September 24, 2015

Keith Nowell
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Robinson Property/Mohawk Oil Co.**
5630 San Pablo Ave., Oakland, CA
Fuel Leak Case No. RO0000182

Dear Mr. Nowell:

Enclosed is the *Quarter Monitoring Report, Third Quarter 2015* for the subject LUFT site. In compliance with state and local regulations, electronic submittals of this report have been uploaded to the Geotracker database and the Alameda County ftp website.

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

Please contact Tim Cook at Cook Environmental Services at (925) 478-8390 if you have questions or comments in regard to the technical content of this report.

Very truly yours,

Mehrdad Dokhanchy

cc: Tim Cook, Cook Environmental Services, Inc.

QUARTERLY MONITORING REPORT
THIRD QUARTER 2015

PROJECT SITE:
5630 San Pablo Avenue
Oakland, California

PREPARED FOR:
Ed Hemmet and Mehrdad Dokhanchy
P.O. Box 11390
Oakland, CA 94611

SUBMITTED TO:
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Project No. 1131

September 25, 2015

PROFESSIONAL CERTIFICATION

QUARTERLY MONITORING REPORT
THIRD QUARTER 2015

5630 San Pablo Avenue
Oakland, California

By: Cook Environmental Services, Inc.
Project No. 1131

September 25, 2015

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The conclusions presented in this document are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this document. Cook Environmental Services, Inc. recognizes that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other regulatory agencies or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of said user.

Tim Cook, P.E.
Project Manager

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INTRODUCTION

This report presents the results of the third quarter 2015 groundwater monitoring event at 5630 San Pablo Ave, Oakland, CA ("the Site"). This report is presented in response to a release of petroleum hydrocarbons from an underground storage tank (UST) system formerly located at the Site.

The Site location is shown on **Figure 1**. The lead regulatory agency for this case is Alameda County Environmental Health (ACEH). The Site is owned by Mssrs. Ed Hemmet and Mehdad Dokhanchy ("the Owners"). The environmental consulting firm for the Site is Cook Environmental Services, Inc. (CES). The ACEH case number for the Site is Fuel Leak Case No. RO0000182. The Geotracker Global ID number is T06019784055. The ACEH caseworker is Mr. Keith Nowell.

Background

The subject property is located on the southeast corner of San Pablo Avenue and Aileen Street in a mixed commercial and residential area of Oakland, California. The site is currently occupied by Rankin Scaffolding Company. Lonnie and Rita Robinson owned the site from November 1966 to September 2000. Two USTs were removed from the site in October 2000. An unauthorized release of fuel hydrocarbons was discovered during UST removal activities. The location of the former USTs is shown on **Figure 2**. Rita Robinson was named a primary Responsible Party (RP) in a Notice of Responsibility letter from ACEH dated October 31, 2000. Donald Rosenberg purchased the Site in September 2000 and was named a primary RP in a letter from ACEH dated October 16, 2008. Jacky and Kitty Li of Award Motors purchased the property in February 2002 and were named primary RPs in a letter from ACEH dated October 16, 2008. Lloyd Kendall, Jr. of Exchange Support Services, Inc. purchased the Site in February 2003 and was named a primary RP in a letter from ACEH dated October 16, 2008. Ed Hemmet and Mehrdad Dokhanchy purchased the Site in May 2004 and were named primary RPs in a letter from ACEH dated October 16, 2008.

Four soil borings were installed by AEI Consultants during a Phase II Site Investigation conducted in July 2000. Total petroleum hydrocarbons as gasoline (TPH-g) was detected in soil samples as high as 1,300 milligram per kilogram (mg/kg). Total petroleum hydrocarbons as diesel (TPH-d) were detected in soil as high as 200 mg/kg. TPH-g was detected in groundwater as high as 620 micrograms per liter (μg/L) and TPH-d was detected as high as 380 μg/L. Benzene was detected as high as 12 μg/L.

ACEH requested the RPs to submit a work plan for additional site investigation. AEI Consultants submitted the plan on January 10, 2001. The plan was approved by ACEH but was not implemented. The property was sold to Jacky and Kitty Li in February 2002, who used the property for storage of equipment and supplies until it was sold in February 2003. The current owners retained Enviro Soil Tech Consultants (ESTC) to implement the plan in May 2005. The results of this investigation are described in the *Preliminary Investigation and Evaluation*

Report, dated July 25, 2007. Five groundwater monitoring wells (STMW-1 through STMW-5) were installed in the locations depicted on **Figure 2**. Well construction details for these wells are summarized in **Table 1**. The wells were sampled on a intermittent basis from 2007 through 2009. Results of these sampling events were uploaded to the ACEH FTP website and the SWRCB Geotracker database. ACEH requested submittal of an additional work plan to delineate the extent of hydrocarbon contamination. A plan responding to this request, which included a preferential pathway and utility survey, was submitted by ESTC on March 31, 2009. The plan proposed to advance 17 additional soil borings and five additional monitoring wells was approved by ACEH but was not implemented. ACEH requested an addendum to the plan addressing technical comments provided in a directive dated April 6, 2012.

ACEH issued revised requirements for the groundwater monitoring schedule in a letter dated July 24, 2009. In accordance with Resolution No. 2009-0042 the monitoring schedule was changed from quarterly to semi-annual sampling.

ACEH issued a Notice to Comply letter dated May 26, 2015 requesting a meeting to discuss the Path to Closure Plan dated May 20, 2015. The Owners responded to this request via voicemail with several available dates. The ACEH has not yet responded.

This Semi-Annual Monitoring Report is submitted in partial fulfillment with tasks outlined in the Path to Closure Plan.

SCOPE OF WORK

The following tasks were completed this quarter:

- Measured static water levels in five monitoring wells (STMW-1 through STMW-5);
- Purged and sampled groundwater from these same wells;
- Re-sampled wells STMW-3 and STMW-4
- Analyzed samples for TPH-g, TPH-d, BTEX, and 9 oxygenates;
- Prepared and submitted this *Semi-Annual Monitoring Report* to ACEH; and
- Uploaded relevant documents to the ACEH FTP site and the SWRCB Geotracker database.

SAMPLING ACTIVITIES

The following sections describe groundwater monitoring activities and evaluate the field data collected this during this sampling event.

Groundwater Elevations

On July 13, 2015, CES measured water levels in wells STMW-1 through STMW-5 using an electronic well sounder. Field methodology procedures are described in **Appendix A**. The

depth to water and the calculated static water level elevations for this and previous sampling events are summarized in **Table 2**.

This quarter, groundwater elevations ranged from 32.16 to 33.05 feet above mean sea level (amsl). Groundwater levels were on average 0.79 feet lower than on the last sampling event on June 19, 2012. Based on topography, we expect the regional groundwater flow direction to be westerly toward San Francisco Bay. Based on triangulation of elevations measured in wells STMW-1, STMW-2 and STMW-3, the groundwater flow direction this quarter was $S10^0W$ and the hydraulic gradient was 0.020. The measured elevation in well STMW-4 was anomalous as it does not fit the expected groundwater gradient trend. This well may have been improperly completed or there may be a survey error. STMW-4 was not used to calculate the hydraulic gradient nor was it used to depict the groundwater flow direction shown on **Figure 3.**

Groundwater Sampling

On July 13, 2015, CES purged approximately three well volumes of groundwater from each well prior to sampling. Wells were purged and sampled using a new disposable polyethylene bailer for each well. The temperature, pH, specific conductance and dissolved oxygen (DO) were measured during purging to document these parameters had stabilized prior to collecting groundwater samples. Stable parameters are indicative of native formation water. Groundwater sampling logs are included in **Appendix B**.

On August 25, 2015, CES purged and re-sampled wells STMW-3 and STMW-4 using the field procedures described above. These wells were re-sampled because hydrocarbon concentrations were not consistent with results from previous sampling events

Lab Analyses

Samples were chilled to 4 degrees Celsius and transported to the McCampbell Analytical Laboratory in Pittsburg, California under chain-of-custody protocol. Samples were analyzed for TPH-g and TPH-d by EPA method 8015 modified; and for BTEX and 9 fuel oxygenates by EPA method 8260B.

Laboratory Results

The following sections evaluate sample results from sampling events on July 13, 2015 and August 25, 2015.

July 13, 2015 Sample Results

TPH-g and TPH-d were detected above the ESL (100 μg/L) only in well STMW-3. TPH-g was detected at 340 μg/L and TPH-d was detected at 150 μg/L. BTEX and the 9 oxygenates were not detected above their respective ESLs in any of the five wells. No oily sheen was observed on the surface of any of the five water samples. A moderate hydrocarbon odor was noted in STMW-3. No odors were noted in the remaining four wells.

Methyl tert-butyl ether (MtBE) was detected in wells STMW-1 and STMW-3, however, the maximum concentration detected was 4.8 µg/L. The ESL for MtBE is 5.0 µg/L, thus MtBE concentrations in Site wells do not pose a risk to human health or the environment.

Tert-butyl alcohol (tBA) was detected in well STMW-3 at 10 µg/L. The ESL for tBA is 12 µg/L, thus tBA concentrations in Site wells do not pose a risk to human health or the environment.

Diisopropyl ether (DIPE) was detected in well STMW-3 at 0.56 µg/L. There is not established ESL for DIPE, thus DIPE concentrations in Site wells do not pose a risk to human health or the environment.

August 25, 2015 Sample Results

After evaluating the July 13 groundwater results, it was discovered that TPH values in STMW-3 and STMW-4 were anomalous. The TPH-g concentration in STMW-3 was 340 µg/L, when it was less than 50 µg/L in the previous sampling event. Further, the TPH-g concentration in STMW-4 was less than 50 µg/L when it was 290 µg/L in the previous sampling event. CES decided to re-sample these wells to determine if the samples were switched in the field.

The results of the second sampling event found that TPH-g was 53 µg/L in STMW-3 and was 470 µg/L in STMW-4. Since the site never sold diesel fuel, TPH-d was not sampled.

TPH-g results are more consistent with previous results and will used to represent field conditions. Thus, the only well with TPH-g above the ESL is STMW-4 with a concentration of 470 µg/L. The only other hydrocarbon constituent detected above its ESL (5.0 µg/L) was MtBE. MtBE was detected in STMW-4 at 7.2 µg/L.

Sample Results Summary

The areal extent of TPH-g is depicted on **Figure 4**; however, results for wells STMW-3 and STMW-4 are displayed from the August 25, sampling event.

Groundwater analytical results for these sampling events and all previous events are summarized in **Table 3.** Laboratory analytical reports are provided in **Appendix C**.

Hydrocarbon concentrations are significantly lower in wells where hydrocarbons were detected previously. Concentration trends for TPH and BTEX constituents in each well are graphically presented in **Appendix D**.

CONCLUSIONS

Petroleum hydrocarbons in the form of gasoline were released from the former UST system. This system was reportedly removed in October 2000.

Monitoring well STMW-4 yielded TPH-g at 470 µg/L and MtBE at 7.2 µg/L. No other hydrocarbon constituents were detected above their respective ESLs in any of the five wells.

Monitoring well STMW-4 is located in the southwestern portion of the Site. The remaining four Site wells are located hydraulically upgradient of this well. Thus, based on sampling results from this event, the lateral extent of hydrocarbon contamination is not delineated to the west and south of STMW-4. The groundwater flow direction during this sampling event was determined to be $S10^{0}W$. It would advisable to collect one additional groundwater sample west of STMW-4 in order to fully delineate the hydrocarbon plume as required in the LTCP.

The Path to Closure dated May 20, 2015 lists several issues to address prior to site closure under the Low Threat Closure Policy. Impediment 5 to closure lists the following conditions that do not meet the policy criteria:

1. Hydrocarbon plume length is unknown
2. The stability or decreasing areal extent of the plume is unknown
3. Free product is present on the groundwater surface
4. It is not known whether free product has been removed from the groundwater surface to the maximum extent practicable.
5. Since free product is present, it is not known if the plume has been stable or decreasing for the last five years
6. Since free product is present, it is not known if the owner is willing to accept a land use restriction
7. It is not known if free product extends offsite
8. The distance from the plume boundary to the nearest water supply well is unknown
9. The distance from the plume boundary to the nearest surface water is unknown.

The following information is provided to respond to the 9 conditions that form Impediment 5:

1. Based on sample results this quarter, TPH contamination was detected in well STMW-4 only. This well is located hydraulically downgradient of the remaining four wells. The only direction that the extent of the plume is not delineated is west (downgradient) of STMW-4. We recommend installing one more monitoring well in the sidewalk west of STMW-4 to fulfill this requirement.
2. Based on groundwater data from two sampling events collected in the last 5 years, the plume is stable or decreasing in extent.
3. Free product was not observed in any well on July 13, 2015 or August 25, 2015. TPH concentrations observed in water samples suggest that free product is not present.
4. Since free product is not present, free product removal is not appropriate.
5. As stated previously in items 3 and 4, free product is not present in any well
6. As stated previously in items 3 and 4, free product is not present in any well
7. As stated previously in items 3 and 4, free product is not present in any well
8. The nearest water supply well to the plume is not known. We recommend obtaining this information by reviewing files maintained by the Alameda County Public Works (ACPW) and the California Department of Water Resources (DWR)
9. The nearest surface water to the plume is San Francisco Bay, which is located approximately 0.8 miles west of the Site.

Impediment 6 to closure lists the following conditions that do not meet the policy criteria:

1. Soil gas samples have not been collected to assess the potential for vapor intrusion to indoor air in the Site building
2. Free product is present on the groundwater surface
3. It is not known whether TPH concentrations in soil within the bioattenuation zone (0-5 feet) are greater than 100 milligrams per kilogram (mg/kg)
4. If the depth to groundwater is less than 5 feet then bioattenuation zone assumptions cannot be used.
5. The oxygen concentration within the bioattenuation zone is unknown

The following information is provided to respond to the 9 conditions that form Impediment 5:

1. Soil gas samples should be collected in front of the building as directed by the LTCP to address the potential for vapor intrusion to indoor air.
2. Free product is not present on the groundwater surface
3. At least two soil samples should be collected from 0-5 feet below grade in front of the building as directed by the LTCP to address whether a bioattenuation zone exists at the Site.
4. The depth to groundwater ranged from 8.68 to 10.06 feet below top of casing. Thus there is more than 5 feet of unsaturated zone to satisfy bioattenuation requirements listed in the LTCP.
5. Soil gas samples should be collected and analyzed for oxygen to determine if the Site meets assumptions to use bioattenuation zone assumptions.

RECOMMENDATIONS

Based on the conclusions, we recommend the following scope of work to fill data gaps such that the Site can be considered for closure under the LTCP.

1. Review files maintained by ACPW and DWR to determine the distance to the nearest water supply well.
2. Install one more monitoring well west (downgradient) of STMW-4 to fully delineate the extent of the hydrocarbon plume.
3. Collect two soil samples from 0-5 feet below grade in front of the existing building and analyze for TPH to determine if the Site satisfies bioattenuation zone assumptions.
4. Collect on soil gas sample from 5 feet below the base of the foundation next to the existing building and analyze for TPH-d, TPH-g, BTEX, naphthalene, fixed gases including oxygen and helium (leak check gas). Results will be compared to appropriate LTCP threshold levels to determine if the Site qualifies for low threat closure.

A work plan describing methods and procedures for completing these tasks will be submitted to the ACEH upon approval of these recommendations.

TABLES

Table 1. Well Construction Summary
5630 San Pablo Ave., Oakland

Well ID	Diameter (in)	Depth (ft)	Screen Interval (ft)	Depth of Blank (ft)	Cement Interval (ft)	Bentonite Interval (ft)	Sand Interval (ft)
STMW-1	2	20	5-20	0-5	0-3.5	3.5-4.0	4.0-20
STMW-2	2	20	5-20	0-5	0-3.5	3.5-4.0	4.0-20
STMW-3	2	20	5-20	0-5	0-3.5	3.5-4.0	4.0-20
STMW-4	2	20	5-20	0-5	0-3.5	3.5-4.0	4.0-20
STMW-5	2	20	5-20	0-5	0-3.5	3.5-4.0	4.0-20

Table 2. Groundwater Elevations
5630 San Pablo Ave., Oakland

Well ID	STMW-1		STMW-2		STMW-3		STMW-4		STMW-5	
TOC Elevation (ft)	41.92		41.74		42.01		42.48		40.84	
Date	DTW (ft)	Elev (ft)	DTW (ft)	Elev (ft)	DTW (ft)	Elev (ft)	DTW (ft)	Elev (ft)	DTW (ft)	Elev (ft)
05/19/05	6.68	35.24	7.32	34.42	8.26	33.75	8.10	34.38	6.58	34.26
04/06/06	4.16	37.76	4.36	37.38	6.02	35.99	6.32	36.16	4.74	36.10
02/05/07	8.38	33.54	8.06	33.68	9.32	32.69	9.24	33.24	7.96	32.88
10/15/07	6.44	35.48	7.23	34.51	8.20	33.81	8.06	34.42	6.72	34.12
01/18/08	5.50	36.42	6.32	35.42	7.70	34.31	7.64	34.84	5.52	35.32
04/11/08	6.90	35.02	7.82	33.92	8.74	33.27	8.78	33.70	7.06	33.78
07/14/08	8.46	33.46	8.84	32.90	9.36	32.65	7.90	34.58	8.29	32.55
08/20/09	9.00	32.92	9.46	32.28	10.06	31.95	9.70	32.78	8.72	32.12
06/19/12	7.84	34.08	8.34	33.40	9.08	32.93	8.96	33.52	7.78	33.06
07/13/15	8.87	33.05	9.09	32.65	9.79	32.22	9.54	32.94	8.68	32.16
Max (ft)	9.00	37.76	9.46	37.38	10.06	35.99	9.70	36.16	8.72	36.10
Min (ft)	4.16	32.92	4.36	32.28	6.02	31.95	6.32	32.78	4.74	32.12
Average (ft)	7.22	34.70	7.68	34.06	8.65	33.36	8.42	34.06	7.21	33.64

Table 3. Groundwater Elevations and Analytical Data
5630 San Pablo Ave., Oakland

Well ID	Date	DTW (ft)	TPH-g	TPH-d	B	T	E	X	MtBE	DIPE	TBA	TCE
STMW-1	05/19/05	6.68	**220**	<50	**11**	18	3.1	20	<1.0	NA	NA	NA
	04/06/06	4.16	<50	<50	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<10	<0.5
	02/05/07	8.38	<50	<50	<0.5	<0.5	<0.5	<0.5	5.4	<0.5	<10	<0.5
	10/15/07	6.44	<50	<52	<0.5	<0.5	<0.5	<0.5	4.1	<0.5	<10	<0.5
	01/18/08	5.50	<50	<50	<0.5	0.64	<0.5	<0.5	2.7	<0.5	<10	<0.5
	04/11/08	6.90	<50	<52	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<10	<0.5
	07/14/08	8.46	<50	<50	<0.5	<0.5	<0.5	<1.0	1.3	<0.5	<10	<0.5
	08/20/09	9.00	<50	<94	<1.0	<1.0	<1.0	<2.0	1.8	<1.0	<10	<1.0
	06/19/12	7.84	<50	<260	<0.5	<0.5	<0.5	<1.0	1.6	<0.5	<5.0	<0.5
	07/13/15	8.87	<50	<50	<0.5	<0.5	<0.5	<0.5	2.2	<0.5	<2.0	NA
STMW-2	05/19/05	7.32	**170**	<50	**11**	18	3.5	21	<1.0	NA	NA	NA
	04/06/06	4.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	02/05/07	8.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	10/15/07	7.23	<50	<58	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	01/18/08	6.32	<50	<50	<0.5	1.00	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	04/11/08	7.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	07/14/08	8.84	<50	<51	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<10	<0.5
	08/20/09	9.46	<50	<94	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0
	06/19/12	8.34	<50	<94	<0.5	<0.5	<0.5	<1.0	0.54	<0.5	<5.0	<0.5
	07/13/15	9.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	NA
STMW-3	05/19/05	8.26	**470**	<50	**13**	18	4.9	22	<1.0	NA	NA	NA
	04/06/06	6.02	**2200**	<50	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	<10	<0.5
	02/05/07	9.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	10/15/07	8.20	<50	<55	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	01/18/08	7.70	**820**	390	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5	<10	<2.5
	04/11/08	8.74	<50	<48	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<10	<0.5
	07/14/08	9.36	<50	<50	<0.5	<0.5	<0.5	<1.0	1.4	<0.5	<10	<0.5
	08/20/09	10.06	50.8	<91	<1.0	<1.0	<1.0	<2.0	2.3	0.95	<10	<1.0
	06/19/12	9.08	<50	<94	<0.5	<0.5	<0.5	<1.0	1.5	<0.5	<5.0	<0.5
	07/13/15	9.79	**340**	**150**	<0.5	<0.5	<0.5	<0.5	4.8	0.56	10	NA
	08/25/15		53	NA	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	<2.0	NA
Environmental Screening Level			100	100	1.0	40	30	20	5.0	NE	12	5.0

Table 3. Groundwater Elevations and Analytical Data
5630 San Pablo Ave., Oakland

Well ID	Date	DTW (ft)	TPH-g	TPH-d	B	T	E	X	MtBE	DIPE	TBA	TCE
STMW-4	05/19/05	8.10	**2700**	<500	**3.2**	<1.0	1.60	5.0	<2.0	<1.0	<20	<1.0
	04/06/06	6.32	**1800**	<50	**1.5**	1.40	1.10	3.5	<2.0	<1.0	<20	<1.0
	02/05/07	9.24	**2500**	<50	**5.0**	<1.0	1.50	3.5	<2.0	<1.0	<20	<1.0
	10/15/07	8.06	**510**	<50	**1.5**	0.53	0.54	1.3	<1.0	<0.5	<10	<0.5
	01/18/08	7.64	**150**	57	**1.3**	0.56	<0.5	0.58	<1.0	<0.5	<10	<0.5
	04/11/08	8.78	**1200**	650	<0.5	<0.5	<0.5	1.3	<1.0	<0.5	<10	<0.5
	07/14/08	7.90	**1000**	490	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<10	<0.5
	08/20/09	9.70	**355**	105	0.65	<1.0	0.40	<2.0	1.20	<1.0	<10	<1.0
	06/19/12	8.96	**290**	370	<0.5	<0.5	<0.5	<1.0	0.75	1.2	<5.0	<0.5
	07/13/15	9.54	<50	52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	NA
	08/25/15		**470**	NA	<0.5	<0.5	0.79	3.3	**7.2**	1.3	9.2	NA
STMW-5	05/19/05	6.58	**1500**	<50	**16**	<0.5	0.52	<0.5	<1.0	<0.5	<10	<0.5
	04/06/06	4.74	**640**	<50	**15**	<0.5	0.91	<0.5	<1.0	<0.5	<10	<0.5
	02/05/07	7.96	**600**	<50	**4.5**	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	10/15/07	6.72	**270**	<50	0.83	<0.5	<0.5	<0.5	<1.0	<0.5	<10	<0.5
	01/18/08	5.52	**1400**	3300	**2.8**	3.2	<2.5	4.0	<0.5	<2.5	<50	<2.5
	04/11/08	7.06	**140**	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<10	<0.5
	07/14/08	8.29	**140**	<48	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<10	<0.5
	08/20/09	8.72	**251**	<94	0.60	<1.0	<1.0	<2.0	<1.0	<1.0	<10	<1.0
	06/19/12	7.78	<50	<94	<0.5	<0.5	<0.5	<1.0	<0.5	0.92	<0.5	<0.5
	07/13/15	8.68	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	NA
Environmental Screening Level			100	100	1.0	40	30	20	5.0	NE	12	5.0

Notes:

Units are micrograms per liter (ug/L).

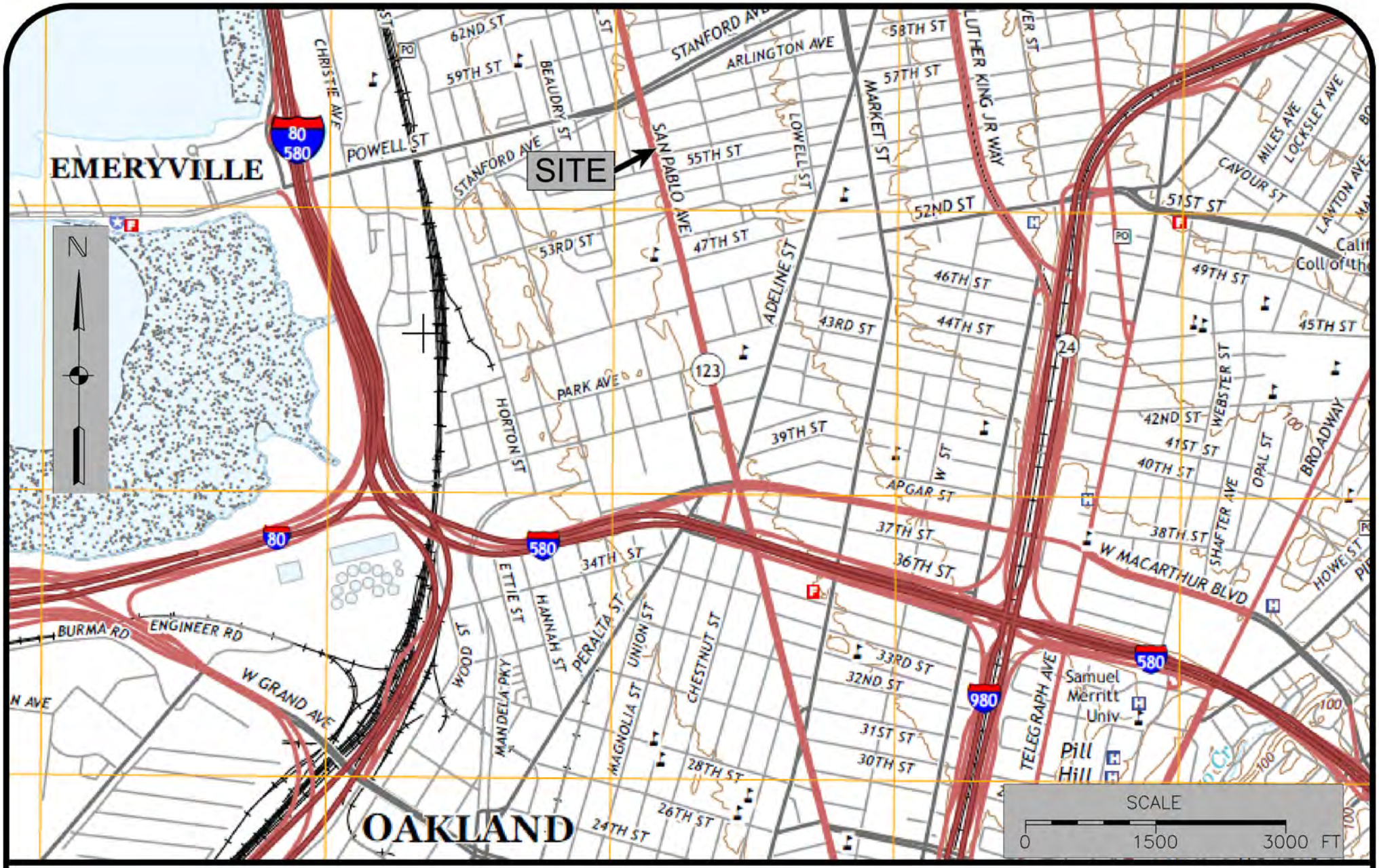
<0.5 = less than the laboratory detection limit

TPH-g = total petroleum hydrocarbons as gasoline, TPH-d = total petroleum hydrocarbons as diesel, B = benzene, T = toluene, E = ethylbenzne, X = xylenes, MtBE = methyl tert-butyl ether, DIPE = diisopropyl ether, tBA = tert butyl alcohol, TCE = trichloroethene, NA = not analyzed, NE = no ESL established.

Concentrations in excess of SFRWQCB Environmental Screening Levels (ESLs) established for drinking water are in **bold**.

ESLs assume residential land use where drinking water is a drinking water resource

FIGURES



Cook Environmental Services, Inc.
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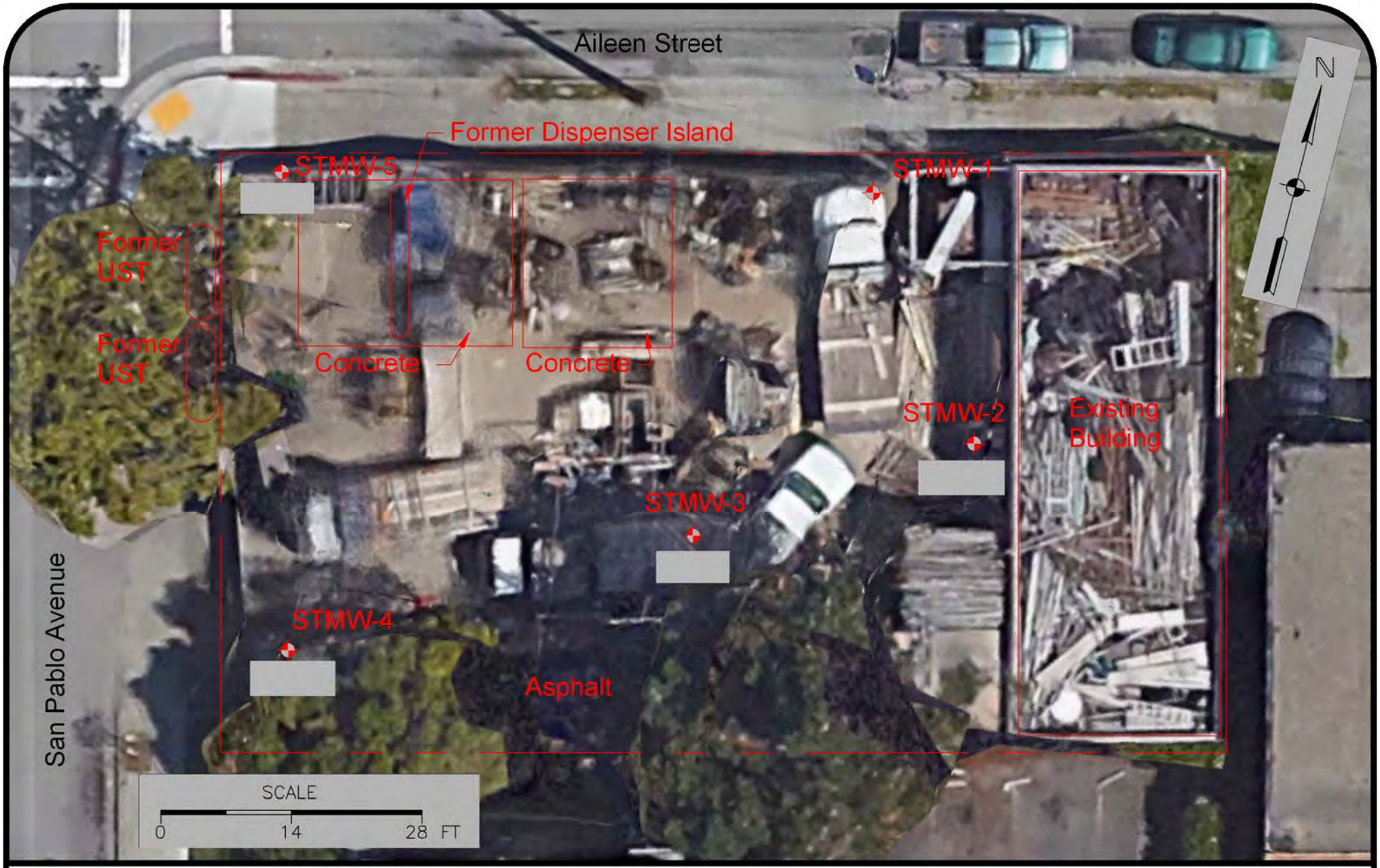
Walnut Creek, CA 94597
(925) 478-8390 work
(925) 787-6869 cell
tcook@cookenvironmental.com

Site Location Map

5630 San Pablo Avenue
Oakland, CA 94608

Project 1:131	Figure: 1
Date: 7/27/15	
Scale:1"=1500'	



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Site Plan

5630 San Pablo Avenue
Oakland, CA 94608

Project 1:131	Figure: 2
Date: 7/27/15	
Scale:1"= 14 '	

Cook Environmental Services, Inc.
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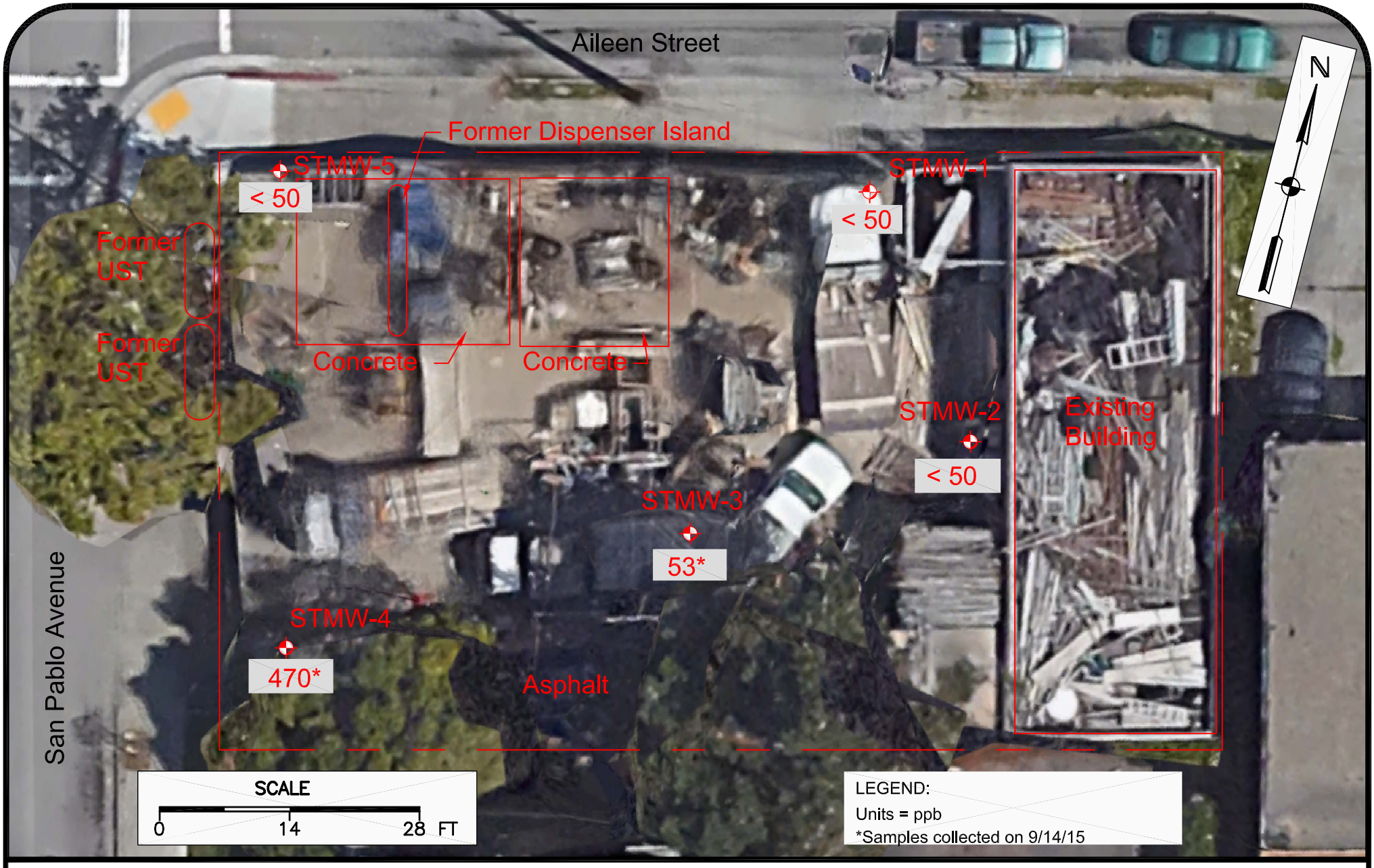
Groundwater Elevations

5630 San Pablo Avenue
Oakland, CA 94608

Project 1:131	Figure: 3
Date: 7/27/15	
Scale:1"= 14 '	



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TPH-g in Groundwater

5630 San Pablo Avenue
Oakland, CA 94608

Project : 1131	Figure: 4
Date: 9/25/15	
Scale: 1"= 14 '	

APPENDIX A
Field Procedures

APPENDIX A
FIELD SAMPLING METHODOLOGY
AND ELECTRONIC DATA DELIVERY

Cook Environmental Services, Inc. (CES) groundwater sampling methodology is based on procedures specified in the California State Water Resource Control Board *LUFT Field Manual*.

Monitoring wells were exposed to atmospheric conditions for approximately 30 minutes prior to measurements to equalize barometric pressure in the well. If the well appears to be pressurized, or the groundwater level is fluctuating, measurements are collected until the level stabilizes. CES used an electronic well sounder to measure the static water levels in monitoring wells to the nearest hundredth (0.01) of a foot. Depth-to-water measurements were subtracted from the top of casing elevations to obtain static water elevations.

After the depth to groundwater is measured, the well is checked for the presence of free product with a clear, disposable polyethylene bailer. If free product is present, the thickness of the layer is recorded, and the well is bailed until there is just a sheen.

Groundwater samples were collected in order from least contaminated to most contaminated, which minimizes the possibility of cross contamination. A clean disposable polyethylene bailer was used to purge each well. During purging the physical parameters of temperature, conductivity, pH and dissolved oxygen (DO) are monitored with field instruments to ensure that these parameters have stabilized to within a variation of fifteen percent. These field instruments are calibrated before each use. Purging is complete when field parameters have stabilized or after three well volumes are removed, whichever is greater.

Each VOA bottle is preserved with concentrated hydrochloric acid at the lab. Care was taken not to agitate the sample while transferring the sample from the bailer to the VOA (Volatile Organics Analyzer) bottle to prevent volatilization of dissolved contaminants. A full meniscus was observed on the surface of each VOA bottle prior to capping. After each VOA bottle was capped, it was inspected for entrained bubbles. If bubbles were observed, the VOA bottle was emptied and a new sample was collected without any trapped air bubbles.

The purged water was stored on-Site in sealed, labeled 55-gallon steel drums and is periodically removed from the site and disposed of at a licensed facility.

After purging, the water level in the well is allowed to recover to at least 80 percent of its original depth before a sample is collected. A groundwater sample was collected from each well with a clean disposable bailer.

Immediately after purging each well, groundwater samples were collected using the same disposable bailer used to purge the well. Each sample was decanted from the disposable bailer into the appropriate laboratory prepared sample bottles. If necessary, the laboratory added the appropriate preservative to the sample bottles.

Observations of groundwater conditions during purging, such as odor, volume of water purged, temperature, pH, specific conductivity DO and turbidity were recorded on the sampling logs.

The DO/temperature probe and the well sounder probe were decontaminated after each use by washing in an Alconox® detergent solution followed by a tap water rinse.

Each surface water sample from San Pablo Creek was collected using a clean disposable bailer. The bailer was emptied into a laboratory cleaned VOA bottles as described above.

Groundwater and surface water samples were labeled with the project number, sample ID, and date collected. The same information was recorded on a chain-of-custody form. The samples were placed in an ice chest pending delivery to the ELAP certified laboratory.

Chemical analysis data were submitted electronically to the SWRCB Geographical Environmental Information Management System (GeoTracker) database, as required by AB2886 (Water Code Sections 13195-13198). Electronic analytical reports (EDF files) are prepared and formatted by the laboratory and submitted to GeoTracker by CES. Along with the analytical results, well latitudes, longitudes (GEO_XY files), and elevations (GEO_Z files) are submitted to the database, as necessary. Submittal of a well status and usage report (GEO_WELL file) is required for each monitoring event. Current maps (GEO_MAP files) are also submitted when Site features are added or changed. Each report is submitted in pdf format (GEO_REPORT file) as they are completed.

APPENDIX B

Sampling Logs

COOK ENVIRONMENTAL SERVICES, INC. QUARTERLY MONITORING LOG

Site Name:	**San Pablo**	Job #	1131
Date:	7/13/2015	Field Tech:	T. Cook
Well ID:	**STMW-1**	Well Diameter:	2"
Well Depth:	20'	Depth to Water:	8.87
Column:	11.13	Casing Volume:	1.89
3 Casing Volumes:	5.67	2" well = col height * 0.17 gal/ft	

Time	Gallons Purged	Temp C	pH	SC (uS)	TDS (mg/L)	DO (mg/L)	Purge Comments
2:10	2	17.1	7.41	803		4.20	No odor
	3	17.0	7.46	640		3.79	
	6	16.9	7.46	630		3.68	

Well ID:	**STMW-2**	Well Diameter:	2"
Well Depth:	20.00	Depth to Water:	9.09
Column:	10.91	Casing Volume:	1.85
3 Casing Volumes:	5.56	2" well = col height * 0.17 gal/ft	

Time	Gallons Purged	Temp C	pH	SC (uS)	TDS (mg/L)	DO (mg/L)	Purge Comments
2:21	2	16.9	7.56	750		4.31	No odor
	3	16.7	7.48	680		3.70	
	6	16.7	7.47	672		3.68	

Well ID:	**STMW-3**	Well Diameter:	2"
Well Depth:	20.00	Depth to Water:	9.79
Column:	10.21	Casing Volume:	1.73
3 Casing Volumes:	5.20	2" well = col height * 0.17 gal/ft	

Time	Gallons Purged	Temp C	pH	SC (uS)	TDS (mg/L)	DO (mg/L)	Purge Comments
2:35	2	16.8	7.42	690		4.30	mod HC odor
	3	16.8	7.38	680		3.91	
	5	16.8	7.36	673		3.75	

Well ID:	**STMW-4**	Well Diameter:	2"
Well Depth:	20	Depth to Water:	9.54
Column:	10.46	Casing Volume:	1.77
3 Casing Volumes:	5.33	2" well = col height * 0.17 gal/ft	

Time	Gallons Purged	Temp C	pH	SC (uS)	TDS (mg/L)	DO (mg/L)	Purge Comments
2:50	2	17.2	7.65	680		4.23	No odor
	3	17.2	7.58	675		3.81	
	5	17.1	7.55	677		3.75	

COOK ENVIRONMENTAL SERVICES, INC. QUARTERLY MONITORING LOG

SAN PABLO

Site Name:	~~DWB Partners~~	Job #	~~1067~~ 1131
Date:	2~~/7/2013~~ 7/8/2015	Field Tech:	T. Cook
Well ID:	**STMW-5**	Well Diameter:	2"
Well Depth:	20.00	Depth to Water:	8.68
Column:	11.92	Casing Volume:	2.02
3 Casing Volumes:	6.07	2" well = col height * 0.17 gal/ft	

Time	Gallons Purged	Temp C	pH	SC (uS)	TDS (mg/L)	DO (mg/L)	Purge Comments
3:10	2	18.1	7.57	642		3.80	No odor
	4	17.9	7.32	630		3.95	
	6	17.8	7.41	637		3.74	

APPENDIX C

Laboratory Analytical Reports

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1507439

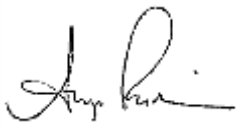
Report Created for: Cook Environmental Services, Inc.

1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597

Project Contact: Tim Cook
Project P.O.:
Project Name: #1131; 5630 San Pablo

Project Received: 07/13/2015

Analytical Report reviewed & approved for release on 07/20/2015 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: Cook Environmental Services, Inc.
Project: #1131; 5630 San Pablo
WorkOrder: 1507439

Glossary Abbreviation

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)
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.
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
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

S	spike recovery outside accepted recovery limits
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d9	no recognizable pattern
d17	Reporting limit for MTBE raised due to co-elution with non-target peaks.
e8	kerosene/kerosene range/jet fuel range

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

Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8260B
Date Prepared:	7/17/15	**Unit:**	µg/L

Oxygenates and BTEX by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-1	1507439-001B	Water	07/13/2015	GC10	107794

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	07/17/2015 02:13
Benzene	ND	0.50	1	07/17/2015 02:13
t-Butyl alcohol (TBA)	ND	2.0	1	07/17/2015 02:13
1,2-Dibromoethane (EDB)	ND	0.50	1	07/17/2015 02:13
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	07/17/2015 02:13
Diisopropyl ether (DIPE)	ND	0.50	1	07/17/2015 02:13
Ethanol	ND	50	1	07/17/2015 02:13
Ethylbenzene	ND	0.50	1	07/17/2015 02:13
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	07/17/2015 02:13
Methanol	ND	500	1	07/17/2015 02:13
Methyl-t-butyl ether (MTBE)	**2.2**	0.50	1	07/17/2015 02:13
Toluene	ND	0.50	1	07/17/2015 02:13
Xylenes, Total	ND	0.50	1	07/17/2015 02:13

Surrogates	REC (%)	Limits	
Dibromofluoromethane	114	70-130	07/17/2015 02:13
Toluene-d8	95	70-130	07/17/2015 02:13
4-BFB	103	70-130	07/17/2015 02:13

Analyst(s): AK

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8260B
Date Prepared:	7/17/15	**Unit:**	µg/L

Oxygenates and BTEX by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-2	1507439-002B	Water	07/13/2015	GC10	107794

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	07/17/2015 02:54
Benzene	ND	0.50	1	07/17/2015 02:54
t-Butyl alcohol (TBA)	ND	2.0	1	07/17/2015 02:54
1,2-Dibromoethane (EDB)	ND	0.50	1	07/17/2015 02:54
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	07/17/2015 02:54
Diisopropyl ether (DIPE)	ND	0.50	1	07/17/2015 02:54
Ethanol	ND	50	1	07/17/2015 02:54
Ethylbenzene	ND	0.50	1	07/17/2015 02:54
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	07/17/2015 02:54
Methanol	ND	500	1	07/17/2015 02:54
Methyl-t-butyl ether (MTBE)	ND	0.50	1	07/17/2015 02:54
Toluene	ND	0.50	1	07/17/2015 02:54
Xylenes, Total	ND	0.50	1	07/17/2015 02:54

Surrogates	REC (%)	Limits	
Dibromofluoromethane	112	70-130	07/17/2015 02:54
Toluene-d8	95	70-130	07/17/2015 02:54
4-BFB	98	70-130	07/17/2015 02:54

Analyst(s): AK

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

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

Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8260B
Date Prepared:	7/17/15	**Unit:**	µg/L

Oxygenates and BTEX by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-3	1507439-003B	Water	07/13/2015	GC10	107794

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	07/17/2015 03:36
Benzene	ND	0.50	1	07/17/2015 03:36
t-Butyl alcohol (TBA)	**10**	2.0	1	07/17/2015 03:36
1,2-Dibromoethane (EDB)	ND	0.50	1	07/17/2015 03:36
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	07/17/2015 03:36
Diisopropyl ether (DIPE)	**0.56**	0.50	1	07/17/2015 03:36
Ethanol	ND	50	1	07/17/2015 03:36
Ethylbenzene	ND	0.50	1	07/17/2015 03:36
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	07/17/2015 03:36
Methanol	ND	500	1	07/17/2015 03:36
Methyl-t-butyl ether (MTBE)	**4.8**	0.50	1	07/17/2015 03:36
Toluene	ND	0.50	1	07/17/2015 03:36
Xylenes, Total	ND	0.50	1	07/17/2015 03:36

Surrogates	REC (%)	Limits	
Dibromofluoromethane	111	70-130	07/17/2015 03:36
Toluene-d8	93	70-130	07/17/2015 03:36
4-BFB	102	70-130	07/17/2015 03:36

Analyst(s): AK

(Cont.)

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8260B
Date Prepared:	7/17/15	**Unit:**	µg/L

Oxygenates and BTEX by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-4	1507439-004B	Water	07/13/2015	GC10	107794

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	07/17/2015 04:17
Benzene	ND	0.50	1	07/17/2015 04:17
t-Butyl alcohol (TBA)	ND	2.0	1	07/17/2015 04:17
1,2-Dibromoethane (EDB)	ND	0.50	1	07/17/2015 04:17
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	07/17/2015 04:17
Diisopropyl ether (DIPE)	ND	0.50	1	07/17/2015 04:17
Ethanol	ND	50	1	07/17/2015 04:17
Ethylbenzene	ND	0.50	1	07/17/2015 04:17
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	07/17/2015 04:17
Methanol	ND	500	1	07/17/2015 04:17
Methyl-t-butyl ether (MTBE)	ND	0.50	1	07/17/2015 04:17
Toluene	ND	0.50	1	07/17/2015 04:17
Xylenes, Total	ND	0.50	1	07/17/2015 04:17

Surrogates	REC (%)	Limits	
Dibromofluoromethane	115	70-130	07/17/2015 04:17
Toluene-d8	95	70-130	07/17/2015 04:17
4-BFB	107	70-130	07/17/2015 04:17

Analyst(s): AK

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8260B
Date Prepared:	7/17/15	**Unit:**	µg/L

Oxygenates and BTEX by GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-5	1507439-005B	Water	07/13/2015	GC10	107794

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	07/17/2015 04:58
Benzene	ND	0.50	1	07/17/2015 04:58
t-Butyl alcohol (TBA)	ND	2.0	1	07/17/2015 04:58
1,2-Dibromoethane (EDB)	ND	0.50	1	07/17/2015 04:58
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	07/17/2015 04:58
Diisopropyl ether (DIPE)	ND	0.50	1	07/17/2015 04:58
Ethanol	ND	50	1	07/17/2015 04:58
Ethylbenzene	ND	0.50	1	07/17/2015 04:58
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	07/17/2015 04:58
Methanol	ND	500	1	07/17/2015 04:58
Methyl-t-butyl ether (MTBE)	ND	0.50	1	07/17/2015 04:58
Toluene	ND	0.50	1	07/17/2015 04:58
Xylenes, Total	ND	0.50	1	07/17/2015 04:58

Surrogates	REC (%)	Limits	
Dibromofluoromethane	114	70-130	07/17/2015 04:58
Toluene-d8	96	70-130	07/17/2015 04:58
4-BFB	102	70-130	07/17/2015 04:58

Analyst(s): AK

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

Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	7/14/15-7/16/15	**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
STMW-1	1507439-001A	Water	07/13/2015	GC3	107660

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	07/15/2015 01:13
MTBE	---	5.0	1	07/15/2015 01:13
Benzene	---	0.50	1	07/15/2015 01:13
Toluene	---	0.50	1	07/15/2015 01:13
Ethylbenzene	---	0.50	1	07/15/2015 01:13
Xylenes	---	0.50	1	07/15/2015 01:13

Surrogates	REC (%)	Limits	
aaa-TFT	115	70-130	07/15/2015 01:13

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-2	1507439-002A	Water	07/13/2015	GC3	107660

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	07/14/2015 21:15
MTBE	---	5.0	1	07/14/2015 21:15
Benzene	---	0.50	1	07/14/2015 21:15
Toluene	---	0.50	1	07/14/2015 21:15
Ethylbenzene	---	0.50	1	07/14/2015 21:15
Xylenes	---	0.50	1	07/14/2015 21:15

Surrogates	REC (%)	Limits	
aaa-TFT	108	70-130	07/14/2015 21:15

Analyst(s): IA

(Cont.)

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	7/14/15-7/16/15	**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
STMW-3	1507439-003A	Water	07/13/2015	GC3	107660

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**340**	50	1	07/15/2015 02:43
MTBE	---	5.0	1	07/15/2015 02:43
Benzene	---	0.50	1	07/15/2015 02:43
Toluene	---	0.50	1	07/15/2015 02:43
Ethylbenzene	---	0.50	1	07/15/2015 02:43
Xylenes	---	0.50	1	07/15/2015 02:43

Surrogates	REC (%)	Qualifiers	Limits	
aaa-TFT	145	S	70-130	07/15/2015 02:43

Analyst(s): IA Analytical Comments: d9,c4,d17

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-4	1507439-004A	Water	07/13/2015	GC3	107660

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	07/16/2015 20:51
MTBE	---	5.0	1	07/16/2015 20:51
Benzene	---	0.50	1	07/16/2015 20:51
Toluene	---	0.50	1	07/16/2015 20:51
Ethylbenzene	---	0.50	1	07/16/2015 20:51
Xylenes	---	0.50	1	07/16/2015 20:51

Surrogates	REC (%)	Limits	
aaa-TFT	111	70-130	07/16/2015 20:51

Analyst(s): IA

(Cont.)

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW5030B
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8021B/8015Bm
Date Prepared:	7/14/15-7/16/15	**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
STMW-5	1507439-005A	Water	07/13/2015	GC3	107660

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	07/15/2015 04:12
MTBE	---	5.0	1	07/15/2015 04:12
Benzene	---	0.50	1	07/15/2015 04:12
Toluene	---	0.50	1	07/15/2015 04:12
Ethylbenzene	---	0.50	1	07/15/2015 04:12
Xylenes	---	0.50	1	07/15/2015 04:12

Surrogates	REC (%)	Limits	
aaa-TFT	106	70-130	07/15/2015 04:12

Analyst(s): IA

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW3510C
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8015B
Date Prepared:	7/13/15	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-1	1507439-001A	Water	07/13/2015	GC6A	107545

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	07/14/2015 21:51

Surrogates	REC (%)	Limits	
C9	92	70-130	07/14/2015 21:51

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-2	1507439-002A	Water	07/13/2015	GC6A	107545

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	07/15/2015 12:59

Surrogates	REC (%)	Limits	
C9	99	70-130	07/15/2015 12:59

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-3	1507439-003A	Water	07/13/2015	GC6A	107545

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**150**	50	1	07/15/2015 14:13

Surrogates	REC (%)	Limits	
C9	100	70-130	07/15/2015 14:13

Analyst(s): TK Analytical Comments: e8

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-4	1507439-004A	Water	07/13/2015	GC6A	107545

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	**52**	50	1	07/15/2015 15:28

Surrogates	REC (%)	Limits	
C9	90	70-130	07/15/2015 15:28

Analyst(s): TK Analytical Comments: e8

(Cont.)

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Project:	#1131; 5630 San Pablo	**Extraction Method:**	SW3510C
Date Received:	7/13/15 20:30	**Analytical Method:**	SW8015B
Date Prepared:	7/13/15	**Unit:**	µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-5	**1507439-005A**	**Water**	**07/13/2015**	**GC6A**	**107545**

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	07/15/2015 16:42
Surrogates	**REC (%)**	**Limits**		
C9	97	70-130		07/15/2015 16:42

Analyst(s): TK

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Date Prepared:	7/16/15	**BatchID:**	107794
Date Analyzed:	7/16/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#1131; 5630 San Pablo	**Sample ID:**	MB/LCS-107794 1507401-002BMS/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	8.19	0.50	10	-	81.9	54-140
Benzene	ND	9.26	0.50	10	-	92.6	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	27.5	2.0	40	-	68.6	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	-	0.50	-	-	-	-
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	8.97	0.50	10	-	89.7	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	9.35	0.50	10	-	93.5	66-125
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Date Prepared:	7/16/15	**BatchID:**	107794
Date Analyzed:	7/16/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#1131; 5630 San Pablo	**Sample ID:**	MB/LCS-107794 1507401-002BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	9.24	0.50	10	-	92.4	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	8.90	0.50	10	-	89	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	8.83	0.50	10	-	88.3	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	8.38	0.50	10	-	83.8	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	-	0.50	-	-	-	-
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	28.6	29.4		25	115	118	70-130
Toluene-d8	23.6	23.3		25	94	93	70-130
4-BFB	2.49	2.51		2.5	99	100	70-130

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Date Prepared:	7/16/15	**BatchID:**	107794
Date Analyzed:	7/16/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#1131; 5630 San Pablo	**Sample ID:**	MB/LCS-107794 1507401-002BMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.38	9.44	10	ND	93.8	94.4	69-139	0.649	20
Benzene	9.88	10.1	10	ND	98.8	101	69-141	2.48	20
t-Butyl alcohol (TBA)	40.9	39.7	40	ND	102	99.2	41-152	2.97	20
1,2-Dibromoethane (EDB)	9.78	9.78	10	ND	97.8	97.8	76-135	0	20
1,2-Dichloroethane (1,2-DCA)	10.2	10.5	10	ND	102	105	73-139	2.87	20
Diisopropyl ether (DIPE)	10.2	10.3	10	ND	102	103	72-140	1.46	20
Ethyl tert-butyl ether (ETBE)	10.0	10.2	10	ND	100	102	71-140	1.64	20
Methyl-t-butyl ether (MTBE)	10.1	10.3	10	ND	101	103	73-139	2.22	20
Toluene	8.85	9.04	10	ND	88.5	90.4	71-128	2.05	20
Surrogate Recovery									
Dibromofluoromethane	29.4	29.6	25		118	118	70-130	0	20
Toluene-d8	23.0	23.3	25		92	93	70-130	1.14	20
4-BFB	2.38	2.43	2.5		95	97	70-130	2.07	20

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Date Prepared:	7/14/15	**BatchID:**	107660
Date Analyzed:	7/14/15	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	#1131; 5630 San Pablo	**Sample ID:**	MB/LCS-107660 1507432-016AMS/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	62.8	40	60	-	105	70-130
MTBE	ND	12.1	5.0	10	-	121	70-130
Benzene	ND	11.2	0.50	10	-	112	70-130
Toluene	ND	11.2	0.50	10	-	112	70-130
Ethylbenzene	ND	11.0	0.50	10	-	110	70-130
Xylenes	ND	33.8	0.50	30	-	113	70-130
Surrogate Recovery							
aaa-TFT	10.4	9.97		10	104	100	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	60.6	57.3	60	ND	101	96	70-130	5.49	20
MTBE	11.0	11.0	10	ND	110	110	70-130	0	20
Benzene	12.1	12.0	10	ND	121	120	70-130	1.28	20
Toluene	12.3	12.0	10	ND	123	120	70-130	2.45	20
Ethylbenzene	12.2	11.7	10	ND	122	117	70-130	3.85	20
Xylenes	37.0	35.4	30	ND	123	118	70-130	4.26	20
Surrogate Recovery									
aaa-TFT	10.6	10.7	10		106	107	70-130	1.04	20

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1507439
Date Prepared:	7/13/15	**BatchID:**	107545
Date Analyzed:	7/13/15	**Extraction Method:**	SW3510C
Instrument:	GC11A, GC2A	**Analytical Method:**	SW8015B
Matrix:	Water	**Unit:**	µg/L
Project:	#1131; 5630 San Pablo	**Sample ID:**	MB/LCS-107545

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	916	50	1000	-	92	61-157
TPH-Motor Oil (C18-C36)	ND	-	250	-	-	-	-
Surrogate Recovery							
C9	535	579		625	86	93	70-134

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1507439 **ClientCode: CESW**

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

Report to:
Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597
(925) 478-8390 FAX: 925-937-1759

Email: tcook@cookenvironmental.com
cc/3rd Party:
PO:
ProjectNo: #1131; 5630 San Pablo

Bill to:
Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: **07/13/2015**
Date Printed: **07/20/2015**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1507439-001	STMW-1	Water	7/13/2015	☐	B	A	A	A								
1507439-002	STMW-2	Water	7/13/2015	☐	B	A		A								
1507439-003	STMW-3	Water	7/13/2015	☐	B	A		A								
1507439-004	STMW-4	Water	7/13/2015	☐	B	A		A								
1507439-005	STMW-5	Water	7/13/2015	☐	B	A		A								

Test Legend:

1	8260B_9OXYBTEX_W	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(D)_W	5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A contain testgroup.

Prepared by: Agustina Venegas

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: COOK ENVIRONMENTAL SERVICES, INC. **QC Level:** LEVEL 2 **Work Order:** 1507439
Project: #1131; 5630 San Pablo **Client Contact:** Tim Cook **Date Received:** 7/13/2015
Comments: **Contact's Email:** tcook@cookenvironmental.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
1507439-001A	STMW-1	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-001B	STMW-1	Water	SW8260B (9 Oxys & BTEX)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-002A	STMW-2	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-002B	STMW-2	Water	SW8260B (9 Oxys & BTEX)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-003A	STMW-3	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-003B	STMW-3	Water	SW8260B (9 Oxys & BTEX)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-004A	STMW-4	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-004B	STMW-4	Water	SW8260B (9 Oxys & BTEX)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-005A	STMW-5	Water	Multi-Range TPH(g,d,mo)	2	VOA w/ HCl	☐	7/13/2015	5 days	Present	☐	
1507439-005B	STMW-5	Water	SW8260B (9 Oxys & BTEX)	2	VOA w/ HCl	☐	7/13/2015	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.

1507139

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY ■ 10 DAY ☐

GeoTracker EDF ■ PDF ☐ EDD ☐ Write On (DW) ☐ EQuIS ☐

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

Report To: Tim Cook **Bill To:** Same

Company: Cook Environmental Services, Inc.

1485 Treat Blvd, Ste 203A

Walnut Creek, CA 94597 **E-Mail:** tcook@cookenvironmental.com

Tele: (925) 478-8390 **Fax:** ( )

Project #: 1131 **Project Name:** 5630 San Pablo

Project Location: Oakland **Purchase Order#**

Sampler Signature:

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other	TPH-g and TPH-d (8015 mod)	BTEX and 9 oxys (8260B)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis				
STMW-1		7/13/15	4	5	X								X			X	X																		
STMW-2		7/13/15	4	5	X								X			X	X																		
STMW-3		7/13/15	4	5	X								X			X	X																		
STMW-4		7/13/15	4	5	X								X			X	X																		
STMW-5		7/13/15	4	5	X								X			X	X																		

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

Relinquished By:	Date:	Time:	Received By:
Tim Cook	7/13	1400	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 6.5

GOOD CONDITION_____

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

APPROPRIATE CONTAINERS_____

PRESERVED IN LAB_____

COMMENTS:

VOAS O&G METALS OTHER **HAZARDOUS:**

PRESERVATION_____ pH<2_____

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Sample Receipt Checklist

Client Name: **Cook Environmental Services, Inc.**
Date and Time Received: **7/13/2015 8:30:53 PM**

Project Name: **#1131; 5630 San Pablo**
LogIn Reviewed by: Agustina Venegas

WorkOrder №: **1507439** Matrix: Water
Carrier: Client Drop-In

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: 6.5°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	NA ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

UCMR3 Samples:

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

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

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

Analytical Report

WorkOrder: 1508860

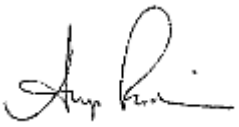
Report Created for: Cook Environmental Services, Inc.

1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597

Project Contact: Tim Cook
Project P.O.:
Project Name: 1105; Hemmat San Pablo

Project Received: 08/25/2015

Analytical Report reviewed & approved for release on 09/01/2015 by:



Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
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Glossary of Terms & Qualifier Definitions

Client: Cook Environmental Services, Inc.
Project: 1105; Hemmat San Pablo
WorkOrder: 1508860

Glossary Abbreviation

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)
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.
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
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9	no recognizable pattern
d17	Reporting limit for MTBE raised due to co-elution with non-target peaks.

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Received:	8/25/15 17:52	**Extraction Method:**	SW5030B
Date Prepared:	8/26/15-8/27/15	**Analytical Method:**	SW8260B
Project:	1105; Hemmat San Pablo	**Unit:**	µg/L

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-3	1508860-001B	Water	08/25/2015	GC10	109525

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	08/26/2015 14:48
t-Butyl alcohol (TBA)	ND	2.0	1	08/26/2015 14:48
1,2-Dibromoethane (EDB)	ND	0.50	1	08/26/2015 14:48
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	08/26/2015 14:48
Diisopropyl ether (DIPE)	ND	0.50	1	08/26/2015 14:48
Ethanol	ND	50	1	08/26/2015 14:48
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	08/26/2015 14:48
Methanol	ND	500	1	08/26/2015 14:48
Methyl-t-butyl ether (MTBE)	**0.60**	0.50	1	08/26/2015 14:48

Surrogates	REC (%)	Limits	
Dibromofluoromethane	119	70-130	08/26/2015 14:48
Toluene-d8	94	70-130	08/26/2015 14:48

Analyst(s): KF

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-4	1508860-002B	Water	08/25/2015	GC10	109543

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	08/27/2015 13:48
t-Butyl alcohol (TBA)	**9.2**	2.0	1	08/27/2015 13:48
1,2-Dibromoethane (EDB)	ND	0.50	1	08/27/2015 13:48
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	08/27/2015 13:48
Diisopropyl ether (DIPE)	**1.3**	0.50	1	08/27/2015 13:48
Ethanol	ND	50	1	08/27/2015 13:48
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	08/27/2015 13:48
Methanol	ND	500	1	08/27/2015 13:48
Methyl-t-butyl ether (MTBE)	**7.2**	0.50	1	08/27/2015 13:48

Surrogates	REC (%)	Limits	
Dibromofluoromethane	115	70-130	08/27/2015 13:48
Toluene-d8	93	70-130	08/27/2015 13:48

Analyst(s): KF

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Analytical Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Received:	8/25/15 17:52	**Extraction Method:**	SW5030B
Date Prepared:	8/30/15	**Analytical Method:**	SW8021B/8015Bm
Project:	1105; Hemmat San Pablo	**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
STMW-3	**1508860-001A**	**Water**	**08/25/2015**	**GC3**	**109639**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**53**	50	1	08/30/2015 17:11
MTBE	ND	5.0	1	08/30/2015 17:11
Benzene	ND	0.50	1	08/30/2015 17:11
Toluene	ND	0.50	1	08/30/2015 17:11
Ethylbenzene	ND	0.50	1	08/30/2015 17:11
Xylenes	ND	0.50	1	08/30/2015 17:11
Surrogates	REC (%)	Limits		
aaa-TFT	103	70-130		08/30/2015 17:11

Analyst(s): IA Analytical Comments: d7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
STMW-4	**1508860-002A**	**Water**	**08/25/2015**	**GC3**	**109639**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**470**	50	1	08/30/2015 19:15
MTBE	ND	20	1	08/30/2015 19:15
Benzene	ND	0.50	1	08/30/2015 19:15
Toluene	ND	0.50	1	08/30/2015 19:15
Ethylbenzene	**0.79**	0.50	1	08/30/2015 19:15
Xylenes	**3.3**	0.50	1	08/30/2015 19:15
Surrogates	REC (%)	Limits		
aaa-TFT	119	70-130		08/30/2015 19:15

Analyst(s): IA Analytical Comments: d9,d17

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Prepared:	8/26/15	**BatchID:**	109525
Date Analyzed:	8/26/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	1105; Hemmat San Pablo	**Sample ID:**	MB/LCS-109525 1508919-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	8.75	0.50	10	-	88	54-140
Benzene	ND	-	0.50	-	-	-	-
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	26.6	2.0	40	-	66	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	-	0.50	-	-	-	-
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	9.31	0.50	10	-	93	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	9.77	0.50	10	-	98	66-125
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Prepared:	8/26/15	**BatchID:**	109525
Date Analyzed:	8/26/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	1105; Hemmat San Pablo	**Sample ID:**	MB/LCS-109525 1508919-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	9.88	0.50	10	-	99	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.37	0.50	10	-	94	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	8.91	0.50	10	-	89	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	-	0.50	-	-	-	-
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	-	0.50	-	-	-	-
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	-	-	-	-

(Cont.)

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Prepared:	8/26/15	**BatchID:**	109525
Date Analyzed:	8/26/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	1105; Hemmat San Pablo	**Sample ID:**	MB/LCS-109525 1508919-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	29.6	29.8		25	119	119	70-130
Toluene-d8	24.2	23.4		25	97	94	70-130
4-BFB	3.05	2.50		2.5	122	100	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)	9.68	9.76	10	ND<2.5	97	98	69-139	0.862	20
t-Butyl alcohol (TBA)	43.2	44.4	40	ND<10	108	111	41-152	2.95	20
1,2-Dibromoethane (EDB)	10.0	10.1	10	ND<2.5	100	101	76-135	0.972	20
1,2-Dichloroethane (1,2-DCA)	10.4	10.6	10	ND<2.5	104	106	73-139	2.01	20
Diisopropyl ether (DIPE)	10.2	10.4	10	ND<2.5	102	104	72-140	2.29	20
Ethyl tert-butyl ether (ETBE)	10.1	10.4	10	ND<2.5	101	104	71-140	2.36	20
Methyl-t-butyl ether (MTBE)	10.2	10.6	10	ND<2.5	102	106	73-139	3.68	20
Surrogate Recovery									
Dibromofluoromethane	30.0	30.2	25		120	121	70-130	0.804	20
Toluene-d8	22.9	23.6	25		92	94	70-130	2.88	20
4-BFB	2.64	2.53	2.5		106	101	70-130	4.36	20

(Cont.)

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Prepared:	8/27/15	**BatchID:**	109543
Date Analyzed:	8/27/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	1105; Hemmat San Pablo	**Sample ID:**	MB/LCS-109543 1508933-001BMS/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	8.13	0.50	10	-	81	54-140
Benzene	ND	-	0.50	-	-	-	-
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	22.0	2.0	40	-	55	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	-	0.50	-	-	-	-
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	8.63	0.50	10	-	86	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	9.23	0.50	10	-	92	66-125
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Prepared:	8/27/15	**BatchID:**	109543
Date Analyzed:	8/27/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	1105; Hemmat San Pablo	**Sample ID:**	MB/LCS-109543 1508933-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	9.39	0.50	10	-	94	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	8.95	0.50	10	-	89	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	8.47	0.50	10	-	85	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	-	0.50	-	-	-	-
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	-	0.50	-	-	-	-
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	-	-	-	-

(Cont.)

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Prepared:	8/27/15	**BatchID:**	109543
Date Analyzed:	8/27/15	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	1105; Hemmat San Pablo	**Sample ID:**	MB/LCS-109543 1508933-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	29.4	29.8		25	117	119	70-130
Toluene-d8	24.3	23.5		25	97	94	70-130
4-BFB	2.61	2.36		2.5	104	94	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)	9.36	9.66	10	ND	94	97	69-139	3.22	20
t-Butyl alcohol (TBA)	39.9	43.1	40	ND	96	104	41-152	7.67	20
1,2-Dibromoethane (EDB)	9.96	10.2	10	ND	100	102	76-135	1.89	20
1,2-Dichloroethane (1,2-DCA)	10.2	10.4	10	ND	102	103	73-139	1.71	20
Diisopropyl ether (DIPE)	9.87	9.95	10	ND	99	99	72-140	0	20
Ethyl tert-butyl ether (ETBE)	9.82	9.96	10	ND	98	100	71-140	1.37	20
Methyl-t-butyl ether (MTBE)	10.0	10.2	10	ND	100	102	73-139	1.68	20
Surrogate Recovery									
Dibromofluoromethane	30.1	30.2	25		120	121	70-130	0.621	20
Toluene-d8	23.3	23.1	25		93	92	70-130	0.706	20
4-BFB	2.45	2.46	2.5		98	98	70-130	0	20

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Quality Control Report

Client:	Cook Environmental Services, Inc.	**WorkOrder:**	1508860
Date Prepared:	8/30/15	**BatchID:**	109639
Date Analyzed:	8/30/15	**Extraction Method:**	SW5030B
Instrument:	GC3	**Analytical Method:**	SW8021B/8015Bm
Matrix:	Water	**Unit:**	µg/L
Project:	1105; Hemmat San Pablo	**Sample ID:**	MB/LCS-109639

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	60.8	40	60	-	101	70-130
MTBE	ND	10.8	5.0	10	-	108	70-130
Benzene	ND	10.6	0.50	10	-	106	70-130
Toluene	ND	10.5	0.50	10	-	105	70-130
Ethylbenzene	ND	10.6	0.50	10	-	106	70-130
Xylenes	ND	32.5	0.50	30	-	108	70-130
Surrogate Recovery							
aaa-TFT	9.99	9.71		10	100	97	70-130

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(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1508860 **ClientCode: CESW**

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

Report to:
Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597
(925) 478-8390 FAX: 925-937-1759

Email: tcook@cookenvironmental.com
cc/3rd Party:
PO:
ProjectNo: 1105; Hemmat San Pablo

Bill to:
Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597

Requested TAT: 5 days;

Date Received: **08/25/2015**
Date Printed: **08/25/2015**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1508860-001	STMW-3	Water	8/25/2015	☐	B	A										
1508860-002	STMW-4	Water	8/25/2015	☐	B	A										

Test Legend:

1	8260B_9OXY_W	2	G-MBTEX_W	3		4	
6		7		8		9	
5		10		11		12	

Prepared by: Briana Cutino

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: COOK ENVIRONMENTAL SERVICES, INC. **QC Level:** LEVEL 2 **Work Order:** 1508860
Project: 1105; Hemmat San Pablo **Client Contact:** Tim Cook **Date Received:** 8/25/2015
Comments: **Contact's Email:** tcook@cookenvironmental.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
1508860-001A	STMW-3	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	☐	8/25/2015	5 days	Present	☐	
1508860-001B	STMW-3	Water	SW8260B (9 Oxygenates)	2	VOA w/ HCl	☐	8/25/2015	5 days	Present	☐	
1508860-002A	STMW-4	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	☐	8/25/2015	5 days	Present	☐	
1508860-002B	STMW-4	Water	SW8260B (9 Oxygenates)	2	VOA w/ HCl	☐	8/25/2015	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.

150 8860

McCAMPBELL ANALYTICAL, INC.
1534 Willow Pass Rd
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

EDF Required? **YES** Coelt (Normal) No Write On (DW) No

Report To: Tim Cook	**Bill To: Same**
Company: Cook Environmental Services	
1485 Treat Blvd, Suite 203A	
Walnut Creek, CA 94597	**E-Mail: tcook@cookenvironmental.com**
Tele: (925) 478-8390	**Fax: (925) 478-8394**
Project #:1105	**Project Name: Hemmat San Pablo**
Project Location: 3840 San Pablo Ave, Emeryville, CA	
Sampler Name & Signature: T. Cook	

SAMPLE ID (Field Point Name)	LOCATION	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
STMW-3		8/25/15		4		X					X	X		
STMW-4		8/25/15		4		X					X	X		

Analysis Request

BTEX MtBE & TPH as Gas (602/8020 + 8015)/MTBE	EDB & 1,2 DCA (8260B) 9oxys	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 524.2 / 624 / 8260 (9 oxys only)	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)
X	X														
X	X														

Other | **Comments**

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
	8/25	215p	
Relinquished By:	Date:	Time:	Received By:
	8-25-15	1530	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4.5

COMMENTS:

GOOD CONDITION_____ GUAGE & SAMPLE WELLS IN ORDER PRESENTED ON CHAIN

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

APPROPRIATE CONTAINERS_____

PRESERVED IN LAB_____

PRESERVATION	VOAS	O&G	METALS pH<2	OTHER

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Sample Receipt Checklist

Client Name: **Cook Environmental Services, Inc.** Date and Time Received: **8/25/2015 5:52:08 PM**

Project Name: **1105; Hemmat San Pablo** LogIn Reviewed by: Briana Cutino

WorkOrder №: **1508860** Matrix: Water Carrier: Bernie Cummins (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Sample/Temp Blank temperature	Temp: 4.5°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	
	(Ice Type: WET ICE)		

UCMR3 Samples:

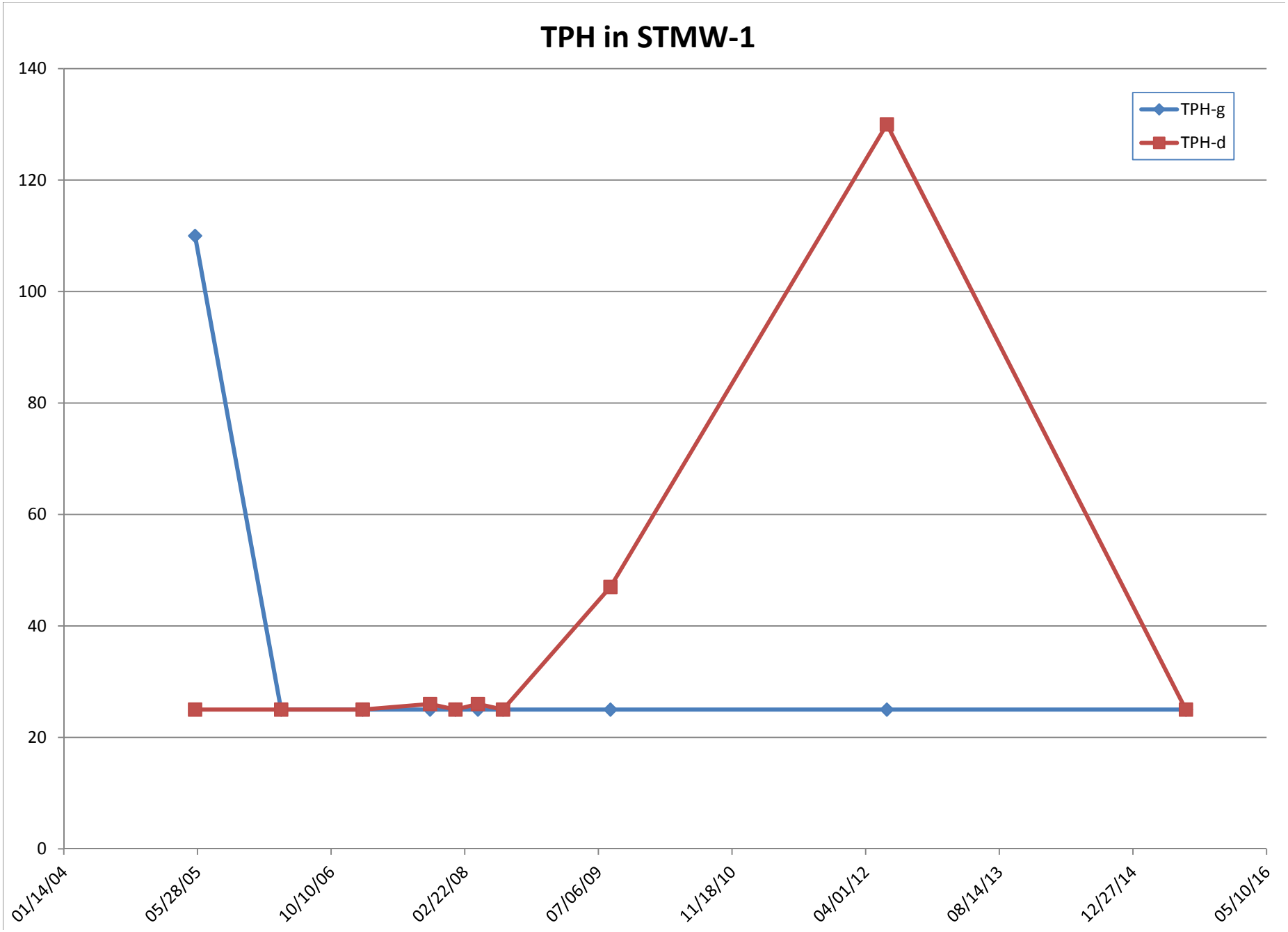
Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes ☐	No ☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes ☐	No ☐	NA ☑

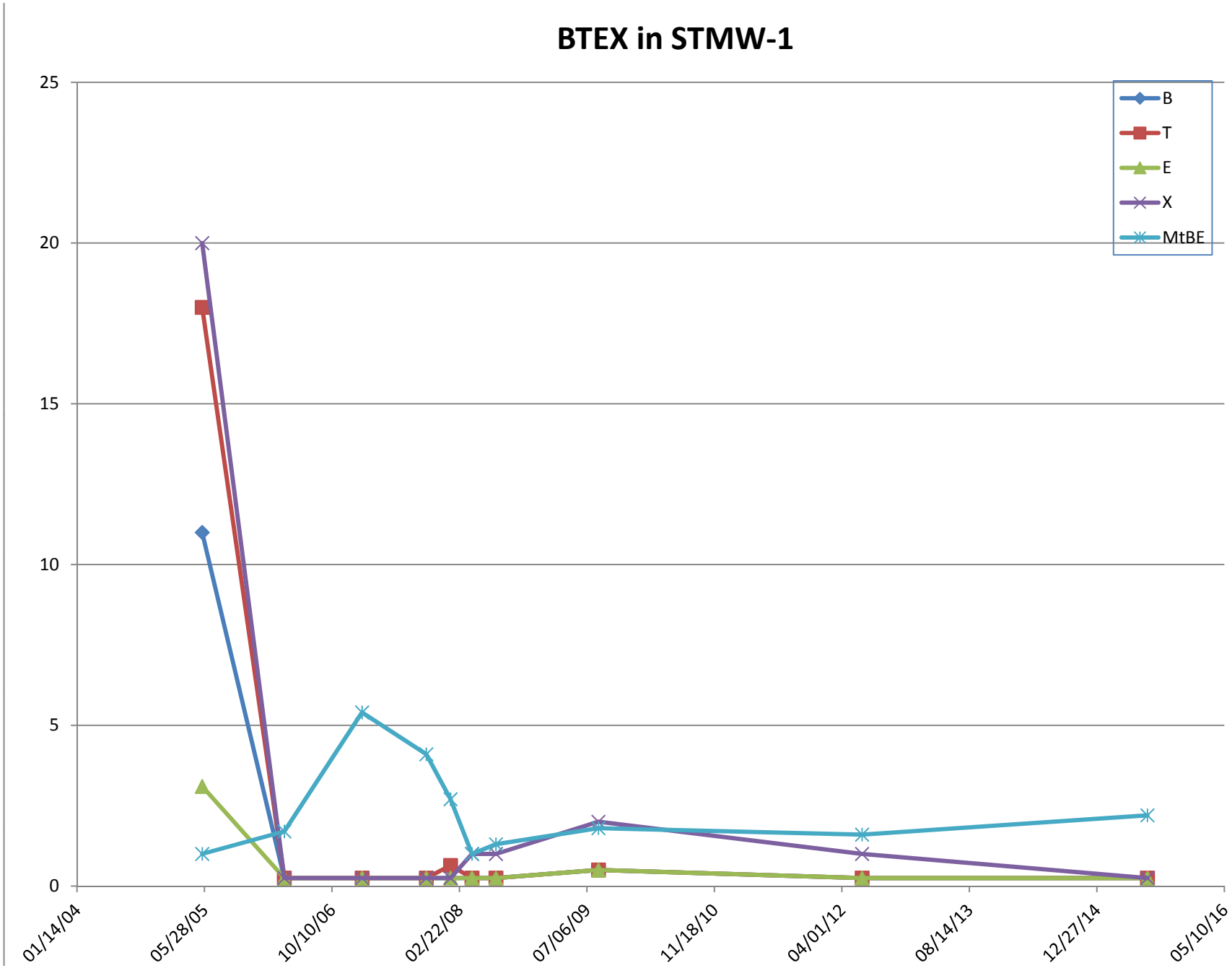
** NOTE: If the "No" box is checked, see comments below.*

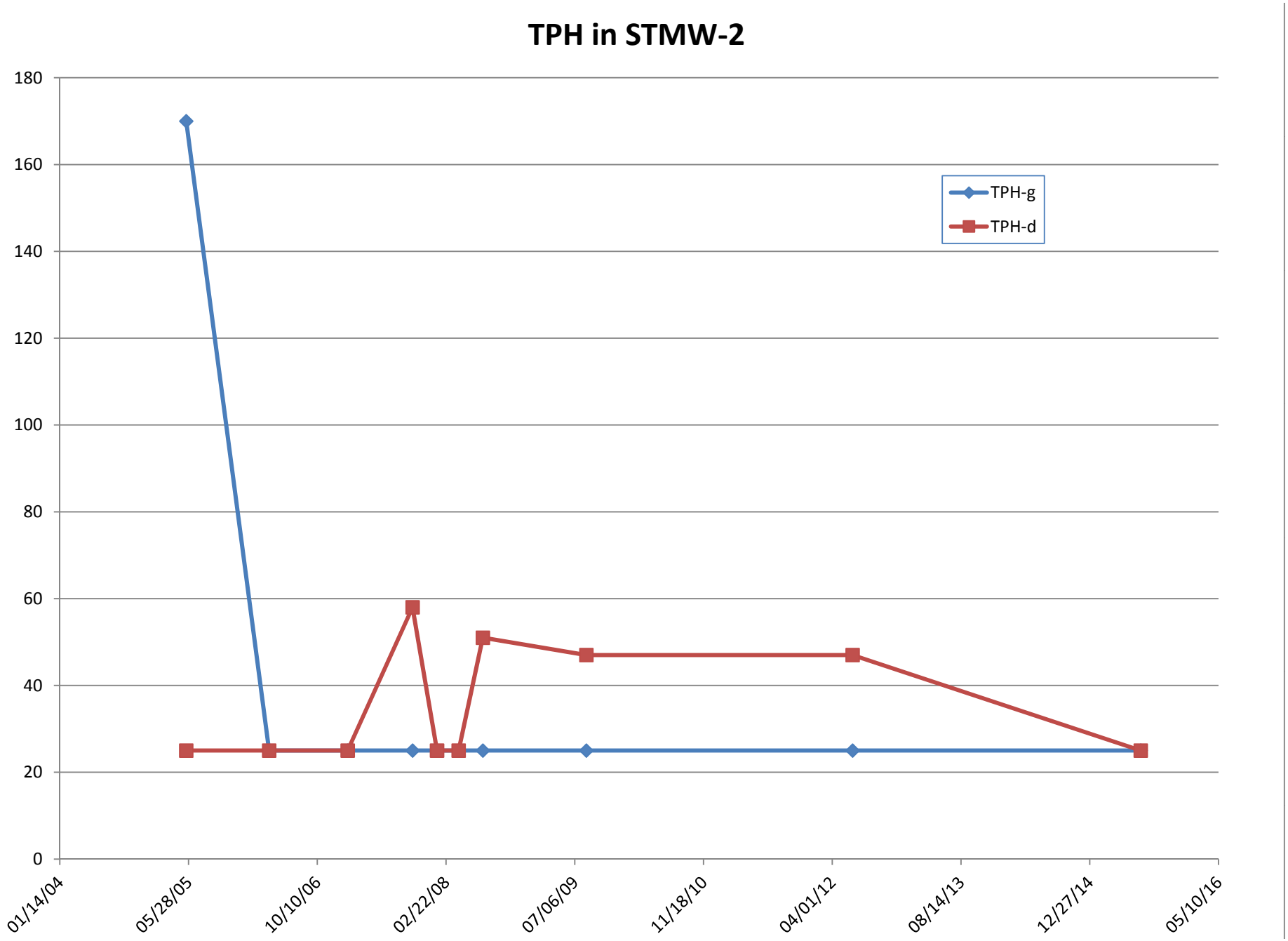
Comments:

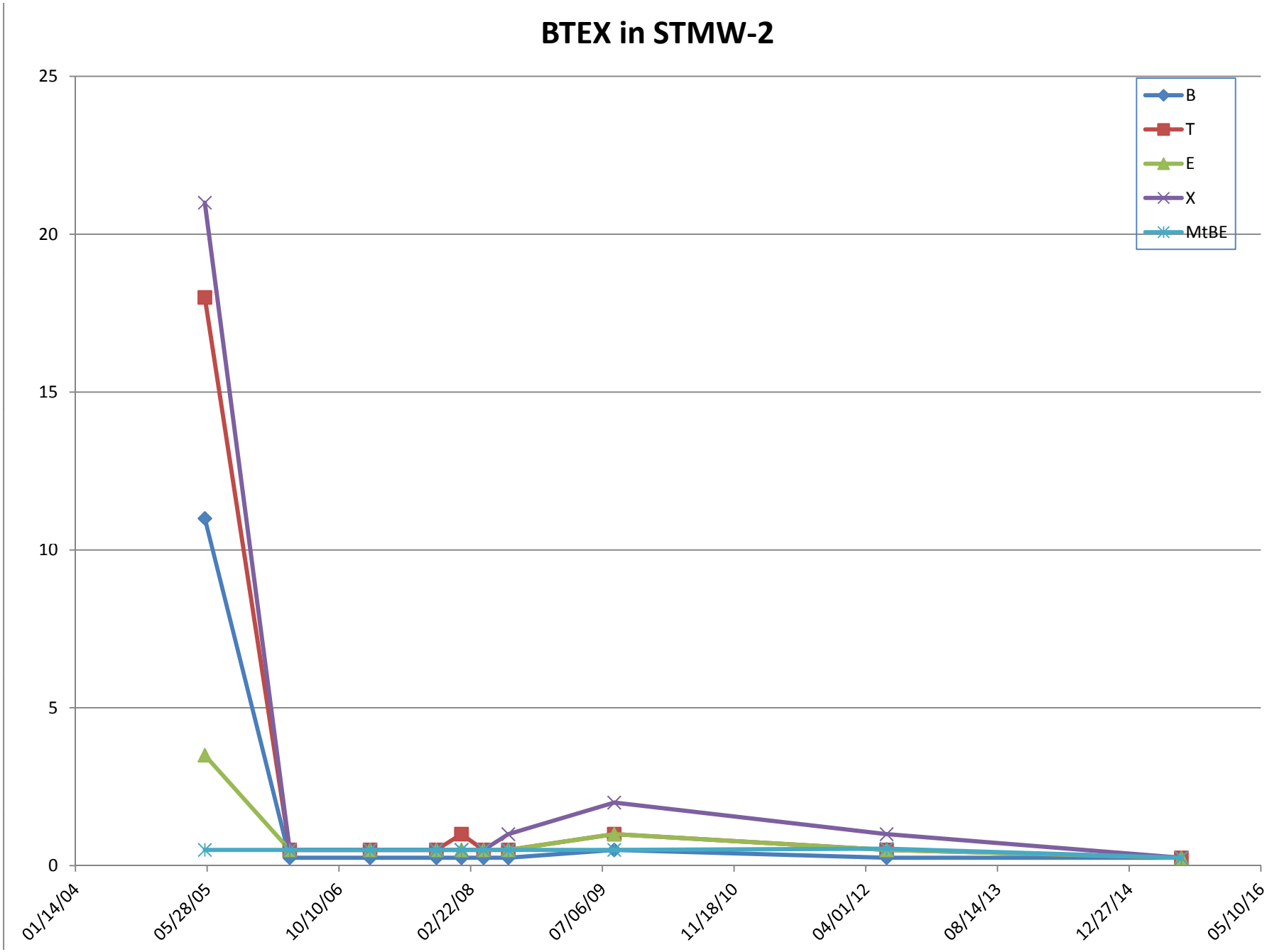
APPENDIX D

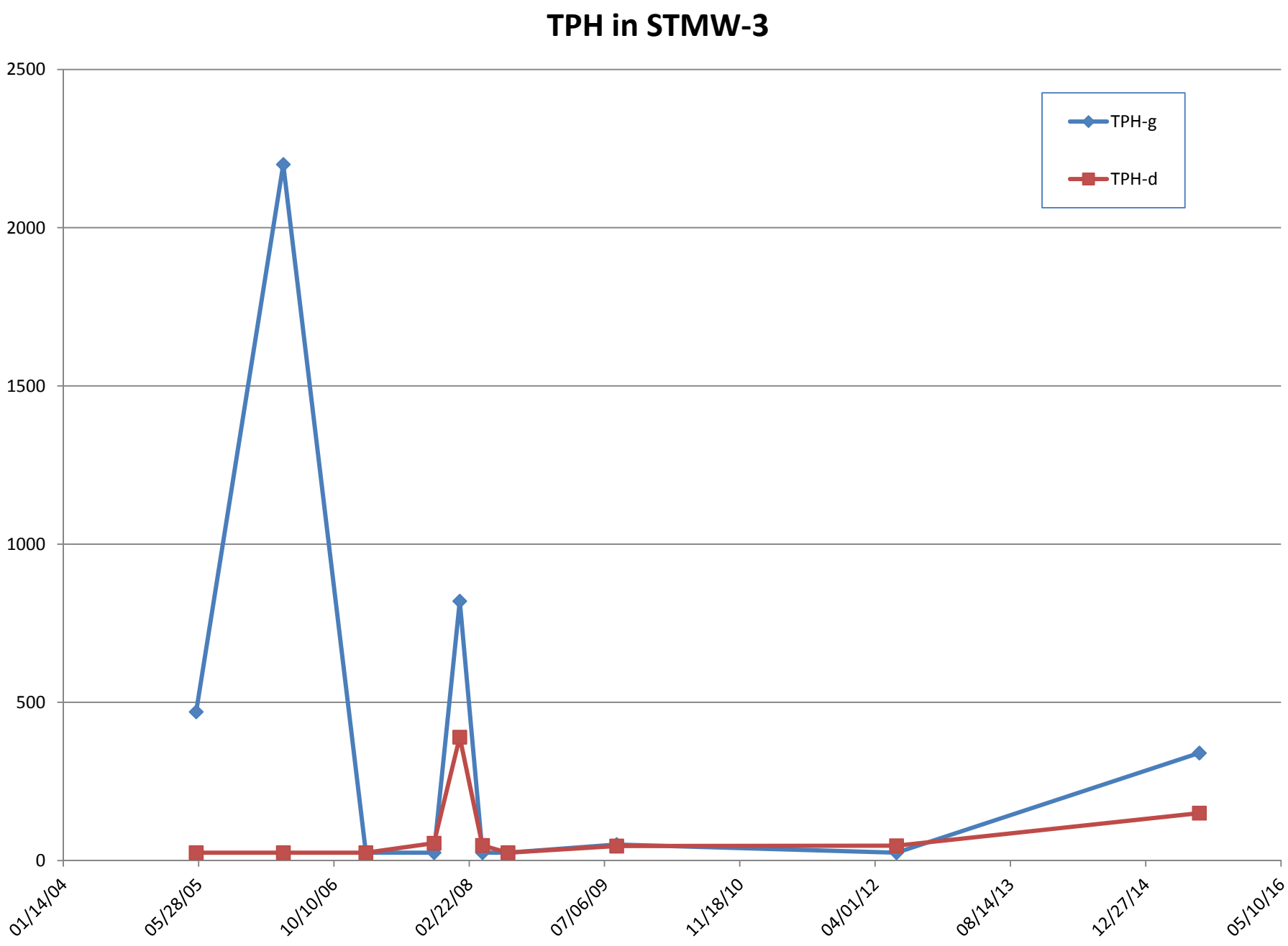
Hydrocarbon Concentration Trends in Site Monitoring Wells


TPH in STMW-1
140
120
100
80
60
40
20
0
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
TPH-g
TPH-d


BTEX in STMW-1
25
20
15
10
5
0
B
T
E
X
MtBE
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16


TPH in STMW-2
180
160
140
120
100
80
60
40
20
0
TPH-g
TPH-d
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16


BTEX in STMW-2
25
20
15
10
5
0
B
T
E
X
MtBE
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16


TPH in STMW-3
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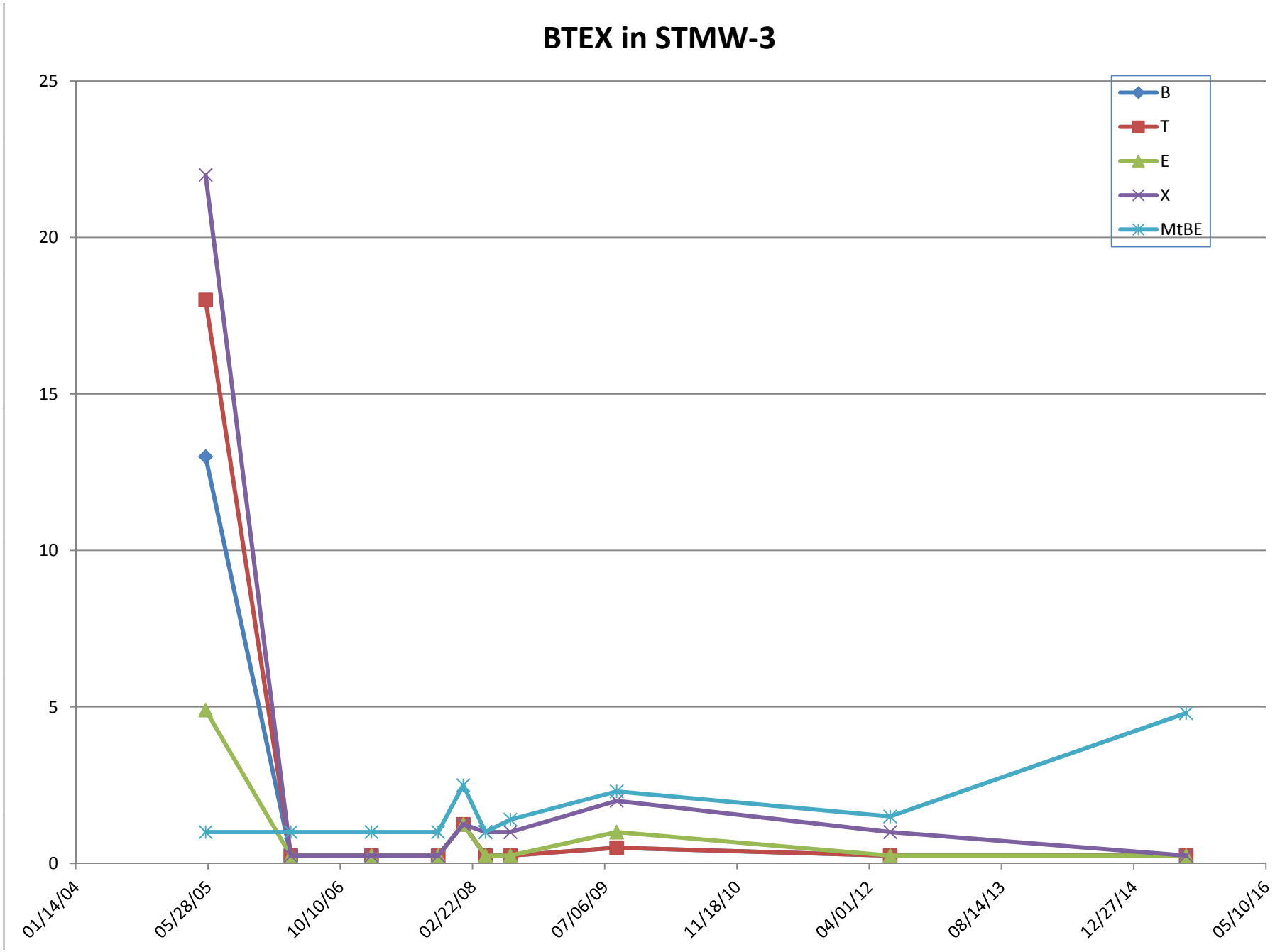
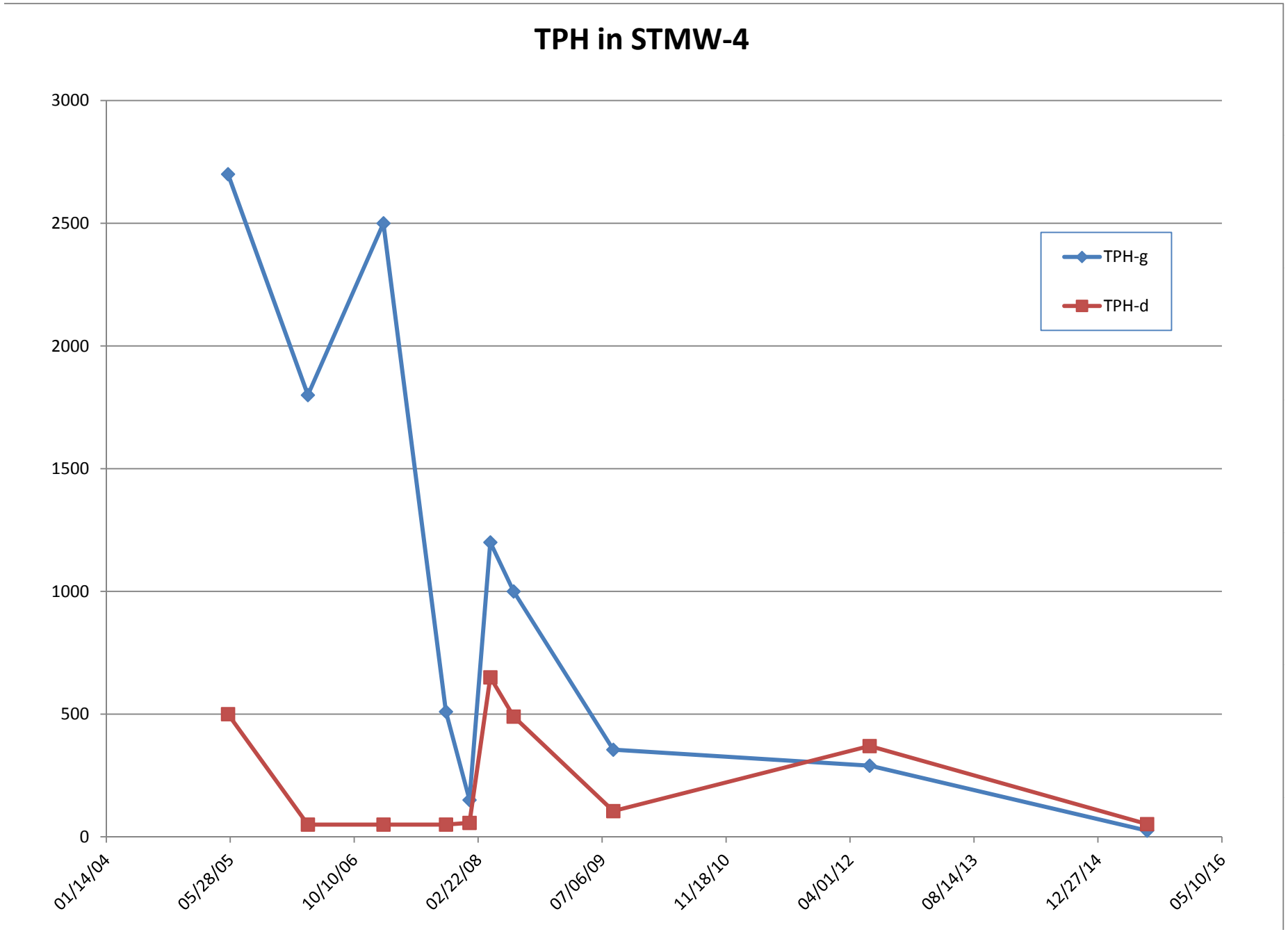
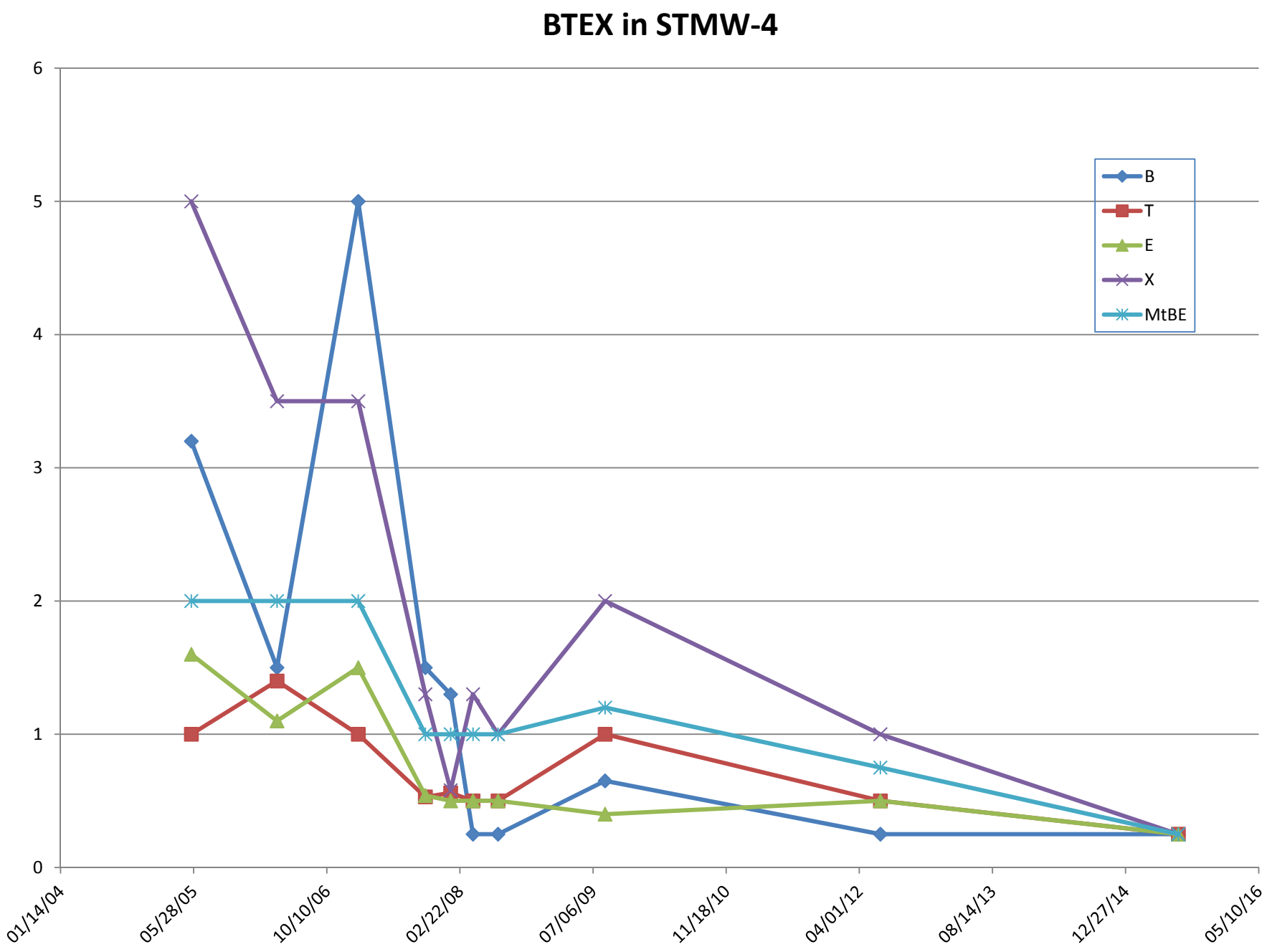
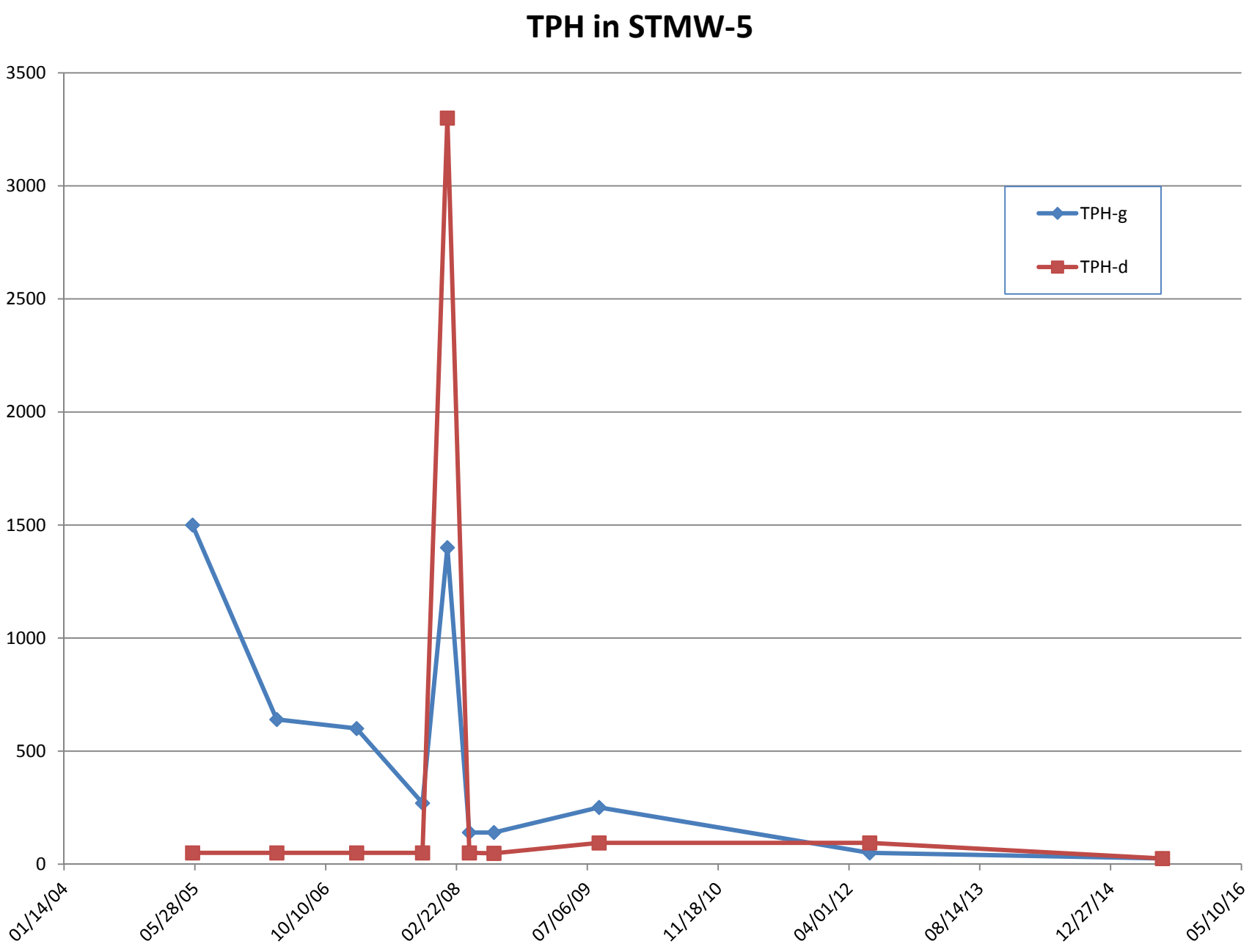
2000
1500
1000
500
0
TPH-g
TPH-d
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16


BTEX in STMW-3
25
20
15
10
5
0
B
T
E
X
MtBE
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16


TPH in STMW-4
3000
2500
2000
1500
1000
500
0
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
TPH-g
TPH-d


BTEX in STMW-4
6
5
4
3
2
1
0
B
T
E
X
MtBE
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16


TPH in STMW-5
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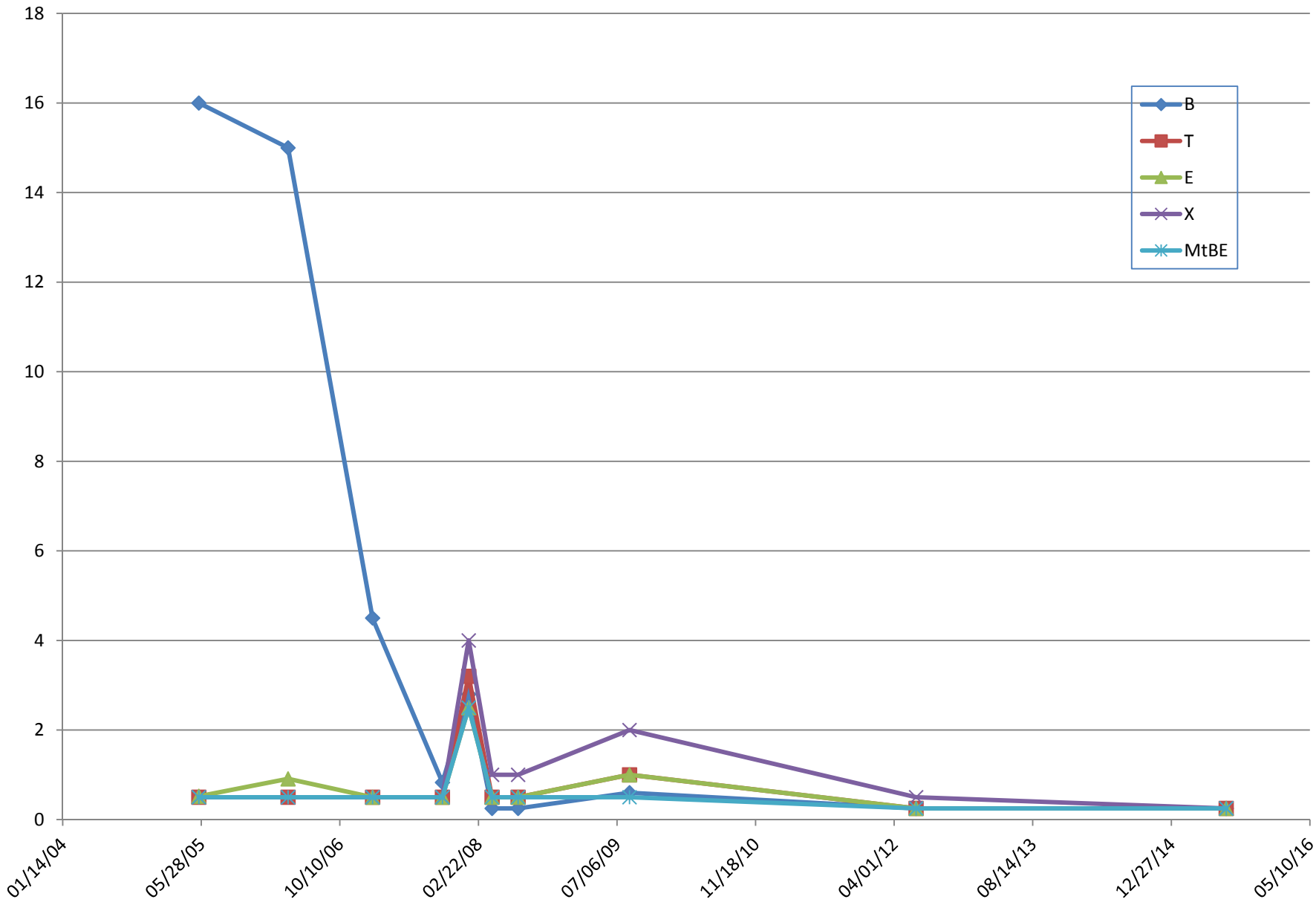
3000
2500
2000
1500
1000
500
0
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
TPH-g
TPH-d


BTEX in STMW-5
18
16
14
12
10
8
6
4
2
0
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
12/27/14
05/10/16
B
T
E
X
MtBE