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September 30, 2016

Mr. Mark Detterman
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Subject: **Letter of Transmittal for Data Gap Investigation 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 requested in your letter of March 7, 2016, we submit this transmittal letter and accompanying *Data Gap Investigation Report* for the above-reference subject site.

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.

Sincerely,

MCG Investments LLC,
A California Limited Liability Company

Walter F. Merkle
Authorized Agent

AllWest

AllWest Environmental

FIRST SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

Former McGrath Steel, 6655 Hollis St. & 1471 67th St., Emeryville, CA

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

PREPARED FOR:

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September 30, 2016

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FIRST SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

Former McGrath Steel, 6655 Hollis St. & 1471 67th St. Emeryville, CA

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

I. INTRODUCTION

AllWest conducted semiannual groundwater monitoring on July 14, 2016 at the property referenced above ("the subject site", Figure 1). The monitoring was performed to evaluate potential free product and petroleum hydrocarbons and volatile organic compounds (VOCs) concentrations in subject site groundwater.

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), *Data Gap Investigation Report* (AllWest, 2016b) and *First Semi-Annual*

Groundwater Monitoring Report (AllWest, 2015a). AllWest conducted quarterly groundwater monitoring from August 2012 to June 2014, and semi-annual monitoring in February 2015.

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), but was removed on February 5, 2015 due to an insufficient volume of product in the monitoring well to effectively work (AllWest, 2015a).

ACEH, in their letter dated September 15, 2014, reduced groundwater monitoring to a semiannual basis. A *Data Gap Investigation Work Plan* dated October 30, 2015 (AllWest, 2015b) and addendum letter dated January 16, 2016 (AllWest, 2016a) were submitted by AllWest to the ACEH and approved in their letters dated December 12, 2015 and March 7, 2016. The approved subsurface investigation was performed in February and May 2016. The *Data Gap Investigation Report* dated August 3, 2016 (AllWest, 2016b) was submitted by AllWest to the ACEH.

III. PURPOSE AND SCOPE OF WORK

The purpose of our work was the monitoring and interim mitigation of light non-aqueous phase liquid (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 July 14, 2016, measured groundwater levels and 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;

2. 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 mineral spirits (TPH-ms) by analytical method SW8021B/8015B, for total petroleum hydrocarbons as diesel (TPH-d) by analytical method 8015B with silica gel cleanup, for TPH as gasoline (TPH-g) and VOCs by analytical method SW8260B (full scan) and for polynuclear aromatic hydrocarbons (PNAs/PAHs) by analytical method SW8270C-SIM;

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

IV. FIELD ACTIVITIES

On July 14, 2016, AllWest visited the subject site to conduct a semi-annual monitoring event, which included lowering an electric oil/water interface sounding probe into all four well casings to measure the depth to the water and thickness of any potential floating free product (LNAPL) to the nearest 0.01 feet below TOC. Depth to groundwater ranged from 8.37 feet below TOC in MW-3 to 9.53 feet below TOC in AMW-2. No product or sheen were detected or observed in monitoring wells AMW-1, AMW-2 or AMW-3. A free product layer (LNAPL) was measured in monitoring well MW-3, at 0.02 feet thick, and a thin sheen was observed. Depth to groundwater and free product thickness data are included in Table 2.

During this monitoring event, AllWest also reinstalled the 0.125-liter skimmer canister to remove the thin layer of LNAPL present, following sampling activities.

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. Four 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-ms by analytical method SW8021B/8015Bm, for TPH-d by analytical method SW8015B with silica gel cleanup, for TPH-g and 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

A thin layer of floating free product (LNAPL) was measured in monitoring well MW-3 on the July 14, 2016 event, measuring 0.02 feet thick.

On July 14, 2016, depths to groundwater ranged from 8.37 feet below TOC in MW-3 to 9.53 feet below TOC in AMW-2. LNAPL was measured in monitoring well MW-3; the depth to free product was 8.35 feet below TOC; depth to water was 8.37 feet below TOC. The well with the highest groundwater elevation was MW-3 at 17.20 feet above NAVD 1988 datum; the well with the lowest groundwater elevation was AMW-1 at 13.27 feet above NAVD 1988 datum.

The wellhead elevation data and depth to water measurements were used to calculate local groundwater flow direction and gradient. The direction of groundwater flow was to the southwest at a gradient of 0.0167 feet per foot. A groundwater elevation contour map is included as Figure 3. Monitoring well construction details are presented on Table 1 and gauging data is provided on Table 2. Groundwater elevation graphs are included in Appendix D.

B. Groundwater Analytical Data

TPH-g was detected in groundwater samples from AMW-2, AMW-3 and MW-3 at a maximum concentration of 7,900 micrograms per liter (µg/L) in monitoring well MW-3. TPH-ms was detected in the groundwater sample from MW-3 at a concentration of 2,700 µg/L; however, this concentration probably represents TPH-g within the C9-C12 carbon 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 1,600 µg/L in the groundwater sample from MW-3.

Benzene was detected in AMW-3 and MW-3 at a maximum concentration of 2,000 µg/L in the groundwater sample collected from monitoring well MW-3. Toluene was detected in MW-3 at a maximum concentration of 220 µg/L in MW-3. Ethylbenzene was detected in MW-3 and AMW-3 at a maximum concentration of 430 µg/L in MW-3. Total xylenes were detected in AMW-1, AMW-3 and MW-3 at a maximum concentration of 820 µg/L in MW-3.

MTBE was detected in AMW-2 and MW-3 at a maximum concentration of 790 µg/L in the groundwater sample from MW-3.

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

VOC Detected in Site Groundwater July 14, 2016	Maximum Concentration (µg/L)
Tertiary butyl alcohol (TBA)	1,000
1,1-Dichloroethene	120
1,1-Dichloroethane	2.9
Naphthalene	170
n-Propyl benzene	91
Trichloroethene (TCE)	18
1,2,4-trimethylbenzene	280
1,3,5-trimethylbenzene	71

Groundwater analytical results for total petroleum hydrocarbons and VOCs are summarized in Tables 3 and 4, 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 66 µg/L, 110 µg/L and 250 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 decreased an average of approximately 1.62 feet overall between the first quarter 2015 and third quarter 2016 monitoring events (Table 2). Groundwater flow direction shifted slightly from the west-northwest to the southwest between the first quarter 2015 and third quarter 2016 monitoring events (Figure 3).

A thin layer of free LNAPL (free product) was measured in monitoring well MW-3 in the former UST vicinity during the July, 2016 monitoring event.

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 *Tier 2 Interactive Tool, Table T2-1: Tier 2 ESL Input and Output, User's Guide: Derivation and Application of Environmental screening Levels (ESLs)*, Interim Final, February 2016. 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.

TPH-g was detected in concentrations exceeding its non-drinking water ESL of 440 µg/L in the groundwater sample from MW-3 collected during this monitoring event, at a maximum concentration of 7,900 µg/L. TPH-ms also exceeded its non-drinking water ESL of 640 µg/L in monitoring well MW-3, at a concentration of 2,700 µg/L in; 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 1,600 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 9.7 µg/L and exceeded its vapor intrusion ESL of 9.7 µg/L in one sample, at a concentration of 2,000 µg/L in MW-3. Toluene exceeded its non-drinking water ESL of 130 µg/L in one sample, at a concentration of 220 µg/L in MW-3. Toluene was not detected above the commercial/industrial vapor intrusion ESL for toluene of 30,000 µg/L. Ethylbenzene was detected at a concentration exceeding its non-drinking water ESL of 43 µg/L and exceeding its vapor intrusion ESL of 110 µg/L in the groundwater sample from monitoring well MW-3, at a concentration of 430 µg/L. Total xylenes were detected at concentrations exceeding its non-drinking water ESL of 100 µg/L in the monitoring well MW-3 groundwater sample, at a concentration of 820 µg/L. However, none of the groundwater samples exceeded the commercial/industrial vapor intrusion ESL 11,000 µg/L.

MTBE was not detected above its non-drinking water ESL of 1,800 µg/L. MTBE did not exceed its vapor intrusion ESL of 11,000 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 the groundwater sample from MW-3 at a concentration of 110 µg/L. 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 (MW-3) at a concentration of 250 µg/L; naphthalene also exceeded its vapor intrusion ESL of 170 µg/L in the groundwater sample from monitoring well MW-3. No other COCs were detected in groundwater samples analyzed in this investigation at concentrations exceeding established applicable 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 observed in well MW-3 during this quarter. A passive 0.125-liter passive product skimming device was reinstalled in the monitoring well.

The chlorinated solvents, 1,1-dichloroethene, 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.

Overall, concentrations of COCs detected in groundwater samples during this monitoring event, with the exception of TPH-d, have declined significantly since the previous February 2015 sampling event. 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. TPH-g, TPH-d, BTEX, MTBE and naphthalene concentration graphs are included in Appendix D.

IX. CONCLUSIONS

AllWest collected groundwater samples from four 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. Measurable free product thickness was observed in well MW-3 during this quarter. A passive 0.125-liter passive product skimming device was reinstalled in the monitoring well.

TPH-g, TPH-ms, TPH-d, benzene, toluene, ethylbenzene, total xylenes, 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.

AllWest concludes 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. 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 south of 67th Street has not been fully defined. The chlorinated solvents, 1,1-dichloroethene, and TCE, detected in monitoring wells AMW-1 and AMW-3, do not appear to have originated from the subject site. As shown in the Appendix D graphs, contaminant concentrations generally show stable and or diminishing concentrations over time.

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. 16040.28

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. 16040.28

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
MW-3	**7/14/2016**	**25.55**	**26.00**	**8.37**	**0.02**	**17.20**
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-1	**7/14/2016**	**22.09**	**22.54**	**8.82**	**0.00**	**13.27**

TABLE 2

Summary of Groundwater Elevation Data

Former McGrath Steel

6655 Hollis Street

Emeryville, California

AllWest Project No. 16040.28

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	8/7/2013	23.43	23.73	9.96	0.00	13.47
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-2	**7/14/2016**	**23.43**	**23.73**	**9.53**	**0.00**	**13.90**
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
AMW-3	**7/14/2016**	**25.16**	**25.50**	**8.47**	**0.00**	**16.69**

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. 16040.28

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**	NA	**3,100**	**3,800**	**1,100**	**4,700**	**7,200**	Oxygenates - ND (varies)
qualifiers				L,Y							
MW-3	12/20/2005	**54,000**	NA	**2,600**	NA	**6,000**	**10,000**	**1,700**	**9,600**	**12,000**	Oxygenates - ND (varies)
qualifiers				L,Y							
MW-3	8/2/2012	**27,000**	**14,000**	**33,000**	680	**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)
qualifiers			d1	e4, e2	e4, e2						
MW-3	12/18/2012	**21,000**	**12,000**	**2,600**	ND <250	**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)
qualifiers			d1	e4	e4						
MW-3	6/27/2013	**18,000**	NA	**2,300**	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 (others - varies)
qualifiers				e4							
MW-3	8/7/2013	**130,000**	**54,000**	**24,000**	NA	**9,800**	**16,000**	**4,200**	**24,000**	**6,300**	1,100 (naphthalene) 5,200 (1,2,4-trimethylbenzene) 620 (n-propyl benzene) 1,500 (1,3,5-trimethylbenzene) ND (others - varies)
qualifiers		d1, b6	d1, b6	e4, b6		b6, c8	b6, c8	b6, c8	b6, c8	b6, c8	b6, c8
MW-3	11/6/2013	**49,000**	**19,000**	**6,400**	NA	**3,200**	**4,900**	**2,100**	**11,000**	**2,600**	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) ND (others - varies)
qualifiers		d1, b6	d1, b6	e4		c8	c8	c8	c8	c8	c8
MW-3	3/19/2014	**87,000**	**40,000**	**11,000**	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) ND (Others - varies)
qualifiers		d1	d1	e4							
MW-3	6/20/2014	**54,000**	**26,000**	12,000	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) ND (Other-varies)
qualifiers		d1	d1	e4							
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) ND (Other-varies)
qualifiers		d1	d1	e4							

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 16040.28

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	7/14/2016	**7,900**	**2,700**	**1,600**	NA	**2,000**	**220**	**430**	**820**	790	t-Butyl alcohol: 1,000 Naphthalene: 170 n-propyl benzene: 91 1,2,3-trimethylbenzene: 280 1,3,5- trimethylbenzene: 71
qualifiers			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 (Other-varies)
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 (Other-varies)
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 (Other-varies)
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 (Other-varies)
AMW-1	7/14/2016	ND (<50)	ND (<50)	ND (<50)	NA	ND (<2.5)	ND (<2.5)	ND (<2.5)	2.8	ND (<2.5)	t-Butyl alcohol: 82 1,1-dichloroethane: 2.9 Trichloroethane: 9.4
qualifiers			c4,S								
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 (Other-varies)
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 (Other-varies)
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 (Other-varies)
qualifiers		d1	d1	e4							

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 16040.28

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-2	6/20/2014	370	270	110	NA	**22**	ND <5.0	11	44	380	8.4 (naphthalene) 40 (1,2,4-trimethylbenzene) ND (Other-varies)
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 (Other-varies)
qualifiers		d1	d1								
AMW-2	7/14/2016	92	ND (<50)	ND (<50)	NA	ND (<12)	ND (<12)	ND (<12)	ND (<12)	360	ND (others, reporting limits vary)
qualifiers			d1								
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 (Other-varies)
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 (Other-varies)
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 (Other-varies)
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 (Other-varies)
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 (Other-varies)
qualifiers		d1, c4	d1, c4	e4							
AMW-3	7/14/2016	210	ND (<50)	66	NA	5.4	ND (<5.0)	12	24	ND (<5.0)	1,1-Dichloroethene: 120 Naphthalene: 5.1 n-Propyl benzene: 6.3 Trichloroethene: 18 1,2,4-Trimethylbenzene: 10
qualifiers			d1, c4,5	e4							

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 16040.28

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)
SB-26	2/4/2016	**1,700**	NA	NA	NA	**310**	**300**	**85**	**370**	170	7.9 (Naphthalene) 7.8 (n-Propyl benzene) 18 (TCE) 67 (1,2,4-Trimethylbenzene) 21 (1,3,5-Trimethylbenzene) ND (other, varies)
SFRWQCB Commercial/Industrial ESLs, drinking water*		100 ON	100 ON	100 ON	50,000 GC	1.0 DE	40 DE/ON	30 DE/ON	20 DE/ON	5.0 DE/ON	0.5 (1,2-DCA) DE 12 (TBA) DE 5.0 (PCE) DE 5.0 (TCE) DE 0.5 (1,3-dichloropropene) DE 0.17 (naphthalene) DE 5.0 (1,1-dichloroethane)DE 3.2 (1,1-dichloroethene) AHG 62 (1,1,1-trichloroethane) AHG NE or varies (others)
RWQCB Commercial/Industrial ESLs, non-drinking water*		440 AHG	640 AHG	640 AHG	50,000 GC	9.7 VI	130 AHG	43 AHG	100 AHG	1,800 ON	53 (1,2-DCA) VI 18,000 (TBA) AHG 8.9 (PCE) AHG 49 (TCE) VI 33 (1,3-dichloropropene) VI 24 (naphthalene) AHG 47 (1,1-dichloroethane) AHG 3.2 (1,1-dichloroethene) AHG 62 (1,1,1-trichloroethane) NE or vary (others)
RWQCB Commercial/Industrial ESLs, vapor intrusion		NE	NE	NE	NE	9.7 VI	30,000 VI	110 VI	11,000 VI	11,000 VI	53 (1,2-DCA) VI 26 (PCE) VI 49 (TCE) VI 33 (1,3-dichloropropene) VI 170 (Naphthalene) VI 180 (1,1-dichlororethane) VI 1,400 (1,1-dichloroethene) VI 42,000 (1,1,1-TCA) VI 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
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

TABLE 3
Summary of Groundwater Analytical Data
Total Petroleum Hydrocarbons and VOCs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 16040.28

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)

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

ESL Qualifiers:
DE - Direct Exposure
ON - Odor/Nuisance
GC - Gross Contamination
VI - Vapor Intrusion
AGH - Aquatic Habitat Goal

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 GW-*1 User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - February 2016, Revision 3 (May 23, 2016).

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 GW-2, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - February 2016, Revision 3 (May 23, 2016).

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 GW-3, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - February 2016, Revision 3 (May 23, 2016).

* 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.

TABLE 4
Summary of Groundwater Analytical Data
PNAs/PAHs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 16040.28

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								
MW-3	7/14/2016	ND (<5.0)	ND (<5.0)	66	**110**	**250**	ND (<5.0)	ND (<5.0)	ND (<5.0)
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-1	7/14/2016	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-2	7/14/2016	ND (<0.50)	ND (<0.50)	0.56	0.77	3.1	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
AMW-3	7/14/2016	ND (<0.50)	ND (<0.50)	0.96	0.95	4.5	ND (<0.50)	ND (<0.50)	ND (<0.50)
RWQCB Commercial/Industrial ESLs, drinking water*		0.027 AHG	8.0 AHG	NE	2.1 AHG	0.17 DE	4.6 AHG	2.0 AHG	Vary
RWQCB Commercial/Industrial ESLs, non-drinking water*		0.027 AHG	8.0 AHG	NE	2.1 AHG	24 AHG	4.6 AHG	2.0 AHG	Vary
RWQCB Commercial/Industrial ESLs, vapor intrusion		NE	NE	NE	NE	170 VI	NE	NE	Vary

TABLE 4
Summary of Groundwater Analytical Data
PNAs/PAHs
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 16040.28

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

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.

ESL Qualifiers:
DE - Direct Exposure
ON - Odor/Nuisance
GC - Gross Contamination
VI - Vapor Intrusion
AGH - Aquatic Habitat Goal

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 GW-1, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - February 2016, Revision 3 (May 23, 2016).

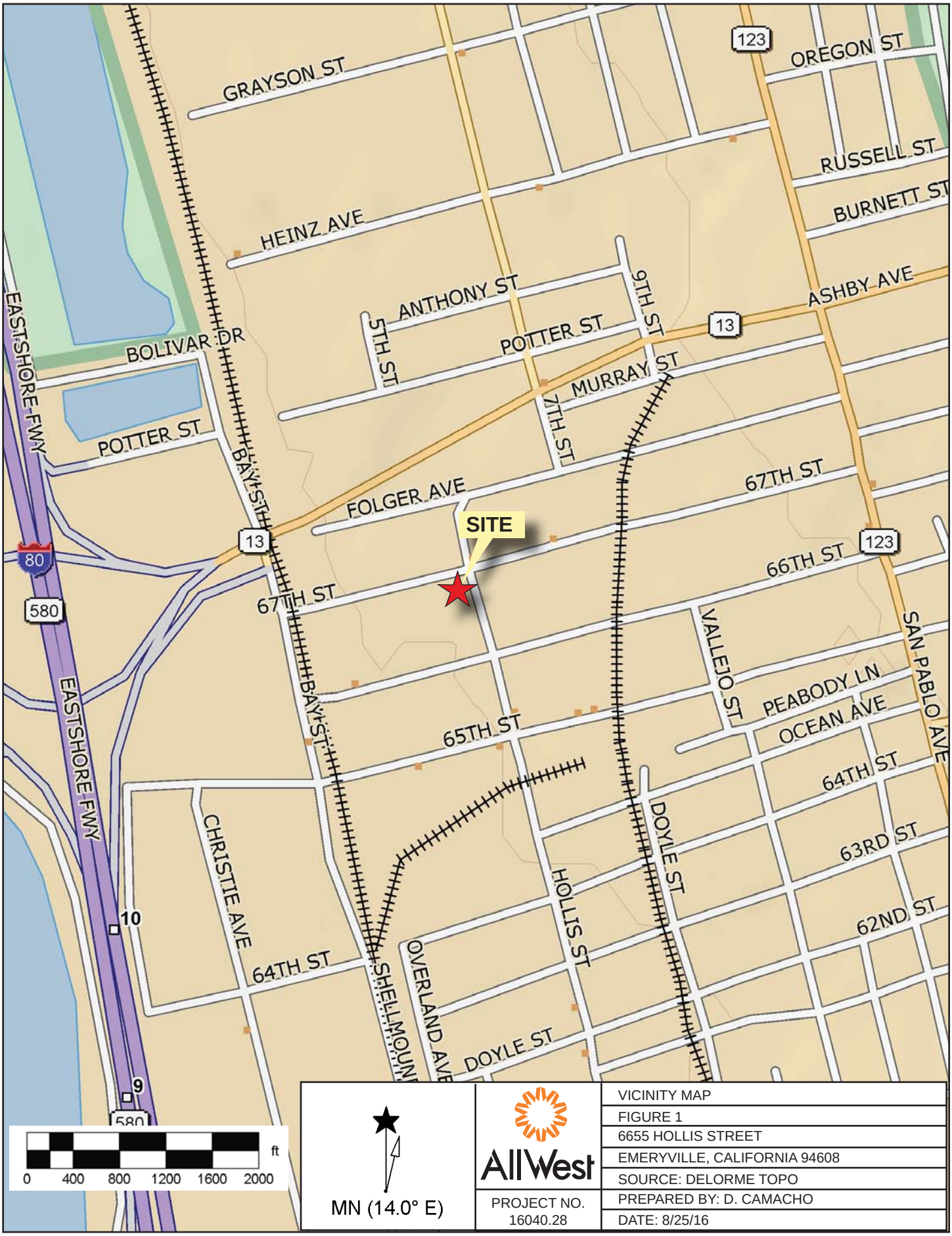
San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is not a potential drinking water resource from Table GW-2, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - February 2016, Revision 3 (May 23, 2016).

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 GW-3, *User's Guide: Derivation and Application of Environmental Screening Levels,* RWQCB, Interim Final - February 2016, Revision 3 (May 23, 2016).

FIGURES

DELORME

Topo USA® 8



AllWest

PROJECT NO. 16040.28

VICINITY MAP
FIGURE 1
6655 HOLLIS STREET
EMERYVILLE, CALIFORNIA 94608
SOURCE: DELORME TOPO
PREPARED BY: D. CAMACHO
DATE: 8/25/16

C:\Drawing Files\AllWest Environmental\16040.28\16040.28 Fig 2. Site Plan With Boring & SVP Locations - 08/23/2016

RAIL TRACKS

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.

67th STREET

HOLLIS STREET

GATE

GATE

DRIVEWAY

DRIVEWAY

MW-1

MW-2

MW-3

AMW-1

AMW-2

AMW-3

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

FORMER USTs

FORMER FUEL DISPENSER

SB-26

SVP-1 SVP-2 SVP-3 SVP-4 SVP-5 SVP-6 SVP-7 SVP-8 SVP-9 SVP-10 SVP-11 SVP-12 SVP-13 SVP-14 SVP-15 SVP-16

CMC REBAR (FORMER McGRATH STEEL) 6655 Hollis St.

STORAGE

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

ROLLER PRESS 6647 Hollis St.

MENUS & MUSIC 1462 66th St

METALCO

METALCO 1475 67th St.

ARCHITECTURAL METAL WORKS 1483 67th St.

ENGINEWORLD 1487 67th St.

ENGINEWORLD

ENGINEWORLD

RGA

LEGEND

SVP-12	Semi-Permanent Sub-Slab Vapor Probe (AllWest, May 2016)
SVP-1	Soil Boring-Vapor Probe (AllWest, February, 2016)
SVP-7	Temporary Sub-Slab Soil Vapor Probe (AllWest, February, 2016)
MW-2	Monitoring Well (Clearprint/ESC - Destroyed, 2005)
MW-3	Monitoring Well (Clearprint/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 (Weiss Associates, January 16, 17, & 18, 2013)
SB-26	Soil Boring (AllWest, February 4, 2016)
	Former USTs, Fuel Dispensers (Removed 1994 & 1996)
x	Fence

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 16040.28

FIGURE 2

SITE PLAN WITH BORING, WELL AND SOIL VAPOR PROBE LOCATIONS

Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (8/23/2016)

C:\Drawing Files\AllWest Environmental\16040.28\16040.28 Fig 3. GW Elevation Contours July 14, 2016 - 08/23/2016

RAIL TRACKS

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.

67th STREET

HOLLIS STREET

MW-1

MW-2

MW-3 17.20

AMW-1 13.27

AMW-2 13.90

AMW-3 16.69

GATE

GATE

DRIVEWAY

DRIVEWAY

FORMER USTs

FORMER USTs

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

SB-26

13.50 14.50 15.50 16.50 ?

APPARENT GROUNDWATER FLOW
AVERAGE GRADIENT = 0.0167 ft/ft

ARCHITECTURAL METAL WORKS 1483 67th St.

ENGINEWORLD 1487 67th St.

ENGINEWORLD

ENGINEWORLD

METALCO

METALCO 1475 67th St.

CMC REBAR (FORMER McGRATH STEEL) 6655 Hollis St.

FORMER FUEL DISPENSER

STORAGE

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

ROLLER PRESS 6647 Hollis St.

MENUS & MUSIC 1462 66th St

RGA

LEGEND

- MW-2 Monitoring Well (Clearprint/ESC - Destroyed, 2005)
- MW-3 Monitoring Well (Clearprint/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 (Weiss Associates, January 16, 17, & 18, 2013)
- SB-26 Soil Boring (AllWest, February 4, 2016)

- 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. 16040.28

FIGURE 3
GROUNDWATER ELEVATION CONTOURS JULY 14, 2016

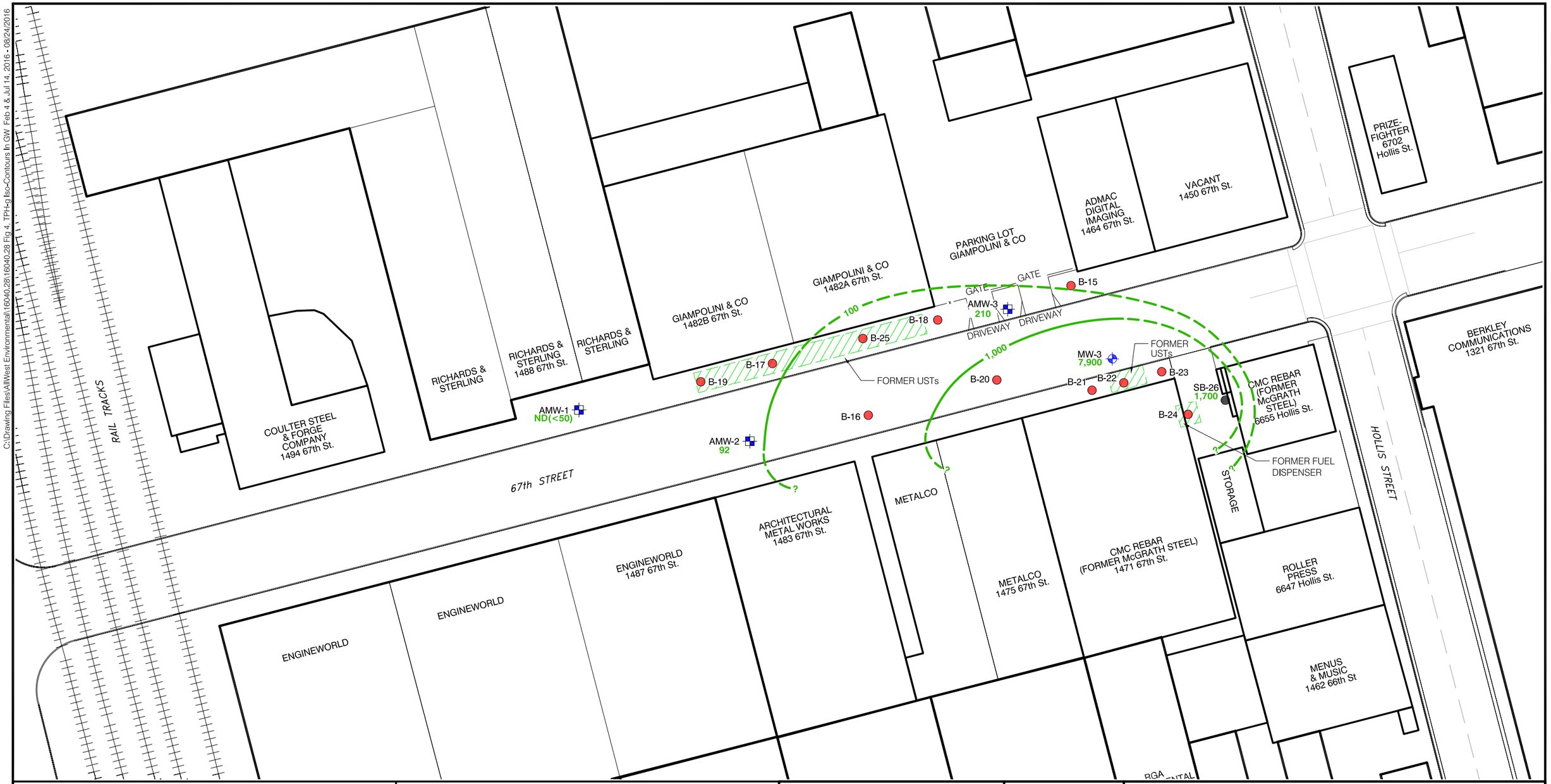
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (8/23/2016)

C:\Drawing Files\AllWest Environmental\16040.28\16040.28 Fig 4, TPH-g Isoc-Contours In GW Feb 4 & Jul 14, 2016 - 08/24/2016



LEGEND

MW-3 7,900	Monitoring Well (ESC, 1995) With TPH-g Concentration in Micrograms per Liter (µg/L) - Dashed Where Inferred
AMW-3 92	Monitoring Well (AllWest, 2013) With TPH-g Concentration in Micrograms per Liter (µg/L) - Dashed Where Inferred
B-25	Soil Boring (January 16, 17, & 18, 2013)
SB-26 1,700	Soil Boring; Grab Groundwater Sample, Collected 2/4/2016
	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. 16040.28

FIGURE 4
TPH-g ISOCONCENTRATION CONTOURS IN GROUNDWATER FEBRUARY 4 AND JULY 14, 2016

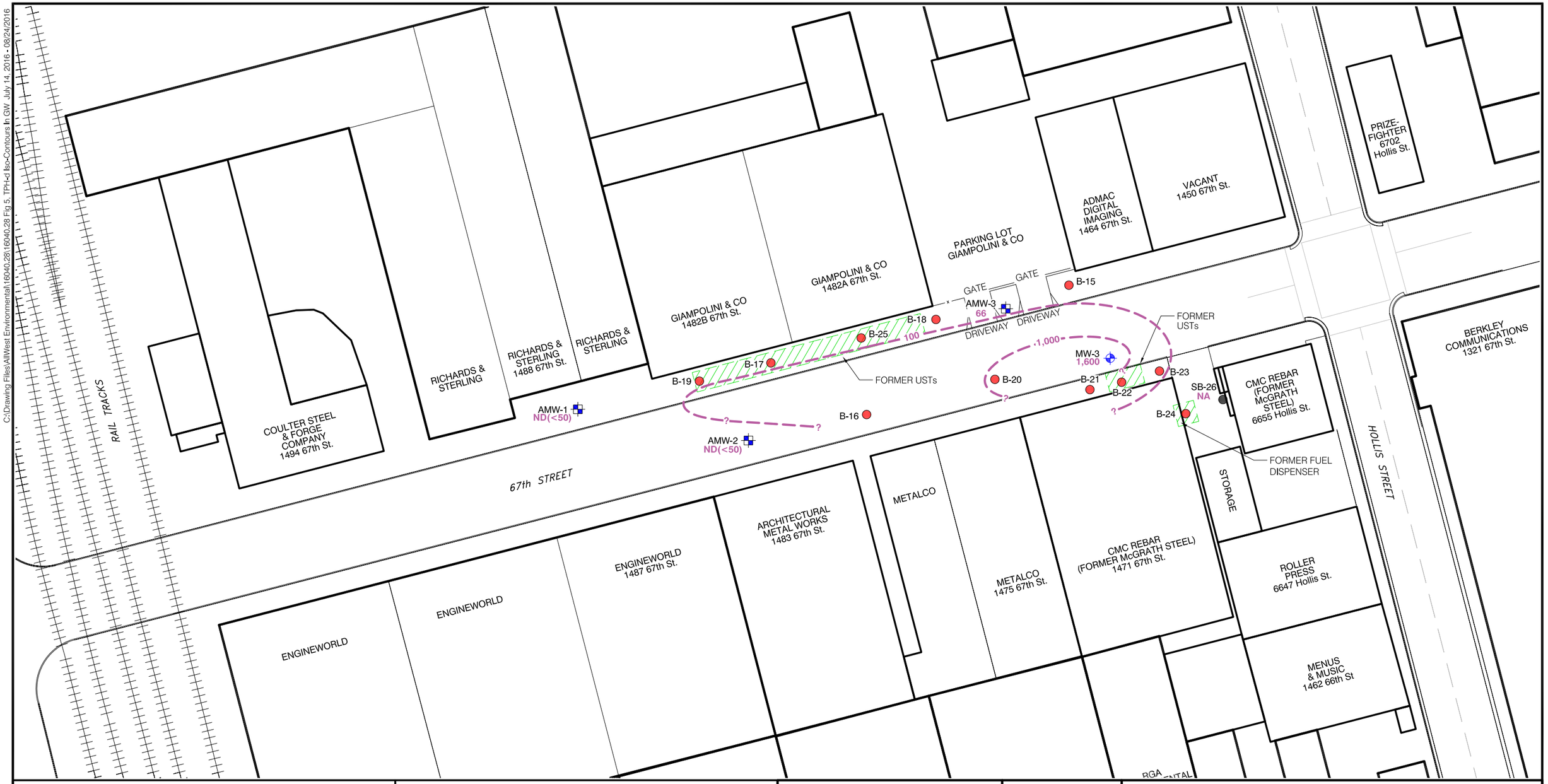
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (8/24/2016)

C:\Drawing Files\AllWest Environmental\16040.28\16040.28 Fig 5. TPH-d Iso-Contours In GW July 14, 2016 - 08/24/2016



LEGEND

MW-3 1,600	Monitoring Well (ESC, 1995) With TPH-d Concentration in Micrograms per Liter (µg/L) - Dashed Where Inferred
AMW-3 66	Monitoring Well (AllWest, 2013) With TPH-d Concentration in Micrograms per Liter (µg/L) - Dashed Where Inferred
B-25	Soil Boring (January 16, 17, & 18, 2013)
SB-26 NA	Soil Boring; Grab Groundwater Sample, Collected 2/4/2016 Not Analyzed For TPH-d

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. 16040.28

FIGURE 5
TPH-d ISOCONCENTRATION CONTOURS IN GROUNDWATER JULY 14, 2016

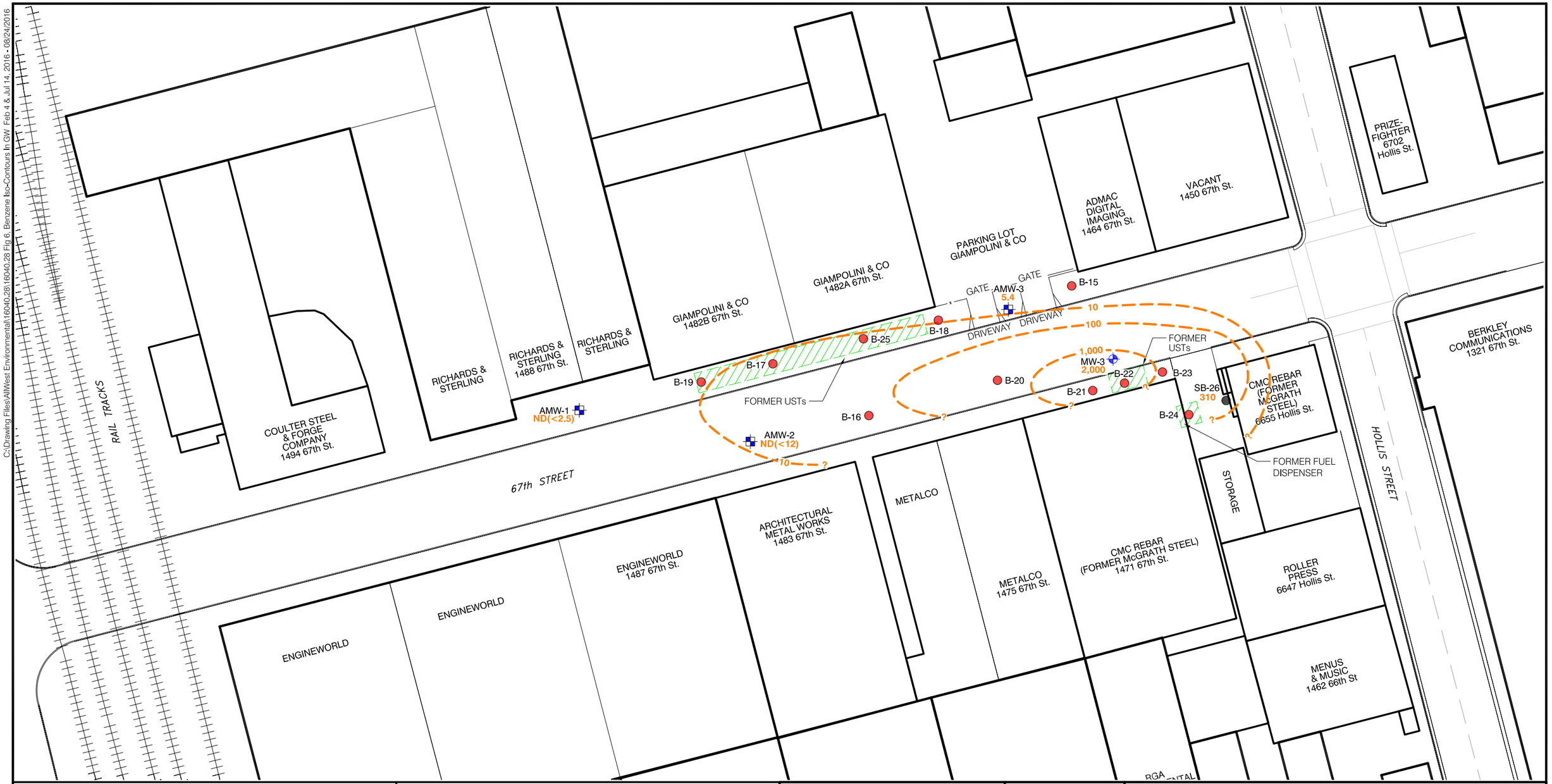
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (8/24/2016)

C:\Drawing Files\AllWest Environmental\16040.28\16040.28 Fig 6, Benzene Isoc-Contours In GW Feb 4 & Jul 14, 2016 - 08/24/2016



LEGEND

- MW-3 2,000 — Monitoring Well (ESC, 1995) With Benzene Concentration in Micrograms per Liter (µg/L) - Dashed Where Inferred
- AMW-3 5.4 — Monitoring Well (AllWest, 2013) With Benzene Concentration in Micrograms per Liter (µg/L) - Dashed Where Inferred
- B-25 — Soil Boring (January 16, 17, & 18, 2013)
- SB-26 310 — Soil Boring; Grab Groundwater Sample, Collected 2/4/2016
- 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. 16040.28

FIGURE 6
BENZENE ISOCONCENTRATION CONTOURS IN GROUNDWATER FEBRUARY 4 AND JULY 14, 2016

Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (8/24/2016)

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

PURGE TABLE

WELL ID: AMW-1
Page 1 of 1

SITE NAME: Former McGrath Steel	LOCATION: 6655 Hollis St, Emeryville
PROJECT NO: 160401.28	DATE PURGED: 7/14/16
PURGED/SAMPLED BY: Leonard Niles	DATE SAMPLED: 7/14/16
TIME SAMPLED: 17:08	DEPTH TO BOTTOM (feet): 23.43
DEPTH TO WATER (feet): 8.82 @9:14	WATER COLUMN HEIGHT (feet): 14.61
CALCULATED PURGE (gallons): 7.01	CASING VOLUME (gallons): 2.34
ACTUAL PURGE (gallons) 7.0	x3 volumes

DEVELOPMENT ____ QUARTERLY ____ BIANNUAL X OTHER ____

SAMPLE TYPE: Groundwater X Surface Water ____ Other ____

CASING DIAMETER: 2" X3 (0.16) 3" ____ (0.38) 4" ____ (0.66)
Casing Volume (gallons per foot): 1.6" ID PE disposable bailer x36" = 0.25 gal

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (umhos/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
0.25	16:39	21.8	6.60	1,130	—	silty
2.5	16:47	22.3	6.61	1,146	—	silty
5.0	16:55	21.8	6.62	1,115	—	silty
7.0	17:02	21.6	6.61	1,142	—	silty

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 8.95 Analyses: ____
80% RECHARGE: (Y)N (11.74) SAMPLE TURBIDITY: ____
ODOR: no SAMPLE BOTTLE/PRESERVATIVE: ____

PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: ____

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

SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: ____

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

Comments: Unlocked

AllWest

PURGE TABLE

WELL ID: AMW-2
Page 1 of 1

SITE NAME: Former McGrath Steel	LOCATION: 6655 Hollis St, Emeryville
PROJECT NO: 16040.28	DATE PURGED: 7/14/16
PURGED/SAMPLED BY: Leonard Niles	DATE SAMPLED: 7/14/16
TIME SAMPLED: 11:13	DEPTH TO BOTTOM (feet): 29.90
DEPTH TO WATER (feet): 9.53 @9:18	WATER COLUMN HEIGHT (feet): 20.37
CALCULATED PURGE (gallons): 9.78	CASING VOLUME (gallons): 3.26
ACTUAL PURGE (gallons) 9.75	X3 volumes

DEVELOPMENT ____ QUARTERLY ____ BIANNUAL X OTHER ____

SAMPLE TYPE: Groundwater X Surface Water ____ Other ____

CASING DIAMETER: 2" X3 (0.16) 3" ____ (0.38) 4" ____ (0.66)
Casing Volume (gallons per foot): 1.6" ID PE disposable bailer x 36" = 0.25 gal

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (umhos/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
0.25	10:34	21.8	6.32	1,492	—	cloudy
3.25	10:45	21.1	6.50	1,525	—	grey, silty
6.5	10:55	21.3	6.50	1,540	—	grey, silty
9.75	11:05	20.7	6.47	1,581	—	grey, silty
					1x1LA non-pres = PAHs	
					1x1LA w/HCl = TPHd	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 10.11 Analyses: 2x VOAs w/HCl = VOCs, 2x VOAs w/HCl = TPHg TPHmo
80% RECHARGE: Y/N (13.60) SAMPLE TURBIDITY: cloudy
ODOR: none SAMPLE BOTTLE/PRESERVATIVE: 4x VOAs w/HCl, 1x1LA w/HCl, 1x1LA non-preserved

PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: ____

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

SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: ____

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

Comments: Dolphin lock on cap, unlocked.
Did not bail dry

AllWest

PURGE TABLE

WELL ID: AMW-3
Page 1 of 1

SITE NAME: Former McGrath Steel	LOCATION: 6655 Hollis St., Emeryville
PROJECT NO: 160420.28	DATE PURGED: 7/14/16
PURGED/SAMPLED BY: Leonard Niles	DATE SAMPLED: 7/14/16
TIME SAMPLED: 15:58 ~~@ 9:23~~	DEPTH TO BOTTOM (feet): 22.22
DEPTH TO WATER (feet): 8.47 @ 9:23	WATER COLUMN HEIGHT (feet): 13.75
CALCULATED PURGE (gallons): 6.6	CASING VOLUME (gallons): 2.20
ACTUAL PURGE (gallons) 6.75	X3 volumes

DEVELOPMENT ____ QUARTERLY ____ BIANNUAL X OTHER ____

SAMPLE TYPE: Groundwater X Surface Water ____ Other ____

CASING DIAMETER: 2" X3 3" ____ 4" ____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

1.6" ID PE disposable bailer x 36" = 0.25 gal

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (umhos/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
0.25	15:27	20.9	6.61	1,241	—	cloudy
2.25	15:37	21.0	6.59	1,065	—	cloudy, grey
4.5	15:43	21.5	6.61	997	—	silty, grey
6.75	15:51	21.6	6.61	985	—	silty, grey

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 8.61 Analyses: VOCs, TPH-g/ms, TPH-d, PAHs
80% RECHARGE: Y/N (11.22) SAMPLE TURBIDITY: cloudy to silty, grey
ODOR: no SAMPLE BOTTLE/PRESERVATIVE: 4x VOAs w/HCl, 1x 1LAm/HCl, 1x 1LA unpreserved

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

Comments: Unlocked. Vault box flooded, bailed out. Did not bail dry, recovered quickly

AllWest

PURGE TABLE

WELL ID: MW-3
Page 1 of 1

SITE NAME: Former McGrath Steel	LOCATION: 6655 Hollis St, Emeryville
PROJECT NO: 16040.28	DATE PURGED: 7/14/16
PURGED/SAMPLED BY: Leonard Niles	DATE SAMPLED: 7/14/16
TIME SAMPLED: 13:15	DEPTH TO BOTTOM (feet): 29.50
DEPTH TO WATER (feet): Product-8.35 ✓ water-8.37 @9:28	WATER COLUMN HEIGHT (feet): 21.13
CALCULATED PURGE (gallons): 10.14	CASING VOLUME (gallons): 3.38
ACTUAL PURGE (gallons) 10.25	X 3 volumes

DEVELOPMENT ____ QUARTERLY ____ BIANNUAL X OTHER ____

SAMPLE TYPE: Groundwater X Surface Water ____ Other ____

CASING DIAMETER: 2" X 3 (0.16) 3" ____ (0.38) 4" ____ (0.66)
Casing Volume (gallons per foot): 1.6" ID x 36" disp PE bailer = 0.25 gal

FIELD MEASUREMENTS

VOLUME (gal)	TIME	TEMP (degrees C)	PH (units)	CONDUCTIVITY (umhos/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)
0.25	11:45	20.5	6.37	1,572	—	cloudy droplets
3.5	12:07	20.3	6.38	1,595	—	grey, silty
7.0	12:23	20.3	6.40	1,580	—	grey, silty
10.25	12:39	20.1	6.41	1,594	—	grey, silty

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 12.60' Analyses: VOCs, TPH-g/TPH-ms, TPH-d/PAHs
80% RECHARGE: Y/N (12.60') SAMPLE TURBIDITY: cloudy, grey
ODOR: HC, strong SAMPLE BOTTLE/PRESERVATIVE: 4x 40ml VOA w/HCl, 1x 1LA w/HCl, 1x 1LA non-preserved

PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: ____

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

SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: ____

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

Comments: unlocked vault box partially flooded - conduit bent. Gasoline odor in well. 0.02 ft free product in well. ~0.01 ft product in bailer - brown, HC odor, droplets in water, slow water level recovery after purging, did not bail dry. No measureable product thickness post-purge. Installed passive canister product skimmer after sampling, 7.5 ft of cable from TOC, float travel 7.5-10 ft below TOC

APPENDIX C

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1607641

Report Created for: All West Environmental, Inc

2141 Mission Street, Ste 100
San Francisco, CA 94110

Project Contact: Leonard Niles
Project P.O.:
Project Name: Holllis- GWM 2016

Project Received: 07/15/2016

Analytical Report reviewed & approved for release on 07/22/2016 by:

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: 16040.28; Hollis-GWM 2016
WorkOrder: 1607641

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
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
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
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
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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WorkOrder: 1607641

Analytical Qualifiers

S	Surrogate spike recovery outside accepted recovery limits
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.

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validated the prep batch.

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/21/16	**Analytical Method:**	SW8260B
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-1	1607641-001B	Water	07/14/2016 17:08	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	50	5	07/21/2016 12:30
tert-Amyl methyl ether (TAME)	ND	2.5	5	07/21/2016 12:30
Benzene	ND	2.5	5	07/21/2016 12:30
Bromobenzene	ND	2.5	5	07/21/2016 12:30
Bromochloromethane	ND	2.5	5	07/21/2016 12:30
Bromodichloromethane	ND	2.5	5	07/21/2016 12:30
Bromoform	ND	2.5	5	07/21/2016 12:30
Bromomethane	ND	2.5	5	07/21/2016 12:30
2-Butanone (MEK)	ND	10	5	07/21/2016 12:30
t-Butyl alcohol (TBA)	**82**	10	5	07/21/2016 12:30
n-Butyl benzene	ND	2.5	5	07/21/2016 12:30
sec-Butyl benzene	ND	2.5	5	07/21/2016 12:30
tert-Butyl benzene	ND	2.5	5	07/21/2016 12:30
Carbon Disulfide	ND	2.5	5	07/21/2016 12:30
Carbon Tetrachloride	ND	2.5	5	07/21/2016 12:30
Chlorobenzene	ND	2.5	5	07/21/2016 12:30
Chloroethane	ND	2.5	5	07/21/2016 12:30
Chloroform	ND	2.5	5	07/21/2016 12:30
Chloromethane	ND	2.5	5	07/21/2016 12:30
2-Chlorotoluene	ND	2.5	5	07/21/2016 12:30
4-Chlorotoluene	ND	2.5	5	07/21/2016 12:30
Dibromochloromethane	ND	2.5	5	07/21/2016 12:30
1,2-Dibromo-3-chloropropane	ND	1.0	5	07/21/2016 12:30
1,2-Dibromoethane (EDB)	ND	2.5	5	07/21/2016 12:30
Dibromomethane	ND	2.5	5	07/21/2016 12:30
1,2-Dichlorobenzene	ND	2.5	5	07/21/2016 12:30
1,3-Dichlorobenzene	ND	2.5	5	07/21/2016 12:30
1,4-Dichlorobenzene	ND	2.5	5	07/21/2016 12:30
Dichlorodifluoromethane	ND	2.5	5	07/21/2016 12:30
1,1-Dichloroethane	**2.9**	2.5	5	07/21/2016 12:30
1,2-Dichloroethane (1,2-DCA)	ND	2.5	5	07/21/2016 12:30
1,1-Dichloroethene	**62**	2.5	5	07/21/2016 12:30
cis-1,2-Dichloroethene	ND	2.5	5	07/21/2016 12:30
trans-1,2-Dichloroethene	ND	2.5	5	07/21/2016 12:30
1,2-Dichloropropane	ND	2.5	5	07/21/2016 12:30
1,3-Dichloropropane	ND	2.5	5	07/21/2016 12:30
2,2-Dichloropropane	ND	2.5	5	07/21/2016 12:30

(Cont.)

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Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-1	1607641-001B	Water	07/14/2016 17:08	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	2.5	5	07/21/2016 12:30
cis-1,3-Dichloropropene	ND	2.5	5	07/21/2016 12:30
trans-1,3-Dichloropropene	ND	2.5	5	07/21/2016 12:30
Diisopropyl ether (DIPE)	ND	2.5	5	07/21/2016 12:30
Ethylbenzene	ND	2.5	5	07/21/2016 12:30
Ethyl tert-butyl ether (ETBE)	ND	2.5	5	07/21/2016 12:30
Freon 113	ND	2.5	5	07/21/2016 12:30
Hexachlorobutadiene	ND	2.5	5	07/21/2016 12:30
Hexachloroethane	ND	2.5	5	07/21/2016 12:30
2-Hexanone	ND	2.5	5	07/21/2016 12:30
Isopropylbenzene	ND	2.5	5	07/21/2016 12:30
4-Isopropyl toluene	ND	2.5	5	07/21/2016 12:30
Methyl-t-butyl ether (MTBE)	ND	2.5	5	07/21/2016 12:30
Methylene chloride	ND	2.5	5	07/21/2016 12:30
4-Methyl-2-pentanone (MIBK)	ND	2.5	5	07/21/2016 12:30
Naphthalene	ND	2.5	5	07/21/2016 12:30
n-Propyl benzene	ND	2.5	5	07/21/2016 12:30
Styrene	ND	2.5	5	07/21/2016 12:30
1,1,1,2-Tetrachloroethane	ND	2.5	5	07/21/2016 12:30
1,1,2,2-Tetrachloroethane	ND	2.5	5	07/21/2016 12:30
Tetrachloroethene	ND	2.5	5	07/21/2016 12:30
Toluene	ND	2.5	5	07/21/2016 12:30
1,2,3-Trichlorobenzene	ND	2.5	5	07/21/2016 12:30
1,2,4-Trichlorobenzene	ND	2.5	5	07/21/2016 12:30
1,1,1-Trichloroethane	ND	2.5	5	07/21/2016 12:30
1,1,2-Trichloroethane	ND	2.5	5	07/21/2016 12:30
Trichloroethene	**9.4**	2.5	5	07/21/2016 12:30
Trichlorofluoromethane	ND	2.5	5	07/21/2016 12:30
1,2,3-Trichloropropane	ND	2.5	5	07/21/2016 12:30
1,2,4-Trimethylbenzene	ND	2.5	5	07/21/2016 12:30
1,3,5-Trimethylbenzene	ND	2.5	5	07/21/2016 12:30
Vinyl Chloride	ND	2.5	5	07/21/2016 12:30
Xylenes, Total	**2.8**	2.5	5	07/21/2016 12:30

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-1	1607641-001B	Water	07/14/2016 17:08	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	99	70-130		07/21/2016 12:30
Toluene-d8	108	70-130		07/21/2016 12:30
4-BFB	85	70-130		07/21/2016 12:30

Analyst(s): MW

(Cont.)

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Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-2	1607641-002B	Water	07/14/2016 11:13	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	250	25	07/21/2016 13:11
tert-Amyl methyl ether (TAME)	ND	12	25	07/21/2016 13:11
Benzene	ND	12	25	07/21/2016 13:11
Bromobenzene	ND	12	25	07/21/2016 13:11
Bromochloromethane	ND	12	25	07/21/2016 13:11
Bromodichloromethane	ND	12	25	07/21/2016 13:11
Bromoform	ND	12	25	07/21/2016 13:11
Bromomethane	ND	12	25	07/21/2016 13:11
2-Butanone (MEK)	ND	50	25	07/21/2016 13:11
t-Butyl alcohol (TBA)	ND	50	25	07/21/2016 13:11
n-Butyl benzene	ND	12	25	07/21/2016 13:11
sec-Butyl benzene	ND	12	25	07/21/2016 13:11
tert-Butyl benzene	ND	12	25	07/21/2016 13:11
Carbon Disulfide	ND	12	25	07/21/2016 13:11
Carbon Tetrachloride	ND	12	25	07/21/2016 13:11
Chlorobenzene	ND	12	25	07/21/2016 13:11
Chloroethane	ND	12	25	07/21/2016 13:11
Chloroform	ND	12	25	07/21/2016 13:11
Chloromethane	ND	12	25	07/21/2016 13:11
2-Chlorotoluene	ND	12	25	07/21/2016 13:11
4-Chlorotoluene	ND	12	25	07/21/2016 13:11
Dibromochloromethane	ND	12	25	07/21/2016 13:11
1,2-Dibromo-3-chloropropane	ND	5.0	25	07/21/2016 13:11
1,2-Dibromoethane (EDB)	ND	12	25	07/21/2016 13:11
Dibromomethane	ND	12	25	07/21/2016 13:11
1,2-Dichlorobenzene	ND	12	25	07/21/2016 13:11
1,3-Dichlorobenzene	ND	12	25	07/21/2016 13:11
1,4-Dichlorobenzene	ND	12	25	07/21/2016 13:11
Dichlorodifluoromethane	ND	12	25	07/21/2016 13:11
1,1-Dichloroethane	ND	12	25	07/21/2016 13:11
1,2-Dichloroethane (1,2-DCA)	ND	12	25	07/21/2016 13:11
1,1-Dichloroethene	ND	12	25	07/21/2016 13:11
cis-1,2-Dichloroethene	ND	12	25	07/21/2016 13:11
trans-1,2-Dichloroethene	ND	12	25	07/21/2016 13:11
1,2-Dichloropropane	ND	12	25	07/21/2016 13:11
1,3-Dichloropropane	ND	12	25	07/21/2016 13:11
2,2-Dichloropropane	ND	12	25	07/21/2016 13:11

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AMW-2	1607641-002B	Water	07/14/2016 11:13	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	12	25	07/21/2016 13:11
cis-1,3-Dichloropropene	ND	12	25	07/21/2016 13:11
trans-1,3-Dichloropropene	ND	12	25	07/21/2016 13:11
Diisopropyl ether (DIPE)	ND	12	25	07/21/2016 13:11
Ethylbenzene	ND	12	25	07/21/2016 13:11
Ethyl tert-butyl ether (ETBE)	ND	12	25	07/21/2016 13:11
Freon 113	ND	12	25	07/21/2016 13:11
Hexachlorobutadiene	ND	12	25	07/21/2016 13:11
Hexachloroethane	ND	12	25	07/21/2016 13:11
2-Hexanone	ND	12	25	07/21/2016 13:11
Isopropylbenzene	ND	12	25	07/21/2016 13:11
4-Isopropyl toluene	ND	12	25	07/21/2016 13:11
Methyl-t-butyl ether (MTBE)	**360**	12	25	07/21/2016 13:11
Methylene chloride	ND	12	25	07/21/2016 13:11
4-Methyl-2-pentanone (MIBK)	ND	12	25	07/21/2016 13:11
Naphthalene	ND	12	25	07/21/2016 13:11
n-Propyl benzene	ND	12	25	07/21/2016 13:11
Styrene	ND	12	25	07/21/2016 13:11
1,1,1,2-Tetrachloroethane	ND	12	25	07/21/2016 13:11
1,1,2,2-Tetrachloroethane	ND	12	25	07/21/2016 13:11
Tetrachloroethene	ND	12	25	07/21/2016 13:11
Toluene	ND	12	25	07/21/2016 13:11
1,2,3-Trichlorobenzene	ND	12	25	07/21/2016 13:11
1,2,4-Trichlorobenzene	ND	12	25	07/21/2016 13:11
1,1,1-Trichloroethane	ND	12	25	07/21/2016 13:11
1,1,2-Trichloroethane	ND	12	25	07/21/2016 13:11
Trichloroethene	ND	12	25	07/21/2016 13:11
Trichlorofluoromethane	ND	12	25	07/21/2016 13:11
1,2,3-Trichloropropane	ND	12	25	07/21/2016 13:11
1,2,4-Trimethylbenzene	ND	12	25	07/21/2016 13:11
1,3,5-Trimethylbenzene	ND	12	25	07/21/2016 13:11
Vinyl Chloride	ND	12	25	07/21/2016 13:11
Xylenes, Total	ND	12	25	07/21/2016 13:11

(Cont.)

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-2	1607641-002B	Water	07/14/2016 11:13	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	97	70-130		07/21/2016 13:11
Toluene-d8	109	70-130		07/21/2016 13:11
4-BFB	83	70-130		07/21/2016 13:11

Analyst(s): MW

(Cont.)

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Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1607641-003B	Water	07/14/2016 13:15	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	1000	100	07/21/2016 13:53
tert-Amyl methyl ether (TAME)	ND	50	100	07/21/2016 13:53
Benzene	**2000**	50	100	07/21/2016 13:53
Bromobenzene	ND	50	100	07/21/2016 13:53
Bromochloromethane	ND	50	100	07/21/2016 13:53
Bromodichloromethane	ND	50	100	07/21/2016 13:53
Bromoform	ND	50	100	07/21/2016 13:53
Bromomethane	ND	50	100	07/21/2016 13:53
2-Butanone (MEK)	ND	200	100	07/21/2016 13:53
t-Butyl alcohol (TBA)	**1000**	200	100	07/21/2016 13:53
n-Butyl benzene	ND	50	100	07/21/2016 13:53
sec-Butyl benzene	ND	50	100	07/21/2016 13:53
tert-Butyl benzene	ND	50	100	07/21/2016 13:53
Carbon Disulfide	ND	50	100	07/21/2016 13:53
Carbon Tetrachloride	ND	50	100	07/21/2016 13:53
Chlorobenzene	ND	50	100	07/21/2016 13:53
Chloroethane	ND	50	100	07/21/2016 13:53
Chloroform	ND	50	100	07/21/2016 13:53
Chloromethane	ND	50	100	07/21/2016 13:53
2-Chlorotoluene	ND	50	100	07/21/2016 13:53
4-Chlorotoluene	ND	50	100	07/21/2016 13:53
Dibromochloromethane	ND	50	100	07/21/2016 13:53
1,2-Dibromo-3-chloropropane	ND	20	100	07/21/2016 13:53
1,2-Dibromoethane (EDB)	ND	50	100	07/21/2016 13:53
Dibromomethane	ND	50	100	07/21/2016 13:53
1,2-Dichlorobenzene	ND	50	100	07/21/2016 13:53
1,3-Dichlorobenzene	ND	50	100	07/21/2016 13:53
1,4-Dichlorobenzene	ND	50	100	07/21/2016 13:53
Dichlorodifluoromethane	ND	50	100	07/21/2016 13:53
1,1-Dichloroethane	ND	50	100	07/21/2016 13:53
1,2-Dichloroethane (1,2-DCA)	ND	50	100	07/21/2016 13:53
1,1-Dichloroethene	ND	50	100	07/21/2016 13:53
cis-1,2-Dichloroethene	ND	50	100	07/21/2016 13:53
trans-1,2-Dichloroethene	ND	50	100	07/21/2016 13:53
1,2-Dichloropropane	ND	50	100	07/21/2016 13:53
1,3-Dichloropropane	ND	50	100	07/21/2016 13:53
2,2-Dichloropropane	ND	50	100	07/21/2016 13:53

(Cont.)

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Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1607641-003B	Water	07/14/2016 13:15	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	50	100	07/21/2016 13:53
cis-1,3-Dichloropropene	ND	50	100	07/21/2016 13:53
trans-1,3-Dichloropropene	ND	50	100	07/21/2016 13:53
Diisopropyl ether (DIPE)	ND	50	100	07/21/2016 13:53
Ethylbenzene	**430**	50	100	07/21/2016 13:53
Ethyl tert-butyl ether (ETBE)	ND	50	100	07/21/2016 13:53
Freon 113	ND	50	100	07/21/2016 13:53
Hexachlorobutadiene	ND	50	100	07/21/2016 13:53
Hexachloroethane	ND	50	100	07/21/2016 13:53
2-Hexanone	ND	50	100	07/21/2016 13:53
Isopropylbenzene	ND	50	100	07/21/2016 13:53
4-Isopropyl toluene	ND	50	100	07/21/2016 13:53
Methyl-t-butyl ether (MTBE)	**790**	50	100	07/21/2016 13:53
Methylene chloride	ND	50	100	07/21/2016 13:53
4-Methyl-2-pentanone (MIBK)	ND	50	100	07/21/2016 13:53
Naphthalene	**170**	50	100	07/21/2016 13:53
n-Propyl benzene	**91**	50	100	07/21/2016 13:53
Styrene	ND	50	100	07/21/2016 13:53
1,1,1,2-Tetrachloroethane	ND	50	100	07/21/2016 13:53
1,1,2,2-Tetrachloroethane	ND	50	100	07/21/2016 13:53
Tetrachloroethene	ND	50	100	07/21/2016 13:53
Toluene	**220**	50	100	07/21/2016 13:53
1,2,3-Trichlorobenzene	ND	50	100	07/21/2016 13:53
1,2,4-Trichlorobenzene	ND	50	100	07/21/2016 13:53
1,1,1-Trichloroethane	ND	50	100	07/21/2016 13:53
1,1,2-Trichloroethane	ND	50	100	07/21/2016 13:53
Trichloroethene	ND	50	100	07/21/2016 13:53
Trichlorofluoromethane	ND	50	100	07/21/2016 13:53
1,2,3-Trichloropropane	ND	50	100	07/21/2016 13:53
1,2,4-Trimethylbenzene	**280**	50	100	07/21/2016 13:53
1,3,5-Trimethylbenzene	**71**	50	100	07/21/2016 13:53
Vinyl Chloride	ND	50	100	07/21/2016 13:53
Xylenes, Total	**820**	50	100	07/21/2016 13:53

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Angela Rydelius, Lab Manager

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/21/16	**Analytical Method:**	SW8260B
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1607641-003B	Water	07/14/2016 13:15	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	97	70-130		07/21/2016 13:53
Toluene-d8	109	70-130		07/21/2016 13:53
4-BFB	83	70-130		07/21/2016 13:53

Analyst(s): MW

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Analytical Report

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Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/21/16	**Analytical Method:**	SW8260B
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-3	1607641-004B	Water	07/14/2016 15:58	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	100	10	07/21/2016 15:56
tert-Amyl methyl ether (TAME)	ND	5.0	10	07/21/2016 15:56
Benzene	**5.4**	5.0	10	07/21/2016 15:56
Bromobenzene	ND	5.0	10	07/21/2016 15:56
Bromochloromethane	ND	5.0	10	07/21/2016 15:56
Bromodichloromethane	ND	5.0	10	07/21/2016 15:56
Bromoform	ND	5.0	10	07/21/2016 15:56
Bromomethane	ND	5.0	10	07/21/2016 15:56
2-Butanone (MEK)	ND	20	10	07/21/2016 15:56
t-Butyl alcohol (TBA)	ND	20	10	07/21/2016 15:56
n-Butyl benzene	ND	5.0	10	07/21/2016 15:56
sec-Butyl benzene	ND	5.0	10	07/21/2016 15:56
tert-Butyl benzene	ND	5.0	10	07/21/2016 15:56
Carbon Disulfide	ND	5.0	10	07/21/2016 15:56
Carbon Tetrachloride	ND	5.0	10	07/21/2016 15:56
Chlorobenzene	ND	5.0	10	07/21/2016 15:56
Chloroethane	ND	5.0	10	07/21/2016 15:56
Chloroform	ND	5.0	10	07/21/2016 15:56
Chloromethane	ND	5.0	10	07/21/2016 15:56
2-Chlorotoluene	ND	5.0	10	07/21/2016 15:56
4-Chlorotoluene	ND	5.0	10	07/21/2016 15:56
Dibromochloromethane	ND	5.0	10	07/21/2016 15:56
1,2-Dibromo-3-chloropropane	ND	2.0	10	07/21/2016 15:56
1,2-Dibromoethane (EDB)	ND	5.0	10	07/21/2016 15:56
Dibromomethane	ND	5.0	10	07/21/2016 15:56
1,2-Dichlorobenzene	ND	5.0	10	07/21/2016 15:56
1,3-Dichlorobenzene	ND	5.0	10	07/21/2016 15:56
1,4-Dichlorobenzene	ND	5.0	10	07/21/2016 15:56
Dichlorodifluoromethane	ND	5.0	10	07/21/2016 15:56
1,1-Dichloroethane	ND	5.0	10	07/21/2016 15:56
1,2-Dichloroethane (1,2-DCA)	ND	5.0	10	07/21/2016 15:56
1,1-Dichloroethene	**120**	5.0	10	07/21/2016 15:56
cis-1,2-Dichloroethene	ND	5.0	10	07/21/2016 15:56
trans-1,2-Dichloroethene	ND	5.0	10	07/21/2016 15:56
1,2-Dichloropropane	ND	5.0	10	07/21/2016 15:56
1,3-Dichloropropane	ND	5.0	10	07/21/2016 15:56
2,2-Dichloropropane	ND	5.0	10	07/21/2016 15:56

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/21/16	**Analytical Method:**	SW8260B
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-3	1607641-004B	Water	07/14/2016 15:58	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	5.0	10	07/21/2016 15:56
cis-1,3-Dichloropropene	ND	5.0	10	07/21/2016 15:56
trans-1,3-Dichloropropene	ND	5.0	10	07/21/2016 15:56
Diisopropyl ether (DIPE)	ND	5.0	10	07/21/2016 15:56
Ethylbenzene	**12**	5.0	10	07/21/2016 15:56
Ethyl tert-butyl ether (ETBE)	ND	5.0	10	07/21/2016 15:56
Freon 113	ND	5.0	10	07/21/2016 15:56
Hexachlorobutadiene	ND	5.0	10	07/21/2016 15:56
Hexachloroethane	ND	5.0	10	07/21/2016 15:56
2-Hexanone	ND	5.0	10	07/21/2016 15:56
Isopropylbenzene	ND	5.0	10	07/21/2016 15:56
4-Isopropyl toluene	ND	5.0	10	07/21/2016 15:56
Methyl-t-butyl ether (MTBE)	ND	5.0	10	07/21/2016 15:56
Methylene chloride	ND	5.0	10	07/21/2016 15:56
4-Methyl-2-pentanone (MIBK)	ND	5.0	10	07/21/2016 15:56
Naphthalene	**5.1**	5.0	10	07/21/2016 15:56
n-Propyl benzene	**6.3**	5.0	10	07/21/2016 15:56
Styrene	ND	5.0	10	07/21/2016 15:56
1,1,1,2-Tetrachloroethane	ND	5.0	10	07/21/2016 15:56
1,1,2,2-Tetrachloroethane	ND	5.0	10	07/21/2016 15:56
Tetrachloroethene	ND	5.0	10	07/21/2016 15:56
Toluene	ND	5.0	10	07/21/2016 15:56
1,2,3-Trichlorobenzene	ND	5.0	10	07/21/2016 15:56
1,2,4-Trichlorobenzene	ND	5.0	10	07/21/2016 15:56
1,1,1-Trichloroethane	ND	5.0	10	07/21/2016 15:56
1,1,2-Trichloroethane	ND	5.0	10	07/21/2016 15:56
Trichloroethene	**18**	5.0	10	07/21/2016 15:56
Trichlorofluoromethane	ND	5.0	10	07/21/2016 15:56
1,2,3-Trichloropropane	ND	5.0	10	07/21/2016 15:56
1,2,4-Trimethylbenzene	**10**	5.0	10	07/21/2016 15:56
1,3,5-Trimethylbenzene	ND	5.0	10	07/21/2016 15:56
Vinyl Chloride	ND	5.0	10	07/21/2016 15:56
Xylenes, Total	**24**	5.0	10	07/21/2016 15:56

(Cont.)

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/21/16	**Analytical Method:**	SW8260B
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-3	1607641-004B	Water	07/14/2016 15:58	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	100	70-130		07/21/2016 15:56
Toluene-d8	108	70-130		07/21/2016 15:56
4-BFB	86	70-130		07/21/2016 15:56

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/20/16-7/21/16	**Analytical Method:**	SW8260B
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

TPH(g) by Purge & Trap and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-1	1607641-001B	Water	07/14/2016 17:08	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	07/20/2016 22:05

Surrogates	REC (%)	Limits	
Dibromofluoromethane	101	70-130	07/20/2016 22:05

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-2	1607641-002B	Water	07/14/2016 11:13	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**92**	50	1	07/20/2016 22:45

Surrogates	REC (%)	Limits	
Dibromofluoromethane	99	70-130	07/20/2016 22:45

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1607641-003B	Water	07/14/2016 13:15	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**7900**	500	10	07/20/2016 23:24

Surrogates	REC (%)	Limits	
Dibromofluoromethane	100	70-130	07/20/2016 23:24

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-3	1607641-004B	Water	07/14/2016 15:58	GC16	124066

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**210**	50	1	07/21/2016 00:04

Surrogates	REC (%)	Limits	
Dibromofluoromethane	103	70-130	07/21/2016 00:04

Analyst(s): KF

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW3510C
Date Prepared:	7/19/16	**Analytical Method:**	SW8270C-SIM
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-1	1607641-001C	Water	07/14/2016 17:08	GC17	123974

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	1	07/19/2016 16:56
Acenaphthylene	ND	0.50	1	07/19/2016 16:56
Anthracene	ND	0.50	1	07/19/2016 16:56
Benzo (a) anthracene	ND	0.50	1	07/19/2016 16:56
Benzo (a) pyrene	ND	0.50	1	07/19/2016 16:56
Benzo (b) fluoranthene	ND	0.50	1	07/19/2016 16:56
Benzo (g,h,i) perylene	ND	0.50	1	07/19/2016 16:56
Benzo (k) fluoranthene	ND	0.50	1	07/19/2016 16:56
Chrysene	ND	0.50	1	07/19/2016 16:56
Dibenzo (a,h) anthracene	ND	0.50	1	07/19/2016 16:56
Fluoranthene	ND	0.50	1	07/19/2016 16:56
Fluorene	ND	0.50	1	07/19/2016 16:56
Indeno (1,2,3-cd) pyrene	ND	0.50	1	07/19/2016 16:56
1-Methylnaphthalene	ND	0.50	1	07/19/2016 16:56
2-Methylnaphthalene	ND	0.50	1	07/19/2016 16:56
Naphthalene	ND	0.50	1	07/19/2016 16:56
Phenanthrene	ND	0.50	1	07/19/2016 16:56
Pyrene	ND	0.50	1	07/19/2016 16:56

Surrogates	REC (%)	Limits	
1-Fluoronaphthalene	66	30-130	07/19/2016 16:56
2-Fluorobiphenyl	63	30-130	07/19/2016 16:56

Analyst(s): REB

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW3510C
Date Prepared:	7/19/16	**Analytical Method:**	SW8270C-SIM
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-2	1607641-002C	Water	07/14/2016 11:13	GC17	123974

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	1	07/19/2016 17:25
Acenaphthylene	ND	0.50	1	07/19/2016 17:25
Anthracene	ND	0.50	1	07/19/2016 17:25
Benzo (a) anthracene	ND	0.50	1	07/19/2016 17:25
Benzo (a) pyrene	ND	0.50	1	07/19/2016 17:25
Benzo (b) fluoranthene	ND	0.50	1	07/19/2016 17:25
Benzo (g,h,i) perylene	ND	0.50	1	07/19/2016 17:25
Benzo (k) fluoranthene	ND	0.50	1	07/19/2016 17:25
Chrysene	ND	0.50	1	07/19/2016 17:25
Dibenzo (a,h) anthracene	ND	0.50	1	07/19/2016 17:25
Fluoranthene	ND	0.50	1	07/19/2016 17:25
Fluorene	ND	0.50	1	07/19/2016 17:25
Indeno (1,2,3-cd) pyrene	ND	0.50	1	07/19/2016 17:25
1-Methylnaphthalene	**0.56**	0.50	1	07/19/2016 17:25
2-Methylnaphthalene	**0.77**	0.50	1	07/19/2016 17:25
Naphthalene	**3.1**	0.50	1	07/19/2016 17:25
Phenanthrene	ND	0.50	1	07/19/2016 17:25
Pyrene	ND	0.50	1	07/19/2016 17:25

Surrogates	REC (%)	Limits	
1-Fluoronaphthalene	74	30-130	07/19/2016 17:25
2-Fluorobiphenyl	66	30-130	07/19/2016 17:25

Analyst(s): REB

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Analytical Report

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Date Prepared:	7/19/16	**Analytical Method:**	SW8270C-SIM
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1607641-003C	Water	07/14/2016 13:15	GC35	123974

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	5.0	10	07/20/2016 10:44
Acenaphthylene	ND	5.0	10	07/20/2016 10:44
Anthracene	ND	5.0	10	07/20/2016 10:44
Benzo (a) anthracene	ND	5.0	10	07/20/2016 10:44
Benzo (a) pyrene	ND	5.0	10	07/20/2016 10:44
Benzo (b) fluoranthene	ND	5.0	10	07/20/2016 10:44
Benzo (g,h,i) perylene	ND	5.0	10	07/20/2016 10:44
Benzo (k) fluoranthene	ND	5.0	10	07/20/2016 10:44
Chrysene	ND	5.0	10	07/20/2016 10:44
Dibenzo (a,h) anthracene	ND	5.0	10	07/20/2016 10:44
Fluoranthene	ND	5.0	10	07/20/2016 10:44
Fluorene	ND	5.0	10	07/20/2016 10:44
Indeno (1,2,3-cd) pyrene	ND	5.0	10	07/20/2016 10:44
1-Methylnaphthalene	**66**	5.0	10	07/20/2016 10:44
2-Methylnaphthalene	**110**	5.0	10	07/20/2016 10:44
Naphthalene	**250**	5.0	10	07/20/2016 10:44
Phenanthrene	ND	5.0	10	07/20/2016 10:44
Pyrene	ND	5.0	10	07/20/2016 10:44

Surrogates	REC (%)	Limits	
1-Fluoronaphthalene	107	30-130	07/20/2016 10:44
2-Fluorobiphenyl	105	30-130	07/20/2016 10:44

Analyst(s): REB

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW3510C
Date Prepared:	7/19/16	**Analytical Method:**	SW8270C-SIM
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-3	**1607641-004C**	**Water**	**07/14/2016 15:58**	**GC17**	**123974**

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.50	1	07/19/2016 18:22
Acenaphthylene	ND	0.50	1	07/19/2016 18:22
Anthracene	ND	0.50	1	07/19/2016 18:22
Benzo (a) anthracene	ND	0.50	1	07/19/2016 18:22
Benzo (a) pyrene	ND	0.50	1	07/19/2016 18:22
Benzo (b) fluoranthene	ND	0.50	1	07/19/2016 18:22
Benzo (g,h,i) perylene	ND	0.50	1	07/19/2016 18:22
Benzo (k) fluoranthene	ND	0.50	1	07/19/2016 18:22
Chrysene	ND	0.50	1	07/19/2016 18:22
Dibenzo (a,h) anthracene	ND	0.50	1	07/19/2016 18:22
Fluoranthene	ND	0.50	1	07/19/2016 18:22
Fluorene	ND	0.50	1	07/19/2016 18:22
Indeno (1,2,3-cd) pyrene	ND	0.50	1	07/19/2016 18:22
1-Methylnaphthalene	**0.96**	0.50	1	07/19/2016 18:22
2-Methylnaphthalene	**0.95**	0.50	1	07/19/2016 18:22
Naphthalene	**4.5**	0.50	1	07/19/2016 18:22
Phenanthrene	ND	0.50	1	07/19/2016 18:22
Pyrene	ND	0.50	1	07/19/2016 18:22

Surrogates	REC (%)	Limits	
1-Fluoronaphthalene	64	30-130	07/19/2016 18:22
2-Fluorobiphenyl	60	30-130	07/19/2016 18:22

Analyst(s): REB

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/19/16-7/21/16	**Analytical Method:**	SW8021B/8015Bm
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-1	**1607641-001A**	**Water**	**07/14/2016 17:08**	**GC3**	**124009**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	---	50	1	07/21/2016 05:15
MTBE	---	5.0	1	07/21/2016 05:15
Benzene	---	0.50	1	07/21/2016 05:15
Toluene	---	0.50	1	07/21/2016 05:15
Ethylbenzene	---	0.50	1	07/21/2016 05:15
TPH(mineral spirits)	ND	50	1	07/21/2016 05:15
Xylenes	---	1.5	1	07/21/2016 05:15

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	172	S	70-130	07/21/2016 05:15

Analyst(s): IA Analytical Comments: c4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-2	**1607641-002A**	**Water**	**07/14/2016 11:13**	**GC3**	**124007**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	---	50	1	07/19/2016 12:45
MTBE	---	5.0	1	07/19/2016 12:45
Benzene	---	0.50	1	07/19/2016 12:45
Toluene	---	0.50	1	07/19/2016 12:45
Ethylbenzene	---	0.50	1	07/19/2016 12:45
TPH(mineral spirits)	ND	50	1	07/19/2016 12:45
Xylenes	---	1.5	1	07/19/2016 12:45

Surrogates	REC (%)	Limits	
aaa-TFT	103	70-130	07/19/2016 12:45

Analyst(s): IA Analytical Comments: d1

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW5030B
Date Prepared:	7/19/16-7/21/16	**Analytical Method:**	SW8021B/8015Bm
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	**1607641-003A**	**Water**	**07/14/2016 13:15**	**GC3**	**124007**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	---	1000	20	07/21/2016 04:45
MTBE	---	100	20	07/21/2016 04:45
Benzene	---	10	20	07/21/2016 04:45
Toluene	---	10	20	07/21/2016 04:45
Ethylbenzene	---	10	20	07/21/2016 04:45
TPH(mineral spirits)	**2700**	1000	20	07/21/2016 04:45
Xylenes	---	30	20	07/21/2016 04:45

Surrogates	REC (%)	Limits	
aaa-TFT	112	70-130	07/21/2016 04:45

Analyst(s): IA Analytical Comments: d1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-3	**1607641-004A**	**Water**	**07/14/2016 15:58**	**GC3**	**124007**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	---	50	1	07/19/2016 14:51
MTBE	---	5.0	1	07/19/2016 14:51
Benzene	---	0.50	1	07/19/2016 14:51
Toluene	---	0.50	1	07/19/2016 14:51
Ethylbenzene	---	0.50	1	07/19/2016 14:51
TPH(mineral spirits)	ND	50	1	07/19/2016 14:51
Xylenes	---	1.5	1	07/19/2016 14:51

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	318	S	70-130	07/19/2016 14:51

Analyst(s): IA Analytical Comments: d1,c4

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Analytical Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Received:	7/15/16 16:45	**Extraction Method:**	SW3510C/3630C
Date Prepared:	7/19/16	**Analytical Method:**	SW8015B
Project:	16040.28; Hollis-GWM 2016	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-1	1607641-001A	Water	07/14/2016 17:08	GC9b	123966

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	07/19/2016 15:24

Surrogates	REC (%)	Limits	
C9	90	70-130	07/19/2016 15:24

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-2	1607641-002A	Water	07/14/2016 11:13	GC9b	123966

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	07/19/2016 16:03

Surrogates	REC (%)	Limits	
C9	87	70-130	07/19/2016 16:03

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1607641-003A	Water	07/14/2016 13:15	GC9a	123966

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**1600**	50	1	07/19/2016 15:24

Surrogates	REC (%)	Limits	
C26	95	70-130	07/19/2016 15:24

Analyst(s): TK Analytical Comments: e4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMW-3	1607641-004A	Water	07/14/2016 15:58	GC9a	123966

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**66**	50	1	07/19/2016 16:03

Surrogates	REC (%)	Limits	
C9	82	70-130	07/19/2016 16:03

Analyst(s): TK Analytical Comments: e4

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/20/16	**BatchID:**	124066
Date Analyzed:	7/20/16	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS-124066 1607641-002BMS/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	10.1	0.50	10	-	101	54-140
Benzene	ND	10.6	0.50	10	-	106	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	34.7	2.0	40	-	87	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	9.81	0.50	10	-	98	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	9.39	0.50	10	-	94	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	9.57	0.50	10	-	96	66-125
1,1-Dichloroethene	ND	9.93	0.50	10	-	99	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	-	-	-	-

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/20/16	**BatchID:**	124066
Date Analyzed:	7/20/16	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS-124066 1607641-002BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	10.4	0.50	10	-	104	57-136
Ethanol	ND	-	50	-	-	-	-
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	10.2	0.50	10	-	102	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	9.87	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	10.3	0.50	10	-	103	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	10.1	0.50	10	-	101	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	-	-	-	-

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/20/16	**BatchID:**	124066
Date Analyzed:	7/20/16	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS-124066 1607641-002BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	23.8	24.9		25	95	100	70-130
Toluene-d8	28.0	25.0		25	112	100	70-130
4-BFB	2.12	2.33		2.5	85	93	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	11.1	10.7	10	ND	111	107	69-139	3.16	20
Benzene	13.6	13.1	10	ND	136	131	69-141	3.43	20
t-Butyl alcohol (TBA)	43.8	39.9	40	ND	109	100	41-152	9.16	20
Chlorobenzene	10.0	9.90	10	ND	100	99	77-120	1.47	20
1,2-Dibromoethane (EDB)	10.4	10.2	10	ND	104	102	76-135	1.19	20
1,2-Dichloroethane (1,2-DCA)	11.1	10.6	10	ND	111	106	73-139	4.09	20
1,1-Dichloroethene	11.5	11.2	10	ND	115	112	59-140	2.45	20
Diisopropyl ether (DIPE)	10.6	9.94	10	ND	106	99	72-140	6.29	20
Ethyl tert-butyl ether (ETBE)	10.7	10.3	10	ND	107	103	71-140	4.13	20
Methyl-t-butyl ether (MTBE)	178	169	10	ND	1780,F1	1690,F1	73-139	5.36	20
Toluene	10.3	10.2	10	ND	103	102	71-128	0.780	20
Trichloroethene	11.1	11.0	10	ND	111	110	64-132	0.348	20
Surrogate Recovery									
Dibromofluoromethane	25.5	25.5	25		102	102	73-131	0	20
Toluene-d8	24.5	24.6	25		98	98	72-117	0	20
4-BFB	2.39	2.45	2.5		96	98	74-116	2.42	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/20/16	**BatchID:**	124066
Date Analyzed:	7/20/16	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS-124066 1607641-002BMS/MSD

QC Summary Report for TPH(g)

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(g)	ND	-	50	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	24.2	25.4		25	97	102	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
VOC (C6-C12)	N/A	-		N/A	N/A	N/A	-	N/A	
Surrogate Recovery									
Dibromofluoromethane	N/A	-			N/A	N/A	-	N/A	

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/19/16	**BatchID:**	123974
Date Analyzed:	7/19/16	**Extraction Method:**	SW3510C
Instrument:	GC17	**Analytical Method:**	SW8270C-SIM
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS/LCSD-123974

QC Summary Report for SW8270C

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acenaphthene	ND	0.50	-	-	-
Acenaphthylene	ND	0.50	-	-	-
Anthracene	ND	0.50	-	-	-
Benzo (a) anthracene	ND	0.50	-	-	-
Benzo (a) pyrene	ND	0.50	-	-	-
Benzo (b) fluoranthene	ND	0.50	-	-	-
Benzo (g,h,i) perylene	ND	0.50	-	-	-
Benzo (k) fluoranthene	ND	0.50	-	-	-
Chrysene	ND	0.50	-	-	-
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	0.50	-	-	-
2-Methylnaphthalene	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
Phenanthrene	ND	0.50	-	-	-
Pyrene	ND	0.50	-	-	-
Surrogate Recovery					
1-Fluoronaphthalene	16.5		25	66	45-129
2-Fluorobiphenyl	16.3		25	65	47-125

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Benzo (a) pyrene	6.90	6.39	10	69	64	12-152	7.68	25
Chrysene	5.92	5.60	10	59	56	28-116	5.59	25
1-Methylnaphthalene	7.76	7.42	10	78	74	48-125	4.51	25
2-Methylnaphthalene	7.09	6.82	10	71	68	41-124	3.95	25
Phenanthrene	6.78	6.52	10	68	65	36-123	3.75	25
Pyrene	5.93	5.84	10	59	58	29-118	1.64	25
Surrogate Recovery								
1-Fluoronaphthalene	15.9	16.4	25	64	66	45-129	3.28	25
2-Fluorobiphenyl	15.6	15.7	25	63	63	47-125	0	25

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/19/16	**BatchID:**	124007
Date Analyzed:	7/19/16	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS-124007 1607674-001AMS/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	58.3	40	60	-	97	70-130
MTBE	ND	8.74	5.0	10	-	87	70-130
Benzene	ND	9.87	0.50	10	-	99	70-130
Toluene	ND	10.1	0.50	10	-	101	70-130
Ethylbenzene	ND	10.4	0.50	10	-	104	70-130
Xylenes	ND	31.1	1.5	30	-	104	70-130
Surrogate Recovery							
aaa-TFT	9.42	9.30		10	94	93	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	58.8	56.1	60	ND	98	94	70-130	4.61	20
MTBE	8.58	9.09	10	ND	86	91	70-130	5.81	20
Benzene	9.89	9.41	10	ND	96	91	70-130	4.96	20
Toluene	9.52	9.48	10	ND	95	95	70-130	0	20
Ethylbenzene	9.81	9.80	10	ND	98	98	70-130	0	20
Xylenes	29.4	29.3	30	ND	98	98	70-130	0	20
Surrogate Recovery									
aaa-TFT	9.20	9.18	10		92	92	70-130	0	20

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Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/20/16	**BatchID:**	124009
Date Analyzed:	7/20/16	**Extraction Method:**	SW5030B
Instrument:	GC7	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS-124009 1607637-002AMS/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	52.5	40	60	-	87	70-130
MTBE	ND	7.26	5.0	10	-	73	70-130
Benzene	ND	8.13	0.50	10	-	81	70-130
Toluene	ND	7.94	0.50	10	-	79	70-130
Ethylbenzene	ND	8.30	0.50	10	-	83	70-130
Xylenes	ND	27.4	1.5	30	-	91	70-130
Surrogate Recovery							
aaa-TFT	9.59	9.57		10	96	96	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		620	NR	NR	-	NR	
MTBE	NR	NR		ND<50	NR	NR	-	NR	
Benzene	NR	NR		360	NR	NR	-	NR	
Toluene	NR	NR		12	NR	NR	-	NR	
Ethylbenzene	NR	NR		58	NR	NR	-	NR	
Xylenes	NR	NR		44	NR	NR	-	NR	
Surrogate Recovery									
aaa-TFT	NR	NR			NR	NR	-	NR	

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	All West Environmental, Inc	**WorkOrder:**	1607641
Date Prepared:	7/19/16	**BatchID:**	123966
Date Analyzed:	7/20/16	**Extraction Method:**	SW3510C/3630C
Instrument:	GC39A	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	16040.28; Hollis-GWM 2016	**Sample ID:**	MB/LCS/LCSD-123966

QC Report for SW8015B w/ SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
TPH-Kerosene (C9-C18)	ND	50	-	-	-
Surrogate Recovery					
C9	571		625	91	65-122

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1080	1090	1000	108	109	61-157	1.19	30
Surrogate Recovery								
C9	572	567	625	92	91	65-122	0.933	30

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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1607641 **ClientCode: AWE**

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

Report to:
Leonard Niles
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
(360) 618-2789 FAX: (415) 391-2008

Email: Leonard@allwest1.com
cc/3rd Party: darlene@allwest1.com;
PO:
ProjectNo: 16040.28; Hollis-GWM 2016

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: **07/15/2016**
Date Logged: **07/15/2016**

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
1607641-001	AMW-1	Water	7/14/2016 17:08	☐	B	B	C	A	C	A						
1607641-002	AMW-2	Water	7/14/2016 11:13	☐	B	B	C	A		A						
1607641-003	MW-3	Water	7/14/2016 13:15	☐	B	B	C	A		A						
1607641-004	AMW-3	Water	7/14/2016 15:58	☐	B	B	C	A		A						

Test Legend:

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

Prepared by: Valerie Riva

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

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: 16040.28; Hollis-GWM 2016
Comments:

QC Level: LEVEL 2
Client Contact: Leonard Niles
Contact's Email: Leonard@allwest1.com

Work Order: 1607641
Date Logged: 7/15/2016

☐ 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
1607641-001A	AMW-1	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	2	VOA w/ HCl	☐	7/14/2016 17:08	5 days	Present	☐	
1607641-001B	AMW-1	Water	TPH(g) & 8260 (Basic List) by P&T GCMS	2	VOA w/ HCl	☐	7/14/2016 17:08	5 days	Present	☐	
1607641-001C	AMW-1	Water	SW8270C (PAHs/PNAs) <1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Benzo (k) fluoranthene, Chrysene, Dibenzo (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Naphthalene, Phenanthrene, Pyrene>	1	1LA	☐	7/14/2016 17:08	5 days	Present	☐	
1607641-002A	AMW-2	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	2	VOA w/ HCl	☐	7/14/2016 11:13	5 days	Present	☐	
1607641-002B	AMW-2	Water	TPH(g) & 8260 (Basic List) by P&T GCMS	2	VOA w/ HCl	☐	7/14/2016 11:13	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: 16040.28; Hollis-GWM 2016
Comments:

QC Level: LEVEL 2
Client Contact: Leonard Niles
Contact's Email: Leonard@allwest1.com

Work Order: 1607641
Date Logged: 7/15/2016

☐ 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
1607641-002C	AMW-2	Water	SW8270C (PAHs/PNAs) <1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Benzo (k) fluoranthene, Chrysene, Dibenzo (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Naphthalene, Phenanthrene, Pyrene>	1	1LA	☐	7/14/2016 11:13	5 days	Present	☐	
1607641-003A	MW-3	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	2	VOA w/ HCl	☐	7/14/2016 13:15	5 days	Present	☐	
1607641-003B	MW-3	Water	TPH(g) & 8260 (Basic List) by P&T GCMS	2	VOA w/ HCl	☐	7/14/2016 13:15	5 days	Present	☐	
1607641-003C	MW-3	Water	SW8270C (PAHs/PNAs) <1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Benzo (k) fluoranthene, Chrysene, Dibenzo (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Naphthalene, Phenanthrene, Pyrene>	1	1LA	☐	7/14/2016 13:15	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
QC Level: LEVEL 2
Work Order: 1607641
Project: 16040.28; Hollis-GWM 2016
Client Contact: Leonard Niles
Date Logged: 7/15/2016
Comments:
Contact's Email: Leonard@allwest1.com

☐ 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
1607641-004A	AMW-3	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	2	VOA w/ HCl	☐	7/14/2016 15:58	5 days	Present	☐	
1607641-004B	AMW-3	Water	TPH(g) & 8260 (Basic List) by P&T GCMS	2	VOA w/ HCl	☐	7/14/2016 15:58	5 days	Present	☐	
1607641-004C	AMW-3	Water	SW8270C (PAHs/PNAs) <1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Benzo (k) fluoranthene, Chrysene, Dibenzo (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd) pyrene, Naphthalene, Phenanthrene, Pyrene>	1	1LA	☐	7/14/2016 15:58	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.

160716 41

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Leonard Niles Bill To: Darlene Torio

Company: Allwest Environmental, Inc.

2141 Mission Street, Suite 100 Leonard@allwest1.com

San Francisco, CA 94110 E-Mail: Darlene@allwest1.com

Tele: (415)391-2510 Fax: ~~(391)~~ (415)391-2008

Project #: 16040.28 Project Name: Hollis-GWM 2016

Project Location: 6655 Hollis Street, Emeryville, CA

Sampler Signature: Leonard Niles

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs) TPH-g / TPH-ms	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs) with naphthalene	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	Other	Comments
AMW-1	AMW-1	7/14/16	17:08	4	VOA	X					X	X													X								**Indicate here if these samples are potentially dangerous to handle:
↓	↓	↓	↓	1	1LA	X					X	X				X																	
↓	↓	↓	↓	1	1LA	X					X															X							

Leonard Niles

**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.

Relinquished By:	Date:	Time:	Received By:
Leonard Niles	7/15/16	1100	
Relinquished By:	Date:	Time:	Received By:
	7/15/16	1530	
Relinquished By:	Date:	Time:	Received By:
	7/15/16	16:45	Valerie Rivas

ICE/t° 3.8 wet ice
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

VOAS O&G METALS OTHER
PRESERVATION pH<2

COMMENTS: TPH-

1607641

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Leonard Niles Bill To: Darlene Torio

Company: AllWest Environmental, Inc.

2141 Mission Street, Suite #100 Leonard@allwest1.com

San Francisco, CA 94110 E-Mail: Darlene@allwest1.com

Tele: (415)391-2510 Fax: (415)391-2008

Project #: 16040.28 Project Name: Hollis-GWM2016

Project Location: 6655 Hollis St., Emeryville, CA

Sampler Signature: Leonard Niles

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
AMW-2	AMW-2	7/14/16	11:13	4	VOA	X					X	X		
↓	↓	↓	↓	1	1LA	X					X	X		
↓	↓	↓	↓	1	1LA	X					X	X		EN
MW-3	MW-3	7/14/13	13:15	4	VOA	X					X	X		
↓	↓	↓	↓	1	1LA	X					X	X		
↓	↓	↓	↓	1	1LA	X					X			
AMW-3	AMW-3	7/14/13	15:58	4	VOA	X					X	X		
↓	↓	↓	↓	1	1LA	X					X	X		
↓	↓	↓	↓	1	1LA	X					X			
	Leonard Niles													

Analysis Request	Other	Comments
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE; TPH as Diesel (8015); Total Petroleum Oil & Grease (1664 / 5520 E/B&F); Total Petroleum Hydrocarbons (418.1); EPA 502.2 / 601 / 8010 / 8021 (HVOCs); MTBE / BTEX ONLY (EPA 602 / 8021); EPA 505/ 608 / 8081 (Cl Pesticides); EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners; EPA 507 / 8141 (NP Pesticides); EPA 515 / 8151 (Acidic Cl Herbicides); EPA 524.2 / 624 / 8260 (VOCs) TPH-g/TPH-ms; EPA 525.2 / 625 / 8270 (SVOCs); EPA 8270 SIM / 8310 (PAHs / PNAs) with naphthalene; CAM 17 Metals (200.7 / 200.8 / 6010 / 6020); LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020); Lead (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	**Indicate here if these samples are potentially dangerous to handle:
AMW-2: X; ↓: X; ↓: X; MW-3: X; ↓: X; ↓: X; AMW-3: 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.

Relinquished By:	Date:	Time:	Received By:
Leonard Niles	7/15/16	1100	
Relinquished By:	Date:	Time:	Received By:
	7/15/16	530	
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

VOAS O&G METALS OTHER
PRESERVATION_____ pH<2

COMMENTS: TPH as gasoline and mineral spirits (TPH-g/TPH ms); VOCs with fuel oxygenates; PAHs with naphthalene.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**All West Environmental, Inc**	Date and Time Received:	**7/15/2016 16:45**
Project Name:	**16040.28; Hollis-GWM 2016**	Date Logged:	**7/15/2016**
WorkOrder №:	**1607641** Matrix: Water	Received by:	Valerie Riva
Carrier:	Bernie Cummins (MAI Courier)	Logged by:	Valerie Riva

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:				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	☐	

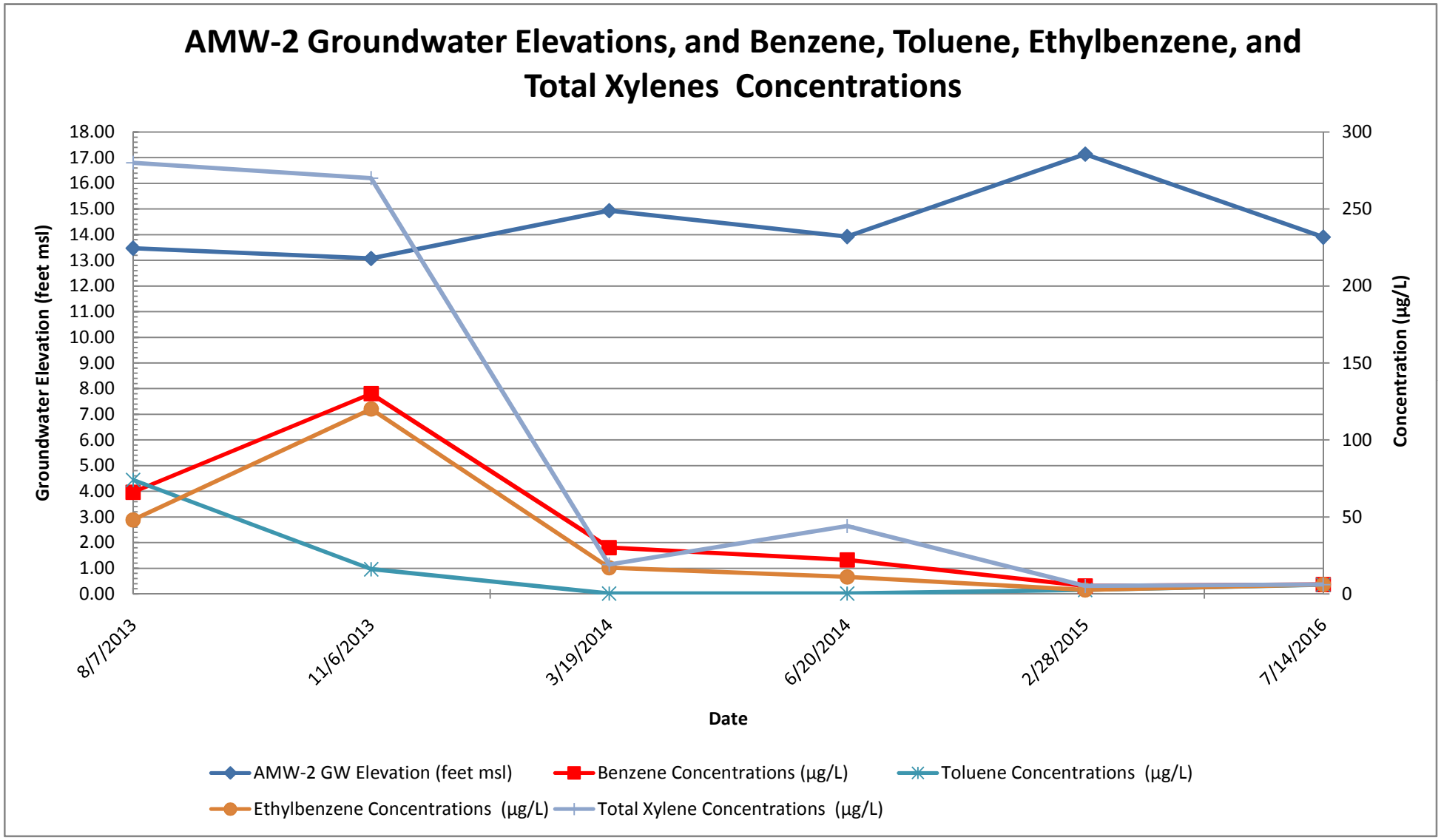
(Ice Type: WET ICE)

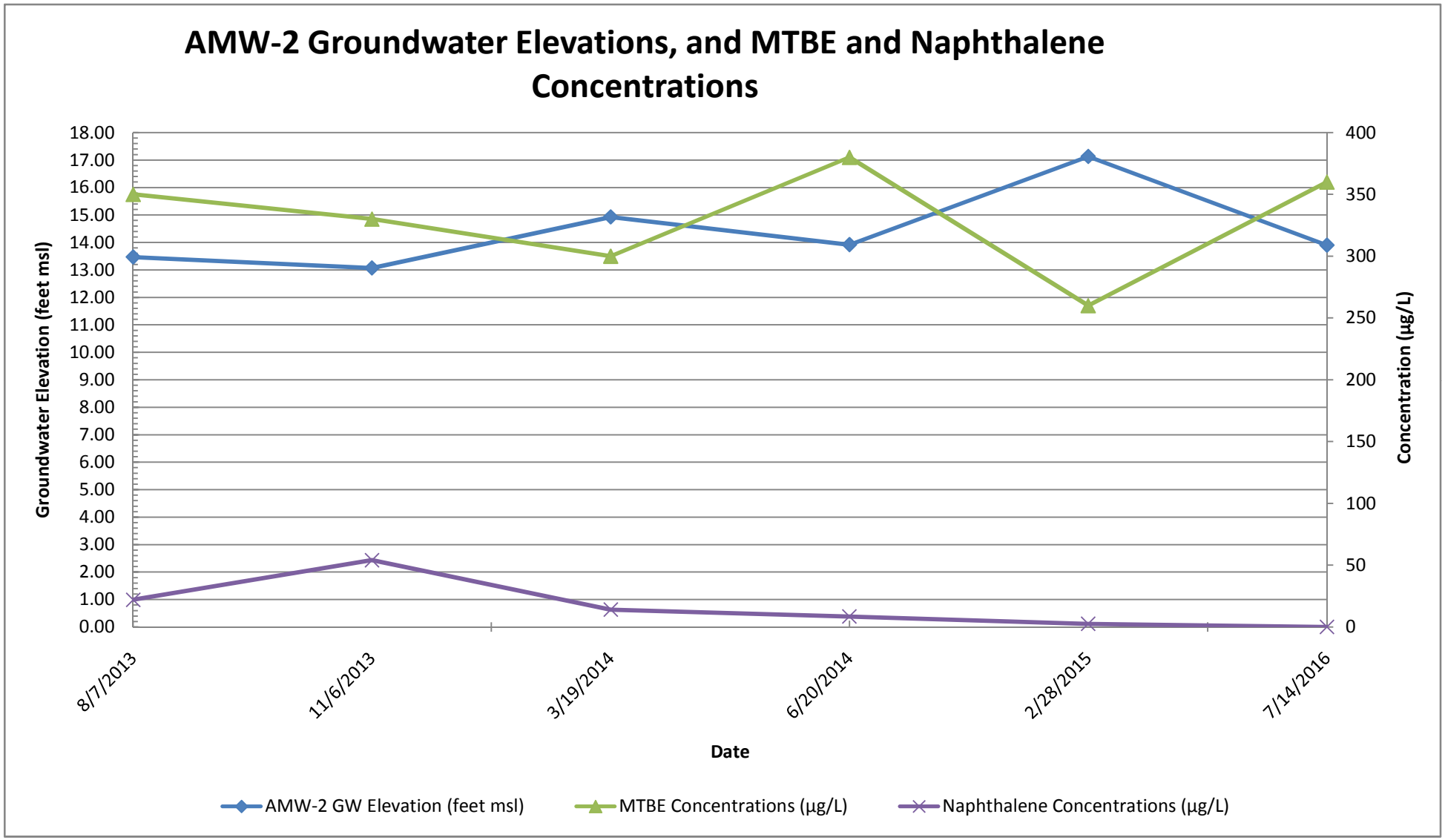
UCMR3 Samples:

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 ☑

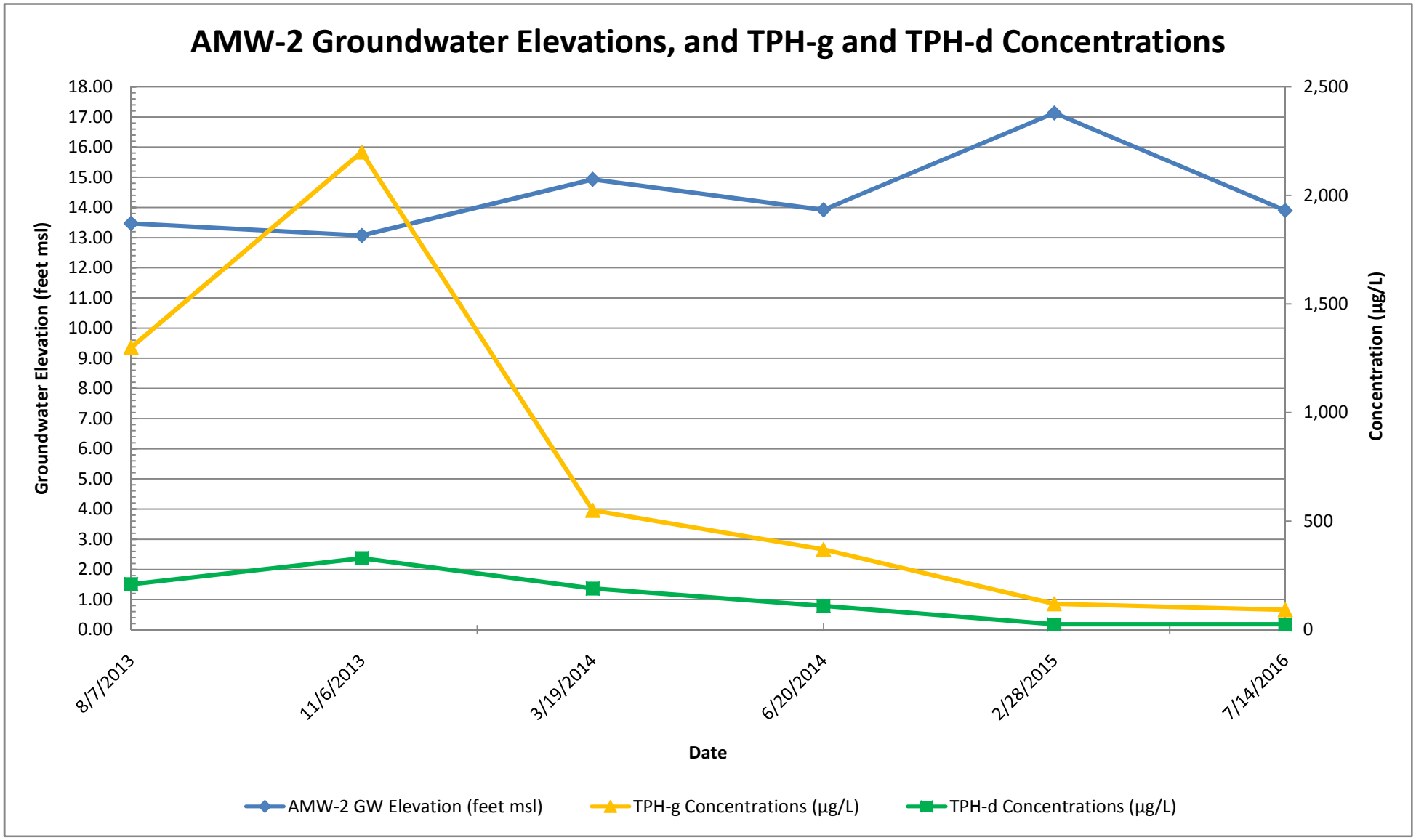
Comments:

APPENDIX D

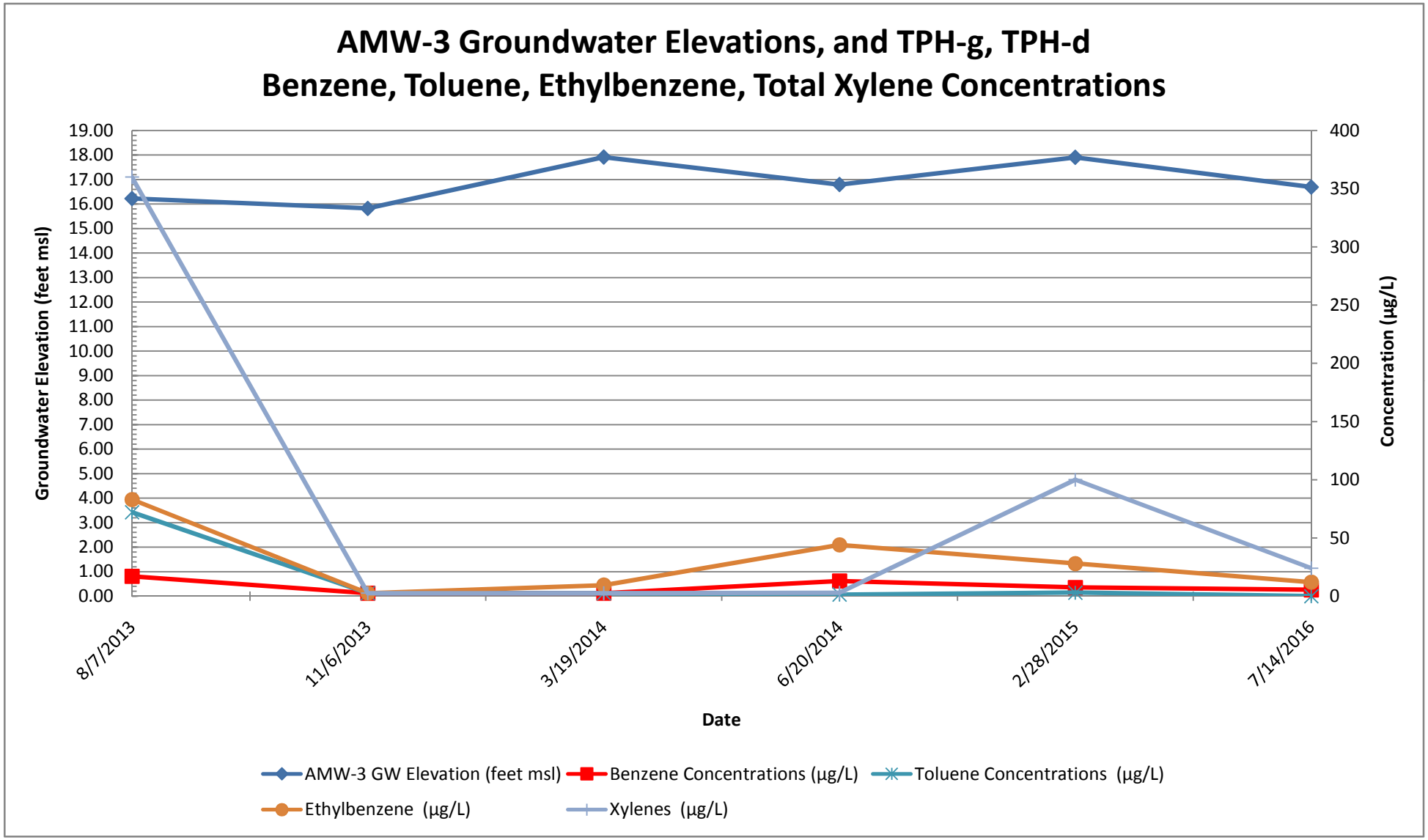

AMW-2 Groundwater Elevations, and Benzene, Toluene, Ethylbenzene, and Total Xylenes Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
300
250
200
150
100
50
0
8/7/2013
11/6/2013
3/19/2014
6/20/2014
2/28/2015
7/14/2016
Date
AMW-2 GW Elevation (feet msl)
Benzene Concentrations (µg/L)
Toluene Concentrations (µg/L)
Ethylbenzene Concentrations (µg/L)
Total Xylene Concentrations (µg/L)


AMW-2 Groundwater Elevations, and 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)
400
350
300
250
200
150
100
50
0
8/7/2013
11/6/2013
3/19/2014
6/20/2014
2/28/2015
7/14/2016
Date
AMW-2 GW Elevation (feet msl)
MTBE Concentrations (µg/L)
Naphthalene Concentrations (µg/L)

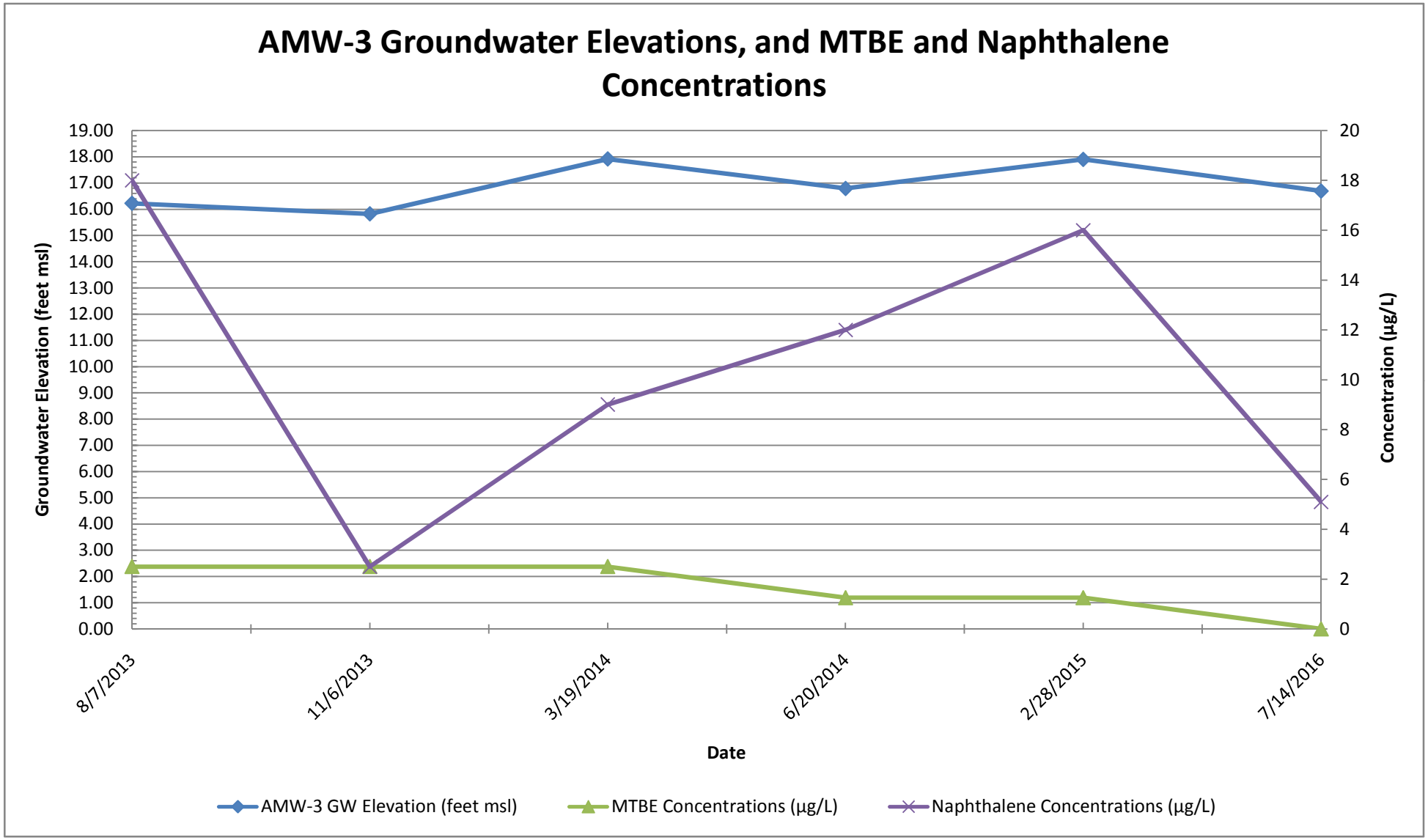
FORMER McGRATH STEEL
6655 HOLLIS STREET
EMERYVILLE, CA
AllWest Project No. 16040.28

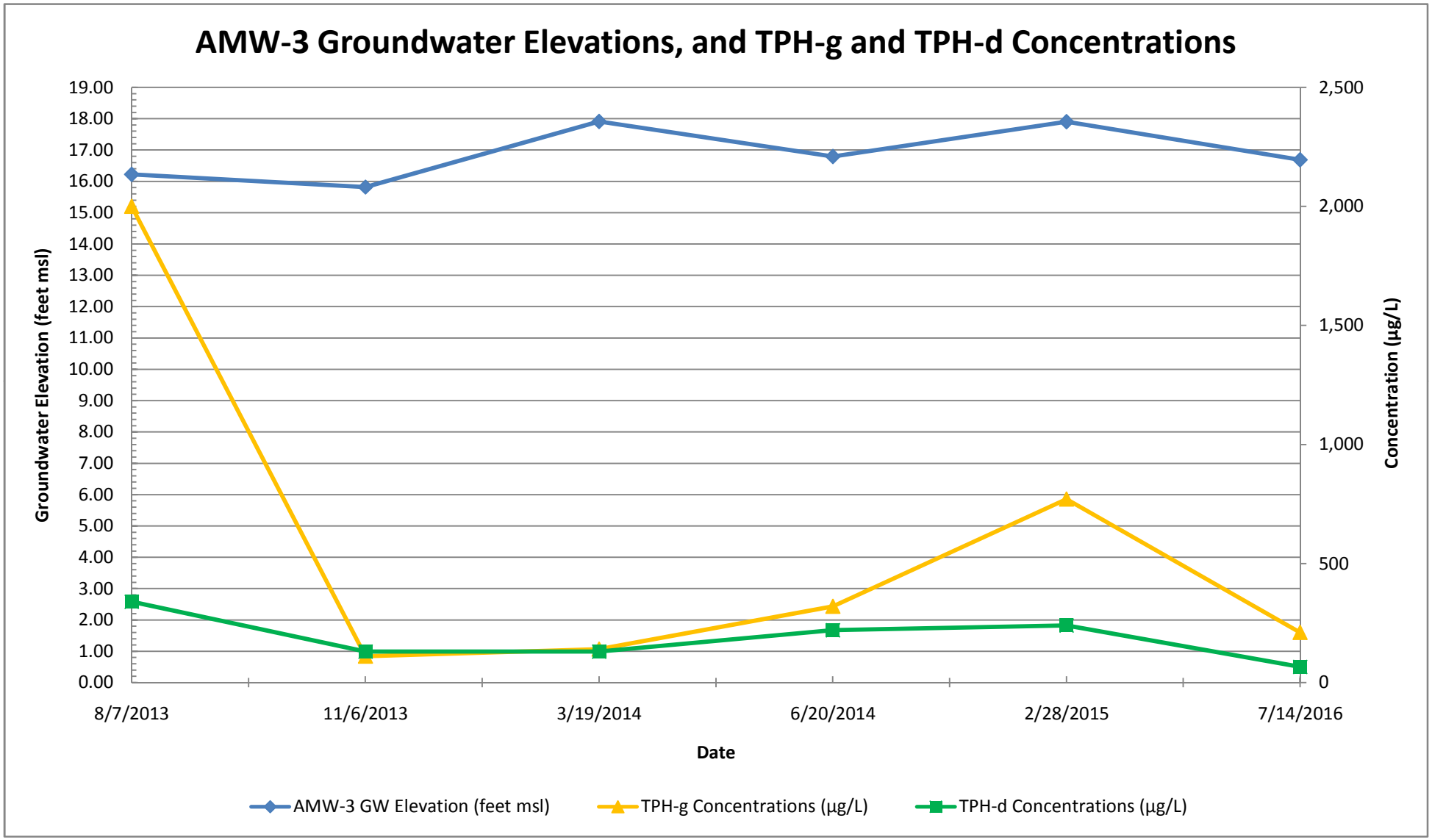


FORMER McGRATH STEEL
6655 HOLLIS STREET
EMERYVILLE, CA
AllWest Project No. 16040.28

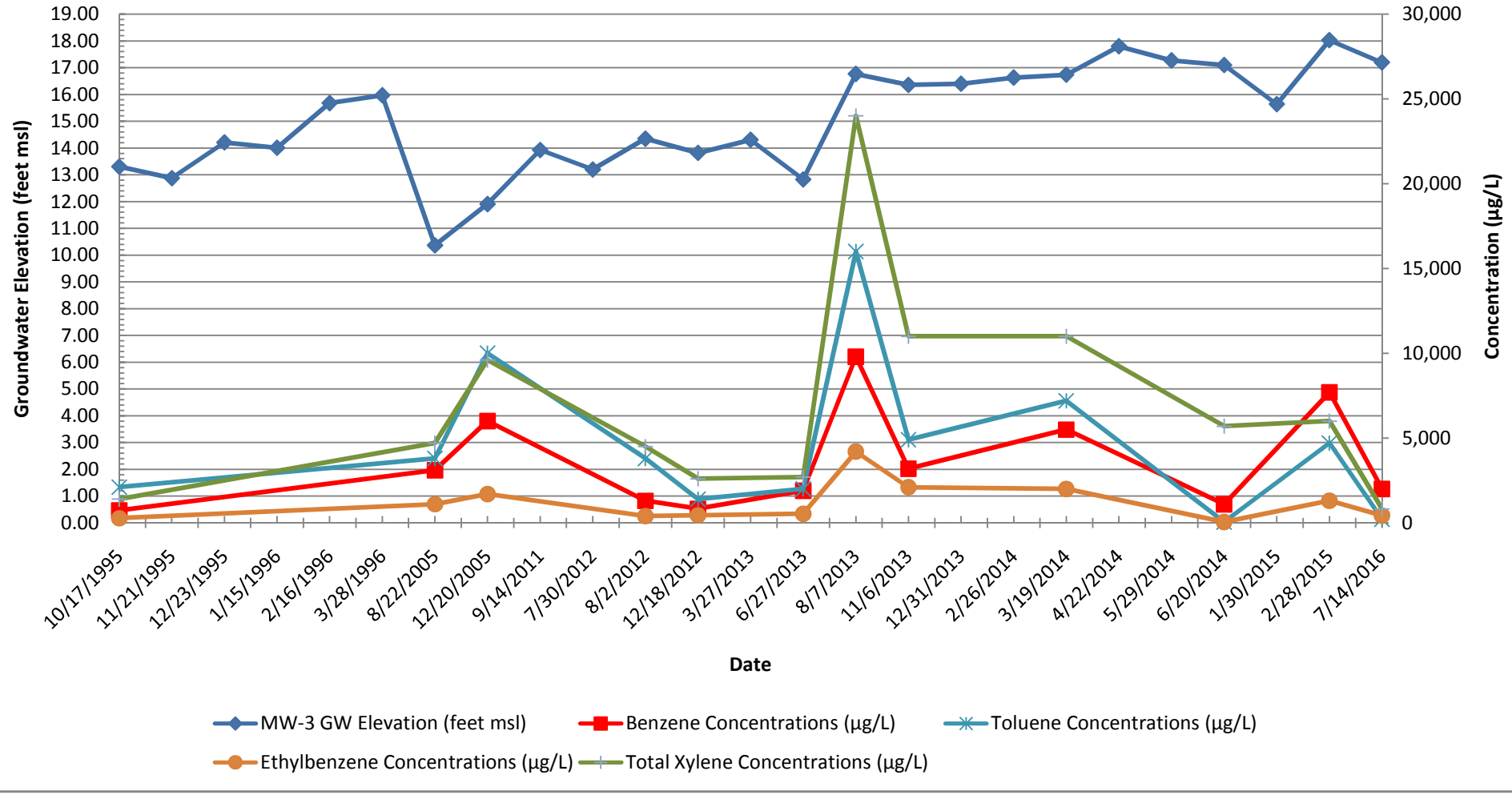


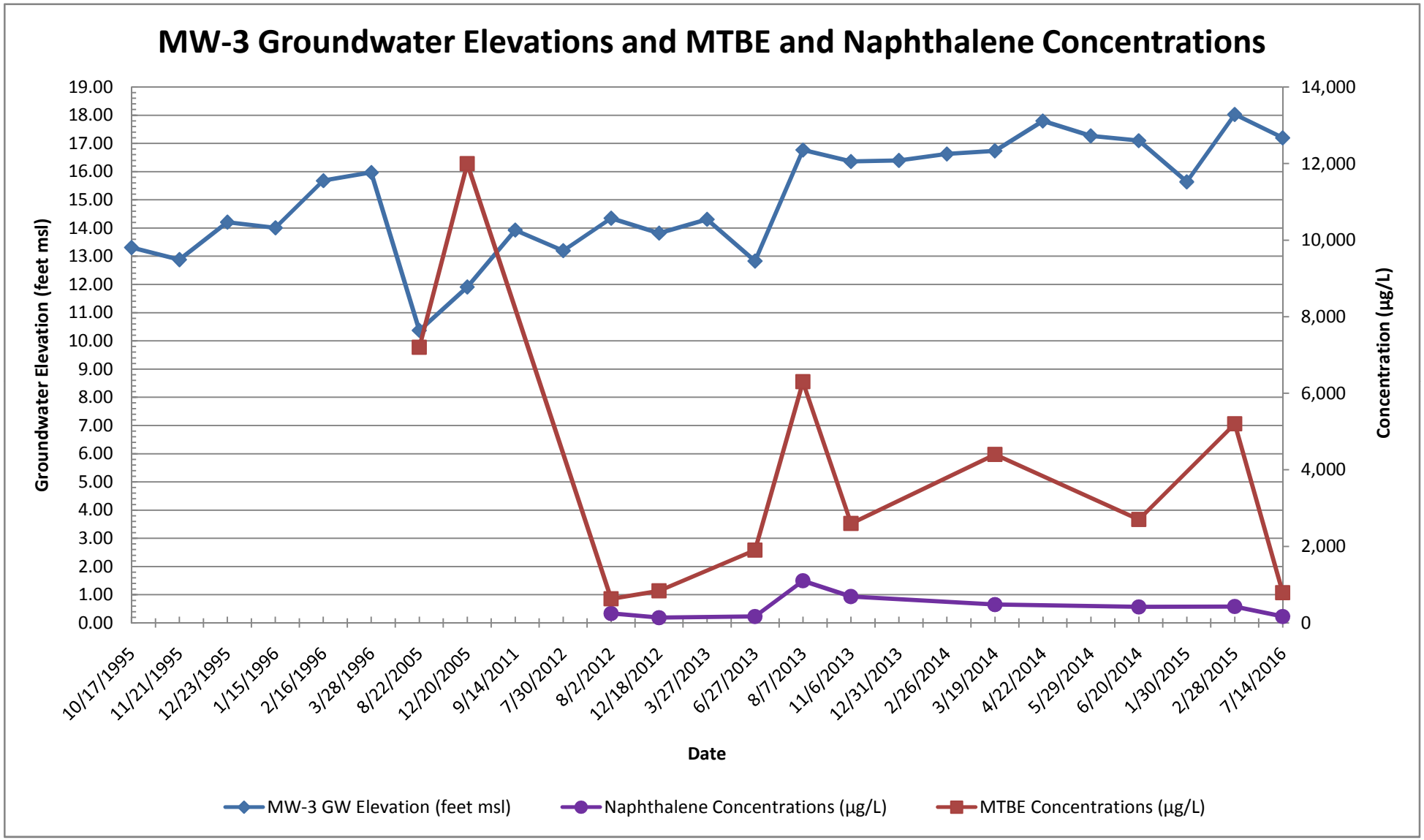
FORMER McGRATH STEEL
6655 HOLLIS STREET
EMERYVILLE, CA
AllWest Project No. 16040.28

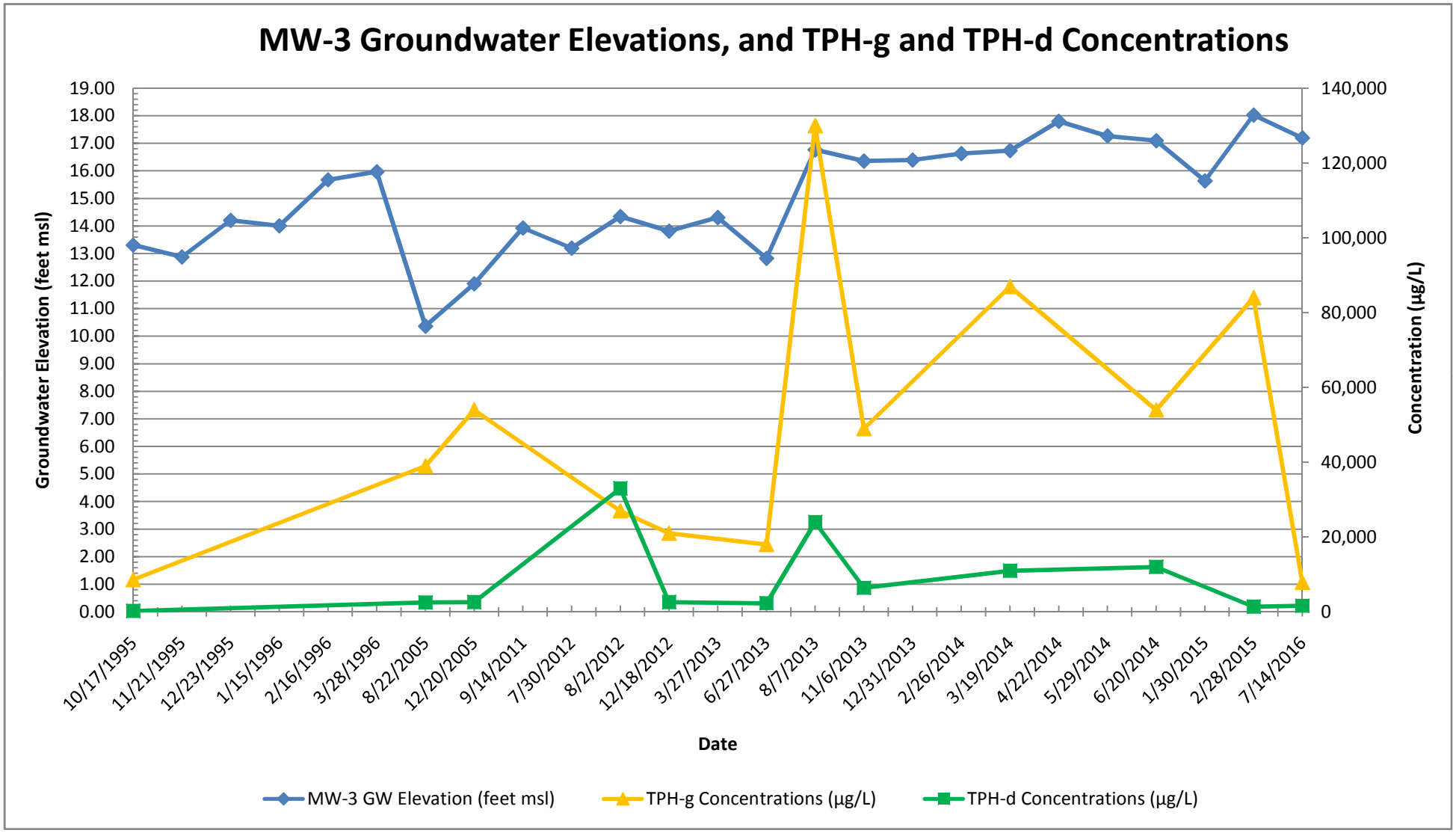



AMW-3 Groundwater Elevations, and TPH-g and TPH-d Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
2,500
2,000
1,500
1,000
500
0
8/7/2013
11/6/2013
3/19/2014
6/20/2014
2/28/2015
7/14/2016
Date
AMW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)

MW-3 Groundwater Elevations, and Benzene, Toluene, Ethylbenzene and Total Xylenes Concentrations




MW-3 Groundwater Elevations and MTBE and Naphthalene Concentrations
Groundwater Elevation (feet msl)
Concentration (µg/L)
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
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
10/17/1995
11/21/1995
12/23/1995
1/15/1996
2/16/1996
3/28/1996
8/22/2005
12/20/2005
9/14/2011
7/30/2012
8/2/2012
12/18/2012
3/27/2013
6/27/2013
8/7/2013
11/6/2013
12/31/2013
2/26/2014
3/19/2014
4/22/2014
5/29/2014
6/20/2014
1/30/2015
2/28/2015
7/14/2016
Date
MW-3 GW Elevation (feet msl)
Naphthalene Concentrations (µg/L)
MTBE Concentrations (µg/L)


MW-3 Groundwater Elevations, and TPH-g and TPH-d 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)
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
10/17/1995
11/21/1995
12/23/1995
1/15/1996
2/16/1996
3/28/1996
8/22/2005
12/20/2005
9/14/2011
7/30/2012
8/2/2012
12/18/2012
3/27/2013
6/27/2013
8/7/2013
11/6/2013
12/31/2013
2/26/2014
3/19/2014
4/22/2014
5/29/2014
6/20/2014
1/30/2015
2/28/2015
7/14/2016
Date
MW-3 GW Elevation (feet msl)
TPH-g Concentrations (µg/L)
TPH-d Concentrations (µg/L)

APPENDIX E

APPLICATION FOR AUTHORIZATION TO USE

REPORT TITLE: **1ST SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT**

Former McGrath Steel
6655 Hollis St. & 1471 67th St.
Emeryville, CA

PROJECT NUMBER: 16040.28

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 General Conditions to the Work Authorization Agreement provided below. 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.