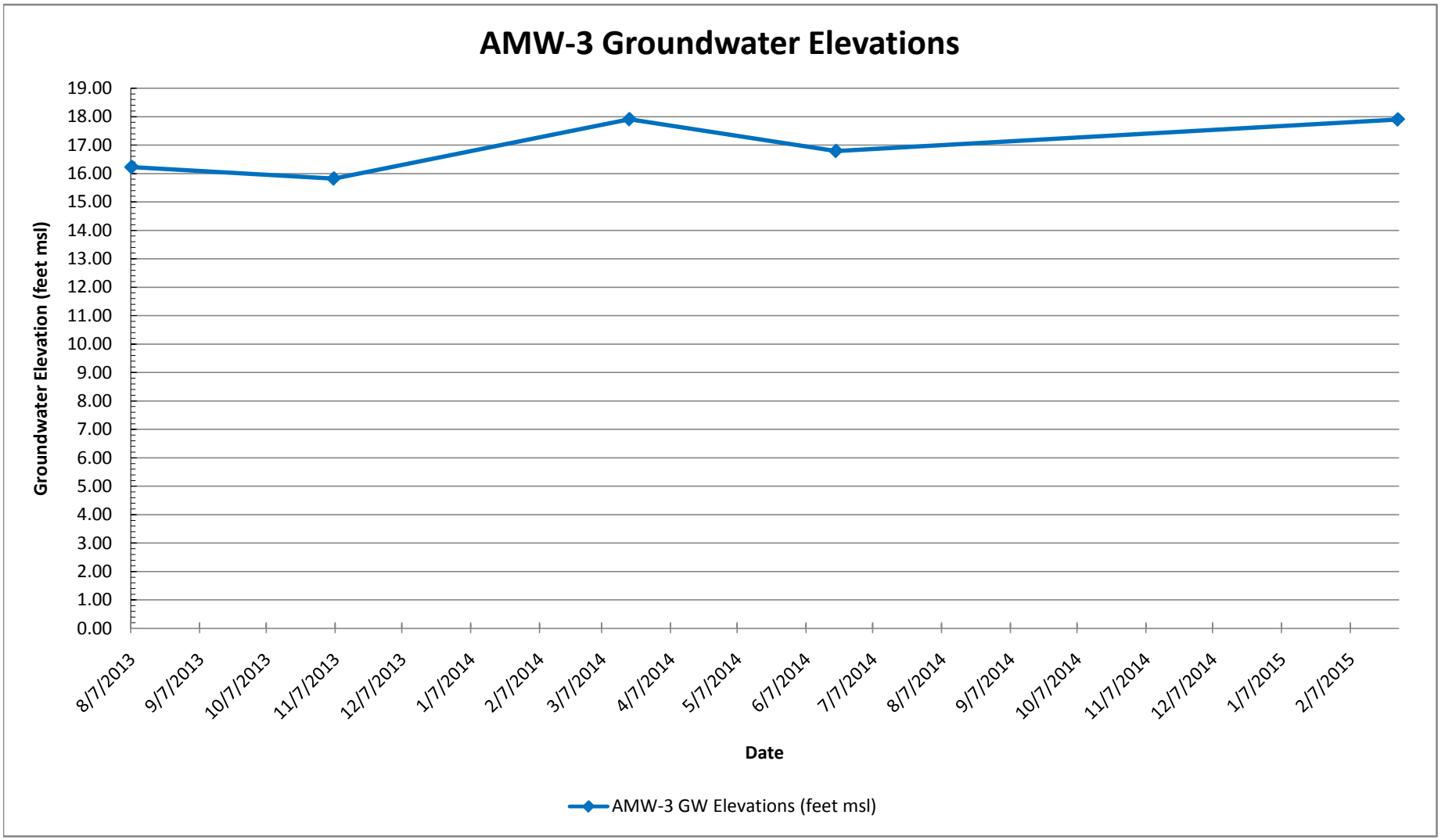
Comments:

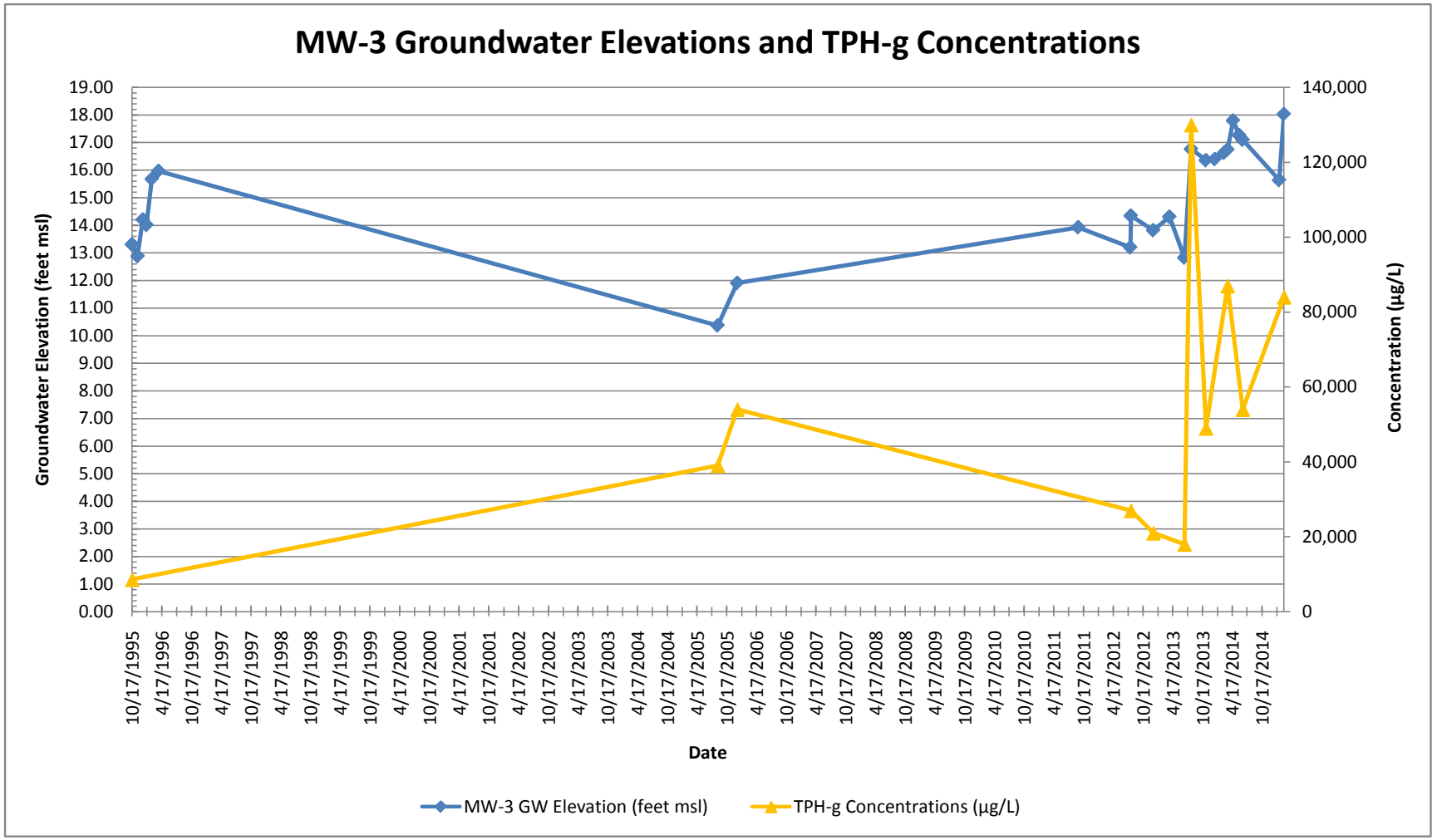
APPENDIX D

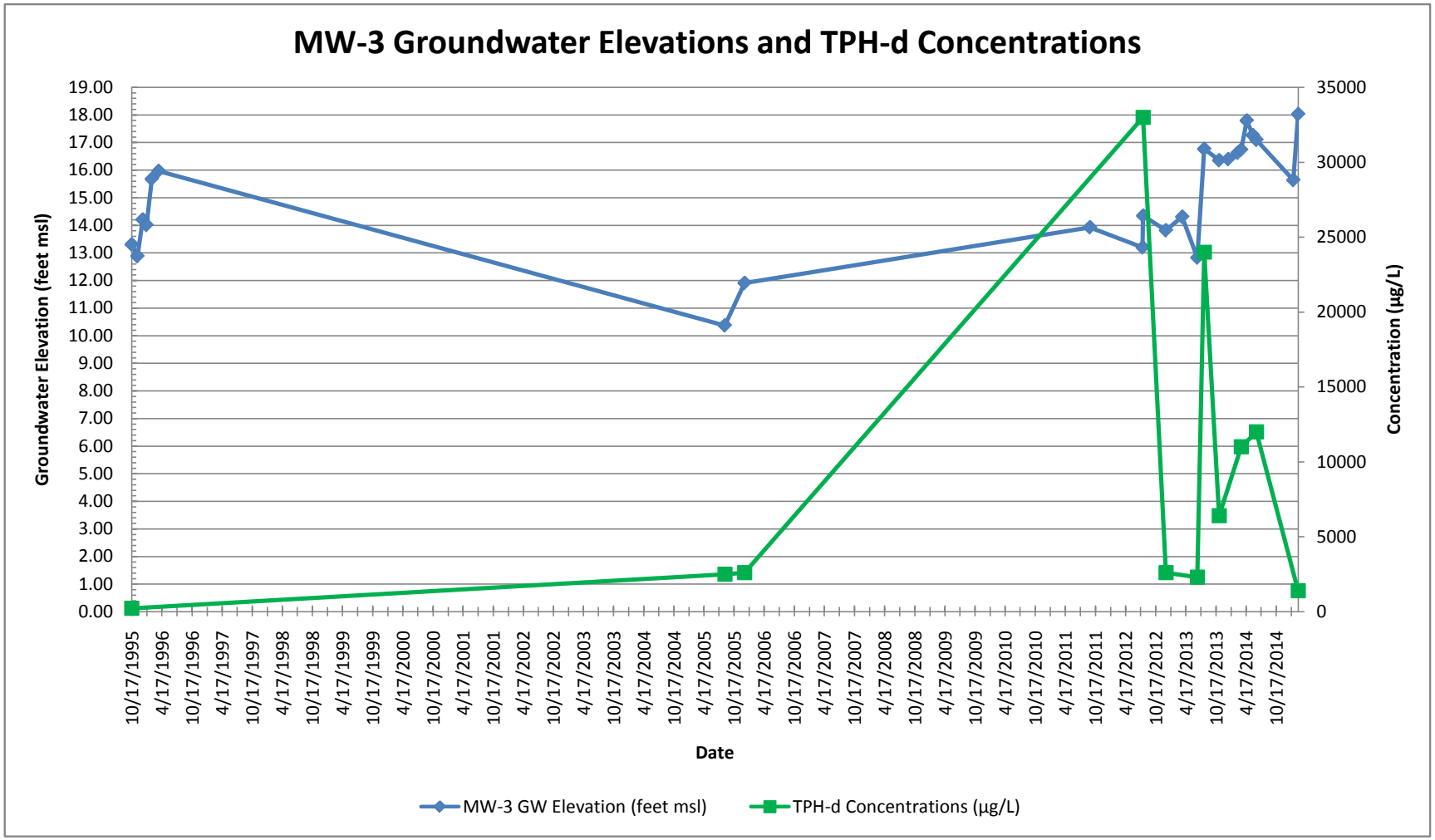

MW-3 Groundwater Elevations
Groundwater Elevation (feet msl)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
10/17/1995
10/17/1996
10/17/1997
10/17/1998
10/17/1999
10/17/2000
10/17/2001
10/17/2002
10/17/2003
10/17/2004
10/17/2005
10/17/2006
10/17/2007
10/17/2008
10/17/2009
10/17/2010
10/17/2011
10/17/2012
10/17/2013
10/17/2014
Date
MW-3 GW Elevation (feet msl)

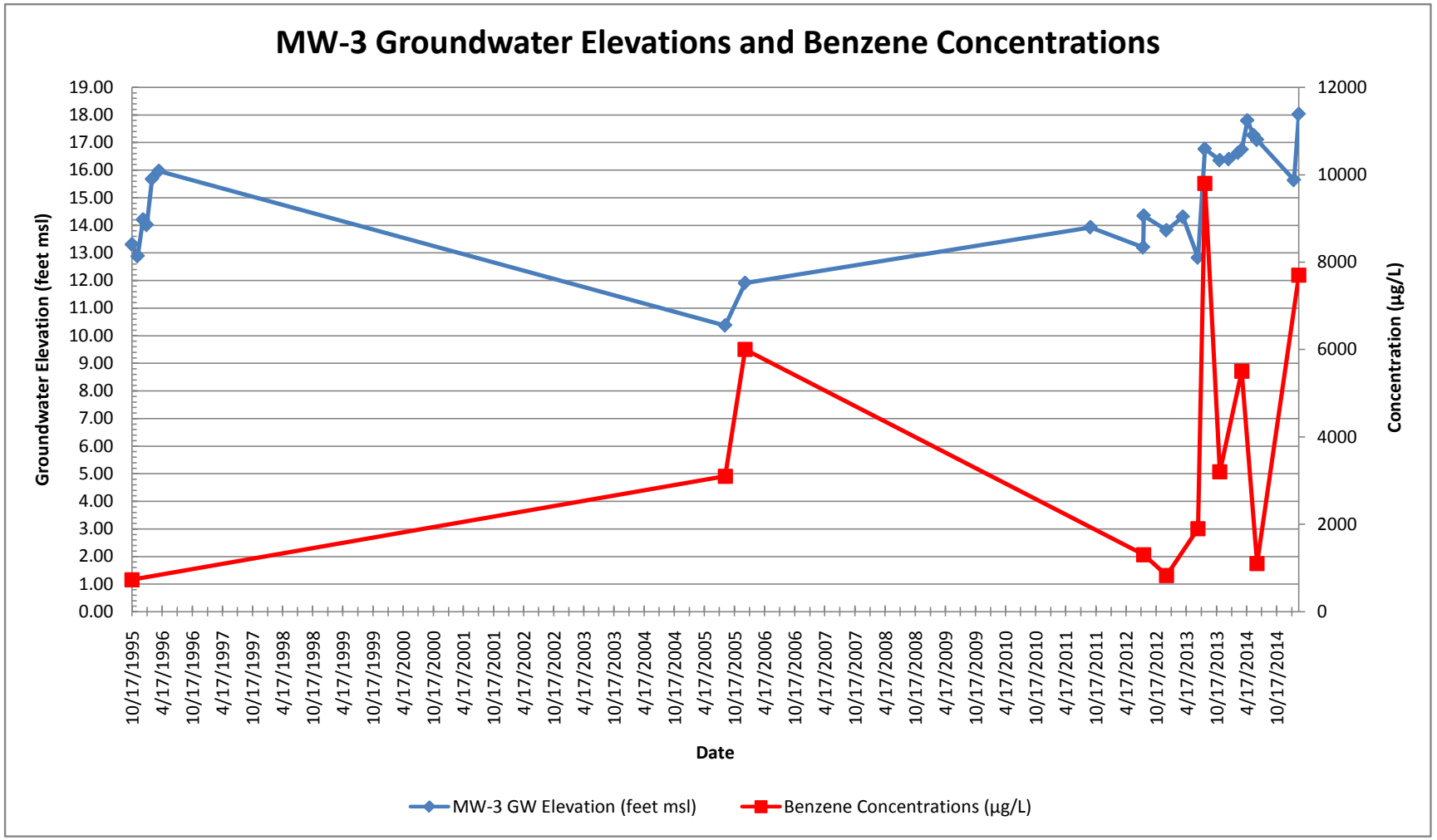

AMW-1 Groundwater Elevations
Groundwater Elevation (feet msl)
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
8/7/2013
9/7/2013
10/7/2013
11/7/2013
12/7/2013
1/7/2014
2/7/2014
3/7/2014
4/7/2014
5/7/2014
6/7/2014
7/7/2014
8/7/2014
9/7/2014
10/7/2014
11/7/2014
12/7/2014
1/7/2015
2/7/2015
Date
AMW-1 GW Elevations (feet msl)

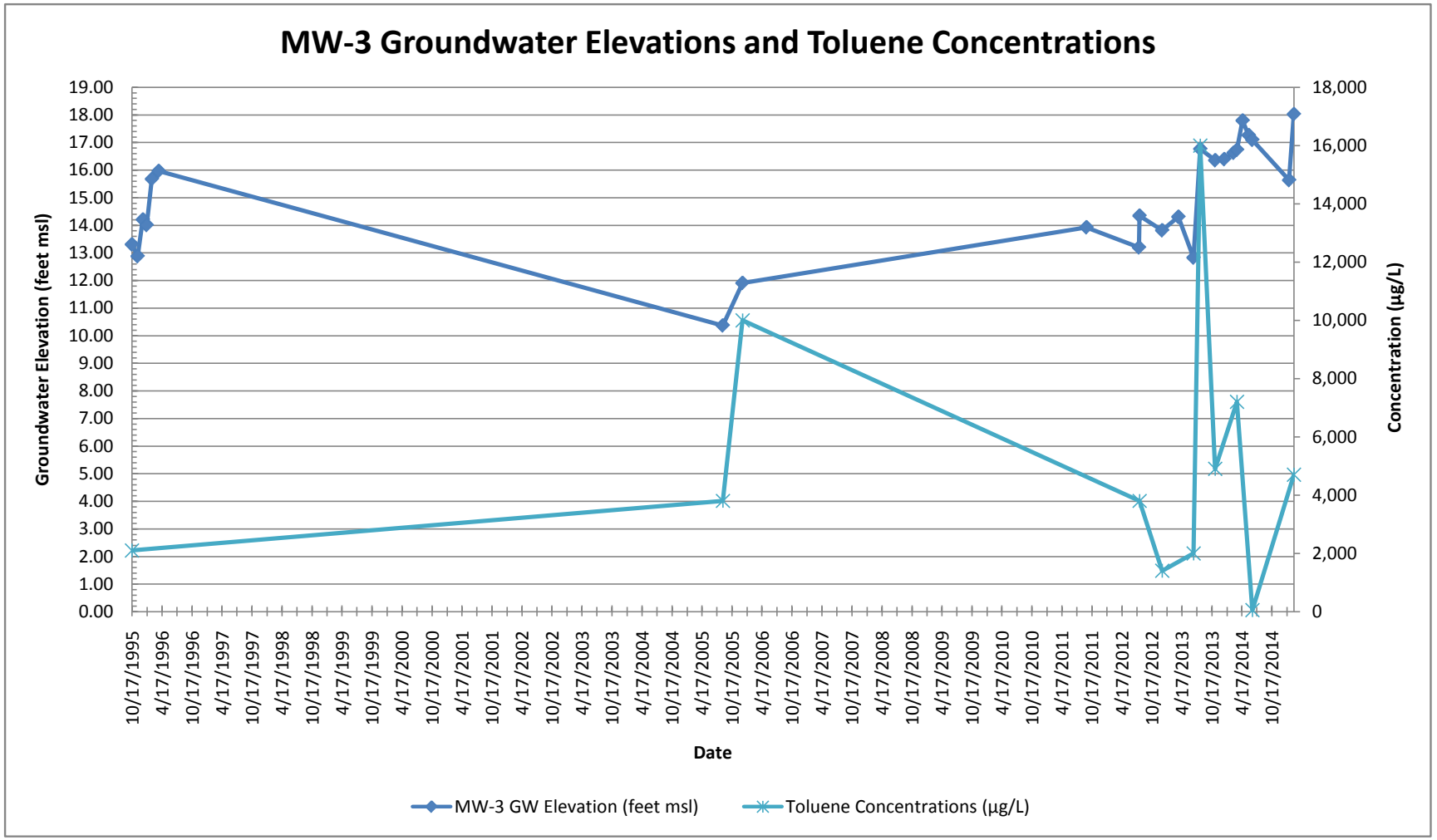

AMW-2 Groundwater Elevations
Groundwater Elevation (feet msl)
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
8/7/2013
9/7/2013
10/7/2013
11/7/2013
12/7/2013
1/7/2014
2/7/2014
3/7/2014
4/7/2014
5/7/2014
6/7/2014
7/7/2014
8/7/2014
9/7/2014
10/7/2014
11/7/2014
12/7/2014
1/7/2015
2/7/2015
Date
AMW-2 GW Elevations (feet msl)

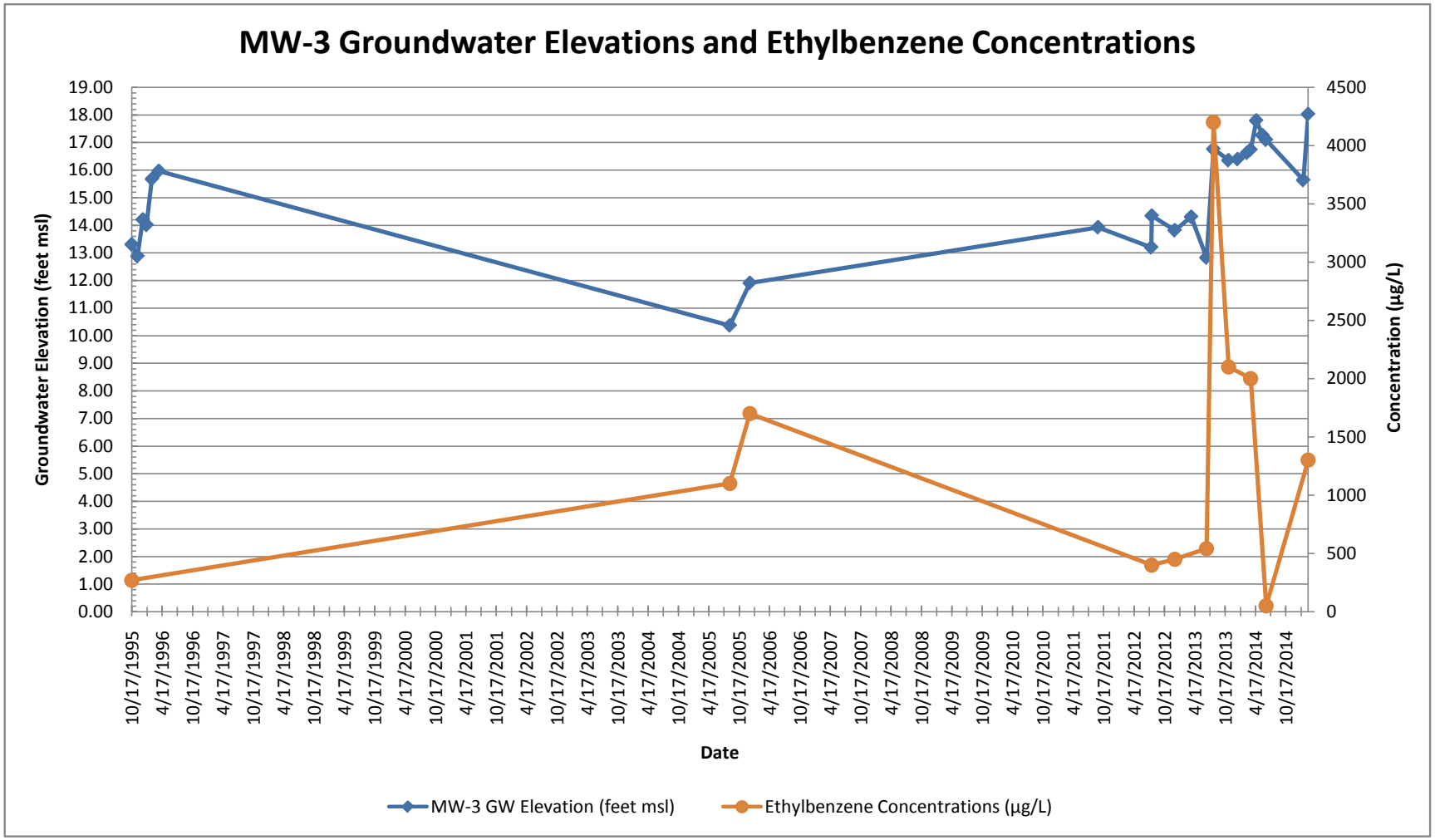

AMW-3 Groundwater Elevations
Groundwater Elevation (feet msl)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
8/7/2013
9/7/2013
10/7/2013
11/7/2013
12/7/2013
1/7/2014
2/7/2014
3/7/2014
4/7/2014
5/7/2014
6/7/2014
7/7/2014
8/7/2014
9/7/2014
10/7/2014
11/7/2014
12/7/2014
1/7/2015
2/7/2015
Date
AMW-3 GW Elevations (feet msl)

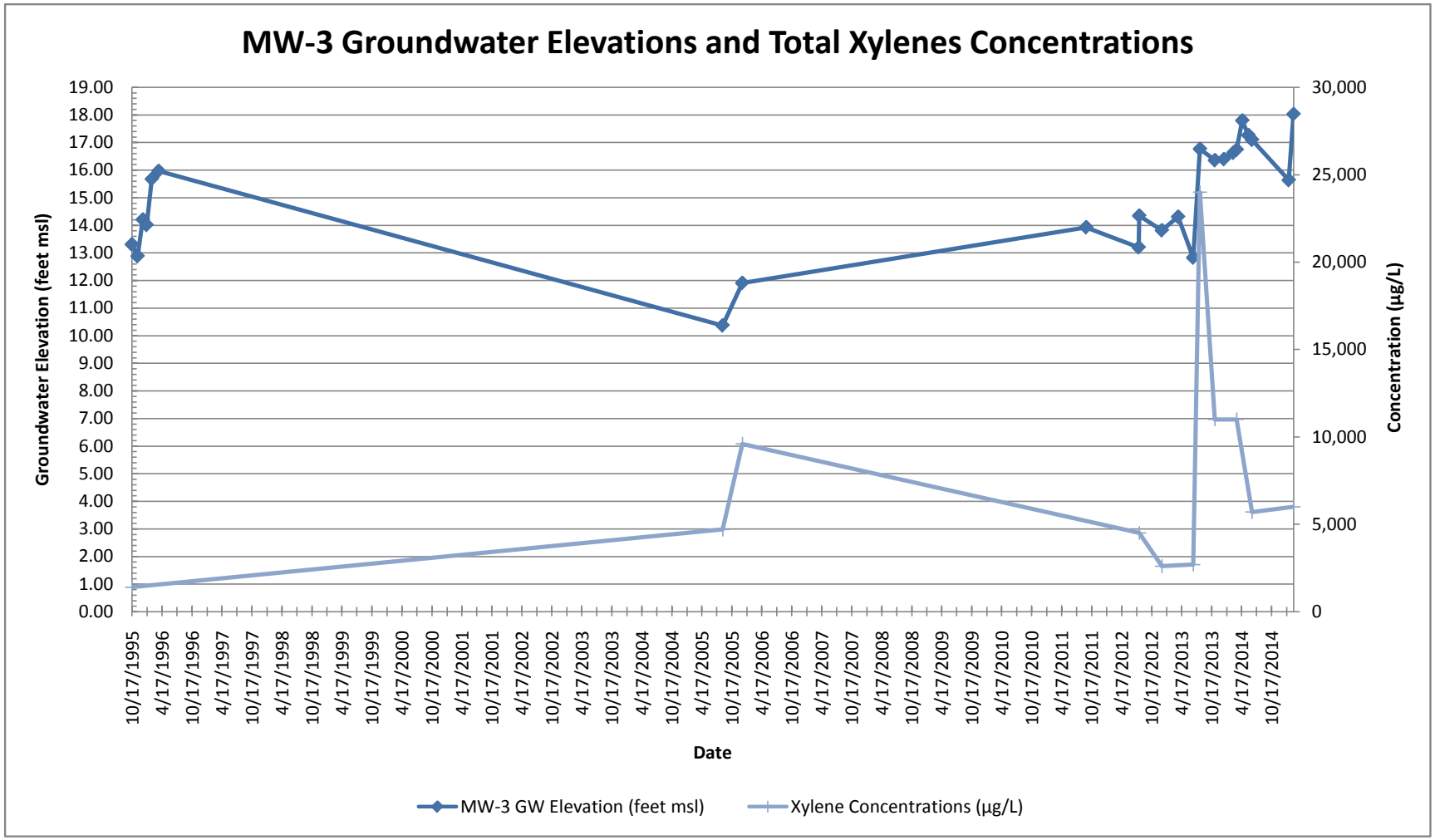

MW-3 Groundwater Elevations and TPH-g Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)

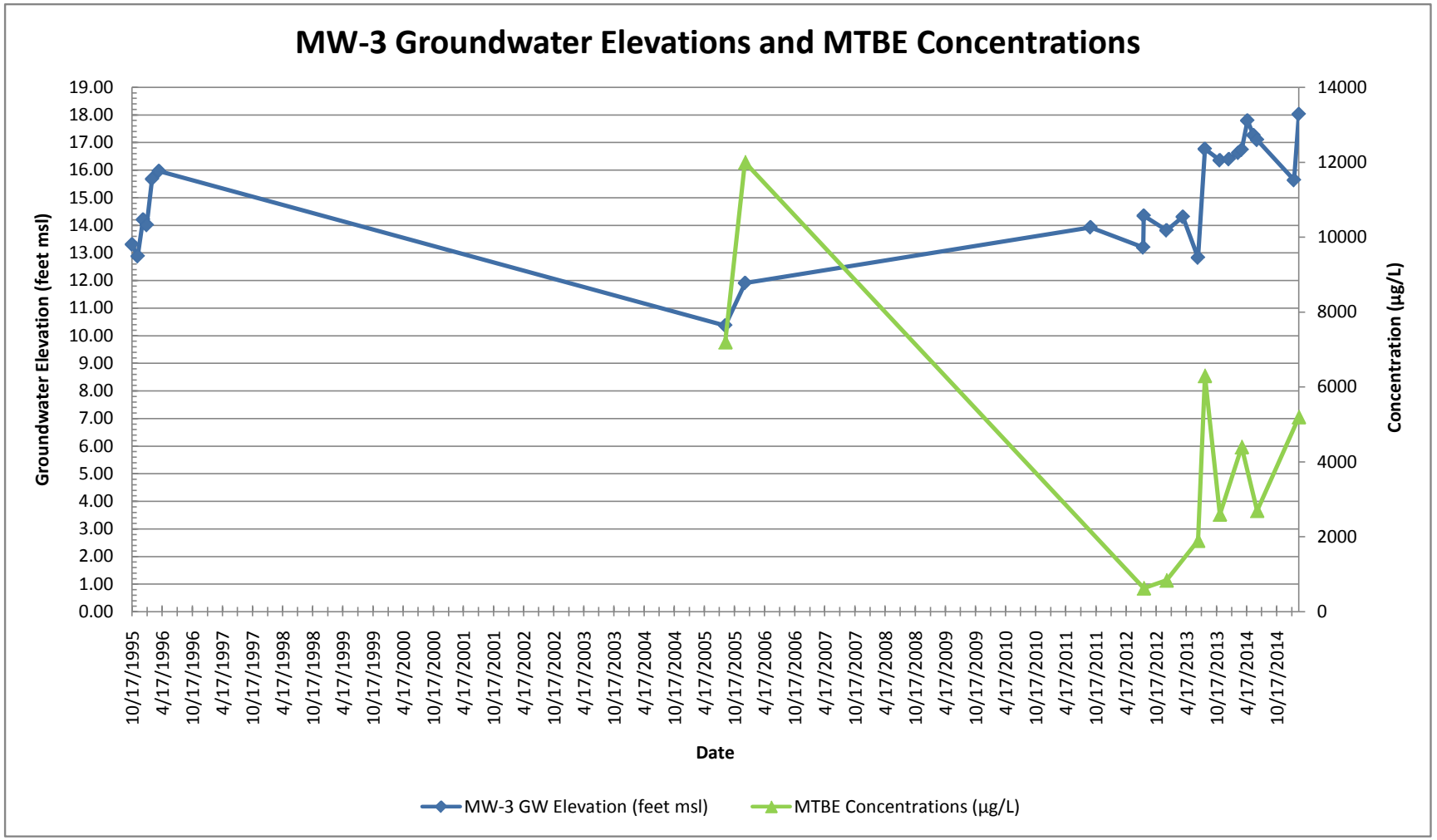

MW-3 Groundwater Elevations and TPH-d Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
TPH-d Concentrations (µg/L)

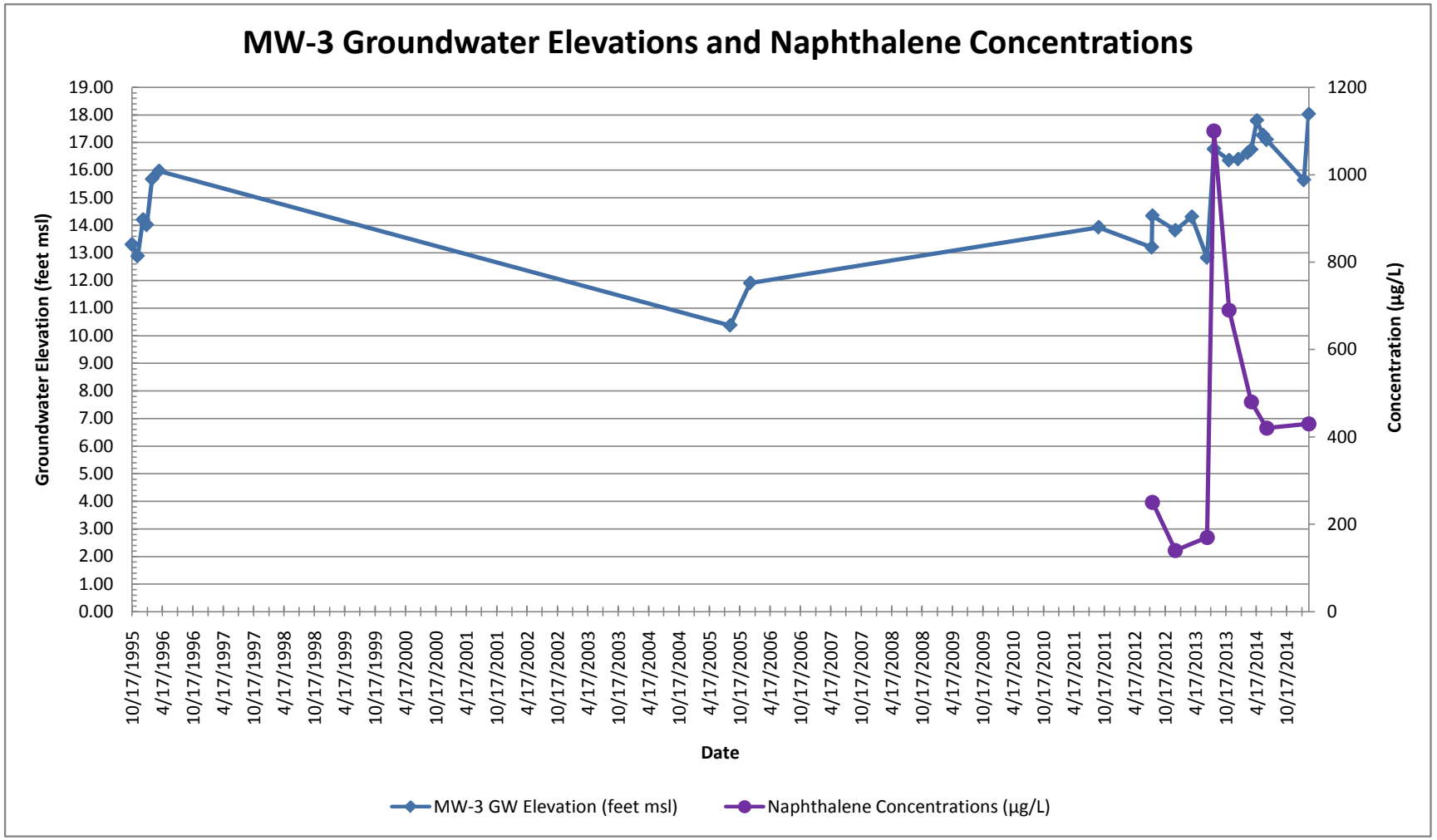

MW-3 Groundwater Elevations and Benzene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
Benzene Concentrations (µg/L)

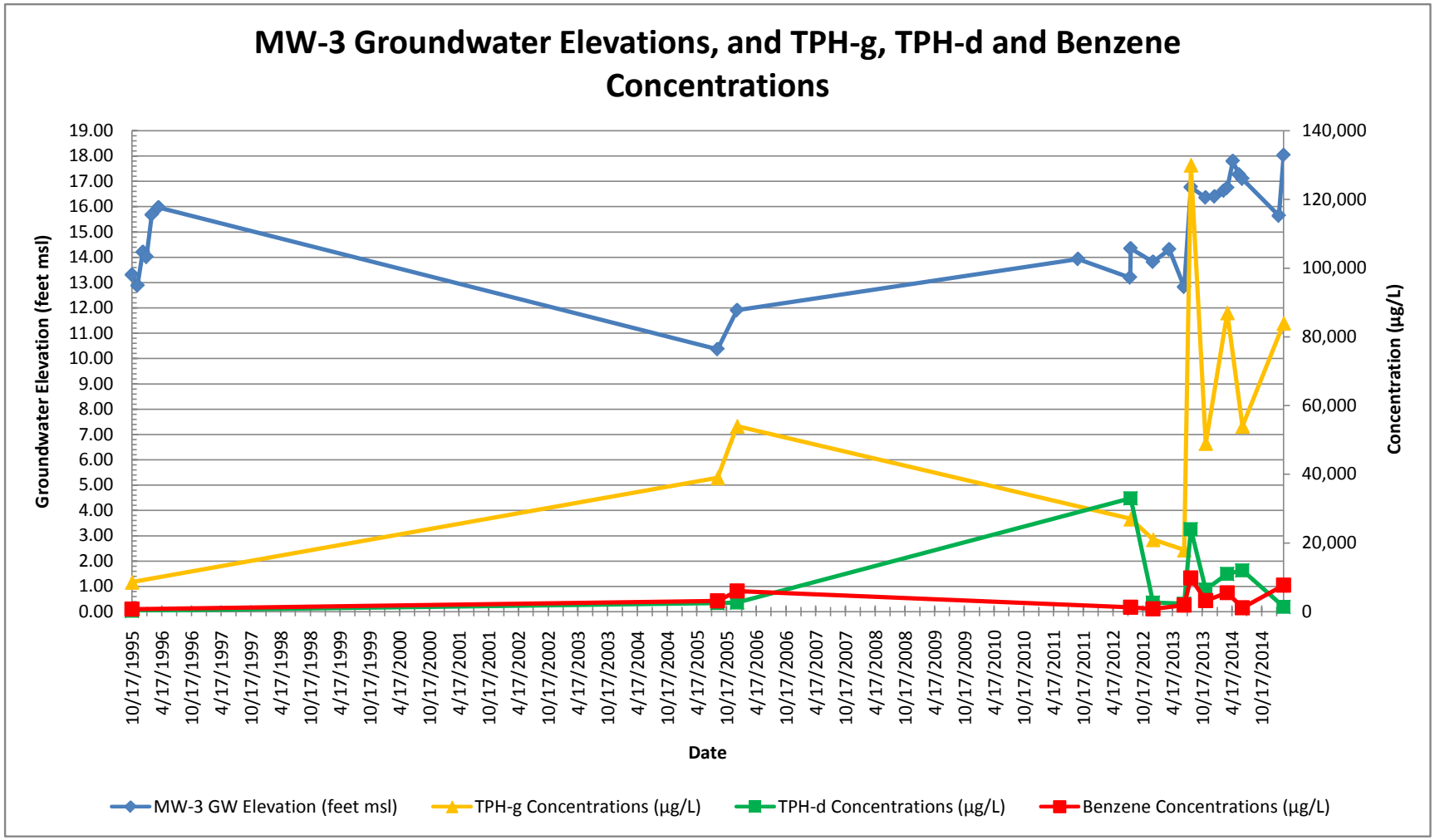

MW-3 Groundwater Elevations and Toluene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
Toluene Concentrations (µg/L)

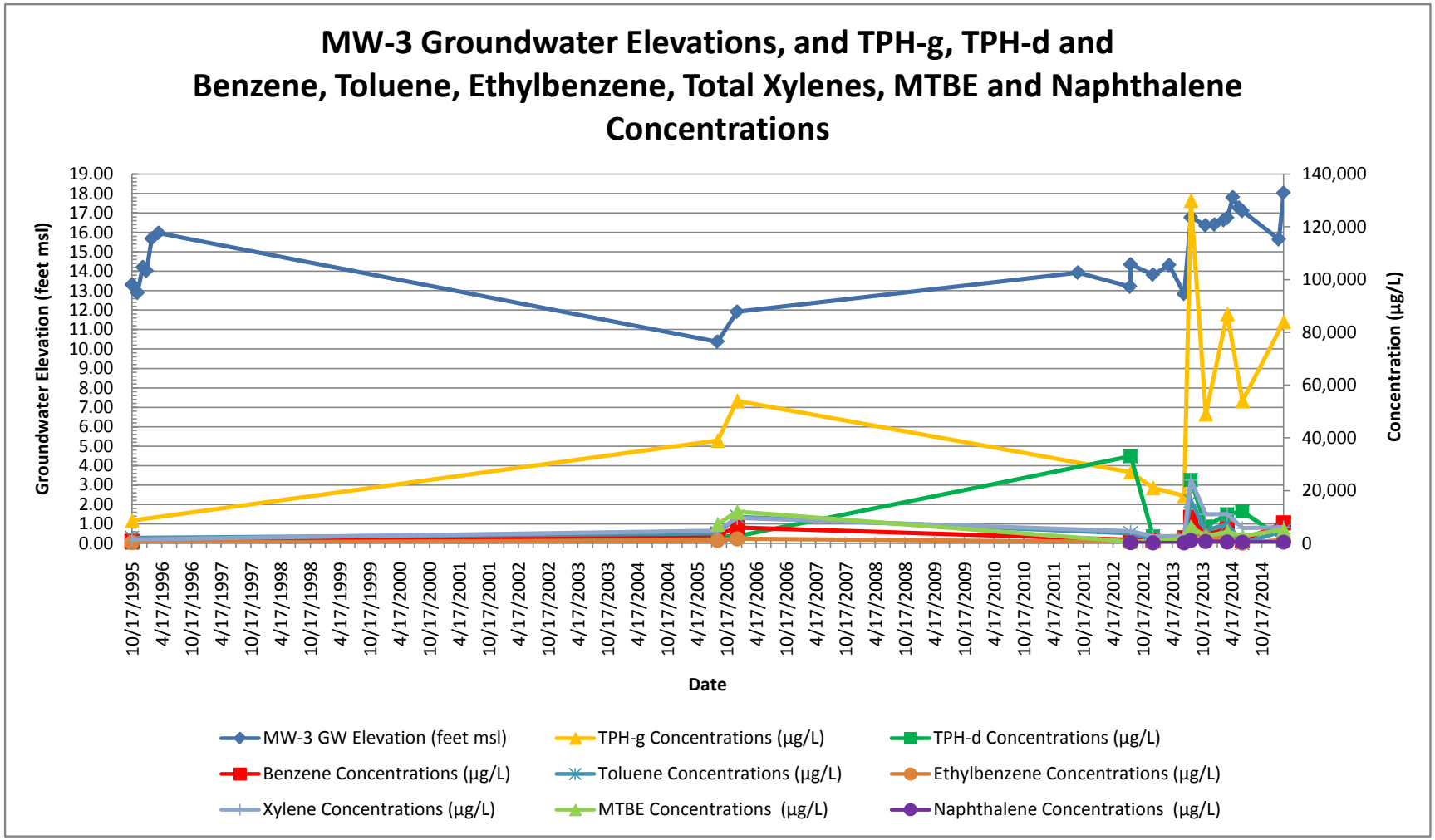

MW-3 Groundwater Elevations and Ethylbenzene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
Ethylbenzene Concentrations (µg/L)

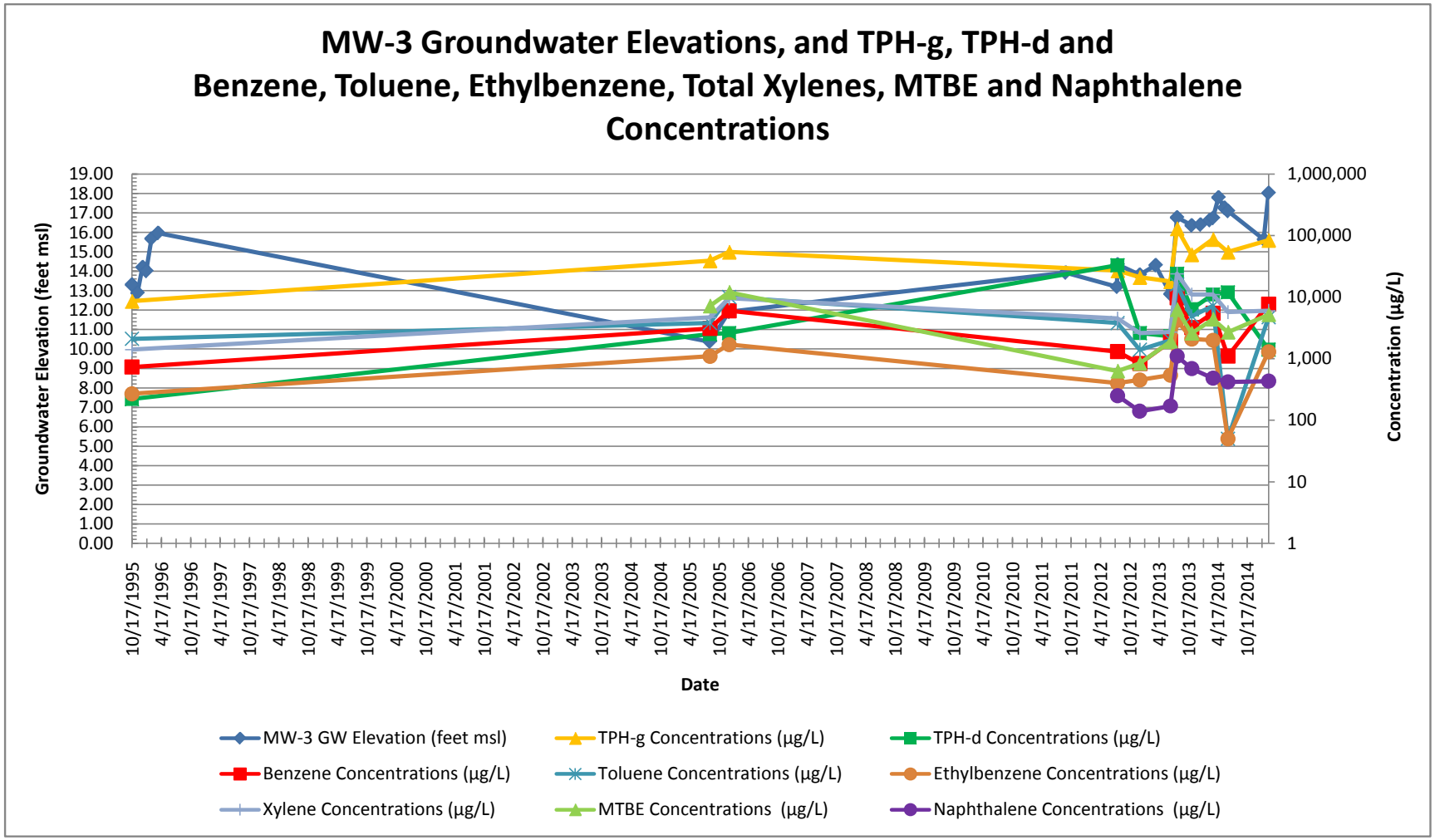

MW-3 Groundwater Elevations and Total Xylenes Concentrations
Groundwater Elevation (feet msl)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concentration (µg/L)
30,000
25,000
20,000
15,000
10,000
5,000
0
10/17/1995
4/17/1996
10/17/1996
4/17/1997
10/17/1997
4/17/1998
10/17/1998
4/17/1999
10/17/1999
4/17/2000
10/17/2000
4/17/2001
10/17/2001
4/17/2002
10/17/2002
4/17/2003
10/17/2003
4/17/2004
10/17/2004
4/17/2005
10/17/2005
4/17/2006
10/17/2006
4/17/2007
10/17/2007
4/17/2008
10/17/2008
4/17/2009
10/17/2009
4/17/2010
10/17/2010
4/17/2011
10/17/2011
4/17/2012
10/17/2012
4/17/2013
10/17/2013
4/17/2014
10/17/2014
Date
MW-3 GW Elevation (feet msl)
Xylene Concentrations (µg/L)


MW-3 Groundwater Elevations and MTBE Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
MTBE Concentrations (µg/L)


MW-3 Groundwater Elevations and Naphthalene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
Naphthalene Concentrations (µg/L)


MW-3 Groundwater Elevations, and TPH-g, TPH-d and Benzene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)


MW-3 Groundwater Elevations, and TPH-g, TPH-d and Benzene, Toluene, Ethylbenzene, Total Xylenes, MTBE and Naphthalene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
Date
MW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)
Toluene Concentrations (µg/L)
Ethylbenzene Concentrations (µg/L)
Xylene Concentrations (µg/L)
MTBE Concentrations (µg/L)
Naphthalene Concentrations (µg/L)


MW-3 Groundwater Elevations, and TPH-g, TPH-d and Benzene, Toluene, Ethylbenzene, Total Xylenes, MTBE and Naphthalene Concentrations
Groundwater Elevation (feet msl)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concentration (µg/L)
1,000,000
100,000
10,000
1,000
100
10
1
10/17/1995
4/17/1996
10/17/1996
4/17/1997
10/17/1997
4/17/1998
10/17/1998
4/17/1999
10/17/1999
4/17/2000
10/17/2000
4/17/2001
10/17/2001
4/17/2002
10/17/2002
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10/17/2003
4/17/2004
10/17/2004
4/17/2005
10/17/2005
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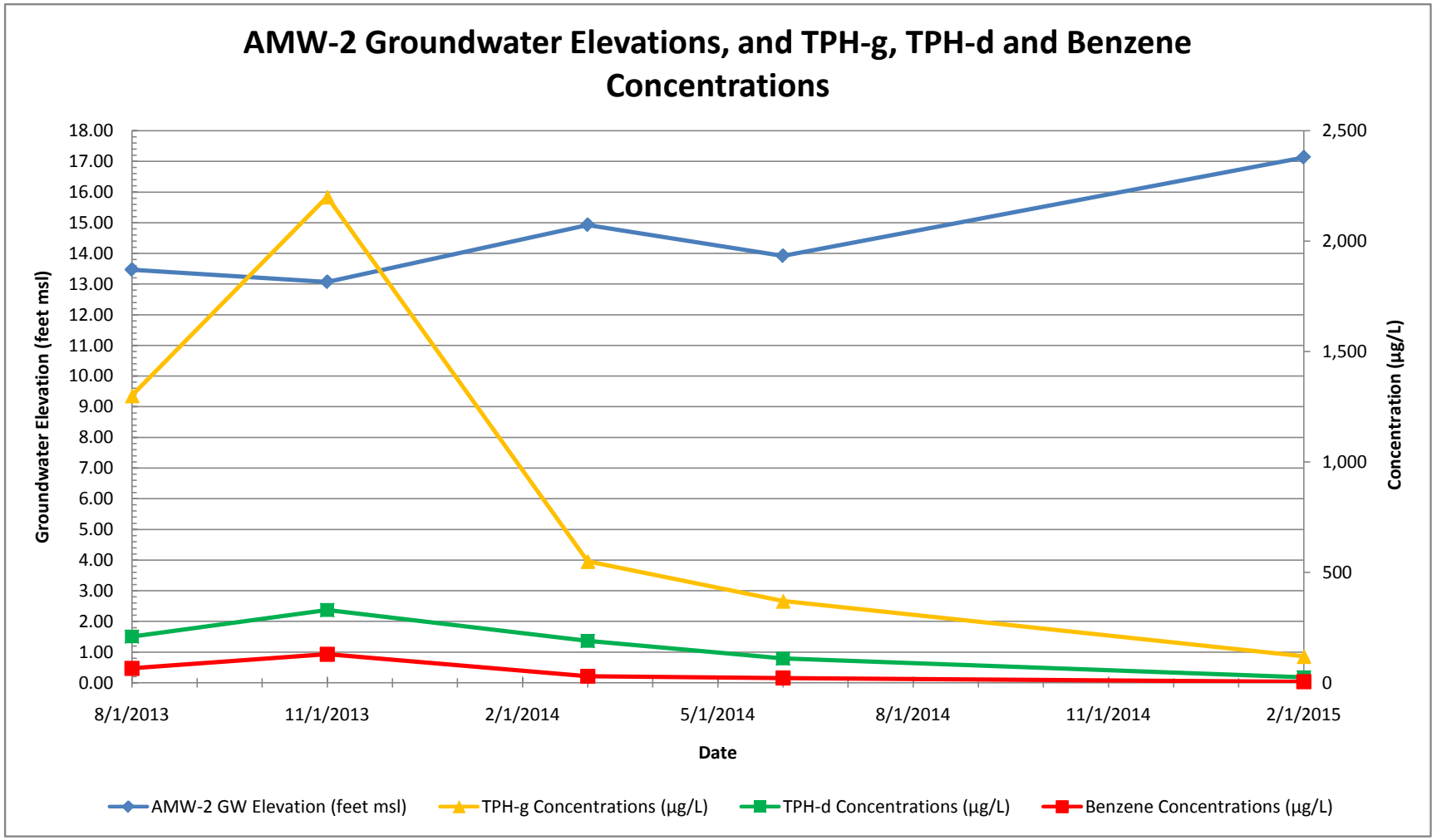
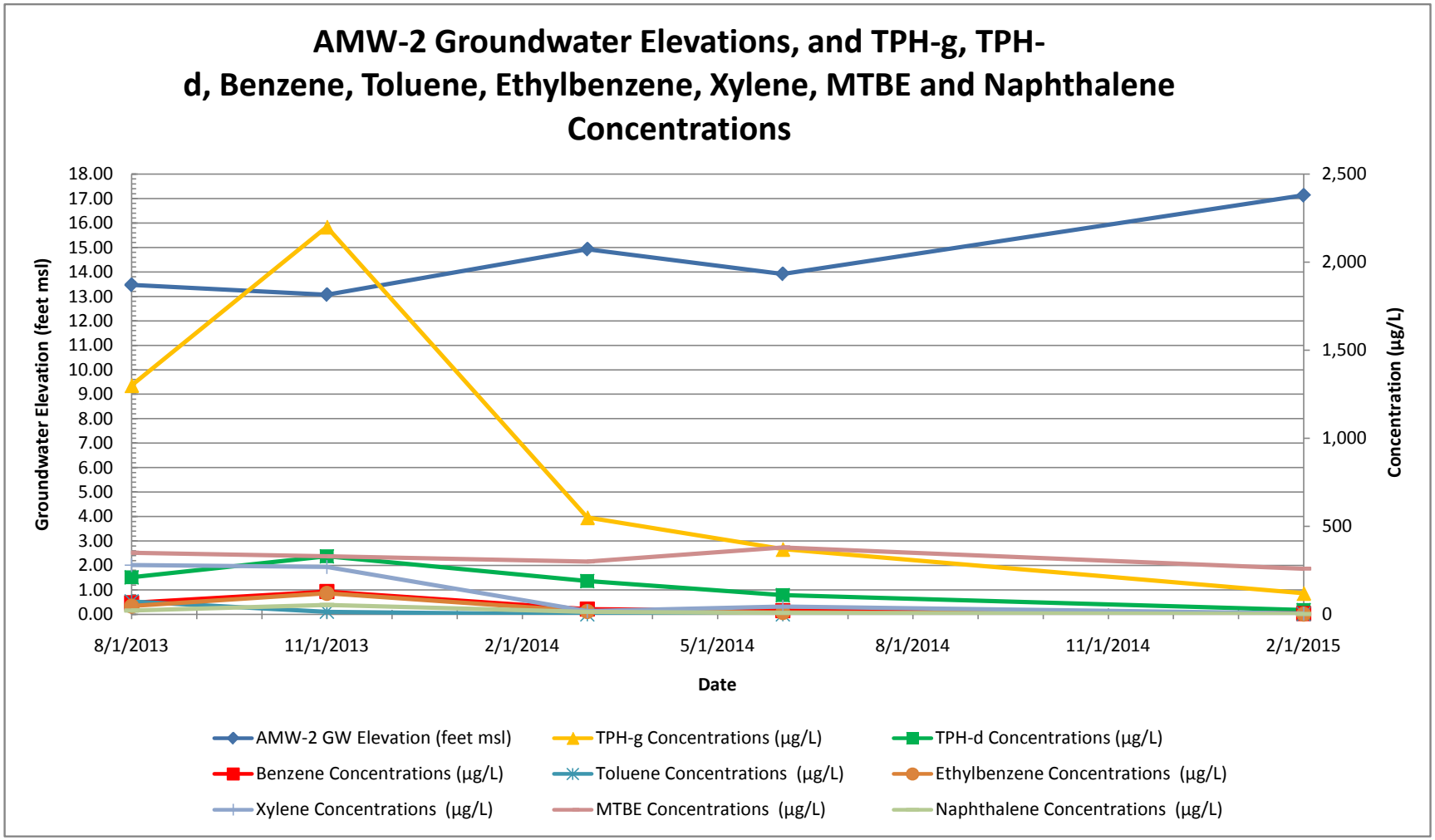
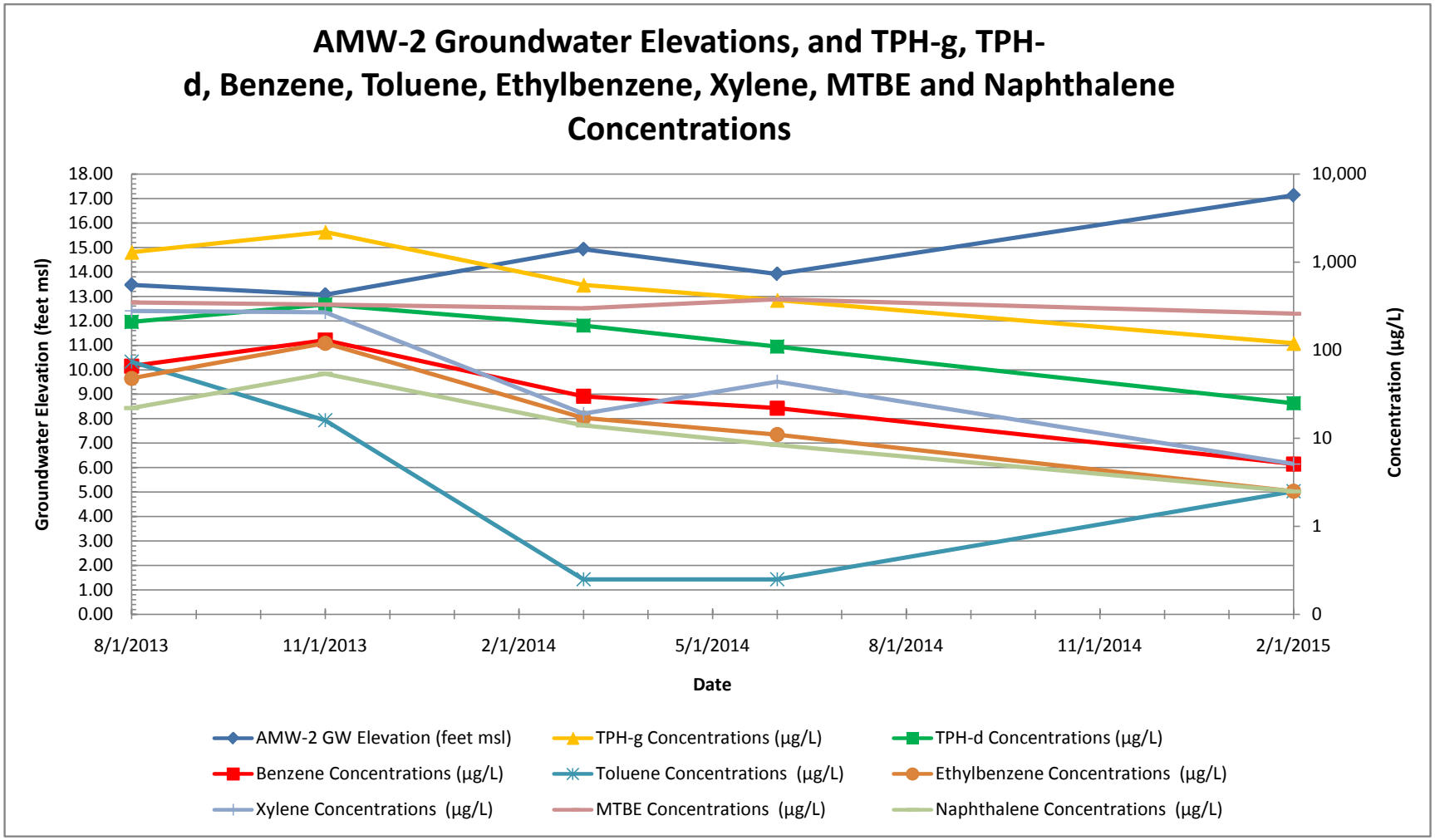
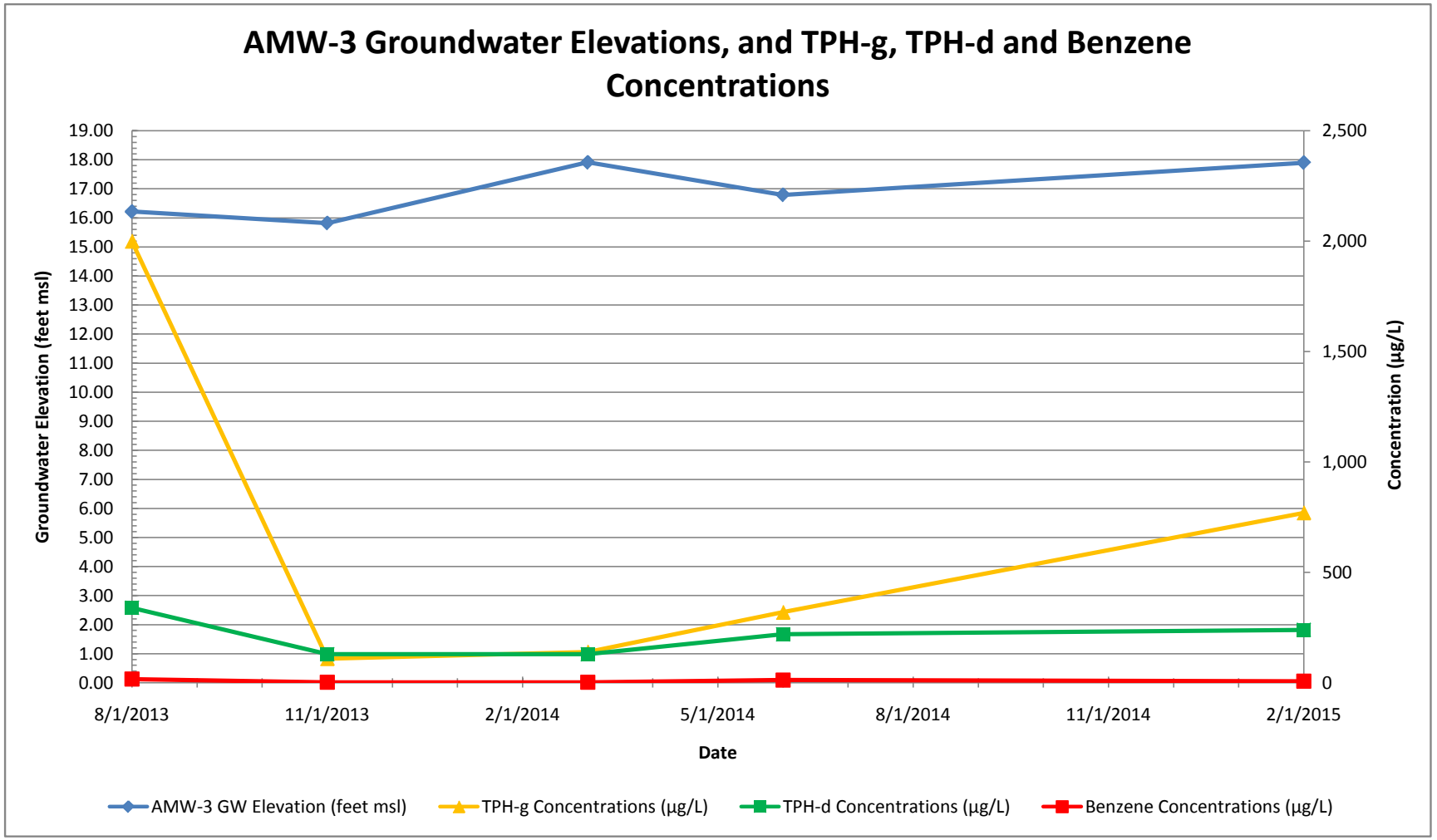
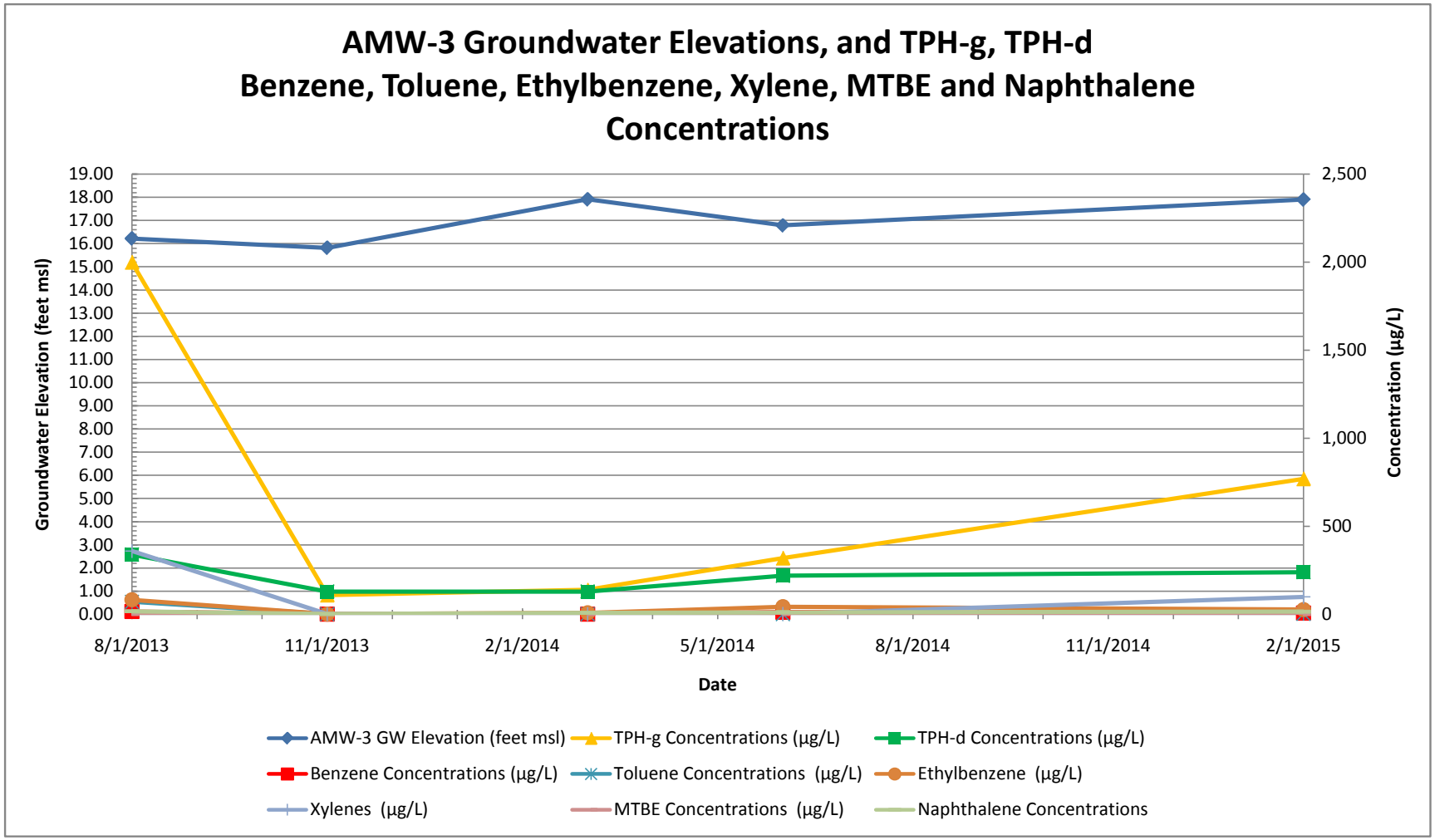
4/17/2008
10/17/2008
4/17/2009
10/17/2009
4/17/2010
10/17/2010
4/17/2011
10/17/2011
4/17/2012
10/17/2012
4/17/2013
10/17/2013
4/17/2014
10/17/2014
Date
MW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)
Toluene Concentrations (µg/L)
Ethylbenzene Concentrations (µg/L)
Xylene Concentrations (µg/L)
MTBE Concentrations (µg/L)
Naphthalene Concentrations (µg/L)

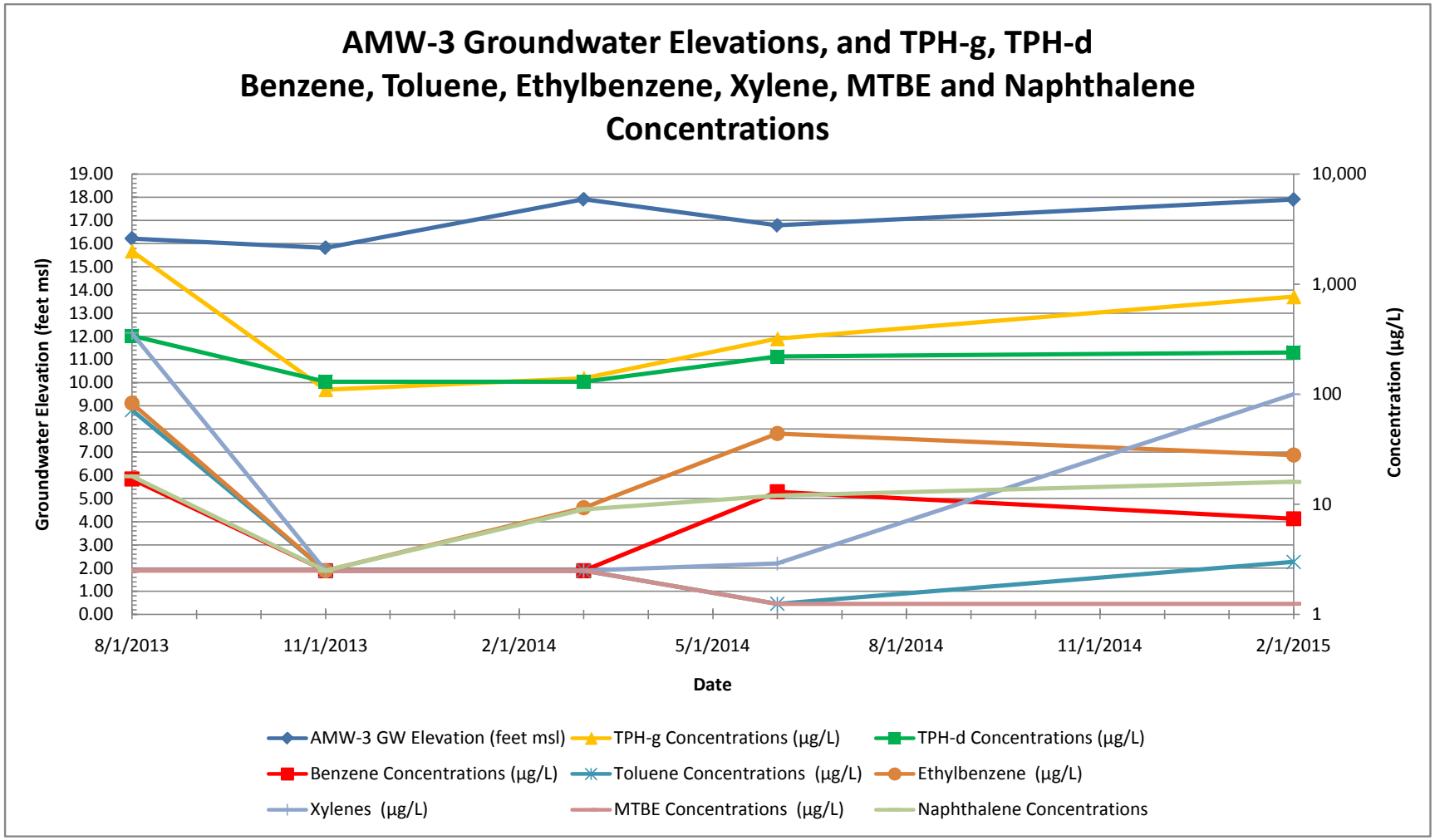

AMW-2 Groundwater Elevations, and TPH-g, TPH-d and Benzene Concentrations
Groundwater Elevation (feet msl)
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concentration (µg/L)
2,500
2,000
1,500
1,000
500
0
8/1/2013
11/1/2013
2/1/2014
5/1/2014
8/1/2014
11/1/2014
2/1/2015
Date
AMW-2 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)


AMW-2 Groundwater Elevations, and TPH-g, TPH-d, Benzene, Toluene, Ethylbenzene, Xylene, MTBE and Naphthalene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
2,500
2,000
1,500
1,000
500
0
8/1/2013
11/1/2013
2/1/2014
5/1/2014
8/1/2014
11/1/2014
2/1/2015
Date
AMW-2 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)
Toluene Concentrations (µg/L)
Ethylbenzene Concentrations (µg/L)
Xylene Concentrations (µg/L)
MTBE Concentrations (µg/L)
Naphthalene Concentrations (µg/L)


AMW-2 Groundwater Elevations, and TPH-g, TPH-d, Benzene, Toluene, Ethylbenzene, Xylene, MTBE and Naphthalene Concentrations
Groundwater Elevation (feet msl)
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concentration (µg/L)
10,000
1,000
100
10
1
0
8/1/2013
11/1/2013
2/1/2014
5/1/2014
8/1/2014
11/1/2014
2/1/2015
Date
AMW-2 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)
Toluene Concentrations (µg/L)
Ethylbenzene Concentrations (µg/L)
Xylene Concentrations (µg/L)
MTBE Concentrations (µg/L)
Naphthalene Concentrations (µg/L)


AMW-3 Groundwater Elevations, and TPH-g, TPH-d and Benzene Concentrations
Groundwater Elevation (feet msl)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concentration (µg/L)
2,500
2,000
1,500
1,000
500
0
8/1/2013
11/1/2013
2/1/2014
5/1/2014
8/1/2014
11/1/2014
2/1/2015
Date
AMW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)


AMW-3 Groundwater Elevations, and TPH-g, TPH-d
Benzene, Toluene, Ethylbenzene, Xylene, MTBE and Naphthalene
Concentrations
Groundwater Elevation (feet msl)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concentration (µg/L)
2,500
2,000
1,500
1,000
500
0
8/1/2013
11/1/2013
2/1/2014
5/1/2014
8/1/2014
11/1/2014
2/1/2015
Date
AMW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)
Toluene Concentrations (µg/L)
Ethylbenzene (µg/L)
Xylenes (µg/L)
MTBE Concentrations (µg/L)
Naphthalene Concentrations


AMW-3 Groundwater Elevations, and TPH-g, TPH-d
Benzene, Toluene, Ethylbenzene, Xylene, MTBE and Naphthalene
Concentrations
Groundwater Elevation (feet msl)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Concentration (µg/L)
10,000
1,000
100
10
1
8/1/2013
11/1/2013
2/1/2014
5/1/2014
8/1/2014
11/1/2014
2/1/2015
Date
AMW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)
Benzene Concentrations (µg/L)
Toluene Concentrations (µg/L)
Ethylbenzene (µg/L)
Xylenes (µg/L)
MTBE Concentrations (µg/L)
Naphthalene Concentrations

APPENDIX E

APPLICATION FOR AUTHORIZATION TO USE

REPORT TITLE: 1ST SEMIANNUAL 2015 GROUNDWATER MONITORING REPORT

Former McGrath Steel
6655 Hollis Street and 1471 67th Street
Emeryville, California

PROJECT NUMBER: 15006.28

To: AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110

From (Applicant): _____

_____

_____
(Please clearly identify name and address of person/entity applying for permission to use or copy this document)

Ladies and Gentlemen:

Applicant states they have thoroughly reviewed the report and had the opportunity to discuss with AllWest the report's methodology, findings and conclusion(s).

Applicant hereby applies for permission to rely upon AllWest's work product, as described above, for the purpose of (state here the purpose for which you wish to rely upon the work product):

Applicant only can accept and rely upon AllWest work product under the strict understanding that Applicant is bound by all provisions in the Terms and Conditions attached to the report. Every report, recommendation, finding, or conclusion issued by AllWest shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. AllWest may withhold permission at its sole discretion or require additional re-use fees or terms.

FEES: A $1,650 coordination and reliance fee, payable in advance, will apply. If desired, for an additional $150 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

REQUESTED BY	**APPROVED BY**
_____	**AllWest Environmental, Inc.**
Applicant Company	
_____	_____
Print Name and Title	Print Name and Title
_____	_____
Signature and Date	Signature and Date

GENERAL CONDITIONS TO THE WORK AUTHORIZATION AGREEMENT

It is hereby agreed that the Client retains AllWest to provide services as set forth in the Work Authorization attached hereto (the "Work"). This contract shall be controlled by the following terms and conditions, and these terms and conditions shall also control any further assignments performed pursuant to this Work Authorization. Client's signature on this Work Authorization constitutes Client's agreement to the all terms to this contract, including these General Conditions.

FEES AND COSTS

1. AllWest shall charge for work performed by its personnel at the rates identified in the Work Authorization. These rates are subject to reasonable increases by AllWest upon giving Client 30 days advance notice. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services (defined below) under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and type-written reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of fifty- eight cents ($0.58) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.1 times the direct cost to AllWest. Reimbursable costs will be charged to the client only as outlined in the Work Authorization if the scope of work is for Phase I Environmental Site Assessment, Property Condition Assessment, Seismic Assessment or ALTA survey. Invoices for work performed shall be submitted monthly. Payment will be due upon receipt of invoice. Client shall pay interest on the balance of unpaid invoices which are overdue by more than 30 days, at a rate of 18% per annum as well as all attorney fees and costs incurred by AllWest to secure payment of unpaid invoices. AllWest may waive such fees at its sole discretion.

STANDARD OF CARE

2. AllWest will perform its work in accordance with the standard of care of its industry, as it is at the time of the work being performed, and applicable in the locale of the work being performed. AllWest makes no other warranties, express or implied regarding its work.

LIMITATION OF REMEDIES

3. Client expressly agrees that to the fullest extent permitted by law, Client's remedies for any liability incurred by AllWest, and/or its employees or agents, for any and all claims arising from AllWest's services, shall be $50,000 or its fees, whichever is greater.

Client may request a higher limitation of remedies, but must do so in writing. Upon such written request, AllWest may agree to increase this limit in exchange for a mutually negotiated higher fee commensurate with the increased risk to AllWest. Any such agreed increase in fee and limitation of remedies amount must be memorialized by written agreement which expressly amends the terms of this clause.

As used in this section, the term "limitation of remedies" shall apply to claims of any kind, including, but not limited to, claims brought in contract, tort, strict liability, or otherwise, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to AllWest's services or the services of AllWest's subcontractors, consultants, agents, officers, directors, and employees from any cause(s). AllWest shall not be liable for any claims of loss of profits or any other indirect, incidental, or consequential damages of any nature whatsoever. Client & AllWest have specifically negotiated this limitation.

INDEMNIFICATION

4. Notwithstanding any other provision of this Agreement, Client agrees, to the fullest extent permitted by law, to waive any claim against, release from any liability or responsibility for, and , indemnify and hold harmless AllWest, its employees, agents and sub-consultants (collectively, Consultant) from and against any and all damages, liabilities, claims, actions or costs of any kind, including reasonable attorney's fees and defense costs, arising or alleged to arise out of or to be in any way connected with the Project or the performance or non-performance of Consultant of any services under this Agreement, excepting only any such liabilities determined by a court or other forum of competent jurisdiction to have been caused by the negligence or willful misconduct of Consultant. This provision shall be in addition to any rights of indemnity that Consultant may have under the law and shall survive and remain in effect following the termination of this Agreement for any reason. Should any part of this provision be determined to be unenforceable, AllWest and Client agree that the rest of the provision shall apply to the maximum extent permitted by law. The Client's duty to defend AllWest shall arise immediately upon tender of any matter potentially covered by the above obligations to indemnify and hold harmless.

MEDIATION & JUDICIAL REFERENCE

5. In an effort to resolve any conflicts or disputes that arise regarding the performance of this agreement, the Client & AllWest agree that all such disputes shall be submitted to non-binding mediation, using a mutually agreed upon mediation service experienced in the resolution of construction disputes. Unless the parties mutually agree otherwise, such mediation shall be a condition precedent to the initiation of any other adjudicative proceedings. It is further agreed that any dispute that is not settled pursuant to such mediation shall be adjudicated by a court appointed referee in accordance with the Judicial Reference procedures as set forth in California Code of Civil Procedure Section 638 et seq. The parties hereby mutually agree to waive any right to a trial by jury regarding any dispute arising out of this agreement.

The parties further agree to include a similar mediation, Judicial Reference & waiver of jury trial provision in their agreements with other independent contractors & consultants retained for the project and require them to similarly agree to these dispute resolution procedures. The cost of said Mediation shall be split equally between the parties. This agreement to mediate shall be specifically enforceable under the prevailing law of the jurisdiction in which this agreement was signed.

HAZARDOUS WASTE

6. Client acknowledges that AllWest and its sub-contractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of performing the services set out in the scope of work within this Agreement, which may include, but is not necessarily limited to such services as assisting the Client in assessing any problem which may exist and in assisting the

Client in formulating a remedial program. Client acknowledges that while necessary for investigations, commonly used exploration methods employed by AllWest may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While back-filling with grout or other means, according to a state of practice design is intended to provide a seal against such passageway, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest will not sign or execute hazardous waste manifests or other waste tracking documents on behalf of Client unless Client specifically establishes AllWest as an express agent of Client under a written agency agreement approved by AllWest. In addition, Client agrees that AllWest shall not be required to sign any documents, no matter requested by whom, that would have the effect of AllWest providing any form of certification, guarantee, or warranty as to any matter or to opine on conditions for which the existence AllWest cannot ascertain. Client also agrees that it shall never seek or otherwise attempt to have AllWest provide any form of such certification, guarantee or warranty in exchange for resolution of any disputes between Client and AllWest, or as a condition precedent to making payment to AllWest for fees and costs owing under this Agreement.

Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter , arranger or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake and arrange for the removal, treatment, storage, disposal and/or treatment of hazardous material and investigation derived waste (such as drill cuttings) and further, assumes full responsibility for such wastes to the complete exclusion of any responsibility, duty or obligation upon AllWest. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

FORCE MAJUERE

7. Neither party shall be responsible for damages or delays in performance under this Agreement caused by acts of God, strikes, lockouts, accidents or other events or condition (other than financial inability) beyond the other Party's reasonable control.

TERMINATION

8. This Agreement may be terminated by either party upon ten (10) days' written notice should the other party substantially fail to perform in accordance with its duties and responsibilities as set forth in this Agreement and such failure to perform is through no fault of the party initiating the termination. Client agrees that if it chooses to terminate AllWest for convenience, and AllWest has otherwise satisfactorily performed its obligations under this Agreement to that point, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which fall within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client, and Client agrees to pay AllWest's reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

Upon notice of termination by Client to AllWest, AllWest may issue notice of such termination to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project, and take such other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

DOCUMENTS

9. Any documents prepared by AllWest, including, but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are instruments of service and shall remain the property of AllWest and AllWest retains copyrights to these instruments of service. AllWest grants to Client a non-exclusive license to use these instruments of service for the purpose of completing and maintaining the Project. The Client shall be permitted to retain a copy of any instruments of service, but Client expressly agrees and acknowledges that the instruments of service may not be used by the Client on other projects, or for any other purpose, except the project for which they were prepared, unless Client first obtains a written agreement expanding the license to such use from AllWest, and with appropriate compensation to AllWest. Client further agrees that such instruments of service shall not be provided to any third parties without the express written permission of AllWest.

Client shall furnish, or cause to be furnished to AllWest all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. IF Client fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in its possession during the period that AllWest is actively providing its services (including up to 30 days after its final invoice), Client shall release AllWest from any and all liability for risks and damages the Client incurs resulting from its reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for the accuracy or completeness of Client-provided documents. Client-provided documents will remain the property of the Client.

ACCESS TO PROJECT

10. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest. Client's failure to provide such timely access and permission shall constitute a material breach of this Agreement excusing AllWest from performance of its duties under this Agreement.

CONFIDENTIAL INFORMATION

11. Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may be either applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the

research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and unique asset of that party, and each of the Parties agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

INDEPENDENT CONTRACTOR

12. Both Client and AllWest agree that AllWest is an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

ENTIRE AGREEMENT

13. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes and replaces in its entirety all prior and contemporaneous proposals, agreements, representations and understandings of the Parties. The Parties have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act.

INTEGRATION

14. This is a fully integrated Agreement. The terms of this Agreement may be modified only by a writing signed by both Parties. The terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language in an effort to reach the intended result.

MODIFICATION / WAIVER / PARTIAL INVALIDITY

15. Failure on the part of either party to complain of any act or omission of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or its application be unenforceable to any extent, the Parties agree that the remainder of this Agreement shall not be affected and shall be enforced to the greatest extent permitted by law.

INUREMENT / TITLES

16. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. , et al., incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled.

AUTHORITY

17. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture, limited liability company or a partnership, the signatories below warrant that said entity is properly and duly organized and existing under the laws of the state of its formation and pursuant to the organizational and operating document of the entity, and the laws of the state of its formation, said signatory has authority act on behalf of and commit the entity to this Agreement.

COUNTERPARTS

18. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document.

THIRD PARTY BENEFICIARIES / CONTROLLING LAW

19. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.

TIME BAR TO LEGAL ACTION

20. Any legal actions by either party against the other related to this Agreement, shall be barred after one year has passed from the time the claimant knew or should have known of its claim, and under no circumstances shall be initiated after two years have passed from the date by which AllWest completes its services.