

Kinder Morgan Liquids Terminals, LLC

SECOND SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

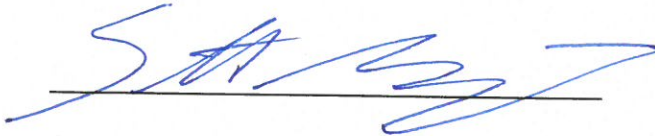
Harbor Island Terminal
Seattle, Washington

January 10, 2017

A large orange geometric graphic consisting of a triangle and a rectangle. The triangle is on the right side, pointing upwards, and the rectangle is on the left side, extending from the bottom to the top. A thin white line runs horizontally across the middle of the graphic, and another thin white line runs diagonally from the bottom-left corner to the top-right corner of the triangle.

SECOND SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

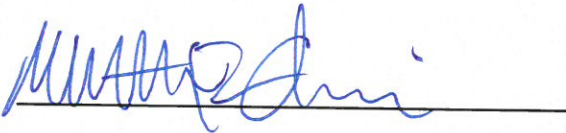
**SECOND SEMIANNUAL
2016 GROUNDWATER
MONITORING REPORT**



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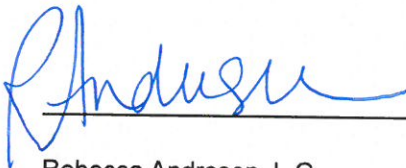
Harbor Island Terminal
Seattle, Washington

Prepared for:
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CONTENTS

1	Introduction.....	1
1.1	Site Description	1
1.2	Regulatory Background.....	1
1.3	Remedial Sulfate Application	2
2	Scope of Work.....	3
2.1	Semiannual Groundwater Monitoring.....	3
2.2	Remedial Performance Monitoring.....	4
3	Summary of Results	4
3.1	Water Level Measurements	4
3.2	Passive Separate Phase Hydrocarbon Recovery.....	5
3.3	Groundwater Analytical and Geochemical Results.....	5
3.4	Remedial Performance Results	6
3.5	Data Validation Results.....	6
4	Compliance and Conclusions.....	7
4.1	A Yard	7
4.2	B, C, and D Yards	7
4.2.1	Remedial Application Area.....	7
4.2.2	Non-Remedial Application Area.....	8
4.3	E Yard	8
4.4	13th Avenue Southwest Monitored Natural Attenuation Area	9
5	References	10

TABLES

Table 1	Monitoring Well Compliance Status
Table 2	Groundwater Elevation Data
Table 3	Groundwater Analytical Results
Table 4	Groundwater Geochemical Parameters

FIGURES

Figure 1 Site Location Map

Figure 2 Site Plan

Figure 3 Remedial Sulfate Application Area

Figure 4 Groundwater Elevation Contours October 11, 2016

Figure 5 Groundwater Analytical Results – Compliance Monitoring Wells

Figure 6 Groundwater Analytical Results – Performance Monitoring Wells

GRAPHS

Graph 1 11 Constituent Trend Plot

Graph 2 12 Constituent Trend Plot

Graph 3 MW-7 Constituent Trend Plot

Graph 4 MW-19 Constituent Trend Plot

Graph 5 TMW-1 Constituent Trend Plot

Graph 6 TMW-2 Constituent Trend Plot

Graph 7 TMW-3 Constituent Trend Plot

Graph 8 TMW-4 Constituent Trend Plot

Graph 9 TMW-5 Constituent Trend Plot

Graph 10 TMW-6 Constituent Trend Plot

Graph 11 MW-5 Constituent Trend Plot

Graph 12 MW-8 Constituent Trend Plot

Graph 13 MW-14 Constituent Trend Plot

Graph 14 A-27 Constituent Trend Plot

Graph 15 A-28R Constituent Trend Plot

Graph 16 MW-23 Constituent Trend Plot

Graph 17 MW-24 Constituent Trend Plot

Graph 18 TMW-B1 Constituent Trend Plot

ATTACHMENTS

- A Groundwater Monitoring Compliance Program
 - Site-Wide Groundwater Compliance Monitoring Plan - Proposed Reduced Monitoring
 - Ecology Approval Letter
 - Technical Revision Request – Low-Flow Groundwater Sampling
 - Ecology Approval Letter
 - Revised Site Groundwater Monitoring Plan
 - Ecology Approval Emails
 - Groundwater Analytical Reduction Request
 - Ecology Approval Email
- B Groundwater Monitoring Field Data Sheets
- C Laboratory Reports and Chain-of-Custody Documentation

1 INTRODUCTION

Arcadis U.S., Inc. (Arcadis) has prepared this report to present the findings of the second semiannual 2016 groundwater monitoring event at the Kinder Morgan Liquids Terminals, LLC Harbor Island Terminal located at 2720 13th Avenue Southwest in Seattle, Washington (site). A site location map is included as **Figure 1**.

Groundwater monitoring was performed between October 11 and October 14, 2016, in accordance with the *Groundwater Analytical Reduction Request* (Arcadis 2016a) and the *Technical Revision Request* (Delta Environmental Consulting [Delta] 2008), presented in **Attachment A**. Additionally, remedial performance samples were collected from the monitoring wells within the remedial application area in accordance with the *Remedial Action Report* (Arcadis 2013).

1.1 Site Description

The site is a 14-acre bulk petroleum storage facility located east of 13th Avenue Southwest on Harbor Island in Seattle, King County, Washington. The site, which has operated as a bulk petroleum storage terminal since 1944, is surrounded by industrial facilities (including shipyards, bulk petroleum storage facilities, and the Port of Seattle). The site is situated at an elevation of approximately 9 to 16 feet above mean sea level (amsl), as surveyed in the North American Vertical Datum 1988 (NAVD 88), and the topography is relatively flat. A site plan is included as **Figure 2**.

The site consists of five distinct operational yards (A, B, C, D, and E). Site features include aboveground storage tanks (ASTs) containing refined petroleum products in the B and C yards. The A Yard, located at the southern portion of the site, consists of the terminal office, a truck loading rack, and other support structures. The B Yard, located north of the A Yard and south of the D Yard, contains 15 ASTs and associated piping and is surrounded by a 15-foot-high concrete wall. The D Yard, located north of the B Yard, is composed of a driveway and a maintenance building and is the primary corridor for on-site utilities. The C Yard, located north of the D Yard and south of the E Yard, contains six ASTs and associated piping and is surrounded by a 15-foot-high concrete wall. The E Yard, located at the north end of the site, is leased to other parties and consists of an office building and vehicle storage facilities.

1.2 Regulatory Background

Site-specific cleanup levels (SSCLs) for groundwater were established by the Washington Department of Ecology (Ecology) as part of the Consent Decree number 00-2-07760-2SEA (CD [Ecology 2000]). The SSCLs were established on the basis that groundwater on the site is, and will remain, non-potable. As such, the SSCLs were derived to meet surface water standards that are protective of aquatic organisms in Elliott Bay. The *Cleanup Action Plan* (Exhibit B of the CD [Ecology 2000]) outlines site-specific constituents of concern (COCs) and applicable cleanup levels. The SSCLs for each COC are as follows:

SECOND SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

Constituent	Cleanup Level
Benzene	0.071 mg/L
Ethylbenzene	29.0 mg/L
Lead	0.0058 mg/L
Toluene	200 mg/L
GRO	1.0 mg/L
DRO	10 mg/L
HO	10 mg/L
Product	No sheen

mg/L = milligrams per liter

The *Compliance Monitoring Plan* (Exhibit F of the CD [Ecology 2000]) provides groundwater monitoring objectives for site compliance. Groundwater monitoring compliance requirements have been amended by the *Site-Wide Groundwater Compliance Monitoring Plan - Proposed Reduced Monitoring* (Delta 2007), *Technical Revision Request – Low Flow Groundwater Sampling* (Delta 2008), *Revised Site Groundwater Monitoring Plan* (Arcadis 2014), and the *Groundwater Analytical Reduction Request* (Arcadis 2016a). These groundwater monitoring compliance documents and approvals are provided in **Attachment A**.

The compliance status and most recent detections of COCs above SSCLs and separate phase hydrocarbons (SPH) in monitoring wells at the site are identified in **Table 1**.

1.3 Remedial Sulfate Application

To support anaerobic biological oxidation (ABOx) of petroleum hydrocarbons, gypsum and Epsom salt were applied to the ground surface in the B and D yards. Epsom salt has a relatively high solubility (approximately 250 grams per liter [g/L] at 20 degrees Celsius [°C]) and dissolves more rapidly than gypsum after placement. The relatively low solubility of gypsum (approximately 2 g/L at 20°C) provides a longer-term, slower-dissolving source of sulfate. As the gypsum and Epsom salt dissolve, the sulfate travels downward through vadose zone soils to groundwater via infiltration of rainwater and engineered irrigation. The relative density of the gypsum and Epsom salt solution promotes mixing and continued downward vertical migration in the shallow impacted groundwater (Arcadis 2012).

The design treatment area was approximately 30,000 square feet (SF) with an assumed smear zone thickness of 8 feet. The average concentration of total petroleum hydrocarbons (TPH) in the soil was conservatively estimated at 1,500 milligrams per kilogram, and the average gasoline range organics (GRO) concentration in groundwater was 2.4 milligrams per liter (mg/L) based on the third quarter 2012 groundwater monitoring event (Arcadis 2012). Based on a stoichiometric demand of 4 pounds of sulfate to treat a pound of GRO, 264,000 pounds of gypsum and 42,000 pounds of Epsom salt were imported to the site for remedial activities in July 2013 (Arcadis 2013).

Supplemental sulfate application activities within the B, C, and D Yards were conducted in accordance with the *Engineering Design Report* (Arcadis 2012) in September 2015 and October 2016. The October

SECOND SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

2016 supplemental sulfate application was approved by Ecology in an email dated September 15, 2016 (Ecology 2016). The 2016 remedial application was completed immediately after the second semiannual 2016 groundwater monitoring event, on October 19 and October 20, 2016.

On October 19, 2016, 16,000 pounds of sulfate in the form of Epsom salt were imported to the site. The Epsom salt was distributed across approximately 16,000 SF of the B, C and D yards (**Figure 3**) to target areas of the B and D yards where GRO and benzene concentrations exceed SSCLs (Arcadis 2016b). The additional treatment capacity added through the supplemental sulfate applications was designed to maintain the biological community and promote groundwater restoration in order to meet SSCLs within the B and D yards. An application density of 0.85 pound per square foot (lb/ft²) of Epsom salt was applied in the B Yard and 1.1 lb/ft² of Epsom salt was applied in the C and D Yards. The application of Epsom salt was spread across the target area by utilizing 150 square foot grids for consistent application.

2 SCOPE OF WORK

Semiannual groundwater monitoring and sulfate application performance monitoring activities were completed as described below.

2.1 Semiannual Groundwater Monitoring

The second semiannual 2016 groundwater monitoring event was performed in accordance with the groundwater monitoring compliance requirements presented in section 1.2. The scope of work for the second semiannual 2016 monitoring event included:

- Measuring depth to water and SPH in 51 monitoring wells
- Collecting field parameters, including dissolved oxygen (DO), oxygen-reduction potential (ORP), pH, temperature, and specific conductivity, from 40 monitoring wells
- Purging monitoring wells using low-flow sampling methods and collecting groundwater samples
- Submitting groundwater samples from 40 monitoring wells to ESC Lab Sciences (ESC) of Mount Juliet, Tennessee, for laboratory analyses.

Monitoring wells were purged using a low-flow peristaltic pump and dedicated tubing. Groundwater quality field parameters were measured using a YSI DSS Pro multi-parameter meter and flow-through cell. Monitoring wells were sampled after depth to water, pH, specific conductivity, and temperature had stabilized in accordance with the *Technical Revision Request – Low-Flow Groundwater Sampling* (Delta 2008). Groundwater elevation data are presented in **Table 2** and groundwater monitoring field data sheets are included as **Attachment B**.

Groundwater samples were collected in laboratory-provided bottles, placed in coolers with ice, and submitted to ESC under standard chain-of-custody protocol. Groundwater samples were analyzed for the following constituents:

- TPH GRO by Northwest Method NWTPH-Gx in 40 wells
- TPH in the Diesel Range Organics (DRO) and Heavy Oil (HO) by Northwest Method NWTPH-Dx in 19 wells

SECOND SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX collectively) by United States Environmental Protection Agency (EPA) Method 8260B in 40 wells
- Total and dissolved lead by EPA Method 6020 in 19 wells.

Blind duplicate samples were collected from groundwater monitoring wells MW-7 and MW-24 and analyzed for GRO and BTEX. Groundwater analytical results are presented in **Table 3**.

Groundwater samples collected from 5 monitoring wells located in the 13th Avenue Southwest area were submitted and analyzed for the following geochemical parameters:

- Methane by EPA Method RSK-175
- Ferrous iron by Standard Method 3500Fe B-2011
- Sulfate and nitrate by EPA Method 300.0
- Sulfide by Standard Method 4500S2 D-2011

Groundwater geochemical data, including field measurements, are presented in **Table 4**. Laboratory analytical reports and chain-of-custody documentation are included as **Attachment C**.

2.2 Remedial Performance Monitoring

Performance monitoring of the remedial application in the B, C, and D yards was performed periodically following the remedial sulfate applications completed in July 2013, September 2015, and October 2016. Specific conductivity was measured at 11 monitoring wells within the sulfate application area (11, 12, MW-7, MW-9, MW-19, and TMW-1 through TMW-6) using a multi-parameter water quality meter. Field measurements of specific conductance were correlated to groundwater sulfate concentrations to monitor remedial performance between semiannual monitoring events, in order to provide higher resolution sulfate concentration data. Additionally, groundwater samples were collected from the 11 monitoring wells within the sulfate application area during the second semiannual 2016 groundwater monitoring event. Samples collected from these wells were submitted and analyzed for sulfate by the EPA method 300.0, in addition to GRO, DRO, BTEX, and lead.

3 SUMMARY OF RESULTS

Sample analytical results and field measurements collected during the second semiannual 2016 groundwater monitoring event are presented below.

3.1 Water Level Measurements

Depth to groundwater in monitoring wells was measured on October 11, 2016 using electronic water level meters and an oil/water interface probe. Groundwater elevations were calculated using depth-to-water measurements and wellhead survey elevations obtained in July 2003. Groundwater elevations (NAVD 88) for the October 11, 2016 gauging event ranged from 5.40 feet amsl (MW-25) to 7.85 feet amsl (MW-20). Groundwater direction is generally to the south-southwest from the D Yard toward the A Yard, which is consistent with previous monitoring events. The groundwater elevation data are included in **Table 2**, and a potentiometric contour map is presented as **Figure 4**.

3.2 Passive Separate Phase Hydrocarbon Recovery

During the second semiannual 2016 groundwater monitoring event, SPH was observed at monitoring well A-16 at a thickness of 0.40 feet. A sample of SPH was collected and submitted for physical properties and fingerprint analysis to confirm the age and composition of the fluid. Analytical data indicate the SPH sample is highly weathered diesel or jet fuel, which is consistent with historical releases in the A yard. The measured density of the SPH sample was 0.814 grams per cubic centimetre and the flashpoint was 80.6 degrees Fahrenheit. An absorbent sock was placed in the well for passive SPH recovery. Monitoring well A-16 will be re-gauged in the first quarter of 2017, consistent with Ecology's approval of the *Revised Site Groundwater Monitoring Plan* (Ecology 2014). The laboratory analytical report for the SPH sample is included in **Attachment C**.

3.3 Groundwater Analytical and Geochemical Results

During the second semiannual 2016 monitoring event, the following COCs exceeded SSCLs in groundwater samples collected from monitoring wells at the site:

- GRO concentrations exceeded the SSCL in 12 of the 40 monitoring wells analyzed for GRO. The maximum concentration of GRO detected was 7.03 mg/L at TMW-B1.
- DRO was not detected in concentrations exceeding the SSCL at any of the 19 monitoring wells analyzed for DRO.
- HO was not detected in concentrations exceeding the SSCL at any of the 19 monitoring wells analysed for HO.
- Benzene concentrations exceeded the SSCL in 3 of the 40 monitoring wells analyzed for benzene. The maximum concentration of benzene was 0.208 mg/L at A-28R.
- Toluene concentrations did not exceed the SSCL in any of the 40 monitoring wells analyzed for toluene.
- Ethylbenzene was not detected in concentrations exceeding the SSCL in any of the 40 monitoring wells analyzed for ethylbenzene.
- Xylenes concentrations were detected up to 0.392 mg/L at TMW-6.
- Total lead concentrations exceeded the SSCL in two of the 19 monitoring wells analyzed for total lead. The maximum concentration of total lead was 0.0187 mg/L (12).
- Dissolved lead concentrations in all 19 monitoring well locations were below the SSCL; however, the blind duplicate sample collected at MW-7 (0.0071 mg/L) exceeded the SSCL.

Groundwater analytical results are included in **Table 3** and presented on **Figure 5** and **Figure 6**. Laboratory analytical reports and chain-of-custody documentation are included as **Attachment C**.

During the second semiannual 2016 monitoring event, samples from five monitoring wells (A-27, A-28R, TMW-B1, MW-23, and MW-24) were analyzed for geochemical parameters to monitor natural attenuation along 13th Avenue Southwest.

SECOND SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

Concentrations of geochemical parameters within the 13th Avenue Southwest monitored natural attenuation (MNA) area were:

- Methane in all five monitoring wells at concentrations ranging from 2.02 mg/L (A-27) to 9.42 mg/L (TMW-B1)
- Ferrous iron in all five monitoring wells at concentrations ranging from 6.23 mg/L (MW-24) to 32.9 mg/L (A-28R)
- Sulfate in two monitoring wells at concentrations ranging from 42.3 mg/L (MW-23) to 105 mg/L (A-27).

Groundwater analytical results for geochemical parameters are included in **Table 4**. Laboratory analytical reports and chain-of-custody documentation are included as **Attachment C**

3.4 Remedial Performance Results

During the second semiannual 2016 monitoring event, samples from 11 monitoring wells (11, 12, MW-7, MW-9, MW-19, and TMW-1 through TMW-6) were analyzed for sulfate to monitor the B and D yard sulfate application areas. Monitoring well MW-9 serves as a downgradient monitoring point.

In the sulfate application area, sulfate concentrations ranged from non-detect (MW-19) to 1,530 mg/L (TMW-6). Downgradient monitoring well MW-9 had a sulfate concentration of 39.2 mg/L.

The sulfate concentrations in monitoring wells within the remedial application area (11, 12, MW-7, MW-19, and TMW-1 through TMW-6) were evaluated to gauge remedial performance of the ABOx system. Sulfate concentrations were sufficient to support ABOx of petroleum hydrocarbons at monitoring wells 12, MW-7, and TMW-2 through TMW-6. Sulfate concentrations at monitoring wells 11, MW-19 and TMW-1 were lower than the target concentration considered necessary to support ABOx. A targeted reapplication of Epsom salt was applied in October 2016 (as described in Section 1.3) following the second semiannual groundwater monitoring event in order to enhance ABOx within the remedial sulfate application area.

Groundwater analytical results for geochemical parameters are included in **Table 4**. Constituent trend graphs for the performance monitoring of wells within the sulfate application area are included as **Graph 1** through **Graph 10**. Laboratory analytical reports and chain-of-custody documentation are included as **Attachment C**.

3.5 Data Validation Results

All of the laboratory analytical data produced as part of the second semiannual 2016 groundwater monitoring event (sample delivery groups L866327, L866330, L866331, L866366, L866446 [**Attachment C**]) were reviewed for completeness and technical compliance. The data were reviewed in accordance with EPA National Functional Guidelines of October 1999 and the EPA National Functional Guidelines of July 2002. The review of the data packages included the following:

- Chain-of-custody forms
- Holding times
- Blank contamination

SECOND SEMIANNUAL 2016 GROUNDWATER MONITORING REPORT

- Spike recoveries (MS/MSD)
- Laboratory Control Samples (LCS)/ Blank spikes
- Surrogate recoveries
- Field/Laboratory Duplicates
- Metals – Total versus Dissolved

All field samples were analyzed within their specified hold times, with the exception of the samples analyzed for ferrous iron by Method 3500-Fe B-2011. Ferrous iron is considered “out of hold” as received at the laboratory in accordance with the method, but the results are minimally impacted. Reported concentrations of ferrous iron should be considered minimum values.

Two field duplicates (DUP-1, DUP-2) were collected and analyzed at sample locations MW-7 and MW-24, respectively. The relative percent differences between the parent and the duplicates were acceptable at less than 30%.

All applicable precision and accuracy criteria were met for all parameters. Therefore, the analytical data are considered reliable and acceptable for use.

4 COMPLIANCE AND CONCLUSIONS

4.1 A Yard

SPH or sheen has been observed in several A yard wells historically. During the second semiannual 2016 groundwater monitoring event, measurable SPH was observed in well A-16. Passive recovery of SPH using absorbent socks has been conducted since 2007 and is conducted in accordance with the procedure outlined in the Ecology email approval of the *Revised Site Groundwater Monitoring Plan* (Arcadis 2014), which requires quarterly gauging and sock replacement for 4 quarters following the observance of sheen or measurable SPH during a semiannual monitoring event (Ecology 2014). Because SPH was observed in monitoring wells A-6 and A-16 in September 2015, wells A-6 and A-16 were gauged for the following four quarters.

On October 11, 2016, during the second semiannual 2016 groundwater monitoring event, well A-6 did not have measurable SPH or sheen present, therefore an absorbent sock was not placed in the well. SPH was observed at monitoring well A-16 at a thickness of 0.40 feet and an absorbent sock was replaced in the well.

Groundwater samples were collected at 6 monitoring wells within A yard (A-5, A-8, A-10, A-14R, A-21, and MW-25). COCs in groundwater samples collected from the A yard monitoring wells have been below SSCLs since 2012.

4.2 B, C, and D Yards

4.2.1 Remedial Application Area

Concentrations of COCs during the second semiannual 2016 groundwater monitoring event in the 10 performance monitoring wells within the sulfate application area (11, 12, MW-7, MW-19, and TMW-1

through TMW-6) were generally consistent with or lower than concentrations observed during previous groundwater monitoring events. Four wells (11, TMW-1, TMW-2, and TMW-3) were below the SSCLs for all site COCs. Six wells (12, MW-7, MW-19, TMW-4, TMW-5, and TMW-6) had GRO concentrations exceeding the SSCL. There were no exceedances of SSCLs for BTEX compounds at any location within the sulfate application area. **Figure 6** displays analytical results of the 10 performance wells within the remedial footprint. Trend graphs for COCs and sulfate are included in **Graph 1** through **Graph 10** to visualize the remedial performance and compliance with the SSCLs.

Detectable concentrations of sulfate were measured downgradient of the application area in wells MW-9 and A-27. The downgradient sulfate concentrations at locations MW-9 and A-27 were less than the secondary contaminant groundwater standard of 250 mg/L established in Washington Administrative Code 173-200-040

During the second semiannual 2016 groundwater monitoring event, total lead was detected in B Yard monitoring well 12 at a concentration that exceeded the SSCL (0.0187 mg/L). Lead impacted shallow soil removal from the B Yard and C Yard was completed in 2002 (KHM 2002). Residual total lead and dissolved lead impacts to groundwater are monitored in accordance with the CD.

4.2.2 Non-Remedial Application Area

There have been no observations of measurable SPH or sheen in any wells within the B yard since April 2014. In the C Yard, SPH has not been observed in wells gauged as part of groundwater monitoring compliance, which was initiated in the third quarter of 2000 (KHM 2001). SPH has not been observed in any well located within the D yard, with the exception of a sheen noted in May 2002 in well MW-19 (KHM 2002). SPH removal, as required in the CD, is complete in the B, C, and D yards.

There are six monitoring wells in the B, C and D yards not included in the remedial application area (MW-3, MW-8, MW-9, MW-14, MW-20, and MW-21). Concentrations of all site COCs were below SSCLs in four of the six monitoring wells and are in compliance with the requirements of the CD. Analytical results are displayed in **Figure 5** and presented in **Table 3**.

The concentration of GRO measured at monitoring well MW-14 exceeded the SSCL during the second semiannual 2016 groundwater monitoring event at a concentration of 1.11 mg/L. While GRO has not been detected at a concentration exceeding the SSCL since September 8, 2008, this concentration is within the historical range of detections.

During the second semiannual 2016 groundwater monitoring event, total lead was detected in monitoring well MW-8 at a concentration greater than the SSCL (0.0183 mg/L). Lead impacted shallow soil removal from the B Yard and C Yard was completed in 2002 (KHM 2002).

Groundwater monitoring will continue to be conducted semiannually; COCs exceeding SSCLs will be evaluated in accordance with the CD. Analytical results for the monitoring wells exceeding SSCLs within the last four monitoring events (MW-5, MW-8 and MW-14) are plotted in **Graph 11** through **Graph 13**.

4.3 E Yard

Groundwater sampling is conducted annually in one well (MW-1) located within the E yard. Concentrations of site COCs have been below SSCLs in the E yard since 2002.

4.4 13th Avenue Southwest Monitored Natural Attenuation Area

Concentrations of COCs in wells within the 13th Avenue Southwest MNA area (A-21, A-27, A-28R, TMW-B1 MW-23, and MW-24) are consistent with historical concentrations, which show generally stable to decreasing trends.

Concentrations of GRO in wells A-27, A-28R, TMW-B1, MW-23 and MW-24 exceeded the SSCL during the second semiannual monitoring event (**Figure 5**). Benzene exceeded the SSCL in wells A-28R, MW-23, and MW-24 during this event. Constituent trend graphs for monitoring wells exceeding SSCLs are presented in **Graph 14** through **Graph 18**.

Concentrations of geochemical parameters in the 13th Avenue Southwest MNA wells are consistent with previous groundwater monitoring events. Concentrations of DO in wells A-27, A-28R, TMW-B1, MW-23, and MW-24 are between 0.23 mg/L and 0.70 mg/L, indicating that groundwater conditions are anaerobic. Concentrations of methane and ferrous iron in wells A-27, A-28R, TMW-B1, MW-23, and MW-24 are elevated compared to wells without detectable petroleum impacts.

These data demonstrate that natural attenuation is occurring in wells located in the 13th Avenue Southwest area and suggest that anaerobic biological degradation is occurring through iron reduction and methanogenesis (Ecology 2005). These indicators are consistent with the Five-Year Review Report for Harbour Island (EPA 2015) that natural attenuation continues to result in a reduction in concentrations of site COCs, that the lateral extents of the impacts are stable or shrinking, and that MNA is an appropriate remedial strategy for the 13th Avenue Southwest area.

5 REFERENCES

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TABLES



Table 1
Monitoring Well Compliance Status
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Location	Date of Last SPH or Sheen Observation	Date of Last Exceedance of SSCL	Constituent(s)	Comments
A-4	A Yard	05/23/11	--	--	SPH Skimmer
A-5	A Yard	09/15/03	12/05/08	Benzene	
A-6	A Yard	03/29/16	--	--	SPH Skimmer, EFR Pilot Test
A-8	A Yard	11/18/03	--	--	
A-10	A Yard	05/10/04	06/07/05	DRO	
A-11	A Yard	09/19/05	--	--	
A-12	A Yard	03/08/05	--	--	
A-14R	A Yard	09/19/05	12/14/04	Total Lead	
A-16	A Yard	10/11/16	--	--	SPH, EFR Pilot Test
A-18	A Yard	09/19/05	--	--	
A-19	13th Ave	09/11/06	--	--	EFR Pilot Test
A-20	13th Ave	09/19/05	05/25/11	GRO	
A-21	13th Ave	05/20/02	08/25/12	GRO	
A-22R	13th Ave	10/12/05	05/25/11	GRO, Benzene	EFR Pilot Test
A-23R	13th Ave	Never	12/11/07	Benzene	
A-25	A Yard	11/15/10	06/16/11	GRO, Benzene	
A-26R	13th Ave	09/19/05	05/25/11	GRO, Benzene	EFR Pilot Test
A-27	13th Ave	12/18/00	10/14/16	GRO, Benzene	
A-28R	13th Ave	Never	10/14/16	GRO, Benzene	
12	B Yard	04/22/14	10/14/16	GRO, Total Lead	
MW-1	E Yard	Never	11/05/02	Total Lead	
MW-2	13th Ave	Never	06/08/10	Total Lead	
MW-3	C Yard	Never	12/15/04	Total Lead	
MW-4	11th Ave	12/13/04	09/21/05	DRO	
MW-5	D Yard	Never	04/09/13	Total Lead	
MW-6	13th Ave	12/18/00	12/13/05	GRO	
MW-7	B Yard	11/16/09	10/13/16	GRO	
MW-8	B Yard	05/20/02	10/13/16	Total Lead	
MW-9	B Yard	05/23/11	--	--	
MW-12R	11th Ave	Never	08/26/04	Benzene	
MW-14	D Yard	Never	10/11/16	GRO	
MW-16	13th Ave	Never	--	--	
MW-18	13th Ave	Never	06/08/06	GRO, Benzene	
MW-19	D Yard	05/20/02	10/11/16	GRO	
MW-20	C Yard	Never	09/25/01	Benzene	
MW-21	B Yard	03/01/12	09/22/09	GRO	
MW-22	13th Ave	Never	11/05/02	Benzene	
MW-23	13th Ave	08/29/11	10/14/16	GRO, Benzene	EFR Pilot Test
MW-24	13th Ave	08/29/11	10/14/16	GRO, Benzene	EFR Pilot Test
MW-25	A Yard	02/24/04	09/20/05	Total Lead	
SH-02R	11th Ave	Never	09/16/03	Total Lead	
SH-05R	11th Ave	11/18/03	12/15/04	DRO	
MW-07R	11th Ave	Never	09/13/06	Total Lead	
TMW-B1	13th Ave	Never	10/14/16	GRO	

Notes:

Shading indicates SPH observance or SSCL exceedance in 2016

-- = No data/not applicable

GRO = Gasoline range organics

DRO = Diesel range organics

SSCL = Site-specific cleanup level

SPH = Separate phase hydrocarbons

EFR = Enhanced fluids recovery

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-1	02/11/02	10.93	7.47	--	3.46	
A-1	05/20/02	10.93	9.99	--	0.94	
A-1	08/27/02	10.93	4.72	--	6.21	
A-1	11/04/02	10.93	8.95	--	1.98	
A-1	02/18/03	10.93	7.92	--	3.01	
A-1	06/09/03	10.93	8.47	--	2.46	
A-1	09/15/03	14.64	8.83	--	5.81	
A-1	11/18/03	14.64	8.45	--	6.19	
A-1	02/24/04	14.64	7.89	--	6.75	
A-1	05/10/04	14.64	8.53	--	6.11	
A-1	08/24/04	14.64	8.73	--	5.91	
A-1	12/13/04	14.64	8.45	--	6.19	
A-1	03/08/05	14.64	8.59	--	6.05	
A-1	06/06/05	14.64	8.41	--	6.23	
A-1	09/19/05	14.64	8.87	--	5.77	
A-1	12/12/05	14.64	8.63	--	6.01	
A-1	03/13/06	14.64	7.95	--	6.69	
A-1	06/05/06	14.64	8.37	--	6.27	
A-1	09/11/06	14.64	8.81	--	5.83	
A-1	12/11/06	14.64	7.95	--	6.69	
A-2	02/11/02	10.85	7.41	--	3.44	
A-2	05/20/02	10.85	9.28	--	1.57	
A-2	08/27/02	10.85	4.66	--	6.19	
A-2	11/04/02	10.85	8.90	--	1.95	
A-2	02/18/03	10.85	7.98	--	2.87	
A-2	06/09/03	10.85	8.41	--	2.44	
A-2	09/15/03	14.66	8.77	--	5.89	
A-2	11/18/03	14.66	8.35	--	6.31	
A-2	02/24/04	14.66	7.80	--	6.86	
A-2	05/10/04	14.66	8.51	--	6.15	
A-2	08/24/04	14.66	8.55	--	6.11	
A-2	12/13/04	14.66	8.38	--	6.28	
A-2	03/08/05	14.66	8.77	--	5.89	
A-2	06/06/05	14.66	8.45	--	6.21	
A-2	09/19/05	14.66	8.79	--	5.87	
A-2	12/12/05	14.66	8.58	--	6.08	
A-2	03/13/06	14.66	7.81	--	6.85	
A-2	06/05/06	14.66	8.29	--	6.37	
A-2	09/11/06	14.66	8.76	--	5.90	
A-2	12/11/06	14.66	7.96	--	6.70	
A-3	02/11/02	10.50	7.30	<0.01	3.2	
A-3	05/20/02	10.50	9.03	--	1.47	
A-3	08/27/02	10.50	8.43	--	2.07	
A-3	11/04/02	10.50	8.64	--	1.86	
A-3	02/18/03	10.50	7.61	--	2.89	
A-3	06/09/03	10.50	8.19	--	2.31	
A-3	09/15/03	14.32	8.50	--	5.82	
A-3	11/18/03	14.32	7.56	--	6.76	
A-3	02/24/04	14.32	7.56	--	6.76	
A-3	05/10/04	14.32	8.12	--	6.20	
A-3	08/24/04	14.32	8.23	--	6.09	
A-3	12/13/04	14.32	7.85	--	6.47	
A-3	03/08/05	14.32	8.20	--	6.12	
A-3	06/06/05	14.32	8.03	--	6.29	
A-3	09/19/05	14.32	8.50	--	5.82	
A-3	12/12/05	14.32	8.32	--	6.00	
A-3	03/13/06	14.32	7.51	--	6.81	
A-3	06/05/06	14.32	7.96	--	6.36	
A-3	09/11/06	14.32	8.46	--	5.86	
A-3	12/11/06	14.32	7.56	--	6.76	
A-4	02/11/02	10.74	7.38	0.14	3.47	
A-4	05/20/02	10.74	8.20	0.02	2.56	
A-4	08/27/02	10.74	7.62	0.04	3.15	
A-4	11/04/02	10.74	7.92	Sheen	2.82	Product recovery pump in well
A-4	02/18/03	10.74	7.84	Sheen	2.90	Product recovery pump in well
A-4	06/09/03	10.74	6.40	0.10	4.42	Product recovery pump in well
A-4	09/15/03	13.22	8.38	0.10	4.92	Product recovery pump in well

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-4	11/18/03	13.22	6.65	0.01	6.58	Product recovery pump in well
A-4	02/24/04	13.22	7.00	--	6.22	Product recovery pump in well
A-4	05/10/04	13.22	6.79	--	6.43	Product recovery pump in well
A-4	08/24/04	13.22	7.76	--	5.46	Product recovery pump in well
A-4	12/13/04	13.22	6.10	Sheen	7.12	
A-4	03/08/05	13.22	7.21	Sheen	6.01	
A-4	06/06/05	13.22	7.23	Sheen	5.99	
A-4	09/19/05	13.22	7.78	--	5.44	
A-4	12/12/05	13.22	7.77	--	5.45	
A-4	03/13/06	13.22	6.85	--	6.37	
A-4	06/05/06	13.22	7.30	Sheen	5.92	
A-4	09/11/06	13.22	8.02	0.01	5.21	
A-4	12/11/06	13.22	7.04	--	6.18	
A-4	03/26/07	13.22	6.90	--	6.32	
A-4	06/18/07	13.22	7.29	--	5.93	
A-4	09/24/07	13.22	7.48	Sheen	5.74	
A-4	12/10/07	13.22	6.83	--	6.39	
A-4	03/03/08	13.22	7.11	0.01	6.12	
A-4	06/02/08	13.22	7.52	Sheen	5.70	
A-4	09/04/08	13.22	7.57	Sheen	5.65	
A-4	12/04/08	13.22	7.44	--	5.78	
A-4	03/04/09	13.22	7.09	--	6.13	
A-4	06/01/09	13.22	7.32	Sheen	5.90	
A-4	09/21/09	13.22	7.61	Sheen	5.61	
A-4	11/16/09	13.22	6.97	Sheen	6.25	
A-4	03/08/10	13.22	6.54	--	6.68	
A-4	06/07/10	13.22	6.92	Sheen	6.30	
A-4	09/09/10	13.22	7.59	--	5.63	
A-4	11/16/10	13.22	7.11	--	6.11	
A-4	03/01/11	13.22	6.66	--	6.56	
A-4	05/23/11	13.22	6.84	Sheen	6.38	
A-4	08/29/11	13.22	7.50	--	5.72	
A-4	12/01/11	13.22	7.16	--	6.06	
A-4	03/01/12	13.22	--	--	--	Not Measured
A-4	05/30/12	13.22	6.88	--	6.34	
A-4	08/25/12	13.22	7.17	--	6.05	
A-4	11/07/12	13.22	6.77	--	6.45	
A-4	02/28/13	13.22	6.69	--	6.53	
A-4	04/08/13	13.22	6.83	--	6.39	
A-4	07/29/13	13.22	7.23	--	5.99	
A-4	10/02/13	13.22	5.10	--	8.12	
A-4	01/21/14	13.22	7.12	--	6.10	
A-4	04/22/14	13.22	6.71	--	6.51	
A-4	07/15/14	13.22	7.09	--	6.13	
A-4	03/17/15	13.22	3.74	--	9.48	
A-4	09/29/15	13.22	--	--	--	Not Measured
A-4	03/29/16	13.22	6.02	--	7.20	
A-4	10/11/16	13.22	7.32	--	5.90	
A-5	02/11/02	10.42	7.00	--	3.42	
A-5	05/20/02	10.42	8.89	--	1.53	
A-5	08/27/02	10.42	8.25	--	2.17	
A-5	11/04/02	10.42	8.43	--	1.99	
A-5	02/18/03	10.42	7.35	--	3.07	
A-5	06/09/03	10.42	7.99	--	2.43	
A-5	09/15/03	14.13	8.33	Sheen	5.80	
A-5	11/18/03	14.13	7.82	--	6.31	
A-5	02/24/04	14.13	6.45	--	7.68	
A-5	05/10/04	14.13	8.04	--	6.09	
A-5	08/24/04	14.13	8.02	--	6.11	
A-5	12/13/04	14.13	7.88	--	6.25	
A-5	03/08/05	14.13	8.00	--	6.13	
A-5	06/06/05	14.13	7.89	--	6.24	
A-5	09/19/05	14.13	8.37	--	5.76	
A-5	12/12/05	14.13	8.15	--	5.98	
A-5	03/13/06	14.13	7.39	--	6.74	
A-5	06/05/06	14.13	7.82	--	6.31	
A-5	09/11/06	14.13	8.34	--	5.79	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-5	12/11/06	14.13	7.41	--	6.72	
A-5	03/26/07	14.13	7.41	--	6.72	
A-5	06/18/07	14.13	8.32	--	5.81	
A-5	09/24/07	14.13	8.32	--	5.81	
A-5	12/10/07	14.13	7.66	--	6.47	
A-5	03/03/08	14.13	7.78	--	6.35	
A-5	06/02/08	14.13	8.21	--	5.92	
A-5	09/04/08	14.13	8.10	--	6.03	
A-5	12/04/08	14.13	8.15	--	5.98	
A-5	03/04/09	14.13	7.76	--	6.37	
A-5	06/01/09	14.13	8.03	--	6.10	
A-5	09/21/09	14.13	8.35	--	5.78	
A-5	11/16/09	14.13	7.70	--	6.43	
A-5	03/08/10	14.13	7.21	--	6.92	
A-5	06/07/10	14.13	7.74	--	6.39	
A-5	09/09/10	14.13	8.26	--	5.87	
A-5	11/15/10	14.13	7.85	--	6.28	
A-5	03/01/11	14.13	7.47	--	6.66	
A-5	05/23/11	14.13	7.58	--	6.55	
A-5	08/29/11	14.13	8.17	--	5.96	
A-5	12/01/11	14.13	7.89	--	6.24	
A-5	03/01/12	14.13	7.62	--	6.51	
A-5	05/30/12	14.13	7.67	--	6.46	
A-5	08/25/12	14.13	7.91	--	6.22	
A-5	11/07/12	14.13	7.54	--	6.59	
A-5	02/27/13	14.13	7.59	--	6.54	
A-5	04/08/13	14.13	7.56	--	6.57	
A-5	07/29/13	14.13	7.88	--	6.25	
A-5	10/02/13	14.13	7.64	--	6.49	
A-5	01/21/14	14.13	7.92	--	6.21	
A-5	04/22/14	14.13	7.50	--	6.63	
A-5	07/15/14	14.13	7.85	--	6.28	
A-5	03/17/15	14.13	7.45	--	6.68	
A-5	09/29/15	14.13	7.80	--	6.33	
A-5	03/29/16	14.13	6.89	--	7.24	
A-5	10/11/16	14.13	8.05	--	6.08	
A-6	02/11/02	--	6.40	0.13	--	Not Measured-Casing Broken
A-6	05/20/02	--	8.13	0.14	--	Not Measured-Casing Broken
A-6	08/27/02	--	7.80	0.45	--	Not Measured-Casing Broken
A-6	11/04/02	--	7.33	0.01	--	Not Measured-Product recovery pump in well, Casing Broken
A-6	02/18/03	--	8.50	Sheen	--	Not Measured-Product recovery pump in well, Casing Broken
A-6	06/09/03	--	7.45	0.01	--	Not Measured-Re-cut TOC; repaired
A-6	09/15/03	12.81	7.77	0.01	5.05	Product recovery pump in well
A-6	11/18/03	12.81	7.46	0.54	5.78	Product recovery pump in well
A-6	02/24/04	12.81	6.65	0.40	6.48	Product recovery pump in well
A-6	05/10/04	12.81	6.95	0.10	5.94	Product recovery pump in well
A-6	08/24/04	12.81	7.21	0.21	5.77	Product recovery pump in well
A-6	12/13/04	12.81	6.80	0.14	6.12	
A-6	03/08/05	12.81	6.98	0.32	6.09	
A-6	06/06/05	12.81	6.81	0.04	6.03	
A-6	09/19/05	12.81	7.81	0.59	5.47	
A-6	10/12/05	12.81	7.95	0.50	5.26	
A-6	12/12/05	12.81	8.20	0.95	5.37	
A-6	03/13/06	12.81	6.68	0.08	6.19	
A-6	06/05/06	12.81	7.10	0.13	5.81	
A-6	09/11/06	12.81	7.82	0.27	5.21	
A-6	12/11/06	12.81	6.58	0.02	6.25	
A-6	03/26/07	12.81	6.51	--	6.30	
A-6	06/18/07	12.81	7.00	--	5.81	
A-6	09/24/07	12.81	7.20	Sheen	5.61	
A-6	12/10/07	12.81	6.58	--	6.23	
A-6	03/03/08	12.81	6.59	--	6.22	
A-6	06/02/08	12.81	7.05	Sheen	5.76	
A-6	09/04/08	12.81	7.19	Sheen	5.62	
A-6	12/04/08	12.81	7.15	Sheen	5.66	
A-6	03/04/09	12.81	6.51	Sheen	6.30	
A-6	06/01/09	12.81	7.00	Sheen	5.81	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-6	09/21/09	12.81	7.24	Sheen	5.57	
A-6	11/16/09	12.81	6.50	Sheen	6.31	
A-6	03/08/10	12.81	6.14	--	6.67	
A-6	06/07/10	12.81	6.71	Sheen	6.10	
A-6	09/09/10	12.81	7.12	--	5.69	
A-6	11/15/10	12.81	6.79	Sheen	6.02	
A-6	03/01/11	12.81	6.38	Sheen	6.43	
A-6	05/23/11	12.81	6.52	Sheen	6.29	
A-6	08/29/11	12.81	7.04	0.03	5.79	
A-6	12/01/11	12.81	6.95	Sheen	5.86	
A-6	03/01/12	12.81	6.60	--	6.21	
A-6	05/30/12	12.81	6.58	--	6.23	
A-6	08/25/12	12.81	7.18	--	5.63	
A-6	11/07/12	12.81	6.61	--	6.20	
A-6	02/27/13	12.81	6.54	--	6.27	
A-6	04/08/13	12.81	6.46	--	6.35	
A-6	07/29/13	12.81	6.83	--	5.98	
A-6	10/02/13	12.81	6.66	Sheen	6.15	0.04 ft of SPH observed. Absorbent sock placed in well.
A-6	01/21/14	12.81	6.80	--	6.01	
A-6	04/22/14	12.81	6.32	--	6.49	
A-6	07/15/14	12.81	6.69	--	6.12	
A-6	03/17/15	12.81	6.30	0.10	6.59	Absorbent sock placed in well
A-6	06/08/15	12.81	6.70	--	6.11	
A-6	09/29/15	12.81	7.79	0.05	5.06	Absorbent sock placed in well
A-6	12/21/15	12.81	5.20	--	7.61	
A-6	03/29/16	12.81	5.77	<0.01	7.04	Sheen. Absorbent sock placed in well
A-6	06/16/16	12.81	6.79	--	6.02	
A-6	09/01/16	12.81	7.01	0.05	5.80	Absorbent sock placed in well
A-6	10/11/16	12.81	7.09	--	5.72	
A-7	02/11/02	9.50	6.25	--	3.25	
A-7	05/20/02	9.50	8.10	--	1.40	
A-7	08/27/02	9.50	7.40	--	2.10	
A-7	11/04/02	9.50	7.55	--	1.95	
A-7	02/18/03	9.50	7.53	--	1.97	
A-7	06/09/03	9.50	7.12	--	2.38	
A-7	09/15/03	13.43	7.45	--	5.98	
A-7	11/18/03	13.43	6.78	--	6.65	
A-7	02/24/04	13.43	6.89	--	6.54	
A-7	05/10/04	13.43	6.66	--	6.77	
A-7	08/24/04	13.43	7.67	--	5.76	
A-7	12/13/04	13.43	6.88	--	6.55	
A-7	03/08/05	13.43	4.45	--	8.98	
A-7	06/06/05	13.43	6.84	--	6.59	
A-7	09/19/05	13.43	7.47	--	5.96	
A-7	12/12/05	13.43	7.22	--	6.21	
A-7	03/13/06	13.43	6.41	--	7.02	
A-7	06/05/06	13.43	6.90	--	6.53	
A-7	09/11/06	13.43	7.53	--	5.90	
A-7	12/11/06	13.43	6.69	--	6.74	
A-8	02/11/02	10.46	6.98	--	3.48	
A-8	05/20/02	10.46	8.87	--	1.59	
A-8	08/27/02	10.46	7.26	--	3.20	
A-8	11/04/02	10.46	8.51	--	1.95	
A-8	02/18/03	10.46	4.83	--	5.63	
A-8	06/09/03	10.46	8.11	--	2.35	
A-8	09/15/03	14.61	8.38	--	6.23	
A-8	11/18/03	14.61	7.87	Sheen	6.74	
A-8	02/24/04	14.61	7.43	--	7.18	
A-8	05/10/04	14.61	8.04	--	6.57	
A-8	08/24/04	14.61	8.18	--	6.43	
A-8	12/13/04	14.61	7.90	--	6.71	
A-8	03/08/05	14.61	8.11	--	6.50	
A-8	06/06/05	14.61	7.98	--	6.63	
A-8	09/19/05	14.61	8.44	--	6.17	
A-8	12/12/05	14.61	8.22	--	6.39	
A-8	03/13/06	14.61	7.49	--	7.12	
A-8	06/05/06	14.61	7.89	--	6.72	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-8	09/11/06	14.61	8.45	--	6.16	
A-8	12/11/06	14.61	7.66	--	6.95	
A-8	03/26/07	14.61	7.71	--	6.90	
A-8	06/18/07	14.61	8.27	--	6.34	
A-8	09/24/07	14.61	8.50	--	6.11	
A-8	12/10/07	14.61	7.44	--	7.17	
A-8	03/03/08	14.61	7.83	--	6.78	
A-8	06/02/08	14.61	8.20	--	6.41	
A-8	09/04/08	14.61	--	--	--	Inaccessible
A-8	12/04/08	14.61	8.20	--	6.41	
A-8	03/04/09	14.61	7.70	--	6.91	
A-8	06/01/09	14.61	8.11	--	6.50	
A-8	09/21/09	14.61	8.37	--	6.24	
A-8	11/16/09	14.61	7.70	--	6.91	
A-8	03/08/10	14.61	7.31	--	7.30	
A-8	06/07/10	14.61	7.85	--	6.76	
A-8	09/09/10	14.61	8.28	--	6.33	
A-8	11/15/10	14.61	7.94	--	6.67	
A-8	03/01/11	14.61	7.56	--	7.05	
A-8	05/23/11	14.61	7.70	--	6.91	
A-8	08/29/11	14.61	8.21	--	6.40	
A-8	12/01/11	14.61	8.06	--	6.55	
A-8	03/01/12	14.61	7.74	--	6.87	
A-8	05/30/12	14.61	7.87	--	6.74	
A-8	08/25/12	14.61	7.97	--	6.64	
A-8	11/07/12	14.61	7.63	--	6.98	
A-8	02/27/13	14.61	8.71	--	5.90	
A-8	04/08/13	14.61	7.67	--	6.94	
A-8	07/29/13	14.61	7.98	--	6.63	
A-8	10/02/13	14.61	7.75	--	6.86	
A-8	01/21/14	14.61	7.98	--	6.63	
A-8	04/22/14	14.61	7.52	--	7.09	
A-8	07/15/14	14.61	7.89	--	6.72	
A-8	03/17/15	14.61	7.41	--	7.2	
A-8	09/29/15	14.61	7.92	--	6.69	
A-8	03/29/16	14.61	6.96	--	7.65	
A-8	10/11/16	14.61	8.21	--	6.40	
A-9	02/11/02	10.35	7.20	0.01	3.16	
A-9	05/20/02	10.35	8.86	--	1.49	
A-9	08/27/02	10.35	8.27	Sheen	2.08	
A-9	11/04/02	10.35	8.39	0.01	1.97	
A-9	02/18/03	10.35	7.45	--	2.90	
A-9	06/09/03	10.35	8.06	--	2.29	
A-9	09/15/03	14.42	8.03	--	6.39	
A-9	11/18/03	14.42	7.62	--	6.80	
A-9	02/24/04	14.42	7.21	--	7.21	
A-9	05/10/04	14.42	8.00	--	6.42	
A-9	08/24/04	14.42	8.18	--	6.24	
A-9	12/13/04	14.42	7.73	--	6.69	
A-9	03/08/05	14.42	8.00	--	6.42	
A-9	06/06/05	14.42	7.89	--	6.53	
A-9	09/19/05	14.42	8.28	--	6.14	
A-9	12/12/05	14.42	8.04	--	6.38	
A-9	03/13/06	14.42	7.37	--	7.05	
A-9	06/05/06	14.42	7.79	--	6.63	
A-9	09/11/06	14.42	8.36	--	6.06	
A-9	12/11/06	14.42	7.46	--	6.96	
A-10	02/11/02	9.48	6.15	--	3.33	
A-10	05/20/02	9.48	7.98	--	1.50	
A-10	08/27/02	9.48	7.34	Sheen	2.14	
A-10	11/04/02	9.48	7.54	Sheen	1.94	
A-10	02/18/03	9.48	6.57	--	2.91	
A-10	06/09/03	9.48	7.15	--	2.33	
A-10	09/15/03	13.51	7.45	Sheen	6.06	
A-10	11/18/03	13.51	6.95	Sheen	6.56	
A-10	02/24/04	13.51	6.50	Sheen	7.01	
A-10	05/10/04	13.51	7.15	Sheen	6.36	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-10	08/24/04	13.51	7.31	--	6.20	
A-10	12/13/04	13.51	6.95	--	6.56	
A-10	03/08/05	13.51	7.17	--	6.34	
A-10	06/06/05	13.51	7.01	--	6.50	
A-10	09/19/05	13.51	7.54	--	5.97	
A-10	12/12/05	13.51	7.25	--	6.26	
A-10	03/13/06	13.51	6.58	--	6.93	
A-10	06/05/06	13.51	6.92	--	6.59	
A-10	09/11/06	13.51	7.43	--	6.08	
A-10	12/11/06	13.51	6.59	--	6.92	
A-10	03/26/07	13.51	6.83	--	6.68	
A-10	06/18/07	13.51	7.29	--	6.22	
A-10	09/24/07	13.51	7.44	--	6.07	
A-10	12/10/07	13.51	6.79	--	6.72	
A-10	03/03/08	13.51	7.83	--	5.68	
A-10	06/02/08	13.51	7.31	--	6.20	
A-10	09/04/08	13.51	7.23	--	6.28	
A-10	12/04/08	13.51	6.87	--	6.64	
A-10	03/04/09	13.51	6.90	--	6.61	
A-10	06/01/09	13.51	7.18	--	6.33	
A-10	09/21/09	13.51	7.39	--	6.12	
A-10	11/16/09	13.51	6.84	--	6.67	
A-10	03/08/10	13.51	6.34	--	7.17	
A-10	06/07/10	13.51	6.84	--	6.67	
A-10	09/09/10	13.51	7.34	--	6.17	
A-10	11/15/10	13.51	6.93	--	6.58	
A-10	03/01/11	13.51	6.60	--	6.91	
A-10	05/23/11	13.51	6.68	--	6.83	
A-10	08/29/11	13.51	7.25	--	6.26	
A-10	12/01/11	13.51	6.96	--	6.55	
A-10	03/01/12	13.51	6.72	--	6.79	
A-10	05/30/12	13.51	6.72	--	6.79	
A-10	08/25/12	13.51	7.30	--	6.21	
A-10	11/07/12	13.51	7.08	--	6.43	
A-10	02/27/13	13.51	6.64	--	6.87	
A-10	04/08/13	13.51	6.61	--	6.90	
A-10	07/29/13	13.51	6.95	--	6.56	
A-10	10/02/13	13.51	6.46	--	7.05	
A-10	01/21/14	13.51	7.05	--	6.46	
A-10	04/22/14	13.51	6.65	--	6.86	
A-10	07/15/14	13.51	7.50	--	6.01	
A-10	03/17/15	13.51	6.48	--	7.03	
A-10	09/29/15	13.51	6.97	--	6.54	
A-10	03/29/16	13.51	5.96	--	7.55	
A-10	10/11/16	13.51	7.21	--	6.30	
A-11	02/11/02	10.36	7.01	--	3.35	
A-11	05/20/02	10.36	8.83	--	1.53	
A-11	08/27/02	10.36	8.21	--	2.15	
A-11	11/04/02	10.36	8.73	--	1.63	
A-11	02/18/03	10.36	5.42	--	4.94	
A-11	06/09/03	10.36	8.01	--	2.35	
A-11	09/15/03	14.40	8.32	--	6.08	
A-11	11/18/03	14.40	6.71	--	7.69	
A-11	02/24/04	14.40	7.35	--	7.05	
A-11	05/10/04	14.40	8.10	--	6.30	
A-11	08/24/04	14.40	8.17	--	6.23	
A-11	12/13/04	14.40	7.85	--	6.55	
A-11	03/08/05	14.40	7.90	--	6.50	
A-11	06/06/05	14.40	7.88	--	6.52	
A-11	09/19/05	14.40	8.34	0.01	6.07	
A-11	10/12/05	14.40	8.24	--	6.16	
A-11	12/12/05	14.40	8.10	--	6.30	
A-11	03/13/06	14.40	7.40	--	7.00	
A-11	06/05/06	14.40	7.80	--	6.60	
A-11	09/11/06	14.40	8.32	--	6.08	
A-11	12/11/06	14.40	7.42	--	6.98	
A-11	12/10/07	14.40	7.64	--	6.76	

Table 2
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Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-11	03/03/08	14.40	7.39	--	7.01	
A-11	03/04/09	14.40	7.70	--	6.70	
A-11	06/01/09	14.40	8.00	--	6.40	
A-11	09/21/09	14.40	8.26	--	6.14	
A-11	11/16/09	14.40	7.65	--	6.75	
A-11	03/08/10	14.40	7.20	--	7.20	
A-11	06/07/10	14.40	7.69	--	6.71	
A-11	09/09/10	14.40	8.20	--	6.20	
A-11	11/15/10	14.40	7.78	--	6.62	
A-11	03/01/11	14.40	7.43	--	6.97	
A-11	05/23/11	14.40	7.52	--	6.88	
A-11	08/29/11	14.40	8.09	--	6.31	
A-11	12/01/11	14.40	7.82	--	6.58	
A-11	03/01/12	14.40	7.55	--	6.85	
A-11	05/30/12	14.40	7.42	--	6.98	
A-11	08/25/12	14.40	7.63	--	6.77	
A-11	11/07/12	14.40	7.41	--	6.99	
A-11	02/27/13	14.40	7.42	--	6.98	
A-11	04/08/13	14.40	7.42	--	6.98	
A-11	07/29/13	14.40	7.75	--	6.65	
A-11	10/02/13	14.40	7.66	--	6.74	
A-11	01/21/14	14.40	7.93	--	6.47	
A-11	04/22/14	14.40	7.56	--	6.84	
A-11	07/15/14	14.40	7.91	--	6.49	
A-11	03/17/15	14.40	7.35	--	7.05	
A-11	09/29/15	14.40	7.89	--	6.51	
A-11	03/29/16	14.40	6.91	--	7.49	
A-11	10/11/16	14.40	8.08	--	6.32	
A-12	02/11/02	9.10	5.80	--	3.30	
A-12	05/20/02	9.10	8.68	--	0.42	
A-12	08/27/02	9.10	7.04	--	2.06	
A-12	11/04/02	9.10	7.23	--	1.87	
A-12	02/18/03	9.10	6.38	--	2.72	
A-12	06/09/03	9.10	6.83	--	2.27	
A-12	09/15/03	12.92	7.15	--	5.77	
A-12	11/18/03	12.92	6.60	--	6.32	
A-12	02/24/04	12.92	6.12	--	6.80	
A-12	05/10/04	12.92	6.74	--	6.18	
A-12	08/24/04	12.92	6.95	--	5.97	
A-12	12/13/04	12.92	6.57	--	6.35	
A-12	03/08/05	12.92	6.75	Sheen	6.17	
A-12	06/06/05	12.95	6.39	--	6.56	
A-12	09/19/05	12.95	7.09	--	5.86	
A-12	12/12/05	12.95	6.89	--	6.06	
A-12	03/13/06	12.95	6.23	--	6.72	
A-12	06/05/06	12.95	6.60	--	6.35	
A-12	09/11/06	12.95	7.14	--	5.81	
A-12	12/11/06	12.95	6.28	--	6.67	
A-12	12/10/07	12.95	6.43	--	6.52	
A-12	03/03/08	12.95	6.50	--	6.45	
A-12	03/04/09	12.95	6.39	--	6.56	
A-12	06/01/09	12.95	6.86	--	6.09	
A-12	09/21/09	12.95	7.02	--	5.93	
A-12	11/16/09	12.95	6.38	--	6.57	
A-12	03/08/10	12.95	6.00	--	6.95	
A-12	06/07/10	12.95	6.54	--	6.41	
A-12	09/09/10	12.95	6.95	--	6.00	
A-12	11/15/10	12.95	6.60	--	6.35	
A-12	03/01/11	12.95	6.24	--	6.71	
A-12	05/23/11	12.95	6.34	--	6.61	
A-12	08/29/11	12.95	6.87	--	6.08	
A-12	12/01/11	12.95	6.66	--	6.29	
A-12	03/01/12	12.95	6.46	--	6.49	
A-12	05/30/12	12.95	6.35	--	6.60	
A-12	08/25/12	12.95	6.57	--	6.38	
A-12	11/07/12	12.95	6.27	--	6.68	
A-12	02/27/13	12.95	6.32	--	6.63	

Table 2
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Kinder Morgan Liquids Terminals, LLC
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2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-12	04/08/13	12.95	6.28	--	6.67	
A-12	07/29/13	12.95	6.58	--	6.37	
A-12	10/02/13	12.95	6.41	--	6.54	
A-12	01/21/14	12.95	6.67	--	6.28	
A-12	04/22/14	12.95	6.29	--	6.66	
A-12	07/15/14	12.95	6.62	--	6.33	
A-12	03/17/15	12.95	6.13	--	6.82	
A-12	09/29/15	12.95	6.62	--	6.33	
A-12	03/29/16	12.95	5.64	--	7.31	
A-12	10/11/16	12.95	6.90	--	6.05	
A-13	03/27/01	--	--	--	--	
A-13						Destroyed during construction activities
A-14	03/27/01	--	--	--	--	
A-14						Destroyed during construction activities
A-14R	02/11/02	12.62	6.90	--	5.72	
A-14R	05/20/02	12.62	9.77	--	2.85	
A-14R	08/27/02	12.62	8.10	--	4.52	
A-14R	11/04/02	12.62	8.30	--	4.32	
A-14R	02/18/03	10.17	7.31	--	2.86	
A-14R	06/09/03	10.17	4.82	--	5.35	
A-14R	09/15/03	14.21	8.20	--	6.01	
A-14R	11/18/03	14.21	6.10	Sheen	8.11	
A-14R	02/24/04	14.21	7.23	--	6.98	
A-14R	05/10/04	14.21	7.89	--	6.32	
A-14R	08/24/04	14.21	8.01	--	6.20	
A-14R	12/13/04	14.21	7.75	--	6.46	
A-14R	03/08/05	14.21	7.87	--	6.34	
A-14R	06/06/05	14.21	7.71	--	6.50	
A-14R	09/19/05	14.21	8.16	0.15	6.17	
A-14R	10/12/05	14.21	8.01	--	6.20	
A-14R	12/12/05	14.21	7.95	--	6.26	
A-14R	03/13/06	14.21	7.26	--	6.95	
A-14R	06/05/06	14.21	7.64	--	6.57	
A-14R	09/11/06	14.21	8.15	--	6.06	
A-14R	12/11/06	14.21	7.30	--	6.91	
A-14R	03/26/07	14.21	7.51	--	6.70	
A-14R	06/18/07	14.21	7.98	--	6.23	
A-14R	09/24/07	14.21	8.18	--	6.03	
A-14R	12/10/07	14.21	7.51	--	6.70	
A-14R	03/03/08	14.21	7.56	--	6.65	
A-14R	06/02/08	14.21	8.02	--	6.19	
A-14R	09/04/08	14.21	7.71	--	6.50	
A-14R	12/04/08	14.21	7.92	--	6.29	
A-14R	03/04/09	14.21	7.62	--	6.59	
A-14R	06/01/09	14.21	7.91	--	6.30	
A-14R	09/21/09	14.21	8.08	--	6.13	
A-14R	11/16/09	14.21	7.57	--	6.64	
A-14R	03/08/10	14.21	7.05	--	7.16	
A-14R	06/07/10	14.21	7.56	--	6.65	
A-14R	09/09/10	14.21	8.05	--	6.16	
A-14R	11/15/10	14.21	7.63	--	6.58	
A-14R	03/01/11	14.21	7.31	--	6.90	
A-14R	05/23/11	14.21	7.40	--	6.81	
A-14R	08/29/11	14.21	7.97	--	6.24	
A-14R	12/01/11	14.21	7.68	--	6.53	
A-14R	03/01/12	14.21	7.42	--	6.79	
A-14R	05/30/12	14.21	7.44	--	6.77	
A-14R	08/25/12	14.21	7.59	--	6.62	
A-14R	11/07/12	14.21	7.33	--	6.88	
A-14R	02/27/13	14.21	7.38	--	6.83	
A-14R	04/08/13	14.21	7.34	--	6.87	
A-14R	07/29/13	14.21	7.67	--	6.54	
A-14R	10/02/13	14.21	7.51	--	6.70	
A-14R	01/21/14	14.21	7.76	--	6.45	
A-14R	04/22/14	14.21	7.36	--	6.85	
A-14R	07/15/14	14.21	7.76	--	6.45	
A-14R	03/17/15	14.21	7.22	--	6.99	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-14R	09/29/15	14.21	7.74	--	6.47	
A-14R	03/29/16	14.21	7.33	--	6.88	
A-14R	10/11/16	14.21	7.92	--	6.29	
A-15	03/27/01	--	--	--	--	
A-15						Destroyed during construction activities
A-16	02/11/02	10.49	7.23	0.01	3.27	
A-16	05/20/02	10.49	9.03	--	1.46	
A-16	08/27/02	10.49	8.41	0.04	2.11	
A-16	11/04/02	10.49	8.81	0.28	1.9	
A-16	02/18/03	10.49	7.51	Sheen	2.98	
A-16	06/09/03	10.49	8.16	--	2.33	
A-16	09/15/03	14.39	8.80	0.01	5.6	
A-16	11/18/03	14.39	7.74	--	6.65	
A-16	02/24/04	14.39	7.54	--	6.85	
A-16	05/10/04	14.39	8.50	0.31	6.14	
A-16	08/24/04	14.39	9.03	0.82	6.02	
A-16	12/13/04	14.39	8.08	Sheen	6.31	
A-16	03/08/05	14.39	7.90	Sheen	6.49	
A-16	06/06/05	14.39	8.05	Sheen	6.34	
A-16	09/19/05	14.39	9.24	0.90	5.87	
A-16	10/12/05	14.39	9.38	1.20	5.97	
A-16	12/12/05	14.39	8.22	--	6.17	
A-16	03/13/06	14.39	7.75	--	6.64	
A-16	06/05/06	14.39	7.98	--	6.41	
A-16	09/11/06	14.39	9.20	0.90	5.91	
A-16	12/11/06	14.39	7.69	Sheen	6.70	
A-16	03/26/07	14.39	7.78	Sheen	6.61	
A-16	06/18/07	14.39	8.45	0.34	6.21	
A-16	09/24/07	14.39	8.45	0.02	5.96	
A-16	12/10/07	14.39	7.65	0.01	6.75	
A-16	03/03/08	14.39	7.88	Sheen	6.51	
A-16	06/02/08	14.39	8.77	0.04	5.65	
A-16	09/04/08	14.39	7.38	0.04	7.04	
A-16	12/04/08	14.39	8.27	--	6.12	
A-16	03/04/09	14.39	7.95	--	6.44	
A-16	06/01/09	14.39	8.50	Sheen	5.89	
A-16	09/21/09	14.39	8.80	0.35	5.87	
A-16	11/16/09	14.39	7.95	Sheen	6.44	
A-16	03/08/10	14.39	7.40	--	6.99	
A-16	06/07/10	14.39	7.91	Sheen	6.48	
A-16	09/09/10	14.39	8.92	0.09	5.54	
A-16	11/15/10	14.39	8.21	Sheen	6.18	
A-16	03/01/11	14.39	7.65	--	6.74	
A-16	05/23/11	14.39	7.79	--	6.60	
A-16	08/29/11	14.39	8.52	0.10	5.95	
A-16	12/01/11	14.39	8.24	Sheen	6.15	
A-16	03/01/12	14.39	7.94	Sheen	6.45	
A-16	05/30/12	14.39	7.67	--	6.72	
A-16	08/25/12	14.39	7.79	--	6.60	
A-16	11/07/12	14.39	7.56	--	6.83	
A-16	02/27/13	14.39	7.66	--	6.73	
A-16	04/08/13	14.39	7.56	--	6.83	
A-16	07/29/13	14.39	7.88	--	6.51	
A-16	10/02/13	14.39	7.46	--	6.93	
A-16	01/21/14	14.39	8.05	--	6.34	
A-16	04/22/14	14.39	7.66	--	6.73	
A-16	07/15/14	14.39	8.04	--	6.35	
A-16	03/17/15	14.39	7.55	--	6.84	
A-16	09/29/15	14.39	8.19	0.17	6.34	Absorbent sock placed in well
A-16	12/21/15	14.39	6.98	--	7.41	
A-16	03/29/16	14.39	7.07	--	7.32	
A-16	06/16/16	14.39	7.96	--	6.43	
A-16	09/01/16	14.39	8.01	0.01	6.38	Absorbent sock placed in well
A-16	10/11/16	14.39	8.65	0.40	6.06	Absorbent sock placed in well
A-17	02/11/02	9.51	6.09	--	3.42	
A-17	05/20/02	9.51	7.92	--	1.59	
A-17	08/27/02	9.51	7.33	--	2.18	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-17	11/04/02	9.51	8.52	--	0.99	
A-17	02/18/03	9.51	6.51	--	3.00	
A-17	06/09/03	9.51	7.19	--	2.32	
A-17	09/15/03	13.41	7.43	--	5.98	
A-17	11/18/03	13.41	7.85	--	5.56	
A-17	02/24/04	13.41	6.47	--	6.94	
A-17	05/10/04	13.41	7.11	--	6.30	
A-17	08/24/04	13.41	7.12	--	6.29	
A-17	12/13/04	13.41	6.90	--	6.51	
A-17	03/08/05	13.41	7.15	--	6.26	
A-17	06/06/05	13.41	6.89	--	6.52	
A-17	09/19/05	13.41	7.55	--	5.86	
A-17	12/12/05	13.41	7.24	--	6.17	
A-17	03/13/06	13.41	6.50	--	6.91	
A-17	06/05/06	13.41	6.94	--	6.47	
A-17	09/11/06	13.41	8.34	--	5.07	
A-17	12/11/06	13.41	6.79	--	6.62	
A-18	02/11/02	10.72	7.42	--	3.30	
A-18	05/20/02	10.72	9.22	--	1.50	
A-18	08/27/02	10.72	8.59	--	2.13	
A-18	11/04/02	10.72	9.80	--	0.92	
A-18	02/18/03	10.72	8.36	--	2.36	
A-18	06/09/03	10.72	8.36	--	2.36	
A-18	09/15/03	14.74	8.65	--	6.09	
A-18	11/18/03	14.74	8.22	--	6.52	
A-18	02/24/04	14.74	7.06	--	7.68	
A-18	05/10/04	14.74	8.50	--	6.24	
A-18	08/24/04	14.74	8.56	--	6.18	
A-18	12/13/04	14.74	8.23	--	6.51	
A-18	03/08/05	14.74	8.33	--	6.41	
A-18	06/06/05	14.74	8.21	--	6.53	
A-18	09/19/05	14.74	8.67	0.02	6.09	
A-18	10/12/05	14.74	8.55	--	6.19	
A-18	12/12/05	14.74	8.42	--	6.32	
A-18	03/13/06	14.74	7.74	--	7.00	
A-18	06/05/06	14.74	8.14	--	6.60	
A-18	09/11/06	14.74	8.63	--	6.11	
A-18	12/11/06	14.74	7.78	--	6.96	
A-18	12/10/07	14.74	7.81	--	6.93	
A-18	03/03/08	14.74	8.03	--	6.71	
A-18	03/04/09	14.74	8.07	--	6.67	
A-18	06/01/09	14.74	8.34	--	6.40	
A-18	09/21/09	14.74	8.57	--	6.17	
A-18	11/16/09	14.74	8.07	--	6.67	
A-18	03/08/10	14.74	7.54	--	7.20	
A-18	06/07/10	14.74	8.00	--	6.74	
A-18	09/09/10	14.74	8.53	--	6.21	
A-18	11/15/10	14.74	8.11	--	6.63	
A-18	03/01/11	14.74	7.75	--	6.99	
A-18	05/23/11	14.74	7.85	--	6.89	
A-18	08/29/11	14.74	8.44	--	6.30	
A-18	12/01/11	14.74	8.11	--	6.63	
A-18	03/01/12	14.74	7.83	--	6.91	
A-18	05/30/12	14.74	7.75	--	6.99	
A-18	08/25/12	14.74	7.89	--	6.85	
A-18	11/07/12	14.74	7.68	--	7.06	
A-18	02/27/13	14.74	7.72	--	7.02	
A-18	04/08/13	14.74	7.05	--	7.69	
A-18	07/29/13	14.74	7.99	--	6.75	
A-18	10/02/13	14.74	7.93	--	6.81	
A-18	01/21/14	14.74	8.27	--	6.47	
A-18	04/22/14	14.74	7.84	--	6.90	
A-18	07/15/14	14.74	8.21	--	6.53	
A-18	03/17/15	14.74	7.7	--	7.04	
A-18	09/29/15	14.74	8.24	--	6.50	
A-18	03/29/16	14.74	7.33	--	7.41	
A-18	10/11/16	14.74	8.40	--	6.34	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-19	02/11/02	10.76	7.52	0.07	3.30	
A-19	05/20/02	10.76	9.19	--	1.57	
A-19	08/27/02	10.76	7.61	Sheen	3.15	
A-19	11/04/02	10.76	8.79	0.01	1.98	
A-19	02/18/03	10.76	7.70	Sheen	3.06	
A-19	06/09/03	10.76	8.35	0.01	2.42	
A-19	09/15/03	14.57	8.71	0.01	5.87	
A-19	11/18/03	14.57	7.69	0.01	6.89	
A-19	02/24/04	14.57	7.81	Sheen	6.76	
A-19	05/10/04	14.57	8.35	Sheen	6.22	
A-19	08/24/04	14.57	8.68	Sheen	5.89	
A-19	12/13/04	14.57	7.98	Sheen	6.59	
A-19	03/08/05	14.57	8.28	--	6.29	
A-19	06/06/05	14.57	7.26	--	7.31	
A-19	09/19/05	14.57	8.66	0.03	5.93	
A-19	10/12/05	14.57	8.55	0.02	6.04	
A-19	12/12/05	14.57	8.46	0.06	6.16	
A-19	03/13/06	14.57	7.65	--	6.92	
A-19	06/05/06	14.57	8.10	--	6.47	
A-19	09/11/06	14.57	8.63	0.03	5.96	
A-19	12/11/06	14.57	7.65	--	6.92	
A-19	03/26/07	14.57	7.89	--	6.68	
A-19	06/18/07	14.57	8.36	--	6.21	
A-19	09/25/07	14.57	8.64	--	5.93	
A-19	12/10/07	14.57	7.82	--	6.75	
A-19	03/03/08	14.57	7.95	--	6.62	
A-19	06/02/08	14.57	9.84	--	4.73	
A-19	09/04/08	14.57	8.30	--	6.27	
A-19	12/04/08	14.57	8.99	--	5.58	
A-19	03/04/09	14.57	7.89	--	6.68	
A-19	06/01/09	14.57	10.47	--	4.10	
A-19	09/21/09	14.57	8.53	--	6.04	
A-19	11/16/09	14.57	7.87	--	6.70	
A-19	03/08/10	14.57	7.45	--	7.12	
A-19	06/07/10	14.57	7.19	--	7.38	
A-19	09/09/10	14.57	8.41	--	6.16	
A-19	11/15/10	14.57	7.94	--	6.63	
A-19	03/01/11	14.57	7.72	--	6.85	
A-19	05/23/11	14.57	7.82	--	6.75	
A-19	08/29/11	14.57	8.39	--	6.18	
A-19	12/01/11	14.57	8.14	--	6.43	
A-19	03/01/12	14.57	7.82	--	6.75	
A-19	05/30/12	14.57	7.75	--	6.82	
A-19	08/25/12	14.57	7.88	--	6.69	
A-19	11/07/12	14.57	7.22	--	7.35	
A-19	02/27/13	14.57	7.68	--	6.89	
A-19	04/08/13	14.57	7.68	--	6.89	
A-19	07/29/13	14.57	7.93	--	6.64	
A-19	10/02/13	14.57	7.78	--	6.79	
A-19	01/21/14	14.57	8.86	--	5.71	
A-19	04/22/14	14.57	7.72	--	6.85	
A-19	07/15/14	14.57	8.01	--	6.56	
A-19	03/17/15	14.57	7.61	--	6.96	
A-19	09/28/15	14.57	8.16	--	6.41	
A-19	03/29/16	14.57	7.19	--	7.38	
A-19	10/11/16	14.57	8.35	--	6.22	
A-20	02/11/02	10.30	7.16	--	3.14	
A-20	05/20/02	10.30	9.76	--	0.54	
A-20	08/27/02	10.30	5.19	--	5.11	
A-20	11/04/02	10.30	8.39	--	1.91	
A-20	02/18/03	10.30	7.38	--	2.92	
A-20	06/09/03	10.30	7.95	--	2.35	
A-20	09/15/03	14.19	8.25	--	5.94	
A-20	11/18/03	14.19	7.70	--	6.49	
A-20	02/24/04	14.19	7.29	0.02	6.92	
A-20	05/10/04	14.19	7.99	--	6.20	
A-20	08/24/04	14.19	8.18	--	6.01	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-20	12/13/04	14.19	7.65	--	6.54	
A-20	03/08/05	14.19	7.89	--	6.30	
A-20	06/06/05	14.19	7.81	--	6.38	
A-20	09/19/05	14.19	8.25	0.01	5.95	
A-20	10/12/05	14.19	8.12	--	6.07	
A-20	12/12/05	14.19	8.00	--	6.19	
A-20	03/13/06	14.19	7.25	--	6.94	
A-20	06/05/06	14.19	7.72	--	6.47	
A-20	09/11/06	14.19	8.22	--	5.97	
A-20	12/11/06	14.19	7.28	--	6.91	
A-20	03/26/07	14.19	7.51	--	6.68	
A-20	06/18/07	14.19	7.98	--	6.21	
A-20	09/25/07	14.19	8.19	--	6.00	
A-20	12/10/07	14.19	7.45	--	6.74	
A-20	03/03/08	14.19	7.55	--	6.64	
A-20	06/02/08	14.19	8.48	--	5.71	
A-20	09/04/08	14.19	7.92	--	6.27	
A-20	12/04/08	14.19	7.99	--	6.20	
A-20	03/04/09	14.19	7.19	--	7.00	
A-20	06/01/09	14.19	8.38	--	5.81	
A-20	09/21/09	14.19	8.11	--	6.08	
A-20	11/16/09	14.19	7.43	--	6.76	
A-20	03/08/10	14.19	7.15	--	7.04	
A-20	06/07/10	14.19	7.54	--	6.65	
A-20	09/09/10	14.19	8.03	--	6.16	
A-20	11/15/10	14.19	7.51	--	6.68	
A-20	03/01/11	14.19	7.34	--	6.85	
A-20	05/23/11	14.19	7.45	--	6.74	
A-20	08/29/11	14.19	8.03	--	6.16	
A-20	12/01/11	14.19	7.70	--	6.49	
A-20	03/01/12	14.19	7.41	--	6.78	
A-20	05/30/12	14.19	7.30	--	6.89	
A-20	08/25/12	14.19	7.46	--	6.73	
A-20	11/07/12	14.19	6.61	--	7.58	
A-20	02/27/13	14.19	7.21	--	6.98	
A-20	04/08/13	14.19	6.96	--	7.23	
A-20	07/29/13	14.19	7.46	--	6.73	
A-20	10/02/13	14.19	7.40	--	6.79	
A-20	01/21/14	14.19	7.77	--	6.42	
A-20	04/22/14	14.19	7.38	--	6.81	
A-20	07/15/14	14.19	7.66	--	6.53	
A-20	03/17/15	14.19	7.27	--	6.92	
A-20	09/28/15	14.19	7.81	--	6.38	
A-20	03/29/16	14.19	6.96	--	7.23	
A-20	10/11/16	14.19	7.97	--	6.22	
A-21	02/11/02	10.40	7.18	--	3.22	
A-21	05/20/02	10.40	9.88	Sheen	0.52	
A-21	08/27/02	10.40	8.28	--	2.12	
A-21	11/04/02	10.40	8.50	--	1.90	
A-21	02/18/03	10.40	7.47	--	2.93	
A-21	06/09/03	10.40	8.01	--	2.39	
A-21	09/15/03	14.35	8.65	--	5.70	
A-21	11/18/03	14.35	7.86	--	6.49	
A-21	02/24/04	14.35	7.43	--	6.92	
A-21	05/10/04	14.35	8.10	--	6.25	
A-21	08/24/04	14.35	8.29	--	6.06	
A-21	12/13/04	14.35	7.75	--	6.60	
A-21	03/08/05	14.35	8.00	--	6.35	
A-21	06/06/05	14.35	7.90	--	6.45	
A-21	09/19/05	14.35	8.24	--	6.11	
A-21	12/12/05	14.35	8.15	--	6.20	
A-21	03/13/06	14.35	7.38	--	6.97	
A-21	06/05/06	14.35	7.21	--	7.14	
A-21	09/11/06	14.35	8.31	--	6.04	
A-21	12/11/06	14.35	7.44	--	6.91	
A-21	03/26/07	14.35	7.64	--	6.71	
A-21	06/18/07	14.35	8.15	--	6.20	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-21	09/25/07	14.35	8.30	--	6.05	
A-21	12/10/07	14.35	7.62	--	6.73	
A-21	03/03/08	14.35	7.67	--	6.68	
A-21	06/02/08	14.35	8.18	--	6.17	
A-21	09/04/08	14.35	8.09	--	6.26	
A-21	12/04/08	14.35	8.07	--	6.28	
A-21	03/04/09	14.35	7.51	--	6.84	
A-21	06/01/09	14.35	8.03	--	6.32	
A-21	09/21/09	14.35	8.27	--	6.08	
A-21	11/16/09	14.35	7.68	--	6.67	
A-21	03/08/10	14.35	7.26	--	7.09	
A-21	06/07/10	14.35	7.66	--	6.69	
A-21	09/09/10	14.35	8.19	--	6.16	
A-21	11/15/10	14.35	7.73	--	6.62	
A-21	03/01/11	14.35	7.42	--	6.93	
A-21	05/23/11	14.35	7.56	--	6.79	
A-21	08/29/11	14.35	8.11	--	6.24	
A-21	12/01/11	14.35	7.81	--	6.54	
A-21	03/01/12	14.35	7.53	--	6.82	
A-21	05/30/12	14.35	7.37	--	6.98	
A-21	08/25/12	14.35	7.49	--	6.86	
A-21	11/07/12	14.35	7.04	--	7.31	
A-21	02/27/13	14.35	7.32	--	7.03	
A-21	04/08/13	14.35	7.23	--	7.12	
A-21	07/29/13	14.35	7.59	--	6.76	
A-21	10/02/13	14.35	7.57	--	6.78	
A-21	01/21/14	14.35	8.71	--	5.64	
A-21	04/22/14	14.35	7.59	--	6.76	
A-21	07/15/14	14.35	7.82	--	6.53	
A-21	03/17/15	14.35	7.4	--	6.95	
A-21	09/28/15	14.35	7.91	--	6.44	
A-21	03/29/16	14.35	6.94	--	7.41	
A-21	10/11/16	14.35	8.11	--	6.24	
A-22	09/21/01	10.69	--	--	--	
A-22					Destroyed	
A-22R	02/11/02	10.22	7.10	0.13	3.22	
A-22R	05/20/02	10.22	9.72	0.08	0.56	
A-22R	08/27/02	10.22	8.20	0.16	2.15	
A-22R	11/04/02	10.22	8.30	0.15	2.04	
A-22R	02/18/03	10.22	7.14	0.02	3.10	
A-22R	06/09/03	10.22	7.82	--	2.40	
A-22R	09/15/03	14.11	8.40	0.01	5.72	
A-22R	11/18/03	14.11	7.70	0.05	6.45	
A-22R	02/24/04	14.11	7.01	Sheen	7.10	
A-22R	05/10/04	14.11	7.68	<0.01	6.43	
A-22R	08/24/04	14.11	7.90	0.18	6.35	
A-22R	12/13/04	14.11	7.40	Sheen	6.71	
A-22R	03/08/05	14.11	7.08	--	7.03	
A-22R	06/06/05	14.11	7.21	--	6.90	
A-22R	09/19/05	14.11	8.11	0.01	6.01	
A-22R	10/12/05	14.11	8.22	0.20	6.05	
A-22R	12/12/05	14.11	7.87	--	6.24	
A-22R	03/13/06	14.11	7.15	--	6.96	
A-22R	06/05/06	14.11	7.75	--	6.36	
A-22R	09/11/06	14.11	8.16	--	5.95	
A-22R	12/11/06	14.11	7.14	--	6.97	
A-22R	03/26/07	14.11	7.34	--	6.77	
A-22R	06/18/07	14.11	7.86	--	6.25	
A-22R	12/10/07	14.11	7.38	--	6.73	
A-22R	03/03/08	14.11	7.47	--	6.64	
A-22R	06/02/08	14.11	8.90	--	5.21	
A-22R	09/04/08	14.11	--	--	--	Not Measured-Sock in well
A-22R	12/04/08	14.11	--	--	--	Not Measured-Sock in well
A-22R	03/04/09	14.11	--	--	--	Not Measured-Sock in well
A-22R	06/01/09	14.11	--	--	--	Not Measured-Sock in well
A-22R	09/21/09	14.11	--	--	--	Not Measured-Sock in well
A-22R	11/16/09	14.11	7.36	--	6.75	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-22R	03/08/10	14.11	6.95	--	7.16	
A-22R	06/07/10	14.11	7.52	--	6.59	
A-22R	09/09/10	14.11	7.94	--	6.17	
A-22R	11/15/10	14.11	7.92	--	6.19	
A-22R	03/01/11	14.11	7.21	--	6.90	
A-22R	05/23/11	14.11	7.35	--	6.76	
A-22R	08/29/11	14.11	7.87	--	6.24	
A-22R	12/01/11	14.11	7.75	--	6.36	
A-22R	03/01/12	14.11	7.37	--	6.74	
A-22R	05/30/12	14.11	7.48	--	6.63	
A-22R	08/25/12	14.11	7.62	--	6.49	
A-22R	11/07/12	14.11	7.18	--	6.93	
A-22R	02/27/13	14.11	7.38	--	6.73	
A-22R	04/08/13	14.11	7.31	--	6.80	
A-22R	07/29/13	14.11	7.64	--	6.47	
A-22R	10/02/13	14.11	7.01	--	7.10	
A-22R	01/21/14	14.11	7.63	--	6.48	
A-22R	04/22/14	14.11	7.11	--	7.00	
A-22R	07/15/14	14.11	7.46	--	6.65	
A-22R	03/17/15	14.11	7.04	--	7.07	
A-22R	09/28/15	14.11	7.52	--	6.59	
A-22R	03/29/16	14.11	6.59	--	7.52	
A-22R	10/11/16	14.11	7.92	--	6.19	
A-23	06/14/01	--	--	--	--	
A-23						Destroyed during construction activities
A-23R	02/11/02	11.73	8.53	--	3.20	
A-23R	05/20/02	11.73	10.23	--	1.50	
A-23R	08/27/02	11.73	6.63	--	5.10	
A-23R	11/04/02	11.73	9.81	--	1.92	
A-23R	02/18/03	11.73	8.75	--	2.98	
A-23R	06/09/03	11.73	9.35	--	2.38	
A-23R	09/15/03	15.57	10.03	--	5.54	
A-23R	11/18/03	15.57	7.85	--	7.72	
A-23R	02/24/04	15.57	8.05	--	7.52	
A-23R	05/10/04	15.57	8.69	--	6.88	
A-23R	08/24/04	15.57	7.69	--	7.88	
A-23R	12/13/04	15.57	9.22	--	6.35	
A-23R	03/08/05	15.57	9.38	--	6.19	
A-23R	06/07/05	15.57	9.35	--	6.22	
A-23R	09/20/05	15.57	9.68	--	5.89	
A-23R	12/12/05	15.57	9.20	--	6.37	
A-23R	03/13/06	15.57	8.69	--	6.88	
A-23R	06/08/06	15.57	9.13	--	6.44	
A-23R	09/11/06	15.57	10.03	--	5.54	
A-23R	12/11/06	15.57	8.72	--	6.85	
A-23R	03/26/07	15.57	8.94	--	6.63	
A-23R	06/18/07	15.57	9.37	--	6.20	
A-23R	09/25/07	--	--	--	--	Not Measured-Inaccessible
A-23R	12/10/07	15.57	8.91	--	6.66	
A-23R	03/03/08	15.57	9.00	--	6.57	
A-23R	06/02/08	15.57	9.22	--	6.35	
A-23R	09/04/08	15.57	--	--	--	Not Measured-Inaccessible
A-23R	12/04/08	15.57	9.34	--	6.23	
A-23R	03/04/09	15.57	9.81	--	5.76	
A-23R	06/01/09	15.57	9.26	--	6.31	
A-23R	09/21/09	15.57	9.51	--	6.06	
A-23R	11/16/09	15.57	8.94	--	6.63	
A-23R	03/08/10	15.57	8.48	--	7.09	
A-23R	06/07/10	15.57	8.95	--	6.62	
A-23R	09/09/10	15.57	9.45	--	6.12	
A-23R	11/16/10	15.57	9.01	--	6.56	
A-23R	03/01/11	15.57	8.68	--	6.89	
A-23R	05/24/11	15.57	8.85	--	6.72	
A-23R	08/29/11	15.57	9.41	--	6.16	
A-23R	12/01/11	15.57	9.09	--	6.48	
A-23R	03/01/12	15.57	8.79	--	6.78	
A-23R	05/30/12	15.57	8.73	--	6.84	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-23R	08/25/12	15.57	--	--	--	Inaccessible due to site access issues
A-23R	11/07/12	15.57	8.52	--	7.05	
A-23R	02/27/13	15.57	8.45	--	7.12	
A-23R	04/08/13	15.57	8.63	--	6.94	
A-23R	07/29/13	15.57	8.92	--	6.65	
A-23R	10/02/13	15.57	8.81	--	6.76	
A-23R	01/21/14	15.57	9.16	--	6.41	
A-23R	04/22/14	15.57	5.74	--	9.83	
A-23R	07/15/14	15.57	9.11	--	6.46	
A-23R	03/17/15	15.57	6.33	--	9.24	
A-23R	09/28/15	15.57	9.19	--	6.38	
A-23R	03/29/16	15.57	8.33	--	7.24	
A-23R	10/11/16	15.57	9.28	--	6.29	
A-24	10/06/00	--	--	--	--	
A-24						Destroyed during construction activities
A-25	02/11/02	10.12	6.78	--	3.34	
A-25	05/20/02	10.12	8.56	--	1.56	
A-25	08/27/02	10.12	7.99	--	2.13	
A-25	11/04/02	10.12	8.18	--	1.94	
A-25	02/18/03	10.12	7.08	--	3.04	
A-25	06/09/03	10.12	8.71	--	1.41	
A-25	09/15/03	13.90	8.05	--	5.85	
A-25	11/18/03	13.90	7.50	Sheen	6.40	
A-25	02/24/04	13.90	7.00	--	6.90	
A-25	05/10/04	13.90	7.75	--	6.15	
A-25	08/24/04	13.90	7.82	--	6.08	
A-25	12/13/04	13.90	7.46	--	6.44	
A-25	03/08/05	13.90	7.70	--	6.20	
A-25	06/06/05	13.90	7.53	--	6.37	
A-25	09/19/05	13.90	8.07	0.01	5.84	
A-25	10/12/05	13.90	7.95	--	5.95	
A-25	12/12/05	13.90	7.79	--	6.11	
A-25	03/13/06	13.90	6.98	--	6.92	
A-25	06/05/06	13.90	7.43	--	6.47	
A-25	09/11/06	13.90	8.10	--	5.80	
A-25	12/11/06	13.90	7.05	--	6.85	
A-25	12/10/07	13.90	7.23	--	6.67	
A-25	03/03/08	13.90	7.36	--	6.54	
A-25	03/04/09	13.90	7.37	--	6.53	
A-25	06/01/09	13.90	7.81	--	6.09	
A-25	09/21/09	13.90	8.00	--	5.90	
A-25	11/16/09	13.90	7.16	--	6.74	
A-25	03/08/10	13.90	6.83	--	7.07	
A-25	06/07/10	13.90	7.36	--	6.54	
A-25	09/09/10	13.90	7.97	--	5.93	
A-25	11/15/10	13.90	7.44	Sheen	6.46	
A-25	03/01/11	13.90	7.04	--	6.86	
A-25	05/23/11	13.90	7.18	--	6.72	
A-25	08/29/11	13.90	7.81	--	6.09	
A-25	12/01/11	13.90	7.52	--	6.38	
A-25	03/01/12	13.90	7.75	--	6.15	
A-25	05/30/12	13.90	7.30	--	6.60	
A-25	08/25/12	13.90	7.56	--	6.34	
A-25	11/07/12	13.90	7.11	--	6.79	
A-25	02/27/13	13.90	7.18	--	6.72	
A-25	04/08/13	13.90	7.08	--	6.82	
A-25	07/29/13	13.90	7.52	--	6.38	
A-25	10/02/13	13.90	7.23	--	6.67	
A-25	01/21/14	13.90	7.51	--	6.39	
A-25	04/22/14	13.90	7.03	--	6.87	
A-25	07/15/14	13.90	7.51	--	6.39	
A-25	03/17/15	13.90	6.87	--	7.03	
A-25	09/29/15	13.90	7.55	--	6.35	
A-25	03/29/16	13.90	6.36	--	7.54	
A-25	10/11/16	13.90	7.77	--	6.13	
A-26	03/27/01	--	--	--	--	
A-26						Destroyed during construction activities of utility trench

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-26R	02/11/02	10.39	7.13	0.02	3.28	
A-26R	05/20/02	10.39	9.79	--	0.60	
A-26R	08/27/02	10.39	8.23	0.02	2.18	
A-26R	11/04/02	10.39	8.41	0.04	2.01	
A-26R	02/18/03	10.39	7.29	--	3.10	
A-26R	06/09/03	10.39	7.92	--	2.47	
A-26R	09/15/03	14.19	8.31	--	5.88	
A-26R	11/18/03	14.19	7.64	Sheen	6.55	
A-26R	02/24/04	14.19	7.17	--	7.02	
A-26R	05/10/04	14.19	7.93	--	6.26	
A-26R	08/24/04	14.19	8.10	--	6.09	
A-26R	12/13/04	14.19	7.55	--	6.64	
A-26R	03/08/05	14.19	7.80	--	6.39	
A-26R	06/06/05	14.19	7.18	--	7.01	
A-26R	09/19/05	14.19	8.25	0.01	5.95	
A-26R	10/12/05	14.19	8.20	--	5.99	
A-26R	12/12/05	14.19	7.98	--	6.21	
A-26R	03/13/06	14.19	7.21	--	6.98	
A-26R	06/05/06	14.19	7.66	--	6.53	
A-26R	09/11/06	14.19	8.25	--	5.94	
A-26R	12/11/06	14.19	7.22	--	6.97	
A-26R	12/10/07	14.19	7.48	--	6.71	
A-26R	03/03/08	14.19	7.58	--	6.61	
A-26R	03/04/09	14.19	7.56	--	6.63	
A-26R	06/01/09	14.19	--	--	--	Not Measured-Inaccessible
A-26R	09/21/09	14.19	8.21	--	5.98	
A-26R	11/16/09	14.19	7.48	--	6.71	
A-26R	03/08/10	14.19	7.04	--	7.15	
A-26R	06/07/10	14.19	7.57	--	6.62	
A-26R	09/09/10	14.19	8.17	--	6.02	
A-26R	11/15/10	14.19	7.69	--	6.50	
A-26R	03/01/11	14.19	7.28	--	6.91	
A-26R	05/23/11	14.19	7.40	--	6.79	
A-26R	08/29/11	14.19	7.99	--	6.20	
A-26R	12/01/11	14.19	7.81	--	6.38	
A-26R	03/01/12	14.19	7.47	--	6.72	
A-26R	05/30/12	14.19	7.55	--	6.64	
A-26R	08/25/12	14.19	7.73	--	6.46	
A-26R	11/07/12	14.19	7.37	--	6.82	
A-26R	02/27/13	14.19	7.42	--	6.77	
A-26R	04/08/13	14.19	7.34	--	6.85	
A-26R	07/29/13	14.19	7.69	--	6.50	
A-26R	10/02/13	14.19	7.41	--	6.78	
A-26R	01/21/14	14.19	7.69	--	6.50	
A-26R	04/22/14	14.19	7.23	--	6.96	
A-26R	07/15/14	14.19	7.71	--	6.48	
A-26R	03/17/15	14.19	7.09	--	7.1	
A-26R	09/28/15	14.19	7.62	--	6.57	
A-26R	03/29/16	14.19	6.56	--	7.63	
A-26R	10/11/16	14.19	7.99	--	6.20	
A-27	02/11/02	13.45	10.05	--	3.40	
A-27	05/20/02	13.45	12.84	--	0.61	
A-27	08/27/02	13.45	11.31	--	2.14	
A-27	11/04/02	13.45	11.46	--	1.99	
A-27	02/18/03	13.45	10.32	--	3.13	
A-27	06/09/03	13.45	10.97	--	2.48	
A-27	09/15/03	17.22	11.38	--	5.84	
A-27	11/18/03	17.22	10.75	--	6.47	
A-27	02/24/04	17.22	10.15	--	7.07	
A-27	05/10/04	17.22	8.00	--	9.22	
A-27	08/24/04	17.22	11.15	--	6.07	
A-27	12/13/04	17.22	7.80	--	9.42	
A-27	03/08/05	17.22	10.83	--	6.39	
A-27	06/06/05	17.22	10.80	--	6.42	
A-27	09/19/05	17.22	11.32	--	5.90	
A-27	12/12/05	17.22	11.01	--	6.21	
A-27	03/13/06	17.22	10.17	--	7.05	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-27	06/05/06	17.22	10.69	--	6.53	
A-27	09/11/06	17.22	11.30	--	5.92	
A-27	12/11/06	17.22	10.16	--	7.06	
A-27	03/26/07	17.22	10.41	--	6.81	
A-27	06/18/07	17.22	11.00	--	6.22	
A-27	09/24/07	17.22	11.20	--	6.02	
A-27	12/10/07	17.22	10.41	--	6.81	
A-27	03/03/08	17.22	10.54	--	6.68	
A-27	06/02/08	17.22	11.06	--	6.16	
A-27	09/04/08	17.22	11.50	--	5.72	
A-27	12/04/08	17.22	11.05	--	6.17	
A-27	03/04/09	17.22	10.64	--	6.58	
A-27	06/01/09	17.22	10.87	--	6.35	
A-27	09/21/09	17.22	11.25	--	5.97	
A-27	11/16/09	17.22	10.50	--	6.72	
A-27	03/08/10	17.22	10.01	--	7.21	
A-27	06/07/10	17.22	10.54	--	6.68	
A-27	09/09/10	17.22	11.19	--	6.03	
A-27	11/15/10	17.22	10.61	--	6.61	
A-27	03/01/11	17.22	10.20	--	7.02	
A-27	05/23/11	17.22	10.30	--	6.92	
A-27	08/29/11	17.22	11.03	--	6.19	
A-27	12/01/11	17.22	10.72	--	6.50	
A-27	03/01/12	17.22	10.44	--	6.78	
A-27	05/30/12	17.22	10.47	--	6.75	
A-27	08/25/12	17.22	10.78	--	6.44	
A-27	11/07/12	17.22	10.33	--	6.89	
A-27	02/27/13	17.22	10.28	--	6.94	
A-27	04/08/13	17.22	10.24	--	6.98	
A-27	06/21/13	17.22	10.68	--	6.54	Baseline monitoring event
A-27	07/29/13	17.22	10.69	--	6.53	
A-27	08/26/13	17.22	10.71	--	6.51	Two-month monitoring event
A-27	10/02/13	17.22	10.40	--	6.82	
A-27	01/21/14	17.22	10.63	--	6.59	
A-27	04/22/14	17.22	10.11	--	7.11	
A-27	07/15/14	17.22	10.68	--	6.54	
A-27	03/17/15	17.22	9.96	--	7.26	
A-27	09/28/15	17.22	10.68	--	6.54	
A-27	03/29/16	17.22	9.37	--	7.85	
A-27	10/11/16	17.22	10.99	--	6.23	
A-28	06/14/01	--	--	--	--	
A-28						Destroyed during construction activities
A-28R	02/11/02	11.19	7.72	--	3.47	
A-28R	05/20/02	11.19	9.51	--	1.68	
A-28R	08/27/02	11.19	8.97	--	2.22	
A-28R	11/04/02	11.19	9.20	--	1.99	
A-28R	02/18/03	11.19	8.20	--	2.99	
A-28R	06/09/03	11.19	8.67	--	2.52	
A-28R	09/15/03	14.93	9.05	--	5.88	
A-28R	11/18/03	14.93	8.45	--	6.48	
A-28R	02/24/04	14.93	7.91	--	7.02	
A-28R	05/10/04	14.93	8.66	--	6.27	
A-28R	08/24/04	14.93	7.90	--	7.03	
A-28R	12/13/04	14.93	8.58	--	6.35	
A-28R	03/08/05	14.93	8.67	--	6.26	
A-28R	06/06/05	14.93	8.47	--	6.46	
A-28R	09/19/05	14.93	8.99	--	5.94	
A-28R	12/12/05	14.93	7.71	--	7.22	
A-28R	03/13/06	14.93	7.79	--	7.14	
A-28R	06/05/06	14.93	9.13	--	5.80	
A-28R	09/11/06	14.93	9.00	--	5.93	
A-28R	12/11/06	14.93	7.89	--	7.04	
A-28R	03/26/07	14.93	8.05	--	6.88	
A-28R	06/18/07	14.93	8.64	--	6.29	
A-28R	09/24/07	14.93	8.81	--	6.12	
A-28R	12/10/07	14.93	8.01	--	6.92	
A-28R	03/03/08	14.93	8.17	--	6.76	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
A-28R	06/02/08	14.93	8.64	--	6.29	
A-28R	09/04/08	14.93	8.73	--	6.20	
A-28R	12/04/08	14.93	8.69	--	6.24	
A-28R	03/04/09	14.93	8.29	--	6.64	
A-28R	06/01/09	14.93	8.51	--	6.42	
A-28R	09/21/09	14.93	8.92	--	6.01	
A-28R	11/16/09	14.93	8.21	--	6.72	
A-28R	03/08/10	14.93	7.61	--	7.32	
A-28R	06/07/10	14.93	8.14	--	6.79	
A-28R	09/09/10	14.93	8.73	--	6.20	
A-28R	11/15/10	14.93	8.22	--	6.71	
A-28R	03/01/11	14.93	7.80	--	7.13	
A-28R	05/23/11	14.93	7.89	--	7.04	
A-28R	08/29/11	14.93	8.70	--	6.23	
A-28R	12/01/11	14.93	8.32	--	6.61	
A-28R	03/01/12	14.93	7.95	--	6.98	
A-28R	05/30/12	14.93	8.04	--	6.89	
A-28R	08/25/12	14.93	8.35	--	6.58	
A-28R	11/07/12	14.93	7.89	--	7.04	
A-28R	02/27/13	14.93	7.78	--	7.15	
A-28R	04/08/13	14.93	7.67	--	7.26	
A-28R	07/29/13	14.93	8.20	--	6.73	
A-28R	10/02/13	14.93	7.88	--	7.05	
A-28R	01/21/14	14.93	8.20	--	6.73	
A-28R	04/22/14	14.93	7.59	--	7.34	
A-28R	07/15/14	14.93	8.35	--	6.58	
A-28R	03/17/15	14.93	7.26	--	7.67	
A-28R	09/28/15	14.93	8.33	--	6.60	
A-28R	03/29/16	14.93	6.91	--	8.02	
A-28R	10/11/16	14.93	8.66	--	6.27	
A-29	03/27/01	--	--	--	--	
A-29						Destroyed during construction activities of utility trench
A-29R	02/11/02	10.12	6.78	--	3.34	
A-29R	05/20/02	10.12	8.53	--	1.59	
A-29R	08/27/02	10.12	7.92	--	2.20	
A-29R	11/04/02	10.12	8.09	--	2.03	
A-29R	02/18/03	10.12	7.05	--	3.07	
A-29R	02/19/03	10.12	7.05	--	3.07	
A-29R	06/09/03	10.12	7.61	--	2.51	
A-29R	09/15/03	13.85	8.00	--	5.85	
A-29R	11/18/03	13.85	7.50	--	6.35	
A-29R	02/24/04	13.85	6.97	--	6.88	
A-29R	05/10/04	13.85	7.66	--	6.19	
A-29R	08/24/04	13.85	7.43	--	6.42	
A-29R	12/13/04	13.85	7.46	--	6.39	
A-29R	03/08/05	13.85	7.65	--	6.20	
A-29R	06/06/05	13.85	7.51	--	6.34	
A-29R	09/19/05	13.85	8.02	--	5.83	
A-29R	12/12/05	13.85	7.75	--	6.10	
A-29R	03/13/06	13.85	--	--	--	Not Measured-Inaccessible
A-29R	06/05/06	13.85	7.44	--	6.41	
A-29R	09/11/06	13.85	8.00	--	5.85	
A-29R	12/11/06	13.85	7.07	--	6.78	
A-29R	03/26/07	13.85	7.25	--	6.60	
A-29R	06/18/07	13.85	7.58	--	6.27	
A-29R	09/24/07	13.85	8.03	--	5.82	
A-29R	12/10/07	13.85	7.21	--	6.64	
A-29R	06/02/08	13.85	8.46	--	5.39	
A-29R	09/04/08	13.85	7.82	--	6.03	
A-29R	12/04/08	13.85	7.78	--	6.07	
A-29R	05/23/11	13.85	7.22	--	6.63	
3	02/11/02	9.78	5.71	--	4.07	Casing Damaged
3	05/20/02	9.78	7.97	--	1.81	Casing Damaged
3	08/27/02	9.78	7.57	--	2.21	Casing Damaged
3	11/04/02	9.78	7.82	--	1.96	Casing Damaged
3	02/18/03	9.78	6.02	--	3.76	Casing Damaged
3	06/09/03	9.78	7.16	--	2.62	Casing Damaged

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
3	06/11/03	--	--	--	--	
3					Abandoned	
4	02/11/02	7.97	3.86	--	4.11	
4	05/20/02	7.97	6.07	--	1.90	
4	08/27/02	7.97	5.17	--	2.80	
4	11/04/02	7.97	5.40	--	2.57	
4	02/18/03	7.97	3.78	--	4.19	
4	02/19/03	7.97	3.78	--	4.19	
4	06/09/03	7.97	4.75	--	3.22	
4	09/15/03	11.01	5.37	--	5.64	Casing Broken
4	11/18/03	11.01	4.33	--	6.68	Casing Broken
4	02/24/04	11.01	3.91	--	7.10	Casing Broken
4	05/10/04	11.01	4.75	--	6.26	Casing Broken
4	08/24/04	11.01	4.94	--	6.07	Casing Broken
4	12/13/04	11.01	4.17	--	6.84	Casing Broken
4	03/08/05	11.01	3.80	--	7.21	Casing Broken
4	06/06/05	11.01	4.63	--	6.38	Casing Broken
4	09/19/05	11.01	--	--	--	Not Measured-Casing Broken
4	12/12/05	11.01	4.76	--	6.25	Casing Broken
4	03/13/06	11.01	3.82	--	7.19	Casing Broken
4	06/05/06	11.01	--	--	--	Not Measured-Casing Broken
4	09/11/06	11.01	--	--	--	Not Measured-Casing Broken
4	12/11/06	11.01	--	--	--	Not Measured-Casing Broken
5	02/11/02	8.30	3.73	--	4.57	Casing Damaged
5	05/20/02	8.30	5.89	--	2.41	Casing Damaged
5	08/27/02	8.30	5.40	--	2.90	Casing Damaged
5	11/04/02	8.30	5.74	--	2.56	Casing Damaged
5	02/18/03	8.30	4.20	--	4.10	Casing Damaged
5	06/11/03	--	--	--	--	
5					Abandoned	
6	02/11/02	9.15	4.50	--	4.65	
6	05/20/02	9.15	6.88	--	2.27	
6	08/27/02	9.15	6.65	--	2.50	
6	11/04/02	9.15	6.99	--	2.16	
6	02/18/03	9.15	5.14	--	4.01	
6	06/09/03	9.15	6.24	--	2.91	
6	09/15/03	12.76	6.95	--	5.81	
6	11/18/03	12.76	5.56	--	7.20	
6	02/24/04	12.76	5.31	--	7.45	
6	05/10/04	12.76	6.24	--	6.52	
6	08/24/04	12.76	6.41	--	6.35	
6	12/13/04	12.76	4.28	--	8.48	
6	03/08/05	12.76	6.28	--	6.48	
6	06/06/05	12.76	5.94	--	6.82	
6	09/19/05	12.76	6.87	--	5.89	
6	12/12/05	12.76	6.13	--	6.63	
6	03/13/06	12.76	5.13	--	7.63	
6	06/05/06	12.76	5.68	--	7.08	
6	09/11/06	12.76	6.78	--	5.98	
6	12/11/06	12.76	5.52	--	7.24	
7	01/13/97	9.09	3.90	--	5.19	
7	10/06/00	9.09	6.80	--	2.29	
7	12/18/00	9.09	6.02	--	3.07	
7	03/27/01	9.09	6.44	--	2.65	
7	06/14/01	9.09	6.49	--	2.60	
7	09/21/01	9.09	6.91	--	2.18	
7	02/11/02	9.09	5.23	--	3.86	
7	05/20/02	9.09	7.31	--	1.78	
7	08/27/02	9.09	6.85	--	2.24	
7	11/04/02	9.09	7.07	--	2.02	
7	02/18/03	9.09	7.74	--	1.35	
7	06/09/03	9.09	6.45	--	2.64	
7	09/15/03	12.72	7.04	--	5.68	
7	11/18/03	12.72	6.11	--	6.61	
7	02/24/04	12.72	5.96	--	6.76	
7	05/10/04	12.72	6.62	--	6.10	
7	08/24/04	12.72	6.56	--	6.16	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
7	12/13/04	12.72	6.00	--	6.72	
7	03/08/05	12.72	5.66	--	7.06	
7	06/06/05	12.72	6.45	--	6.27	
7	09/19/05	12.72	7.04	--	5.68	
7	12/12/05	12.72	6.69	--	6.03	
7	03/13/06	12.72	5.07	--	7.65	
7	06/05/06	12.72	7.40	--	5.32	
7	09/11/06	12.72	6.98	--	5.74	
7	12/11/06	12.72	5.62	--	7.10	
8	02/11/02	9.42	5.20	--	4.22	
8	05/20/02	9.42	7.52	--	1.90	Casing Tilted
8	08/27/02	9.42	7.12	--	2.30	Casing Tilted
8	11/04/02	9.42	7.25	--	2.17	Casing Tilted
8	02/18/03	9.42	5.79	--	3.63	Casing Tilted
8	06/11/03	--	--	--	--	
8					Abandoned	
9	02/11/02	9.36	4.26	--	5.10	
9	05/20/02	9.36	6.76	--	2.60	
9	08/27/02	9.36	6.38	--	2.98	
9	11/04/02	9.36	7.00	--	2.36	
9	02/18/03	9.36	4.94	--	4.42	
9	06/09/03	9.36	6.11	--	3.25	
9	09/15/03	12.89	6.96	--	5.93	
9	11/18/03	12.89	5.51	--	7.38	
9	02/24/04	12.89	5.19	--	7.70	
9	05/10/04	12.89	6.18	--	6.71	
9	08/24/04	12.89	3.46	--	9.43	
9	12/13/04	12.89	5.48	--	7.41	
9	03/08/05	12.89	6.36	--	6.53	
9	06/06/05	12.89	5.82	--	7.07	
9	09/19/05	12.89	6.87	--	6.02	
9	12/12/05	12.89	6.15	--	6.74	
9	03/13/06	12.89	5.02	--	7.87	
9	06/05/06	12.89	5.51	--	7.38	
9	09/11/06	12.89	6.80	--	6.09	
9	12/11/06	12.89	4.79	--	8.10	
10	02/11/02	9.57	4.39	--	5.18	
10	05/20/02	9.57	6.98	--	2.59	
10	08/27/02	9.57	6.95	--	2.62	
10	11/04/02	9.57	7.29	--	2.28	
10	02/18/03	9.57	5.05	--	4.52	
10	06/09/03	9.57	6.34	--	3.23	
10	09/15/03	13.20	7.21	--	5.99	
10	11/18/03	13.20	5.62	--	7.58	
10	02/24/04	13.20	5.21	--	7.99	
10	05/10/04	13.20	6.47	--	6.73	
10	08/24/04	13.20	6.61	--	6.59	
10	12/13/04	13.20	5.48	--	7.72	
10	03/08/05	13.20	6.41	--	6.79	
10	06/06/05	13.20	6.09	--	7.11	
10	09/19/05	13.20	7.17	--	6.03	
10	12/12/05	13.20	6.29	--	6.91	
10	03/13/06	13.20	5.15	--	8.05	
10	06/05/06	13.20	5.70	--	7.50	
10	09/11/06	13.20	7.06	--	6.14	
10	12/11/06	13.20	4.88	--	8.32	
11	02/11/02	8.57	3.01	--	5.56	
11	05/20/02	8.57	5.61	--	2.96	
11	08/27/02	8.57	5.76	--	2.81	
11	11/04/02	8.57	6.03	--	2.54	
11	02/18/03	8.57	3.57	--	5.00	
11	06/09/03	8.57	4.98	--	3.59	
11	09/15/03	12.08	6.00	--	6.08	
11	11/18/03	12.08	2.38	--	9.70	
11	02/24/04	12.08	3.70	--	8.38	
11	05/10/04	12.08	5.07	--	7.01	
11	08/24/04	12.08	5.02	--	7.06	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
11	12/13/04	12.08	4.12	--	7.96	
11	03/08/05	12.08	4.99	--	7.09	
11	06/06/05	12.08	4.74	--	7.34	
11	09/19/05	12.08	5.93	--	6.15	
11	12/12/05	12.08	4.95	--	7.13	
11	03/13/06	12.08	3.64	--	8.44	
11	06/05/06	12.08	4.32	--	7.76	
11	09/11/06	12.08	5.82	--	6.26	
11	12/11/06	12.08	3.91	--	8.17	
11	06/21/13	12.08	4.57	--	7.51	Baseline monitoring event
11	07/29/13	12.08	4.99	--	7.09	
11	08/26/13	12.08	4.99	--	7.09	Two-month monitoring event
11	10/02/13	12.08	3.96	--	8.12	
11	01/21/14	12.08	4.60	--	7.48	
11	04/22/14	12.08	3.29	--	8.79	
11	07/15/14	12.08	4.90	--	7.18	
11	03/17/15	12.08	2.41	--	9.67	
11	09/28/15	12.08	5.15	--	6.93	
11	03/29/16	12.08	2.91	--	9.17	
11	10/11/16	12.08	5.03	--	7.05	
12	02/11/02	9.06	3.57	0.04	5.52	
12	05/20/02	9.06	6.14	0.04	2.95	Casing Damaged
12	08/27/02	9.06	3.41	0.01	5.66	Casing Damaged
12	11/04/02	9.06	3.80	0.01	5.27	Casing Damaged
12	02/18/03	9.06	0.80	Sheen	8.26	Casing Damaged
12	06/09/03	9.06	2.99	Sheen	6.07	Casing Damaged
12	09/15/03	9.79	--	--	--	Not Measured-Not Located
12	11/18/03	9.79	--	--	--	Not Measured-surface water covering well
12	02/24/04	9.79	1.20	0.03	8.61	
12	05/10/04	9.79	2.80	--	6.99	
12	08/24/04	9.79	2.51	Sheen	7.28	
12	12/13/04	9.79	1.12	--	8.67	
12	03/08/05	9.79	2.87	--	6.92	
12	06/06/05	9.79	5.16	--	4.63	
12	09/19/05	9.79	3.49	0.01	6.31	
12	12/12/05	9.79	2.40	--	7.39	
12	03/13/06	9.79	1.00	--	8.79	
12	06/05/06	9.79	1.27	--	8.52	
12	09/11/06	9.79	3.63	--	6.16	
12	12/11/06	9.79	1.31	--	8.48	
12	03/26/07	9.79	1.40	--	8.39	
12	06/18/07	9.79	2.74	--	7.05	
12	09/24/07	9.79	3.43	--	6.36	
12	12/10/07	9.79	1.88	Sheen	7.91	
12	03/03/08	9.79	2.04	Sheen	7.75	
12	06/02/08	9.79	2.98	--	6.81	
12	09/04/08	9.79	3.74	--	6.05	
12	12/04/08	9.79	2.79	Sheen	7.00	
12	03/04/09	9.79	2.25	Sheen	7.54	
12	06/01/09	9.79	2.31	Sheen	7.48	
12	09/21/09	9.79	3.30	Sheen	6.49	
12	11/16/09	9.79	1.62	Sheen	8.17	
12	03/08/10	9.79	1.34	Sheen	8.45	
12	06/07/10	9.79	1.62	Sheen	8.17	
12	09/09/10	9.79	3.28	Sheen	6.51	
12	11/15/10	9.79	1.92	--	7.87	
12	03/01/11	9.79	1.35	Sheen	8.44	
12	05/23/11	9.79	2.15	Sheen	7.64	
12	08/29/11	9.79	3.03	0.03	6.78	
12	12/01/11	9.79	2.13	--	7.66	
12	03/01/12	9.79	1.65	Sheen	8.14	
12	05/30/12	9.79	1.63	Sheen	8.16	
12	08/25/12	9.79	2.89	--	6.90	
12	11/07/12	9.79	1.46	--	8.33	
12	02/27/13	9.79	1.43	--	8.36	
12	04/08/13	9.79	0.24	--	9.55	
12	06/21/13	9.79	2.84	--	6.95	Baseline monitoring event

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
12	07/29/13	9.79	3.95	--	5.84	
12	08/26/13	9.79	1.91	--	7.88	Two-month monitoring event
12	10/02/13	9.79	1.14	--	8.65	
12	01/21/14	9.79	2.11	--	7.68	
12	04/22/14	9.79	0.88	Sheen	8.91	
12	07/15/14	9.79	2.61	--	7.18	
12	03/17/15	9.79	0.07	--	9.72	
12	09/28/15	9.79	2.55	--	7.24	
12	03/30/16	9.79	0.70	--	9.09	Gauged on March 30, 2016
12	10/11/16	9.79	2.18	--	7.61	
13	02/11/02	9.77	5.06	--	4.71	
13	05/20/02	9.77	7.30	--	2.47	
13	08/27/02	9.77	7.15	--	2.62	
13	11/04/02	--	--	--	--	Not Measured-Recently destroyed
13	06/11/03	--	--	--	--	
13					Abandoned	
14	06/11/03	--	--	--	--	
14					Abandoned	
15	02/11/02	8.69	3.45	--	5.24	Casing Damaged
15	05/20/02	8.69	6.12	--	2.57	Casing Broken
15	08/27/02	8.69	5.94	--	2.75	Casing Broken
15	11/04/02	8.69	6.25	--	2.44	Casing Broken
15	02/18/03	8.69	3.71	--	4.98	Casing Broken
15	06/11/03	--	--	--	--	
15					Abandoned	
16	02/11/02	9.73	4.50	--	5.23	
16	05/20/02	9.73	7.12	--	2.61	
16	08/27/02	9.73	7.14	--	2.59	
16	11/04/02	9.73	7.46	--	2.27	
16	02/18/03	9.73	5.12	--	4.61	
16	06/09/03	9.73	6.51	--	3.22	
16	09/15/03	13.29	7.37	--	5.92	
16	11/18/03	13.29	5.60	--	7.69	
16	02/24/04	13.29	5.46	--	7.83	
16	05/10/04	13.29	6.42	--	6.87	
16	08/24/04	13.29	6.81	--	6.48	
16	12/13/04	13.29	5.94	--	7.35	
16	03/08/05	13.29	6.51	--	6.78	
16	06/06/05	13.29	6.24	--	7.05	
16	09/19/05	13.29	7.30	--	5.99	
16	12/12/05	13.29	6.46	--	6.83	
16	03/13/06	13.29	5.20	--	8.09	
16	06/05/06	13.29	5.76	--	7.53	
16	09/11/06	13.29	7.21	--	6.08	
16	12/11/06	13.29	4.88	--	8.41	
17	02/11/02	11.48	6.39	--	5.09	
17	05/20/02	11.48	8.61	--	2.87	
17	08/27/02	11.48	8.68	--	2.80	
17	11/04/02	11.48	9.06	--	2.42	
17	02/18/03	11.48	6.92	--	4.56	
17	06/09/03	11.48	7.95	--	3.53	
17	09/15/03	15.06	8.89	--	6.17	
17	11/18/03	15.06	8.51	--	6.55	
17	02/24/04	15.06	6.45	--	8.61	
17	05/10/04	15.06	7.90	--	7.16	
17	08/24/04	15.06	8.45	--	6.61	
17	12/13/04	15.06	7.83	--	7.23	
17	03/08/05	15.06	7.81	--	7.25	
17	06/06/05	15.06	7.73	--	7.33	
17	09/19/05	15.06	8.75	--	6.31	
17	12/12/05	15.06	8.03	--	7.03	
17	03/13/06	15.06	6.57	--	8.49	
17	06/05/06	15.06	6.22	--	8.84	
17	09/11/06	15.06	8.68	--	6.38	
17	12/11/06	15.06	6.53	--	8.53	
19	02/11/02	9.13	3.75	--	5.38	
19	05/20/02	9.13	6.10	--	3.03	
19	08/27/02	9.13	6.28	--	2.85	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
19	11/04/02	9.13	6.66	--	2.47	
19	02/18/03	9.13	4.33	--	4.80	
19	06/09/03	9.13	5.41	--	3.72	
19	09/15/03	12.74	6.51	--	6.23	
19	11/18/03	12.74	3.67	--	9.07	
19	02/24/04	12.74	4.25	--	8.49	
19	05/10/04	12.74	5.48	--	7.26	
19	08/24/04	12.74	5.87	--	6.87	
19	12/13/04	12.74	5.15	--	7.59	
19	03/08/05	12.74	5.45	--	7.29	
19	06/06/05	12.74	5.24	--	7.50	
19	09/19/05	12.74	6.36	--	6.38	
19	12/12/05	12.74	5.60	--	7.14	
19	03/13/06	12.74	4.02	--	8.72	
19	06/05/06	12.74	4.89	--	7.85	
19	09/11/06	12.74	6.31	--	6.43	
19	12/11/06	12.74	3.78	--	8.96	
20	02/11/02	8.88	3.15	--	5.73	
20	05/20/02	8.88	5.67	--	3.21	
20	08/27/02	8.88	5.91	--	2.97	
20	11/04/02	8.88	6.32	--	2.56	
20	02/18/03	8.88	3.77	--	5.11	
20	06/09/03	8.88	5.04	--	3.84	
20	09/15/03	12.49	6.16	--	6.33	
20	11/18/03	12.49	5.10	--	7.39	
20	02/24/04	12.49	3.81	--	8.68	
20	05/10/04	12.49	5.12	--	7.37	
20	08/24/04	12.49	5.45	--	7.04	
20	12/13/04	12.49	4.64	--	7.85	
20	03/08/05	12.49	5.11	--	7.38	
20	06/06/05	12.49	4.90	--	7.59	
20	09/19/05	12.49	6.08	--	6.41	
20	12/12/05	12.49	5.32	--	7.17	
20	03/13/06	12.49	3.64	--	8.85	
20	06/05/06	12.49	4.44	--	8.05	
20	09/11/06	12.49	5.98	--	6.51	
20	12/11/06	12.49	3.47	--	9.02	
21	02/11/02	9.42	3.58	--	5.84	
21	05/20/02	9.42	6.18	--	3.24	
21	08/27/02	9.42	6.43	--	2.99	
21	11/04/02	9.42	6.81	--	2.61	
21	02/18/03	9.42	4.18	--	5.24	
21	06/09/03	9.42	5.56	--	3.86	
21	09/15/03	13.04	6.68	--	6.36	
21	11/18/03	13.04	5.03	--	8.01	
21	02/24/04	13.04	4.30	--	8.74	
21	05/10/04	13.04	6.56	--	6.48	
21	08/24/04	13.04	6.04	--	7.00	
21	12/13/04	13.04	5.02	--	8.02	
21	03/08/05	13.04	5.62	--	7.42	
21	06/06/05	13.04	5.43	--	7.61	
21	09/19/05	13.04	6.63	--	6.41	
21	12/12/05	13.04	5.70	--	7.34	
21	03/13/06	13.04	4.19	--	8.85	
21	06/05/06	13.04	4.96	--	8.08	
21	09/11/06	13.04	6.50	--	6.54	
21	12/11/06	13.04	3.99	--	9.05	
22	02/11/02	9.57	3.72	--	5.85	
22	05/20/02	9.57	6.21	--	3.36	
22	08/27/02	9.57	6.55	--	3.02	
22	11/04/02	9.57	6.89	--	2.68	
22	02/18/03	9.57	4.27	--	5.30	
22	06/09/03	9.57	5.60	--	3.97	
22	09/15/03	13.19	6.75	--	6.44	
22	11/18/03	13.19	5.07	--	8.12	
22	02/24/04	13.19	4.39	--	8.80	
22	05/10/04	13.19	5.75	--	7.44	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
22	08/24/04	13.19	6.23	--	6.96	
22	12/13/04	13.19	5.04	--	8.15	
22	03/08/05	13.19	5.77	--	7.42	
22	06/06/05	13.19	5.55	--	7.64	
22	09/19/05	13.19	6.75	--	6.44	
22	12/12/05	13.19	5.80	--	7.39	
22	03/13/06	13.19	4.35	--	8.84	
22	06/05/06	13.19	5.04	--	8.15	
22	09/11/06	13.19	6.66	--	6.53	
22	12/11/06	13.19	4.11	--	9.08	
23	02/11/02	8.94	3.51	--	5.43	
23	05/20/02	8.94	5.93	--	3.01	
23	08/27/02	8.94	5.93	--	3.01	
23	11/04/02	8.94	6.29	--	2.65	
23	02/18/03	8.94	4.04	--	4.90	
23	06/09/03	8.94	5.26	--	3.68	
23	09/15/03	12.55	6.19	--	6.36	
23	11/18/03	12.55	6.11	--	6.44	
23	02/24/04	12.55	4.20	--	8.35	
23	05/10/04	12.55	5.35	--	7.20	
23	08/24/04	12.55	5.78	--	6.77	
23	12/13/04	12.55	4.73	--	7.82	
23	03/08/05	12.55	5.37	--	7.18	
23	06/06/05	12.55	5.16	--	7.39	
23	09/19/05	12.55	6.46	--	6.09	
23	12/12/05	12.55	5.40	--	7.15	
23	03/13/06	12.55	4.03	--	8.52	
23	06/05/06	12.55	4.79	--	7.76	
23	09/11/06	12.55	6.13	--	6.42	
23	12/11/06	12.55	4.01	--	8.54	
24	06/11/03	--	--	--	--	
24					Abandoned	
25	02/11/02	9.48	3.76	--	5.72	
25	05/20/02	9.48	6.19	--	3.29	
25	08/27/02	9.48	6.33	--	3.15	
25	11/04/02	9.48	6.74	--	2.74	Casing Tilted
25	02/18/03	9.48	4.13	--	5.35	Casing Tilted
25	06/11/03	--	--	--	--	
25					Abandoned	
26	02/11/02	9.43	3.70	--	5.73	
26	05/20/02	9.43	--	--	--	Not Measured-Dry
26	08/27/02	9.43	6.02	--	3.41	
26	11/04/02	9.43	5.97	--	3.46	
26	02/18/03	9.43	5.11	--	4.32	
26	06/09/03	9.43	6.02	--	3.41	
26	09/15/03	13.87	6.01	--	7.86	
26	11/18/03	13.87	4.32	--	9.55	
26	02/24/04	13.87	5.14	--	8.73	
26	05/10/04	13.87	6.05	--	7.82	
26	08/24/04	13.87	5.19	--	8.68	
26	12/13/04	13.87	5.99	--	7.88	
26	03/08/05	13.87	6.02	--	7.85	
26	06/06/05	13.87	6.02	--	7.85	
26	09/19/05	13.87	4.51	--	9.36	
26	12/12/05	13.87	6.05	--	7.82	
26	03/13/06	13.87	5.00	--	8.87	
26	06/05/06	13.87	5.78	--	8.09	
26	09/11/06	13.87	7.01	--	6.86	
26	12/11/06	13.87	4.81	--	9.06	
27	02/11/02	9.20	3.57	--	5.63	
27	05/20/02	9.20	6.00	--	3.20	
27	08/27/02	9.20	6.21	--	2.99	
27	11/04/02	9.20	6.63	--	2.57	
27	02/18/03	9.20	4.03	--	5.17	
27	06/09/03	9.01	5.22	--	3.79	
27	09/15/03	12.65	6.36	--	6.29	
27	11/18/03	12.65	5.84	--	6.81	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
27	02/24/04	12.65	4.04	--	8.61	
27	05/10/04	12.65	5.31	--	7.34	
27	08/24/04	12.65	5.71	--	6.94	
27	12/13/04	12.65	4.91	--	7.74	
27	03/08/05	12.65	5.28	--	7.37	
27	06/06/05	12.65	5.13	--	7.52	
27	09/19/05	12.65	6.22	--	6.43	
27	12/12/05	12.65	5.40	--	7.25	
27	03/13/06	12.65	3.82	--	8.83	
27	06/05/06	12.65	4.66	--	7.99	
27	09/11/06	12.65	6.16	--	6.49	
27	12/11/06	12.65	3.60	--	9.05	
MW-1	02/11/02	9.37	4.60	--	4.77	
MW-1	05/20/02	9.37	6.75	--	2.62	
MW-1	08/27/02	9.37	6.51	--	2.86	
MW-1	11/04/02	9.37	6.90	--	2.47	
MW-1	02/18/03	9.37	5.10	--	4.27	
MW-1	06/09/03	9.37	5.94	--	3.43	
MW-1	09/15/03	13.21	6.72	--	6.49	
MW-1	11/18/03	13.21	5.91	--	7.30	
MW-1	02/24/04	13.21	5.05	--	8.16	
MW-1	05/10/04	13.21	6.06	--	7.15	
MW-1	08/24/04	13.21	6.45	--	6.76	
MW-1	12/13/04	13.21	5.63	--	7.58	
MW-1	03/08/05	13.21	6.09	--	7.12	
MW-1	06/06/05	13.21	6.93	--	6.28	
MW-1	09/19/05	13.21	6.74	--	6.47	
MW-1	12/12/05	13.21	6.16	--	7.05	
MW-1	03/13/06	13.21	4.96	--	8.25	
MW-1	06/05/06	13.21	5.72	--	7.49	
MW-1	09/11/06	13.21	6.72	--	6.49	
MW-1	12/11/06	13.21	5.20	--	8.01	
MW-1	03/26/07	13.21	5.24	--	7.97	
MW-1	06/18/07	13.21	5.98	--	7.23	
MW-1	09/25/07	13.21	6.72	--	6.49	
MW-1	12/10/07	13.21	5.34	--	7.87	
MW-1	03/03/08	13.21	5.70	--	7.51	
MW-1	06/02/08	13.21	6.30	--	6.91	
MW-1	09/04/08	13.21	6.48	--	6.73	
MW-1	12/04/08	13.21	6.33	--	6.88	
MW-1	03/04/09	13.21	--	--	--	Not Measured-Inaccessible
MW-1	06/01/09	13.21	6.00	--	7.21	
MW-1	09/21/09	13.21	6.75	--	6.46	
MW-1	11/16/09	13.21	5.62	--	7.59	
MW-1	03/08/10	13.21	5.05	--	8.16	
MW-1	06/07/10	13.21	5.48	--	7.73	
MW-1	09/09/10	13.21	6.55	--	6.66	
MW-1	11/15/10	13.21	5.71	--	7.50	
MW-1	03/01/11	13.21	4.97	--	8.24	
MW-1	05/23/11	13.21	5.04	--	8.17	
MW-1	08/29/11	13.21	6.35	--	6.86	
MW-1	12/01/11	13.21	5.80	--	7.41	
MW-1	03/01/12	13.21	5.59	--	7.62	
MW-1	05/30/12	13.21	5.55	--	7.66	
MW-1	08/25/12	13.21	6.25	--	6.96	
MW-1	11/07/12	13.21	5.58	--	7.63	
MW-1	02/27/13	13.21	5.24	--	7.97	
MW-1	04/08/13	13.21	5.12	--	8.09	
MW-1	07/29/13	13.21	6.19	--	7.02	
MW-1	10/02/13	13.21	5.83	--	7.38	
MW-1	01/21/14	13.21	5.96	--	7.25	
MW-1	04/22/14	13.21	5.05	--	8.16	
MW-1	07/15/14	13.21	5.90	--	7.31	
MW-1	03/17/15	13.21	4.73	--	8.48	
MW-1	09/28/15	13.21	6.30	--	6.91	
MW-1	03/29/16	13.21	4.18	--	9.03	
MW-1	10/11/16	13.21	6.35	--	6.86	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-2	02/11/02	11.33	6.13	--	5.20	
MW-2	05/20/02	11.33	8.40	--	2.93	
MW-2	08/27/02	11.33	8.50	--	2.83	
MW-2	11/04/02	11.33	8.85	--	2.48	
MW-2	02/18/03	11.33	6.10	--	5.23	
MW-2	06/09/03	11.33	7.68	--	3.65	
MW-2	09/15/03	15.22	8.71	--	6.51	
MW-2	11/18/03	15.22	7.60	--	7.62	
MW-2	02/24/04	15.22	6.56	--	8.66	
MW-2	05/10/04	15.22	7.78	--	7.44	
MW-2	08/24/04	15.22	8.33	--	6.89	
MW-2	12/13/04	15.22	7.69	--	7.53	
MW-2	03/08/05	15.22	7.72	--	7.50	
MW-2	06/06/05	15.22	7.61	--	7.61	
MW-2	09/19/05	15.22	8.58	--	6.64	
MW-2	12/12/05	15.22	7.86	--	7.36	
MW-2	03/13/06	15.22	6.38	--	8.84	
MW-2	06/05/06	15.22	7.39	--	7.83	
MW-2	09/11/06	15.22	8.50	--	6.72	
MW-2	12/11/06	15.22	6.37	--	8.85	
MW-2	03/26/07	15.22	6.71	--	8.51	
MW-2	06/18/07	15.22	7.68	--	7.54	
MW-2	09/24/07	15.22	8.84	--	6.38	
MW-2	12/10/07	15.22	6.85	--	8.37	
MW-2	03/03/08	15.22	7.14	--	8.08	
MW-2	06/02/08	15.22	7.91	--	7.31	
MW-2	09/04/08	15.22	8.33	--	6.89	
MW-2	12/04/08	15.22	8.01	--	7.21	
MW-2	03/04/09	15.22	7.43	--	7.79	
MW-2	06/01/09	15.22	7.54	--	7.68	
MW-2	09/21/09	15.22	8.52	--	6.70	
MW-2	11/16/09	15.22	7.28	--	7.94	
MW-2	03/08/10	15.22	6.42	--	8.80	
MW-2	06/07/10	15.22	7.00	--	8.22	
MW-2	09/09/10	15.22	8.26	--	6.96	
MW-2	11/15/10	15.22	7.21	--	8.01	
MW-2	03/01/11	15.22	6.26	--	8.96	
MW-2	05/23/11	15.22	6.39	--	8.83	
MW-2	08/29/11	15.22	8.01	--	7.21	
MW-2	12/01/11	15.22	7.56	--	7.66	
MW-2	03/01/12	15.22	7.03	--	8.19	
MW-2	05/30/12	15.22	6.97	--	8.25	
MW-2	08/25/12	15.22	7.88	--	7.34	
MW-2	11/07/12	15.22	7.34	--	7.88	
MW-2	02/27/13	15.22	6.59	--	8.63	
MW-2	04/08/13	15.22	6.36	--	8.86	
MW-2	07/29/13	15.22	7.82	--	7.40	
MW-2	10/02/13	15.22	7.44	--	7.78	
MW-2	01/21/14	15.22	7.55	--	7.67	
MW-2	04/22/14	15.22	6.21	--	9.01	
MW-2	07/15/14	15.22	7.47	--	7.75	
MW-2	03/17/15	15.22	5.35	--	9.87	
MW-2	09/28/15	15.22	7.99	--	7.23	
MW-2	03/29/16	15.22	5.29	--	9.93	
MW-2	10/11/16	15.22	8.20	--	7.02	
MW-3	02/11/02	7.49	1.82	--	5.67	
MW-3	05/20/02	7.49	4.27	--	3.22	
MW-3	08/27/02	7.49	4.50	--	2.99	
MW-3	11/04/02	7.49	4.92	--	2.57	
MW-3	02/18/03	7.49	2.38	--	5.11	
MW-3	06/09/03	7.49	3.67	--	3.82	
MW-3	09/15/03	11.39	4.81	--	6.58	
MW-3	11/18/03	11.39	2.97	--	8.42	
MW-3	02/24/04	11.39	2.45	--	8.94	
MW-3	05/10/04	11.39	3.64	--	7.75	
MW-3	08/24/04	11.39	4.14	--	7.25	
MW-3	12/13/04	11.39	3.22	--	8.17	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-3	03/08/05	11.39	3.70	--	7.69	
MW-3	06/06/05	11.39	3.51	--	7.88	
MW-3	09/19/05	11.39	4.65	--	6.74	
MW-3	12/12/05	11.39	3.81	--	7.58	
MW-3	03/13/06	11.39	2.43	--	8.96	
MW-3	06/05/06	11.39	3.05	--	8.34	
MW-3	09/11/06	11.39	4.58	--	6.81	
MW-3	12/11/06	11.39	2.00	--	9.39	
MW-3	03/26/07	11.39	2.46	--	8.93	
MW-3	06/18/07	11.39	3.81	--	7.58	
MW-3	09/24/07	11.39	4.58	--	6.81	
MW-3	12/10/07	11.39	2.53	--	8.86	
MW-3	03/03/08	11.39	3.10	--	8.29	
MW-3	06/02/08	11.39	3.88	--	7.51	
MW-3	09/04/08	11.39	4.27	--	7.12	
MW-3	12/04/08	11.39	3.99	--	7.40	
MW-3	03/04/09	11.39	3.28	--	8.11	
MW-3	06/01/09	11.39	3.48	--	7.91	
MW-3	09/21/09	11.39	4.51	--	6.88	
MW-3	11/16/09	11.39	2.97	--	8.42	
MW-3	03/08/10	11.39	2.32	--	9.07	
MW-3	06/07/10	11.39	2.86	--	8.53	
MW-3	09/09/10	11.39	4.23	--	7.16	
MW-3	11/15/10	11.39	2.99	--	8.40	
MW-3	03/01/11	11.39	1.86	--	9.53	
MW-3	05/23/11	11.39	2.03	--	9.36	
MW-3	08/29/11	11.39	4.02	--	7.37	
MW-3	12/01/11	11.39	3.27	--	8.12	
MW-3	03/01/12	11.39	2.99	--	8.40	
MW-3	05/30/12	11.39	2.93	--	8.46	
MW-3	08/25/12	11.39	3.90	--	7.49	
MW-3	11/07/12	11.39	3.10	--	8.29	
MW-3	02/27/13	11.39	2.23	--	9.16	
MW-3	04/08/13	11.39	2.04	--	9.35	
MW-3	07/29/13	11.39	3.78	--	7.61	
MW-3	10/02/13	11.39	3.06	--	8.33	
MW-3	01/21/14	11.39	3.43	--	7.96	
MW-3	04/22/14	11.39	2.06	--	9.33	
MW-3	07/15/14	11.39	3.51	--	7.88	
MW-3	03/17/15	11.39	1.30	--	10.09	
MW-3	09/28/15	11.39	4.02	--	7.37	
MW-3	03/29/16	11.39	1.47	--	9.92	
MW-3	10/11/16	11.39	4.01	--	7.38	
MW-4	02/11/02	10.44	5.24	--	5.20	
MW-4	05/20/02	10.44	7.60	--	2.84	
MW-4	08/27/02	10.44	7.40	--	3.04	
MW-4	11/04/02	10.44	7.90	0.15	2.66	
MW-4	02/18/03	10.44	5.79	--	4.65	
MW-4	06/09/03	10.44	6.81	--	3.63	
MW-4	09/15/03	14.69	7.70	0.01	7.00	
MW-4	11/18/03	14.69	6.71	Sheen	7.98	
MW-4	02/24/04	14.69	5.82	Sheen	8.87	
MW-4	05/10/04	14.69	6.93	Sheen	7.76	
MW-4	08/24/04	14.69	7.24	--	7.45	
MW-4	12/13/04	14.69	6.45	Sheen	8.24	
MW-4	03/08/05	14.69	6.94	--	7.75	
MW-4	06/06/05	14.69	6.71	--	7.98	
MW-4	09/19/05	14.69	7.67	--	7.02	
MW-4	12/12/05	14.69	6.97	--	7.72	
MW-4	03/13/06	14.69	5.77	--	8.92	
MW-4	06/05/06	14.69	6.42	--	8.27	
MW-4	09/11/06	14.69	7.61	--	7.08	
MW-4	12/11/06	14.69	5.81	--	8.88	
MW-4	03/26/07	14.69	5.96	--	8.73	
MW-4	06/18/07	14.69	6.99	--	7.70	
MW-4	09/25/07	14.69	7.46	--	7.23	
MW-4	12/10/07	14.69	5.93	--	8.76	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-4	03/03/08	14.69	6.44	--	8.25	
MW-4	06/02/08	14.69	7.37	--	7.32	
MW-4	09/04/08	14.69	7.20	--	7.49	
MW-4	12/04/08	14.69	7.77	--	6.92	
MW-4	03/04/09	14.69	6.68	--	8.01	
MW-4	06/01/09	14.69	6.78	--	7.91	
MW-4	09/21/09	14.69	7.56	--	7.13	
MW-4	11/16/09	14.69	6.34	--	8.35	
MW-4	03/08/10	14.69	5.86	--	8.83	
MW-4	06/07/10	14.69	6.27	--	8.42	
MW-4	09/09/10	14.69	7.40	--	7.29	
MW-4	11/15/10	14.69	6.39	--	8.30	
MW-4	03/01/11	14.69	5.70	--	8.99	
MW-4	05/23/11	14.69	5.74	--	8.95	
MW-4	08/29/11	14.69	7.25	--	7.44	
MW-4	12/01/11	14.69	6.52	--	8.17	
MW-4	03/01/12	14.69	6.38	--	8.31	
MW-4	05/30/12	14.69	6.33	--	8.36	
MW-4	08/25/12	14.69	7.05	--	7.64	
MW-4	11/07/12	14.69	6.31	--	8.38	
MW-4	02/27/13	14.69	6.02	--	8.67	
MW-4	04/08/13	14.69	5.74	--	8.95	
MW-4	07/29/13	14.69	7.02	--	7.67	
MW-4	10/02/13	14.69	6.53	--	8.16	
MW-4	01/21/14	14.69	6.75	--	7.94	
MW-4	04/22/14	14.69	5.84	--	8.85	
MW-4	07/15/14	14.69	6.85	--	7.84	
MW-4	03/17/15	14.69	5.21	--	9.48	
MW-4	09/28/15	14.69	7.05	--	7.64	
MW-4	03/29/16	14.69	4.31	--	10.38	
MW-4	10/11/16	14.69	7.21	--	7.48	
MW-5	02/11/02	7.10	1.50	--	5.60	
MW-5	05/20/02	7.10	4.06	--	3.04	
MW-5	08/27/02	7.10	4.23	--	2.87	
MW-5	11/04/02	7.10	4.63	--	2.47	
MW-5	02/18/03	7.10	1.98	--	5.12	
MW-5	06/09/03	7.10	3.47	--	3.63	
MW-5	09/15/03	11.13	4.49	--	6.64	
MW-5	11/18/03	11.13	2.81	--	8.32	
MW-5	02/24/04	11.13	2.11	--	9.02	
MW-5	05/10/04	11.13	3.50	--	7.63	
MW-5	08/24/04	11.13	3.71	--	7.42	
MW-5	12/13/04	11.13	2.75	--	8.38	
MW-5	03/08/05	11.13	3.53	--	7.60	
MW-5	06/06/05	11.13	3.22	--	7.91	
MW-5	09/19/05	11.13	4.33	--	6.80	
MW-5	12/12/05	11.13	3.43	--	7.70	
MW-5	03/13/06	11.13	2.10	--	9.03	
MW-5	06/05/06	11.13	2.59	--	8.54	
MW-5	09/11/06	11.13	4.33	--	6.80	
MW-5	12/11/06	11.13	1.70	--	9.43	
MW-5	03/26/07	11.13	2.22	--	8.91	
MW-5	06/18/07	11.13	--	--	--	Not Measured-No Access due to construction
MW-5	09/24/07	11.13	4.28	--	6.85	
MW-5	12/10/07	11.13	2.06	--	9.07	
MW-5	03/03/08	11.13	2.81	--	8.32	
MW-5	06/02/08	11.13	3.36	--	7.77	
MW-5	09/04/08	11.13	3.91	--	7.22	
MW-5	12/04/08	11.13	3.64	--	7.49	
MW-5	03/04/09	11.13	2.98	--	8.15	
MW-5	06/01/09	11.13	3.21	--	7.92	
MW-5	09/21/09	11.13	4.23	--	6.90	
MW-5	11/16/09	11.13	2.50	--	8.63	
MW-5	03/08/10	11.13	2.11	--	9.02	
MW-5	06/07/10	11.13	2.55	--	8.58	
MW-5	09/09/10	11.13	3.93	--	7.20	
MW-5	11/15/10	11.13	2.55	--	8.58	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-5	03/01/11	11.13	1.63	--	9.50	
MW-5	05/23/11	11.13	2.00	--	9.13	
MW-5	08/29/11	11.13	3.82	--	7.31	
MW-5	12/01/11	11.13	2.80	--	8.33	
MW-5	03/01/12	11.13	2.66	--	8.47	
MW-5	05/30/12	11.13	2.73	--	8.40	
MW-5	08/25/12	11.13	3.54	--	7.59	
MW-5	11/07/12	11.13	2.56	--	8.57	
MW-5	02/27/13	11.13	2.20	--	8.93	
MW-5	04/08/13	11.13	1.69	--	9.44	
MW-5	07/29/13	11.13	3.41	--	7.72	
MW-5	10/02/13	11.13	2.51	--	8.62	
MW-5	01/21/14	11.13	3.11	--	8.02	
MW-5	04/22/14	11.13	1.79	--	9.34	
MW-5	07/15/14	11.13	3.29	--	7.84	
MW-5	03/17/15	11.13	1.04	--	10.09	
MW-5	09/28/15	11.13	3.65	--	7.48	
MW-5	03/29/16	11.13	1.26	--	9.87	
MW-5	10/11/16	11.13	3.56	--	7.57	
MW-6	02/11/02	11.15	6.35	--	4.80	
MW-6	05/20/02	11.15	8.48	--	2.67	
MW-6	08/27/02	11.15	8.45	--	2.70	
MW-6	11/04/02	11.15	8.80	--	2.35	
MW-6	02/18/03	11.15	6.85	--	4.30	
MW-6	06/09/03	11.15	7.74	--	3.41	
MW-6	09/15/03	15.17	8.65	--	6.52	
MW-6	11/18/03	15.17	7.60	--	7.57	
MW-6	02/24/04	15.17	6.61	--	8.56	
MW-6	05/10/04	15.17	7.76	--	7.41	
MW-6	08/24/04	15.17	8.28	--	6.89	
MW-6	12/13/04	15.17	7.67	--	7.50	
MW-6	03/08/05	15.17	7.70	--	7.47	
MW-6	06/06/05	15.17	7.55	--	7.62	
MW-6	09/19/05	15.17	8.48	--	6.69	
MW-6	12/12/05	15.17	7.89	--	7.28	
MW-6	03/13/06	15.17	6.46	--	8.71	
MW-6	06/05/06	15.17	7.25	--	7.92	
MW-6	09/11/06	15.17	8.43	--	6.74	
MW-6	12/11/06	15.17	6.50	--	8.67	
MW-6	03/26/07	15.17	6.61	--	8.56	
MW-6	06/18/07	15.17	7.76	--	7.41	
MW-6	09/24/07	15.17	8.43	--	6.74	
MW-6	12/10/07	15.17	6.93	--	8.24	
MW-6	03/03/08	15.17	7.09	--	8.08	
MW-6	06/02/08	15.17	7.88	--	7.29	
MW-6	09/04/08	15.17	8.19	--	6.98	
MW-6	12/04/08	15.17	7.95	--	7.22	
MW-6	03/04/09	15.17	7.41	--	7.76	
MW-6	06/01/09	15.17	7.54	--	7.63	
MW-6	09/21/09	15.17	8.42	--	6.75	
MW-6	11/16/09	15.17	7.30	--	7.87	
MW-6	03/08/10	15.17	6.45	--	8.72	
MW-6	06/07/10	15.17	7.09	--	8.08	
MW-6	09/09/10	15.17	8.10	--	7.07	
MW-6	11/15/10	15.17	7.21	--	7.96	
MW-6	03/01/11	15.17	6.24	--	8.93	
MW-6	05/23/11	15.17	6.42	--	8.75	
MW-6	08/29/11	15.17	7.92	--	7.25	
MW-6	12/01/11	15.17	7.45	--	7.72	
MW-6	03/01/12	15.17	6.97	--	8.20	
MW-6	05/30/12	15.17	6.91	--	8.26	
MW-6	08/25/12	15.17	7.09	--	8.08	
MW-6	11/07/12	15.17	7.12	--	8.05	
MW-6	02/27/13	15.17	6.59	--	8.58	
MW-6	04/08/13	15.17	6.22	--	8.95	
MW-6	07/29/13	15.17	7.34	--	7.83	
MW-6	10/02/13	15.17	6.98	--	8.19	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-6	01/21/14	15.17	7.21	--	7.96	
MW-6	04/22/14	15.17	6.71	--	8.46	
MW-6	07/15/14	15.17	7.39	--	7.78	
MW-6	03/17/15	15.17	5.72	--	9.45	
MW-6	09/28/15	15.17	7.68	--	7.49	
MW-6	03/29/16	15.17	5.38	--	9.79	
MW-6	10/11/16	15.17	7.94	--	7.23	
MW-7	02/11/02	6.78	1.49	--	5.29	
MW-7	05/20/02	6.78	3.91	--	2.87	
MW-7	08/27/02	6.78	4.03	--	2.75	
MW-7	11/04/02	6.78	4.44	--	2.34	
MW-7	02/18/03	6.78	1.82	Sheen	4.96	
MW-7	06/09/03	6.78	3.29	--	3.49	
MW-7	09/15/03	10.62	4.30	--	6.32	
MW-7	11/18/03	10.62	2.83	--	7.79	
MW-7	02/24/04	10.62	2.16	--	8.46	
MW-7	05/10/04	10.62	3.32	--	7.30	
MW-7	08/24/04	10.62	3.31	--	7.31	
MW-7	12/13/04	10.62	2.27	--	8.35	
MW-7	03/08/05	10.62	3.23	--	7.39	
MW-7	06/06/05	10.62	3.03	--	7.59	
MW-7	09/19/05	10.62	4.16	Sheen	6.46	
MW-7	12/12/05	10.62	3.17	--	7.45	
MW-7	03/13/06	10.62	1.88	--	8.74	
MW-7	06/05/06	10.62	2.34	--	8.28	
MW-7	09/11/06	10.62	4.10	--	6.52	
MW-7	12/11/06	10.62	1.72	--	8.90	
MW-7	03/26/07	10.62	2.00	--	8.62	
MW-7	06/18/07	10.62	3.34	--	7.28	
MW-7	09/24/07	10.62	4.00	--	6.62	
MW-7	12/10/07	10.62	1.12	Sheen	9.50	
MW-7	03/03/08	10.62	2.49	Sheen	8.13	
MW-7	06/02/08	10.62	3.41	Sheen	7.21	
MW-7	09/04/08	10.62	3.60	--	7.02	
MW-7	12/04/08	10.62	3.36	--	7.26	
MW-7	03/04/09	10.62	2.90	--	7.72	
MW-7	06/01/09	10.62	3.08	Sheen	7.54	
MW-7	09/21/09	10.62	1.91	--	8.71	
MW-7	11/16/09	10.62	2.54	Sheen	8.08	
MW-7	03/08/10	10.62	2.31	--	8.31	
MW-7	06/07/10	10.62	2.67	--	7.95	
MW-7	09/09/10	10.62	3.79	--	6.83	
MW-7	11/15/10	10.62	2.58	--	8.04	
MW-7	03/01/11	10.62	2.51	--	8.11	
MW-7	05/23/11	10.62	2.24	--	8.38	
MW-7	08/29/11	10.62	3.87	--	6.75	
MW-7	12/01/11	10.62	2.67	--	7.95	
MW-7	03/01/12	10.62	2.80	--	7.82	
MW-7	05/30/12	10.62	2.82	--	7.80	
MW-7	08/25/12	10.62	3.35	--	7.27	
MW-7	11/07/12	10.62	2.23	--	8.39	
MW-7	02/27/13	10.62	2.33	--	8.29	
MW-7	04/08/13	10.62	1.88	--	8.74	
MW-7	06/21/13	10.62	3.10	--	7.52	Baseline monitoring event
MW-7	07/29/13	10.62	3.16	--	7.46	
MW-7	08/26/13	10.62	2.82	--	7.80	Two-month monitoring event
MW-7	10/02/13	10.62	2.08	--	8.54	
MW-7	01/21/14	10.62	2.78	--	7.84	
MW-7	04/22/14	10.62	1.45	--	9.17	
MW-7	07/15/14	10.62	3.02	--	7.60	
MW-7	03/17/15	10.62	0.76	--	9.86	
MW-7	09/28/15	10.62	3.59	--	7.03	
MW-7	03/29/16	10.62	1.10	--	9.52	
MW-7	10/11/16	10.62	2.95	--	7.67	
MW-8	02/11/02	6.42	1.38	--	5.04	
MW-8	05/20/02	6.42	3.87	0.01	2.56	
MW-8	08/27/02	6.42	5.83	--	0.59	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-8	11/04/02	6.42	4.23	--	2.19	
MW-8	02/18/03	6.42	1.37	--	5.05	
MW-8	06/09/03	6.42	3.33	--	3.09	
MW-8	09/15/03	10.63	4.10	--	6.53	
MW-8	11/18/03	10.63	2.25	--	8.38	
MW-8	02/24/04	10.63	2.15	--	8.48	
MW-8	05/10/04	10.63	3.37	--	7.26	
MW-8	08/24/04	10.63	3.51	--	7.12	
MW-8	12/13/04	10.63	2.40	--	8.23	
MW-8	03/08/05	10.63	3.25	--	7.38	
MW-8	06/06/05	10.63	3.01	--	7.62	
MW-8	09/19/05	10.63	4.05	--	6.58	
MW-8	12/12/05	10.63	3.20	--	7.43	
MW-8	03/13/06	10.63	2.22	--	8.41	
MW-8	06/05/06	10.63	2.59	--	8.04	
MW-8	09/11/06	10.63	3.96	--	6.67	
MW-8	12/11/06	10.63	1.81	--	8.82	
MW-8	03/26/07	10.63	4.01	--	6.62	
MW-8	06/18/07	10.63	4.55	--	6.08	
MW-8	09/24/07	10.63	5.05	--	5.58	
MW-8	12/10/07	10.63	4.18	--	6.45	
MW-8	03/03/08	10.63	4.25	--	6.38	
MW-8	06/02/08	10.63	4.65	--	5.98	
MW-8	09/04/08	10.63	4.69	--	5.94	
MW-8	12/04/08	10.63	--	--	--	Not Measured-Inaccessible
MW-8	03/04/09	10.63	3.36	--	7.27	
MW-8	06/01/09	10.63	3.67	--	6.96	
MW-8	09/21/09	10.63	4.42	--	6.21	
MW-8	11/16/09	10.63	2.85	--	7.78	
MW-8	03/08/10	10.63	2.65	--	7.98	
MW-8	06/07/10	10.63	3.10	--	7.53	
MW-8	09/09/10	10.63	4.29	--	6.34	
MW-8	11/15/10	10.63	3.12	--	7.51	
MW-8	03/01/11	10.63	2.22	--	8.41	
MW-8	05/23/11	10.63	2.76	--	7.87	
MW-8	08/29/11	10.63	4.22	--	6.41	
MW-8	12/01/11	10.63	3.11	--	7.52	
MW-8	03/01/12	10.63	3.18	--	7.45	
MW-8	05/30/12	10.63	3.27	--	7.36	
MW-8	08/25/12	10.63	4.02	--	6.61	
MW-8	11/07/12	10.63	2.93	--	7.70	
MW-8	02/27/13	10.63	2.98	--	7.65	
MW-8	04/08/13	10.63	2.41	--	8.22	
MW-8	07/29/13	10.63	3.98	--	6.65	
MW-8	10/02/13	10.63	2.86	--	7.77	
MW-8	01/21/14	10.63	3.56	--	7.07	
MW-8	04/22/14	10.63	2.68	--	7.95	
MW-8	07/15/14	10.63	3.83	--	6.80	
MW-8	03/17/15	10.63	1.62	--	9.01	
MW-8	09/28/15	10.63	3.99	--	6.64	
MW-8	03/29/16	10.63	1.95	--	8.68	
MW-8	10/11/16	10.63	4.05	--	6.58	
MW-9	02/11/02	6.14	2.03	0.02	4.13	
MW-9	05/20/02	6.14	4.16	0.01	1.99	
MW-9	08/27/02	6.14	5.85	0.01	0.30	
MW-9	11/04/02	6.14	4.07	0.01	2.08	
MW-9	02/18/03	6.14	2.35	0.01	3.8	
MW-9	06/09/03	6.14	3.53	--	2.61	
MW-9	09/15/03	9.75	3.99	Sheen	5.76	
MW-9	11/18/03	9.75	2.95	Sheen	6.80	
MW-9	02/24/04	9.75	2.41	Sheen	7.34	
MW-9	05/10/04	9.75	3.36	--	6.39	
MW-9	08/24/04	9.75	3.46	--	6.29	
MW-9	12/13/04	9.75	2.73	--	7.02	
MW-9	03/08/05	9.75	3.24	--	6.51	
MW-9	06/06/05	9.75	3.13	--	6.62	
MW-9	09/19/05	9.75	3.91	--	5.84	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-9	12/12/05	9.75	3.27	--	6.48	
MW-9	03/13/06	9.75	2.30	--	7.45	
MW-9	06/05/06	9.75	2.74	--	7.01	
MW-9	09/11/06	9.75	3.85	--	5.90	
MW-9	12/11/06	9.75	2.09	--	7.66	
MW-9	03/26/07	9.75	2.44	--	7.31	
MW-9	06/18/07	9.75	2.44	--	7.31	
MW-9	09/24/07	9.75	3.88	--	5.87	
MW-9	12/10/07	9.75	2.24	Sheen	7.51	
MW-9	03/03/08	9.75	2.82	Sheen	6.93	
MW-9	06/02/08	9.75	3.52	--	6.23	
MW-9	09/04/08	9.75	3.54	--	6.21	
MW-9	12/04/08	9.75	3.34	--	6.41	
MW-9	03/04/09	9.75	2.89	--	6.86	
MW-9	06/01/09	9.75	3.19	--	6.56	
MW-9	09/21/09	9.75	3.76	Sheen	5.99	
MW-9	11/16/09	9.75	2.63	--	7.12	
MW-9	03/08/10	9.75	2.31	Sheen	7.44	
MW-9	06/07/10	9.75	2.72	Sheen	7.03	
MW-9	09/09/10	9.75	3.69	Sheen	6.06	
MW-9	11/15/10	9.75	2.71	Sheen	7.04	
MW-9	03/01/11	9.75	2.39	Sheen	7.36	
MW-9	05/23/11	9.75	2.58	Sheen	7.17	
MW-9	08/29/11	9.75	3.57	--	6.18	
MW-9	12/01/11	9.75	2.90	--	6.85	
MW-9	03/01/12	9.75	2.96	--	6.79	
MW-9	05/30/12	9.75	2.66	--	7.09	
MW-9	08/25/12	9.75	3.28	--	6.47	
MW-9	11/07/12	9.75	2.49	--	7.26	
MW-9	02/27/13	9.75	2.71	--	7.04	
MW-9	04/08/13	9.75	2.02	--	7.73	
MW-9	06/21/13	9.75	3.01	--	6.74	Baseline monitoring event
MW-9	07/29/13	9.75	3.19	--	6.56	
MW-9	08/26/13	9.75	3.11	--	6.64	Two-month monitoring event
MW-9	10/02/13	9.75	2.40	--	7.35	
MW-9	01/21/14	9.75	2.85	--	6.90	
MW-9	04/22/14	9.75	2.07	--	7.68	
MW-9	07/15/14	9.75	3.06	--	6.69	
MW-9	03/17/15	9.75	0.87	--	8.88	
MW-9	09/28/15	9.75	3.20	--	6.55	
MW-9	03/29/16	9.75	1.28	--	8.47	
MW-9	10/11/16	9.75	3.29	--	6.46	
MW-10D	03/27/01	--	--	--	--	Not Measured-Damaged
MW-10D	09/24/07	9.75	3.88	--	5.87	
MW-10D				Destroyed during construction activities in 2000		
MW-11D	02/11/02	6.81	3.75	--	3.06	
MW-11D	05/20/02	6.81	5.27	0.02	1.56	
MW-11D	08/27/02	6.81	4.70	0.01	2.12	
MW-11D	11/04/02	6.81	4.93	--	1.88	
MW-11D	02/18/03	6.81	3.59	--	3.22	
MW-11D	06/09/03	6.81	4.55	--	2.26	
MW-11D	09/15/03	10.78	4.91	--	5.87	
MW-11D	11/18/03	10.78	4.28	--	6.50	
MW-11D	02/24/04	10.78	3.71	--	7.07	
MW-11D	05/10/04	10.78	4.35	--	6.43	
MW-11D	08/24/04	10.78	4.13	--	6.65	
MW-11D	12/13/04	10.78	4.26	--	6.52	
MW-11D	03/08/05	10.78	4.58	--	6.20	
MW-11D	06/06/05	10.78	4.43	--	6.35	
MW-11D	09/19/05	10.78	4.89	--	5.89	
MW-11D	12/12/05	10.78	4.64	--	6.14	
MW-11D	03/13/06	10.78	3.84	--	6.94	
MW-11D	06/05/06	10.78	4.31	--	6.47	
MW-11D	09/11/06	10.78	4.91	--	5.87	
MW-11D	12/11/06	10.78	3.63	--	7.15	
MW-12	02/11/02	--	--	--	--	
MW-12				Destroyed during construction activities		

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-12R	02/11/02	11.15	6.12	--	5.03	
MW-12R	05/20/02	11.15	8.36	--	2.79	
MW-12R	08/27/02	11.15	8.19	--	2.96	
MW-12R	11/04/02	11.15	8.56	--	2.59	
MW-12R	02/18/03	11.15	7.85	--	3.30	
MW-12R	06/09/03	11.15	7.67	--	3.48	
MW-12R	09/15/03	15.47	8.45	--	7.02	
MW-12R	11/18/03	15.47	7.87	--	7.60	
MW-12R	02/24/04	15.47	6.98	--	8.49	
MW-12R	05/10/04	15.47	7.79	--	7.68	
MW-12R	08/24/04	15.47	8.11	--	7.36	
MW-12R	12/13/04	15.47	7.54	--	7.93	
MW-12R	03/08/05	15.47	7.93	--	7.54	
MW-12R	06/06/05	15.47	6.41	--	9.06	
MW-12R	09/19/05	15.47	8.41	--	7.06	
MW-12R	12/12/05	15.47	7.92	--	7.55	
MW-12R	03/13/06	15.47	6.85	--	8.62	
MW-12R	06/05/06	15.47	7.43	--	8.04	
MW-12R	09/11/06	15.47	8.39	--	7.08	
MW-12R	12/11/06	15.47	6.95	--	8.52	
MW-12R	03/26/07	15.47	7.02	--	8.45	
MW-12R	06/18/07	15.47	7.84	--	7.63	
MW-12R	09/25/07	15.47	8.38	--	7.09	
MW-12R	12/10/07	15.47	7.02	--	8.45	
MW-12R	03/03/08	15.47	7.11	--	8.36	
MW-12R	06/02/08	15.47	7.98	--	7.49	
MW-12R	09/04/08	15.47	8.13	--	7.34	
MW-12R	12/04/08	15.47	7.98	--	7.49	
MW-12R	03/04/09	15.47	7.54	--	7.93	
MW-12R	06/01/09	15.47	7.71	--	7.76	
MW-12R	09/21/09	15.47	8.39	--	7.08	
MW-12R	11/16/09	15.47	7.40	--	8.07	
MW-12R	03/08/10	15.47	6.86	--	8.61	
MW-12R	06/07/10	15.47	7.23	--	8.24	
MW-12R	09/09/10	15.47	8.22	--	7.25	
MW-12R	11/15/10	15.47	7.40	--	8.07	
MW-12R	03/01/11	15.47	6.76	--	8.71	
MW-12R	05/23/11	15.47	6.87	--	8.60	
MW-12R	08/29/11	15.47	8.07	--	7.40	
MW-12R	12/01/11	15.47	7.51	--	7.96	
MW-12R	03/01/12	15.47	7.31	--	8.16	
MW-12R	05/30/12	15.47	7.30	--	8.17	
MW-12R	08/25/12	15.47	7.89	--	7.58	
MW-12R	11/07/12	15.47	7.34	--	8.13	
MW-12R	02/27/13	15.47	7.02	--	8.45	
MW-12R	04/08/13	15.47	6.88	--	8.59	
MW-12R	07/29/13	15.47	7.84	--	7.63	
MW-12R	10/02/13	15.47	7.42	--	8.05	
MW-12R	01/21/14	15.47	7.70	--	7.77	
MW-12R	04/22/14	15.47	6.90	--	8.57	
MW-12R	07/15/14	15.47	7.73	--	7.74	
MW-12R	03/17/15	15.47	6.49	--	8.98	
MW-12R	09/28/15	15.47	7.96	--	7.51	
MW-12R	03/29/16	15.47	5.98	--	9.49	
MW-12R	10/11/16	15.47	8.04	--	7.43	
MW-13	02/11/02	--	--	--	--	
MW-13						Destroyed during construction activities
MW-13R	02/11/02	10.99	5.95	--	5.04	
MW-13R	05/20/02	10.99	8.08	--	2.91	
MW-13R	08/27/02	10.99	7.93	--	3.06	
MW-13R	11/04/02	10.99	8.30	--	2.69	
MW-13R	02/18/03	10.99	6.55	--	4.44	
MW-13R	06/09/03	10.99	7.37	--	3.62	
MW-13R	09/15/03	15.15	8.19	--	6.96	
MW-13R	11/18/03	15.15	7.56	--	7.59	
MW-13R	02/24/04	15.15	6.50	--	8.65	
MW-13R	05/10/04	15.15	7.45	--	7.70	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-13R	08/24/04	15.15	8.13	--	7.02	
MW-13R	12/13/04	15.15	7.10	--	8.05	
MW-13R	03/08/05	15.15	7.62	--	7.53	
MW-13R	06/06/05	15.15	7.37	--	7.78	
MW-13R	09/19/05	15.15	8.22	--	6.93	
MW-13R	12/12/05	15.15	7.61	--	7.54	
MW-13R	03/13/06	15.15	6.50	--	8.65	
MW-13R	06/05/06	15.15	7.03	--	8.12	
MW-13R	09/11/06	15.15	8.13	--	7.02	
MW-13R	12/11/06	15.15	6.60	--	8.55	
MW-13R	03/26/07	15.15	6.60	--	8.55	
MW-13R	06/18/07	15.15	7.53	--	7.62	
MW-13R	09/25/07	15.15	8.10	--	7.05	
MW-13R	12/10/07	15.15	6.74	--	8.41	
MW-13R	03/03/08	15.15	7.45	--	7.70	
MW-13R	06/02/08	15.15	7.70	--	7.45	
MW-13R	09/04/08	15.15	7.86	--	7.29	
MW-13R	12/04/08	15.15	7.72	--	7.43	
MW-13R	03/04/09	15.15	7.30	--	7.85	
MW-13R	06/01/09	15.15	7.43	--	7.72	
MW-13R	09/21/09	15.15	8.12	--	7.03	
MW-13R	11/16/09	15.15	7.07	--	8.08	
MW-13R	03/08/10	15.15	6.57	--	8.58	
MW-13R	06/07/10	15.15	6.95	--	8.20	
MW-13R	09/09/10	15.15	7.94	--	7.21	
MW-13R	11/15/10	15.15	7.12	--	8.03	
MW-13R	03/01/11	15.15	6.42	--	8.73	
MW-13R	05/23/11	15.15	6.52	--	8.63	
MW-13R	08/29/11	15.15	7.79	--	7.36	
MW-13R	12/01/11	15.15	7.21	--	7.94	
MW-13R	03/01/12	15.15	6.99	--	8.16	
MW-13R	05/25/12	--	--	--	--	
MW-13R						Abandoned on 5/25/2012
MW-14	02/11/02	7.55	1.65	--	5.90	
MW-14	05/20/02	7.55	4.46	--	3.09	
MW-14	08/27/02	7.55	4.58	--	2.97	
MW-14	11/04/02	7.55	5.95	--	1.60	
MW-14	02/18/03	7.55	2.60	--	4.95	
MW-14	06/09/03	7.55	3.86	--	3.69	
MW-14	09/15/03	11.44	5.11	--	6.33	
MW-14	11/18/03	11.44	3.30	--	8.14	
MW-14	02/24/04	11.44	2.55	--	8.89	
MW-14	05/10/04	11.44	3.92	--	7.52	
MW-14	08/24/04	11.44	4.23	--	7.21	
MW-14	12/13/04	11.44	3.28	--	8.16	
MW-14	03/08/05	11.44	3.71	--	7.73	
MW-14	06/06/05	11.44	3.37	--	8.07	
MW-14	09/19/05	11.44	4.79	--	6.65	
MW-14	12/12/05	11.44	3.72	--	7.72	
MW-14	03/13/06	11.44	2.40	--	9.04	
MW-14	06/05/06	11.44	3.07	--	8.37	
MW-14	09/11/06	11.44	4.90	--	6.54	
MW-14	12/11/06	11.44	2.02	--	9.42	
MW-14	03/26/07	11.44	2.61	--	8.83	
MW-14	06/18/07	11.44	3.91	--	7.53	
MW-14	09/24/07	11.44	4.64	--	6.80	
MW-14	12/10/07	11.44	2.44	--	9.00	
MW-14	03/03/08	11.44	3.19	--	8.25	
MW-14	06/02/08	11.44	3.82	--	7.62	
MW-14	09/04/08	11.44	4.22	--	7.22	
MW-14	12/04/08	11.44	4.04	--	7.40	
MW-14	03/04/09	11.44	3.37	--	8.07	
MW-14	06/01/09	11.44	3.61	--	7.83	
MW-14	09/21/09	11.44	4.59	--	6.85	
MW-14	11/16/09	11.44	2.82	--	8.62	
MW-14	03/08/10	11.44	2.48	--	8.96	
MW-14	06/07/10	11.44	2.99	--	8.45	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-14	09/09/10	11.44	4.33	--	7.11	
MW-14	11/15/10	11.44	3.01	--	8.43	
MW-14	03/01/11	11.44	2.03	--	9.41	
MW-14	05/23/11	11.44	2.36	--	9.08	
MW-14	08/29/11	11.44	4.20	--	7.24	
MW-14	12/01/11	11.44	3.17	--	8.27	
MW-14	03/01/12	11.44	3.05	--	8.39	
MW-14	05/30/12	11.44	3.09	--	8.35	
MW-14	08/25/12	11.44	4.04	--	7.40	
MW-14	11/07/12	11.44	2.92	--	8.52	
MW-14	02/27/13	11.44	2.66	--	8.78	
MW-14	04/08/13	11.44	2.18	--	9.26	
MW-14	07/29/13	11.44	3.90	--	7.54	
MW-14	10/02/13	11.44	3.08	--	8.36	
MW-14	01/21/14	11.44	5.59	--	5.85	
MW-14	04/22/14	11.44	2.19	--	9.25	
MW-14	07/15/14	11.44	3.71	--	7.73	
MW-14	03/17/15	11.44	1.47	--	9.97	
MW-14	09/28/15	11.44	4.06	--	7.38	
MW-14	03/29/16	11.44	1.67	--	9.77	
MW-14	10/11/16	11.44	4.01	--	7.43	
MW-15	02/11/02	9.03	3.94	--	5.09	
MW-15	05/20/02	9.03	6.18	--	2.85	
MW-15	08/27/02	9.03	6.10	--	2.93	
MW-15	11/04/02	9.03	6.48	--	2.55	
MW-15	02/18/03	9.03	4.50	--	4.53	
MW-15	06/09/03	9.03	5.49	--	3.54	
MW-15	09/15/03	12.86	6.35	--	6.51	
MW-15	11/18/03	12.86	5.49	--	7.37	
MW-15	02/24/04	12.86	4.67	--	8.19	
MW-15	05/10/04	12.86	5.56	Sheen	7.30	
MW-15	08/24/04	12.86	6.10	--	6.76	
MW-15	12/13/04	12.86	4.34	--	8.52	
MW-15	03/08/05	12.86	5.58	--	7.28	
MW-15	06/06/05	12.86	5.42	--	7.44	
MW-15	09/19/05	12.86	6.34	--	6.52	
MW-15	12/12/05	12.86	5.63	--	7.23	
MW-15	03/13/06	12.86	4.33	--	8.53	
MW-15	06/05/06	12.86	5.15	--	7.71	
MW-15	09/11/06	12.86	6.30	--	6.56	
MW-15	12/11/06	12.86	4.43	--	8.43	
MW-15	03/26/07	12.86	4.60	--	8.26	
MW-15	06/18/07	12.86	5.61	--	7.25	
MW-15	06/02/08	12.86	5.80	--	7.06	
MW-15	09/04/08	12.86	6.02	--	6.84	
MW-15	12/04/08	12.86	5.82	--	7.04	
MW-16	02/11/02	11.19	6.19	--	5.00	
MW-16	05/20/02	11.19	8.23	--	2.96	
MW-16	08/27/02	11.19	8.32	--	2.87	
MW-16	11/04/02	11.19	8.72	--	2.47	
MW-16	02/18/03	11.19	7.65	--	3.54	
MW-16	06/09/03	11.19	7.46	--	3.73	
MW-16	09/15/03	15.23	8.55	--	6.68	
MW-16	11/18/03	15.23	7.69	--	7.54	
MW-16	02/24/04	15.23	6.40	--	8.83	
MW-16	05/10/04	15.23	7.60	--	7.63	
MW-16	08/24/04	15.23	8.21	--	7.02	
MW-16	12/13/04	15.23	7.80	--	7.43	
MW-16	03/08/05	15.23	7.55	--	7.68	
MW-16	06/06/05	15.23	7.38	--	7.85	
MW-16	09/19/05	15.23	8.40	--	6.83	
MW-16	12/12/05	15.23	7.69	--	7.54	
MW-16	03/13/06	15.23	6.16	--	9.07	
MW-16	06/05/06	15.23	7.22	--	8.01	
MW-16	09/11/06	15.23	8.32	--	6.91	
MW-16	12/11/06	15.23	6.40	--	8.83	
MW-16	03/26/07	15.23	6.53	--	8.70	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-16	06/18/07	15.23	7.60	--	7.63	
MW-16	09/24/07	15.23	8.36	--	6.87	
MW-16	12/10/07	15.23	6.85	--	8.38	
MW-16	03/03/08	15.23	6.95	--	8.28	
MW-16	06/02/08	15.23	7.62	--	7.61	
MW-16	09/04/08	15.23	8.07	--	7.16	
MW-16	12/04/08	15.23	7.82	--	7.41	
MW-16	03/04/09	15.23	7.47	--	7.76	
MW-16	06/01/09	15.23	7.37	--	7.86	
MW-16	09/21/09	15.23	8.33	--	6.90	
MW-16	11/16/09	15.23	7.30	--	7.93	
MW-16	03/08/10	15.23	6.34	--	8.89	
MW-16	06/07/10	15.23	6.87	--	8.36	
MW-16	09/09/10	15.23	8.04	--	7.19	
MW-16	11/15/10	15.23	7.14	--	8.09	
MW-16	03/01/11	15.23	6.12	--	9.11	
MW-16	05/23/11	15.23	6.22	--	9.01	
MW-16	08/29/11	15.23	7.97	--	7.26	
MW-16	12/01/11	15.23	7.45	--	7.78	
MW-16	03/01/12	15.23	6.81	--	8.42	
MW-16	05/30/12	15.23	6.71	--	8.52	
MW-16	08/25/12	15.23	7.57	--	7.66	
MW-16	11/07/12	15.23	7.20	--	8.03	
MW-16	02/27/13	15.23	6.18	--	9.05	
MW-16	04/08/13	15.23	6.28	--	8.95	
MW-16	07/29/13	15.23	7.31	--	7.92	
MW-16	10/02/13	15.23	7.21	--	8.02	
MW-16	01/21/14	15.23	7.19	--	8.04	
MW-16	04/22/14	15.23	6.12	--	9.11	
MW-16	07/15/14	15.23	7.22	--	8.01	
MW-16	03/17/15	15.23	5.78	--	9.45	
MW-16	09/28/15	15.23	7.71	--	7.52	
MW-16	03/29/16	15.23	5.02	--	10.21	
MW-16	10/11/16	15.23	8.06	--	7.17	
MW-17	02/11/02	11.43	6.13	--	5.30	
MW-17	05/20/02	11.43	8.38	--	3.05	
MW-17	08/27/02	11.43	8.50	--	2.93	
MW-17	11/04/02	11.43	8.91	--	2.52	
MW-17	02/18/03	11.43	6.70	--	4.73	
MW-17	06/09/03	11.43	7.71	--	3.72	
MW-17	09/15/03	15.38	8.71	--	6.67	
MW-17	11/18/03	15.38	11.83	--	3.55	
MW-17	02/24/04	15.38	7.20	--	8.18	
MW-17	05/10/04	15.38	7.77	--	7.61	
MW-17	08/24/04	15.38	8.36	--	7.02	
MW-17	12/13/04	15.38	7.85	--	7.53	
MW-17	03/08/05	15.38	7.65	--	7.73	
MW-17	06/06/05	15.38	7.55	--	7.83	
MW-17	09/19/05	15.38	8.56	--	6.82	
MW-17	12/12/05	15.38	7.85	--	7.53	
MW-17	03/13/06	15.38	6.30	--	9.08	
MW-17	06/05/06	15.38	7.44	--	7.94	
MW-17	09/11/06	15.38	8.52	--	6.86	
MW-17	12/11/06	15.38	6.49	--	8.89	
MW-17	05/23/11	15.38	6.30	--	9.08	
MW-17	08/29/11	15.38	6.30	--	9.08	
MW-18	02/11/02	11.29	5.97	--	5.32	
MW-18	05/20/02	11.29	8.20	--	3.09	
MW-18	08/27/02	11.29	7.34	--	3.95	
MW-18	11/04/02	11.29	8.73	--	2.56	
MW-18	02/18/03	11.29	6.45	--	4.84	
MW-18	06/09/03	11.29	7.59	--	3.70	
MW-18	09/15/03	15.49	8.65	--	6.84	
MW-18	11/18/03	15.49	7.68	--	7.81	
MW-18	02/24/04	15.49	6.38	--	9.11	
MW-18	05/10/04	15.49	7.65	--	7.84	
MW-18	08/24/04	15.49	8.17	--	7.32	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-18	12/13/04	15.49	7.61	--	7.88	
MW-18	03/08/05	15.49	7.47	--	8.02	
MW-18	06/06/05	15.49	7.41	--	8.08	
MW-18	09/19/05	15.49	8.43	--	7.06	
MW-18	12/12/05	15.49	7.70	--	7.79	
MW-18	03/13/06	15.49	6.23	--	9.26	
MW-18	06/05/06	15.49	7.31	--	8.18	
MW-18	09/11/06	15.49	8.34	--	7.15	
MW-18	12/11/06	15.49	6.34	--	9.15	
MW-18	03/26/07	15.49	6.59	--	8.90	
MW-18	06/18/07	15.49	7.66	--	7.83	
MW-18	09/24/07	15.49	8.40	--	7.09	
MW-18	12/10/07	15.49	6.68	--	8.81	
MW-18	03/03/08	15.49	6.98	--	8.51	
MW-18	06/02/08	15.49	7.70	--	7.79	
MW-18	09/04/08	15.49	8.11	--	7.38	
MW-18	12/04/08	15.49	7.84	--	7.65	
MW-18	03/04/09	15.49	7.34	--	8.15	
MW-18	06/01/09	15.49	7.36	--	8.13	
MW-18	09/21/09	15.49	8.40	--	7.09	
MW-18	11/16/09	15.49	7.18	--	8.31	
MW-18	03/08/10	15.49	6.23	--	9.26	
MW-18	06/07/10	15.49	6.89	--	8.60	
MW-18	09/09/10	15.49	8.11	--	7.38	
MW-18	11/15/10	15.49	7.12	--	8.37	
MW-18	03/01/11	15.49	6.11	--	9.38	
MW-18	05/23/11	15.49	6.25	--	9.24	
MW-18	08/29/11	15.49	7.87	--	7.62	
MW-18	12/01/11	15.49	7.38	--	8.11	
MW-18	03/01/12	15.49	6.88	--	8.61	
MW-18	05/30/12	15.49	6.75	--	8.74	
MW-18	08/25/12	15.49	--	--	--	Inaccessible due to truck parked on top
MW-18	11/07/12	15.49	7.21	--	8.28	
MW-18	02/27/13	15.49	6.43	--	9.06	
MW-18	04/08/13	15.49	6.39	--	9.10	
MW-18	07/29/13	15.49	7.63	--	7.86	
MW-18	10/02/13	15.49	7.39	--	8.10	
MW-18	01/21/14	15.49	7.35	--	8.14	
MW-18	04/22/14	15.49	0.20	--	15.29	
MW-18	07/15/14	15.49	7.31	--	8.18	
MW-18	03/17/15	15.49	5.62	--	9.87	
MW-18	09/28/15	15.49	7.84	--	7.65	
MW-18	03/29/16	15.49	5.06	--	10.43	
MW-18	10/11/16	15.49	8.14	--	7.35	
MW-19	02/11/02	7.16	1.63	--	5.53	
MW-19	05/20/02	7.16	4.08	Sheen	3.08	
MW-19	08/27/02	7.16	4.25	--	2.91	
MW-19	11/04/02	7.16	4.65	--	2.51	
MW-19	02/18/03	7.16	2.14	--	5.02	
MW-19	06/09/03	7.16	3.45	--	3.71	
MW-19	09/15/03	11.39	4.50	--	6.89	
MW-19	11/18/03	11.39	2.51	--	8.88	
MW-19	02/24/04	11.39	2.36	--	9.03	
MW-19	05/10/04	11.39	3.41	--	7.98	
MW-19	08/24/04	11.39	8.13	--	3.26	
MW-19	12/13/04	11.39	2.98	--	8.41	
MW-19	03/08/05	11.39	3.40	--	7.99	
MW-19	06/06/05	11.39	3.24	--	8.15	
MW-19	09/19/05	11.39	--	--	--	Not Measured-Inaccessible, under pipe stockpile
MW-19	12/12/05	11.39	--	--	--	Not Measured-Inaccessible, under pipe stockpile
MW-19	03/13/06	11.39	--	--	--	Not Measured-Inaccessible, under pipe stockpile
MW-19	06/05/06	11.39	2.91	--	8.48	
MW-19	09/11/06	11.39	4.72	--	6.67	
MW-19	12/11/06	11.39	2.00	--	9.39	
MW-19	03/26/07	11.39	2.22	--	9.17	
MW-19	06/18/07	11.39	3.56	--	7.83	
MW-19	09/24/07	11.39	4.31	--	7.08	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-19	12/10/07	11.39	2.38	--	9.01	
MW-19	03/03/08	11.39	2.98	--	8.41	
MW-19	06/02/08	11.39	3.67	--	7.72	
MW-19	09/04/08	11.39	3.98	--	7.41	
MW-19	12/04/08	11.39	3.68	--	7.71	
MW-19	03/04/09	11.39	3.03	--	8.36	
MW-19	06/01/09	11.39	3.23	--	8.16	
MW-19	09/21/09	11.39	4.23	--	7.16	
MW-19	11/16/09	11.39	2.85	--	8.54	
MW-19	03/08/10	11.39	2.25	--	9.14	
MW-19	06/07/10	11.39	2.67	--	8.72	
MW-19	09/09/10	11.39	3.97	--	7.42	
MW-19	11/15/10	11.39	2.75	--	8.64	
MW-19	03/01/11	11.39	1.82	--	9.57	
MW-19	05/23/11	11.39	2.02	--	9.37	
MW-19	08/29/11	11.39	3.77	--	7.62	
MW-19	12/01/11	11.39	3.03	--	8.36	
MW-19	03/01/12	11.39	2.82	--	8.57	
MW-19	05/30/12	11.39	2.79	--	8.60	
MW-19	08/25/12	11.39	3.62	--	7.77	
MW-19	11/07/12	11.39	2.77	--	8.62	
MW-19	02/27/13	11.39	2.18	--	9.21	
MW-19	04/08/13	11.39	1.82	--	9.57	
MW-19	06/21/13	11.39	3.05	--	8.34	Baseline monitoring event
MW-19	07/29/13	11.39	3.56	--	7.83	
MW-19	08/26/13	11.39	3.45	--	7.94	Two-month monitoring event
MW-19	10/02/13	11.39	2.72	--	8.67	
MW-19	01/21/14	11.39	3.12	--	8.27	
MW-19	04/22/14	11.39	1.81	--	9.58	
MW-19	07/15/14	11.39	3.30	--	8.09	
MW-19	03/17/15	11.39	1.11	--	10.28	
MW-19	09/28/15	11.39	3.69	--	7.70	
MW-19	03/29/16	11.39	1.18	--	10.21	
MW-19	10/11/16	11.39	3.59	--	7.80	
MW-20	02/11/02	7.37	1.73	--	5.64	
MW-20	05/20/02	7.37	4.25	--	3.12	
MW-20	08/27/02	7.37	4.31	--	3.06	
MW-20	11/04/02	7.37	4.04	--	3.33	
MW-20	02/18/03	7.37	--	--	--	Not Measured-Overflowed when well cap removed
MW-20	06/09/03	7.37	--	--	--	Not Measured-Overflowed when well cap removed
MW-20	09/15/03	11.72	--	--	--	Not Measured-Overflowed when well cap removed
MW-20	11/18/03	11.72	--	--	--	Not Measured-Overflowed when well cap removed
MW-20	02/24/04	11.72	--	--	--	Not Measured-Overflowed when well cap removed
MW-20	05/10/04	11.72	--	--	--	Not Measured-Overflowed when well cap removed
MW-20	08/24/04	11.72	4.04	--	7.68	
MW-20	12/13/04	11.72	2.29	--	9.43	
MW-20	03/08/05	11.72	3.64	--	8.08	
MW-20	06/06/05	11.72	3.43	--	8.29	
MW-20	09/19/05	11.72	4.55	--	7.17	
MW-20	12/12/05	11.72	3.67	--	8.05	
MW-20	03/13/06	11.72	2.21	--	9.51	
MW-20	06/05/06	11.72	3.00	--	8.72	
MW-20	09/11/06	11.72	4.49	--	7.23	
MW-20	12/11/06	11.72	2.36	--	9.36	
MW-20	03/26/07	11.72	2.49	--	9.23	
MW-20	06/18/07	11.72	4.44	--	7.28	
MW-20	09/24/07	11.72	4.61	--	7.11	
MW-20	12/10/07	11.72	2.56	--	9.16	
MW-20	03/03/08	11.72	2.97	--	8.75	
MW-20	06/02/08	11.72	3.90	--	7.82	
MW-20	09/04/08	11.72	4.14	--	7.58	
MW-20	12/04/08	11.72	3.89	--	7.83	
MW-20	03/04/09	11.72	4.99	--	6.73	
MW-20	06/01/09	11.72	3.46	--	8.26	
MW-20	09/21/09	11.72	4.42	--	7.30	
MW-20	11/16/09	11.72	2.91	--	8.81	
MW-20	03/08/10	11.72	2.40	--	9.32	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-20	06/07/10	11.72	2.76	--	8.96	
MW-20	09/09/10	11.72	4.22	--	7.50	
MW-20	11/15/10	11.72	3.03	--	8.69	
MW-20	03/01/11	11.72	2.18	--	9.54	
MW-20	05/23/11	11.72	2.11	--	9.61	
MW-20	08/29/11	11.72	4.05	--	7.67	
MW-20	12/01/11	11.72	3.08	--	8.64	
MW-20	03/01/12	11.72	3.09	--	8.63	
MW-20	05/30/12	11.72	2.89	--	8.83	
MW-20	08/25/12	11.72	3.88	--	7.84	
MW-20	11/07/12	11.72	2.98	--	8.74	
MW-20	02/27/13	11.72	2.60	--	9.12	
MW-20	04/08/13	11.72	2.23	--	9.49	
MW-20	07/29/13	11.72	4.93	--	6.79	
MW-20	10/02/13	11.72	4.64	--	7.08	
MW-20	01/21/14	11.72	3.44	--	8.28	
MW-20	04/22/14	11.72	2.33	--	9.39	
MW-20	07/15/14	11.72	3.51	--	8.21	
MW-20	03/17/15	11.72	1.49	--	10.23	
MW-20	09/28/15	11.72	3.95	--	7.77	
MW-20	03/29/16	11.72	1.65	--	10.07	
MW-20	10/11/16	11.72	3.87	--	7.85	
MW-21	02/11/02	10.53	3.80	0.46	7.10	
MW-21	05/20/02	10.53	5.98	0.43	4.89	
MW-21	08/27/02	10.53	3.95	0.43	6.92	
MW-21	11/04/02	10.53	4.95	0.01	5.59	Product recovery pump in well
MW-21	02/18/03	10.53	3.59	0.01	6.95	Product recovery pump in well
MW-21	06/09/03	10.53	3.53	Sheen	7.00	Product recovery pump in well
MW-21	09/15/03	9.41	3.98	0.01	5.44	Product recovery pump in well
MW-21	11/18/03	9.41	3.08	Sheen	6.33	Product recovery pump in well
MW-21	02/24/04	9.41	2.47	Sheen	6.94	Product recovery pump in well
MW-21	05/10/04	9.41	3.65	Sheen	5.76	Product recovery pump in well
MW-21	08/24/04	9.41	3.81	Sheen	5.60	Product recovery pump in well
MW-21	12/13/04	9.41	3.24	Sheen	6.17	
MW-21	03/08/05	9.41	3.72	--	5.69	
MW-21	06/06/05	9.41	3.58	Sheen	5.83	
MW-21	09/19/05	9.41	4.19	--	5.22	
MW-21	12/12/05	9.41	4.04	--	5.37	
MW-21	03/13/06	9.41	2.48	--	6.93	
MW-21	06/05/06	9.41	3.27	--	6.14	
MW-21	09/11/06	9.41	3.90	0.08	5.57	
MW-21	12/11/06	9.41	2.34	0.04	7.10	
MW-21	03/26/07	9.41	2.87	--	6.54	
MW-21	06/18/07	9.41	3.75	--	5.66	
MW-21	09/24/07	9.41	3.81	Sheen	5.60	
MW-21	12/10/07	9.41	2.14	--	7.27	
MW-21	03/03/08	9.41	3.18	--	6.23	
MW-21	06/02/08	9.41	3.63	Sheen	5.78	
MW-21	09/04/08	9.41	3.60	--	5.81	
MW-21	12/04/08	9.41	3.48	Sheen	5.93	
MW-21	03/04/09	9.41	2.84	Sheen	6.57	
MW-21	06/01/09	9.41	3.34	--	6.07	
MW-21	09/21/09	9.41	3.74	Sheen	5.67	
MW-21	11/16/09	9.41	2.59	--	6.82	
MW-21	03/08/10	9.41	2.23	--	7.18	
MW-21	06/07/10	9.41	--	--	--	Not Measured
MW-21	09/09/10	9.41	3.66	--	5.75	
MW-21	11/15/10	9.41	2.79	--	6.62	
MW-21	03/01/11	9.41	2.21	--	7.20	
MW-21	05/23/11	9.41	2.47	--	6.94	
MW-21	08/29/11	9.41	3.53	--	5.88	
MW-21	12/01/11	9.41	2.77	Sheen	6.64	
MW-21	03/01/12	9.41	2.27	Sheen	7.14	
MW-21	05/30/12	9.41	2.86	--	6.55	
MW-21	08/25/12	9.41	3.20	--	6.21	
MW-21	11/07/12	9.41	2.53	--	6.88	
MW-21	02/27/13	9.41	2.61	--	6.80	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-21	04/08/13	9.41	1.99	--	7.42	
MW-21	07/29/13	9.41	3.31	--	6.10	
MW-21	10/02/13	9.41	2.49	--	6.92	
MW-21	01/21/14	9.41	3.02	--	6.39	
MW-21	04/22/14	9.41	2.37	--	7.04	
MW-21	07/15/14	9.41	3.12	--	6.29	
MW-21	03/17/15	9.41	1.74	--	7.67	
MW-21	09/28/15	9.41	3.23	--	6.18	
MW-21	03/29/16	9.41	1.62	--	7.79	
MW-21	10/11/16	9.41	3.00	--	6.41	
MW-22	02/11/02	12.39	7.18	--	5.21	
MW-22	05/20/02	12.39	9.44	--	2.95	
MW-22	08/27/02	12.39	9.55	--	2.84	
MW-22	11/04/02	12.39	9.91	--	2.48	
MW-22	02/18/03	12.39	7.75	--	4.64	
MW-22	06/09/03	12.39	8.71	--	3.68	
MW-22	09/15/03	16.32	9.75	--	6.57	
MW-22	11/18/03	16.32	8.55	--	7.77	
MW-22	02/24/04	16.32	7.56	--	8.76	
MW-22	05/10/04	16.32	8.76	--	7.56	
MW-22	08/24/04	16.32	9.25	--	7.07	
MW-22	12/13/04	16.32	8.70	--	7.62	
MW-22	03/08/05	16.32	8.72	--	7.60	
MW-22	06/06/05	16.32	8.58	--	7.74	
MW-22	09/19/05	16.32	9.61	--	6.71	
MW-22	12/12/05	16.32	8.90	--	7.42	
MW-22	03/13/06	16.32	4.37	--	11.95	
MW-22	06/05/06	16.32	8.31	--	8.01	
MW-22	09/11/06	16.32	9.54	--	6.78	
MW-22	12/11/06	16.32	7.44	--	8.88	
MW-22	03/26/07	16.32	7.68	--	8.64	
MW-22	06/18/07	16.32	8.78	--	7.54	
MW-22	09/24/07	16.32	9.55	--	6.77	
MW-22	12/10/07	16.32	7.84	--	8.48	
MW-22	03/03/08	16.32	8.12	--	8.20	
MW-22	06/02/08	16.32	8.85	--	7.47	
MW-22	09/04/08	16.32	9.22	--	7.10	
MW-22	12/04/08	16.32	9.00	--	7.32	
MW-22	03/04/09	16.32	8.43	--	7.89	
MW-22	06/01/09	16.32	8.56	--	7.76	
MW-22	09/21/09	16.32	9.51	--	6.81	
MW-22	11/16/09	16.32	8.31	--	8.01	
MW-22	03/08/10	16.32	7.40	--	8.92	
MW-22	06/07/10	16.32	8.00	--	8.32	
MW-22	09/09/10	16.32	9.22	--	7.10	
MW-22	11/15/10	16.32	8.20	--	8.12	
MW-22	03/01/11	16.32	7.18	--	9.14	
MW-22	05/23/11	16.32	7.35	--	8.97	
MW-22	08/29/11	16.32	9.01	--	7.31	
MW-22	12/01/11	16.32	8.48	--	7.84	
MW-22	03/01/12	16.32	7.98	--	8.34	
MW-22	05/30/12	16.32	7.92	--	8.40	
MW-22	08/25/12	16.32	8.79	--	7.53	
MW-22	11/07/12	16.32	8.24	--	8.08	
MW-22	02/27/13	16.32	7.42	--	8.90	
MW-22	04/08/13	16.32	7.28	--	9.04	
MW-22	07/29/13	16.32	8.59	--	7.73	
MW-22	10/02/13	16.32	8.29	--	8.03	
MW-22	01/21/14	16.32	8.39	--	7.93	
MW-22	04/22/14	16.32	7.22	--	9.10	
MW-22	07/15/14	16.32	8.45	--	7.87	
MW-22	03/17/15	16.32	6.65	--	9.67	
MW-22	09/28/15	16.32	8.88	--	7.44	
MW-22	03/29/16	16.32	6.41	--	9.91	
MW-22	10/12/16	16.32	9.04	--	7.28	Re-gauged on 10/12/16
MW-23	11/18/03	14.15	7.66	Sheen	6.49	
MW-23	02/24/04	14.15	7.18	Sheen	6.97	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-23	05/10/04	14.15	7.89	<0.01	6.26	
MW-23	08/24/04	14.15	8.89	--	5.26	
MW-23	12/13/04	14.15	7.49	Sheen	6.66	
MW-23	03/08/05	14.15	7.57	Sheen	6.58	
MW-23	06/06/05	14.15	7.72	Sheen	6.43	
MW-23	09/19/05	14.15	8.17	0.17	6.12	
MW-23	10/12/05	14.15	8.10	Sheen	6.05	
MW-23	12/12/05	14.15	7.93	--	6.22	
MW-23	03/13/06	14.15	7.17	--	6.98	
MW-23	06/05/06	14.15	7.62	--	6.53	
MW-23	09/11/06	14.15	8.22	0.02	5.95	
MW-23	12/11/06	14.15	7.17	--	6.98	
MW-23	03/26/07	14.15	7.41	--	6.74	
MW-23	06/18/07	14.15	7.90	--	6.25	
MW-23	09/25/07	14.15	8.14	Sheen	6.01	
MW-23	12/10/07	14.15	7.38	Sheen	6.77	
MW-23	03/03/08	14.15	7.49	Sheen	6.66	
MW-23	06/02/08	14.15	8.71	Sheen	5.44	
MW-23	09/04/08	14.15	8.04	--	6.11	
MW-23	12/04/08	14.15	8.05	--	6.10	
MW-23	03/04/09	14.15	7.48	--	6.67	
MW-23	06/01/09	14.15	7.98	--	6.17	
MW-23	09/21/09	14.15	8.13	--	6.02	
MW-23	11/16/09	14.15	7.50	Sheen	6.65	
MW-23	03/08/10	14.15	7.01	--	7.14	
MW-23	06/07/10	14.15	7.49	Sheen	6.66	
MW-23	09/09/10	14.15	8.02	Sheen	6.13	
MW-23	11/15/10	14.15	7.60	--	6.55	
MW-23	03/01/11	14.15	7.26	Sheen	6.89	
MW-23	05/23/11	14.15	7.38	Sheen	6.77	
MW-23	08/29/11	14.15	7.91	Sheen	6.24	
MW-23	12/01/11	14.15	7.58	--	6.57	
MW-23	03/01/12	14.15	7.35	--	6.80	
MW-23	05/30/12	14.15	7.29	--	6.86	
MW-23	08/25/12	14.15	7.41	--	6.74	
MW-23	11/07/12	14.15	7.19	--	6.96	
MW-23	02/27/13	14.15	7.23	--	6.92	
MW-23	04/08/13	14.15	7.15	--	7.00	
MW-23	07/29/13	14.15	7.47	--	6.68	
MW-23	10/02/13	14.15	7.34	--	6.81	
MW-23	01/21/14	14.15	7.72	--	6.43	
MW-23	04/22/14	14.15	7.25	--	6.90	
MW-23	07/15/14	14.15	7.60	--	6.55	
MW-23	03/17/15	14.15	7.11	--	7.04	
MW-23	09/29/15	14.15	7.65	--	6.50	
MW-23	03/29/16	14.15	6.69	--	7.46	
MW-23	10/11/16	14.15	7.88	--	6.27	
MW-24	11/18/03	14.34	7.65	Sheen	6.69	
MW-24	02/24/04	14.34	7.07	Sheen	7.27	
MW-24	05/10/04	14.34	7.73	0.02	6.63	
MW-24	08/24/04	14.34	7.90	0.10	6.52	
MW-24	12/13/04	14.34	7.47	Sheen	6.87	
MW-24	03/08/05	14.34	7.57	Sheen	6.77	
MW-24	06/06/05	14.34	7.24	0.02	7.12	
MW-24	09/19/05	14.34	8.39	0.29	6.18	
MW-24	10/12/05	14.34	8.45	0.47	6.27	
MW-24	12/12/05	14.34	8.01	0.11	6.42	
MW-24	03/13/06	14.34	7.19	--	7.15	
MW-24	06/05/06	14.34	7.59	--	6.75	
MW-24	09/11/06	14.34	8.31	0.20	6.19	
MW-24	12/11/06	14.34	7.37	--	6.97	
MW-24	03/26/07	14.34	7.42	--	6.92	
MW-24	06/18/07	14.34	7.89	--	6.45	
MW-24	09/25/07	14.34	8.00	Sheen	6.34	
MW-24	12/10/07	14.34	7.42	--	6.92	
MW-24	03/03/08	14.34	7.51	Sheen	6.83	
MW-24	06/02/08	14.34	8.92	--	5.42	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-24	09/04/08	14.34	7.99	--	6.35	
MW-24	12/04/08	14.34	7.96	--	6.38	
MW-24	03/04/09	14.34	7.51	--	6.83	
MW-24	06/01/09	14.34	7.87	Sheen	6.47	
MW-24	09/21/09	14.34	8.09	--	6.25	
MW-24	11/16/09	14.34	7.46	Sheen	6.88	
MW-24	03/08/10	14.34	7.03	--	7.31	
MW-24	06/07/10	14.34	7.51	Sheen	6.83	
MW-24	09/09/10	14.34	8.01	Sheen	6.33	
MW-24	11/15/10	14.34	7.61	Sheen	6.73	
MW-24	03/01/11	14.34	7.26	Sheen	7.08	
MW-24	05/23/11	14.34	7.37	--	6.97	
MW-24	08/29/11	14.34	7.92	Sheen	6.42	
MW-24	12/01/11	14.34	7.73	--	6.61	
MW-24	03/01/12	14.34	7.39	--	6.95	
MW-24	05/30/12	14.34	7.41	--	6.93	
MW-24	08/25/12	14.34	7.59	--	6.75	
MW-24	11/07/12	14.34	7.26	--	7.08	
MW-24	02/27/13	14.34	7.34	--	7.00	
MW-24	04/08/13	14.34	7.27	--	7.07	
MW-24	07/29/13	14.34	7.58	--	6.76	
MW-24	10/02/13	14.34	7.34	--	7.00	
MW-24	01/21/14	14.34	7.66	--	6.68	
MW-24	04/22/14	14.34	7.20	--	7.14	
MW-24	07/15/14	14.34	7.59	--	6.75	
MW-24	03/17/15	14.34	7.06	--	7.28	
MW-24	09/29/15	14.34	7.65	--	6.69	
MW-24	03/29/16	14.34	6.61	--	7.73	
MW-24	10/11/16	14.34	7.91	--	6.43	
MW-25	11/18/03	13.05	7.50	Sheen	5.55	
MW-25	02/24/04	13.05	6.48	Sheen	6.57	
MW-25	05/10/04	13.05	7.61	--	5.44	
MW-25	08/24/04	13.05	7.11	--	5.94	
MW-25	12/13/04	13.05	7.49	--	5.56	
MW-25	03/08/05	13.05	7.61	--	5.44	
MW-25	06/06/05	13.05	7.47	--	5.58	
MW-25	09/19/05	13.05	7.93	--	5.12	
MW-25	12/12/05	13.05	7.71	--	5.34	
MW-25	03/13/06	13.05	7.02	--	6.03	
MW-25	06/05/06	13.05	7.38	--	5.67	
MW-25	09/11/06	13.05	7.88	--	5.17	
MW-25	12/11/06	13.05	7.03	--	6.02	
MW-25	06/18/07	13.05	6.77	--	6.28	
MW-25	03/03/08	13.05	7.28	--	5.77	
MW-25	06/02/08	13.05	7.71	--	5.34	
MW-25	09/04/08	13.05	7.33	--	5.72	
MW-25	12/04/08	13.05	--	--	--	Not Measured
MW-25	06/01/09	13.05	7.60	--	5.45	
MW-25	06/07/10	13.05	7.31	--	5.74	
MW-25	05/23/11	13.05	7.13	--	5.92	
MW-25	04/22/14	13.05	7.09	--	5.96	
MW-25	03/17/15	13.05	6.92	--	6.13	
MW-25	09/29/15	13.05	7.49	--	5.56	
MW-25	03/29/16	13.05	6.38	--	6.67	
MW-25	10/11/16	13.05	7.65	--	5.40	
E-1	02/11/02	9.04	3.65	--	5.39	
E-1	05/20/02	9.04	4.59	--	4.45	
E-1	08/27/02	9.04	--	--	--	Not Measured-Dry
E-1	11/04/02	--	--	--	--	Not Measured-Dry/Damaged
E-1	06/11/03	--	--	--	--	Not Measured-Damaged
E-1	05/30/12	13.05	7.12	--	5.93	
E-1						Abandoned
SF-01	12/18/00	--	--	--	--	
SF-01						Abandoned
SF-01R	02/11/02	10.68	7.11	--	3.57	
SF-01R	05/20/02	10.68	9.07	Sheen	1.61	
SF-01R	08/27/02	10.68	8.44	0.01	2.25	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
SF-01R	11/04/02	10.68	9.63	--	1.05	
SF-01R	02/18/03	10.68	7.72	--	2.96	
SF-01R	06/09/03	10.68	8.30	--	2.38	
SF-01R	09/15/03	14.74	8.60	--	6.14	
SF-01R	11/18/03	14.74	7.45	--	7.29	
SF-01R	02/24/04	14.74	7.76	--	6.98	
SF-01R	05/10/04	14.74	8.11	--	6.63	
SF-01R	08/24/04	14.74	8.49	--	6.25	
SF-01R	12/13/04	14.74	--	--	--	Inaccessible, under construction trailer
SF-01R	03/08/05	14.74	8.16	--	6.58	
SF-01R	06/06/05	14.74	8.16	--	6.58	
SF-01R	09/19/05	14.74	--	--	--	Inaccessible, under construction trailer
SF-01R	12/12/05	14.74	8.39	--	6.35	
SF-01R	03/13/06	14.74	7.70	--	7.04	
SF-01R	06/05/06	14.74	8.09	--	6.65	
SF-01R	09/11/06	14.74	8.60	--	6.14	
SF-01R	12/11/06	14.74	7.73	--	7.01	
SH-02	02/11/02					Destroyed during construction activities
SH-02R	02/11/02	9.35	5.45	--	3.90	
SH-02R	05/20/02	9.35	6.49	--	2.86	
SH-02R	08/27/02	9.35	6.27	--	3.08	
SH-02R	11/04/02	9.35	6.62	--	2.73	
SH-02R	02/18/03	9.35	4.85	--	4.50	
SH-02R	06/09/03	9.35	4.75	--	4.60	
SH-02R	09/15/03	13.40	6.50	--	6.90	
SH-02R	11/18/03	13.40	6.03	--	7.37	
SH-02R	02/24/04	13.40	4.62	--	8.78	
SH-02R	05/10/04	13.40	5.88	--	7.52	
SH-02R	08/24/04	13.40	6.21	--	7.19	
SH-02R	12/13/04	13.40	5.14	--	8.26	
SH-02R	03/08/05	13.40	5.90	--	7.50	
SH-02R	06/06/05	13.40	5.72	--	7.68	
SH-02R	09/19/05	13.40	6.56	--	6.84	
SH-02R	12/12/05	13.40	5.94	--	7.46	
SH-02R	03/13/06	13.40	4.80	--	8.60	
SH-02R	06/05/06	13.40	5.41	--	7.99	
SH-02R	09/11/06	13.40	6.54	--	6.86	
SH-02R	12/11/06	13.40	4.82	--	8.58	
SH-02R	03/26/07	13.40	4.98	--	8.42	
SH-02R	06/18/07	13.40	5.94	--	7.46	
SH-02R	09/25/07	13.40	6.54	--	6.86	
SH-02R	12/10/07	13.40	5.13	--	8.27	
SH-02R	03/03/08	13.40	5.45	--	7.95	
SH-02R	06/02/08	13.40	6.10	--	7.30	
SH-02R	09/04/08	13.40	6.19	--	7.21	
SH-02R	12/04/08	13.40	6.08	--	7.32	
SH-02R	03/04/09	13.40	5.63	--	7.77	
SH-02R	06/01/09	13.40	5.79	--	7.61	
SH-02R	09/21/09	13.40	6.49	--	6.91	
SH-02R	11/16/09	13.40	5.37	--	8.03	
SH-02R	03/08/10	13.40	4.88	--	8.52	
SH-02R	06/07/10	13.40	5.25	--	8.15	
SH-02R	09/09/10	13.40	6.31	--	7.09	
SH-02R	11/15/10	13.40	5.42	--	7.98	
SH-02R	03/01/11	13.40	4.71	--	8.69	
SH-02R	05/23/11	13.40	4.78	--	8.62	
SH-02R	08/29/11	13.40	6.16	--	7.24	
SH-02R	12/01/11	13.40	5.50	--	7.90	
SH-02R	03/01/12	13.40	5.34	--	8.06	
SH-02R	05/30/12	13.40	5.32	--	8.08	
SH-02R	08/25/12	13.40	6.03	--	7.37	
SH-02R	11/07/12	13.40	5.37	--	8.03	
SH-02R	02/27/13	13.40	5.01	--	8.39	
SH-02R	04/08/13	13.40	4.77	--	8.63	
SH-02R	07/29/13	13.40	5.98	--	7.42	
SH-02R	10/02/13	13.40	5.54	--	7.86	
SH-02R	01/21/14	13.40	5.76	--	7.64	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
SH-02R	04/22/14	13.40	4.76	--	8.64	
SH-02R	07/15/14	13.40	5.78	--	7.62	
SH-02R	03/17/15	13.40	4.43	--	8.97	
SH-02R	09/28/15	13.40	6.00	--	7.40	
SH-02R	03/29/16	13.40	3.96	--	9.44	
SH-02R	10/11/16	13.40	6.11	--	7.29	
SH-04	02/11/02	13.45	9.40	--	4.05	
SH-04	05/20/02	13.45	11.24	--	2.21	
SH-04	08/27/02	13.45	11.02	--	2.43	
SH-04	11/04/02	13.45	9.31	--	4.14	
SH-04	02/18/03	13.45	9.80	--	3.65	
SH-04	06/09/03	13.45	10.41	--	3.04	
SH-04	09/15/03	17.41	11.15	--	6.26	
SH-04	11/18/03	17.41	7.61	--	9.80	
SH-04	02/24/04	17.41	6.62	--	10.79	
SH-04	05/10/04	17.41	11.40	--	6.01	
SH-04	08/24/04	17.41	10.88	--	6.53	
SH-04	12/13/04	17.41	10.68	--	6.73	
SH-04	03/08/05	17.41	10.33	--	7.08	
SH-04	06/06/05	17.41	10.23	--	7.18	
SH-04	09/19/05	17.41	11.03	--	6.38	
SH-04	12/12/05	17.41	10.53	--	6.88	
SH-04	03/13/06	17.41	9.22	--	8.19	
SH-04	06/05/06	17.41	10.05	--	7.36	
SH-04	09/11/06	17.41	11.00	--	6.41	
SH-04	12/11/06	17.41	9.50	--	7.91	
SH-05	10/27/93	8.77	6.66	--	2.11	
SH-05	01/19/94	8.77	5.92	--	2.85	
SH-05	06/07/94	8.77	6.30	--	2.47	
SH-05	08/17/94	8.77	6.58	--	2.19	
SH-05	11/21/94	8.77	6.03	--	2.74	
SH-05	03/07/96	8.77	4.67	--	4.10	
SH-05	01/13/97	8.77	3.84	--	4.93	
SH-05	10/06/00	8.77	5.23	--	3.54	
SH-05	12/18/00	8.77	5.80	--	2.97	
SH-05	03/27/01					Destroyed during construction activities
SH-05R	05/20/02	9.83	8.07	Sheen	1.76	
SH-05R	08/27/02	9.83	7.59	--	2.24	
SH-05R	11/04/02	9.83	7.81	Sheen	2.02	
SH-05R	02/18/03	9.83	7.60	--	2.23	
SH-05R	06/09/03	9.83	7.29	--	2.54	
SH-05R	09/15/03	13.89	7.42	Sheen	6.47	
SH-05R	11/18/03	13.89	7.21	Sheen	6.68	
SH-05R	02/24/04	13.89	6.41	--	7.48	
SH-05R	05/10/04	13.89	7.33	--	6.56	
SH-05R	08/24/04	13.89	7.60	--	6.29	
SH-05R	12/13/04	13.89	7.15	--	6.74	
SH-05R	03/08/05	13.89	7.62	--	6.27	
SH-05R	06/06/05	13.89	7.24	--	6.65	
SH-05R	09/19/05	13.89	7.80	--	6.09	
SH-05R	12/12/05	13.89	7.49	--	6.40	
SH-05R	03/13/06	13.89	6.38	--	7.51	
SH-05R	06/05/06	13.89	7.10	--	6.79	
SH-05R	09/11/06	13.89	7.72	--	6.17	
SH-05R	12/11/06	13.89	6.61	--	7.28	
SH-05R	03/26/07	13.89	6.82	--	7.07	
SH-05R	06/18/07	13.89	7.43	--	6.46	
SH-05R	09/25/07	13.89	7.72	--	6.17	
SH-05R	12/10/07	13.89	6.70	--	7.19	
SH-05R	03/03/08	13.89	7.01	--	6.88	
SH-05R	06/02/08	13.89	7.50	--	6.39	
SH-05R	09/04/08	13.89	7.55	--	6.34	
SH-05R	12/04/08	13.89	7.12	--	6.77	
SH-05R	03/04/09	13.89	7.02	--	6.87	
SH-05R	06/01/09	13.89	7.36	--	6.53	
SH-05R	09/21/09	13.89	7.73	--	6.16	
SH-05R	11/16/09	13.89	6.93	--	6.96	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
SH-05R	03/08/10	13.89	6.47	--	7.42	
SH-05R	06/07/10	13.89	6.63	--	7.26	
SH-05R	09/09/10	13.89	7.58	--	6.31	
SH-05R	11/16/10	13.89	7.04	--	6.85	
SH-05R	03/01/11	13.89	6.58	--	7.31	
SH-05R	05/23/11	13.89	6.74	--	7.15	
SH-05R	08/29/11	13.89	7.52	--	6.37	
SH-05R	12/01/11	13.89	7.09	--	6.80	
SH-05R	03/01/12	13.89	6.89	--	7.00	
SH-05R	05/30/12	13.89	6.91	--	6.98	
SH-05R	08/25/12	13.89	7.29	--	6.60	
SH-05R	11/07/12	13.89	6.79	--	7.10	
SH-05R	02/27/13	13.89	6.77	--	7.12	
SH-05R	04/08/13	13.89	5.59	--	8.30	
SH-05R	07/29/13	13.89	7.25	--	6.64	
SH-05R	10/02/13	13.89	6.82	--	7.07	
SH-05R	01/21/14	13.89	7.18	--	6.71	
SH-05R	04/22/14	13.89	6.59	--	7.30	
SH-05R	07/15/14	13.89	7.17	--	6.72	
SH-05R	03/17/15	13.89	6.30	--	7.59	
SH-05R	09/28/15	13.89	7.23	--	6.66	
SH-05R	03/29/16	13.89	--	--	--	Inaccessible
SH-05R	10/11/16	13.89	7.38	--	6.51	
MW-07	01/13/97	7.66	--	--	--	
MW-07						Destroyed during construction activities
MW-07R	02/11/02	9.93	4.95	--	4.98	
MW-07R	05/20/02	9.93	7.29	--	2.64	
MW-07R	08/27/02	9.93	7.17	--	2.76	
MW-07R	11/04/02	9.93	7.53	--	2.40	
MW-07R	02/18/03	--	--	--	--	Not Measured-Inaccessible; covered with asphalt
MW-07R	06/09/03	--	--	--	--	Not Measured-Inaccessible; covered with asphalt
MW-07R	06/11/03	--	--	--	--	Not Measured-Located & cleaned out
MW-07R	09/15/03	13.92	8.40	--	5.52	
MW-07R	11/18/03	13.92	8.17	--	5.75	
MW-07R	02/24/04	13.92	5.64	--	8.28	
MW-07R	05/10/04	13.92	6.70	--	7.22	
MW-07R	08/24/04	13.92	6.95	--	6.97	
MW-07R	12/13/04	13.92	6.43	--	7.49	
MW-07R	03/08/05	13.92	6.67	--	7.25	
MW-07R	06/06/05	13.92	6.48	--	7.44	
MW-07R	09/19/05	13.92	7.35	--	6.57	
MW-07R	12/12/05	13.92	6.71	--	7.21	
MW-07R	03/13/06	13.92	5.59	--	8.33	
MW-07R	06/05/06	13.92	7.20	--	6.72	
MW-07R	09/11/06	13.92	7.30	--	6.62	
MW-07R	12/11/06	13.92	5.50	--	8.42	
MW-07R	03/26/07	13.92	5.84	--	8.08	
MW-07R	06/18/07	13.92	6.80	--	7.12	
MW-07R	09/25/07	13.92	7.27	--	6.65	
MW-07R	12/10/07	13.92	5.60	--	8.32	
MW-07R	03/03/08	13.92	6.20	--	7.72	
MW-07R	06/02/08	13.92	6.88	--	7.04	
MW-07R	09/04/08	13.92	6.94	--	6.98	
MW-07R	12/04/08	13.92	7.84	--	6.08	
MW-07R	03/04/09	13.92	6.30	--	7.62	
MW-07R	06/01/09	13.92	6.57	--	7.35	
MW-07R	09/21/09	13.92	7.24	--	6.68	
MW-07R	11/16/09	13.92	6.04	--	7.88	
MW-07R	03/08/10	13.92	5.63	--	8.29	
MW-07R	06/07/10	13.92	6.04	--	7.88	
MW-07R	09/09/10	13.92	7.05	--	6.87	
MW-07R	11/15/10	13.92	6.11	--	7.81	
MW-07R	03/01/11	13.92	5.43	--	8.49	
MW-07R	05/23/11	13.92	5.66	--	8.26	
MW-07R	08/29/11	13.92	6.97	--	6.95	
MW-07R	12/01/11	13.92	6.24	--	7.68	
MW-07R	03/01/12	13.92	6.10	--	7.82	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
MW-07R	05/30/12	13.92	6.12	--	7.80	
MW-07R	08/25/12	13.92	--	--	--	Not Measured
MW-07R	11/07/12	13.92	6.02	--	7.90	
MW-07R	02/27/13	13.92	5.84	--	8.08	
MW-07R	04/08/13	13.92	5.49	--	8.43	
MW-07R	07/29/13	13.92	6.70	--	7.22	
MW-07R	10/02/13	13.92	6.06	--	7.86	
MW-07R	01/21/14	13.92	6.49	--	7.43	
MW-07R	04/22/14	13.92	5.56	--	8.36	
MW-07R	07/15/14	13.92	6.60	--	7.32	
MW-07R	03/17/15	13.92	5.06	--	8.86	
MW-07R	09/28/15	13.92	6.73	--	7.19	
MW-07R	03/29/16	13.92	4.75	--	9.17	
MW-07R	10/11/16	13.92	6.86	--	7.06	
TMW-B1	09/09/10	--	--	--	--	Not Measured-SPH recovery unit in well
TMW-B1	05/23/11	--	7.37	--	--	Not Measured-SPH recovery unit in well
TMW-B1	12/01/11	--	8.17	--	--	Not Measured-SPH recovery unit in well
TMW-B1	03/01/12	--	7.75	--	--	Not Measured-SPH recovery unit in well
TMW-B1	08/25/12	--	8.37	--	--	Not Measured
TMW-B1	07/29/13	--	7.80	--	--	
TMW-B1	10/02/13	--	7.47	--	--	
TMW-B1	01/21/14	--	7.78	--	--	
TMW-B1	04/22/14	--	6.99	--	--	
TMW-B1	07/15/14	--	--	--	--	See SW/KH notes
TMW-B1	03/17/15	--	6.57	--	--	
TMW-B1	09/28/15	--	8.26	--	--	
TMW-B1	03/29/16	--	6.12	--	--	
TMW-B1	10/11/16	--	8.49	--	--	
TMW-1	06/21/13	--	3.44	--	--	Baseline monitoring event
TMW-1	07/29/13	--	3.72	--	--	
TMW-1	08/26/13	--	3.74	--	--	Two-month monitoring event
TMW-1	10/02/13	--	2.97	--	--	
TMW-1	01/21/14	--	3.48	--	--	
TMW-1	04/22/14	--	2.09	--	--	
TMW-1	07/15/14	--	--	--	--	Not done due to no TOC elev datum
TMW-1	03/17/15	--	1.65	--	--	
TMW-1	09/29/15	--	4.06	--	--	
TMW-1	03/29/16	--	1.69	--	--	
TMW-1	10/11/16	--	3.95	--	--	
TMW-2	06/21/13	--	3.83	--	--	Baseline monitoring event
TMW-2	07/29/13	--	3.94	--	--	
TMW-2	08/26/13	--	3.91	--	--	Two-month monitoring event
TMW-2	10/02/13	--	3.15	--	--	
TMW-2	01/21/14	--	3.63	--	--	
TMW-2	04/22/14	--	2.36	--	--	
TMW-2	07/15/14	--	--	--	--	Not done due to no TOC elev datum
TMW-2	03/17/15	--	1.68	--	--	
TMW-2	10/01/15	--	4.16	--	--	
TMW-2	03/29/16	--	1.84	--	--	
TMW-2	10/11/16	--	4.01	--	--	
TMW-3	06/21/13	--	3.81	--	--	Baseline monitoring event
TMW-3	07/29/13	--	3.91	--	--	
TMW-3	08/26/13	--	3.88	--	--	Two-month monitoring event
TMW-3	10/02/13	--	3.14	--	--	
TMW-3	01/21/14	--	3.76	--	--	
TMW-3	04/22/14	--	2.41	--	--	
TMW-3	07/15/14	--	--	--	--	Not done due to no TOC elev datum
TMW-3	03/17/15	--	1.67	--	--	
TMW-3	09/30/15	--	4.21	--	--	
TMW-3	03/29/16	--	2.20	--	--	
TMW-3	10/11/16	--	4.02	--	--	
TMW-4	06/21/13	--	3.50	--	--	Baseline monitoring event
TMW-4	07/29/13	--	3.75	--	--	
TMW-4	08/26/13	--	3.80	--	--	Two-month monitoring event
TMW-4	10/02/13	--	2.99	--	--	
TMW-4	01/21/14	--	3.45	--	--	
TMW-4	04/22/14	--	2.20	--	--	

Table 2
Groundwater Elevation Data
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Measured	Casing Elevation ¹ feet	Depth to Groundwater feet BTOC	Separate Phase Hydrocarbons feet	Groundwater Elevation ² feet AMSL	Comments
TMW-4	07/15/14	--	--	--	--	Not done due to no TOC elev datum
TMW-4	03/17/15	--	1.3	--	--	
TMW-4	09/30/15	--	3.89	--	--	
TMW-4	03/29/16	--	1.22	--	--	
TMW-4	10/11/16	--	3.71	--	--	
TMW-5	06/21/13	--	3.24	--	--	Baseline monitoring event
TMW-5	07/29/13	--	3.31	--	--	
TMW-5	08/26/13	--	3.39	--	--	Two-month monitoring event
TMW-5	10/02/13	--	2.80	--	--	
TMW-5	01/21/14	--	3.22	--	--	
TMW-5	04/22/14	--	2.42	--	--	
TMW-5	07/15/14	--	--	--	--	Not done due to no TOC elev datum
TMW-5	03/17/15	--	1.84	--	--	
TMW-5	09/30/15	--	3.71	--	--	
TMW-5	03/29/16	--	1.57	--	--	
TMW-5	10/11/16	--	3.76	--	--	
TMW-6	06/21/13	--	2.93	--	--	Baseline monitoring event
TMW-6	07/29/13	--	2.91	--	--	
TMW-6	08/26/13	--	2.92	--	--	Two-month monitoring event
TMW-6	10/02/13	--	2.12	--	--	
TMW-6	01/21/14	--	2.74	--	--	
TMW-6	04/22/14	--	1.72	--	--	
TMW-6	07/15/14	--	--	--	--	Not done due to no TOC elev datum
TMW-6	03/17/15	--	1.48	--	--	
TMW-6	09/30/15	--	3.21	--	--	
TMW-6	03/29/16	--	1.00	--	--	
TMW-6	10/11/16	--	3.12	--	--	

Notes:

Highlighted = data from most recent monitoring event

-- = not measured/not applicable

BTOC = below top of casing (TOC); depth to groundwater measured from TOC

AMSL = above mean sea level

AMSL = above mean sea level

SPH = separate phase hydrocarbons

Wells MW-10D and MW-11D were deep wells, screened from 30 to 35 feet below grade

* Well MW-9

1. Prior to the September 2003 monitoring event, TOC elevations were relative to National Geodetic Vertical Datum (N.G.V.D.) 1929 TIDAL 2 (survey benchmark elev=10.617). All TOC elevations were resurveyed in July 2003, relative to North American Vertical Datum (N.A.V.D.) 1988 with modified benchmark elevations to account for shifts from February 2001 earthquake.

2. Groundwater elevation corrected for separate phase hydrocarbon thickness using the specific gravity of diesel (0.8), when present.

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-5	02/14/02	<0.25	2.3	--	<0.5	--	0.00055	0.0017	<0.0005	<0.0005	--	--	
A-5	05/22/02	<0.25	2.0	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-5	08/29/02	<0.25	1.2	--	<0.5	--	0.0017	0.00062	<0.0005	0.00099	--	--	
A-5	11/06/02	<0.25	1.2	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-5	02/20/03	<0.25	<0.25	--	<0.5	--	0.00086	0.0019	<0.0005	0.001	--	--	
A-5	06/10/03	0.26	0.40	--	<0.25	--	<0.0005	0.00067	<0.0005	0.0007	--	--	
A-5	09/17/03	<0.25	0.60	--	<0.50	--	0.0042	<0.0005	<0.0005	<0.0005	--	--	
A-5	11/20/03	<0.25	0.53	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-5	02/26/04	<0.25	3.3	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-5	05/12/04	0.27	0.43	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00057	--	--	
A-5	08/25/04	<0.25	1.1	--	<0.50	--	0.0029	<0.0005	<0.0005	<0.0005	--	--	
A-5	12/14/04	<0.25	0.43	--	<0.50	--	0.021	<0.001	<0.001	<0.001	--	--	
A-5	03/10/05	0.43	5.2	--	<0.50	--	0.12	0.0025	<0.001	0.0012	--	--	
A-5	06/07/05	0.54	2.4	--	1.7	--	0.12	0.0028	<0.001	0.0013	--	--	
A-5	09/20/05	0.37	1.2	--	<0.50	--	0.037	0.0017	<0.001	0.0011	--	--	
A-5	12/13/05	0.44	0.31	--	<0.50	--	0.049	0.0021	<0.0005	0.0013	--	--	
A-5	03/15/06	0.36	0.45	--	<0.50	--	0.052	0.0017	<0.001	0.0017	--	--	
A-5	06/08/06	0.91	0.55	--	<0.50	--	0.099	0.0036	0.00076	0.0034	--	--	
A-5	09/12/06	0.46	0.43	--	<0.50	--	0.031	0.0016	<0.001	0.0014	--	--	
A-5	12/12/06	0.7	0.53	--	<0.50	--	0.079	0.0028	<0.001	0.0025	--	--	
A-5	03/27/07	1.4	--	--	--	--	0.19	0.0045	0.0014	0.0050	--	--	
A-5	06/19/07	1.1	1.9	--	<0.50	--	0.09	0.0027	0.00072	0.0039	--	--	
A-5	09/24/07	0.72	--	--	--	--	0.039	0.0019	<0.0005	0.0018	--	--	
A-5	12/11/07	0.31	--	--	--	--	0.017	0.00096	<0.0005	0.00088	--	--	
A-5	03/04/08	1.4	--	--	--	--	0.12	0.0040	<0.0010	0.0040	--	--	
A-5	06/03/08	0.85	--	--	--	--	0.048	<0.0015	<0.0015	0.0029	--	--	
A-5	09/08/08	1.5	--	--	--	--	0.15	0.0032	0.0031	0.0076	--	--	
A-5	12/05/08	0.64	--	--	--	--	0.089	<0.0010	<0.0010	0.0038	--	--	
A-5	03/04/09	<0.25	--	--	--	--	0.0011	<0.0010	0.002	0.0071	--	--	
A-5	06/03/09	0.45	--	--	--	--	0.022	<0.0010	<0.0010	0.0027	--	--	
A-5	09/22/09	0.75	--	--	--	--	0.063	0.0012	0.0041	0.021	--	--	
A-5	11/17/09	0.43	--	--	--	--	0.011	<0.0010	<0.0010	0.0038	--	--	
A-5	03/08/10	0.34	--	--	--	--	0.0059	<0.0010	0.0012	0.0051	--	--	
A-5	06/09/10	<0.25	--	--	--	--	0.0063	<0.0010	<0.0010	0.0019	--	--	
A-5	09/10/10	0.80	--	--	--	--	0.031	0.0017	0.0047	0.025	--	--	
A-5	11/16/10	0.35	--	--	--	--	0.0025	<0.0010	0.0011	0.0086	--	--	
A-5	03/02/11	0.34	--	--	--	--	0.0042	<0.0010	<0.0010	0.0019	--	--	
A-5	05/25/11	0.39	--	--	--	--	0.0078	0.00057	<0.0005	0.0014	--	--	
A-5	08/30/11	0.47	--	--	--	--	0.0027	0.00070	<0.0005	0.0013	--	--	
A-5	12/02/11	0.29	--	--	--	--	0.0017	<0.0010	<0.0010	<0.0020	--	--	
A-5	03/02/12	<0.25	--	--	--	--	0.00094	<0.0005	<0.0005	<0.0005	--	--	
A-5	06/01/12	<0.25	--	--	--	--	0.012	<0.0010	<0.0010	0.0010	--	--	
A-5 (DUP)	06/01/12	<0.25	--	--	--	--	0.011	<0.0010	<0.0010	0.0010	--	--	Duplicate of A-5
A-5	08/25/12	0.57	--	--	--	--	0.02	0.0012	<0.0010	0.0014	--	--	
A-5	11/08/12	0.27	--	--	--	--	0.028	<0.001	<0.001	0.0011	--	--	
A-5	02/28/13	0.66	--	--	--	--	0.062	0.0017	<0.0005	0.0013	--	--	
A-5	04/10/13	0.46	--	--	--	--	0.014	<0.001	<0.001	<0.001	--	--	
A-5	07/29/13	0.54	--	--	--	--	0.033	0.0022	<0.0005	0.0022	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-5	10/03/13	0.47	--	--	--	--	0.049	0.0014	<0.001	0.0016	--	--	
A-5	01/21/14	0.51	--	--	--	--	0.051	0.0012	<0.001	<0.001	--	--	
A-5	04/23/14	0.60	--	--	--	--	0.025	0.0015	<0.0005	0.0011	--	--	
A-5	07/15/14	0.61	--	--	--	--	0.017	0.0011	<0.0005	0.00095	--	--	
A-5	03/18/15	0.40	--	--	--	--	0.0045	0.0013	<0.0005	0.0012	--	--	
A-5	10/02/15	0.495	--	--	--	--	0.00161	<0.005	<0.001	<0.003	--	--	
A-5 (DUP)	10/02/15	0.553	--	--	--	--	0.00168	<0.005	<0.001	<0.003	--	--	Duplicate of A-5
A-5	03/29/16	0.413	--	--	--	--	0.00809	<0.005	<0.001	<0.003	--	--	
A-5	10/14/16	0.498	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
A-8	02/14/02	<0.25	1.6	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-8	05/22/02	<0.25	0.51	--	<0.5	--	<0.0005	0.00058	<0.0005	<0.0005	--	--	
A-8	08/28/02	<0.25	<0.5	--	<0.5	--	<0.0005	0.0014	<0.0005	0.00066	--	--	
A-8	11/06/02	<0.25	0.43	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-8	02/20/03	<0.25	<0.25	--	<0.5	--	<0.0005	0.00083	<0.0005	<0.0005	--	--	
A-8	06/10/03	<0.25	<0.25	--	<0.25	--	<0.0005	0.00056	<0.0005	<0.0005	--	--	
A-8	09/17/03	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-8	11/20/03	<0.25	1.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-8	02/26/04	0.35	1.0000	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-8	05/12/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-8	08/25/04	<0.25	4.9	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
A-8	12/14/04	<0.25	1.7	--	<0.50	--	0.00056	0.00052	<0.0005	0.00094	--	--	
A-8	03/10/05	<0.25	2.1	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00055	--	--	
A-8	06/07/05	<0.25	1.2	--	1.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-8	09/20/05	<0.25	3.5	--	0.83	--	0.0012	<0.001	<0.001	0.0012	--	--	
A-8	12/13/05	<0.25	0.54	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.0011	--	--	
A-8	03/15/06	<0.25	0.55	--	<0.50	--	<0.0010	<0.0010	<0.0010	0.0010	--	--	
A-8	06/08/06	<0.25	0.47	--	<0.50	--	<0.0010	<0.0010	<0.0010	0.0010	--	--	
A-8	09/12/06	<0.25	0.76	--	<0.50	--	<0.0010	<0.0010	<0.0010	0.0011	--	--	
A-8	12/12/06	0.27	0.87	--	<0.50	--	<0.0010	0.0011	<0.0010	0.0015	--	--	
A-8	06/19/07	<0.25	2.4	--	0.58	--	<0.0010	<0.0010	<0.0010	0.0010	--	--	
A-8	06/03/08	<0.30	0.46	--	<0.50	--	<0.0015	<0.0015	<0.0015	<0.0015	--	--	
A-8	06/03/09	<0.25	1.6	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
A-8	06/09/10	<0.25	0.45	--	<0.50	--	0.0054	<0.0010	<0.0010	<0.0010	--	--	
A-8	05/25/11	<0.25	1.2	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
A-8	06/01/12	<0.50	0.90	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
A-8	04/10/13	0.25	--	<0.25	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
A-8	04/23/14	<0.25	1.5	<0.25	<0.50	<0.50	<0.0005	0.00061	<0.0005	<0.0005	--	--	
A-8	10/02/15	0.382	--	4.97	--	0.475	<0.001	<0.005	<0.001	<0.003	--	--	
A-8	10/11/16	0.341	--	0.498	--	<0.50	<0.001	<0.005	<0.001	<0.003	--	--	
A-10	02/14/02	<0.25	9.2	--	<0.5	--	<0.0005	0.00062	<0.0005	<0.0005	--	--	
A-10	05/22/02	0.31	8.8	--	<0.5	--	<0.0005	0.00086	<0.0005	<0.0005	--	--	
A-10	08/28/02	0.30	15	--	<0.5	--	<0.001	<0.001	<0.001	<0.001	--	--	
A-10	11/06/02	0.37	13	--	<0.50	--	<0.0005	0.00057	<0.0005	<0.0005	--	--	
A-10	02/20/03	<0.25	6.0	--	<0.5	--	0.0013	<0.0005	<0.0005	0.00055	--	--	
A-10	06/10/03	0.45	19	--	<0.25	--	<0.001	<0.001	<0.001	<0.001	--	--	
A-10	09/17/03	0.68	30	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	11/20/03	1.1	89	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	02/26/04	<0.25	35	--	0.74	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-10	05/12/04	<0.25	3.5	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	08/25/04	<0.25	5.1	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	12/14/04	<0.25	1.1	--	<0.50	--	0.0030	<0.001	<0.001	<0.001	--	--	
A-10	03/10/05	<0.25	4.6	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	06/07/05	0.30	68	--	2.1	--	0.00069	<0.0005	<0.0005	<0.0005	--	--	
A-10	09/20/05	0.60	1.5	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	12/13/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	03/15/06	<0.25	1.7	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00050	--	--	
A-10	06/08/06	<0.25	0.66	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00050	--	--	
A-10	09/12/06	<0.25	0.65	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00050	--	--	
A-10	12/12/06	<0.25	0.98	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	06/19/07	<0.25	1.2	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	06/03/09	<0.25	2.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	06/09/10	<0.25	0.56	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	05/25/11	<0.25	0.80	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	06/01/12	<0.25	0.62	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	04/10/13	<0.25	--	0.36	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	04/23/14	<0.25	0.27	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-10	10/02/15	<0.100	--	0.723	--	<0.25	<0.001	<0.005	<0.001	<0.003	--	--	
A-10	10/13/16	<0.100	--	0.640	--	<0.500	<0.001	<0.005	<0.001	<0.003	--	--	
A-12	12/12/06	<0.25	0.98	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-12	06/03/08	<0.25	0.63	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-12	05/25/11	<0.025	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-14R	02/14/02	<0.25	<0.25	--	<0.5	--	0.00061	0.0021	<0.0005	<0.0005	0.005*	--	
A-14R	05/22/02	<0.25	<0.5	--	<0.5	--	0.00053	0.0021	<0.0005	0.00054	0.02*	--	
A-14R	08/28/02	<0.25	<0.5	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
A-14R	11/06/02	<0.25	<0.25	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
A-14R	02/20/03	<0.25	<0.25	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
A-14R	06/10/03	<0.25	<0.25	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	0.02	--	
A-14R	09/17/03	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.025*	--	
A-14R	11/20/03	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.032*	--	
A-14R	02/26/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.018*	--	
A-14R	05/12/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	08/25/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	12/14/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0072*	--	
A-14R	03/10/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	06/07/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	09/20/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
A-14R	12/13/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	03/15/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	06/08/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	09/12/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	12/12/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-14R	06/19/07	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-14R	06/03/08	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-14R	06/03/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-14R	06/09/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-14R	05/25/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-14R	06/01/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-14R	04/10/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-14R	04/23/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-14R	10/01/15	<0.100	--	<0.100	--	<0.25	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
A-14R	10/13/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
A-18	05/25/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-19	05/25/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-20	05/25/11	2.5	--	--	--	--	<0.0010	<0.0010	0.037	0.013	--	--	
A-21	02/14/02	<0.25	<0.25	--	<0.5	--	<0.0005	0.0010	<0.0005	<0.0005	<0.005*	--	
A-21	05/22/02	<0.25	<0.5	--	<0.5	--	0.00061	0.0017	<0.0005	0.00057	<0.005*	--	
A-21	08/29/02	<0.25	0.76	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
A-21	11/06/02	<0.25	0.37	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
A-21	02/19/03	<0.25	<0.5	--	<0.5	--	0.0013	0.0018	<0.0005	0.00061	<0.005*	--	
A-21	06/10/03	0.25	<0.25	--	<0.25	--	0.0082	0.00058	<0.0005	<0.0005	0.062*	--	
A-21	09/16/03	<0.25	<0.25	--	<0.50	--	0.0034	<0.0005	<0.0005	<0.0005	0.0085*	--	
A-21	11/19/03	0.47	<0.25	--	<0.50	--	0.061	0.0019	<0.0005	0.0029	0.0067*	--	
A-21	02/25/04	0.63	<0.50	--	<0.50	--	0.013	0.00066	0.045	0.0016	<0.0050*	--	
A-21	05/12/04	0.50	<0.25	--	<0.50	--	0.0019	<0.0005	0.0042	0.00072	<0.0050*	--	
A-21	08/25/04	0.26	<0.25	--	<0.50	--	0.0015	<0.0005	<0.0005	0.0015	<0.0050*	--	
A-21	12/14/04	0.99	<0.25	--	<0.50	--	0.061	0.0025	0.022	0.0083	<0.0050*	--	
A-21	03/10/05	1.5	0.26	--	<0.50	--	0.024	0.0021	0.0025	0.011	0.020*	--	
A-21	06/07/05	1.2	0.35	--	<0.50	--	0.0076	0.00084	0.00077	0.0043	<0.0050*	--	
A-21	09/20/05	1.3	<0.25	--	<0.50	--	0.011	0.0012	0.00066	0.0048	<0.0050*	--	
A-21	12/13/05	1.6	<0.25	--	<0.50	--	0.017	0.0016	0.0015	0.0052	<0.0050*	--	
A-21	03/15/06	0.97	<0.25	--	<0.50	--	0.0098	0.00097	0.0023	0.0033	<0.0050*	--	
A-21	06/08/06	0.82	<0.25	--	<0.50	--	0.0023	0.00059	<0.0005	0.0019	<0.0050*	--	
A-21	09/12/06	0.85	<0.25	--	<0.50	--	0.0019	<0.0005	<0.0005	0.0016	<0.0050*	--	
A-21	12/12/06	0.85	<0.25	--	<0.50	--	0.0071	<0.0005	0.0021	0.0014	<0.0050*	--	
A-21	03/27/07	0.28	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	06/19/07	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-21	09/25/07	<0.25	--	--	--	--	0.0040	<0.0005	<0.0005	<0.0005	--	--	
A-21	12/11/07	0.51	--	--	--	--	0.0062	<0.0005	0.026	0.0020	--	--	
A-21	03/04/08	<0.25	--	--	--	--	<0.0005	<0.0005	0.0051	<0.0005	--	--	
A-21	06/04/08	<0.25	--	--	--	--	<0.0005	<0.0005	0.00075	<0.0005	<0.0050	--	
A-21	09/08/08	0.41	--	--	--	--	<0.0005	0.00074	0.0018	0.00053	--	--	
A-21	12/04/08	0.96	--	--	--	--	<0.0010	<0.0010	0.15	<0.0010	--	--	
A-21	03/04/09	0.48	--	--	--	--	0.0075	<0.0005	0.0068	0.021	--	--	
A-21	06/02/09	0.46	--	--	--	--	0.0027	<0.00050	0.0023	0.0059	0.0087	--	
A-21	09/22/09	0.27	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	11/17/09	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	03/08/10	<0.25	--	--	--	--	0.0026	<0.0005	0.0019	0.0046	--	--	
A-21	06/08/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-21	09/10/10	<0.25	--	--	--	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
A-21	11/16/10	0.82	--	--	--	--	<0.0010	<0.0010	0.056	0.011	--	--	
A-21	03/02/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	05/24/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-21	08/30/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	12/02/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0010	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-21	03/02/12	1.7	--	--	--	--	<0.0010	<0.0010	0.16	0.026	--	--	
A-21	05/30/12	1.5	--	--	--	--	<0.0010	<0.0010	0.027	<0.0010	<0.0050	--	
A-21	08/25/12	1.6	--	--	--	--	<0.0010	<0.0010	0.024	<0.0010	--	--	
A-21	11/08/12	0.53	--	--	--	--	<0.0005	<0.0005	0.0011	0.0015	--	--	
A-21	02/28/13	0.44	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	04/10/13	0.58	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-21	07/29/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	10/03/13	<0.25	--	--	--	--	<0.001	<0.001	<0.001	<0.001	--	--	
A-21	01/21/14	<0.25	--	--	--	--	<0.001	<0.001	<0.001	<0.001	--	--	
A-21	04/23/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-21	07/15/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	03/18/15	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-21	10/01/15	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	0.00526	0.00402	
A-21	03/31/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
A-21	10/13/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
A-22R	05/25/11	27	--	--	--	--	3.4	0.086	3.0	1.7	--	--	
A-23R	02/14/02	0.26	2.1	--	<0.5	--	0.060	0.0010	0.0099	0.0072	0.72*a	--	
A-23R	05/20/02	0.74	6.9	--	<0.5	--	0.15	<0.001	0.088	0.0067	0.095*a	--	
A-23R	08/28/02	0.62	2.1	--	<0.5	--	0.20	0.0035	0.021	0.0075	0.23*	--	
A-23R	11/05/02	0.74	1.7	--	<0.5	--	0.22	<0.0015	0.0059	0.014	0.18*	--	
A-23R	02/19/03	0.71	2.3	--	<0.5	--	0.26	0.0033	0.0054	0.0059	0.049*	--	
A-23R	06/10/03	<0.25	1.8	--	<0.25	--	0.0073	<0.001	0.0028	<0.001	<0.005*	--	
A-23R	09/16/03	0.70	1.3	--	<0.50	--	0.043	0.0029	0.057	0.0018	0.38*	--	
A-23R	11/19/03	1.0	0.78	--	<0.50	--	0.08	0.0037	0.069	0.0035	0.13*	--	
A-23R	02/25/04	1.6	0.78	--	<0.50	--	0.26	0.0072	0.061	0.015	0.081*	--	
A-23R	05/12/04	0.28	0.45	--	<0.50	--	0.020	0.00075	0.0022	0.00082	<0.0050*	--	
A-23R	08/25/04	2.3	0.35	--	<0.50	--	0.46	0.012	0.074	0.020	0.012*	--	
A-23R	12/14/04	2	0.65	--	<0.50	--	0.37	0.0084	0.041	0.013	0.018*	--	
A-23R	03/10/05	0.60	0.31	--	<0.50	--	0.035	0.0011	0.0045	0.0014	0.035*	--	
A-23R	06/07/05	0.33	<0.25	--	<0.50	--	0.0080	<0.0005	0.0012	<0.0005	0.013*	--	
A-23R	09/20/05	<0.25	<0.25	--	<0.50	--	0.00060	<0.0005	<0.0005	<0.0005	0.0096*a	--	
A-23R	12/14/05	0.37	<0.25	--	<0.50	--	0.019	0.00056	0.00065	0.00058	0.032*	--	
A-23R	03/15/06	1.1	<0.25	--	<0.50	--	0.34	0.0033	<0.0025	0.0051	<0.0050*	--	
A-23R	06/08/06	0.34	<0.25	--	<0.50	--	0.033	<0.0005	<0.0005	0.031	0.0081*	--	
A-23R	09/12/06	0.42	<0.25	--	<0.50	--	0.010	<0.0005	0.032	0.0013	0.035*	--	
A-23R	12/12/06	2.1	<0.25	--	<0.50	--	0.52	0.0066	0.053	0.021	<0.0050*	--	
A-23R	03/27/07	0.86	--	--	--	--	0.17	0.0019	0.0019	0.0045	--	--	
A-23R	06/19/07	0.44	--	--	--	--	0.021	0.00058	0.010	0.0013	0.0076*	--	
A-23R	09/24/07	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
A-23R	12/11/07	0.79	--	--	--	--	0.095	0.0025	0.0050	0.0026	--	--	
A-23R	03/04/08	<0.25	--	--	--	--	0.00097	<0.0005	<0.0005	<0.0005	--	--	
A-23R	06/05/08	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
A-23R	12/05/08	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	03/04/09	<0.25	--	--	--	--	0.00073	<0.0005	0.0022	0.013	--	--	
A-23R	06/02/09	<0.25	--	--	--	--	0.0013	<0.00050	0.0021	0.0059	<0.0050*	--	
A-23R	09/21/09	<0.25	--	--	--	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--	
A-23R	11/16/09	<0.25	--	--	--	--	<0.0005	<0.0005	0.001	<0.0005	--	--	
A-23R	03/08/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-23R	06/08/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
A-23R	09/09/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	11/16/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	03/01/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	05/24/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050**	--	
A-23R	08/29/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	12/01/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0010	--	--	
A-23R	03/01/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	05/30/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050**	--	
A-23R	11/07/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	02/27/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	04/08/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	<0.0050	
A-23R	07/29/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	10/02/13	<0.25	--	--	--	--	<0.001	<0.001	<0.001	<0.001	--	--	
A-23R	01/21/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
A-23R	04/22/14	<0.25	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.0050	<0.0050	
A-23R	07/15/14	<0.25	--	--	--	--	0.00092	<0.0005	<0.0005	<0.0005	--	--	
A-23R	09/28/15	<0.100	--	--	--	--	0.00109	<0.005	<0.001	<0.003	--	--	
A-23R	10/11/16	<0.100	--	--	--	--	0.00109	<0.005	<0.001	<0.003	--	--	
A-25	06/16/11	4.1	--	--	--	--	0.27	0.038	0.28	0.19	--	--	
A-26R	05/25/11	22	--	--	--	--	4	0.095	1.6	0.75	--	--	
A-27	02/14/02	2.9	11	--	<0.5	--	0.13	0.014	0.096	0.25	--	--	
A-27	05/22/02	3.3	8.2	--	<0.5	--	0.20	0.016	0.14	0.38	--	--	
A-27	08/29/02	3.8	8.1	--	<0.5	--	0.24	0.016	0.14	0.29	--	--	
A-27	11/06/02	3.2	8.000	--	<0.5	--	0.16	0.016	0.065	0.14	--	--	
A-27	02/19/03	3.1	6.8	--	<0.5	--	0.17	0.017	0.052	0.13	--	--	
A-27	06/10/03	3.7	4.5	--	<0.25	--	0.14	0.013	0.11	0.23	--	--	
A-27	09/16/03	4.5	5.6	--	<0.50	--	0.27	0.02	0.18	0.38	--	--	
A-27	11/19/03	5.9	5.3	--	<0.50	--	0.25	0.023	0.13	0.33	--	--	
A-27	02/25/04	4.4	16	--	<0.50	--	0.15	0.016	0.18	0.30	--	--	
A-27	05/11/04	4.6	5.2	--	<0.50	--	0.16	0.017	0.23	0.38	--	--	
A-27	08/25/04	4.7	2.5	--	<0.50	--	0.25	0.018	0.17	0.24	--	--	
A-27	12/14/04	4.5	4.4	--	<0.50	--	0.11	0.012	0.099	0.14	--	--	
A-27	03/10/05	5.8	4.7	--	<0.50	--	0.14	0.015	0.16	0.22	--	--	
A-27	06/07/05	4.5	7.8	--	<0.50	--	0.17	0.014	0.24	0.34	--	--	
A-27	09/20/05	6.3	2.3	--	<0.50	--	0.25	0.019	0.18	0.22	--	--	
A-27	12/13/05	3.7	0.83	--	<0.50	--	0.13	0.012	0.083	0.095	--	--	
A-27	03/15/06	4.4	1.3	--	<0.50	--	0.13	0.017	0.19	0.24	--	--	
A-27	06/08/06	4.5	1.1	--	<0.50	--	0.19	0.016	0.23	0.28	--	--	
A-27	09/12/06	3.4	0.82	--	<0.50	--	0.17	0.011	0.12	0.12	--	--	
A-27	12/12/06	3.7	0.90	--	<0.50	--	0.11	0.0096	0.10	0.12	--	--	
A-27	03/27/07	3.2	--	--	--	--	0.063	0.0078	0.047	0.050	--	--	
A-27	06/19/07	2.6	--	--	--	--	0.073	0.0064	0.047	0.053	--	--	
A-27	09/24/07	2.7	--	--	--	--	0.10	0.0072	0.035	0.040	--	--	
A-27	12/11/07	4.7	--	--	--	--	0.16	0.011	0.17	0.13	--	--	
A-27	03/04/08	4.0	--	--	--	--	0.10	0.011	0.14	0.11	--	--	
A-27	06/04/08	2.5	--	--	--	--	0.093	0.0063	0.022	0.041	--	--	
A-27	09/08/08	3.5	--	--	--	--	0.16	0.0091	0.067	0.047	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-27	12/04/08	3.1	--	--	--	--	0.13	0.0075	0.091	0.046	--	--	
A-27	03/04/09	2.5	--	--	--	--	0.098	0.0080	0.07	0.043	--	--	
A-27	06/02/09	3.1	--	--	--	--	0.048	0.0065	0.11	0.05	--	--	
A-27	09/22/09	2.9	--	--	--	--	0.054	0.0064	0.099	0.037	--	--	
A-27	11/16/09	3.0	--	--	--	--	0.035	0.0051	0.0921	0.035	--	--	
A-27	03/09/10	2.4	--	--	--	--	0.024	0.0043	0.089	0.036	--	--	
A-27	06/08/10	2.5	--	--	--	--	0.021	0.0041	0.088	0.031	--	--	
A-27	09/09/10	3.4	--	--	--	--	0.035	0.0054	0.12	0.034	--	--	
A-27	11/16/10	2.1	--	--	--	--	0.014	0.0034	0.070	0.022	--	--	
A-27	03/02/11	2.3	--	--	--	--	0.014	0.0024	0.051	0.016	--	--	
A-27	05/24/11	1.7	--	--	--	--	0.0092	0.0017	0.023	0.0096	--	--	
A-27	08/30/11	2.1	--	--	--	--	0.026	0.0021	0.022	0.011	--	--	
A-27	12/02/11	2.2	--	--	--	--	0.016	0.0026	0.030	0.0094	--	--	
A-27	03/01/12	1.4	--	--	--	--	0.012	0.0018	0.035	0.0077	--	--	
A-27	05/30/12	1.6	--	--	--	--	0.015	0.0016	0.038	0.0066	--	--	
A-27	08/25/12	1.5	--	--	--	--	0.029	0.0018	0.0027	0.0048	--	--	
A-27	11/08/12	1.2	--	--	--	--	0.025	0.0022	0.0093	0.0068	--	--	
A-27	02/28/13	1.6	--	--	--	--	0.038	0.0019	0.057	0.0078	--	--	
A-27	04/10/13	1.3	--	--	--	--	0.035	0.0018	0.041	0.0053	--	--	
A-27	06/21/13	1.0	0.40 K	--	--	--	0.053	0.0024	0.043	0.0083	--	--	Baseline monitoring event
A-27	07/30/13	1.8	--	--	--	--	0.073	0.0039	0.051	0.017	--	--	
A-27 (DUP)	07/30/13	1.5	--	--	--	--	0.058	0.0033	0.040	0.015	--	--	Duplicate of A-27
A-27	08/26/13	1.9	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
A-27	08/26/13	2.1	--	--	--	--	--	--	--	--	--	--	Duplicate of A-27
A-27	10/02/13	1.9	--	--	--	--	0.066	0.0041	0.038	0.021	--	--	
A-27	01/22/14	2.6	--	--	--	--	0.078	0.0042	0.061	0.062	--	--	
A-27	04/22/14	2.9	--	--	--	--	0.062	0.0023	0.074	0.078	--	--	
A-27	07/15/14	1.8	--	--	--	--	0.051	0.0021	0.012	0.016	--	--	
A-27	03/18/15	2.3	--	--	--	--	0.072	0.0019	0.072	0.010	--	--	Surrogate recovery above lab limits
A-27	09/29/15	1.68	--	--	--	--	0.0609	<0.005	0.00988	0.00742	--	--	
A-27	03/31/16	2.55	--	--	--	--	0.131	<0.005	0.142	0.0142	--	--	
A-27	10/14/16	1.42	--	--	--	--	0.0670	<0.005	0.0101	0.00490	--	--	
A-28R	02/14/02	5.3	2.7	--	<0.5	--	0.66	0.027	0.42	0.20	0.035*	--	
A-28R	05/22/02	3.1	6.7	--	<0.5	--	0.14	0.010	0.20	0.092	0.05*	--	
A-28R	08/29/02	4.0	6.0	--	<0.5	--	0.15	0.019	0.23	0.078	0.032*	--	
A-28R	11/06/02	3.4	1.8	--	<0.5	--	0.47	0.015	0.053	0.050	0.028*	--	
A-28R	02/19/03	3.5	4.6	--	<0.5	--	0.46	0.015	0.051	0.050	0.013*	--	
A-28R	06/10/03	3.7	2.9	--	<0.25	--	0.31	0.0081	0.085	0.051	0.064*	--	
A-28R	09/16/03	3.8	2.0	--	<0.50	--	1.0	0.013	0.075	0.048	0.17*	--	
A-28R	11/19/03	4.9	<0.25	--	<0.50	--	0.58	0.012	0.059	0.064	0.11*	--	
A-28R	02/25/04	5.1	1.7	--	<0.50	--	0.63	0.0093	0.19	0.076	0.0080*	--	
A-28R	05/12/04	6.5	2.6	--	<0.50	--	0.96	0.012	0.20	0.058	<0.0050*	--	
A-28R	08/25/04	5.9	0.88	--	<0.50	--	2.1	0.018	0.050	0.053	0.043*	--	
A-28R	12/14/04	7.6	3.0	--	<0.50	--	1.4	0.015	0.073	0.062	0.025*	--	
A-28R	03/10/05	10	0.76	--	<0.50	--	1.9	0.019	0.077	0.064	0.0078*	--	
A-28R	06/07/05	6.4	1.2	--	<0.50	--	2.1	0.015	0.069	0.048	0.0068*	--	
A-28R	09/20/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
A-28R	12/13/05	5.4	<0.25	--	<0.50	--	0.93	0.011	0.033	0.036	0.012*	--	

Table 3
Groundwater Analytical Results
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Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
A-28R	03/15/06	4.6	<0.25	--	<0.50	--	0.80	0.012	0.11	0.035	<0.0050*	--	
A-28R	06/08/06	4.2	0.49	--	0.73	--	0.87	0.013	0.070	0.035	0.019*	--	
A-28R	09/12/06	5.2	<0.25	--	<0.50	--	1.0	0.015	0.048	0.036	0.016*	--	
A-28R	12/12/06	4.0	0.57	--	<0.50	--	0.3	0.0095	0.027	0.028	<0.0050*	--	
A-28R	03/27/07	5.5	--	--	--	--	0.71	0.014	0.062	0.022	--	--	
A-28R	06/19/07	5.3	--	--	--	--	0.59	0.018	0.058	0.041	<0.0050	--	
A-28R	09/24/07	3.9	--	--	--	--	0.53	0.015	0.041	0.035	--	--	
A-28R	12/11/07	2.1	--	--	--	--	0.088	0.0044	0.013	0.015	--	--	
A-28R	03/04/08	3.6	--	--	--	--	0.27	0.0087	0.044	0.022	--	--	
A-28R	06/04/08	2.2	--	--	--	--	0.095	0.0049	0.0060	0.012	<0.0050	--	
A-28R	12/04/08	1.4	--	--	--	--	0.026	0.0022	0.011	0.0075	--	--	
A-28R	03/04/09	1.4	--	--	--	--	0.12	0.0060	0.057	0.029	--	--	
A-28R	06/02/09	2.1	--	--	--	--	0.055	0.0020	0.016	0.0069	<0.0050	--	
A-28R	09/22/09	2.3	--	--	--	--	0.1	0.0026	0.038	0.016	--	--	
A-28R	11/16/09	1.7	--	--	--	--	0.080	0.002	0.039	0.017	--	--	
A-28R	03/09/10	7.3	--	--	--	--	0.65	0.0079	0.32	0.092	--	--	
A-28R	06/08/10	2.2	--	--	--	--	0.14	0.0018	0.045	0.013	<0.0050	--	
A-28R	09/10/10	2.4	--	--	--	--	0.12	0.0020	0.041	0.011	--	--	
A-28R	11/16/10	1.8	--	--	--	--	0.077	0.0017	0.047	0.013	--	--	
A-28R	03/02/11	2.8	--	--	--	--	0.15	0.0029	0.083	0.016	--	--	
A-28R	05/24/11	3.5	--	--	--	--	0.21	0.0029	0.091	0.015	<0.0050	--	
A-28R	08/30/11	3.7	--	--	--	--	0.14	0.0026	0.061	0.011	--	--	
A-28R	12/02/11	3.6	--	--	--	--	0.074	0.0022	0.056	0.0092	--	--	
A-28R	03/02/12	2.6	--	--	--	--	0.086	0.0022	0.075	0.012	--	--	
A-28R	05/30/12	2.7	--	--	--	--	0.065	0.0017	0.050	0.0085	<0.0050	--	
A-28R	08/25/12	1.8	--	--	--	--	0.030	0.00089	0.010	0.0031	--	--	
A-28R	11/08/12	0.81	--	--	--	--	0.015	<0.0005	0.0066	0.0013	--	--	
A-28R	02/28/13	2.6	--	--	--	--	0.062	<0.0025	0.044	0.0059	--	--	
A-28R	04/10/13	3.2	--	--	--	--	0.035	0.0013	0.030	0.0042	<0.0050	--	
A-28R	07/29/13	2.5	--	--	--	--	0.043	0.0018	0.019	0.0034	--	--	
A-28R	10/02/13	1.4	--	--	--	--	0.015	<0.001	0.0043	0.0026	--	--	
A-28R	01/22/14	1.4	--	--	--	--	0.17	0.0027	0.0060	0.0033	--	--	
A-28R	04/22/14	2.2	--	--	--	--	0.062	0.0022	0.016	0.0025	<0.0050	--	
A-28R	07/15/14	1.7	--	--	--	--	0.043	0.0016	0.0062	0.0020	--	--	
A-28R	03/18/15	3.0	--	--	--	--	0.042	0.0035	0.016	0.0055	--	--	Surrogate recovery above lab limits
A-28R	09/29/15	1.85	--	--	--	--	0.0205	<0.005	0.00431	<0.003	--	--	
A-28R	03/31/16	3.37	--	--	--	--	0.160	<0.005	0.0202	0.00467	--	--	
A-28R	10/14/16	3.65	--	--	--	--	0.208	0.00979	0.0106	0.00704	<0.002	<0.002	
A-29R	05/25/11	5.6	--	--	--	--	2.3	0.018	<0.015	0.024	--	--	
11	06/24/13	<0.25	0.30	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	Baseline monitoring event
11	07/30/13	<0.25	--	--	--	--	--	--	--	--	--	--	
11	08/26/15	<0.25	--	--	--	--	--	--	--	--	--	--	
11	10/03/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
11	01/22/14	0.75	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
11	04/21/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
11	07/14/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
11	03/18/15	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
11	09/29/15	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington



Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
11	03/30/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
11	10/14/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
12	06/24/13	4.1	5.3 K	--	--	--	0.037	0.045	0.13	0.53	--	--	Baseline monitoring event
12	08/26/13	9.3	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
12	10/03/13	2.7	--	--	--	--	0.0020	0.0057	0.043	0.18	--	--	
12	01/22/14	4.2	--	--	--	--	0.0067	0.015	0.027	0.34	--	--	
12	04/21/14	2.6	--	--	--	--	0.015	0.014	0.088	0.15	--	--	
12	07/14/14	4.7	--	--	--	--	0.019	0.026	0.17	0.22	--	--	
12	03/18/15	1.8	--	--	--	--	0.0059	0.0012	0.003	0.024	--	--	
12	09/29/15	3.32	--	9.85	--	0.732	0.0435	0.0217	0.191	0.0609	0.0508	0.00280	
12	03/30/16	0.725	--	--	--	--	0.00441	<0.005	0.0140	0.00511	--	--	
12	10/14/16	1.62	--	0.713	--	<0.500	0.00363	0.00950	0.0721	0.0306	0.0187	0.00336	
MW-1	02/13/02	<0.25	2.0	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-1	05/21/02	<0.25	1.9	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-1	08/28/02	<0.25	1.0	--	<0.5	--	0.0013	0.0067	0.00052	0.0016	<0.005*	--	
MW-1	11/05/02	<0.25	0.87	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	0.021*	--	
MW-1	02/19/03	<0.25	1.9	--	<0.5	--	<0.0005	0.00058	<0.0005	<0.0005	<0.005*	--	
MW-1	06/10/03	<0.25	1.1	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-1	09/16/03	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	11/19/03	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	02/25/04	<0.25	1.3	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	05/11/04	<0.25	0.87	--	<0.50	--	<0.0005	0.00068	<0.0005	<0.0005	<0.0050*	--	
MW-1	08/25/04	0.83	0.40	--	<0.50	--	<0.0005	<0.0005	0.00065	<0.0005	<0.0050*	--	
MW-1	12/15/04	<0.25	0.38	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	03/09/05	<0.25	0.63	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	06/08/05	<0.25	0.80	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	09/21/05	<0.25	0.40	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	12/14/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	03/14/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	06/07/06	<0.25	0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0052*	--	
MW-1	12/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-1	06/20/07	<0.25	0.75	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-1	06/05/08	<0.25	0.32	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.0013	<0.0050	--	
MW-1	06/01/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-1	06/08/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-1	05/23/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-1	06/01/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-1	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-1	04/23/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-1	10/01/15	<0.100	--	1.38	--	0.708	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-1	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-2	02/13/02	<0.25	0.71	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-2	05/21/02	<0.25	0.66	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-2	08/29/02	<0.25	0.91	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-2	11/05/02	<0.25	0.73	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-2	02/19/03	<0.25	0.74	--	<0.5	--	<0.0005	0.00062	<0.0005	<0.0005	0.028*	--	
MW-2	06/10/03	<0.25	0.61	--	<0.25	--	<0.0005	0.00071	<0.0005	<0.0005	0.026*a	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-2	09/16/03	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.062*	--	
MW-2	11/19/03	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.021*	--	
MW-2	02/25/04	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.030*	--	
MW-2	05/11/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	08/25/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	12/14/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	03/10/05	<0.25	0.29	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	06/07/05	<0.25	0.91	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.036*	--	
MW-2	09/20/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	12/13/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.024*	--	
MW-2	03/15/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	06/08/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0063*	--	
MW-2	09/12/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	12/12/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-2	06/19/07	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-2	06/04/08	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-2	06/03/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-2	06/08/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.063	--	
MW-2	05/23/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-2	05/31/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-2	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-2	04/22/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-2	09/30/15	<0.100	--	<0.100	--	<0.25	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-2	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-3	02/13/02	<0.25	1.8	--	<0.5	--	0.011	0.0015	0.0045	0.011	<0.005*	--	
MW-3	05/20/02	0.38	1.9	--	<0.5	--	0.052	0.0028	0.025	0.020	0.01*	--	
MW-3	08/28/02	0.62	2.5	--	<0.5	--	0.11	0.0071	0.021	0.030	<0.005*	--	
MW-3	11/06/02	0.63	1.1	--	<0.5	--	0.14	0.0053	0.021	0.015	0.006*	--	
MW-3	02/19/03	<0.25	1.8	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	0.014*	--	
MW-3	06/11/03	<0.25	1.3	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	0.019*	--	
MW-3	09/17/03	<0.25	1.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.042*	--	
MW-3	11/20/03	<0.25	2.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0063*	--	
MW-3	02/25/04	<0.25	1.2	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.025*	--	
MW-3	05/11/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	08/25/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0051*	--	
MW-3	12/15/04	<0.25	0.33	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.018*	--	
MW-3	03/09/05	<0.25	<0.25	--	<0.50	--	0.0010	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	06/08/05	<0.25	<0.25	--	<0.50	--	0.0011	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	09/21/05	<0.25	<0.25	--	<0.50	--	0.00094	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	12/14/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	03/14/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	06/07/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	12/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-3	06/20/07	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-3	06/05/08	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-3	06/01/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-3	06/09/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	0.0011	0.0053	<0.0050	--	

Table 3
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Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-3	05/23/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-3	05/31/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-3	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-3	04/22/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-3	10/01/15	<0.100	--	0.143	--	<0.25	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-3	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-4	02/14/02	0.78	280	--	<50	--	0.30	0.0072	0.0023	0.0082	--	--	
MW-4	05/21/02	1.5	8.6	--	<0.5	--	0.43	0.023	0.034	0.13	--	--	
MW-4	08/28/02	3.3	30	--	2.6	--	1.1	0.016	0.016	0.024	--	--	
MW-4	11/05/02	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-4	02/19/03	3.1	31	--	<0.5	--	0.056	0.0017	0.014	0.020	--	--	
MW-4	06/10/03	0.39	12	--	<0.25	--	0.031	0.0012	0.0091	0.0096	--	--	
MW-4	09/16/03	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-4	11/19/03	0.25	19	--	<0.50	--	0.033	<0.001	0.0042	0.0069	--	--	
MW-4	02/25/04	0.36	15	--	<0.50	--	0.035	0.0014	0.0056	0.0094	--	--	
MW-4	05/12/04	0.33	7.4	--	<0.50	--	0.012	<0.001	0.0048	0.0058	--	--	
MW-4	08/26/04	<0.50	5.1	--	<0.50	--	0.014	<0.0025	0.0039	0.0069	--	--	
MW-4	12/15/04	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-4	03/09/05	<2.0	11	--	<0.50	--	<0.01	<0.01	<0.01	0.013	--	--	
MW-4	06/08/05	<1.0	16	--	1.1	--	<0.005	<0.005	<0.005	<0.005	<0.0050	--	
MW-4	09/21/05	<2.0	19	--	2.1	--	<0.010	<0.010	<0.010	<0.010	--	--	
MW-4	12/14/05	<0.50	6.2	--	0.81	--	0.012	<0.0025	0.0032	0.0084	--	--	
MW-4	03/14/06	<0.40	3.9	--	0.69	--	0.0063	<0.0020	0.0020	0.0062	--	--	
MW-4	06/07/06	<0.50	4.5	--	<0.50	--	0.0037	<0.0025	<0.0025	<0.0025	--	--	
MW-4	09/13/06	<0.50	2.7	--	<0.50	--	0.0034	<0.0025	<0.0025	0.0029	--	--	
MW-4	12/13/06	<0.25	3.7	--	0.62	--	0.0012	<0.0005	<0.0005	0.0023	--	--	
MW-4	06/20/07	<0.25	--	--	--	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-4	06/05/08	<0.25	1.2	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-4	06/01/09	<0.25	2.1	--	0.61	--	<0.0005	<0.0005	<0.0005	0.00080	--	--	
MW-4	06/08/10	<0.25	0.86	--	<0.50	--	<0.0005	0.00057	<0.0005	0.0018	--	--	
MW-4	05/23/11	<0.25	1.6	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-4	06/01/12	<0.50	2.0	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-4	04/09/13	<0.50 O	--	0.92	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-4	04/23/14	<0.25	5.3	1.7	0.90	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-4	09/30/15	<0.100	--	5.02	--	0.916	<0.001	<0.005	<0.001	<0.003	--	--	
MW-4	10/12/16	0.285	--	1.27	--	<0.500	<0.001	<0.005	<0.001	<0.003	--	--	
MW-5	02/13/02	<0.25	<0.25	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-5	05/21/02	<0.25	<0.5	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	0.01*	--	
MW-5	08/29/02	<0.25	1.2	--	<0.5	--	<0.0005	0.0018	<0.0005	0.00063	<0.005*	--	
MW-5	11/05/02	<0.25	1.6	--	<0.5	--	0.0055	0.0016	<0.0005	0.00056	<0.005*	--	
MW-5	02/20/03	<0.25	<0.25	--	<0.5	--	<0.0005	0.00066	<0.0005	<0.0005	<0.005*	--	
MW-5	06/11/03	<0.25	0.36	--	<0.25	--	<0.0005	0.00079	<0.0005	<0.0005	<0.005*	--	
MW-5	09/16/03	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.011*	--	
MW-5	11/20/03	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0086*	--	
MW-5	02/24/04	<0.25	<0.50	--	<0.50	--	<0.0005	0.0014	<0.0005	<0.0005	<0.0050*	--	
MW-5	05/11/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-5	08/26/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-5	12/15/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-5	03/09/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.11*	--	
MW-5	06/08/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-5	09/21/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-5	12/14/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-5	03/14/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.012*	--	
MW-5	06/07/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0099*	--	
MW-5	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.013*	--	
MW-5	12/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0088*	--	
MW-5	06/20/07	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-5	06/04/08	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0094	--	
MW-5	06/02/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00078	<0.0050	--	
MW-5	06/08/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-5	05/24/11	<0.25	<0.25	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	--	
MW-5	05/31/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-5	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0073	--	
MW-5	04/21/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-5	10/01/15	<0.100	--	0.371	--	<0.25	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-5	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-6	02/13/02	0.97	1.1	--	<0.5	--	0.014	0.0007	<0.0005	0.00065	<0.005*	--	
MW-6	05/22/02	1.1	2.5	--	<0.5	--	0.035	0.0012	0.0024	0.00072	<0.005*	--	
MW-6	08/29/02	0.58	6.4	--	<0.5	--	0.0014	<0.001	<0.001	<0.001	<0.005*	--	
MW-6	11/05/02	0.59	7.3	--	<0.5	--	0.064	<0.001	<0.001	0.0016	0.02*	--	
MW-6	02/19/03	0.54	1.7	--	<0.5	--	0.0062	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-6	06/10/03	0.70	1.9	--	<0.25	--	0.025	0.0011	0.00052	0.00051	<0.005*	--	
MW-6	09/16/03	0.68	<0.50	--	<0.50	--	<0.0005	<0.0005	0.00053	<0.0005	0.019*	--	
MW-6	11/19/03	0.44	1.6	--	<0.50	--	0.0095	0.00067	<0.0005	0.00051	<0.0050*	--	
MW-6	02/25/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-6	05/11/04	1.0	0.67	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-6	08/25/04	<0.25	0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-6	12/14/04	0.82	0.81	--	<0.50	--	0.0080	<0.0005	<0.0005	<0.0005	0.011*	--	
MW-6	03/10/05	1.0	0.42	--	<0.50	--	0.0011	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-6	06/07/05	0.92	<0.25	--	<0.50	--	0.0014	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-6	09/20/05	0.91	<0.25	--	<0.50	--	<0.0005	<0.0005	0.00062	<0.0005	<0.0050*	--	
MW-6	12/13/05	1.2	0.38	--	<0.50	--	0.0032	<0.0005	0.00050	<0.0005	<0.0050*	--	
MW-6	03/15/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-6	06/08/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-6	09/12/06	0.71	<0.25	--	<0.50	--	<0.0005	0.00055	<0.0005	<0.0005	<0.0050*	--	
MW-6	12/12/06	<0.25	<0.25	--	<0.50	--	<0.0005	0.00055	<0.0005	<0.0005	<0.0050*	--	
MW-6	03/27/07	0.81	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	06/19/07	0.73	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-6	09/24/07	0.55	--	--	--	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-6	12/11/07	0.54	--	--	--	--	0.0014	<0.0005	<0.0005	<0.0005	--	--	
MW-6	03/04/08	0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	06/04/08	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-6	09/08/08	0.51	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	12/04/08	0.43	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	03/04/09	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	06/02/09	0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	0.0025	<0.0050	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-6	09/21/09	0.33	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	11/17/09	0.31	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	03/09/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	0.00095	--	--	
MW-6	06/08/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-6	09/09/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	11/15/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	03/02/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	05/24/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-6	08/30/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	12/01/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0010	--	--	
MW-6	03/01/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	05/31/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-6	08/25/12	0.27	--	--	--	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--	
MW-6	11/08/12	0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	02/28/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	04/09/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-6	07/29/13	0.30	--	--	--	--	<0.0005	<0.0005	<0.0005	0.00059	--	--	
MW-6	10/02/13	0.69	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	01/22/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	04/22/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-6	07/15/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-6	09/29/15	0.259	--	--	--	--	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-6	10/12/16	0.294	--	--	--	--	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-7	02/14/02	13	7.5	--	<0.5	--	0.20	0.24	0.57	1.8	0.035*	--	
MW-7	05/21/02	6.6	11	--	<0.5	--	0.16	0.089	0.43	0.66	0.04*	--	
MW-7	08/29/02	2.9	5.7	--	<0.5	--	0.12	0.042	0.24	0.11	0.047*	--	
MW-7	11/05/02	0.90	5.9	--	<0.5	--	0.021	0.0022	0.004	0.0066	0.041*	--	
MW-7	02/20/03	9.7	11	--	<0.5	--	0.12	0.13	0.33	1.4	0.11*a	--	
MW-7	06/11/03	5.7	8.7	--	<0.25	--	0.13	0.092	0.26	0.52	0.081*a	--	
MW-7	09/17/03	1.4	12	--	<0.50	--	0.078	0.031	0.15	0.089	0.11*a	--	
MW-7	11/20/03	0.26	0.79	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.035	0.019*a	--	
MW-7	02/26/04	15	21	--	<0.50	--	0.11	0.34	0.63	3.8	0.034*a	--	
MW-7	05/11/04	6.3	11	--	<0.50	--	0.059	0.15	0.31	1.3	0.0083*a	--	
MW-7	08/26/04	7.1	20	--	<0.50	--	0.054	0.22	0.34	1.7	0.067*a	--	
MW-7	12/15/04	18	4.4	--	<0.50	--	0.14	0.37	0.53	3.0	0.19*a	--	
MW-7	03/09/05	3.5	2.1	--	<0.50	--	0.045	0.034	0.090	0.27	0.079*a	--	
MW-7	06/08/05	2.9	2.3	--	<0.50	--	0.054	0.050	0.11	0.44	0.069*a	--	
MW-7	09/20/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-7	09/21/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-7	12/14/05	8.8	0.59	--	<0.50	--	0.16	0.19	0.31	1.5	0.042*a	--	
MW-7	03/14/06	15	0.50	--	<0.50	--	0.12	0.26	0.50	3.6	0.026*	--	
MW-7	06/07/06	17	0.85	--	<0.50	--	0.12	0.35	0.69	4.5	0.023*	--	
MW-7	09/13/06	2.4	0.32	--	<0.50	--	0.050	0.055	0.19	0.39	0.021*a	--	
MW-7	12/13/06	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-7	03/27/07	13	--	--	--	--	0.091	0.22	0.60	2.5	--	--	
MW-7	06/20/07	6.6	--	--	--	--	0.027	0.06	0.19	1.1	0.030*	--	
MW-7	09/24/07	6.6	--	--	--	--	0.023	0.094	0.27	2.0	--	--	
MW-7	12/11/07	27	--	--	--	--	0.031	0.33	0.87	6.6	--	--	

Table 3
Groundwater Analytical Results
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Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-7	03/04/08	19	--	--	--	--	0.032	0.19	0.66	3.8	--	--	
MW-7	06/04/08	6.4	--	--	--	--	<0.01	0.088	0.30	0.77	0.019***	--	
MW-7	09/08/08	15	--	--	--	--	0.015	0.064	0.35	2.6	--	--	
MW-7	12/05/08	8.7	--	--	--	--	0.019	0.046	0.33	1.5	--	--	
MW-7	03/04/09	5.7	--	--	--	--	0.014	0.073	0.25	1.4	--	--	
MW-7	06/02/09	5.5	--	--	--	--	0.014	0.029	0.15	0.89	0.0072*	--	
MW-7	09/21/09	6.1	--	--	--	--	0.0072	0.03	0.18	1.1	--	--	
MW-7	11/17/09	18	--	--	--	--	<0.020	0.16	0.54	4.3	--	--	
MW-7	03/09/10	5.8	--	--	--	--	0.013	0.047	0.20	0.9	--	--	
MW-7	06/09/10	4.9	--	--	--	--	0.0075	0.058	0.25	1.2	0.0064*	--	
MW-7	09/09/10	1.9	<0.25	--	<0.50	--	0.0036	0.0082	0.041	0.23	--	--	
MW-7	11/15/10	8.8	--	--	--	--	0.012	0.10	0.34	2.1	--	--	
MW-7	03/01/11	4.9	--	--	--	--	0.0051	0.055	0.11	0.77	--	--	
MW-7	05/24/11	5.0	--	--	--	--	0.0062	0.050	0.14	0.66	0.0082***	--	
MW-7	08/29/11	2.3	--	--	--	--	0.0022	0.0055	0.026	0.16	--	--	
MW-7	12/01/11	5.2	--	--	--	--	<0.0005	0.026	0.036	0.83	--	--	
MW-7	03/01/12	6.0	<0.25	--	<0.50	--	0.011	0.0987	0.24	0.90	--	--	
MW-7	05/31/12	8.8	--	--	--	--	0.02	0.14	0.36	1.9	0.0063***	--	
MW-7	08/25/12	1.8	--	--	--	--	0.0024	0.0062	0.030	0.16	--	--	
MW-7	11/08/12	2.4	--	--	--	--	0.0028	0.028	0.072	0.55	--	--	
MW-7	02/28/13	1.3	--	--	--	--	<0.0015	0.0070	0.0070	0.19	--	--	
MW-7	04/09/13	8.1	--	--	--	--	<0.005	0.070	0.25	1.4	0.0097	0.0097	
MW-7	04/09/13	5.7	--	--	--	--	0.0071	0.072	0.24	1.2	--	--	
MW-7	06/21/13	4.0	0.27 K	--	--	--	0.0059	0.064	0.28	1.1	--	--	Baseline monitoring event
MW-7	07/30/13	7.2	--	--	--	--	0.016	0.11	0.29	1.6	--	--	
MW-7	08/26/13	7.1	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
MW-7	10/03/13	2.8	--	--	--	--	0.016	0.033	0.15	0.54	--	--	
MW-7	01/22/14	2.1	--	--	--	--	0.014	0.010	0.13	0.17	--	--	
MW-7	04/21/14	1.9	--	--	--	--	0.013	0.0093	0.11	0.2	<0.0050	<0.0050	
MW-7 (DUP)	04/21/14	2.4	--	--	--	--	0.015	0.012	0.13	0.25	--	--	Duplicate of MW-7
MW-7	07/14/14	1.5	--	--	--	--	0.012	0.0012	0.073	0.021	--	--	
MW-7	03/17/15	1.6	--	--	--	--	0.0043	0.0061	0.050	0.13	--	--	
MW-7 (DUP)	03/17/15	2.1	--	--	--	--	0.0059	0.0078	0.068	0.17	--	--	Duplicate of MW-7
MW-7	09/30/15	1.02	--	--	--	--	0.00844	<0.005	0.0328	0.0335	0.00580	0.00381	
MW-7	03/30/16	0.519	--	--	--	--	0.00212	<0.005	0.0203	0.0144	--	--	
MW-7 (DUP)	03/30/16	0.799	--	--	--	--	0.00211	<0.005	0.0272	0.0267	--	--	Duplicate of MW-7
MW-7	10/13/16	1.87	--	--	--	--	0.00538	<0.005	0.0690	0.0819	0.00555	0.00434	
MW-7 (DUP)	10/13/16	1.88	--	--	--	--	0.00557	<0.005	0.0705	0.0825	0.00539	0.00706	Duplicate of MW-7
MW-8	02/14/02	<0.25	8.1	--	<5.0	--	<0.0005	0.00086	<0.0005	<0.0005	0.03*	--	
MW-8	08/29/02	<0.25	7.5	--	<0.5	--	<0.0005	0.00082	<0.0005	<0.0005	0.017*	--	
MW-8	11/05/02	<0.25	1.7	--	1.2	--	<0.0005	<0.0005	<0.0005	<0.0005	0.012*	--	
MW-8	02/20/03	<0.25	6.6	--	<0.5	--	<0.0005	0.00055	<0.0005	0.0024	0.029*	--	
MW-8	06/11/03	<0.25	3.8	--	<0.25	--	0.0013	<0.001	<0.001	<0.001	0.012*	--	
MW-8	09/17/03	<0.25	3.3	--	0.77	--	<0.0005	<0.0005	<0.0005	<0.0005	0.030*	--	
MW-8	11/20/03	<0.25	2.5	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	<0.0050*	--	
MW-8	02/26/04	<0.25	2.7	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.016*	--	
MW-8	05/11/04	<0.25	1.5	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-8	08/26/04	<0.25	1.0	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-8	12/15/04	<0.25	1.5	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	0.0071*	--	
MW-8	03/09/05	<0.25	1.6	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0094*	--	
MW-8	06/08/05	<0.25	1.8	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.014*	--	
MW-8	09/21/05	<0.25	0.97	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.011*	--	
MW-8	12/14/05	<0.25	1.1	--	0.58	--	<0.001	<0.001	<0.001	0.0013	0.0060*	--	
MW-8	03/14/06	<0.25	0.54	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.011*	--	
MW-8	06/07/06	<0.25	0.88	--	0.61	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0093*	--	
MW-8	09/13/06	<0.25	0.35	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.012*	--	
MW-8	12/13/06	<0.25	0.82	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0060*	--	
MW-8	06/20/07	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.029	--	
MW-8	06/04/08	<0.25	0.37	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	0.064	--	
MW-8	06/02/09	<0.25	0.52	--	<0.50	--	<0.00050	<0.00050	<0.00050	<0.00050	0.020	--	
MW-8	06/09/10	<0.25	0.82	--	0.65	--	<0.0005	<0.0005	<0.0005	<0.0005	0.013	--	
MW-8	05/24/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.020	--	
MW-8	05/31/12	<0.25	<0.25	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	0.032	--	
MW-8	04/10/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.046	--	
MW-8	04/24/14	<0.25	0.49	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.027	--	
MW-8	09/29/15	<0.100	--	1.75	--	2.07	<0.001	<0.005	<0.001	<0.003	0.00676	<0.002	
MW-8	10/13/16	<0.100	--	0.385	--	<0.500	<0.001	<0.005	<0.001	<0.003	0.0183	<0.002	
MW-9	06/11/03	6.0	13	--	<0.50	--	0.0031	0.036	0.076	0.60	0.022*	--	
MW-9	09/17/03	5.3	39	--	0.72	--	0.026	0.027	0.09	0.45	0.0095*	--	
MW-9	11/20/03	8.5	19	--	<0.50	--	<0.005	0.018	0.14	1.1	0.0096*	--	
MW-9	02/26/04	4.1	28	--	<0.50	--	0.022	0.0072	0.025	0.47	0.0083*	--	
MW-9	05/11/04	4.1	5.8	--	<0.50	--	0.0023	0.0093	0.081	0.44	<0.0050*	--	
MW-9	08/26/04	4.2	6.2	--	<0.50	--	0.0066	0.025	0.13	0.43	0.0099*	--	
MW-9	12/15/04	5.4	7.6	--	<0.50	--	<0.0025	0.011	0.12	0.39	0.0094*	--	
MW-9	03/09/05	4.5	3.5	--	<0.50	--	0.0037	0.0047	0.042	0.18	0.021*	--	
MW-9	06/08/05	3.2	3.9	--	<0.50	--	0.0035	0.0087	0.069	0.17	0.0076*	--	
MW-9	09/21/05	2.3	2.6	--	<0.50	--	0.007	0.0077	0.033	0.12	0.0076*	--	
MW-9	12/14/05	4.7	1.2	--	<0.50	--	0.0078	0.010	0.12	0.38	0.0095*	--	
MW-9	03/14/06	2.4	1.4	--	<0.50	--	0.0024	0.0034	0.018	0.12	0.013*	--	
MW-9	06/07/06	<0.25	1.0	--	<0.50	--	0.0011	0.023	0.049	0.21	0.021*	--	
MW-9	09/13/06	1.8	0.46	--	<0.50	--	0.0044	0.016	0.063	0.064	0.010*	--	
MW-9	12/13/06	2.6	3.8	--	<0.50	--	<0.0025	<0.0025	0.024	0.19	0.025*	--	
MW-9	03/27/07	1.5	--	--	--	--	0.16	0.0013	0.0051	0.026	--	--	
MW-9	06/20/07	2.0	--	--	--	--	0.066	0.015	0.051	0.12	0.017	--	
MW-9	09/24/07	1.7	--	--	--	--	0.0036	0.0072	0.029	0.093	--	--	
MW-9	12/11/07	2.9	--	--	--	--	<0.0025	<0.0025	0.057	0.55	--	--	
MW-9	03/04/08	3.0	--	--	--	--	0.0096	<0.0015	0.016	0.15	--	--	
MW-9	06/04/08	2.0	--	--	--	--	0.0019	0.0073	0.039	0.089	0.0088	--	
MW-9	09/08/08	2.4	--	--	--	--	0.0022	0.020	0.077	0.16	--	--	
MW-9	12/05/08	0.93	--	--	--	--	<0.0015	<0.0015	<0.0015	0.052	--	--	
MW-9	03/04/09	0.42	--	--	--	--	<0.0010	<0.0010	0.0040	0.031	--	--	
MW-9	06/02/09	1.2	--	--	--	--	<0.00050	<0.00050	0.0041	0.032	0.0099	--	
MW-9	09/22/09	1.2	--	--	--	--	0.0060	0.0018	0.0068	0.033	--	--	
MW-9	11/17/09	<0.25	--	--	--	--	<0.0005	0.00050	<0.0005	0.0043	--	--	
MW-9	03/09/10	<0.25	--	--	--	--	0.00092	0.00050	0.00055	0.00071	--	--	
MW-9	06/09/10	0.3	--	--	--	--	0.0014	<0.0005	0.00081	0.0058	<0.0050	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-9	09/09/10	0.48	--	--	--	--	0.0058	0.0014	0.0061	0.025	--	--	
MW-9	11/15/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	0.00085	--	--	
MW-9	03/01/11	<0.25	--	--	--	--	0.014	<0.0005	<0.0005	0.00085	--	--	
MW-9	05/24/11	<0.25	--	--	--	--	0.0043	<0.0005	<0.0005	0.00085	0.0093	--	
MW-9	08/29/11	0.28	--	--	--	--	0.0067	<0.0005	0.00078	0.0038	--	--	
MW-9	12/01/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	0.0024	--	--	
MW-9	03/01/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	05/31/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	0.012	--	
MW-9	08/25/12	0.67	--	--	--	--	<0.00050	<0.00050	0.00062	0.0057	--	--	
MW-9	11/08/12	<0.25	--	--	--	--	<0.001	<0.001	<0.001	0.0029	--	--	
MW-9	02/28/13	<0.25	--	--	--	--	0.0012	<0.0005	<0.0005	<0.0005	--	--	
MW-9	04/10/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-9	06/24/13	0.33	0.37	--	--	--	0.014	<0.0005	<0.0005	0.0035	--	--	Baseline monitoring event
MW-9	07/30/13	0.27	--	--	--	--	0.0017	<0.0005	0.00071	0.006	--	--	
MW-9	08/26/13	0.42	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
MW-9	10/03/13	0.3	--	--	--	--	0.0056	<0.0005	<0.0005	0.0092	--	--	
MW-9	01/22/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	0.0013	--	--	
MW-9	04/21/14	<0.25	--	--	--	--	0.017	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-9	07/14/14	<0.25	--	--	--	--	0.010	<0.0005	<0.0005	0.00072	--	--	
MW-9	03/18/15	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	09/30/15	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	0.00323	<0.002	
MW-9	03/30/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
MW-9	10/13/16	0.784	--	--	--	--	<0.001	<0.005	0.00182	0.0116	0.00276	<0.002	
MW-12	06/19/01	<0.05	1.6	--	<0.5	--	<0.001	<0.001	<0.001	<0.003	<0.004	--	
MW-12	06/20/01	<0.06	1.7	--	<0.5	--	<0.001	<0.001	<0.001	<0.003	<0.004	--	
MW-12		Destroyed during construction activities											
MW-12R	02/14/02	<0.25	1.4	--	<0.5	--	0.014	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-12R	05/21/02	<0.25	2.5	--	<0.5	--	0.08	0.0013	<0.0005	0.00066	<0.005*	--	
MW-12R	08/28/02	<0.25	2.1	--	<0.5	--	0.028	0.0059	<0.0005	0.0015	<0.005*	--	
MW-12R	11/05/02	<0.25	1.3	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-12R	02/19/03	0.26	2.5	--	<0.5	--	0.19	0.0012	<0.001	<0.001	<0.005*	--	
MW-12R	06/10/03	0.41	1.3	--	<0.25	--	0.11	0.00055	<0.0005	<0.0005	<0.005*	--	
MW-12R	09/16/03	<0.25	0.67	--	<0.50	--	0.0021	<0.0005	<0.0005	<0.0005	0.013*	--	
MW-12R	11/19/03	0.42	<0.25	--	<0.50	--	0.26	<0.001	<0.001	<0.001	0.0078	--	
MW-12R	02/25/04	0.26	1.8	--	<0.50	--	0.099	0.00050	<0.0005	0.00076	0.010*	--	
MW-12R	05/12/04	0.56	0.74	--	<0.50	--	0.20	<0.001	<0.001	<0.001	<0.0050*	--	
MW-12R	08/26/04	0.35	0.50	--	<0.50	--	0.089	<0.001	<0.001	<0.001	<0.0050*	--	
MW-12R	12/15/04	<0.25	0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-12R	03/09/05	<0.25	0.39	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-12R	06/08/05	<0.25	0.39	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-12R	09/21/05	0.26	0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-12R	03/14/06	<0.25	<0.25	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	<0.0050*	--	
MW-12R	06/07/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-12R	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-12R	12/13/06	<0.25	0.27	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-12R	12/14/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-12R	06/20/07	<0.25	--	--	--	--	<0.0005	0.0010	<0.0005	<0.0005	<0.0050	--	
MW-12R	06/05/08	<0.25	0.78	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	--	

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Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-12R	06/01/09	<0.25	0.32	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-12R	06/08/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-12R	05/23/11	<0.25	0.41	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	--	
MW-12R	06/01/12	<0.25	<0.25	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	--	
MW-12R	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-12R	04/23/14	<0.25	0.49	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-12R	09/30/15	<0.100	--	2.41	--	1.07	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-12R	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-13	06/19/01	<0.05	1.3	--	<0.5	--	<0.001	<0.001	<0.001	<0.003	<0.004	--	
MW-13	Destroyed during construction activities												
MW-13R	02/14/02	<0.25	3.2	--	<0.5	--	0.056	<0.0005	<0.0005	0.00075	<0.005*	--	
MW-13R	05/21/02	<0.25	3.5	--	<0.5	--	0.0025	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-13R	08/28/02	<0.25	2.4	--	<0.5	--	<0.0005	0.0019	<0.0005	0.00070	<0.005*	--	
MW-13R	11/05/02	<0.25	2.0	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-13R	02/19/03	<0.25	1.7	--	<0.5	--	0.00078	0.0032	<0.0005	0.00083	<0.005*	--	
MW-13R	06/10/03	<0.25	0.76	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-13R	09/16/03	<0.25	1.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0078*	--	
MW-13R	11/19/03	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0066	--	
MW-13R	02/25/04	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.012*	--	
MW-13R	05/12/04	<0.25	0.61	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-13R	08/26/04	<0.25	0.49	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-13R	12/15/04	<0.25	0.91	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-13R	03/09/05	<0.25	0.35	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-13R	06/08/05	<0.25	0.49	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-13R	09/21/05	<0.25	0.39	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-13R	03/14/06	<0.25	<0.25	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	<0.0050*	--	
MW-13R	06/07/06	<0.25	<0.25	--	<0.50	--	<0.005	<0.005	<0.005	<0.005	<0.0050*	--	
MW-13R	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-13R	12/13/06	<0.25	0.33	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0077*	--	
MW-13R	12/14/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-13R	06/20/07	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-13R	06/05/08	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-13R	06/01/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-13R	06/08/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-13R	05/23/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-13R	Abandoned on 5/25/2012												
MW-14	02/13/02	2.5	37	--	<5.0	--	0.010	0.0085	0.18	0.22	--	--	
MW-14	05/21/02	2.9	23	--	1.0	--	0.0093	0.0057	0.18	0.15	--	--	
MW-14	08/29/02	2.9	28	--	<0.5	--	0.017	0.0073	0.21	0.14	--	--	
MW-14	11/05/02	2.0	28	--	0.91	--	0.060	0.0059	0.12	0.076	--	--	
MW-14	02/20/03	3.4	18	--	<0.5	--	0.056	0.0062	0.14	0.11	--	--	
MW-14	06/11/03	3.1	28	--	<0.5	--	0.059	0.0098	0.23	0.13	--	--	
MW-14	09/16/03	<1.0	15	--	<0.50	--	0.13	<0.005	0.019	0.022	--	--	
MW-14	11/20/03	<2.0	29	--	0.7	--	0.12	<0.01	0.020	0.031	--	--	
MW-14	02/24/04	2.4	21	--	<0.50	--	0.061	0.014	0.25	0.20	--	--	
MW-14	05/11/04	2.7	27	--	<0.50	--	0.053	0.0092	0.21	0.16	--	--	
MW-14	08/26/04	2.3	11	--	0.53	--	0.024	<0.0025	0.16	0.19	--	--	
MW-14	12/15/04	1.2	9.6	--	<0.50	--	0.0084	<0.005	0.010	0.0055	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-14	03/09/05	4.2	7.7	--	<0.50	--	0.0053	0.0094	0.18	0.099	--	--	
MW-14	06/08/05	3.1	8.8	--	<0.50	--	0.0043	0.0069	0.17	0.11	--	--	
MW-14	09/21/05	1.6	10	--	1.1	--	0.012	0.0048	0.077	0.068	--	--	
MW-14	12/14/05	3.1	2.0	--	<0.50	--	0.0059	0.0075	0.12	0.068	--	--	
MW-14	03/14/06	0.79	2.1	--	<0.50	--	<0.0025	<0.0025	0.023	0.030	--	--	
MW-14	06/07/06	0.84	3.0	--	<0.50	--	<0.0025	<0.0025	0.061	0.033	--	--	
MW-14	09/13/06	2.4	1.8	--	<0.50	--	<0.0025	0.0060	0.1	0.056	--	--	
MW-14	12/13/06	1.1	1.4	--	<0.50	--	<0.0025	<0.0025	0.044	0.029	--	--	
MW-14	03/27/07	1.3	--	--	--	--	0.0057	<0.0025	0.049	0.024	--	--	
MW-14	06/20/07	1.5	--	--	--	--	<0.0025	0.0039	0.087	0.046	--	--	
MW-14	09/24/07	2.5	--	--	--	--	0.0024	0.0077	0.15	0.13	--	--	
MW-14	12/11/07	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-14	03/04/08	0.43	--	--	--	--	<0.0015	<0.0015	0.019	0.0073	--	--	
MW-14	06/04/08	<0.30	--	--	--	--	<0.0015	<0.0015	<0.015	<0.015	--	--	
MW-14	09/08/08	2.5	--	--	--	--	0.0024	0.0070	0.17	0.075	--	--	
MW-14	12/05/08	<0.50	--	--	--	--	<0.0025	<0.0025	0.0047	0.0036	--	--	
MW-14	03/04/09	<0.25	--	--	--	--	0.0011	<0.0010	0.0011	0.0038	--	--	
MW-14	06/02/09	<0.25	--	--	--	--	<0.0010	<0.0010	<0.0010	0.0018	--	--	
MW-14	09/21/09	0.56	--	--	--	--	<0.0025	<0.0025	0.044	0.013	--	--	
MW-14	11/17/09	<0.50	--	--	--	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-14	03/08/10	<0.25	--	--	--	--	0.0010	<0.0010	0.0010	0.0021	--	--	
MW-14	06/08/10	<0.25	--	--	--	--	<0.0005	<0.0005	0.0011	0.0014	--	--	
MW-14	09/09/10	0.5	--	--	--	--	0.0013	0.0018	0.031	0.036	--	--	
MW-14	11/15/10	<0.25	--	--	--	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-14	03/01/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-14	05/24/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-14	08/29/11	0.41	--	--	--	--	<0.0010	0.0011	0.019	0.026	--	--	
MW-14	12/01/11	<0.25	--	--	--	--	<0.0010	<0.0010	<0.0010	0.0032	--	--	
MW-14	03/01/12	<0.25	--	--	--	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-14	05/31/12	<0.25	--	--	--	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-14	08/25/12	<0.25	--	--	--	--	<0.00050	<0.00050	0.0028	0.0017	--	--	
MW-14	11/08/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	0.0041	--	--	
MW-14	02/28/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-14	04/09/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-14	07/30/13	<0.25	--	--	--	--	<0.0005	0.00058	0.011	0.0092	--	--	
MW-14	10/03/13	<0.25	--	--	--	--	<0.001	<0.001	0.0034	0.022	--	--	
MW-14	01/22/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-14	04/21/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-14	07/15/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-14	10/01/15	0.299	--	--	--	--	<0.001	<0.005	0.00106	0.0192	--	--	
MW-14	10/11/16	1.11	--	--	--	--	<0.001	<0.005	0.0257	0.0309	--	--	
MW-16	02/13/02	<0.25	<0.25	--	<0.5	--	0.0013	0.0037	<0.0005	0.0011	--	--	
MW-16	05/21/02	<0.25	<0.5	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	08/29/02	<0.25	<0.5	--	<0.5	--	<0.0005	0.0022	<0.0005	0.00069	--	--	
MW-16	11/05/02	<0.25	0.29	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	02/19/03	<0.25	<0.25	--	<0.5	--	<0.0005	0.0018	<0.0005	<0.0005	--	--	
MW-16	06/10/03	<0.25	<0.25	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	09/16/03	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-16	11/19/03	<0.25	<0.25	--	<0.50	--	<0.0005	0.0013	<0.0005	0.00062	--	--	
MW-16	02/25/04	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	05/11/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	08/26/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	12/15/04	<0.25	<0.25	--	<0.50	--	0.029	<0.0005	<0.0005	<0.0005	--	--	
MW-16	03/10/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	06/07/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	09/20/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	12/13/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	03/15/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	06/08/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	09/12/06	<0.25	<0.25	--	<0.50	--	<0.0005	0.00062	0.0012	<0.0005	--	--	
MW-16	12/12/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	06/19/07	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	06/04/08	0.39	0.43	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-16	06/03/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	06/09/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.0012	--	--	
MW-16	05/23/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	05/31/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	04/22/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-16	09/30/15	<0.100	--	<0.100	--	<0.25	<0.001	<0.005	<0.001	<0.003	--	--	
MW-16	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	--	--	
MW-17	05/23/11	0.3	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	02/13/02	7.6	0.77	--	<0.5	--	1.8	0.067	0.29	0.34	--	--	
MW-18	05/21/02	1.2	0.30	--	<0.5	--	0.25	0.016	0.068	0.068	--	--	
MW-18	08/29/02	1.6	<0.5	--	<0.5	--	0.45	0.014	0.032	0.044	--	--	
MW-18	11/05/02	1.1	<0.25	--	<0.5	--	<0.3	0.010	0.011	0.031	--	--	
MW-18	02/19/03	<0.25	<0.25	--	<0.5	--	0.0035	0.0047	<0.0005	0.0016	--	--	
MW-18	06/10/03	<0.25	<0.25	--	<0.25	--	0.022	0.0016	<0.0005	0.0040	--	--	
MW-18	09/16/03	<0.25	<0.50	--	<0.50	--	0.036	0.0019	<0.0005	0.0075	--	--	
MW-18	11/19/03	<0.25	<0.25	--	<0.50	--	0.0042	<0.0005	<0.0005	0.0015	--	--	
MW-18	02/25/04	0.58	<0.25	--	<0.50	--	0.11	0.0048	0.00087	0.026	--	--	
MW-18	05/11/04	1.1	<0.25	--	<0.50	--	0.25	0.0073	0.0016	0.037	--	--	
MW-18	08/26/04	<0.25	<0.25	--	<0.50	--	0.003	<0.0005	<0.0005	<0.0005	--	--	
MW-18	12/15/04	0.84	<0.25	--	<0.50	--	0.14	0.0060	0.0019	0.029	--	--	
MW-18	03/10/05	0.84	<0.25	--	<0.50	--	0.25	0.0049	0.0020	0.021	--	--	
MW-18	06/07/05	0.68	<0.25	--	<0.50	--	0.17	0.0039	0.0019	0.0098	--	--	
MW-18	09/20/05	4.0	<0.25	--	<0.50	--	0.74	0.021	0.0091	0.090	--	--	
MW-18	12/13/05	2.3	<0.25	--	<0.50	--	0.45	0.015	0.0067	0.033	--	--	
MW-18	03/15/06	4.9	<0.25	--	<0.50	--	1.2	0.035	0.025	0.12	--	--	
MW-18	06/08/06	1.2	<0.25	--	<0.50	--	0.15	0.011	0.011	0.034	--	--	
MW-18	09/12/06	0.35	<0.25	--	<0.50	--	0.023	0.0021	0.0022	0.0047	--	--	
MW-18	12/12/06	0.28	<0.25	--	<0.50	--	0.023	0.0018	0.0019	0.0060	--	--	
MW-18	03/27/07	0.78	--	--	--	--	0.022	0.0029	0.0051	0.012	--	--	
MW-18	06/19/07	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	09/24/07	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	12/11/07	<0.25	--	--	--	--	0.011	0.00075	<0.0005	0.0032	--	--	

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2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-18	03/04/08	0.29	--	--	--	--	0.0090	0.0016	0.00050	0.00088	--	--	
MW-18	06/04/08	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	09/08/08	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	12/04/08	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	03/04/09	<0.25	--	--	--	--	0.00080	<0.0005	<0.0005	<0.0005	--	--	
MW-18	06/03/09	<0.25	--	--	--	--	0.00061	<0.0005	<0.0005	<0.0005	--	--	
MW-18	09/22/09	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	11/17/09	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	03/09/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	0.0011	--	--	
MW-18	06/08/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	09/10/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	11/16/10	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	03/02/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	05/23/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	08/30/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	12/02/11	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0010	--	--	
MW-18	03/02/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	05/31/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	11/08/12	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	02/28/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	04/09/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	07/29/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	10/02/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	01/22/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	04/22/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	07/15/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	03/18/15	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-18	09/30/15	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
MW-18	03/29/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
MW-18	10/12/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
MW-19	02/13/02	29	6.8	--	<2.5	--	0.057	0.73	0.58	6.5	--	--	
MW-19	05/21/02	30	7.7	--	<0.5	--	0.049	0.65	0.53	6.5	--	--	
MW-19	08/29/02	13	11	--	<0.5	--	0.14	0.29	0.20	2.1	--	--	
MW-19	11/05/02	8.2	3.0	--	<0.5	--	0.21	0.37	0.16	1.7	--	--	
MW-19	02/20/03	38	19	--	<0.5	--	0.091	1.2	0.80	8.0	--	--	
MW-19	06/11/03	32	15	--	<1.0	--	0.042	0.38	0.80	6.7	--	--	
MW-19	09/16/03	4.2	12	--	<0.50	--	0.19	0.043	0.19	1.1	--	--	
MW-19	11/20/03	22	10	--	<0.50	--	0.11	0.67	0.75	6.1	--	--	
MW-19	02/24/04	19	14	--	<0.50	--	<0.015	0.49	0.63	4.7	--	--	
MW-19	05/11/04	27	13	--	<0.50	--	<0.025	0.22	0.87	7.2	--	--	
MW-19	08/26/04	22	0.72	--	<0.50	--	0.042	0.26	0.64	4.6	--	--	
MW-19	12/15/04	15	7.6	--	<0.50	--	0.039	0.12	0.37	2.7	--	--	
MW-19	03/09/05	27	9.1	--	<0.50	--	0.073	0.18	0.56	3.4	--	--	
MW-19	06/08/05	17	6.3	--	<0.50	--	0.071	0.17	0.61	2.8	--	--	
MW-19	09/20/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-19	12/14/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-19	03/14/06	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-19	06/07/06	14	1.4	--	<0.50	--	<0.010	0.043	0.29	1.4	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-19	09/13/06	11	0.50	--	<0.50	--	0.032	0.047	0.41	1.1	--	--	
MW-19	12/13/06	8.0	1.4	--	<0.50	--	0.016	0.052	0.3	1.4	--	--	
MW-19	03/27/07	13	--	--	--	--	<0.010	0.047	0.35	1.8	--	--	
MW-19	06/20/07	12	--	--	--	--	0.05	0.092	0.29	1.2	--	--	
MW-19	09/24/07	10	--	--	--	--	0.13	0.11	0.42	1.3	--	--	
MW-19	12/11/07	12	--	--	--	--	0.11	0.14	0.40	1.9	--	--	
MW-19	03/04/08	17	--	--	--	--	0.15	0.28	0.52	2.4	--	--	
MW-19	06/04/08	11	--	--	--	--	0.070	0.023	0.45	1.0	--	--	
MW-19	09/08/08	5.3	--	--	--	--	0.078	0.0063	0.12	0.29	--	--	
MW-19	12/05/08	7.8	--	--	--	--	0.071	0.047	0.38	0.73	--	--	
MW-19	03/04/09	9.4	--	--	--	--	0.076	0.13	0.43	1.4	--	--	
MW-19	06/02/09	13	--	--	--	--	0.071	0.13	0.43	1.6	--	--	
MW-19	09/21/09	8.4	--	--	--	--	0.052	0.0097	0.32	0.29	--	--	
MW-19	11/17/09	7.4	--	--	--	--	0.023	0.049	0.34	1.2	--	--	
MW-19	03/08/10	10	--	--	--	--	0.017	0.11	0.46	1.8	--	--	
MW-19	06/08/10	12	--	--	--	--	0.042	0.17	0.55	1.6	--	--	
MW-19	09/09/10	7.3	0.71	--	<0.50	--	0.039	0.020	0.42	0.18	--	--	
MW-19	11/15/10	4.5	--	--	--	--	0.039	0.18	0.44	0.13	--	--	
MW-19	03/01/11	9.6	--	--	--	--	0.039	0.13	0.34	0.88	--	--	
MW-19	05/24/11	7.4	--	--	--	--	0.0028	0.011	0.17	0.38	--	--	
MW-19	08/29/11	7.0	--	--	--	--	0.012	0.015	0.15	0.066	--	--	
MW-19	12/01/11	7.5	--	--	--	--	0.059	0.034	0.22	0.30	--	--	
MW-19	03/01/12	6.4	--	--	--	--	0.15	0.064	0.34	0.44	--	--	
MW-19	05/31/12	8.3	--	--	--	--	0.079	0.073	0.48	0.81	--	--	
MW-19	08/25/12	5.2	--	--	--	--	0.054	0.0076	0.27	0.089	--	--	
MW-19	11/08/12	4.7	--	--	--	--	0.042	0.0096	0.28	0.18	--	--	
MW-19	02/28/13	8.1	--	--	--	--	0.045	0.13	0.44	0.77	--	--	
MW-19	04/09/13	6.9	--	--	--	--	0.029	0.15	0.32	0.57	--	--	
MW-19	06/21/13	2.8	1.1 K	--	--	--	0.019	0.017	0.31	0.081	--	--	Baseline monitoring event
MW-19	07/30/13	4.4	--	--	--	--	0.0086	0.0051	0.16	0.013	--	--	
MW-19	08/26/13	2.3	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
MW-19	10/03/13	3.2	--	--	--	--	0.0076	0.0023	0.046	0.0020	--	--	
MW-19	01/22/14	2.2	--	--	--	--	0.021	0.00065	0.029	<0.0005	--	--	
MW-19	04/21/14	2.1	--	--	--	--	0.0066	0.0039	0.16	0.0064	--	--	
MW-19	07/15/14	4.2	--	--	--	--	0.0059	0.010	0.21	0.15	--	--	
MW-19 (DUP)	07/15/14	4.4	--	--	--	--	0.0052	0.0097	0.20	0.15	--	--	Duplicate of MW-19
MW-19	03/18/15	4.3	--	--	--	--	0.0049	0.014	0.14	0.18	--	--	
MW-19	09/30/15	2.02	--	--	--	--	0.00341	<0.005	0.0157	<0.003	--	--	
MW-19	03/30/16	1.69	--	--	--	--	<0.001	<0.005	0.0365	0.0591	--	--	
MW-19	10/11/16	1.98	--	--	--	--	0.00527	<0.005	0.0119	0.00806	--	--	
MW-20	02/13/02	<0.25	0.64	--	<0.5	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-20	05/20/02	<0.25	1.3	--	<0.5	--	0.018	0.0012	0.0048	0.014	--	--	
MW-20	08/29/02	0.6	1.1	--	<0.5	--	0.057	0.0065	0.021	0.084	--	--	
MW-20	11/06/02	<0.25	0.81	--	<0.5	--	0.0023	0.00053	<0.0005	<0.0005	--	--	
MW-20	02/19/03	<0.25	<0.25	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	06/11/03	<0.25	0.68	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	09/17/03	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	11/20/03	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00072	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-20	02/25/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	05/11/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	08/26/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	12/15/04	<0.25	0.30	--	<0.50	--	0.0013	<0.0005	<0.0005	<0.0005	--	--	
MW-20	03/09/05	<0.25	<0.25	--	<0.50	--	0.00074	<0.0005	<0.0005	<0.0005	--	--	
MW-20	06/08/05	<0.25	0.55	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	09/21/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	12/14/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	03/14/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	06/07/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	12/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	06/20/07	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	06/05/08	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	06/01/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	06/09/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	0.00054	0.0028	--	--	
MW-20	05/23/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	05/31/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	04/22/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-20	10/01/15	<0.100	--	0.378	--	<0.25	<0.001	<0.005	<0.001	<0.003	--	--	
MW-20	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	--	--	
MW-21	06/10/03	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-21	06/11/03	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-21	09/17/03	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-21	11/20/03	0.97	19	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-21	02/26/04	2.3	35	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-21	05/11/04	1.2	29	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-21	08/26/04	4.3	33	--	<0.50	--	<0.001	<0.001	0.0013	0.0014	--	--	
MW-21	12/15/04	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-21	03/09/05	2.4	140	--	<5.0	--	<0.0015	<0.0015	0.0016	<0.0015	--	--	
MW-21	06/08/05	1.8	31	--	0.50	--	<0.002	<0.002	0.0026	<0.002	--	--	
MW-21	09/21/05	1.7	46	--	3.3	--	<0.0010	<0.0010	0.0013	<0.0010	--	--	
MW-21	12/14/05	1.0	6.1	--	0.54	--	<0.002	<0.002	0.0027	<0.002	--	--	
MW-21	03/14/06	<0.25	33	--	3.1	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	06/07/06	0.77	18	--	1.2	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-21	09/13/06	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-21	12/13/06	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-21	03/27/07	<0.50	9.6	--	0.75	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-21	06/20/07	<0.50	8.5	--	0.66	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-21	09/24/07	0.36	4.3	--	0.52	--	<0.0015	<0.0015	0.0018	<0.0015	--	--	
MW-21	12/11/07	<0.25	34	--	2.5	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-21	03/04/08	<0.50	12	--	0.92	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-21	06/04/08	<0.30	4.7	--	<0.50	--	<0.0015	<0.0015	<0.015	<0.0015	--	--	
MW-21	09/08/08	0.98	3.8	--	<0.50	--	<0.0015	0.0015	0.0049	0.0028	--	--	
MW-21	12/05/08	<1.0	4.8	--	<0.50	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	
MW-21	03/04/09	<0.50	6.4	--	0.89	--	<0.0025	<0.0025	<0.0025	0.0034	--	--	
MW-21	06/02/09	0.7	2.9	--	0.68	--	<0.0010	<0.0010	0.0016	<0.0010	--	--	

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Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-21	09/22/09	1.7	4.7	--	<0.50	--	<0.0025	<0.0025	0.0029	<0.0025	--	--	
MW-21	11/17/09	<0.25	0.87	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	03/09/10	<0.25	1.1	--	<0.50	--	0.0014	<0.0010	<0.0010	<0.0005	--	--	
MW-21	09/10/10	0.6	3.7	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-21	11/15/10	<0.25	0.49	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	03/01/11	<0.25	1.2	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	05/23/11	<0.25	1.2	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	08/29/11	0.35	3.7	--	0.98	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-21	12/01/11	<0.25	1.7	--	--	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--	
MW-21	03/01/12	<0.25	0.51	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-21	05/31/12	<0.25	6.1	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-21	08/25/12	0.56	1.8	--	0.59	--	<0.0025 o	<0.0025 o	<0.0025 o	<0.0025 o	--	--	
MW-21	11/08/12	<0.25	--	0.29	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-21	02/28/13	<0.25	--	0.90	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	04/10/13	<0.25	--	0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	07/30/13	0.32	2.9	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	10/03/13	<0.25	--	0.62	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	01/22/14	<0.25	2.3	--	0.77	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	04/24/14	<0.25	0.74	0.28	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	07/14/14	<0.25	1.4	0.58	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	03/18/15	<0.25	--	<0.25	--	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-21	09/30/15	<0.100	--	3.12	--	1.59	<0.001	<0.005	<0.001	<0.003	--	--	
MW-21	03/30/16	<0.100	--	1.00	--	0.537	<0.001	<0.005	<0.001	<0.003	--	--	
MW-21	10/13/16	0.244	--	1.64	--	<0.500	<0.001	<0.005	<0.001	<0.003	--	--	
MW-22	02/13/02	0.96	9.2	--	<0.5	--	0.012	0.0053	0.017	0.0097	--	--	
MW-22	05/21/02	1.1	7.7	--	<0.5	--	0.16	0.049	0.023	0.030	--	--	
MW-22	08/29/02	1.4	2.4	--	<0.5	--	0.50	0.0093	0.044	0.0066	--	--	
MW-22	11/05/02	0.49	1.7	--	<0.5	--	0.14	0.0031	0.025	<0.001	--	--	
MW-22	02/19/03	<0.25	9.1	--	<0.5	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	06/10/03	<0.25	7.4	--	0.87a	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	09/16/03	<0.25	2.7	--	<0.50	--	0.0018	<0.0005	<0.0005	<0.0005	--	--	
MW-22	11/19/03	<0.50	8.4	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	--	--	
MW-22	02/25/04	<0.25	6.4	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	05/11/04	<0.25	2.0	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	08/25/04	<0.25	0.61	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	12/14/04	<0.25	1.1	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-22	03/10/05	<0.25	2.2	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-22	06/07/05	<0.25	3.0	--	<0.50	--	0.0049	<0.001	<0.001	<0.001	--	--	
MW-22	09/20/05	0.40	2.9	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	12/13/05	<0.25	0.71	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	03/15/06	<0.25	2.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-22	06/08/06	<0.25	0.89	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-22	09/12/06	<0.25	0.45	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-22	12/12/06	<0.25	1.4	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	06/19/07	<0.25	1.1	--	<0.50	--	0.0094	<0.0005	<0.0005	<0.0005	--	--	
MW-22	06/04/08	<0.25	0.77	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-22	06/03/09	<0.25	1.8	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-22	06/09/10	<0.25	1.2	--	<0.50	--	<0.0005	<0.0005	0.0011	--	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-22	05/23/11	<0.25	2.7	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	--	--	
MW-22	05/31/12	<1.0	2.1	--	0.73	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	
MW-22	04/09/13	<0.25	--	0.97	<0.50	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	04/22/14	<0.25	2.9	0.38	<0.50	<0.50	<0.001	<0.001	<0.001	<0.001	--	--	
MW-22	09/30/15	<0.100	--	0.911	--	<0.25	<0.001	<0.005	<0.001	<0.003	--	--	
MW-22	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	--	--	
MW-23	11/19/03	5.3	1.4	--	<0.50	--	0.87	0.016	0.098	0.23	--	--	
MW-23	02/25/04	3.3	0.85	--	<0.50	--	0.91	0.011	0.046	0.030	0.0052*	--	
MW-23	05/12/04	4.2	1.3	--	<0.50	--	1.1	0.013	0.046	0.048	<0.0050*	--	
MW-23	08/26/04	5.3	0.72	--	<0.50	--	1.1	0.023	0.20	0.17	0.014*	--	
MW-23	12/14/04	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-23	03/08/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-23	06/07/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-23	09/20/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-23	12/13/05	6.3	<0.25	--	<0.50	--	1.3	0.014	0.048	0.044	<0.0050*	--	
MW-23	03/15/06	7.0	0.28	--	<0.50	--	1.4	0.015	0.19	0.21	<0.0050*	--	
MW-23	06/08/06	5.2	1.3	--	<0.50	--	1.4	0.014	0.11	0.11	<0.0050*	--	
MW-23	09/12/06	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-23	12/12/06	8.1	<0.25	--	<0.50	--	1.8	0.02	0.11	0.16	<0.0050*	--	
MW-23	03/27/07	8.4	--	--	--	--	1.8	0.019	0.16	0.16	--	--	
MW-23	06/19/07	8.7	--	--	--	--	1.8	0.021	0.23	0.23	<0.0050	--	
MW-23	09/25/07	6.9	--	--	--	--	1.5	0.021	0.085	0.11	--	--	
MW-23	12/11/07	9.1	--	--	--	--	1.3	0.022	0.053	0.097	--	--	
MW-23	03/04/08	7.8	--	--	--	--	1.5	0.018	0.089	0.10	--	--	
MW-23	06/04/08	19	--	--	--	--	2.4	0.061	0.59	3.2	<0.0050	--	
MW-23	09/08/08	6.4	--	--	--	--	0.79	0.014	0.07	0.038	--	--	
MW-23	12/04/08	5.4	--	--	--	--	0.52	0.0088	0.091	0.063	--	--	
MW-23	03/04/09	4.8	--	--	--	--	0.81	0.012	0.27	0.11	--	--	
MW-23	06/02/09	5.7	--	--	--	--	0.21	0.0061	0.17	0.054	<0.0050	--	
MW-23	09/21/09	5.9	--	--	--	--	0.64	0.013	0.26	0.025	--	--	
MW-23	11/16/09	6.2	--	--	--	--	0.80	0.017	0.45	0.036	--	--	
MW-23	03/08/10	4.8	--	--	--	--	0.25	0.0077	0.19	0.031	--	--	
MW-23	06/08/10	5.5	--	--	--	--	0.39	0.0082	0.17	0.025	<0.0050	--	
MW-23	09/10/10	4.9	--	--	--	--	0.21	0.0044	0.11	0.019	--	--	
MW-23	11/16/10	4.5	--	--	--	--	0.37	0.010	0.23	0.02	--	--	
MW-23	03/02/11	5.0	--	--	--	--	0.21	0.0060	0.15	0.023	--	--	
MW-23	05/24/11	6.0	--	--	--	--	0.32	0.0053	0.16	0.027	<0.0050	--	
MW-23	08/30/11	6.0	--	--	--	--	0.15	0.0030	0.093	0.015	--	--	
MW-23	12/02/11	5.3	--	--	--	--	0.29	0.0076	0.13	0.017	--	--	
MW-23	03/02/12	4.0	--	--	--	--	0.12	0.0029	0.13	0.027	--	--	
MW-23	05/30/12	4.5	--	--	--	--	0.087	<0.0025	0.14	0.022	<0.0050	--	
MW-23	08/25/12	2.6	--	--	--	--	0.050	<0.0025	0.059	0.0046	--	--	
MW-23	11/08/12	2.3	--	--	--	--	0.021	<0.001	0.065	0.0038	--	--	
MW-23	02/28/13	2.6	--	--	--	--	0.034	<0.0025	0.16	0.010	--	--	
MW-23	04/10/13	0.54	--	--	--	--	0.015	<0.001	0.015	0.0013	<0.0050	--	
MW-23	07/29/13	1.7	--	--	--	--	0.0097	<0.001	0.025	0.0011	--	--	
MW-23	10/02/13	0.39	--	--	--	--	0.015	<0.001	0.0019	<0.001	--	--	
MW-23	01/21/14	0.27	--	--	--	--	0.011	<0.001	<0.001	<0.001	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington



Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-23	04/23/14	1.7	--	--	--	--	0.039	<0.001	<0.001	0.0026	<0.0050	--	
MW-23	07/15/14	2.5	--	--	--	--	0.11	0.0020	0.063	0.0071	--	--	
MW-23	03/18/15	2.1	--	--	--	--	0.056	0.0013	0.028	0.0039	--	--	Surrogate recovery above lab limits
MW-23 (DUP)	03/18/15	1.4	--	--	--	--	0.045	0.0011	0.024	0.0029	--	--	
MW-23	10/01/15	1.68	--	--	--	--	0.0873	<0.005	0.00684	0.00331	--	--	
MW-23	03/31/16	1.39	--	--	--	--	0.0139	<0.005	0.0180	<0.003	--	--	
MW-23 (DUP)	03/31/16	1.36	--	--	--	--	0.0121	<0.005	0.0157	<0.003			
MW-23	10/14/16	1.63	--	--	--	--	0.0852	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-24	11/19/03	34	6.4	--	0.54	--	2.8	0.54	1.4	6.0	--	--	
MW-24	02/25/04	26	3.0	--	<0.50	--	4.3	0.085	1.0	3.3	<0.0050*	--	
MW-24	05/12/04	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	08/26/04	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	12/14/04	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	03/08/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	06/07/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	09/20/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	12/13/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	12/14/05	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	03/15/06	26	0.34	--	<0.50	--	4.4	0.064	0.88	4.2	0.0069	--	
MW-24	06/08/06	21	<0.25	--	<0.50	--	1.5	0.039	0.86	4.9	0.0068	--	
MW-24	09/12/06	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-24	12/12/06	20	1.1	--	<0.50	--	1.5	0.037	0.69	3.2	0.0078*	--	
MW-24	03/27/07	27	--	--	--	--	3.4	0.062	1.3	4.6	--	--	
MW-24	06/19/07	31	--	--	--	--	3.0	0.063	1.0	5.7	0.022	--	
MW-24	09/25/07	16	--	--	--	--	2.0	0.036	0.79	2.3	--	--	
MW-24	12/11/07	40	--	--	--	--	1.5	0.066	1.8	9.2	--	--	
MW-24	03/04/08	41	--	--	--	--	1.8	0.052	1.4	7.7	--	--	
MW-24	06/04/08	5.5	--	--	--	--	1.2	0.013	0.027	0.027	<0.0050	--	
MW-24	09/08/08	46	--	--	--	--	3.5	0.081	1.9	7.3	--	--	
MW-24	12/05/08	32	--	--	--	--	2.4	0.061	1.6	4.3	--	--	
MW-24	03/04/09	26	--	--	--	--	2.3	0.056	1.5	5.3	--	--	
MW-24	06/02/09	37	--	--	--	--	2.5	0.064	1.7	4.4	0.0062	--	
MW-24	09/21/09	28	--	--	--	--	1.6	0.042	1.3	4.2	--	--	
MW-24	11/16/09	20	--	--	--	--	1.1	0.027	0.94	2.7	--	--	
MW-24	03/08/10	31	--	--	--	--	2.5	0.058	1.6	5.1	--	--	
MW-24	06/08/10	37	--	--	--	--	3.1	0.084	2.2	7.1	0.019	--	
MW-24	09/10/10	28	--	--	--	--	2.4	0.066	1.8	4.3	--	--	
MW-24	11/16/10	26	--	--	--	--	1.3	0.051	1.5	5.8	--	--	
MW-24	03/02/11	26	--	--	--	--	2.2	0.057	1.3	4.8	--	--	
MW-24	05/24/11	11	--	--	--	--	1.2	0.028	0.51	1.3	<0.0050	--	
MW-24	08/30/11	30	--	--	--	--	2	0.057	1.4	4.2	--	--	
MW-24	12/02/11	18	--	--	--	--	0.37	0.016	0.42	2.56	--	--	
MW-24	03/02/12	8.7	--	--	--	--	0.53	0.014	0.25	1.1	--	--	
MW-24	05/30/12	7.3	--	--	--	--	0.39	0.013	0.3	0.88	<0.0050	--	
MW-24	08/25/12	11	--	--	--	--	0.56	<0.020 V	0.41	1.4	--	--	
MW-24 (DUP)	08/25/12	8.0	--	--	--	--	0.41	<0.015 V	0.30	1.1	--	--	Duplicate of MW-24
MW-24	11/08/12	20	--	--	--	--	1.7	0.057	1.4	4.1	--	--	
MW-24	11/08/12	19	--	--	--	--	1.7	0.057	1.4	4.2	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
MW-24	02/28/13	6.6	--	--	--	--	0.29	<0.01	0.39	0.84	--	--	
MW-24	02/28/13	9.0	--	--	--	--	0.48	0.016	0.59	1.3	--	--	
MW-24	04/10/13	20	--	--	--	--	1.1	0.048	0.22	3.8	--	--	
MW-24	04/10/13	23	--	--	--	--	1.2	0.061	1.7	4.1	0.01	--	
MW-24	07/29/13	27	--	--	--	--	1.1	0.059	2.1	4.7	--	--	
MW-24	10/02/13	33	--	--	--	--	1.1	0.072	2.6	6.3	--	--	
MW-24 (DUP)	10/02/13	29	--	--	--	--	1.4	0.076	2.5	5.6	--	--	Duplicate of MW-24
MW-24	01/22/14	3.1	--	--	--	--	0.088	0.0034	0.18	0.33	--	--	
MW-24 (DUP)	01/22/14	2.2	--	--	--	--	0.056	0.0026	0.12	0.2	--	--	Duplicate of MW-24
MW-24	04/23/14	23	--	--	--	--	1.0	0.051	1.7	3.6	0.0085	--	
MW-24 (DUP)	04/23/14	24	--	--	--	--	1.0	0.048	1.7	3.7	--	--	Duplicate of MW-24
MW-24	07/15/14	24	--	--	--	--	1.1	0.055	1.7	3.7	--	--	
MW-24 (DUP)	07/15/14	22	--	--	--	--	1.1	0.05	1.7	3.6	--	--	Duplicate of MW-24
MW-24	03/18/15	28	--	--	--	--	1.4	0.066	1.8	2.6	--	--	
MW-24	10/01/15	13.6	--	--	--	--	0.641	<0.100	1.13	1.80	0.00282	<0.002	
MW-24 (DUP)	10/01/15	14.5	--	--	--	--	0.637	0.0264	0.934	1.51	0.00249	<0.002	Duplicate of MW-24
MW-24	03/31/16	3.44	--	--	--	--	0.136	0.00605	0.106	0.115	--	--	
MW-24	10/14/16	5.28	--	--	--	--	0.106	<0.05	0.201	0.280	0.00390	<0.002	
MW-24 (DUP)	10/14/16	5.59	--	--	--	--	0.113	<0.05	0.206	0.287	0.00404	<0.002	
MW-25	11/20/03	<0.25	1.3	--	<0.50	--	0.0061	<0.0005	<0.0005	<0.0005	--	--	
MW-25	02/26/04	0.38	8.9	--	<0.50	--	0.0011	<0.0005	0.0027	<0.0005	0.012*	--	
MW-25	05/12/04	<0.25	1.6	--	<0.50	--	<0.0005	<0.0005	0.0034	<0.0005	<0.0050*	--	
MW-25	08/26/04	<0.25	0.27	--	<0.50	--	0.013	<0.0005	<0.0005	<0.0005	0.034*a	--	
MW-25	12/14/04	<0.25	1.4	--	<0.50	--	0.0035	<0.001	<0.001	<0.001	<0.0050*	--	
MW-25	03/10/05	0.31	3.7	--	<0.50	--	0.0014	<0.0005	0.00064	<0.0005	<0.0050*	--	
MW-25	06/07/05	0.40	3.2	--	<0.50	--	<0.001	<0.001	0.0014	<0.001	<0.0050*	--	
MW-25	09/20/05	0.30	1.4	--	<0.50	--	0.0016	<0.0005	<0.0005	<0.0005	0.059*a	--	
MW-25	12/13/05	<0.25	1.2	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	<0.0050*	--	
MW-25	03/15/06	<0.25	1.0	--	<0.50	--	0.0019	<0.001	<0.001	<0.001	<0.0050*	--	
MW-25	06/08/06	<0.25	1.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-25	09/12/06	<0.25	0.31	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-25	12/12/06	<0.25	0.86	--	<0.50	--	0.0052	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-25	06/19/07	<0.50	1.6	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	--	
MW-25	06/04/08	<0.25	0.26	--	<0.50	--	0.0020	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-25	06/03/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-25	06/09/10	<0.25	0.32	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	<0.0050	--	
MW-25	05/25/11	<0.50	1.4	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	--	
MW-25	06/01/12	<0.25	<0.25	--	<0.50	--	0.0011	<0.0010	<0.0010	<0.0010	<0.0050	--	
MW-25	04/10/13	<0.25	--	<0.25	<0.50	--	0.0013	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-25	04/23/14	<0.25	0.65	0.25	<0.50	<0.50	0.0014	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-25	10/02/15	<0.100	--	1.19	--	1.19	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-25	10/13/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
SH-02	12/20/00	0.078	<0.25	--	<0.5	--	0.001	<0.001	<0.001	<0.003	0.015**	--	
SH-02													Destroyed during construction activities
SH-02R	02/13/02	<0.25	0.56	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
SH-02R	05/21/02	<0.25	2.4	--	<0.5	--	0.037	<0.0005	<0.0005	<0.0005	0.005*	--	
SH-02R	08/28/02	<0.25	4.3	--	<0.5	--	0.087	0.0038	0.00061	0.0023	0.006*	--	
SH-02R	11/05/02	<0.25	1.1	--	<0.5	--	0.016	<0.0005	<0.0005	<0.0005	0.005*	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
SH-02R	02/19/03	<0.25	<0.5	--	<0.5	--	<0.0005	0.00086	<0.0005	<0.0005	<0.005*	--	
SH-02R	06/10/03	<0.25	0.97	--	<0.25	--	<0.0005	0.00051	<0.0005	<0.0005	0.0059*	--	
SH-02R	09/16/03	<0.25	3.0	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.010*	--	
SH-02R	11/19/03	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	02/25/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	05/12/04	<0.25	0.74	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	08/26/04	<0.25	0.58	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	12/15/04	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	03/09/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	06/08/05	<0.25	0.31	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	09/21/05	<0.25	0.58	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	12/14/05	<0.25	0.30	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0078*	--	
SH-02R	03/14/06	<0.25	0.30	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0072*	--	
SH-02R	06/07/06	<0.25	0.59	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050*	--	
SH-02R	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050*	--	
SH-02R	12/13/06	<0.25	0.49	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-02R	06/20/07	<0.25	0.77	--	<0.50	--	<0.0010	<0.0010	<0.0010	0.0016	<0.0050	--	
SH-02R	06/05/08	<0.25	0.28	--	<0.50	--	<0.0005	<0.0005	<0.0005	0.00073	<0.0050	--	
SH-02R	06/01/09	<0.25	0.37	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-02R	06/08/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-02R	05/23/11	<0.25	0.29	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	--	
SH-02R	06/01/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-02R	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-02R	04/23/14	<0.25	0.28	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-02R	09/30/15	<0.100	--	1.00	--	0.298	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
SH-02R	10/12/16	<0.100	--	<0.250	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
SH-05	12/20/00	<0.05	1.0	--	<0.5	--	<0.001	<0.001	<0.003	<0.001	0.017**	--	
SH-05R	05/21/02	0.71	11	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
SH-05R	08/28/02	0.77	10	--	<0.5	--	<0.0005	0.0015	<0.0005	<0.0005	0.006*	--	
SH-05R	11/05/02	1.4	7.1	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	0.008*	--	
SH-05R	02/19/03	0.8	6.8	--	<0.5	--	<0.001	0.0016	<0.001	<0.001	<0.005*	--	
SH-05R	06/10/03	1.1	45	--	<0.25	--	<0.0005	<0.0005	<0.0005	<0.0005	0.04*	--	
SH-05R	09/16/03	<0.25	23	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.074*	--	
SH-05R	11/19/03	0.62	19	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.075*	--	
SH-05R	02/25/04	<0.25	5.3	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-05R	05/12/04	0.43	4.3	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-05R	08/26/04	0.63	3.0	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-05R	12/15/04	0.30	10	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0056*	--	
SH-05R	03/09/05	0.78	4.3	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-05R	06/08/05	0.32	4.0	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-05R	09/21/05	0.61	2.8	--	1.0	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-05R	12/14/05	0.78	1.3	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-05R	03/14/06	<0.25	1.4	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0074*	--	
SH-05R	06/07/06	<0.25	1.4	--	<0.50	--	<0.001	<0.001	<0.001	<0.001	<0.0050*	--	
SH-05R	09/13/06	0.34	0.56	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
SH-05R	12/13/06	<0.50	1.9	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050*	--	
SH-05R	06/20/07	0.59	1.8	--	<0.50	--	<0.0005	0.00058	<0.0005	<0.0005	<0.0050	--	
SH-05R	06/05/08	<0.25	1.7	--	<0.50	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
SH-05R	06/01/09	0.36	0.99	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-05R	06/08/10	<0.25	0.28	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
SH-05R	05/23/11	<0.25	1.4	--	<0.50	--	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	--	
SH-05R	10/01/15	<0.100	--	1.80	--	0.320	<0.001	<0.005	<0.001	0.003	<0.002	<0.002	
SH-05R	10/12/16	0.257	--	0.543	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-07R	02/13/02	<0.25	1.2	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	0.035*	--	
MW-07R	05/21/02	<0.25	2.1	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	0.005*	--	
MW-07R	08/28/02	<0.25	2.4	--	<0.5	--	<0.0005	0.0028	<0.0005	0.0012	0.006*	--	
MW-07R	11/05/02	<0.25	3.7	--	<0.5	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*	--	
MW-07R	02/19/03	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-07R	06/10/03	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
MW-07R	09/16/03	<0.25	1.9	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.045*	--	
MW-07R	11/19/03	<0.25	2.1	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.020*	--	
MW-07R	02/25/04	<0.25	<0.50	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	05/12/04	<0.25	0.48	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	08/26/04	<0.25	0.42	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-07R	12/15/04	<0.25	0.85	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0076*	--	
MW-07R	03/09/05	<0.25	0.54	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	06/08/05	<0.25	0.46	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	09/21/05	<0.25	0.70	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	12/14/05	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	03/14/06	<0.25	0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	06/07/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	09/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	0.0065	--	
MW-07R	12/13/06	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	--	
MW-07R	06/20/07	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	06/05/08	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	06/01/09	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	06/08/10	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	05/23/11	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	06/01/12	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	04/09/13	<0.25	--	<0.25	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	04/23/14	<0.25	<0.25	--	<0.50	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	--	
MW-07R	10/01/15	<0.100	--	2.61	--	0.373	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
MW-07R	10/12/16	<0.100	--	0.280	--	<0.500	<0.001	<0.005	<0.001	<0.003	<0.002	<0.002	
TMW-B1	10/29/09	5.7	<0.25	--	<0.50	--	0.12	0.007	0.058	0.15	--	--	
TMW-B1	05/25/11	9.1	--	--	--	--	0.024	<0.0050	0.24	0.56	--	--	
TMW-B1	12/02/11	6.6	--	--	--	--	0.091	<0.0050	0.15	0.26	--	--	
TMW-B1	03/01/12	8.0	--	--	--	--	0.079	<0.0025	0.28	0.55	--	--	
TMW-B1	11/08/12	3.7	--	--	--	--	0.16	0.010	0.019	0.036	--	--	
TMW-B1	02/28/13	14	--	--	--	--	0.026	<0.01	0.50	0.87	--	--	
TMW-B1	10/02/13	5.8	--	--	--	--	0.039	<0.005	0.16	0.24	--	--	
TMW-B1	09/29/15	7.22	--	--	--	--	0.0355	<0.01	0.213	0.106	--	--	
TMW-B1	10/14/16	7.03	--	--	--	--	0.0227	<0.05	0.0690	<0.03	--	--	
TMW-1	06/21/13	<0.25	<0.25	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	Baseline monitoring event
TMW-1	07/30/13	<0.25	--	--	--	--	--	--	--	--	--	--	
TMW-1	08/26/13	<0.25	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
TMW-1	10/03/13	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	

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Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
TMW-1	01/22/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
TMW-1	04/21/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
TMW-1	07/14/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
TMW-1	03/17/15	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
TMW-1	09/29/15	2.03	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-1	03/30/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-1	10/12/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-2	06/21/13	0.25	0.28	--	--	--	0.0075	0.00097	<0.0005	0.00068	--	--	Baseline monitoring event
TMW-2	07/30/13	0.26	--	--	--	--	--	--	--	--	--	--	
TMW-2	08/26/13	0.64	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
TMW-2	10/03/13	0.50	--	--	--	--	0.013	0.00074	<0.0005	0.0024	--	--	
TMW-2	01/22/14	0.28	--	--	--	--	0.011	<0.0005	<0.0005	<0.0005	--	--	
TMW-2	04/21/14	<0.25	--	--	--	--	<0.001	<0.001	<0.001	<0.001	--	--	
TMW-2	07/14/14	<0.25	--	--	--	--	0.0028	<0.0005	<0.0005	<0.0005	--	--	
TMW-2	03/17/15	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
TMW-2	10/01/15	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-2	03/30/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-2	10/12/16	<0.100	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-3	06/24/13	0.86	0.85	--	--	--	<0.0005	0.00052	<0.0005	0.00087	--	--	Baseline monitoring event
TMW-3	07/30/13	0.98	--	--	--	--	--	--	--	--	--	--	
TMW-3	08/26/13	1.2	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
TMW-3	10/03/13	0.92	--	--	--	--	0.00057	0.0018	0.0076	0.0072	--	--	
TMW-3	01/22/14	0.75	--	--	--	--	<0.001	0.0022	<0.001	<0.001	--	--	
TMW-3	04/24/14	0.51	--	--	--	--	<0.0005	0.0046	0.0011	<0.0005	--	--	
TMW-3	07/14/14	<0.25	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
TMW-3	03/18/15	0.62	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
TMW-3	09/30/15	0.358	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-3	03/30/16	0.266	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-3	10/12/16	0.607	--	--	--	--	<0.001	<0.005	<0.001	<0.003	--	--	
TMW-4	06/24/13	4.9	2.5 Z	--	--	--	0.17	0.084	0.23	0.95	--	--	Baseline monitoring event
TMW-4	07/30/13	5.1	--	--	--	--	--	--	--	--	--	--	
TMW-4	08/26/13	9.2	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
TMW-4	10/03/13	4.7	--	--	--	--	0.13	0.12	0.29	1.3	--	--	
TMW-4	01/22/14	6.0	--	--	--	--	0.21	0.070	0.40	0.99	--	--	
TMW-4	04/24/14	4.0	--	--	--	--	0.16	0.044	0.39	0.84	--	--	
TMW-4	07/14/14	5.6	--	--	--	--	0.19	0.016	0.38	0.35	--	--	
TMW-4	03/18/15	7.5	--	--	--	--	0.21	0.019	0.53	0.38	--	--	
TMW-4	09/30/15	3.49	--	--	--	--	0.107	<0.125	0.455	<0.075	--	--	
TMW-4	03/30/16	2.23	--	--	--	--	0.0471	<0.005	0.343	0.0141	--	--	
TMW-4	10/14/16	3.13	--	--	--	--	0.0250	<0.025	0.211	<0.015	--	--	
TMW-5	06/21/13	1.3	0.65 K	--	--	--	0.10	0.0097	0.022	0.02	--	--	Baseline monitoring event
TMW-5	07/30/13	4.3	--	--	--	--	--	--	--	--	--	--	
TMW-5	08/26/13	4.2	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
TMW-5	10/03/13	1.9	--	--	--	--	0.044	0.0063	0.0038	0.0088	--	--	
TMW-5	01/22/14	1.9	--	--	--	--	0.0039	0.0031	0.0012	0.0023	--	--	
TMW-5	04/24/14	1.4	--	--	--	--	<0.0015	0.0026	0.0017	0.0021	--	--	
TMW-5	07/14/14	1.4	--	--	--	--	0.01	0.0016	<0.0005	0.00062	--	--	
TMW-5	03/18/15	3.0	--	--	--	--	0.046	0.0069	0.016	0.016	--	--	

Table 3
Groundwater Analytical Results
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	GRO mg/L	DRO mg/L	DRO, SGC mg/L	HO mg/L	HO, SGC mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Total Lead mg/L	Dissolved Lead mg/L	Comments
Site-Specific Cleanup Levels:		1.0	10	10	10	10	0.071	200	29.0	N/A	0.0058		
TMW-5	09/30/15	1.20	--	--	--	--	0.00943	<0.005	<0.001	<0.003	--	--	
TMW-5	03/30/16	0.865	--	--	--	--	0.0220	<0.005	0.00831	<0.003	--	--	
TMW-5	10/12/16	1.27	--	--	--	--	0.00812	<0.005	<0.001	<0.003	--	--	
TMW-6	06/24/13	4.9	1.8 Z	--	--	--	0.067	0.0099	0.15	0.55	--	--	Baseline monitoring event
TMW-6	07/30/13	7.8	--	--	--	--	--	--	--	--	--	--	
TMW-6	08/26/13	8.5	--	--	--	--	--	--	--	--	--	--	Two-month monitoring event
TMW-6	10/03/13	5.4	--	--	--	--	0.028	0.010	0.18	0.42	--	--	
TMW-6	01/22/14	7.0	--	--	--	--	0.06	0.010	0.28	0.53	--	--	
TMW-6	04/24/14	5.1	--	--	--	--	0.015	0.0036	0.19	0.37	--	--	
TMW-6	07/14/14	3.9	--	--	--	--	0.064	0.0047	0.16	0.21	--	--	
TMW-6	03/18/15	5.0	--	--	--	--	0.003	0.0028	0.15	0.12	--	--	
TMW-6	09/30/15	5.09	--	--	--	--	0.00287	<0.005	0.133	0.189	--	--	
TMW-6	03/30/16	2.00	--	--	--	--	<0.001	<0.005	0.0563	0.0546	--	--	
TMW-6	10/12/16	5.82	--	--	--	--	0.00278	0.00667	0.267	0.392	--	--	

Notes:

Highlighted = data from most recent monitoring event

-- = Sample not analyzed for this parameter

< = Denotes compound was not detected at designated detection limit.

Bold = Concentration detected above the Site-Specific Cleanup Level

mg/L = milligrams per liter (parts per million [ppm])

N/A = not applicable

* = Also tested for Dissolved Lead (EPA-200.8), results are below detection limit of 0.0050 ppm.

*a = Also tested for Dissolved Lead (EPA-200.8), results are at or above detection limit of 0.0050 ppm.

** = Also tested for Dissolved Lead (EPA-7421), results are below detection limit of 0.004 ppm.

*** = Also tested for Dissolved Lead (EPA-SW6020), results are below detection limit of 0.0050 ppm.

a = Insulating oil range hydrocarbons were reported for MW-22 at concentration of 0.87 ppm.

o = Reporting Limits were increased due to sample foaming.

V = Reporting Limits were increased due to high concentration of target analytes.

K = DRO concentration may include contributions from lighter-end hydrocarbons that elute in the DRO range.

Z = DRO concentration may include contributions from lighter-end and heavier-end hydrocarbons that elute in the DRO range

SGC = A silica gel wash as performed on the solvent extract before analysis. Silica gel cleanup run for samples with TPH-DRO and TPH-HO detections above the method reporting limit.

Total Petroleum Hydrocarbons (TPH) as gasoline range organics (GRO) - Analysis by Washington Method WTPH-G prior to 5/20/98; analysis by Northwest Method NWTPH-Gx from 5/20/98 through present.

Total Petroleum Hydrocarbons (TPH) as diesel range organics (DRO) and heavy oil range organics (HO) - Analysis by Washington Method WTPH-D+ extended prior to 5/20/98; analysis by Northwest Method NWTPH-Dx from 5/20/98 through present.

Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) Compounds - Analysis by EPA Method 8020 prior to 5/20/98; analysis by EPA Method 8260B from 5/20/98 through present.

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
A-5	03/27/07	0.80	--	--	--	--	--	--	--	
A-5	09/24/07	2.70	--	--	--	--	--	--	--	
A-5	12/11/07	1.46	--	--	--	--	--	--	--	
A-5	03/04/08	0.10	--	--	--	--	--	--	--	
A-5	06/03/08	1.90	--	--	--	--	--	--	--	
A-5	09/08/08	1.13	--	--	--	--	--	--	--	
A-5	12/05/08	0.41	--	--	--	--	--	--	--	
A-5	03/04/09	0.41	--	--	--	--	--	--	--	
A-5	06/02/09	0.61	--	--	--	--	--	--	--	
A-5	09/22/09	0.69	--	--	--	--	--	--	--	
A-5	11/17/09	0.24	--	--	--	--	--	--	--	
A-5	03/08/10	0.61	--	--	--	--	--	--	--	
A-5	06/09/10	0.00	--	--	--	--	--	--	--	
A-5	09/10/10	3.32	--	--	--	--	--	--	--	
A-5	11/16/10	0.30	--	--	--	--	--	--	--	
A-5	03/02/11	0.00	--	--	--	--	--	--	--	
A-5	05/25/11	1.28	--	--	--	--	--	--	--	
A-5	08/30/11	0.58	--	--	--	--	--	--	--	
A-5	12/02/11	1.41	--	--	--	--	--	--	--	
A-5	03/02/12	0.37	--	--	--	--	--	--	--	
A-5	06/01/12	0.00	--	--	--	--	--	--	--	
A-5	10/03/13	0.00	--	--	--	--	--	--	--	
A-5	01/21/14	6.00	--	--	--	--	--	--	--	
A-5	07/15/14	0.37	--	--	--	--	--	--	--	
A-5	10/02/15	0.10	--	--	--	--	--	--	--	
A-5	03/30/16	0.33	--	--	--	--	--	--	--	
A-5	10/13/16	0.57	--	--	--	--	--	--	--	
A-8	06/02/09	0.55	--	--	--	--	--	--	--	
A-8	06/09/10	0.00	--	--	--	--	--	--	--	
A-8	05/25/11	1.32	--	--	--	--	--	--	--	
A-8	06/01/12	0.00	--	--	--	--	--	--	--	
A-8	10/02/15	0.37	--	--	--	--	--	--	--	
A-8	10/13/16	0.63	--	--	--	--	--	--	--	
A-10	08/28/02	1.40	5.7	--	--	16	<0.25	30.00	0.6	
A-10	11/06/02	2.00	5.9	--	--	15	<0.25	10.00	0.3	
A-10	02/20/03	2.70	1.0	--	--	22	6.1	86	<0.1	
A-10	06/10/03	1.40	1.60	--	--	17.00	0.54	63.00	0.1	
A-10	09/17/03	1.70	3.20	--	--	47.00	<0.25a	12.00	0.6	
A-10	11/20/03	1.40	0.10	--	--	4.90	<0.25a	3.70	0.3	
A-10	02/26/04	1.50	0.24	--	--	5.10	<0.25b	61.00	0.2	
A-10	05/12/04	0.60	--*a	--	--	30.00	<0.25	10.00	<0.10	
A-10	08/25/04	1.65	0.75	--	--	6.20	<0.25	57.00	0.12	
A-10	12/14/04	2.50	0.093	--	--	<0.050	<0.25	8.80	<0.10	
A-10	03/10/05	2.58	6.60	--	--	12.00	<0.25	260.00	<0.10	
A-10	06/07/05	1.51	1.00	--	--	3.40	<0.25	480.00	16	
A-10	09/20/05	2.10	2.40	--	--	5.60	<0.25	320.00	0.23	
A-10	12/13/05	2.20	0.067	--	--	<0.050	14.00	56.00	<0.10	
A-10	03/15/06	2.20	2.50	--	--	42.00	<0.25	60.00	0.18	
A-10	06/08/06	1.00	1.60	--	--	7.80	<0.25	4.30	0.22	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
A-10	09/12/06	1.60	1.40	--	--	15.00	<0.25	140.00	0.18	
A-10	12/12/06	2.00	0.088	--	--	2.00	<0.25	7.90	<0.10	
A-10	06/19/07	2.70	--	--	--	--	--	--	--	
A-10	06/03/08	2.40	--	--	--	--	--	--	--	
A-10	06/02/09	0.45	--	--	--	--	--	--	--	
A-10	06/09/10	0.00	--	--	--	--	--	--	--	
A-10	05/25/11	0.97	--	--	--	--	--	--	--	
A-10	06/01/12	0.00	--	--	--	--	--	--	--	
A-10	10/02/15	0.43	--	--	--	--	--	--	--	
A-10	10/13/16	0.61	--	--	--	--	--	--	--	
A-14R	08/28/02	1.50	0.034	--	--	0.7	9.5	290.00	<0.1	
A-14R	11/06/02	2.30	0.054	--	--	0.4	5.7	290.00	0.1	
A-14R	02/20/03	2.90	0.26	--	--	<0.2	2.4	300	<0.1	
A-14R	06/10/03	2.00	0.21	--	--	2.20	6.00	220.00	0.3	
A-14R	09/17/03	1.90	2.40	--	--	3.40	0.86a	240.00	0.2	
A-14R	11/20/03	1.80	0.45	--	--	2.40	0.63a	250.00	<0.1	
A-14R	02/26/04	1.40	3.30	--	--	0.31	0.69b	190.00	0.1	
A-14R	05/12/04	2.30	1.40	--	--	<0.050	3.00	130.00	<0.10	
A-14R	08/25/04	3.22	4.30	--	--	0.66	0.42	200.00	<0.10	
A-14R	12/14/04	3.00	3.50	--	--	1.00	<0.25	230.00	<0.10	
A-14R	03/10/05	2.15	1.30	--	--	2.40	<0.25	290.00	<0.10	
A-14R	06/07/05	1.00	0.28	--	--	0.16	0.36	220.00	<0.2	
A-14R	12/13/05	1.10	1.60	--	--	3.70	<0.25	150.00	<0.10	
A-14R	03/15/06	1.10	0.82	--	--	0.14	<0.25	80.00	<0.10	
A-14R	06/08/06	2.40	1.50	--	--	0.53	<0.25	38.00	<0.10	
A-14R	09/12/06	2.00	0.19	--	--	0.80	<0.25	110.00	<0.10	
A-14R	06/19/07	1.90	--	--	--	--	--	--	--	
A-14R	12/12/07	2.90	1.2	--	--	0.76	<0.25	99.00	<0.10	
A-14R	06/03/08	1.90	--	--	--	--	--	--	--	
A-14R	06/02/09	1.00	--	--	--	--	--	--	--	
A-14R	06/09/10	0.00	--	--	--	--	--	--	--	
A-14R	05/25/11	1.05	--	--	--	--	--	--	--	
A-14R	06/01/12	0.00	--	--	--	--	--	--	--	
A-14R	10/01/15	0.35	--	--	--	--	--	--	--	
A-14R	10/13/16	0.69	--	--	--	--	--	--	--	
A-21	08/29/02	2.10	0.31	--	--	33.00	<0.25	41.00	0.3	
A-21	11/06/02	1.60	0.64	--	--	32.00	<0.25	32.00	<0.1	
A-21	02/19/03	1.90	1.60	--	--	28.00	<0.25	2.90	0.1	
A-21	06/10/03	1.30	2.80	--	--	31.00	<0.25	0.30	0.2	
A-21	09/16/03	1.60	4.10	--	--	33.00	<0.25b	5.30	0.7	
A-21	11/19/03	1.70	5.60	--	--	26.00	<0.25b	16.00	0.2	
A-21	02/25/04	2.10	2.60	--	--	31.00	<0.25b	1.20	0.4	
A-21	05/12/04	0.80	1.80	--	--	33.00	<0.25	0.79	<0.10	
A-21	08/25/04	1.44	5.80	--	--	16.00	<0.25	2.40	0.11	
A-21	12/14/04	2.72	11.00	--	--	4.60	<0.25	0.74	0.12	
A-21	03/10/05	1.50	8.50	--	--	19.00	<0.25	0.79	<0.10	
A-21	06/07/05	1.50	3.80	--	--	3.30	<0.25	<0.50	0.7	
A-21	09/20/05	2.60	6.10	--	--	27.00	<0.25	<0.50	<0.10	
A-21	12/13/05	2.50	7.50	--	--	30.00	<0.25	<0.50	<0.10	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
A-21	03/15/06	2.50	3.20	--	--	32.00	<0.25	<0.50	<0.10	
A-21	06/08/06	2.80	2.20	--	--	33.00	<0.25	<0.50	<0.10	
A-21	09/12/06	2.60	2.90	--	--	31.00	<0.25	<0.50	<0.10	
A-21	12/12/06	3.10	3.20	--	--	46.00	<0.25	130.00	0.11	
A-21	03/27/07	3.80	--	--	--	--	--	--	--	
A-21	06/19/07	2.10	0.19	--	--	24	<0.25	120	0.13	
A-21	09/25/07	3.00	--	--	--	--	--	--	--	
A-21	12/11/07	1.70	--	--	--	--	--	--	--	
A-21	03/04/08	0.30	--	--	--	--	--	--	--	
A-21	06/04/08	1.60	0.11	--	--	20.00	0.27	150.00	0.14	
A-21	09/08/08	1.71	--	--	--	--	--	--	--	
A-21	12/04/08	0.72	--	--	--	--	--	--	--	
A-21	03/04/09	0.37	--	--	--	--	--	--	--	
A-21	06/02/09	0.20	0.028	--	--	8.00	<0.25	320.00	<0.10	
A-21	09/22/09	0.56	--	--	--	--	--	--	--	
A-21	11/17/09	0.39	--	--	--	--	--	--	--	
A-21	03/08/10	0.85	--	--	--	--	--	--	--	
A-21	06/08/10	0.33	0.015	--	--	0.72	0.28	85.00	<0.10	
A-21	09/10/10	3.49	--	--	--	--	--	--	--	
A-21	11/16/10	0.33	--	--	--	--	--	--	--	
A-21	03/02/11	1.50	--	--	--	--	--	--	--	
A-21	05/24/11	1.54	0.038	--	--	0.19	0.50	25.00	0.10	
A-21	08/30/11	0.38	--	--	--	--	--	--	--	
A-21	12/02/11	0.70	--	--	--	--	--	--	--	
A-21	03/02/12	0.29	--	--	--	--	--	--	--	
A-21	05/30/12	0.00	<0.010	--	--	9.60	<0.25	940.00	0.15	
A-21	04/10/13	--	<0.010	--	--	--	<0.25	920	<0.10	
A-21	10/03/13	0.00	--	--	--	--	--	--	--	
A-21	01/21/14	3.53	--	--	--	--	--	--	--	
A-21	04/23/14	--	0.013	--	--	0.62	<0.25	250	<0.10	
A-21	07/15/14	0.39	--	--	--	--	--	--	--	
A-21	03/18/15	0.03	0.050	--	--	4.2	<2.5	1,500	<0.10	
A-21	10/01/15	0.30	0.0590	--	--	73.9	<0.1	41.0	0.0780	
A-21	03/31/16	0.96	0.0189	--	--	0.378 J5	0.295	42.8	<0.05	
A-21	10/13/16	0.82	--	--	--	--	--	--	--	
A-23R	08/28/02	2.40	4.10	--	--	13.00	<0.25	270.00	0.20	
A-23R	11/05/02	2.40	3.60	--	--	11.00	<0.25	200.00	1.60	
A-23R	02/19/03	3.00	6.10	--	--	12.00	<0.25	120.00	<0.1	
A-23R	06/10/03	1.80	1.80	--	--	30.00	<0.25	300.00	0.20	
A-23R	09/16/03	1.40	7.60	--	--	12.00	<0.25b	100.00	0.90	
A-23R	11/19/03	1.50	8.70	--	--	7.80	<0.25b	26.00	0.80	
A-23R	02/25/04	1.70	13.00	--	--	14.00	<0.25b	17.00	0.70	
A-23R	05/12/04	4.70	5.30	--	--	23.00	<0.25	80.00	<1.0	
A-23R	08/25/04	1.80	10.00	--	--	11.00	<0.25	31.00	0.34	
A-23R	12/14/04	2.20	12.00	--	--	9.80	<0.25	6.40	0.25	
A-23R	03/10/05	1.10	7.30	--	--	30.00	<0.25	220.00	0.20	
A-23R	06/07/05	1.50	5.60	--	--	28.00	<0.25	200.00	1.90	
A-23R	09/20/05	1.50	2.60	--	--	34.00	<0.25	270.00	<0.10	
A-23R	12/14/05	0.80	5.30	--	--	25.00	<0.25	50.00	0.17	

Table 4
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Kinder Morgan Liquids Terminals, LLC
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2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
A-23R	03/15/06	0.80	13.00	--	--	27.00	<0.25	21.00	0.28	
A-23R	06/08/06	0.70	4.00	--	--	38.00	<0.25	150.00	0.19	
A-23R	09/12/06	1.40	3.60	--	--	33.00	<0.25	100.00	<0.10	
A-23R	12/12/06	2.80	16.00	--	--	24.00	<0.25	4.20	0.31	
A-23R	03/27/07	1.10	--	--	--	--	--	--	--	
A-23R	06/19/07	1.40	3.00	--	--	32.00	<0.25	180.00	0.11	
A-23R	12/11/07	2.73	--	--	--	--	--	--	--	
A-23R	03/04/08	3.20	--	--	--	--	--	--	--	
A-23R	06/05/08	2.40	2.60	--	--	44.00	<0.25	440.00	<0.10	
A-23R	12/05/08	0.33	--	--	--	--	--	--	--	
A-23R	03/04/09	0.35	--	--	--	--	--	--	--	
A-23R	06/02/09	0.60	2.10	--	--	22.00	<0.25	290.00	<0.10	
A-23R	09/21/09	0.77	--	--	--	--	--	--	--	
A-23R	11/16/09	1.29	--	--	--	--	--	--	--	
A-23R	03/08/10	0.86	--	--	--	--	--	--	--	
A-23R	06/08/10	0.89	1.10	--	--	39.00	<0.25	450.00	<0.10	
A-23R	09/09/10	0.54	--	--	--	--	--	--	--	
A-23R	11/16/10	0.96	--	--	--	--	--	--	--	
A-23R	03/01/11	0.00	--	--	--	--	--	--	--	
A-23R	05/24/11	0.59	1.00	--	--	44.00	<0.25	450.00	0.10	
A-23R	08/29/11	0.55	--	--	--	--	--	--	--	
A-23R	12/02/11	1.15	--	--	--	--	--	--	--	
A-23R	03/01/12	1.47	--	--	--	--	--	--	--	
A-23R	05/30/12	0.00	<0.010	--	--	86.00	<0.25	470.00	<0.10	
A-23R	04/08/13	--	<0.010	--	--	11	<0.25 *	1,000	<0.10	
A-23R	10/02/13	0.00	--	--	--	--	--	--	--	
A-23R	01/21/14	4.28	--	--	--	--	--	--	--	
A-23R	04/22/14	--	0.018	--	--	18	<0.25	1,900	<0.10	
A-23R	07/15/14	0.88	--	--	--	--	--	--	--	
A-23R	09/28/15	0.12	3.55	--	--	4.87 T8	<0.1 T8	23.7	<0.05	
A-23R	10/11/16	0.26	--	--	--	--	--	--	--	
A-27	08/29/02	2.30	7.50	--	--	24.00	<0.25	0.29	0.20	
A-27	11/06/02	0.70	5.20	--	--	26.00	<0.25	<0.25	0.20	
A-27	02/19/03	3.20	6.60	--	--	19.00	<0.25	<0.25	<0.1	
A-27	06/10/03	1.20	10.00	--	--	19.00	<0.25	0.77	0.10	
A-27	09/16/03	1.00	8.60	--	--	51.00	<0.25b	0.59	0.70	
A-27	11/19/03	1.10	8.90	--	--	19.00	<0.25b	0.33	<0.1	
A-27	02/25/04	1.90	12.00	--	--	27.00	<0.25b	<0.25	0.30	
A-27	05/11/04	0.70	8.40	--	--	25.00	<0.25	<0.50	<0.10	
A-27	08/25/04	1.68	12.00	--	--	22.00	<0.25	<0.50	0.13	
A-27	12/14/04	1.32	12.00	--	--	10.00	<0.25	<0.50	0.12	
A-27	03/10/05	1.62	12.00	--	--	18.00	<0.25	0.78	<0.10	
A-27	06/07/05	1.00	7.00	--	--	19.00	<0.25	<0.50	0.30	
A-27	09/20/05	3.10	10.00	--	--	29.00	<0.25	0.84	0.16	
A-27	12/13/05	2.30	16.00	--	--	24.00	<0.25	<0.50	<0.10	
A-27	03/15/06	2.30	15.00	--	--	14.00	<0.25	<0.50	0.16	
A-27	06/08/06	1.20	13.00	--	--	25.00	<0.25	0.51	0.15	
A-27	09/12/06	1.90	12.00	--	--	19.00	<0.25	<0.50	0.23	
A-27	12/12/06	1.00	13.00	--	--	24.00	<0.25	<0.50	<0.10	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
A-27	03/27/07	1.40	--	--	--	--	--	--	--	
A-27	06/19/07	2.40	11.00	--	--	7.50	<0.25	<1.0	0.10	
A-27	09/24/07	1.50	--	--	--	--	--	--	--	
A-27	12/11/07	1.50	--	--	--	--	--	--	--	
A-27	03/04/08	1.80	--	--	--	--	--	--	--	
A-27	06/04/08	2.00	9.90	--	--	10.00	<0.25	<0.50	0.13	
A-27	09/08/08	1.85	--	--	--	--	--	--	--	
A-27	12/05/08	0.39	--	--	--	--	--	--	--	
A-27	03/04/09	0.39	--	--	--	--	--	--	--	
A-27	06/02/09	0.63	6.5	--	--	13	<0.25	1.2	<0.10	
A-27	09/22/09	0.45	--	--	--	--	--	--	--	
A-27	11/16/09	0.46	--	--	--	--	--	--	--	
A-27	03/09/10	1.32	--	--	--	--	--	--	--	
A-27	06/08/10	0.00	3.90	--	--	12.00	<0.25	2.10	<0.10	
A-27	09/09/10	0.47	--	--	--	--	--	<0.50	--	
A-27	11/16/10	0.34	--	--	--	--	--	--	--	
A-27	03/02/11	0.00	--	--	--	--	--	--	--	
A-27	05/24/11	0.27	3.30	--	--	8.80	<0.25	2.20	0.10	
A-27	08/30/11	0.36	--	--	--	--	--	--	--	
A-27	12/02/11	0.77	--	--	--	--	--	--	--	
A-27	03/01/12	0.32	--	--	--	--	--	--	--	
A-27	05/30/12	0.00	2.60	--	--	21.00	<0.25	1.10	<0.10	
A-27	04/10/13	--	3.9	--	--	21	<0.25 *	3.3	<0.10	
A-27	06/21/13	--	--	--	--	--	<0.25 *	2.7	<0.10	Baseline monitoring event
A-27	07/30/13	--	6.2	16	3.6	--	16	<0.50	<0.10	
A-27	10/02/13	0.00	7.4	14	3.6	--	<0.50 *	<0.50	<0.10	
A-27	01/22/14	7.32	--	--	--	--	--	<0.50	<0.10	
A-27	04/22/14	--	2.9	--	--	2.4	<0.25	4.2	<0.10	
A-27	07/15/14	0.36	5.7	18	16	--	--	0.34 J	<0.10	
A-27	03/17/15	0.33	6.7	--	--	17	<0.25	3.1	<0.10	
A-27	09/29/15	0.29	3.86	--	--	22.8 T8	<0.10	9.30	<0.05	
A-27	03/31/16	0.36	4.98	--	--	25.7	<0.10	7.57	<0.05 J3 J6	
A-27	10/14/16	0.29	2.02	--	--	24.3	<0.10	105	<0.05	
A-28R	08/29/02	3.60	6.20	--	--	45.00	<0.25	0.73	0.30	
A-28R	11/06/02	2.20	5.90	--	--	46.00	<0.25	0.57	<0.1	
A-28R	02/19/03	3.00	6.30	--	--	48.00	<0.25	0.56	<0.1	
A-28R	06/10/03	1.20	6.10	--	--	42.00	<0.25	<0.25	<0.1	
A-28R	09/16/03	0.90	10b	--	--	58.00	<0.25b	0.41	0.50	
A-28R	11/19/03	1.20	9.90	--	--	47.00	<0.25b	0.25	<0.1	
A-28R	02/25/04	1.80	9.60	--	--	46.00	<0.25b	<0.25	1.40	
A-28R	05/12/04	1.90	11.00	--	--	47.00	<0.25	<0.50	<0.10	
A-28R	08/25/04	0.50	12.00	--	--	38.00	<0.25	--*b	--*b	
A-28R	12/14/04	1.72	12.00	--	--	22.00	<0.25	<0.50	0.12	
A-28R	03/10/05	3.32	14.00	--	--	42.00	<0.25	<0.50	<0.10	
A-28R	06/07/05	1.00	13.00	--	--	35.00	<0.25	<0.50	0.70	
A-28R	12/13/05	0.89	15.00	--	--	28.00	<0.25	<0.50	0.13	
A-28R	03/15/06	0.89	15.00	--	--	45.00	<0.25	1.30	<0.10	
A-28R	06/08/06	0.80	13.00	--	--	34.00	<0.25	<0.50	--	
A-28R	09/12/06	1.10	16.00	--	--	35.00	<0.25	<0.50	<0.10	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
A-28R	12/12/06	1.70	13.00	--	--	25.00	<0.25	<0.50	<0.10	
A-28R	03/27/07	3.20	--	--	--	--	--	--	--	
A-28R	06/19/07	3.20	12.00	--	--	32.00	<0.25	2.50	<0.10	
A-28R	09/24/07	2.90	--	--	--	--	--	--	--	
A-28R	12/11/07	2.60	--	--	--	--	--	--	--	
A-28R	03/04/08	0.80	--	--	--	--	--	--	--	
A-28R	06/04/08	2.30	7.00	--	--	18.00	<0.25	<0.50	<0.10	
A-28R	12/04/08	0.36	--	--	--	--	--	--	--	
A-28R	03/04/09	0.44	--	--	--	--	--	--	--	
A-28R	06/02/09	0.46	2.30	--	--	15.00	<0.25	2.80	0.18	
A-28R	09/22/09	0.55	--	--	--	--	--	--	--	
A-28R	11/16/09	0.52	--	--	--	--	--	--	--	
A-28R	03/09/10	0.50	--	--	--	--	--	--	--	
A-28R	06/08/10	0.00	2.40	--	--	31.00	<0.25	18.00	0.29	
A-28R	09/10/10	3.81	--	--	--	--	--	--	--	
A-28R	11/16/10	0.79	--	--	--	--	--	--	--	
A-28R	03/02/11	0.00	--	--	--	--	--	--	--	
A-28R	05/24/11	0.00	3.60	--	--	39.00	<0.25	1.60	0.13	
A-28R	08/30/11	0.31	--	--	--	--	--	--	--	
A-28R	12/02/11	0.30	--	--	--	--	--	--	--	
A-28R	03/02/12	2.47	--	--	--	--	--	--	--	
A-28R	05/30/12	0.00	2.00	--	--	42.00	<0.25	<0.50	0.11	
A-28R	04/10/13	--	2.5	--	--	37	<0.25 *	7.9	<0.10	
A-28R	10/02/13	0.00	--	--	--	--	--	--	--	
A-28R	01/22/14	5.55	--	--	--	--	--	--	--	
A-28R	04/22/14	--	4.3	--	--	47	0.45	2.2	<0.10	
A-28R	07/15/14	0.20	--	--	--	--	--	--	--	
A-28R	03/18/15	0.22	7.5	--	--	44	<0.25	4.4	<0.10	
A-28R	09/29/15	0.30	4.15	--	--	71.3 T8	<0.10	<5.0	<0.05	
A-28R	03/31/16	0.41	5.11	--	--	45.5	<0.10	<5.0	<0.05	
A-28R	10/14/16	0.38	9.23	--	--	32.9	<0.10	<5.0	<0.05	
11	06/24/13	--	--	--	--	--	<0.25	2.5	<0.10	Baseline monitoring event
11	07/30/13	--	0.42	1.0	<0.30	--	<0.25	0.88	<0.10	
11	10/03/13	0.69	0.046	5.2	0.78	--	1.2 *	560	<0.10	
11	01/22/14	9.20	--	--	--	--	--	120	<0.10	
11	04/21/14	--	--	--	--	--	1.1	580	<0.10	
11	07/14/14	1.07	0.47	1.6	0.55	--	--	200	<0.10	
11	03/18/15	10.87	<0.010	--	--	<0.050	0.43	450	<0.10	
11	09/29/15	3.59	0.0747	--	--	0.518	0.438	310	<0.05	
11	03/30/16	7.15	<0.010	--	--	<0.050	0.332	1,120	<0.05	
11	10/14/16	7.40	--	--	--	--	--	548	--	
12	06/24/13	--	--	--	--	--	<0.25	<0.50	<0.10	Baseline monitoring event
12	10/03/13	0.00	2.2	39	35	--	1.1 *	5,500	<0.10	
12	01/22/14	3.42	--	--	--	--	--	3,000	<0.10	
12	04/21/14	--	--	--	--	--	<0.25	1,700	0.22	
12	07/14/14	0.20	11	31	38	--	--	1,100	<0.10	
12	03/18/15	0.23	2.2	--	--	5.5	<0.25	940	<0.10	
12	09/29/15	0.14	3.01	--	--	1.34 T8	<0.10	550	0.499	
12	03/30/16	0.29	0.473	--	--	2.32	<0.10	1,550	<0.05	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
12	10/14/16	0.87	--	--	--	--	--	791	--	
MW-1	08/28/02	3.20	4.00	--	--	12.00	<0.25	1.20	0.20	
MW-1	11/05/02	1.90	3.60	--	--	85.00	<0.25	0.99	1.30	
MW-1	02/19/03	3.60	4.90	--	--	16.00	<0.25	11.00	0.10	
MW-1	06/10/03	1.30	7.60	--	--	28.00	<0.25	6.40	<0.1	
MW-1	09/16/03	2.40	5.60	--	--	25.00	<0.25b	5.20	<0.1	
MW-1	11/19/03	1.90	3.80	--	--	15.00	<0.25b	0.50	<0.1	
MW-1	02/25/04	2.20	2.60	--	--	21.00	<0.25b	17.00	0.20	
MW-1	05/11/04	1.80	1.60	--	--	27.00	<0.25	11.00	<0.10	
MW-1	08/25/04	2.38	1.60	--	--	18.00	<0.25	2.80	<0.10	
MW-1	12/15/04	3.20	1.40	--	--	4.30	0.72	26.00	<0.10	
MW-1	03/09/05	3.40	1.50	--	--	19.00	<0.25	9.80	<0.10	
MW-1	06/08/05	3.00	0.82	--	--	11.00	<0.25	15.00	<0.2	
MW-1	09/21/05	3.50	0.68	--	--	51.00	<0.25	52.00	<0.10	
MW-1	12/14/05	2.20	1.10	--	--	18.00	<0.25	21.00	<0.10	
MW-1	03/14/06	1.10	0.16	--	--	20.00	<0.25	21.00	<0.10	
MW-1	06/07/06	1.80	0.14	--	--	23.00	<0.25	86.00	<0.10	
MW-1	09/13/06	2.20	2.50	--	--	24.00	<0.25	15.00	<0.10	
MW-1	12/13/06	2.60	0.22	--	--	6.60	1.00	49.00	<0.10	
MW-1	06/20/07	3.40	--	--	--	--	--	--	--	
MW-1	03/04/08	1.20	--	--	--	--	--	26.00	--	
MW-1	06/05/08	2.70	--	--	--	--	<0.25	41.00	--	
MW-1	06/02/09	0.68	--	--	--	--	--	--	--	
MW-1	06/08/10	0.00	--	--	--	--	--	--	--	
MW-1	05/24/11	0.12	--	--	--	--	--	--	--	
MW-1	05/31/12	0.00	--	--	--	--	--	--	--	
MW-1	10/01/15	0.19	--	--	--	--	--	--	--	
MW-1	10/12/16	0.34	--	--	--	--	--	--	--	
MW-2	08/29/02	2.10	0.69	--	--	1.60	<0.25	9.80	<0.1	
MW-2	11/05/02	1.90	1.20	--	--	5.10	<0.25	9.60	<0.1	
MW-2	02/19/03	2.10	0.031	--	--	1.60	<0.25	55.00	<0.1	
MW-2	06/10/03	1.40	0.059	--	--	1.60	<0.25	25.00	0.30	
MW-2	09/16/03	1.40	1.10	--	--	12.00	<0.25b	21.00	0.60	
MW-2	11/19/03	6.40	0.13	--	--	0.40	<0.25b	8.30	<0.1	
MW-2	02/25/04	4.30	0.079	--	--	0.75	0.67b	17.00	0.20	
MW-2	05/11/04	2.70	0.24	--	--	0.18	0.64	25.00	<0.10	
MW-2	08/25/04	2.02	0.11	--	--	0.063	<0.25	21.00	<0.10	
MW-2	12/14/04	2.72	0.093	--	--	<0.050	<0.25	11.00	<0.10	
MW-2	03/10/05	1.00	0.23	--	--	0.32	0.34	31.00	<0.10	
MW-2	06/07/05	1.00	0.44	--	--	0.059	0.26	21.00	<0.2	
MW-2	09/20/05	1.70	0.033	--	--	<0.050	<0.25	25.00	<0.10	
MW-2	12/13/05	3.00	0.71	--	--	1.60	<0.25	4.50	<0.10	
MW-2	03/15/06	1.80	<0.010	--	--	<0.050	0.54	17.00	<0.10	
MW-2	06/08/06	1.20	0.013	--	--	<0.050	0.35	10.00	<0.10	
MW-2	09/12/06	1.50	0.49	--	--	<0.050	<0.25	13.00	<0.10	
MW-2	12/12/06	1.20	0.018	--	--	0.068	0.91	14.00	<0.10	
MW-2	06/19/07	1.80	--	--	--	--	--	--	--	
MW-2	03/04/08	3.20	--	--	--	--	--	19.00	--	
MW-2	06/04/08	1.90	--	--	--	--	0.97	12.00	--	

Table 4
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Harbor Island Terminal
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Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-2	06/02/09	4.27	--	--	--	--	--	--	--	
MW-2	06/08/10	1.71	--	--	--	--	--	--	--	
MW-2	05/23/11	3.30	--	--	--	--	--	--	0.0050	
MW-2	05/31/12	1.83	--	--	--	--	--	--	0.0050	
MW-2	04/09/13	--	--	--	--	--	--	--	<0.10	
MW-2	04/22/14	--	--	--	--	--	--	--	<0.10	
MW-2	09/30/15	1.02	0.276	--	--	0.115 T8	<0.1	6.98	<0.05	
MW-2	10/12/16	1.42	--	--	--	--	--	--	--	
MW-3	08/28/02	2.60	4.60	--	--	11.00	<0.25	19.00	0.20	
MW-3	11/06/02	2.90	0.88	--	--	0.80	<0.25	9.20	0.20	
MW-3	02/19/03	8.60	0.017	--	--	0.20	6.10	84.00	0.20	
MW-3	06/11/03	6.54	0.022	--	--	0.40	8.50	130.00	0.20	
MW-3	09/17/03	6.50	0.028	--	--	0.80	8.20	160.00	<0.1	
MW-3	11/20/03	7.80	<0.01	--	--	<0.2	17.00	66.00	0.20	
MW-3	02/25/04	2.80	<0.01	--	--	<0.050	6.70	35.00	0.20	
MW-3	05/11/04	8.40	<0.010	--	--	<0.050	7.70	59.00	<0.10	
MW-3	08/25/04	1.80	<0.010	--	--	<0.050	7.00	66.00	<0.10	
MW-3	12/15/04	7.60	0.059	--	--	<0.050	6.50	50.00	<0.10	
MW-3	03/09/05	4.43	1.80	--	--	<0.050	3.50	51.00	<0.10	
MW-3	06/08/05	1.98	3.30	--	--	<0.050	4.20	37.00	<0.2	
MW-3	09/21/05	2.90	4.30	--	--	0.064	3.40	47.00	<0.10	
MW-3	12/14/05	1.80	0.80	--	--	<0.050	1.60	72.00	<0.10	
MW-3	03/14/06	3.10	0.23	--	--	<0.050	7.50	22.00	<0.10	
MW-3	06/07/06	1.80	0.30	--	--	<0.050	4.60	21.00	<0.10	
MW-3	09/13/06	2.60	2.40	--	--	<0.050	0.40	30.00	<0.10	
MW-3	12/13/06	0.80	0.25	--	--	0.064	2.80	28.00	<0.10	
MW-3	06/20/07	2.20	--	--	--	--	--	--	--	
MW-3	06/05/08	2.00	--	--	--	--	3.40	15.00	--	
MW-3	06/02/09	4.84	--	--	--	--	--	--	--	
MW-3	06/09/10	3.24	--	--	--	--	--	--	--	
MW-3	05/23/11	5.29	--	--	--	--	--	--	--	
MW-3	05/31/12	0.34	--	--	--	--	--	--	--	
MW-3	10/01/15	2.76	--	--	--	--	--	--	--	
MW-3	10/12/16	3.86	--	--	--	--	--	--	--	
MW-4	08/28/02	1.00	5.10	--	--	86.00	<0.25	2.90	--**	
MW-4	02/19/03	2.00	1.80	--	--	120.00	<0.25	270.00	--**	
MW-4	06/10/03	0.90	4.90	--	--	36.00	<0.25	8.40	0.60	
MW-4	11/19/03	1.40	1.90	--	--	31.00	0.25b	49.00	0.60	
MW-4	02/25/04	2.20	1.20	--	--	32.00	<0.25b	1.00	0.30	
MW-4	05/12/04	0.89	4.90	--	--	37.00	<0.25	5.30	<0.10	
MW-4	08/26/04	2.32	1.40	--	--	26.00	<0.25	6.40	0.42	
MW-4	03/09/05	1.37	1.00	--	--	31.00	<0.25	110.00	0.33	
MW-4	06/08/05	1.50	1.60	--	--	46.00	<0.25	11.00	0.50	
MW-4	09/21/05	1.30	7.00	--	--	54.00	<0.25	0.52	23.00	
MW-4	12/14/05	2.40	6.60	--	--	19.00	<0.25	33.00	0.38	
MW-4	03/14/06	2.40	4.20	--	--	11.00	<0.25	1.90	0.53	
MW-4	06/07/06	3.20	7.10	--	--	8.30	<0.25	<0.50	0.54	
MW-4	09/13/06	2.80	7.60	--	--	15.00	<0.25	<0.50	0.85	
MW-4	12/13/06	2.90	2.30	--	--	8.70	<0.25	31.00	<0.10	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-4	06/20/07	1.80	--	--	--	--	--	--	--	
MW-4	06/05/08	2.60	--	--	--	--	--	--	--	
MW-4	06/02/09	0.26	--	--	--	--	--	--	--	
MW-4	06/08/10	0.00	--	--	--	--	--	--	--	
MW-4	05/24/11	0.25	--	--	--	--	--	--	--	
MW-4	06/01/12	0.00	--	--	--	--	--	--	--	
MW-4	09/30/15	0.41	--	--	--	--	--	--	--	
MW-4	10/12/16	0.62	--	--	--	--	--	--	--	
MW-5	08/29/02	1.40	0.17	--	--	0.30	<0.25	11.00	0.20	
MW-5	11/05/02	4.10	6.40	--	--	13.00	1.10	250.00	0.30	
MW-5	02/20/03	2.00	0.073	--	--	<0.2	<0.25	6.20	<0.1	
MW-5	06/11/03	1.60	2.50	--	--	0.60	<0.25	8.20	0.10	
MW-5	09/16/03	1.20	4.70	--	--	3.10	<0.25b	5.60	0.10	
MW-5	11/20/03	4.90	<0.01	--	--	0.30	<0.25a	4.70	0.20	
MW-5	02/24/04	3.10	0.33	--	--	0.062	<0.25b	5.80	0.10	
MW-5	05/11/04	1.90	0.61	--	--	1.50	0.27	3.00	<0.10	
MW-5	08/26/04	1.22	<0.010	--	--	<0.050	1.80	7.60	<0.10	
MW-5	12/15/04	12.19	<0.010	--	--	<0.050	0.27	4.30	<0.10	
MW-5	03/09/05	6.22	0.020	--	--	<0.050	<0.25	15.00	<0.10	
MW-5	06/08/05	2.50	<0.010	--	--	<0.050	<0.25	11.00	<0.2	
MW-5	09/21/05	1.90	0.080	--	--	0.077	<0.25	8.90	<0.10	
MW-5	12/14/05	2.20	<0.010	--	--	<0.050	<0.25	9.80	--*a	
MW-5	03/14/06	2.20	<0.010	--	--	<0.050	0.55	3.20	<0.10	
MW-5	06/07/06	2.00	<0.010	--	--	<0.050	1.10	4.50	<0.10	
MW-5	09/13/06	2.10	0.34	--	--	<0.050	<0.25	6.60	<0.10	
MW-5	12/13/06	2.30	<0.010	--	--	<0.050	0.30	3.80	<0.10	
MW-5	06/04/08	2.40	--	--	--	--	--	--	--	
MW-5	06/02/09	4.34	--	--	--	--	--	--	--	
MW-5	06/08/10	1.84	--	--	--	--	--	--	--	
MW-5	05/24/11	5.26	--	--	--	--	--	--	--	
MW-5	05/31/12	2.33	--	--	--	--	--	--	--	
MW-5	10/01/15	0.45	--	--	--	--	--	--	--	
MW-5	10/12/16	0.40	--	--	--	--	--	--	--	
MW-6	08/29/02	1.20	0.72	--	--	4.10	<0.25	11.00	0.10	
MW-6	11/05/02	1.70	1.70	--	--	10.00	<0.25	5.60	0.70	
MW-6	02/19/03	3.30	1.20	--	--	7.30	<0.25	62.00	0.10	
MW-6	06/10/03	2.00	0.87	--	--	5.90	<0.25	17.00	0.20	
MW-6	09/16/03	2.30	1.60	--	--	41.00	<0.25b	2.90	1.00	
MW-6	11/19/03	5.10	1.70	--	--	5.40	<0.25b	19.00	<0.1	
MW-6	02/25/04	2.40	<0.01	--	--	0.49	2.8b	24.00	<0.1	
MW-6	05/11/04	1.20	0.39	--	--	5.10	<0.25	12.00	<0.10	
MW-6	08/25/04	2.26	0.59	--	--	4.90	<0.25	8.70	0.18	
MW-6	12/14/04	1.45	2.80	--	--	2.50	<0.25	9.90	<0.10	
MW-6	03/10/05	0.70	0.85	--	--	1.90	<0.25	20.00	0.15	
MW-6	06/07/05	3.80	0.38	--	--	0.86	0.56	19.00	0.20	
MW-6	09/20/05	0.90	1.50	--	--	2.50	<0.25	6.00	0.18	
MW-6	12/13/05	1.00	1.90	--	--	2.60	<0.25	10.00	0.26	
MW-6	03/15/06	1.00	0.057	--	--	0.30	<0.25	17.00	<0.10	
MW-6	06/08/06	1.90	0.22	--	--	5.90	<0.25	7.30	0.39	

Table 4
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Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-6	09/12/06	1.60	0.98	--	--	2.50	<0.25	3.10	0.33	
MW-6	12/12/06	2.00	0.032	--	--	1.60	0.91	49.00	<0.10	
MW-6	03/27/07	2.30	--	--	--	--	--	--	--	
MW-6	06/19/07	1.40	0.40	--	--	4.40	<0.25	15.00	0.21	
MW-6	09/24/07	3.40	--	--	--	--	--	--	--	
MW-6	12/11/07	3.16	--	--	--	--	--	--	--	
MW-6	03/04/08	1.50	--	--	--	--	--	--	--	
MW-6	06/04/08	2.90	0.38	--	--	0.70	<0.25	11.00	0.13	
MW-6	09/08/08	0.89	--	--	--	--	--	--	--	
MW-6	12/04/08	0.33	--	--	--	--	--	--	--	
MW-6	03/04/09	0.57	--	--	--	--	--	--	--	
MW-6	06/02/09	1.37	0.096	--	--	0.30	3.30	24.00	<0.10	
MW-6	09/21/09	0.28	--	--	--	--	--	--	--	
MW-6	11/17/09	0.46	--	--	--	--	--	--	--	
MW-6	03/09/10	1.33	--	--	--	--	--	--	--	
MW-6	06/08/10	0.080	0.036	--	--	0.22	0.41	11.00	<0.10	
MW-6	09/09/10	0.40	--	--	--	--	--	4.80	--	
MW-6	11/15/10	0.42	--	--	--	--	--	--	--	
MW-6	03/02/11	1.20	--	--	--	--	--	--	--	
MW-6	05/23/11	1.86	0.010	--	--	<0.050	0.68	10.00	0.10	
MW-6	08/30/11	0.32	--	--	--	--	--	--	--	
MW-6	12/02/11	0.90	--	--	--	--	--	--	--	
MW-6	03/01/12	1.69	--	--	--	--	--	--	--	
MW-6	05/31/12	0.00	<0.010	--	--	<0.050	2.10	18.00	<0.10	
MW-6	04/09/13	--	<0.010	--	--	<0.050	0.92 *	15	<0.10	
MW-6	10/02/13	10.68	--	--	--	--	--	--	--	
MW-6	01/22/14	8.95	--	--	--	--	--	--	--	
MW-6	04/22/14	--	<0.010	--	--	<0.050	1.6	23	<0.10	
MW-6	07/15/14	0.51	--	--	--	--	--	--	--	
MW-6	09/29/15	0.36	0.123	--	--	0.203 T8	<0.1	9.64	<0.05	
MW-6	10/12/16	0.78	--	--	--	--	--	--	--	
MW-7	08/29/02	1.40	14.00	--	--	9.80	<0.25	20.00	0.40	
MW-7	11/05/02	3.00	14.00	--	--	8.90	<0.25	7.00	0.50	
MW-7	02/20/03	2.50	13.00	--	--	13.00	<0.25	21.00	1.10	
MW-7	06/11/03	2.00	17.00	--	--	12.00	<0.25	1.10	0.50	
MW-7	09/17/03	1.10	14.00	--	--	2.70	<0.25a	3.00	1.10	
MW-7	11/20/03	2.40	0.98	--	--	0.90	1.3a	19.00	<0.1	
MW-7	02/26/04	6.20	18.00	--	--	27.00	<0.25b	59.00	0.90	
MW-7	05/11/04	1.00	14.00	--	--	16.00	<0.25	12.00	0.15	
MW-7	08/26/04	3.80	15.00	--	--	13.00	<0.25	9.20	0.47	
MW-7	12/15/04	1.30	10.00	--	--	20.00	3.20	68.00	0.19	
MW-7	03/09/05	1.45	18.00	--	--	9.30	<0.25	4.50	0.45	
MW-7	06/08/05	10.50	17.00	--	--	8.70	<0.25	1.40	0.40	
MW-7	12/14/05	1.70	22.00	--	--	19.00	<0.25	75.00	0.16	
MW-7	03/14/06	1.70	18.00	--	--	9.70	<0.25	19.00	0.36	
MW-7	06/07/06	1.60	19.00	--	--	2.70	<0.25	17.00	0.43	
MW-7	09/13/06	2.00	17.00	--	--	1.80	<0.25	2.10	0.17	
MW-7	03/27/07	1.90	--	--	--	--	--	--	--	
MW-7	06/20/07	1.00	23.00	--	--	2.90	<0.25	8.30	0.45	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-7	09/24/07	2.60	--	--	--	--	--	--	--	
MW-7	12/11/07	3.22	--	--	--	--	--	--	--	
MW-7	03/04/08	1.30	--	--	--	--	--	13.00	--	
MW-7	06/04/08	1.30	19.00	--	--	0.15	<0.25	2.30	0.63	
MW-7	09/08/08	0.73	--	--	--	--	--	--	--	
MW-7	12/05/08	0.40	--	--	--	--	--	--	--	
MW-7	03/04/09	0.70	--	--	--	--	--	--	--	
MW-7	06/02/09	0.37	25.00	--	--	2.80	<0.25	21.00	0.42	
MW-7	09/22/09	0.54	--	--	--	--	--	--	--	
MW-7	11/17/09	0.64	--	--	--	--	--	--	--	
MW-7	03/09/10	0.18	--	--	--	--	--	--	--	
MW-7	06/09/10	0.00	27.00	--	--	1.10	1.60	1.60	0.44	
MW-7	09/09/10	0.25	--	--	--	--	<0.25	3.60	--	
MW-7	11/15/10	0.47	--	--	--	--	--	--	--	
MW-7	03/01/11	0.00	--	--	--	--	--	--	--	
MW-7	05/24/11	0.00	3.50	--	--	1.80	0.46	5.10	0.55	
MW-7	08/29/11	0.44	--	--	--	--	--	--	--	
MW-7	12/01/11	0.42	--	--	--	--	--	--	--	
MW-7	03/01/12	0.25	--	--	--	--	--	--	--	
MW-7	05/31/12	0.00	14.00	--	--	1.50	<0.25	2.40	0.70	
MW-7	04/09/13	--	3.7	--	--	3.3	<0.25 *	4.7	0.054 J	
MW-7	06/21/13	--	--	--	--	--	<0.25 *	3.2	<0.10	Baseline monitoring event
MW-7	07/30/13	--	20	4.6	<0.30	--	<0.25	4.1	<0.10	
MW-7	10/03/13	0.00	20	170	140	--	0.81 *	3,100	<0.10	
MW-7	01/22/14	5.11	--	--	--	--	--	2,100	0.23	
MW-7	04/21/14	--	7.9	--	--	15	0.29	1,200	0.18	
MW-7	07/14/14	1.80	24	3.7	5.8	--	--	1,000	<0.10	
MW-7	03/17/15	0.10	3.3	--	--	3.6	<0.25	750	0.16	
MW-7	09/30/15	0.21	12.1	--	--	19.7 T8	<0.10	932	<0.05	
MW-7	03/30/16	0.45	2.08	--	--	9.61	<0.10	1,250	<0.05	
MW-7	10/13/16	0.26	--	--	--	--	--	963	--	
MW-7 (DUP)	10/13/16	0.26	--	--	--	--	--	976	--	Duplicate of MW-7
MW-8	08/29/02	6.20	0.90	--	--	2.30	<0.25	3.70	0.20	
MW-8	11/05/02	2.10	5.50	--	--	3.40	<0.25	7.50	0.10	
MW-8	02/20/03	2.90	0.56	--	--	0.50	0.69	7.60	0.30	
MW-8	06/11/03	1.56	18.00	--	--	0.30	<0.25	<0.25	0.40	
MW-8	09/17/03	2.50	11.00	--	--	6.10	<0.25a	6.70	0.40	
MW-8	11/20/03	1.70	<0.010	--	--	<0.2	2.4a	11.00	0.10	
MW-8	02/26/04	2.30	<0.01	--	--	0.57	1.2b	4.40	0.20	
MW-8	05/11/04	3.10	0.19	--	--	0.12	<0.25	5.30	<0.10	
MW-8	08/26/04	3.32	0.36	--	--	<0.050	2.20	11.00	<0.10	
MW-8	12/15/04	2.30	<0.010	--	--	<0.050	5.80	15.00	<0.10	
MW-8	03/09/05	2.22	<0.010	--	--	<0.050	1.20	7.30	<0.10	
MW-8	06/08/05	6.50	0.018	--	--	<0.050	2.30	7.40	<0.2	
MW-8	09/21/05	2.10	4.40	--	--	0.51	<0.25	11.00	<0.10	
MW-8	12/14/05	2.50	4.00	--	--	<0.050	2.20	11.00	<0.10	
MW-8	03/14/06	2.50	<0.010	--	--	<0.050	1.60	6.40	<0.10	
MW-8	06/07/06	1.30	0.53	--	--	<0.050	1.10	6.00	<0.10	
MW-8	09/13/06	1.60	7.10	--	--	0.068	<0.25	5.00	<0.10	

Table 4
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Harbor Island Terminal
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Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-8	12/13/06	3.10	<0.010	--	--	<0.050	7.30	41.00	<0.10	
MW-8	06/20/07	2.20	--	--	--	--	--	--	--	
MW-8	06/04/08	2.50	--	--	--	--	--	--	--	
MW-8	06/02/09	1.52	--	--	--	--	--	--	--	
MW-8	06/09/10	1.55	--	--	--	--	--	--	--	
MW-8	05/23/11	0.85	--	--	--	--	--	--	--	
MW-8	05/31/12	0.79	--	--	--	--	--	--	--	
MW-8	09/29/15	2.06	--	--	--	--	--	--	--	
MW-8	10/13/16	0.25	--	--	--	--	--	--	--	
MW-9	06/11/03	2.10	6.60	--	--	15.00	<0.25	2.00	0.70	
MW-9	09/17/03	2.10	9.80	--	--	19.00	<0.25a	1.50	0.70	
MW-9	11/20/03	1.60	2.20	--	--	14.00	<0.25a	66.00	0.30	
MW-9	02/26/04	1.10	15.00	--	--	12.00	<0.25b	8.10	0.80	
MW-9	05/11/04	0.90	4.10	--	--	0.25	<0.25	0.62	0.12	
MW-9	08/26/04	1.80	8.20	--	--	15.00	<0.25	1.00	0.41	
MW-9	12/15/04	1.76	5.30	--	--	29.00	10.00	180.00	<0.10	
MW-9	03/09/05	4.70	4.30	--	--	7.20	<0.25	4.40	0.30	
MW-9	06/08/05	4.50	6.50	--	--	8.40	<0.25	6.10	0.30	
MW-9	09/21/05	1.70	11.00	--	--	14.00	<0.25	1.90	0.21	
MW-9	12/14/05	3.30	10.00	--	--	9.10	<0.25	17.00	0.11	
MW-9	03/14/06	3.30	12.00	--	--	3.40	<0.25	1.40	0.51	
MW-9	06/07/06	0.90	4.60	--	--	5.60	<0.25	0.94	0.13	
MW-9	09/13/06	1.90	7.40	--	--	7.50	<0.25	<0.50	<0.10	
MW-9	12/13/06	2.40	0.72	--	--	3.60	0.27	12.00	0.19	
MW-9	03/27/07	2.90	--	--	--	--	--	--	--	
MW-9	06/20/07	2.90	3.50	--	--	6.00	<0.25	<0.50	0.42	
MW-9	09/24/07	2.50	--	--	--	--	--	--	--	
MW-9	12/11/07	1.76	--	--	--	--	--	--	--	
MW-9	03/04/08	1.50	--	--	--	--	--	--	--	
MW-9	06/04/08	1.80	3.50	--	--	7.90	<0.25	0.80	0.40	
MW-9	09/08/08	1.25	--	--	--	--	--	--	--	
MW-9	12/05/08	0.47	--	--	--	--	--	--	--	
MW-9	03/04/09	0.32	--	--	--	--	--	--	--	
MW-9	06/02/09	0.51	0.57	--	--	1.50	<0.25	10.00	<0.10	
MW-9	09/22/09	1.16	--	--	--	--	--	--	--	
MW-9	11/17/09	0.48	--	--	--	--	--	--	--	
MW-9	03/09/10	0.48	--	--	--	--	--	--	--	
MW-9	06/09/10	0.00	7.50	--	--	2.90	<0.25	4.80	0.49	
MW-9	09/09/10	0.37	--	--	--	--	--	2.00	--	
MW-9	11/15/10	0.39	--	--	--	--	--	--	--	
MW-9	03/01/11	0.00	--	--	--	--	--	--	--	
MW-9	05/24/11	0.00	18.00	--	--	<0.050	<0.25	3.60	0.10	
MW-9	08/29/11	0.27	--	--	--	--	--	--	--	
MW-9	12/01/11	0.66	--	--	--	--	--	--	--	
MW-9	03/01/12	1.35	--	--	--	--	--	--	--	
MW-9	05/31/12	0.00	0.13	--	--	<0.050	0.38	5.30	<0.10	
MW-9	04/10/13	--	6.1	--	--	<0.050	0.88 *	3.2	<0.10	
MW-9	06/24/13	--	--	--	--	--	<0.25	5.3	0.11	Baseline monitoring event
MW-9	07/30/13	--	14	2.0	<0.30	--	<0.25	72	0.077 J	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-9	10/03/13	0.00	18	3.8	1.5	--	<0.50 *	8.6	<0.10	
MW-9	01/22/14	9.46	--	--	--	--	--	26	<0.10	
MW-9	04/21/14	--	24	--	--	0.45	<0.25	300	<0.10	
MW-9	07/14/14	0.24	21	1.5	1.2	--	--	99	<0.10	
MW-9	03/18/15	1.99	2.9	--	--	<0.050	0.57	190	<0.10	
MW-9	09/30/15	0.09	5.40	--	--	0.207 T8	<0.1	27.8	<0.05	
MW-9	03/30/16	3.76	<0.010	--	--	<0.050	0.585	86.3	<0.05	
MW-9	10/13/16	0.24	--	--	--	--	--	39.2	--	
MW-12R	06/01/09	0.36	--	--	--	--	--	--	--	
MW-12R	06/08/10	0.19	--	--	--	--	--	--	--	
MW-12R	05/23/11	0.55	--	--	--	--	--	--	0.0050	
MW-12R	06/01/12	0.00	--	--	--	--	--	--	0.0050	
MW-12R	04/09/13	--	--	--	--	--	--	--	<0.10	
MW-12R	04/23/14	--	--	--	--	--	--	--	<0.10	
MW-12R	09/30/15	0.41	4.05	--	--	2.1 T8	<0.1	5.55	<0.05	
MW-12R	10/12/16	0.61	--	--	--	--	--	--	--	
MW-13R	06/01/09	0.49	--	--	--	--	--	--	--	
MW-13R	06/08/10	0.00	--	--	--	--	--	--	--	
MW-13R	05/23/11	0.18	--	--	--	--	--	--	0.0050	
MW-13R										Abandoned on 5/25/2012
MW-14	08/29/02	2.20	5.90	--	--	20.00	<0.25	52.00	0.70	
MW-14	11/05/02	2.40	11.00	--	--	23.00	<0.25	39.00	0.80	
MW-14	02/20/03	1.90	3.50	--	--	20.00	<0.25	35.00	0.80	
MW-14	06/11/03	1.50	2.90	--	--	19.00	<0.25	4.30	0.40	
MW-14	09/16/03	1.30	0.86	--	--	15.00	<0.25b	0.89	0.50	
MW-14	11/20/03	3.70	0.57	--	--	4.90	0.57a	31.00	<0.1	
MW-14	02/24/04	4.30	2.40	--	--	19.00	<0.25b	0.60	0.60	
MW-14	05/11/04	0.10	2.30	--	--	19.00	<0.25	<0.50	<0.10	
MW-14	08/26/04	1.01	2.90	--	--	13.00	<0.25	47.00	0.38	
MW-14	12/15/04	2.88	4.50	--	--	0.13	4.80	110.00	<0.10	
MW-14	03/09/05	2.99	6.80	--	--	12.00	0.62	41.00	0.30	
MW-14	06/08/05	2.00	4.30	--	--	15.00	<0.25	18.00	0.40	
MW-14	09/21/05	2.00	7.60	--	--	19.00	<0.25	8.20	0.36	
MW-14	12/14/05	2.10	8.90	--	--	9.50	<0.25	21.00	<0.10	
MW-14	03/14/06	2.10	1.50	--	--	7.90	<0.25	33.00	0.12	
MW-14	06/07/06	1.50	1.50	--	--	11.00	<0.25	16.00	1.10	
MW-14	09/13/06	1.80	6.80	--	--	14.00	<0.25	1.70	0.22	
MW-14	12/13/06	2.20	2.20	--	--	5.80	0.36	25.00	<0.10	
MW-14	03/27/07	2.70	--	--	--	--	--	--	--	
MW-14	06/20/07	3.40	2.90	--	--	7.50	<0.25	4.90	0.79	
MW-14	09/24/07	3.10	--	--	--	--	--	--	--	
MW-14	12/11/07	1.76	--	--	--	--	--	--	--	
MW-14	03/04/08	1.10	--	--	--	--	--	--	--	
MW-14	06/04/08	2.70	2.00	--	--	3.40	<0.25	8.90	0.58	
MW-14	09/08/08	0.69	--	--	--	--	--	--	--	
MW-14	12/05/08	0.45	--	--	--	--	--	--	--	
MW-14	03/04/09	0.81	--	--	--	--	--	--	--	
MW-14	06/02/09	0.89	0.15	--	--	0.12	2.50	34.00	<0.10	
MW-14	09/21/09	0.92	--	--	--	--	--	--	--	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-14	11/17/09	1.01	--	--	--	--	--	--	--	
MW-14	03/08/10	0.32	--	--	--	--	--	--	--	
MW-14	06/08/10	0.25	0.72	--	--	0.18	<0.25	8.50	<0.10	
MW-14	09/10/10	0.32	--	--	--	--	--	--	--	
MW-14	11/15/10	0.35	--	--	--	--	--	--	--	
MW-14	03/01/11	0.020	--	--	--	--	--	--	--	
MW-14	05/24/11	0.00	0.18	--	--	0.10	0.25	14.00	0.10	
MW-14	08/29/11	0.19	--	--	--	--	--	--	--	
MW-14	12/01/11	0.31	--	--	--	--	--	--	--	
MW-14	03/01/12	1.10	--	--	--	--	--	--	--	
MW-14	05/31/12	0.00	0.086	--	--	<0.050	<0.25	10.00	<0.10	
MW-14	04/09/13	--	0.25	--	--	<0.050	0.46 *	9.2	<0.10	
MW-14	10/03/13	0.00	--	--	--	--	--	--	--	
MW-14	01/22/14	5.98	--	--	--	--	--	--	--	
MW-14	04/21/14	--	0.23	--	--	<0.050	<0.25	8.8	<0.10	
MW-14	07/15/14	0.37	--	--	--	--	--	--	--	
MW-14	10/01/15	0.81	3.47	--	--	8.61 T8	<0.1	<5	<0.05	
MW-14	10/11/16	0.73	--	--	--	--	--	--	--	
MW-16	06/02/09	1.48	--	--	--	--	--	--	--	
MW-16	06/09/10	1.11	--	--	--	--	--	--	--	
MW-16	05/23/11	1.34	--	--	--	--	--	--	--	
MW-16	05/31/12	0.020	--	--	--	--	--	--	--	
MW-16	09/30/15	0.48	--	--	--	--	--	--	--	
MW-16	10/12/16	0.88	--	--	--	--	--	--	--	
MW-18	03/27/07	3.20	--	--	--	--	--	--	--	
MW-18	09/24/07	3.20	--	--	--	--	--	--	--	
MW-18	12/11/07	3.40	--	--	--	--	--	--	--	
MW-18	03/04/08	1.50	--	--	--	--	--	--	--	
MW-18	06/04/08	3.10	--	--	--	--	--	--	--	
MW-18	09/08/08	1.26	--	--	--	--	--	--	--	
MW-18	12/04/08	0.21	--	--	--	--	--	--	--	
MW-18	03/04/09	0.94	--	--	--	--	--	--	--	
MW-18	06/02/09	0.47	--	--	--	--	--	--	--	
MW-18	09/22/09	0.63	--	--	--	--	--	--	--	
MW-18	11/17/09	8.07	--	--	--	--	--	--	--	
MW-18	03/09/10	0.90	--	--	--	--	--	--	--	
MW-18	06/08/10	0.00	--	--	--	--	--	--	--	
MW-18	09/10/10	3.84	--	--	--	--	--	--	--	
MW-18	11/16/10	0.59	--	--	--	--	--	--	--	
MW-18	03/02/11	0.030	--	--	--	--	--	--	--	
MW-18	05/23/11	0.00	--	--	--	--	--	--	--	
MW-18	08/30/11	0.28	--	--	--	--	--	--	--	
MW-18	12/02/11	0.57	--	--	--	--	--	--	--	
MW-18	03/02/12	0.57	--	--	--	--	--	--	--	
MW-18	05/31/12	0.00	--	--	--	--	--	--	--	
MW-18	10/02/13	0.00	--	--	--	--	--	--	--	
MW-18	01/22/14	5.50	--	--	--	--	--	--	--	
MW-18	07/15/14	0.15	--	--	--	--	--	--	--	
MW-18	03/18/15	0.23	--	--	--	--	--	--	--	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-18	09/30/15	0.47	--	--	--	--	--	--	--	
MW-18	03/30/16	0.65	--	--	--	--	--	--	--	
MW-18	10/12/16	0.67	--	--	--	--	--	--	--	
MW-19	08/29/02	0.90	13.00	--	--	19.00	<0.25	<0.25	0.60	
MW-19	11/05/02	2.70	10.00	--	--	19.00	<0.25	<0.25	0.40	
MW-19	02/20/03	3.20	13.00	--	--	43.00	<0.25	23.00	0.50	
MW-19	06/11/03	0.50	16.00	--	--	37.00	<0.25	11.00	0.40	
MW-19	09/16/03	1.40	18.00	--	--	30.00	<0.25b	5.20	0.70	
MW-19	11/20/03	4.80	18.00	--	--	49.00	<0.25a	10.00	0.50	
MW-19	02/24/04	2.10	20.00	--	--	39.00	<0.25b	1.80	0.60	
MW-19	05/11/04	0.60	17.00	--	--	30.00	<0.25	0.98	0.24	
MW-19	08/26/04	2.83	15.00	--	--	15.00	<0.25	<0.50	0.20	
MW-19	12/15/04	3.89	21.00	--	--	44.00	<0.25	31.00	0.22	
MW-19	03/09/05	3.42	22.00	--	--	25.00	<0.25	5.30	0.26	
MW-19	06/08/05	0.89	15.00	--	--	18.00	<0.25	12.00	0.60	
MW-19	06/07/06	1.70	18.00	--	--	7.90	<0.25	<0.50	0.55	
MW-19	09/13/06	2.10	19.00	--	--	10.00	<0.25	<0.50	1.30	
MW-19	12/13/06	3.90	19.00	--	--	30.00	<0.25	16.00	0.43	
MW-19	03/27/07	2.50	--	--	--	--	--	--	--	
MW-19	06/20/07	1.90	23.00	--	--	9.30	<0.25	<0.50	0.19	
MW-19	09/24/07	3.70	--	--	--	--	--	--	--	
MW-19	12/11/07	2.13	--	--	--	--	--	--	--	
MW-19	03/04/08	1.90	--	--	--	--	--	--	--	
MW-19	06/04/08	3.40	21.00	--	--	7.00	<0.25	0.86	0.46	
MW-19	09/08/08	1.02	--	--	--	--	--	--	--	
MW-19	12/05/08	0.27	--	--	--	--	--	--	--	
MW-19	03/04/09	0.52	--	--	--	--	--	--	--	
MW-19	06/02/09	0.37	28.00	--	--	6.30	<0.25	<0.50	0.18	
MW-19	09/21/09	0.35	--	--	--	--	--	--	--	
MW-19	11/17/09	0.86	--	--	--	--	--	--	--	
MW-19	03/08/10	0.69	--	--	--	--	--	--	--	
MW-19	06/08/10	0.00	27.00	--	--	10.00	<0.25	<0.50	<0.10	
MW-19	09/09/10	0.41	--	--	--	--	<0.25	39.00	--	
MW-19	11/15/10	0.35	--	--	--	--	--	--	--	
MW-19	03/01/11	0.00	--	--	--	--	--	--	--	
MW-19	05/24/11	0.69	28.00	--	--	1.70	<0.25	3.80	0.11	
MW-19	08/29/11	0.21	--	--	--	--	--	--	--	
MW-19	12/01/11	0.41	--	--	--	--	--	--	--	
MW-19	03/01/12	0.26	--	--	--	--	--	--	--	
MW-19	05/31/12	0.00	13.00	--	--	10.00	<0.25	<0.50	0.21	
MW-19	04/09/13	--	27	--	--	7.5	<0.25 *	<0.50	<0.10	
MW-19	06/21/13	--	--	--	--	--	<0.25 *	<0.50	0.13	Baseline monitoring event
MW-19	10/03/13	0.00	--	--	--	--	--	--	--	
MW-19	01/22/14	7.20	--	--	--	--	--	620	<0.10	
MW-19	04/21/14	--	28	--	--	30	<0.25	190	0.23	
MW-19	07/15/14	0.46	30	8.3	7.6	--	--	<0.50	<0.10	
MW-19	03/17/15	0.05	30	--	--	8.7	<0.25	1.9	<0.10	
MW-19	09/30/15	0.20	7.96	--	--	11.0 T8	<0.10	<5	<0.05	
MW-19	03/30/16	0.28	16.60	--	--	45.1	<0.10	170	<0.05	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-19	10/11/16	0.76	--	--	--	--	--	<5.0	--	
MW-20	08/29/02	2.60	12	--	--	5.4	<0.25	7.90	0.3	
MW-20	11/06/02	5.70	0.10	--	--	4.2	<0.25	610.00	0.3	
MW-20	06/11/03	15.00	<0.01	--	--	7.30	<0.25	2200.00	0.2	
MW-20	09/17/03	14.00	<0.010	--	--	2.00	<0.25a	1800.00	0.5	
MW-20	11/20/03	13.00	0.15	--	--	1.70	<0.25a	1900.00	<0.1	
MW-20	02/25/04	14.00	0.026	--	--	0.34	<0.25b	2100.00	--**	
MW-20	05/11/04	7.50	0.048	--	--	0.29	<0.25	2100.00	<0.10	
MW-20	08/26/04	2.00	16.00	--	--	140.00	<0.25	970.00	<0.10	
MW-20	12/15/04	3.34	0.71	--	--	27.00	<0.25	550.00	0.28	
MW-20	03/09/05	2.82	0.25	--	--	18.00	<0.25	470.00	<0.10	
MW-20	06/08/05	2.50	10.00	--	--	18.00	<0.25	480.00	0.20	
MW-20	12/14/05	3.20	0.28	--	--	15.00	<0.25	250.00	0.21	
MW-20	03/14/06	3.20	0.98	--	--	5.50	<0.25	56.00	<0.10	
MW-20	06/07/06	1.00	15.00	--	--	7.40	<0.25	68.00	<0.10	
MW-20	09/13/06	2.50	23.00	--	--	17.00	<0.25	110.00	<0.10	
MW-20	12/13/06	2.30	3.3	--	--	2.30	<0.25	69.00	<0.10	
MW-20	06/20/07	4.10	--	--	--	--	--	--	--	
MW-20	06/05/08	2.30	--	--	--	--	--	--	--	
MW-20	06/02/09	0.40	--	--	--	--	--	--	--	
MW-20	06/09/10	0.00	--	--	--	--	--	--	--	
MW-20	05/23/11	0.00	--	--	--	--	--	--	--	
MW-20	05/31/12	0.00	--	--	--	--	--	--	--	
MW-20	10/01/15	0.22	--	--	--	--	--	--	--	
MW-20	10/12/16	0.23	--	--	--	--	--	--	--	
MW-21	02/19/03	6.90	0.061	--	--	1.9	<0.25	1400	<0.1	
MW-21	11/20/03	0.90	0.013	--	--	2.80	<0.25a	17.00	0.5	
MW-21	02/26/04	1.00	12.00	--	--	17.00	<0.25b	12.00	0.9	
MW-21	05/11/04	1.80	4.70	--	--	12.00	<0.25	0.92	<0.10	
MW-21	08/26/04	2.80	2.00	--	--	1.80	<0.25	<0.50	0.13	
MW-21	03/09/05	0.99	4.30	--	--	9.80	<0.25	<0.50	<0.10	
MW-21	06/08/05	3.50	1.80	--	--	11.00	<0.25	1.20	0.5	
MW-21	09/21/05	2.40	15.00	--	--	7.20	<0.25	<0.50	0.14	
MW-21	12/14/05	1.20	18.00	--	--	0.19	<0.25	5.30	0.18	
MW-21	03/14/06	1.20	<0.010	--	--	0.10	<0.25	3.20	<0.10	
MW-21	06/07/06	1.20	1.70	--	--	9.90	<0.25	2.30	0.37	
MW-21	03/27/07	0.90	--	--	--	--	--	--	--	
MW-21	06/20/07	2.10	9.10	--	--	4.20	<0.25	<0.50	<0.10	
MW-21	09/24/07	2.50	--	--	--	--	--	--	--	
MW-21	12/11/07	2.60	--	--	--	--	--	--	--	
MW-21	03/04/08	2.50	--	--	--	--	--	--	--	
MW-21	06/04/08	2.80	14.00	--	--	7.40	<0.25	<0.50	0.13	
MW-21	09/08/08	0.77	--	--	--	--	--	--	--	
MW-21	12/05/08	1.24	--	--	--	--	--	--	--	
MW-21	03/04/09	0.84	--	--	--	--	--	--	--	
MW-21	06/02/09	1.29	7.10	--	--	4.00	<0.25	3.90	0.23	
MW-21	09/22/09	0.79	--	--	--	--	--	--	--	
MW-21	11/17/09	2.17	--	--	--	--	--	--	--	
MW-21	03/09/10	1.03	--	--	--	--	--	--	--	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-21	11/15/10	0.72	--	--	--	--	--	--	--	
MW-21	03/01/11	0.11	--	--	--	--	--	--	--	
MW-21	05/24/11	0.41	0.85	--	--	0.11	ND	4.30	0.10	
MW-21	08/29/11	0.55	--	--	--	--	--	--	--	
MW-21	12/01/11	1.16	--	--	--	--	--	--	--	
MW-21	03/01/12	0.79	--	--	--	--	--	--	--	
MW-21	05/31/12	0.00	0.24	--	--	0.092	<0.25	5.70	0.22	
MW-21	04/10/13	--	0.62	--	--	<0.050	0.70 *	4.2	<0.10	
MW-21	10/03/13	0.00	--	--	--	--	--	--	--	
MW-21	01/22/14	8.32	--	--	--	--	--	--	--	
MW-21	04/24/14	--	0.20	--	--	<0.050	<0.25	7.8	<0.10	
MW-21	07/15/14	0.29	--	--	--	--	--	--	--	
MW-21	03/18/15	4.6	0.55	--	--	<0.050	0.28	2.0	<0.10	
MW-21	09/30/15	0.28	2.51	--	--	4.36 T8	0.107	<5.0	0.081	
MW-21	03/30/16	1.85	0.0797	--	--	<0.05	0.605	<5.0	<0.05	
MW-21	10/13/16	0.34	--	--	--	--	--	--	--	
MW-22	08/29/02	0.70	2.4	--	--	9.1	<0.25	2.20	0.2	
MW-22	11/05/02	1.60	1.1	--	--	5.6	<0.25	99.00	0.2	
MW-22	02/19/03	2.10	<0.01	--	--	4.7	<0.25	120	0.1	
MW-22	06/10/03	1.30	0.087	--	--	5.00	0.64	110.00	0.5	
MW-22	09/16/03	2.40	2.0	--	--	55.00	<0.25b	230.00	1.6	
MW-22	11/19/03	6.60	0.056	--	--	2.30	<0.25b	100.00	0.4	
MW-22	02/25/04	8.20	<0.01	--	--	2.40	0.38b	43.00	0.4	
MW-22	05/11/04	5.10	<0.010	--	--	0.48	0.87	36.00	<0.10	
MW-22	08/25/04	2.72	1.4	--	--	2.70	0.33	59.00	--*b	
MW-22	12/14/04	1.35	3.2	--	--	5.50	1.20	65.00	<0.10	
MW-22	03/10/05	1.40	0.38	--	--	9.20	0.49	23.00	0.61	
MW-22	06/07/05	4.20	0.53	--	--	6.30	<0.25	25.00	0.7	
MW-22	09/20/05	3.70	0.86	--	--	27.00	<0.25	24.00	0.16	
MW-22	12/13/05	2.10	3.8	--	--	12.00	<0.25	25.00	3.0	
MW-22	03/15/06	2.10	0.033	--	--	4.40	<0.25	14.00	<0.10	
MW-22	06/08/06	2.60	0.62	--	--	4.50	<0.25	17.00	0.19	
MW-22	09/12/06	2.60	2.2	--	--	4.50	<0.25	19.00	0.11	
MW-22	12/12/06	0.90	0.010	--	--	2.20	<0.25	7.3	<0.10	
MW-22	06/19/07	1.80	--	--	--	--	--	--	--	
MW-22	06/04/08	2.60	--	--	--	--	--	--	--	
MW-22	06/02/09	0.50	--	--	--	--	--	--	--	
MW-22	06/09/10	0.00	--	--	--	--	--	--	--	
MW-22	09/09/10	0.36	--	--	--	--	--	<0.50	--	
MW-22	05/23/11	0.00	--	--	--	--	--	--	--	
MW-22	05/31/12	0.00	--	--	--	--	--	--	--	
MW-22	09/30/15	0.36	--	--	--	--	--	--	--	
MW-22	10/12/16	0.84	--	--	--	--	--	--	--	
MW-23	02/25/04	1.60	12	--	--	15	<0.25b	13.00	0.4	
MW-23	05/12/04	1.80	13	--	--	19	<0.25	3.60	0.16	
MW-23	08/26/04	1.41	10	--	--	14	<0.25	21.00	0.11	
MW-23	12/13/05	2.30	16	--	--	1.2	<0.25	<0.50	0.25	
MW-23	03/15/06	2.30	17	--	--	20	<0.25	<0.50	0.23	
MW-23	06/08/06	1.10	18	--	--	18	<0.25	<0.50	0.20	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-23	12/12/06	1.90	27	--	--	27	<0.25	<0.50	0.24	
MW-23	03/27/07	2.40	--	--	--	--	--	--	--	
MW-23	06/19/07	1.20	13	--	--	18	<0.25	<1.0	0.19	
MW-23	09/25/07	2.90	--	--	--	--	--	--	--	
MW-23	12/11/07	2.77	--	--	--	--	--	--	--	
MW-23	03/04/08	2.40	--	--	--	--	--	--	--	
MW-23	06/04/08	1.70	12	--	--	63	<0.25	1.0	0.48	
MW-23	12/04/08	0.53	--	--	--	--	--	--	--	
MW-23	03/04/09	0.80	--	--	--	--	--	--	--	
MW-23	06/02/09	0.42	9.5	--	--	17	<0.25	57	0.92	
MW-23	09/21/09	0.60	--	--	--	--	--	--	--	
MW-23	11/16/09	0.43	--	--	--	--	--	--	--	
MW-23	03/08/10	0.26	--	--	--	--	--	--	--	
MW-23	06/08/10	0.15	11.00	--	--	22.00	<0.25	4.20	0.52	
MW-23	09/10/10	3.49	--	--	--	--	--	--	--	
MW-23	11/16/10	0.46	--	--	--	--	--	--	--	
MW-23	03/02/11	0.00	--	--	--	--	--	--	--	
MW-23	05/24/11	0.33	14.00	--	--	31.00	<0.25	0.80	0.10	
MW-23	08/30/11	1.10	--	--	--	--	--	--	--	
MW-23	12/02/11	0.89	--	--	--	--	--	--	--	
MW-23	03/02/12	0.65	--	--	--	--	--	--	--	
MW-23	05/30/12	0.00	5.50	--	--	41.00	<0.25	74.00	0.38	
MW-23	04/10/13	--	1.9	--	--	92	<0.25	1,000	<0.10	
MW-23	10/02/13	0.00	--	--	--	--	--	--	--	
MW-23	01/21/14	5.42	--	--	--	--	--	--	--	
MW-23	04/23/14	--	3.1	--	--	23	<0.25	470	<0.10	
MW-23	07/15/14	0.30	--	--	--	--	--	--	--	
MW-23	03/18/15	0.07	6.5	--	--	9.5	<0.25	260	0.15	
MW-23	10/01/15	0.19	6.03	--	--	6.48 T8	<0.10	58.3	<0.05	
MW-23	03/31/16	0.36	6.08	--	--	7.93	<0.10	26.0	<0.05	
MW-23	10/14/16	0.70	5.36	--	--	15.4	<0.10	42.3	<0.05	
MW-24	02/25/04	1.70	15	--	--	22	<0.25b	6.40	0.3	
MW-24	03/15/06	--	25	--	--	46	<0.25	<0.50	0.23	
MW-24	06/08/06	1.60	7.6	--	--	9.1	<0.25	<0.50	0.42	
MW-24	12/12/06	2.30	16	--	--	3.2	<0.25	<0.50	0.31	
MW-24	03/27/07	2.20	--	--	--	--	--	--	--	
MW-24	06/19/07	1.40	15	--	--	68	<0.25	<0.50	1.7	
MW-24	09/25/07	2.30	--	--	--	--	--	--	--	
MW-24	12/11/07	1.19	--	--	--	--	--	--	--	
MW-24	03/04/08	2.20	--	--	--	--	--	--	--	
MW-24	06/04/08	2.10	15	--	--	17	<0.25	7.4	0.85	
MW-24	09/08/08	1.38	--	--	--	--	--	--	--	
MW-24	12/05/08	0.33	--	--	--	--	--	--	--	
MW-24	03/04/09	0.83	--	--	--	--	--	--	--	
MW-24	06/02/09	0.46	12	--	--	37	<0.25	<0.50	<0.10	
MW-24	09/21/09	0.77	--	--	--	--	--	--	--	
MW-24	11/16/09	0.78	--	--	--	--	--	--	--	
MW-24	03/08/10	0.29	--	--	--	--	--	--	--	
MW-24	06/08/10	0.00	12.00	--	--	35.00	<0.25	<0.50	0.23	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-24	09/10/10	3.70	--	--	--	--	--	--	--	
MW-24	11/16/10	0.47	--	--	--	--	--	--	--	
MW-24	03/02/11	0.00	--	--	--	--	--	--	--	
MW-24	05/24/11	0.53	12.00	--	--	26.00	<0.25	0.78	0.11	
MW-24	08/30/11	0.39	--	--	--	--	--	--	--	
MW-24	12/02/11	0.48	--	--	--	--	--	--	--	
MW-24	03/02/12	1.52	--	--	--	--	--	--	--	
MW-24	05/30/12	0.00	7.50	--	--	31.00	<0.25	2.40	0.15	
MW-24	04/10/13	--	19	--	--	35	<0.25	1.0	<0.10	
MW-24	10/02/13	0.00	--	--	--	--	--	--	--	
MW-24 (DUP)	01/22/14	0.00	--	--	--	--	--	--	--	Duplicate of MW-24
MW-24	04/23/14	--	13	--	--	52	0.95	2.3	<0.10	
MW-24	07/15/14	0.20	--	--	--	--	--	--	--	
MW-24	03/18/15	0.18	23	--	--	40	<0.25	1.2	<0.10	
MW-24	10/01/15	0.29	10.4	--	--	31.3 T8	<0.10	<5.0	<0.05	
MW-24	03/31/16	0.45	9.40	--	--	12.6	<0.10	<5.0	<0.05	
MW-24	10/14/16	0.30	2.53	--	--	6.23	<0.10	<5.0	<0.05	
MW-25	02/26/04	1.30	1.5	--	--	27	<0.25b	120.00	0.9	
MW-25	05/12/04	1.90	2.0	--	--	12	<0.25	140.00	0.10	
MW-25	08/26/04	1.78	1.7	--	--	5.4	<0.25	380.00	0.13	
MW-25	12/14/04	2.10	0.40	--	--	2.7	<0.25	370.00	<0.10	
MW-25	03/10/05	2.10	2.0	--	--	3.5	<0.25	180.00	0.21	
MW-25	06/07/05	1.75	2.2	--	--	4.7	<0.25	160.00	0.7	
MW-25	09/20/05	1.30	0.91	--	--	1.8	<0.25	270.00	0.12	
MW-25	12/13/05	2.50	1.8	--	--	1.8	<0.25	140.00	0.23	
MW-25	03/15/06	2.50	0.92	--	--	4.6	<0.25	210.00	0.38	
MW-25	06/08/06	1.20	1.9	--	--	6.5	<0.25	120.00	0.13	
MW-25	09/12/06	1.80	0.84	--	--	5.9	<0.25	250.00	<0.10	
MW-25	12/12/06	2.10	1.6	--	--	15	<0.25	400.00	<0.10	
MW-25	06/19/07	2.10	--	--	--	--	--	--	--	
MW-25	06/04/08	2.40	--	--	--	--	--	--	--	
MW-25	06/02/09	0.62	--	--	--	--	--	--	--	
MW-25	06/09/10	0.00	--	--	--	--	--	--	--	
MW-25	05/25/11	1.17	--	--	--	--	--	--	--	
MW-25	06/01/12	0.00	--	--	--	--	--	--	--	
MW-25	10/02/15	0.19	--	--	--	--	--	--	--	
MW-25	10/13/16	0.62	--	--	--	--	--	--	--	
SH-02	12/20/00	--	5.40	--	--	0.86	0.040	14.00	0.32	
SH-02										Destroyed during construction activities
SH-02R	08/28/02	1.50	4.90	--	--	17.00	<0.25	3.80	<0.1	
SH-02R	11/05/02	2.10	6.10	--	--	20.00	<0.25	13.00	<0.1	
SH-02R	02/19/03	2.50	0.29	--	--	2.40	0.33	10.00	0.60	
SH-02R	06/10/03	1.30	1.40	--	--	5.10	<0.25	6.80	0.30	
SH-02R	09/16/03	1.90	5.20	--	--	19.00	<0.25b	5.10	0.40	
SH-02R	11/19/03	1.10	1.50	--	--	4.60	0.34b	7.10	0.20	
SH-02R	02/25/04	3.40	5.00	--	--	14.00	0.46b	5.20	0.40	
SH-02R	05/12/04	2.00	3.20	--	--	7.40	<0.25	4.40	<0.10	
SH-02R	08/26/04	2.24	2.10	--	--	3.80	<0.25	5.80	<0.10	
SH-02R	12/15/04	1.98	0.092	--	--	0.055	0.44	100.00	<0.10	

Table 4
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Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
SH-02R	03/09/05	1.59	0.38	--	--	1.50	<0.25	380.00	<0.10	
SH-02R	06/08/05	1.00	1.20	--	--	0.11	<0.25	110.00	<0.2	
SH-02R	09/21/05	1.50	4.40	--	--	0.72	<0.25	31.00	<0.10	
SH-02R	12/14/05	0.70	2.20	--	--	0.28	<0.25	11.00	<0.10	
SH-02R	03/14/06	0.70	0.42	--	--	1.40	<0.25	25.00	<0.10	
SH-02R	06/07/06	0.90	3.10	--	--	4.40	<0.25	20.00	<0.10	
SH-02R	09/13/06	1.70	3.90	--	--	5.50	<0.25	24.00	<0.10	
SH-02R	12/13/06	0.90	0.38	--	--	1.30	0.34	10.00	<0.10	
SH-02R	06/20/07	2.00	--	--	--	--	--	--	--	
SH-02R	06/05/08	3.10	--	--	--	--	--	--	--	
SH-02R	06/02/09	0.25	--	--	--	--	--	--	--	
SH-02R	06/08/10	0.24	--	--	--	--	--	--	--	
SH-02R	05/23/11	0.41	--	--	--	--	--	--	0.0050	
SH-02R	06/01/12	0.00	--	--	--	--	--	--	0.0050	
SH-02R	04/09/13	--	--	--	--	--	--	--	<0.10	
SH-02R	04/23/14	--	--	--	--	--	--	--	<0.10	
SH-02R	09/30/15	0.38	4.26	--	--	3.88	<0.1	<5	<0.05	
SH-02R	10/12/16	0.61	--	--	--	--	--	--	--	
SH-05	12/20/00	--	0.010	--	--	1.80	0.14	6.00	<0.01	
SH-05R	08/28/02	1.40	1.00	--	--	11.00	<0.25	1.40	0.50	
SH-05R	11/05/02	1.50	1.20	--	--	17.00	<0.25	6.30	<0.1	
SH-05R	02/19/03	2.60	2.90	--	--	32.00	<0.25	28.00	<0.1	
SH-05R	06/10/03	1.40	1.50	--	--	33.00	<0.25	2.80	0.60	
SH-05R	09/16/03	1.20	1.60	--	--	41.00	<0.25b	0.46	0.90	
SH-05R	11/19/03	3.10	1.60	--	--	36.00	<0.25b	71.00	0.50	
SH-05R	02/25/04	2.50	0.56	--	--	0.087	0.76b	120.00	0.20	
SH-05R	05/12/04	1.12	2.10	--	--	16.00	<0.25	4.60	<0.10	
SH-05R	08/26/04	1.96	2.00	--	--	6.40	<0.25	0.63	<0.10	
SH-05R	12/15/04	2.80	3.70	--	--	26.00	<0.25	26.00	<0.10	
SH-05R	03/09/05	2.56	3.40	--	--	2.00	<0.25	7.50	<0.10	
SH-05R	06/08/05	2.50	3.80	--	--	19.00	<0.25	30.00	<0.2	
SH-05R	09/21/05	0.80	3.10	--	--	9.10	<0.25	<0.50	<0.10	
SH-05R	12/14/05	2.30	5.40	--	--	23.00	<0.25	16.00	<0.10	
SH-05R	03/14/06	2.30	0.11	--	--	0.087	<0.25	35.00	<0.10	
SH-05R	06/07/06	1.20	1.90	--	--	8.40	0.34	21.00	<0.10	
SH-05R	09/13/06	1.40	2.20	--	--	7.40	<0.25	<0.50	<0.10	
SH-05R	12/13/06	2.70	0.14	--	--	0.11	2.10	100.00	<0.10	
SH-05R	06/20/07	0.90	--	--	--	--	--	--	--	
SH-05R	06/05/08	2.90	--	--	--	--	--	--	--	
SH-05R	06/02/09	1.01	--	--	--	--	--	--	--	
SH-05R	06/08/10	0.00	--	--	--	--	--	--	--	
SH-05R	05/23/11	1.39	--	--	--	--	--	--	0.0050	
SH-05R	10/01/15	0.42	--	--	--	--	--	--	--	
SH-05R	10/12/16	0.61	--	--	--	--	--	--	--	
MW-07R	08/28/02	1.60	0.17	--	--	6.90	<0.25	9.00	0.10	
MW-07R	11/05/02	1.60	0.16	--	--	12.00	<0.25	2.70	<0.1	
MW-07R	09/16/03	1.40	0.26	--	--	26.00	<0.25b	9.10	1.60	
MW-07R	11/19/03	2.20	0.017	--	--	4.90	0.77b	14.00	0.30	
MW-07R	02/25/04	2.10	<0.01	--	--	1.80	0.42b	5.70	0.30	

Table 4
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Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
MW-07R	05/12/04	2.49	<0.010	--	--	2.20	0.74	3.40	<0.10	
MW-07R	08/26/04	2.05	0.011	--	--	0.12	<0.25	12.00	<0.10	
MW-07R	12/15/04	2.00	0.034	--	--	1.40	0.36	10.00	<0.10	
MW-07R	03/09/05	2.15	0.030	--	--	4.20	<0.25	120.00	<0.10	
MW-07R	06/08/05	1.98	<0.010	--	--	0.25	0.89	5.70	<0.2	
MW-07R	09/21/05	2.80	0.13	--	--	<0.050	<0.25	15.00	<0.10	
MW-07R	12/14/05	1.50	<0.010	--	--	<0.050	0.29	5.70	<0.10	
MW-07R	03/14/06	1.50	0.23	--	--	2.30	0.51	8.90	<0.10	
MW-07R	06/07/06	2.20	<0.010	--	--	0.28	2.40	3.90	<0.10	
MW-07R	09/13/06	1.20	0.26	--	--	3.40	<0.25	8.50	<0.10	
MW-07R	12/13/06	1.90	<0.010	--	--	<0.050	1.90	23.00	<0.10	
MW-07R	06/20/07	1.70	--	--	--	--	--	--	--	
MW-07R	06/05/08	1.90	--	--	--	--	--	--	--	
MW-07R	06/02/09	1.29	--	--	--	--	--	--	--	
MW-07R	06/08/10	1.11	--	--	--	--	--	--	--	
MW-07R	05/23/11	3.20	--	--	--	--	--	--	0.0050	
MW-07R	06/01/12	1.03	--	--	--	--	--	--	0.0050	
MW-07R	04/09/13	--	--	--	--	--	--	--	<0.10	
MW-07R	04/23/14	--	--	--	--	--	--	--	<0.10	
MW-07R	10/01/15	0.37	1.54	--	--	11.8 T8	<0.1	<5	<0.05	
MW-07R	10/12/16	0.58	--	--	--	--	--	--	--	
TMW-B1	06/09/10	1.06	--	--	--	--	--	3.60	--	
TMW-B1	09/09/10	0.25	--	--	--	--	--	<0.50	--	
TMW-B1	05/25/11	1.51	--	--	--	--	--	--	--	
TMW-B1	12/02/11	0.33	--	--	--	--	--	--	--	
TMW-B1	03/01/12	0.30	--	--	--	--	--	--	--	
TMW-B1	10/02/13	0.00	--	--	--	--	--	--	--	
TMW-B1	09/29/15	0.33	--	--	--	--	--	--	--	
TMW-B1	10/14/16	0.23	9.42	--	--	15.2	<0.10	<5.0	<0.05	
TMW-1	06/21/13	--	--	--	--	--	0.41 *	11	<0.10	Baseline monitoring event
TMW-1	07/30/13	--	0.075	10	<0.30	--	0.28	1,900	<0.10	
TMW-1	10/03/13	2.92	0.081	13	5.2	--	<0.50 *	980	<0.10	
TMW-1	01/22/14	9.27	--	--	--	--	--	450	<0.10	
TMW-1	04/21/14	--	--	--	--	--	<0.25	670	<0.10	
TMW-1	07/14/14	0.87	<0.010	4.0	3.1	--	--	650	<0.10	
TMW-1	03/17/15	5.42	0.040	--	--	0.65	0.32	640	<0.10	
TMW-1	09/29/15	1.80	<0.01	--	--	1.40 T8	0.571	1,090	<0.05	
TMW-1	03/30/16	6.11	<0.010	--	--	1.74	<0.10	816	<0.05	
TMW-1	10/12/16	4.86	--	--	--	--	--	314	--	
TMW-2	06/21/13	--	--	--	--	--	<0.25 *	0.83	<0.10	Baseline monitoring event
TMW-2	07/30/13	--	17	29	1.2	--	<0.25	6.4	<0.10	
TMW-2	10/03/13	0.00	15	160	110	--	<0.50 *	2,000	<0.10	
TMW-2	01/22/14	6.12	--	--	--	--	--	3,000	<0.10	
TMW-2	04/21/14	--	--	--	--	--	<0.25	2,600	<0.10	
TMW-2	07/14/14	0.10	7.1	68	67	--	--	2,700	<0.10	
TMW-2	03/17/15	0.24	2.7	--	--	16	<0.25	1,500	<0.10	
TMW-2	10/01/15	0.34	0.0843	--	--	34.8 T8	<0.10	1,810	<0.05	
TMW-2	03/30/16	0.32	6.71	--	--	9.26	<0.10	1,340	<0.05	
TMW-2	10/12/16	0.23	--	--	--	--	--	1200	--	

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
TMW-3	06/24/13	--	--	--	--	--	<0.25	4.4	<0.10	Baseline monitoring event
TMW-3	07/30/13	--	2.6	10	<0.30	--	<0.25	3.1	<0.10	
TMW-3	10/03/13	0.00	3.8	43	18	--	<0.50 *	1,100	<0.10	
TMW-3	01/22/14	0.00	--	--	--	--	--	3,800	<0.10	
TMW-3	04/24/14	--	--	--	--	--	<0.25	2,500	<0.10	
TMW-3	07/14/14	0.27	1.3	19	17	--	--	3,100	<0.10	
TMW-3	03/18/15	0.07	1.3	--	--	9.3	<0.25	1,300	<0.10	
TMW-3	09/30/15	0.17	0.890	--	--	13.4 T8	<0.10	984	<0.05	
TMW-3	03/30/16	0.38	0.494	--	--	5.5	<0.10	1,380	<0.05	
TMW-3	10/12/16	0.24	--	--	--	--	--	1190	--	
TMW-4	06/24/13	--	--	--	--	--	<0.25	32	0.11	Baseline monitoring event
TMW-4	07/30/13	--	13	24	5.0	--	0.48	1.4	0.11	
TMW-4	10/03/13	0.00	16	410	17	--	0.36 J*	2,800	<0.10	
TMW-4	01/22/14	0.00	--	--	--	--	--	2,800	<0.10	
TMW-4	04/24/14	--	--	--	--	--	<0.25	1,400	<0.10	
TMW-4	07/14/14	0.12	7.9	130	130	--	--	940	<0.10	
TMW-4	03/18/15	0.08	7.5	--	--	30	<0.25	410	<0.10	
TMW-4	09/30/15	0.12	1.12	--	--	43.4 T8	<0.10	374	<0.05	
TMW-4	03/30/16	1.01	1.96	--	--	5.01	<0.10	1,940	<0.05	
TMW-4	10/12/16	0.67	--	--	--	--	--	936	--	
TMW-5	06/21/13	--	--	--	--	--	<0.25 *	4.3	<0.10	Baseline monitoring event
TMW-5	07/30/13	--	7.6	11	<0.30	--	<0.25	0.67	0.25	
TMW-5	10/03/13	0.00	5.6	39	16	--	<0.50 *	2,500	0.10	
TMW-5	01/22/14	7.18	--	--	--	--	--	2,600	0.10	
TMW-5	04/24/14	--	--	--	--	--	<0.25	4,000	<0.10	
TMW-5	07/14/14	0.09	2.4	8.0	0.82	--	--	1,300	<0.10	
TMW-5	03/18/15	0.04	8.9	--	--	0.069	<0.25	700	0.20	
TMW-5	09/30/15	0.09	2.00	--	--	43.1 T8	<0.10	734	6.72	
TMW-5	03/30/16	0.27	4.12	--	--	2.21	<0.10	1,500	<0.05	
TMW-5	10/12/16	0.17	--	--	--	--	--	765	--	
TMW-6	06/24/13	--	--	--	--	--	<0.25	16	0.14	Baseline monitoring event
TMW-6	07/30/13	--	5.4	13	2.4	--	<0.25	5.0	0.14	
TMW-6	10/03/13	0.00	5.6	290	250	--	<0.50 *	1,700	<0.10	
TMW-6	01/22/14	3.60	--	--	--	--	--	2,300	<0.10	
TMW-6	04/24/14	--	--	--	--	--	<0.25	1,800	<0.10	
TMW-6	07/14/14	0.22	6.5	100	98	--	--	1,600	<0.10	
TMW-6	03/18/15	0.09	0.54	--	--	2.0	<0.25	1,000	<0.10	
TMW-6	09/30/15	0.19	1.15	--	--	41.7 T8	<0.10	1,400	<0.05	
TMW-6	03/30/16	0.66	0.254	--	--	14.9	<0.10	1,560	<0.05	
TMW-6	10/12/16	0.27	--	--	--	--	--	1530	--	

Notes:

Highlighted = data from most recent monitoring event

< = Denotes compound was not detected above the designated detection limit.

-- = Sample not analyzed for this parameter

mg/L = milligrams per liter (parts per million)

* = The laboratory analyzed nitrate samples using sulfuric acid preserved samples. Concentrations may be biased high due to possible oxidation of nitrite to nitrate

** = Analysis could not be run due to excess particulate matter.

*a = Lab received broken volatile organic analyzer (VOA), not able to run analysis.

Table 4
Groundwater Geochemical Parameters
Kinder Morgan Liquids Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest, Seattle, Washington

Well ID	Date Sampled	Dissolved Oxygen mg/L	Methane mg/L	Total Iron mg/L	Dissolved Iron mg/L	Ferrous Iron mg/L	Nitrate mg/L	Sulfate mg/L	Sulfide mg/L	Comments
---------	--------------	--------------------------	-----------------	--------------------	------------------------	----------------------	-----------------	-----------------	-----------------	----------

*b = Lab did not receive sample container to run analysis.

a = The lab analyzed these samples for nitrate and sulfate together, using non-preserved samples (submitted for sulfate analysis). Holding time for non-preserved samples for nitrate analysis is 48 hours and for sulfate analysis is 28 days. These samples were received within the 48-hour holding time.

b = The lab analyzed these samples for nitrate only, using sulfuric acid preserved samples (submitted for nitrate analysis). Holding time for preserved samples for nitrate analysis is 28 days. The lab analyzed these for nitrate because non-preserved samples were received outside of 48 hours.

J3 = The associated batch quality control (QC) was outside the established quality control range for precision.

J5 = The sample matrix interfered with the ability to make any accurate determination; spike value is high.

J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.

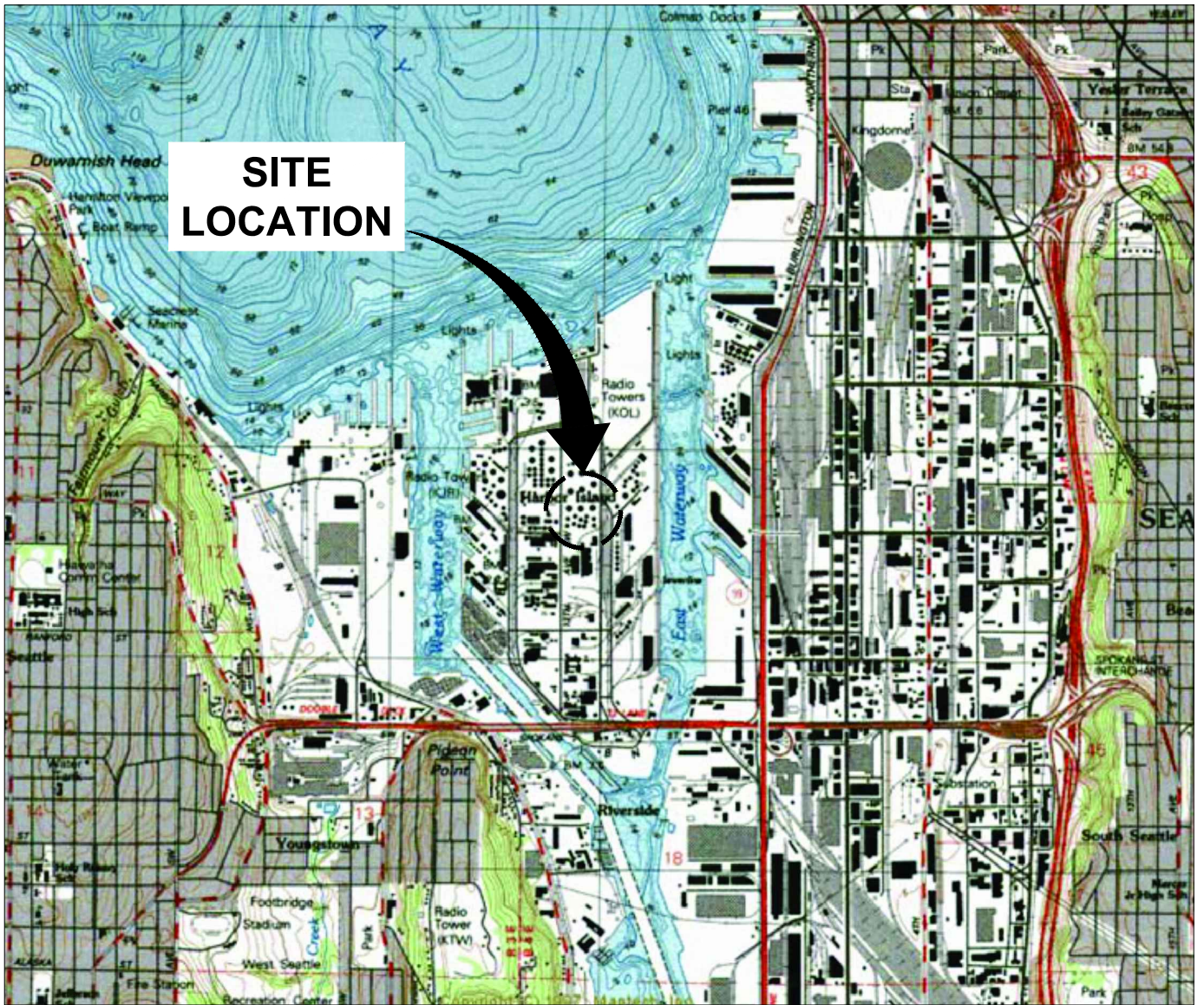
T8 = Sample was received by the lab outside the hold time for the analyte; value should be considered a minimum.

J = Estimated value between the method reporting limit (MRL) and the detection limit

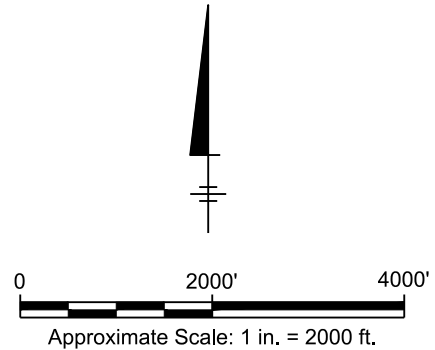
FIGURES



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 WAO00804 USGS.jpg



REFERENCE: BASE MAP USGS 7.5. MINUTE TOPOGRAPHIC MAP SEATTLE SOUTH, WASHINGTON 1083



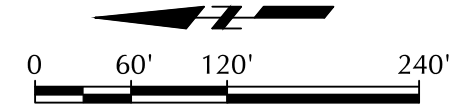
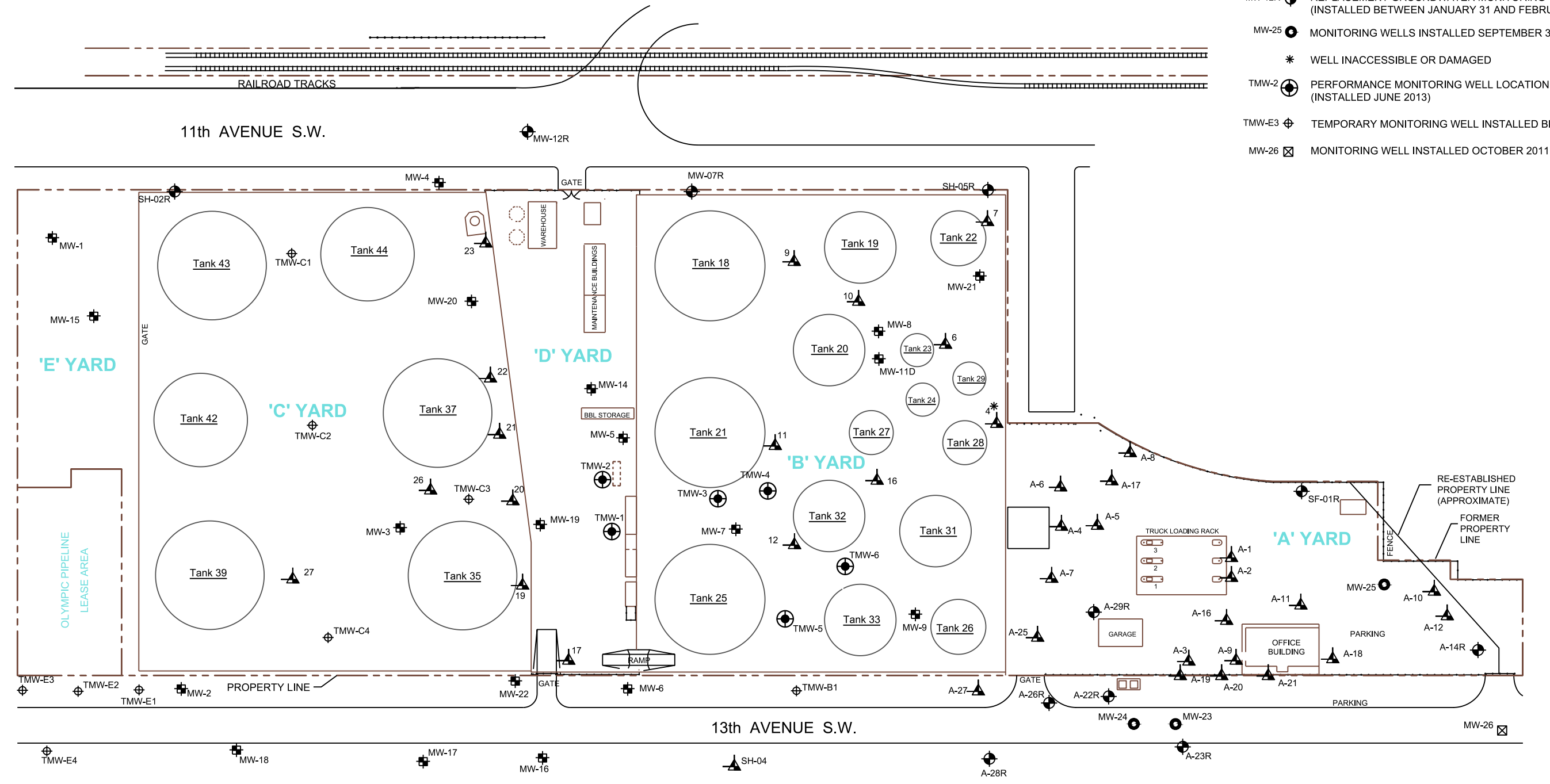
KINDER MORGAN LIQUIDS TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
SECOND SEMIANNAL 2016
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SITE LOCATION MAP

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LEGEND

- SH-02  GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
- MW-7  GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
- MW-12R  REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
- MW-25  MONITORING WELLS INSTALLED SEPTEMBER 30, 2003
- *  WELL INACCESSIBLE OR DAMAGED
- TMW-2  PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
- TMW-E3  TEMPORARY MONITORING WELL INSTALLED BEFORE JUNE 2013
- MW-26  MONITORING WELL INSTALLED OCTOBER 2011

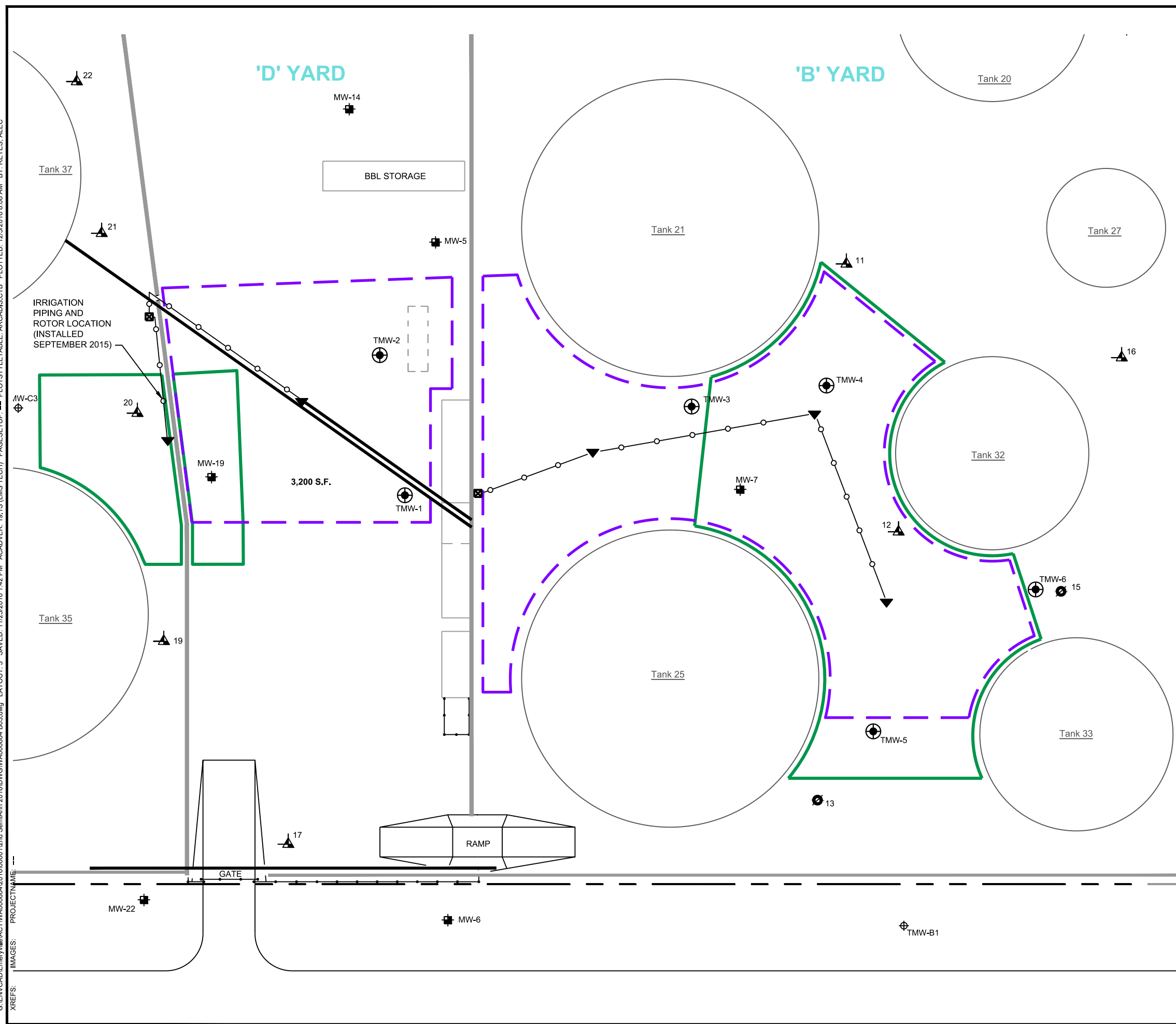


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GROUNDWATER MONITORING REPORT

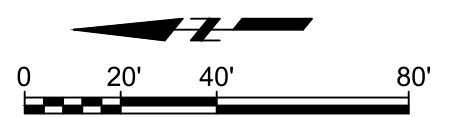
SITE PLAN



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- LEGEND**
- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
 - MW-7 ■ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
 - MW-12R ● REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
 - MW-25 ⊕ MONITORING WELLS (INSTALLED SEPTEMBER 30, 2003)
 - 3 ● FORMER GROUNDWATER MONITORING WELL (ABANDONED JUNE 2003)
 - WATER SOURCE LOCATION
 - ⊕ PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
 - ▼ IRRIGATION ROTOR LOCATION
 - IRRIGATION PIPING
 - CONCRETE WALL
 - Sulfate Application Area; JUNE 2013
 - APPROXIMATE BOUNDARY OF THE SUPPLEMENTAL Sulfate Application Area; APPLIED IN SEPTEMBER 2015 AND OCTOBER 2016



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 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
SECOND SEMIANNUAL 2016
GROUNDWATER MONITORING REPORT

REMEDIAL SULFATE APPLICATION AREA


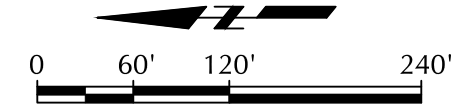
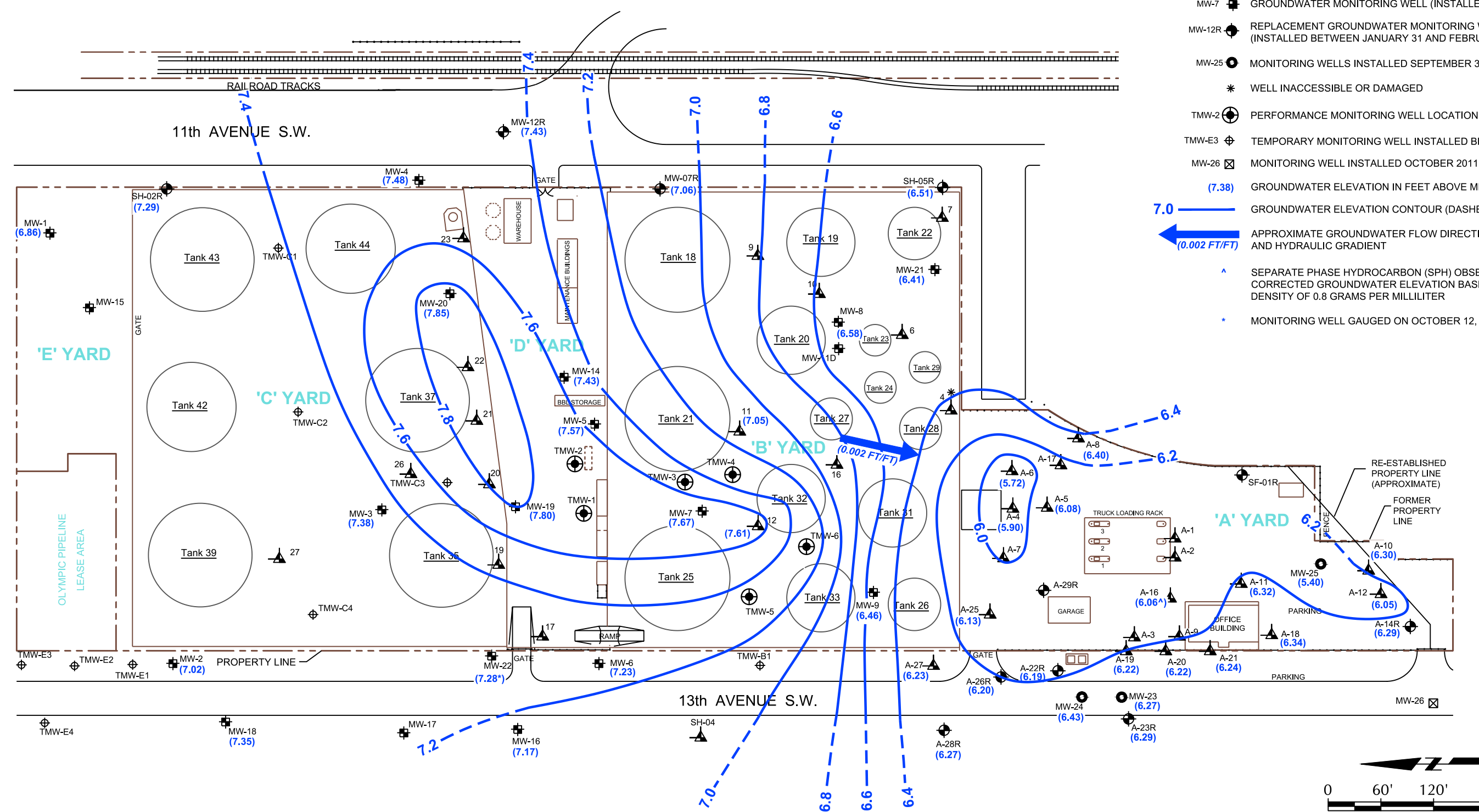


FIGURE
3

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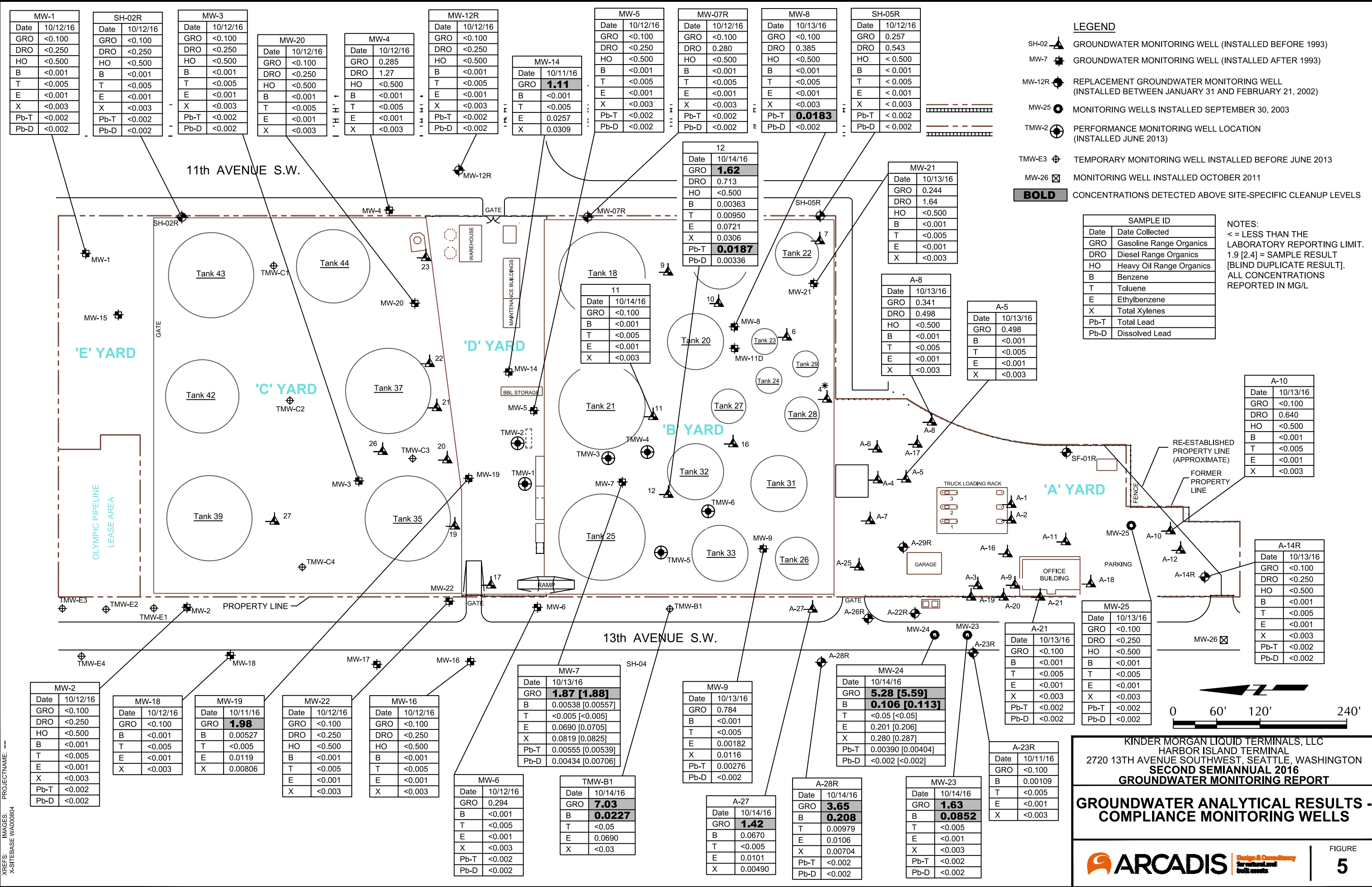
- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
- MW-7 ■ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
- MW-12R ● REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
- MW-25 ○ MONITORING WELLS INSTALLED SEPTEMBER 30, 2003
- * WELL INACCESSIBLE OR DAMAGED
- TMW-2 ⊕ PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
- TMW-E3 ⊕ TEMPORARY MONITORING WELL INSTALLED BEFORE JUNE 2013
- MW-26 ⊠ MONITORING WELL INSTALLED OCTOBER 2011
- (7.38) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 7.0 ——— GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- ← (0.002 FT/FT) APPROXIMATE GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT
- ▲ SEPARATE PHASE HYDROCARBON (SPH) OBSERVED IN WELL; CORRECTED GROUNDWATER ELEVATION BASED ON SPH DENSITY OF 0.8 GRAMS PER MILLILITER
- * MONITORING WELL GAUGED ON OCTOBER 12, 2016



KINDER MORGAN LIQUIDS TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
SECOND SEMI-ANNUAL 2016
GROUNDWATER MONITORING REPORT

GROUNDWATER ELEVATION CONTOURS
OCTOBER 11, 2016

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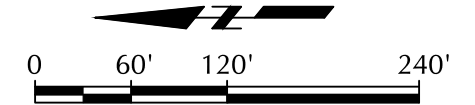


LEGEND

- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
- MW-7 ■ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
- MW-12R ● REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
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- TMW-2 ⊕ PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
- TMW-E3 ⊕ TEMPORARY MONITORING WELL INSTALLED BEFORE JUNE 2013
- MW-26 ⊠ MONITORING WELL INSTALLED OCTOBER 2011
- BOLD** CONCENTRATIONS DETECTED ABOVE SITE-SPECIFIC CLEANUP LEVELS

NOTES:
 <= LESS THAN THE LABORATORY REPORTING LIMIT.
 1.9 [2.4] = SAMPLE RESULT [BLIND DUPLICATE RESULT].
 ALL CONCENTRATIONS REPORTED IN MG/L

SAMPLE ID	
Date	Date Collected
GRO	Gasoline Range Organics
DRO	Diesel Range Organics
HO	Heavy Oil Range Organics
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total Xylenes
Pb-T	Total Lead
Pb-D	Dissolved Lead



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 HARBOR ISLAND TERMINAL
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GROUNDWATER ANALYTICAL RESULTS - COMPLIANCE MONITORING WELLS

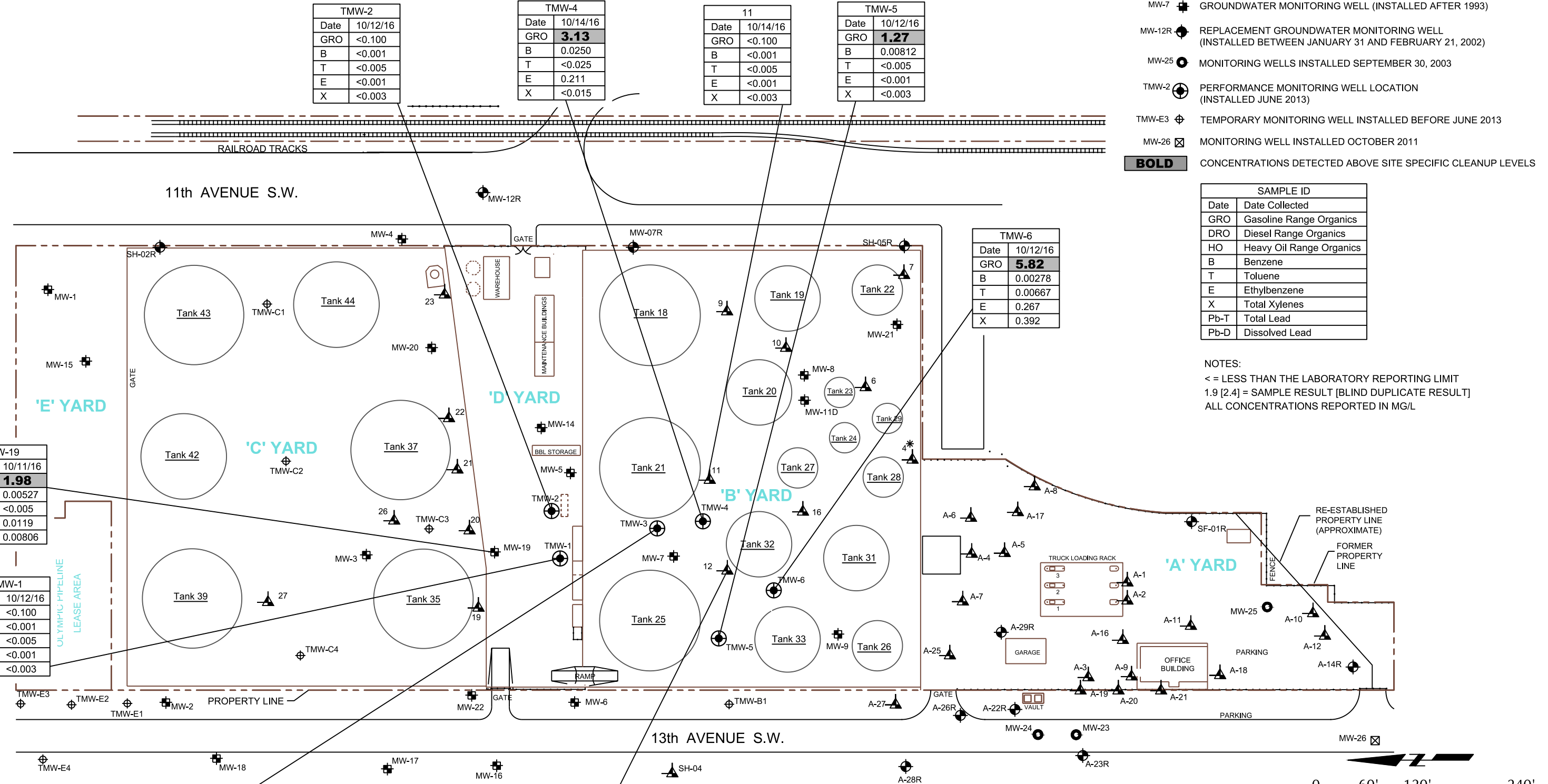
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LEGEND

- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
- MW-7 ■ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
- MW-12R ● REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
- MW-25 ○ MONITORING WELLS INSTALLED SEPTEMBER 30, 2003
- TMW-2 ⊕ PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
- TMW-E3 ⊕ TEMPORARY MONITORING WELL INSTALLED BEFORE JUNE 2013
- MW-26 ⊠ MONITORING WELL INSTALLED OCTOBER 2011
- BOLD** CONCENTRATIONS DETECTED ABOVE SITE SPECIFIC CLEANUP LEVELS

SAMPLE ID	
Date	Date Collected
GRO	Gasoline Range Organics
DRO	Diesel Range Organics
HO	Heavy Oil Range Organics
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total Xylenes
Pb-T	Total Lead
Pb-D	Dissolved Lead

NOTES:
 <= LESS THAN THE LABORATORY REPORTING LIMIT
 1.9 [2.4] = SAMPLE RESULT [BLIND DUPLICATE RESULT]
 ALL CONCENTRATIONS REPORTED IN MG/L



TMW-2	
Date	10/12/16
GRO	<0.100
B	<0.001
T	<0.005
E	<0.001
X	<0.003

TMW-4	
Date	10/14/16
GRO	3.13
B	0.0250
T	<0.025
E	0.211
X	<0.015

11	
Date	10/14/16
GRO	<0.100
B	<0.001
T	<0.005
E	<0.001
X	<0.003

TMW-5	
Date	10/12/16
GRO	1.27
B	0.00812
T	<0.005
E	<0.001
X	<0.003

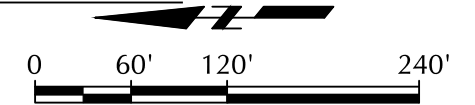
TMW-6	
Date	10/12/16
GRO	5.82
B	0.00278
T	0.00667
E	0.267
X	0.392

MW-19	
Date	10/11/16
GRO	1.98
B	0.00527
T	<0.005
E	0.0119
X	0.00806

TMW-1	
Date	10/12/16
GRO	<0.100
B	<0.001
T	<0.005
E	<0.001
X	<0.003

TMW-3	
Date	10/12/16
GRO	0.607
B	<0.001
T	<0.005
E	<0.001
X	<0.003

12	
Date	10/14/16
GRO	1.62
DRO	0.713
HO	<0.500
B	0.00363
T	0.00950
E	0.0721
X	0.0306
Pb-T	0.0187
Pb-D	0.00336



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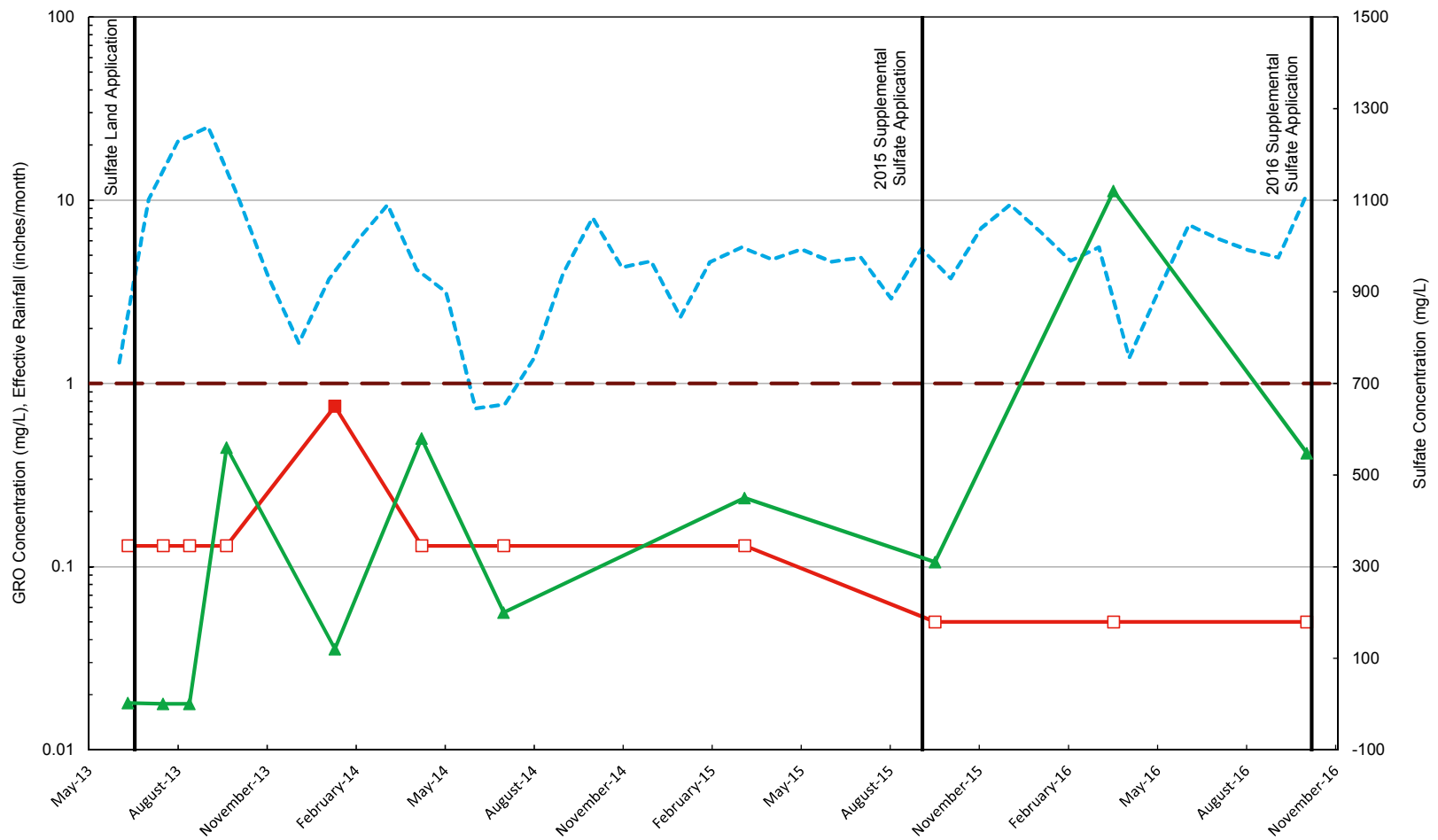
GROUNDWATER ANALYTICAL RESULTS -
PERFORMANCE MONITORING WELLS

Design & Consultancy
for natural and built assets

FIGURE
6

GRAPHS





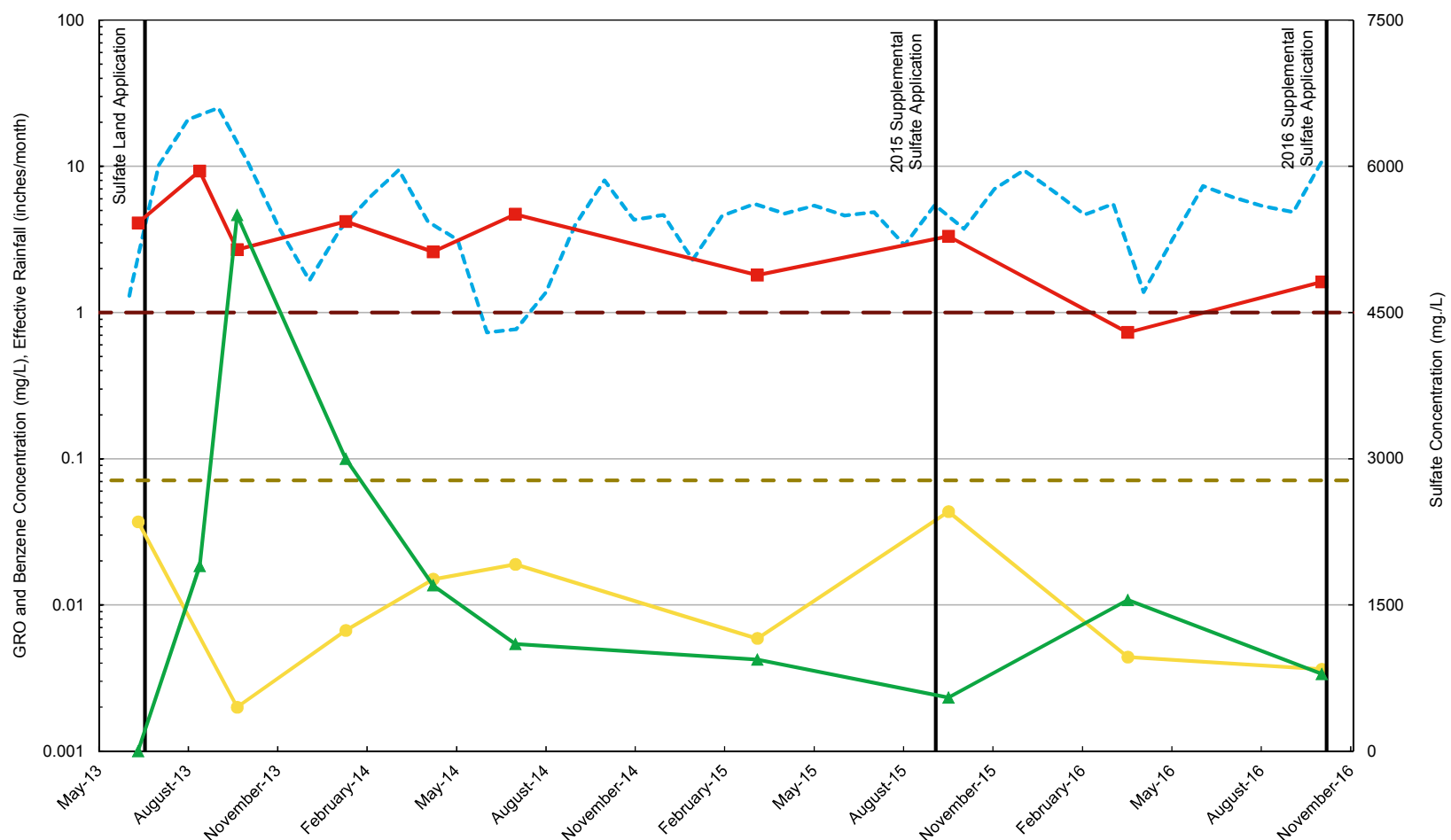
- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- ▲— Sulfate

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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11 CONSTITUENT TREND PLOT

ARCADIS Design & Consultancy for natural and built assets



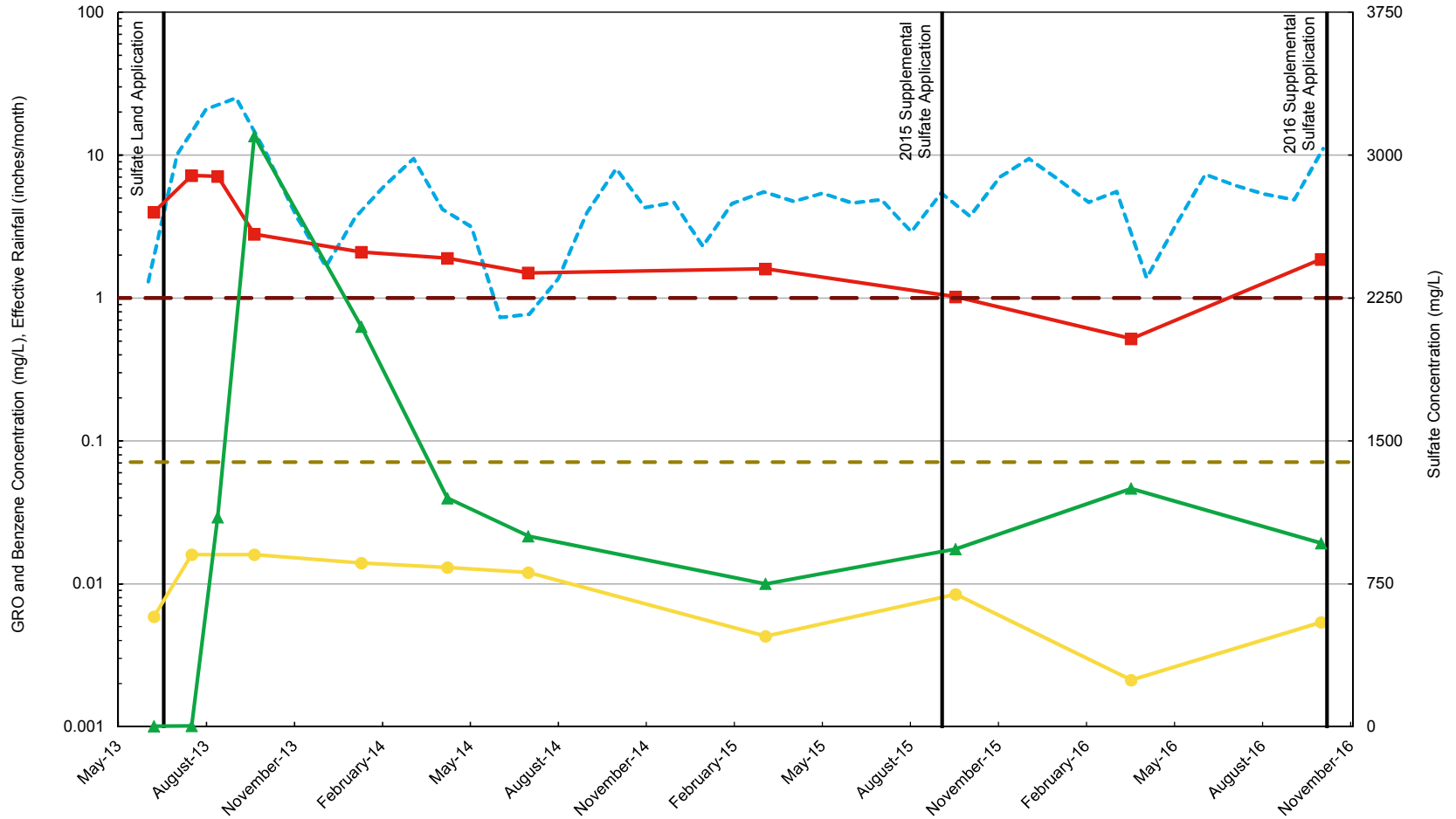
- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- Benzene
- Site-Specific Cleanup Level; Benzene
- ▲— Sulfate

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter

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12 CONSTITUENT TREND PLOT

ARCADIS	Design & Consultancy for natural and built assets	GRAPH 2
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- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- Benzene
- Site-Specific Cleanup Level; Benzene
- ▲ Sulfate

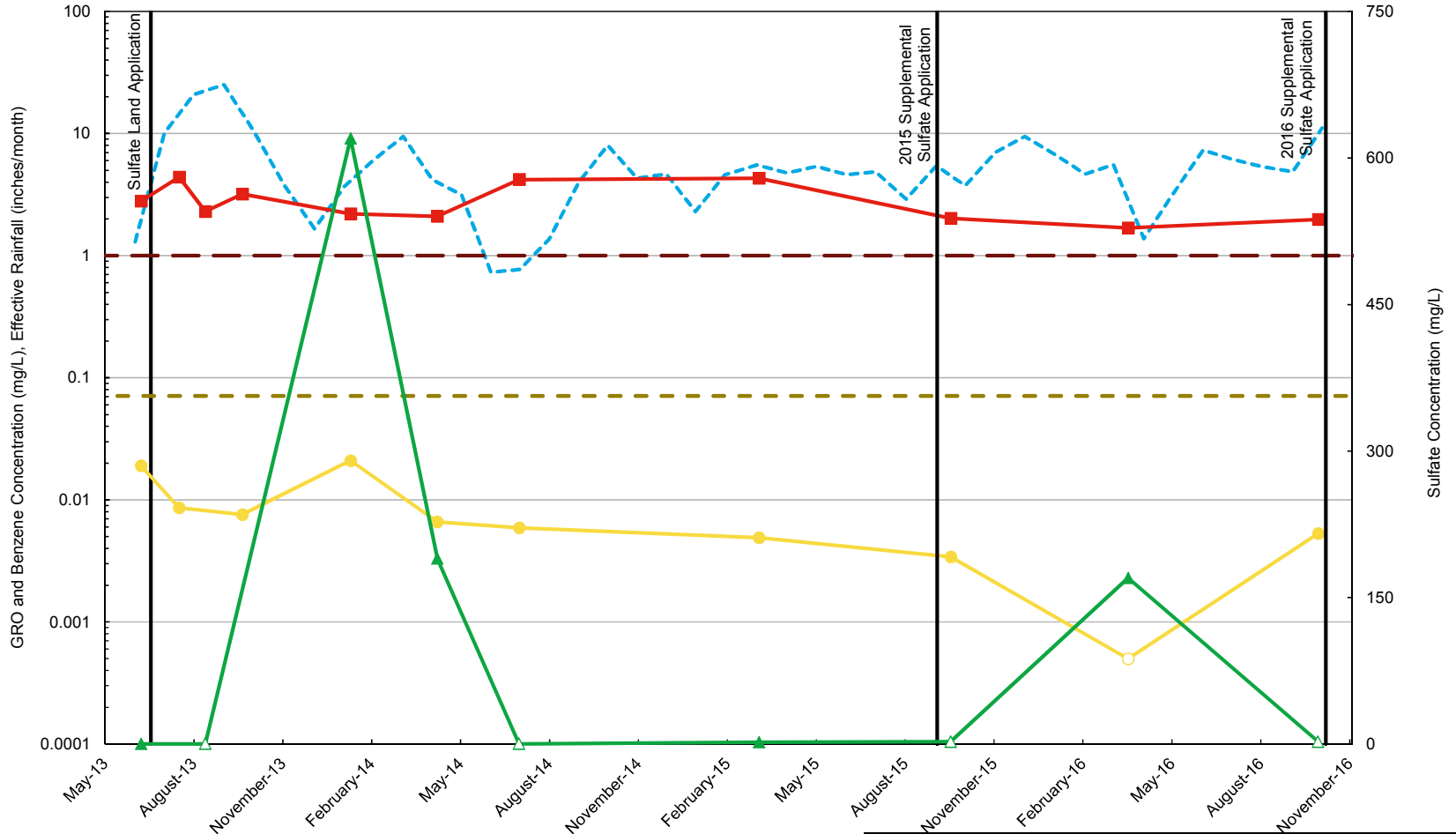
Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter

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MW-7 CONSTITUENT TREND PLOT

 **ARCADIS** | Design & Consultancy for natural and built assets

GRAPH
3



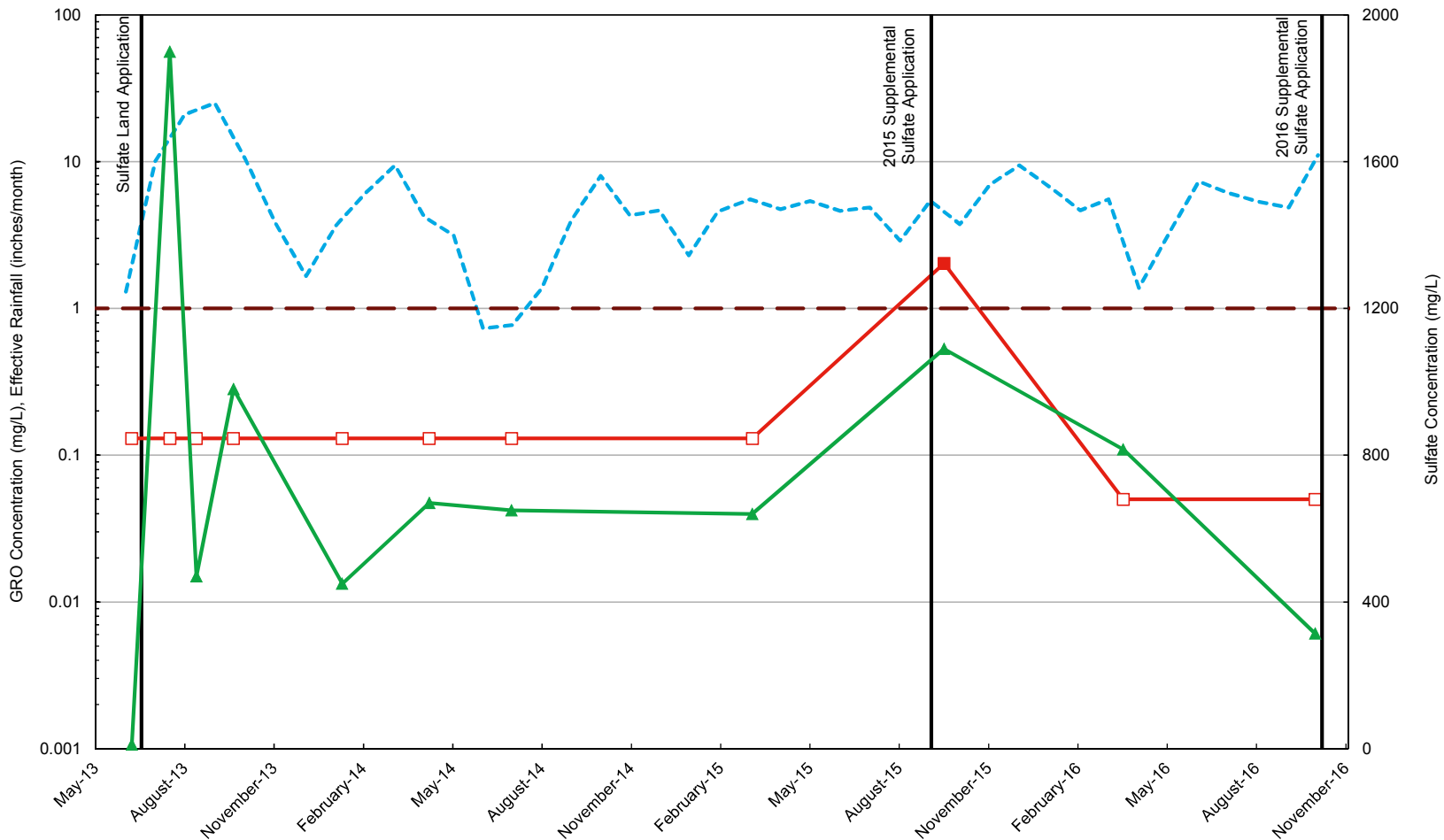
- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- Benzene
- Site-Specific Cleanup Level; Benzene
- ▲ Sulfate

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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MW-19 CONSTITUENT TREND PLOT

	Design & Consultancy for natural and built assets	GRAPH
		4



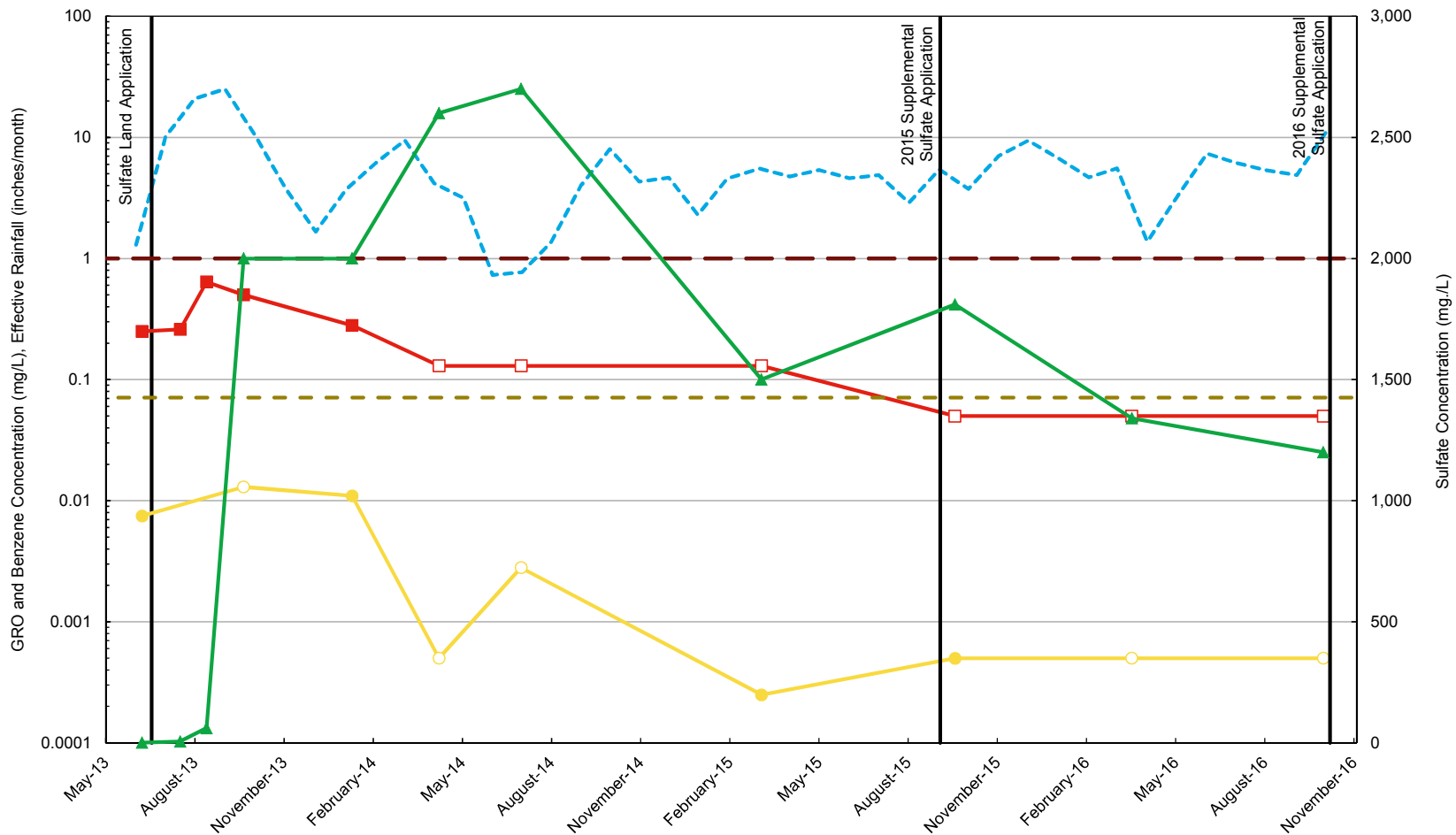
- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- ▲— Sulfate

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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TMW-1 CONSTITUENT TREND PLOT





- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- Benzene
- Site-Specific Cleanup Level; Benzene
- ▲ Sulfate

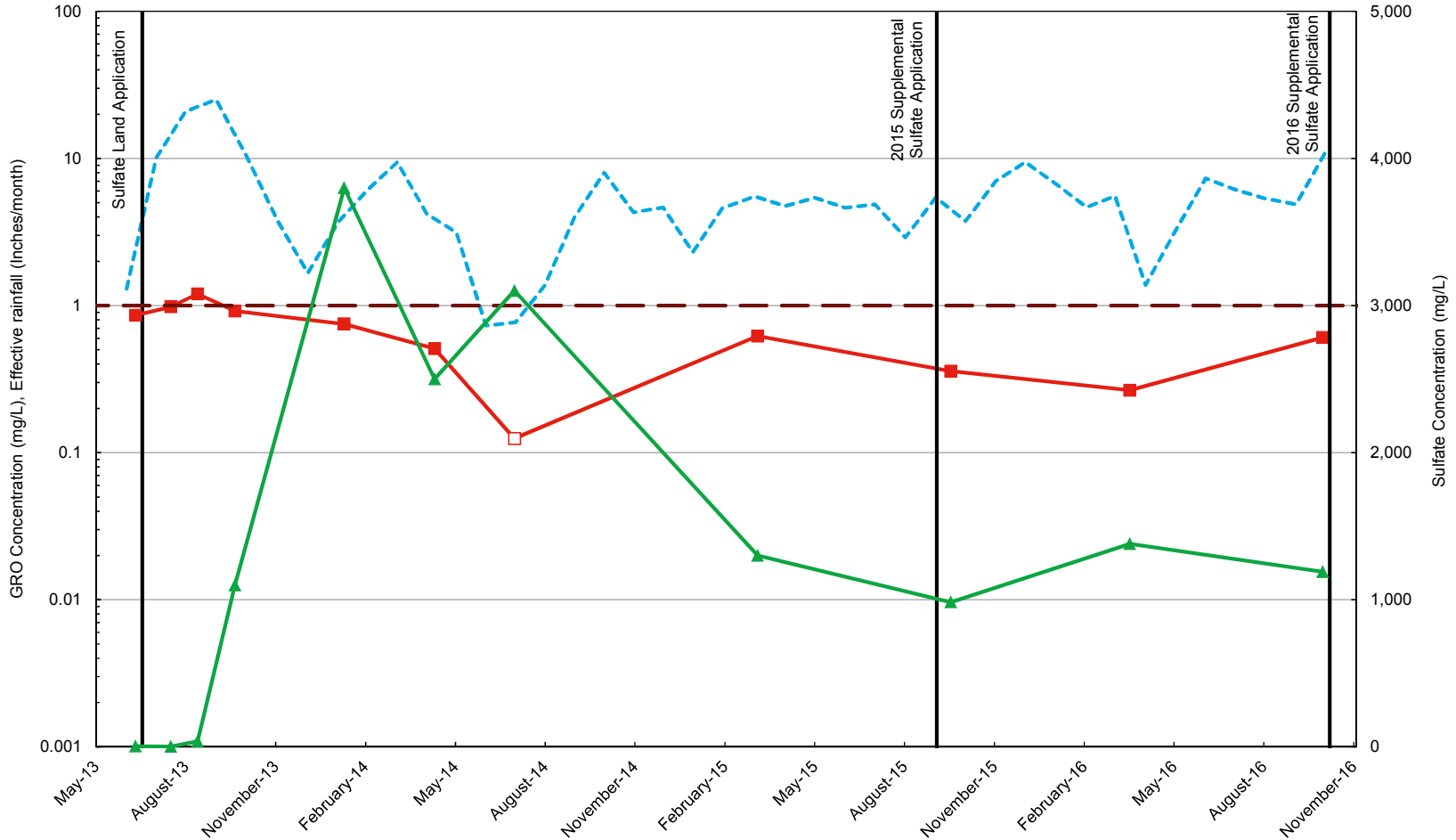
Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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TMW-2 CONSTITUENT TREND PLOT



GRAPH
6



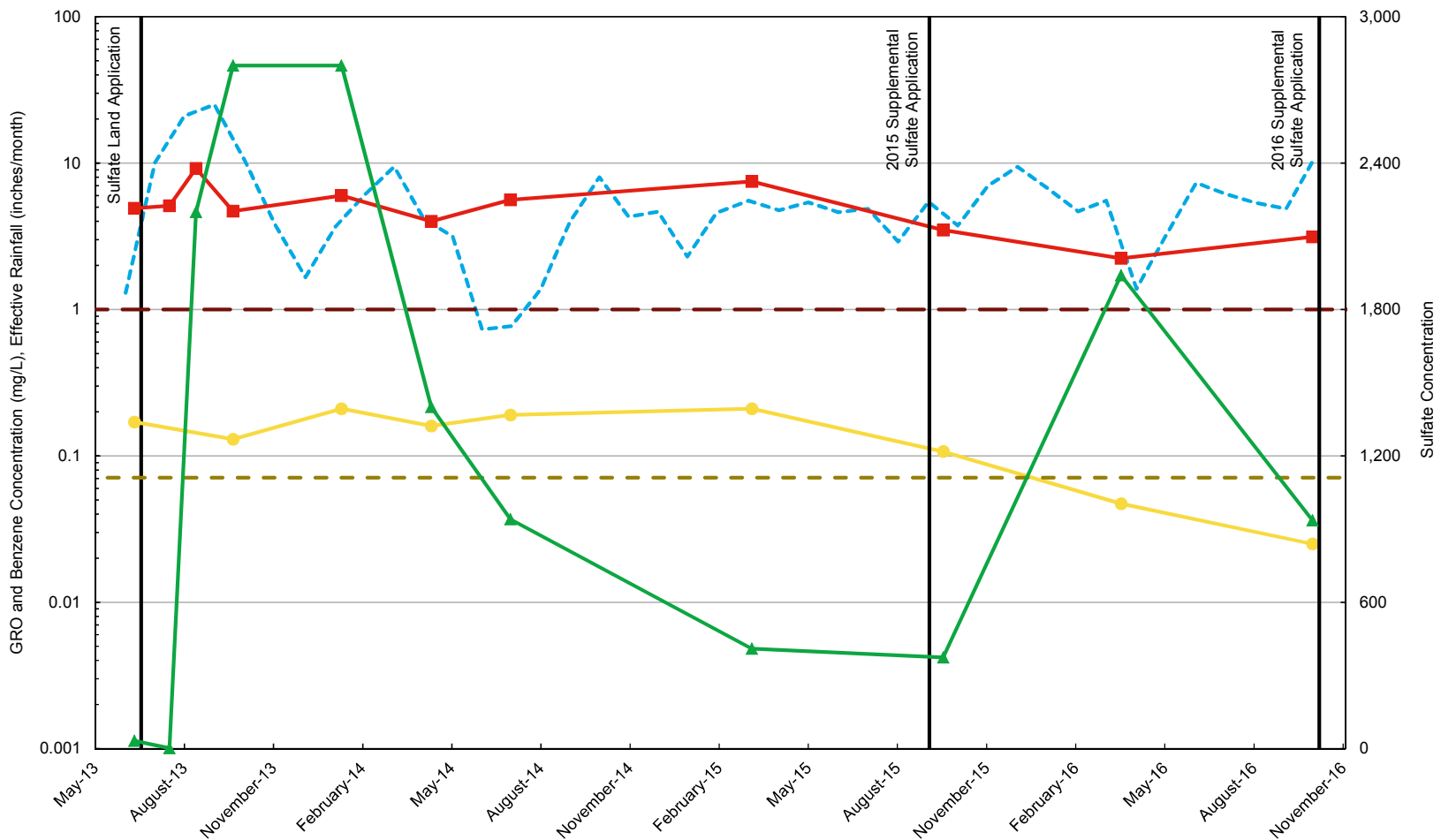
- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- ▲ Sulfate

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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TMW-3 CONSTITUENT TREND PLOT





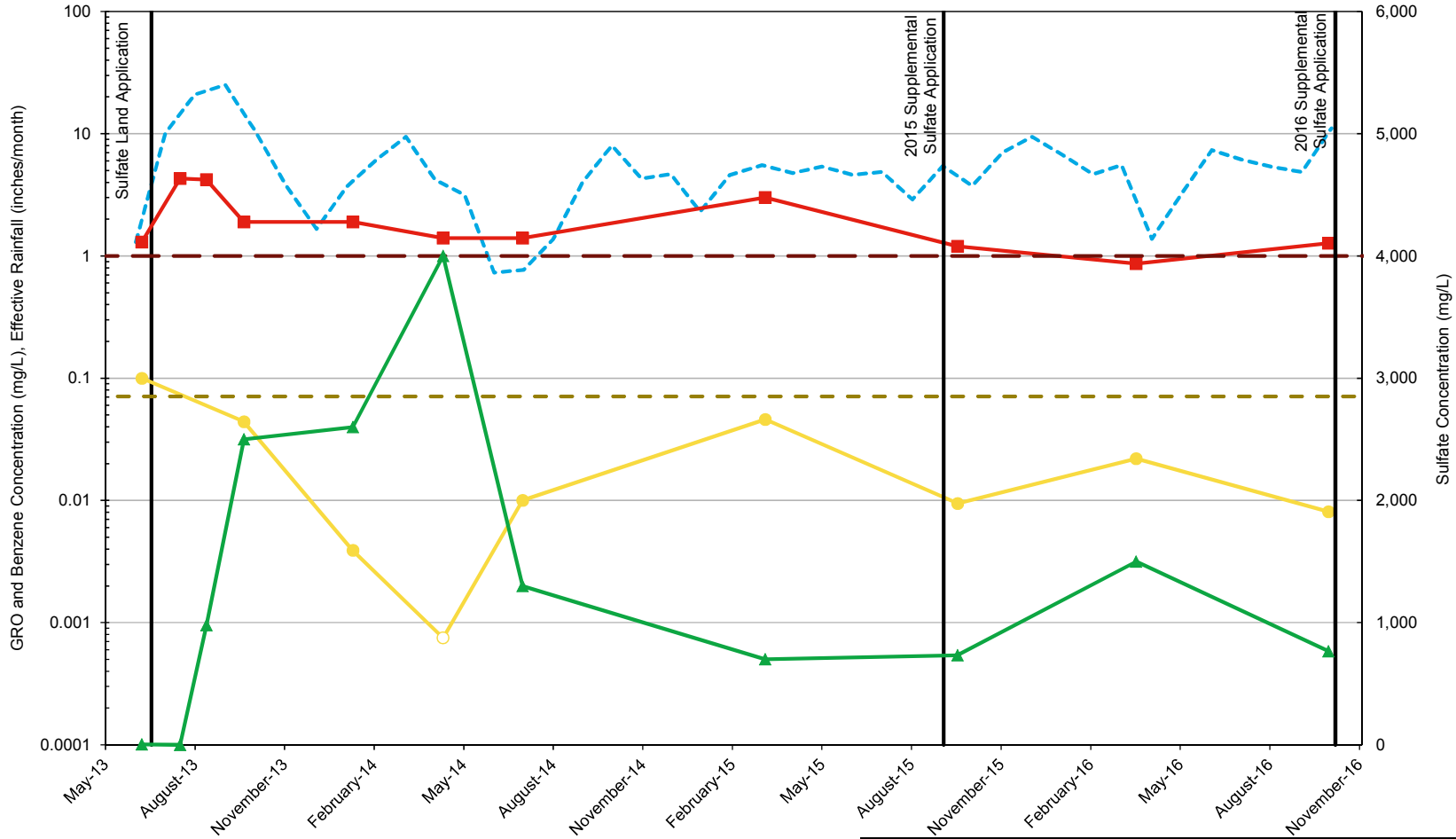
- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- Benzene
- Site-Specific Cleanup Level; Benzene
- ▲ Sulfate

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter

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TMW-4 CONSTITUENT TREND PLOT





- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site-Specific Cleanup Level; GRO
- Benzene
- Site-Specific Cleanup Level; Benzene
- ▲ Sulfate

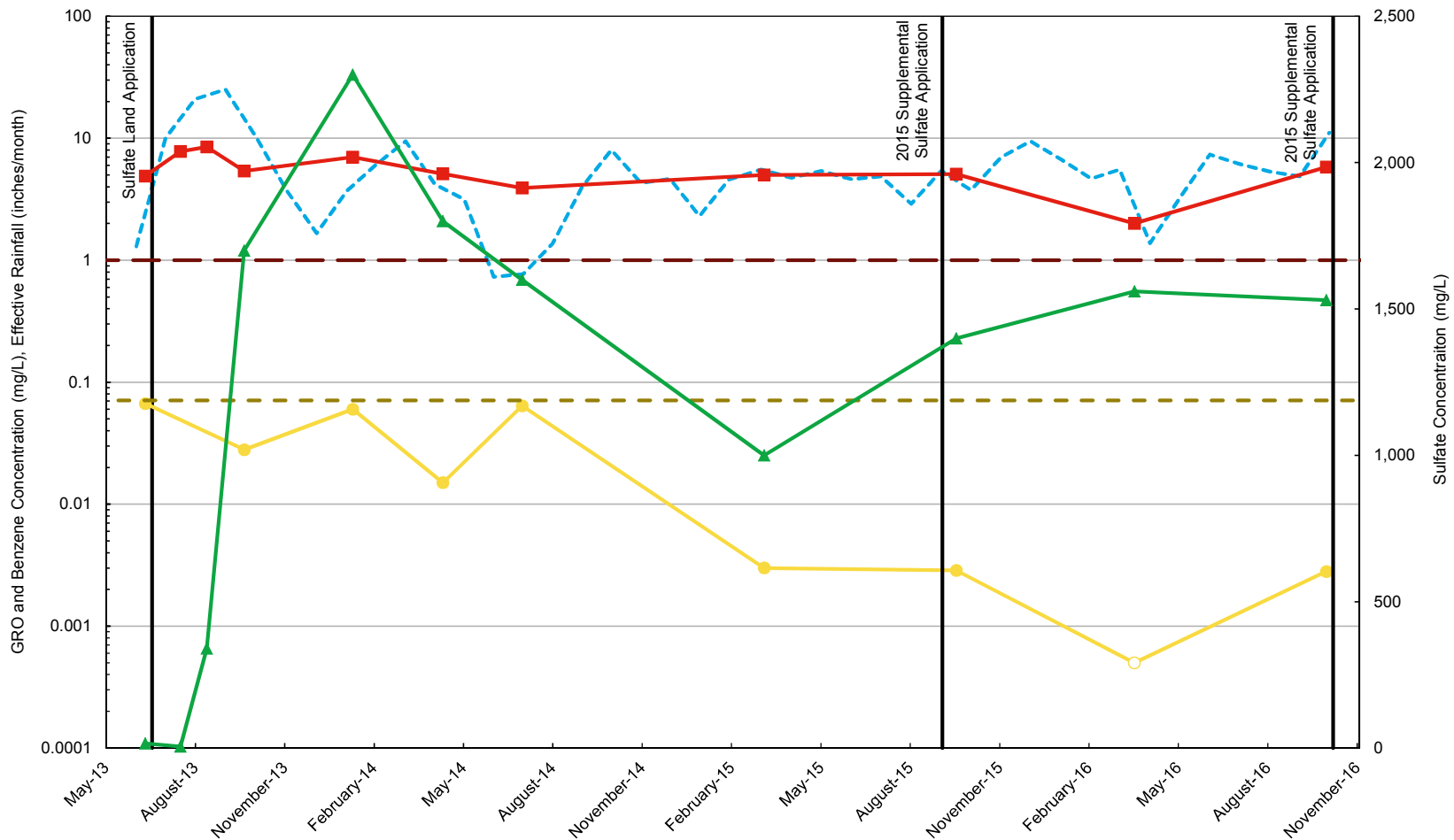
Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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TMW-5 CONSTITUENT TREND PLOT

 **ARCADIS** | Design & Consultancy for natural and built assets

GRAPH
9



- Effective Rainfall (Precipitation + Irrigation)
- GRO
- Site Specific Cleanup Level; GRO
- Benzene
- Site Specific Cleanup Level; Benzene
- ▲ Sulfate

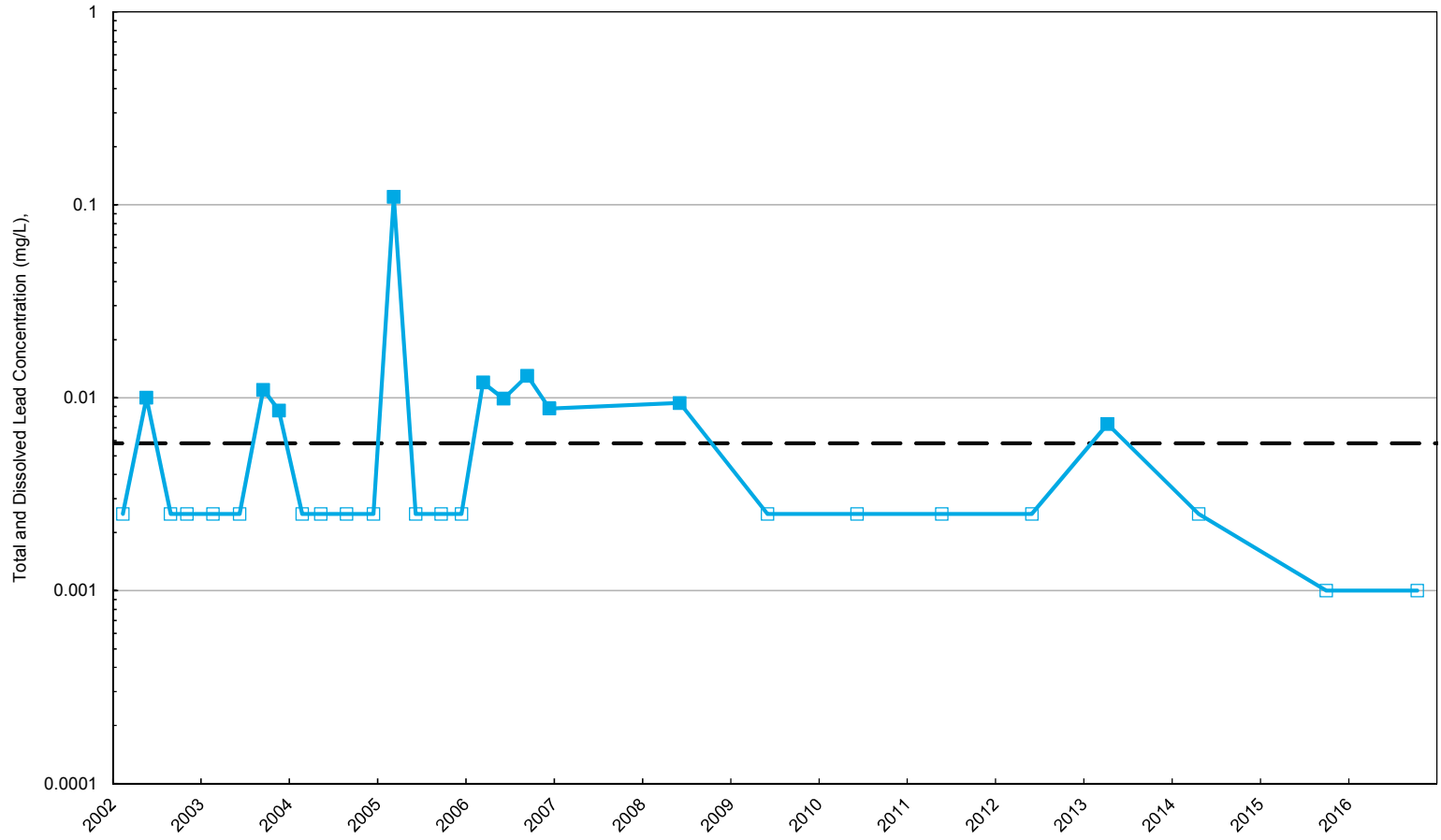
Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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TMW-6 CONSTITUENT TREND PLOT



GRAPH
10



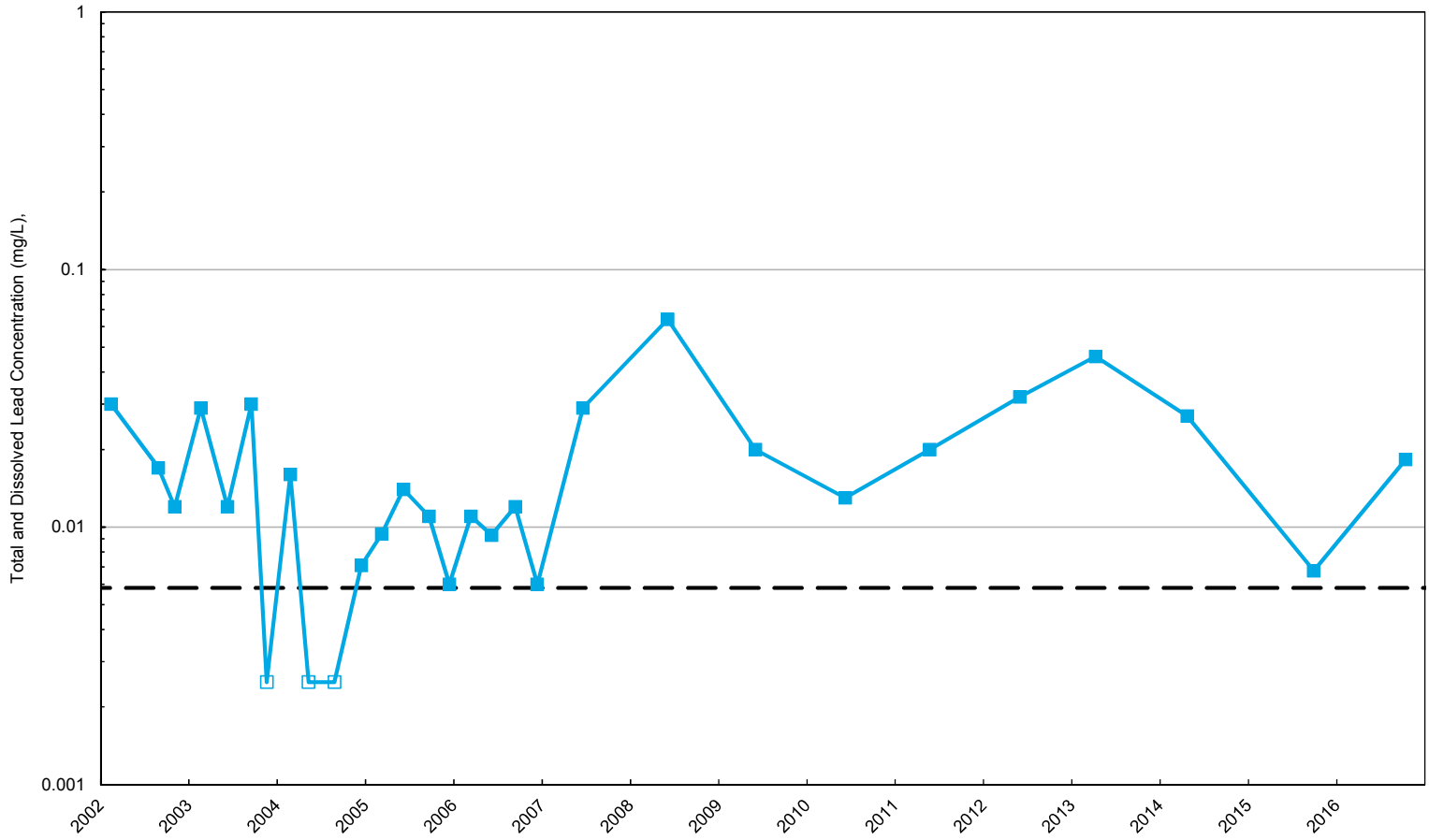
— • Site-Specific Cleanup Level; Total and Dissolved Lead
 — □ Total Lead

Notes:
 1. mg/L = milligrams per liter
 2. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL
 3. Dissolved lead was analyzed prior to 2006 and in the 2015 and 2016 groundwater monitoring events. Concentrations were below the method detection limit.

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MW-5 CONSTITUENT TREND PLOT

	Design & Consultancy for natural and built assets	GRAPH
		11



— • Site-Specific Cleanup Level; Total and Dissolved Lead

—■ Total Lead

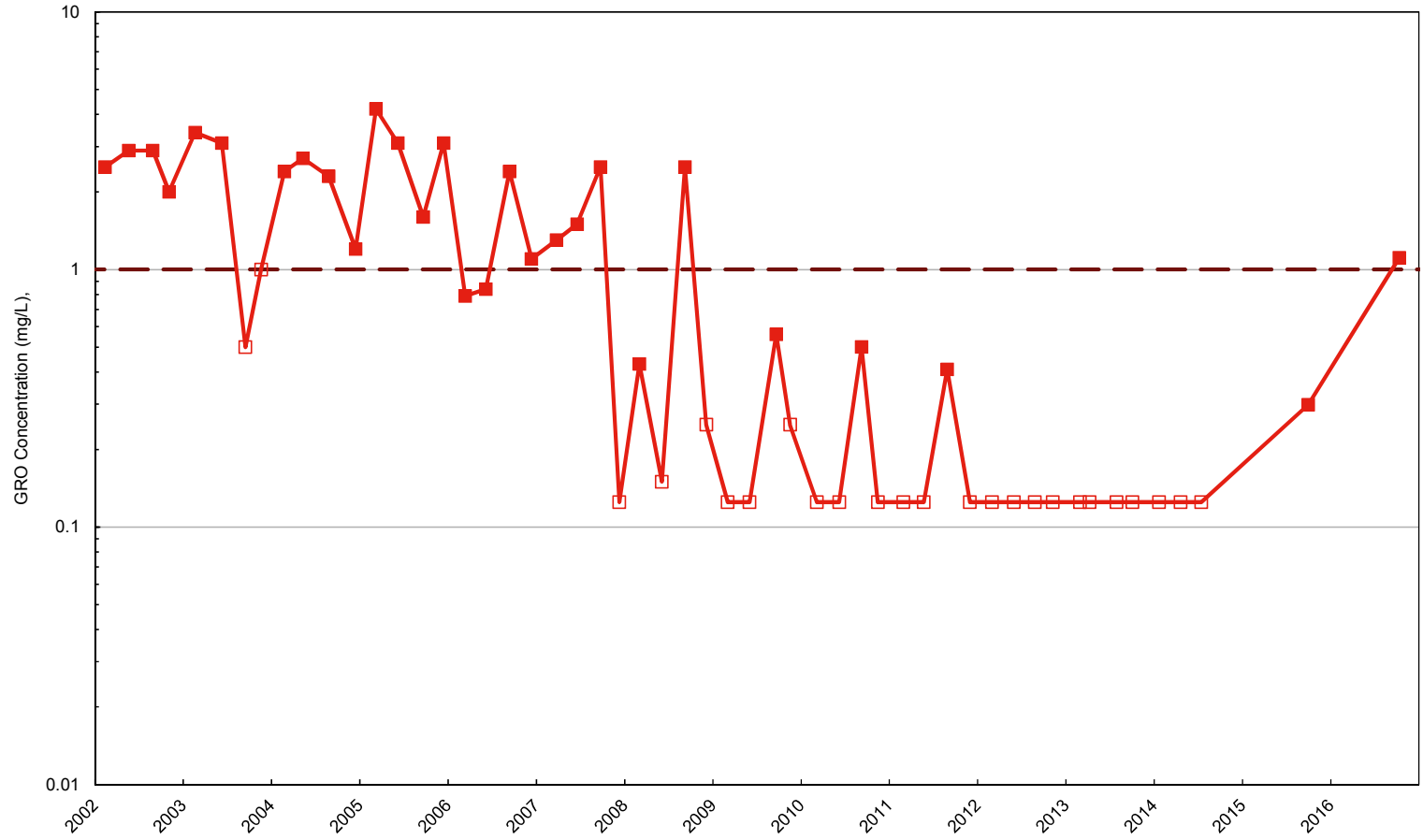
Notes:

1. mg/L = milligrams per liter
2. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL
3. Dissolved lead was analyzed prior to 2006 and in the 2015 and 2016 groundwater monitoring events. Concentrations were below the method detection limit.

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MW-8 CONSTITUENT TREND PLOT

	Design & Consultancy for natural and built assets	GRAPH
		12



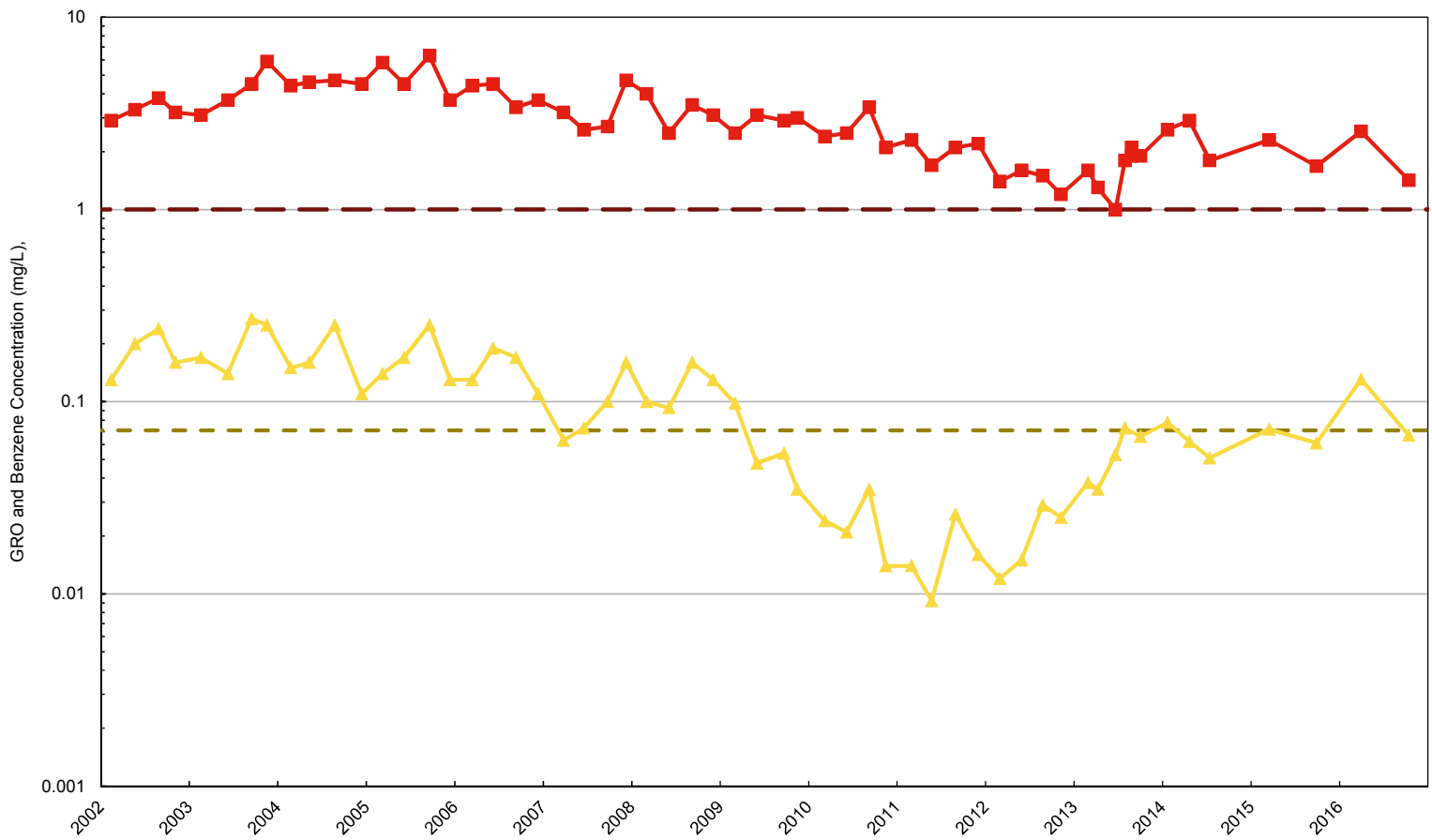
— Site-Specific Cleanup Level; GRO ■ GRO

- Notes:
1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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MW-14 CONSTITUENT TREND PLOT

	Design & Consultancy for natural and built assets	GRAPH 13
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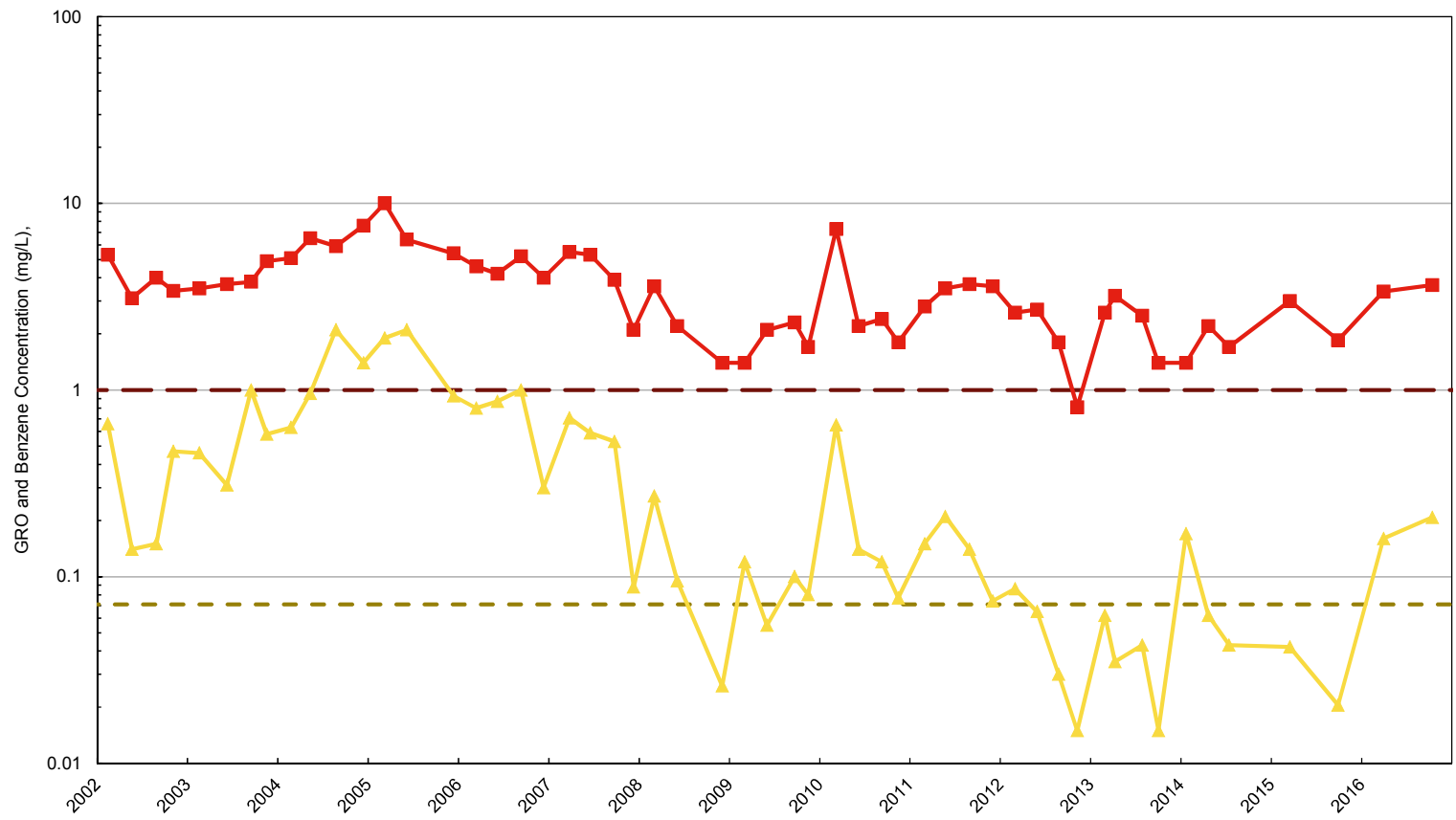
- Site-Specific Cleanup Level; GRO
- GRO
- Site-Specific Cleanup Level; Benzene
- ▲ Benzene

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter

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A-27 CONSTITUENT TREND PLOT

	Design & Consultancy for natural and built assets	GRAPH
		14



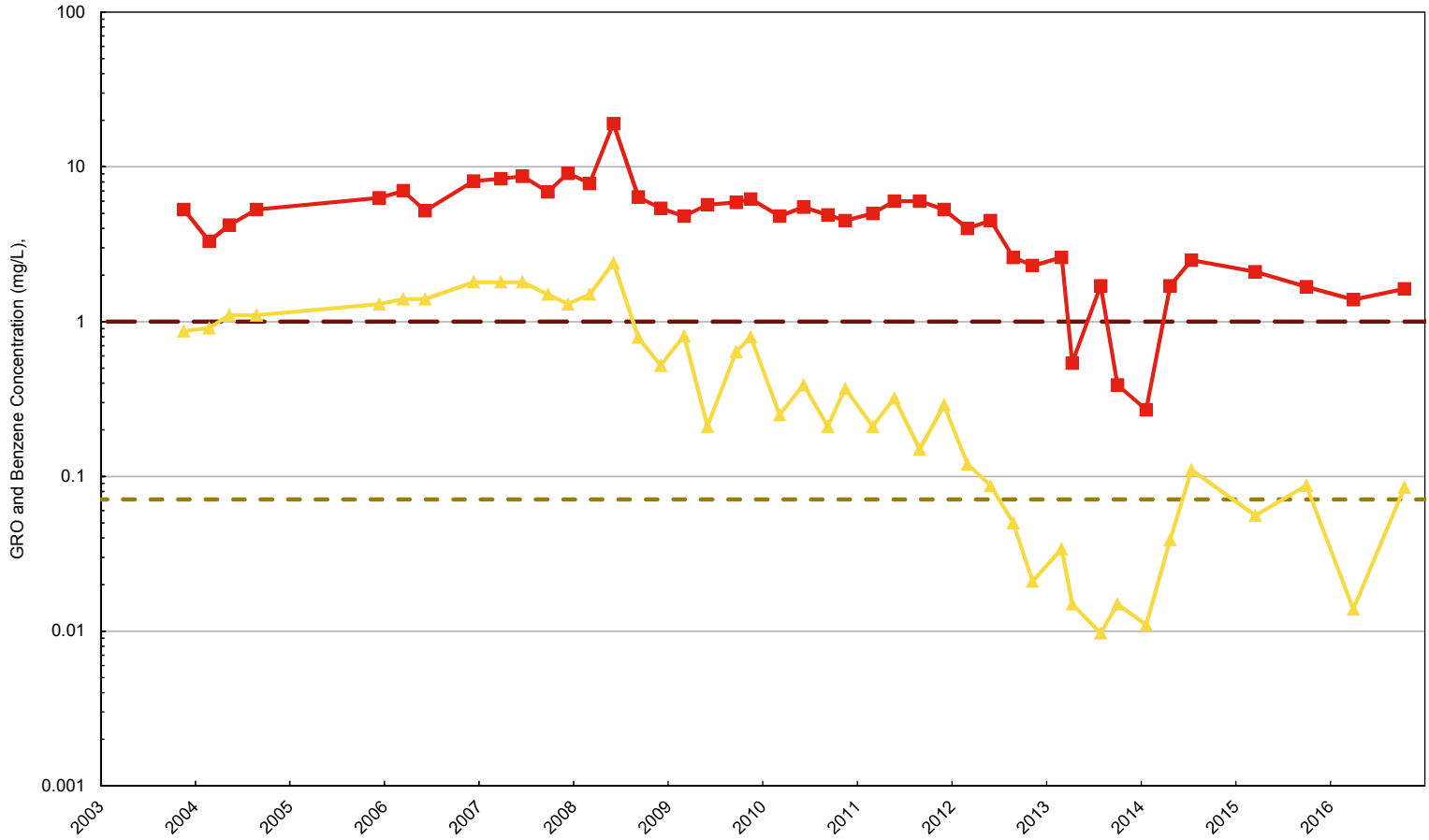
- Site-Specific Cleanup Level; GRO
- GRO
- Site-Specific Cleanup Level; Benzene
- ▲ Benzene

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter

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A-28R CONSTITUENT TREND PLOT

	Design & Consultancy for natural and built assets	GRAPH
		15



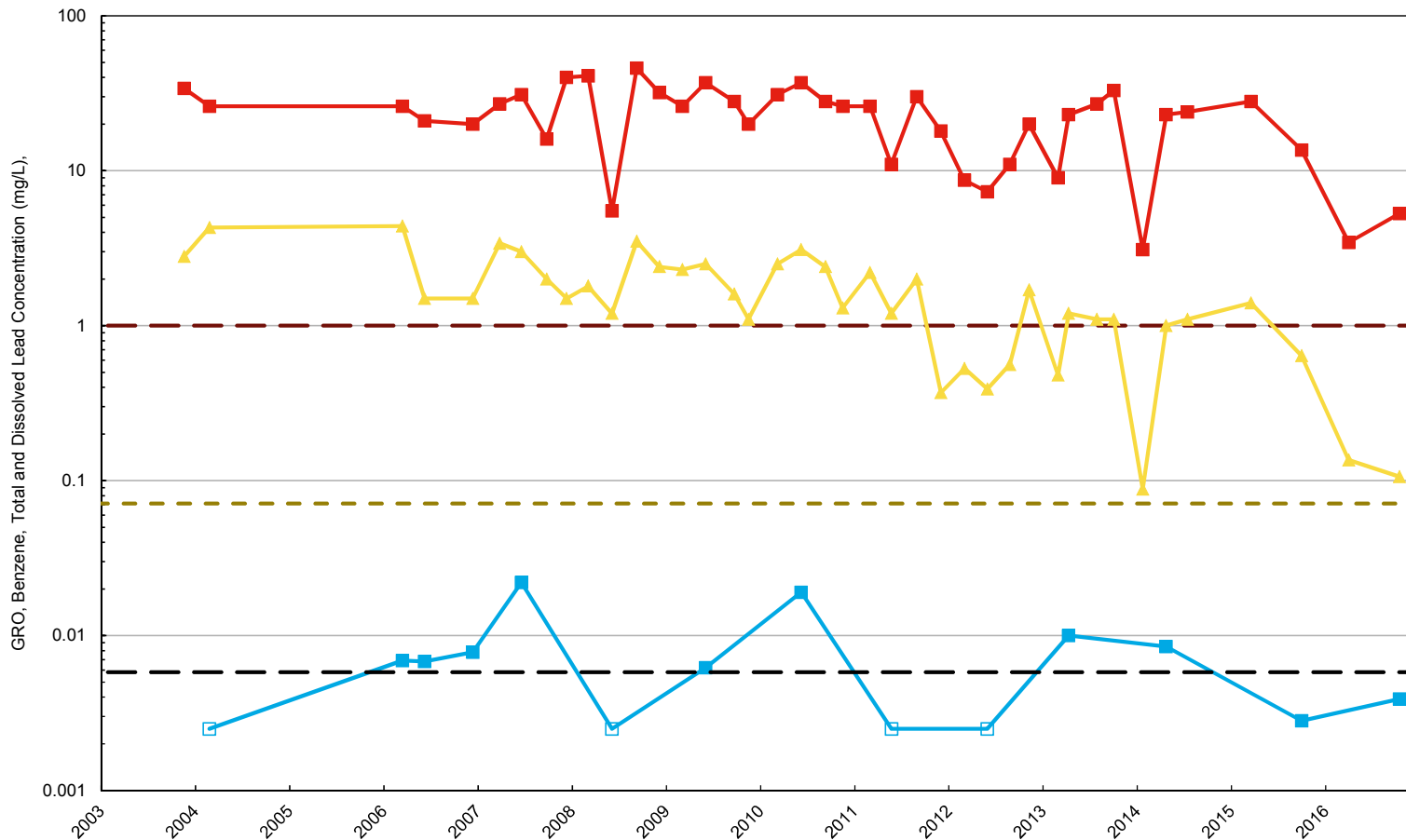
- Site-Specific Cleanup Level; GRO
- GRO
- ▲— Site-Specific Cleanup Level; Benzene
- ▲— Benzene

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL

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MW-23 CONSTITUENT TREND PLOT

	Design & Consultancy for natural and built assets	GRAPH
		16



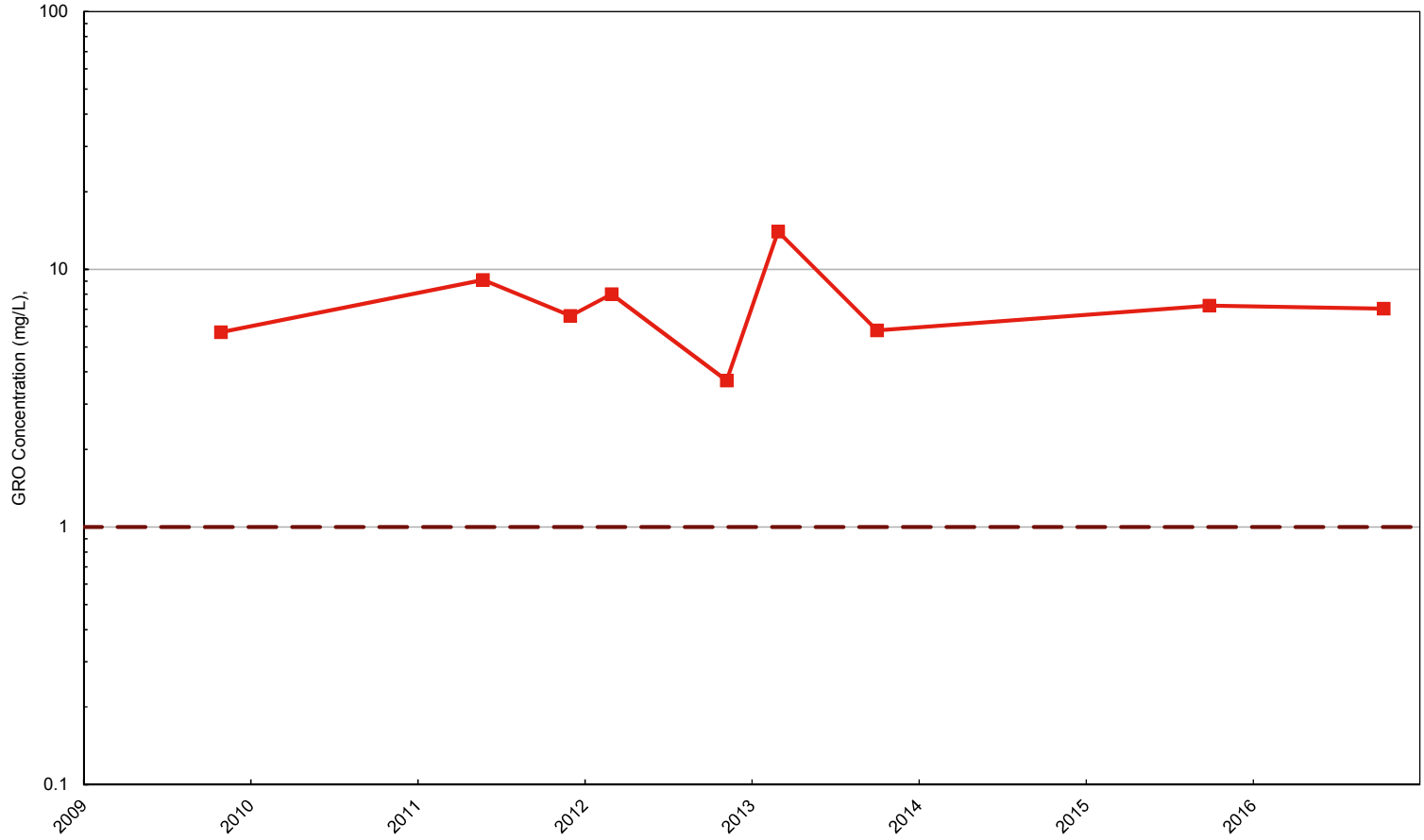
- Site-Specific Cleanup Level; GRO
- GRO
- ▲— Site-Specific Cleanup Level; Benzene
- ▲— Benzene
- Total Lead
- Site Specific Cleanup Level; Total and Dissolved Lead

Notes:
 1. GRO = gasoline range organics
 2. mg/L = milligrams per liter
 3. Open data points indicate that concentrations were not measured above the laboratory reporting limit (RL), plotted at half the RL
 4. Dissolved lead was analyzed in periodically prior to 2015 and in the 2015 and 2016 groundwater monitoring events. Concentrations were below the method detection limit.

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MW-24 CONSTITUENT TREND PLOT

ARCADIS	<i>Design & Consultancy for natural and built assets</i>	GRAPH 17
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— Site-Specific Cleanup Level; GRO

■ GRO

Notes:

1. GRO = gasoline range organics
2. mg/L = milligrams per liter

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 GROUNDWATER MONITORING REPORT

TMW-B1 CONSTITUENT TREND PLOT



GRAPH
18

ATTACHMENT A

Groundwater Monitoring Compliance Program

Site-Wide Groundwater Compliance Monitoring Plan -
Proposed Reduced Monitoring

Ecology Approval Letter

Technical Revision Request – Low-Flow Groundwater
Sampling

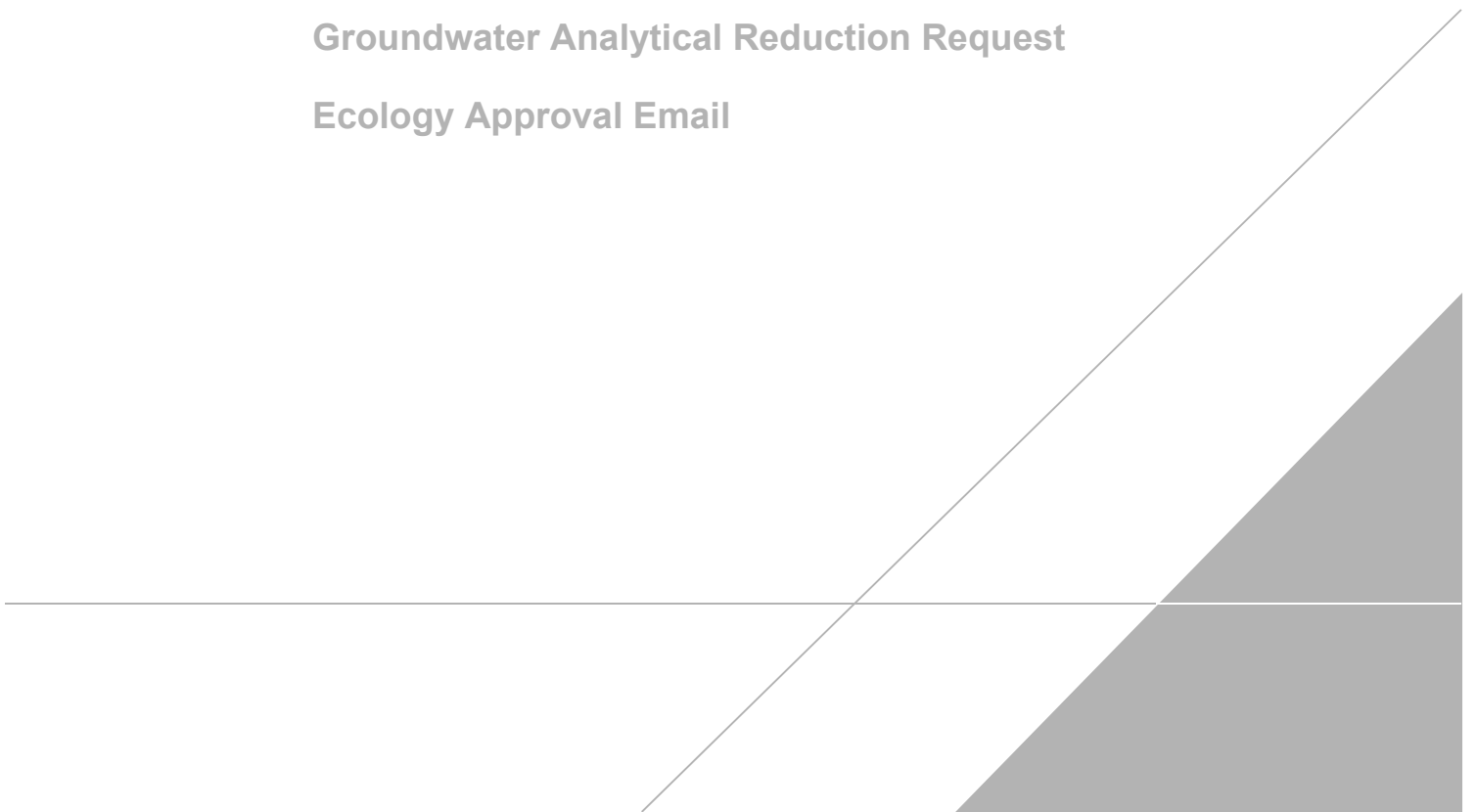
Ecology Approval Letter

Revised Site Groundwater Monitoring Plan

Ecology Approval Emails

Groundwater Analytical Reduction Request

Ecology Approval Email



June 21, 2007

Mr. Roger Nye
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue N.E.
Bellevue, Washington 98008-5452

Sent via FedEx Saver

SUBJ: Site-Wide Groundwater Compliance Monitoring Plan – Proposed
Reduced Monitoring
Kinder Morgan Harbor Island Terminal
Seattle, Washington
Delta Project No. STKM-001-M.0005



Dear Mr. Nye:

This plan has been prepared on behalf of Kinder Morgan Liquid Terminals, LLC (KMLT) by Delta Environmental Consultants (Delta) and presents a proposed revision to the site-wide groundwater compliance monitoring program for the KMLT Harbor Island Terminal located at 2720 13th Avenue Southwest in Seattle, Washington ("the site"). The revisions included in this document supersede those revisions previously proposed in an August 2, 2006 letter to you, and in a second draft dated March 22, 2007. These plan revisions are proposed in accordance with Section 2.3.4 of the Compliance Monitoring Plan (Plan) developed for the site. Further modifications to the Draft Plan were discussed with you by telephone on June 13, 2007, and this Final Proposed Reduced Monitoring Plan incorporates those modifications.

PROPOSED SITE-WIDE COMPLIANCE MONITORING PLAN

The Plan was developed to describe the protocol and procedures used to confirm that cleanup requirements are achieved at the site. This monitoring plan was prepared to satisfy the requirements of the Model Toxics Control Act (MTCA) regulations WAC 173-340-410, -720, and -820 and in accordance with requirements from Exhibit F of the Consent Decree.

The achievement of cleanup levels in groundwater is measured at points of performance and compliance located within the hydrocarbon plume area and at the downgradient edge of the site. The wells at the downgradient edge of the site are considered conditional points of compliance wells. These points of compliance and performance consist of a network of monitoring wells located in the hydrocarbon plume area and on the downgradient property boundary. Sentry wells are also used to document plume migration, performance standards, and to warn of any unanticipated change in off-site groundwater conditions.

The Compliance Monitoring Plan incorporated in the Consent Decree includes quarterly monitoring for free product, dissolved TPH constituents, total and dissolved lead, and natural attenuation parameters. In accordance with *Section 2.3.4 Monitoring Schedule* of the Plan, the sampling frequency and number of parameters may be reduced if monitoring data indicates that trends are declining. Following are the proposed revisions for each of these compliance monitoring criteria, and the rationale for each revision.

Free Product

As established in the Plan, KMLT currently performs quarterly gauging of 71 wells for monitoring of free product. KMLT proposes to continue monitoring of wells in which free product has been observed during the past 8 quarters, and the 29 wells which were identified as Compliance Monitoring Wells in Table 1 of the Plan. Accordingly, KMLT proposes to continue quarterly gauging of the following 43 wells: A-4, A-5, A-6, A-8, A-10, A-11, A-12, A-14R, A-16, A-18, A-19, A-20, A-21, A-22R, A-23R, A-25, A-26R, A-27, A-28R, 12, MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-12R, MW-13R, MW-14, MW-16, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, SH-02R, SH-05R, and MW-07R.

Dissolved TPH Constituents

The current compliance monitoring program for dissolved TPH constituents includes quarterly sampling of 32 monitoring wells (29 Compliance Monitoring Wells and 3 additional wells which were installed in September 2003 as part of a supplemental study to further characterize free product in the A Yard). A summary of monitoring wells and annual analyses included in the current dissolved TPH constituents compliance monitoring program is presented on Table 1. A site map showing locations of groundwater monitoring wells is included as Figure 2.

An evaluation of groundwater analytical data collected since the execution of the Consent Decree indicates that data collected from numerous monitoring wells have demonstrated that cleanup criteria have either been met from the outset of the program or have demonstrated at least 4 consecutive quarters meeting cleanup criteria. A summary of groundwater analytical results for 2000 through December 2006 are presented in Table 2.

An evaluation of historical groundwater analytical results with respect to established cleanup criteria is summarized in Table 3. Where applicable, wells and corresponding analytes which demonstrate a consistent trend of meeting cleanup criteria are noted. Wells and corresponding analytes are highlighted where historic monitoring indicates a reduction in monitoring frequency or analytes is warranted.

KMLT proposes a revision from quarterly monitoring for TPH parameters as follows. For wells which have demonstrated that cleanup criteria for TPH-G, BTEX, TPH-D, and TPH-O have been met from the outset of the program, KMLT proposes to reduce the frequency of quarterly monitoring to annual monitoring. For wells which have not met the criteria for TPH-G and BTEX, but have met the criteria for TPH-D and TPH-O, KMLT proposes to continue quarterly monitoring for TPH-G and BTEX and discontinue monitoring for TPH-D and TPH-O. Proposed compliance monitoring plan revisions are summarized in Table 4.

After the revised program is initiated, if results demonstrate that any TPH cleanup criteria has been exceeded in a well, KMLT will revert to quarterly monitoring for respective analytes that were exceeded for the well, and will resume quarterly monitoring for natural attenuation parameters.

Total and Dissolved Lead

As established in the Plan, KMLT currently monitors for total lead on a quarterly basis in 20 wells. The purpose of this monitoring is to demonstrate performance and confirmation monitoring of the surface cleanup action for the site. The surface cleanup action, which included removal of surface soils containing concentrations of total lead exceeding the hot-spot cleanup criteria, was executed and completed in April and May 2002. In accordance with *Section 2.2* of the Plan, performance monitoring for total lead has been performed on a quarterly basis since the completion of the surface cleanup action. Following the performance of the surface cleanup action, total lead has infrequently exceeded the cleanup criterion. KMLT proposes to continue monitoring for this parameter on an annual basis.

As required in the Plan, KMLT also currently monitors for dissolved lead on a quarterly basis in the same 20 wells which are monitored for total lead. Cleanup criteria for this parameter was not established in the Cleanup Action Plan. Dissolved lead has been detected in 4 of the 20 wells. Dissolved lead was detected in one or two instances in two wells, and was detected in two wells on a more frequent basis in two wells. Delta proposes to monitor for

dissolved lead in two wells (A-23R and MW-7) which have contained measurable concentrations on a periodic basis in the past.

A summary of monitoring wells and annual analyses included in the current total and dissolved lead compliance monitoring program is presented on Table 1. A summary of groundwater analytical results for 2000 through December 2006 are presented in Table 2. An evaluation of historical groundwater analytical results with respect to established cleanup criteria is summarized in Table 3. Proposed compliance monitoring plan revisions are summarized in Table 4.

Natural Attenuation Parameters


The current compliance monitoring program for natural attenuation parameters includes quarterly sampling of 26 monitoring wells (23 Compliance Monitoring Wells and 3 additional wells which were installed in September 2003 as part of a supplemental study to further characterize free product in the A Yard). In accordance with *Section 2.2.3 Monitoring Schedule* of the Plan which states that natural attenuation monitoring will be conducted quarterly for the first year and annually thereafter, KMLT proposes to discontinue monitoring of wells which have met the criteria for TPH-G, BTEX, TPH-D and TPH-O constituents, and continue monitoring on an annual basis those wells which have not met the criteria. Proposed compliance monitoring plan revisions are summarized in Table 4.

A summary of proposed compliance monitoring plan revisions are presented in Table 4. Wells which are designated for annual monitoring will be monitored during the second quarter event. A summary of monitoring wells and a tally of annual analyses for all parameters proposed in this compliance monitoring program revision is presented on Table 5.

KMLT proposes to incorporate the compliance monitoring plan revisions included herein during the third quarter 2007 monitoring event. Please call if you have any questions regarding the contents of this letter, or if you would like to discuss any aspect of the proposed compliance monitoring plan. Delta looks forward to your approval of this program.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.


for Ward Crell
Principal Geologist

Enc: Table 1 – Summary of Current Annual Analyses, Groundwater Compliance Program
Table 2 – Groundwater Analytical Results
Table 3 – Analytical Summary 2000 – December 2006, Current Groundwater Compliance Program
Table 4 – Proposed Groundwater Compliance Program, Recommended Monitoring Frequency
Table 5 – Summary of Proposed Annual Analyses, Groundwater Compliance Program
Figure 1 – Site Plan – Groundwater Monitoring Well Locations

cc: Mr. Robert Truedinger, Kinder Morgan Energy Partners, L.P., Richmond, California
Ms. Kelsy Hardy, Kinder Morgan Energy Partners, L.P., Orange, California (File Copy - CD Only)

TABLE 1
CURRENT ANNUAL ANALYSES
GROUNDWATER COMPLIANCE PROGRAM
 Kinder Morgan Harbor Island Terminal

Well ID	Indicator Hazardous Substances				Natural Attenuation Parameters				
	TPH-G/ BTEX	TPH-D+ extended	Total Lead	Dissolved Lead	Nitrate (NO3)	Ferrous Iron	Methane	Sulfate (SO4)	Sulfide (H2S)
A-5	4	4							
A-8	4	4							
A-10	4	4			4	4	4	4	4
A-14R	4	4	4	4	4	4	4	4	4
A-21	4	4	4	4	4	4	4	4	4
A-23R	4	4	4	4	4	4	4	4	4
A-27	4	4			4	4	4	4	4
A-28R	4	4	4	4	4	4	4	4	4
MW-1	4	4	4	4	4	4	4	4	4
MW-2	4	4	4	4	4	4	4	4	4
MW-3	4	4	4	4	4	4	4	4	4
MW-4	4	4			4	4	4	4	4
MW-5	4	4	4	4	4	4	4	4	4
MW-6	4	4	4	4	4	4	4	4	4
MW-7	4	4	4	4	4	4	4	4	4
MW-8	4	4	4	4	4	4	4	4	4
MW-9	4	4	4	4	4	4	4	4	4
MW-12R	4	4	4	4					
MW-13R	4	4	4	4					
MW-14	4	4			4	4	4	4	4
MW-16	4	4							
MW-18	4	4							
MW-19	4	4			4	4	4	4	4
MW-20	4	4			4	4	4	4	4
MW-21	4	4			4	4	4	4	4
MW-22	4	4			4	4	4	4	4
SH-02R	4	4	4	4	4	4	4	4	4
SH-05R	4	4	4	4	4	4	4	4	4
MW-07R	4	4	4	4	4	4	4	4	4
MW-23	4	4	4	4	4	4	4	4	4
MW-24	4	4	4	4	4	4	4	4	4
MW-25	4	4	4	4	4	4	4	4	4
ANNUAL TOTAL:	128	128	80	80	104	104	104	104	104

Notes: Number denotes number of quarters sampled annually

 Parameter not analyzed

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
 Kinder Morgan Liquid Terminals, LLC
 Harbor Island Terminal
 2720 13th Avenue Southwest
 Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
MW-1	02/13/02	<0.25	2.0	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	05/21/02	<0.25	1.9	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	08/28/02	<0.25	1.0	<0.5	0.0013	0.0067	0.00052	0.0016	<0.005*
	11/05/02	<0.25	0.87	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	0.021*
	02/19/03	<0.25	1.9	<0.5	<0.0005	0.00058	<0.0005	<0.0005	<0.005*
	06/10/03	<0.25	1.1	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	09/16/03	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	11/19/03	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	02/25/04	<0.25	1.3	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	05/11/04	<0.25	0.87	<0.50	<0.0005	0.00068	<0.0005	<0.0005	<0.0050*
	08/25/04	0.83	0.40	<0.50	<0.0005	<0.0005	0.00065	<0.0005	<0.0050*
	12/15/04	<0.25	0.38	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/09/05	<0.25	0.63	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/05	<0.25	0.80	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/21/05	<0.25	0.40	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
03/14/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
06/07/06	<0.25	0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0052*	
12/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
MW-2	02/13/02	<0.25	0.71	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	05/21/02	<0.25	0.66	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	08/29/02	<0.25	0.91	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	11/05/02	<0.25	0.73	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	02/19/03	<0.25	0.74	<0.5	<0.0005	0.00062	<0.0005	<0.0005	0.028*
	06/10/03	<0.25	0.61	<0.25	<0.0005	0.00071	<0.0005	<0.0005	0.026 ^{sa}
	09/16/03	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.062*
	11/19/03	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.021*
	02/25/04	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.030*
	05/11/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/25/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/10/05	<0.25	0.29	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/07/05	<0.25	0.91	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.036*
	09/20/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/13/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.024*
03/15/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
06/08/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0063*	
09/12/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
12/12/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
MW-3	02/13/02	<0.25	1.8	<0.5	0.011	0.0015	0.0045	0.011	<0.005*
	05/20/02	0.38	1.9	<0.5	0.052	0.0028	0.025	0.02	0.01*
	08/28/02	0.62	2.5	<0.5	0.11	0.0071	0.021	0.030	<0.005*
	11/06/02	0.63	1.1	<0.5	0.14	0.0053	0.021	0.015	0.006*
	02/19/03	<0.25	1.8	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	0.014*
	06/11/03	<0.25	1.3	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	0.019*
	09/17/03	<0.25	1.4	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.042*
	11/20/03	<0.25	2.4	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0063*
	02/25/04	<0.25	1.2	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.025*
	05/11/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/25/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0051*
	12/15/04	<0.25	0.33	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.018*
	03/09/05	<0.25	<0.25	<0.50	0.001	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/05	<0.25	<0.25	<0.50	0.0011	<0.0005	<0.0005	<0.0005	<0.0050*
	09/21/05	<0.25	<0.25	<0.50	0.00094	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
03/14/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
06/07/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
12/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
Dup-2^a	06/08/05	<0.25	<0.25	<0.50	0.0011	<0.0005	<0.0005	<0.0005	<0.0050*
	09/21/05	<0.25	0.27	<0.50	0.00098	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/14/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/07/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.010*
	09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
12/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

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Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
MW-4	02/14/02	0.78	280	<50	0.3	0.0072	0.0023	0.0082	NA
	05/21/02	1.5	8.6	<0.5	0.43	0.023	0.034	0.13	NA
	08/28/02	3.3	30	2.6	1.1	0.016	0.016	0.024	NA
	11/04/02	NS	NS	NS	NS	NS	NS	NS	NA
	02/19/03	3.1	31	<0.5	0.056	0.0017	0.014	0.02	NA
	06/10/03	0.39	12	<0.25	0.031	0.0012	0.0091	0.0096	NA
	09/16/03	NS	NS	NS	NS	NS	NS	NS	NS
	11/19/03	0.25	19	<0.50	0.033	<0.001	0.0042	0.0069	NA
	02/25/04	0.36	15	<0.50	0.035	0.0014	0.0056	0.0094	NA
	05/12/04	0.33	7.4	<0.50	0.012	<0.001	0.0048	0.0058	NA
	08/26/04	<0.50	5.1	<0.50	0.014	<0.0025	0.0039	0.0069	NA
	12/15/04	NS	NS	NS	NS	NS	NS	NS	NA
	03/09/05	<2.0	11	<0.50	<0.01	<0.01	<0.01	0.013	NA
	06/08/05	<1.0	16	1.1	<0.005	<0.005	<0.005	<0.005	<0.0050
	09/21/05	<2.0	19	2.1	<0.010	<0.010	<0.010	<0.010	NA
	12/14/05	<0.50	6.2	0.81	0.012	<0.0025	0.0032	0.0084	NA
	03/14/06	<0.40	3.9	0.69	0.0063	<0.0020	0.0020	0.0062	NA
	06/07/06	<0.50	4.5	<0.50	0.0037	<0.0025	<0.0025	<0.0025	NA
	09/13/06	<0.50	2.7	<0.50	0.0034	<0.0025	<0.0025	0.0029	NA
	12/13/06	<0.25	3.7	0.62	0.0012	<0.0005	<0.0005	0.0023	NA
MW-5	02/13/02	<0.25	<0.25	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	05/21/02	<0.25	<0.5	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	0.01*
	08/29/02	<0.25	1.2	<0.5	<0.0005	0.0018	<0.0005	0.00063	<0.005*
	11/05/02	<0.25	1.6	<0.5	0.0055	0.0016	<0.0005	0.00056	<0.005*
	02/20/03	<0.25	<0.25	<0.5	<0.0005	0.00066	<0.0005	<0.0005	<0.005*
	06/11/03	<0.25	0.36	<0.25	<0.0005	0.00079	<0.0005	<0.0005	<0.005*
	09/16/03	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.011*
	11/20/03	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0086*
	02/24/04	<0.25	<0.50	<0.50	<0.0005	0.0014	<0.0005	<0.0005	<0.0050*
	05/11/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/26/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/15/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/09/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.11*
	06/08/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/21/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/14/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.012*
	06/07/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0099*
	09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.013*
	12/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0088*
MW-6	02/13/02	0.97	1.1	<0.5	0.014	0.0007	<0.0005	0.00065	<0.005*
	05/22/02	1.1	2.5	<0.5	0.035	0.0012	0.0024	0.00072	<0.005*
	08/29/02	0.58	6.4	<0.5	0.0014	<0.001	<0.001	<0.001	<0.005*
	11/05/02	0.59	7.3	<0.5	0.064	<0.001	<0.001	0.0016	0.02*
	02/19/03	0.54	1.7	<0.5	0.0062	<0.0005	<0.0005	<0.0005	<0.005*
	06/10/03	0.70	1.9	<0.25	0.025	0.0011	0.00052	0.00051	<0.005*
	09/16/03	0.68	<0.50	<0.50	<0.0005	<0.0005	0.00053	<0.0005	0.019*
	11/19/03	0.44	1.6	<0.50	0.0095	0.00067	<0.0005	0.00051	<0.0050*
	02/25/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	05/11/04	1.0	0.67	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/25/04	<0.25	0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/04	0.82	0.81	<0.50	0.008	<0.0005	<0.0005	<0.0005	0.011*
	03/10/05	1.0	0.42	<0.50	0.0011	<0.0005	<0.0005	<0.0005	<0.0050*
	06/07/05	0.9	<0.25	<0.50	0.0014	<0.0005	<0.0005	<0.0005	<0.0050*
	09/20/05	0.9	<0.25	<0.50	<0.0005	<0.0005	0.00062	<0.0005	<0.0050*
	12/13/05	1.2	0.38	<0.50	0.0032	<0.0005	0.0005	<0.0005	<0.0050*
	03/15/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/12/06	0.71	<0.25	<0.50	<0.0005	0.00055	<0.0005	<0.0005	<0.0050*
	12/12/06	<0.25	<0.25	<0.50	<0.0005	0.00055	<0.0005	<0.0005	<0.0050*

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

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Harbor Island Terminal
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Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
MW-7	02/14/02	13	7.5	<0.5	0.20	0.24	0.57	1.8	0.035*
	05/21/02	6.6	11	<0.5	0.16	0.089	0.43	0.66	0.04*
	08/29/02	2.9	5.7	<0.5	0.12	0.042	0.24	0.11	0.047*
	11/05/02	0.9	5.9	<0.5	0.021	0.0022	0.004	0.0066	0.041*
	02/20/03	9.7	11	<0.5	0.12	0.13	0.33	1.4	0.11 ^{sa}
	06/11/03	5.7	8.7	<0.25	0.13	0.092	0.26	0.52	0.081 ^{sa}
	09/17/03	1.4	12	<0.50	0.078	0.031	0.15	0.089	0.11 ^{sa}
	11/20/03	0.26	0.8	<0.50	<0.0005	<0.0005	<0.0005	0.035	0.019 ^{sa}
	02/26/04	15	21	<0.50	0.11	0.34	0.63	3.8	0.034 ^{sa}
	05/11/04	6.3	11	<0.50	0.059	0.15	0.31	1.3	0.0083 ^{sa}
	08/26/04	7.1	20	<0.50	0.054	0.22	0.34	1.7	0.067 ^{sa}
	12/15/04	18	4.4	<0.50	0.14	0.37	0.53	3	0.19 ^{sa}
	03/09/05	3.5	2.1	<0.50	0.045	0.034	0.09	0.27	0.079 ^{sa}
	06/08/05	2.9	2.3	<0.50	0.054	0.05	0.11	0.44	0.069 ^{sa}
	09/20/05	NS	NS	NS	NS	NS	NS	NS	NS
	12/14/05	8.8	0.59	<0.50	0.16	0.19	0.31	1.5	0.042 ^{sa}
03/14/06	15	0.50	<0.50	0.12	0.26	0.50	3.6	0.026*	
06/07/06	17	0.85	<0.50	0.12	0.35	0.69	4.5	0.023*	
09/13/06	2.4	0.32	<0.50	0.05	0.06	0.19	0.39	0.021 ^a	
12/13/06	NS	NS	NS	NS	NS	NS	NS	NS	
MW-8	02/14/02	<0.25	8.1	<5.0	<0.0005	0.00086	<0.0005	<0.0005	0.03*
	08/29/02	<0.25	7.5	<0.5	<0.0005	0.00082	<0.0005	<0.0005	0.017*
	11/05/02	<0.25	1.7	1.2	<0.0005	<0.0005	<0.0005	<0.0005	0.012*
	02/20/03	<0.25	6.6	<0.5	<0.0005	0.00055	<0.0005	0.0024	0.029*
	06/11/03	<0.25	3.8	<0.25	0.0013	<0.001	<0.001	<0.001	0.012*
	09/17/03	<0.25	3.3	0.77	<0.0005	<0.0005	<0.0005	<0.0005	0.030*
	11/20/03	<0.25	2.5	<0.50	<0.001	<0.001	<0.001	<0.001	<0.0050*
	02/26/04	<0.25	2.7	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.016*
	05/11/04	<0.25	1.5	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/26/04	<0.25	1.0	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/15/04	<0.25	1.5	<0.50	<0.001	<0.001	<0.001	<0.001	0.0071*
	03/09/05	<0.25	1.6	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0094*
	06/08/05	<0.25	1.8	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.014*
	09/21/05	<0.25	1.0	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.011*
	12/14/05	<0.25	1.1	0.58	<0.001	<0.001	<0.001	0.0013	0.0060*
	03/14/06	<0.25	0.54	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.011*
06/07/06	<0.25	0.88	0.61	<0.0005	<0.0005	<0.0005	<0.0005	0.0093*	
09/13/06	<0.25	0.35	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.012*	
12/13/06	<0.25	0.82	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0060*	
MW-9	06/11/03	6.0	13	<0.50	0.0031	0.036	0.076	0.6	0.022*
	09/17/03	5.3	39	0.72	0.026	0.027	0.09	0.45	0.0095*
	11/20/03	8.5	19	<0.50	<0.005	0.018	0.14	1.1	0.0096*
	02/26/04	4.1	28	<0.50	0.022	0.0072	0.025	0.47	0.0083*
	05/11/04	4.1	5.8	<0.50	0.0023	0.0093	0.081	0.44	<0.0050*
	08/26/04	4.2	6.2	<0.50	0.0066	0.025	0.13	0.43	0.0099*
	12/15/04	5.4	7.6	<0.50	<0.0025	0.011	0.12	0.39	0.0094*
	03/09/05	4.5	3.5	<0.50	0.0037	0.0047	0.042	0.18	0.021*
	06/08/05	3.2	3.9	<0.50	0.0035	0.0087	0.069	0.17	0.0076*
	09/21/05	2.3	2.6	<0.50	0.007	0.0077	0.033	0.12	0.0076*
	12/14/05	4.7	1.2	<0.50	0.0078	0.010	0.12	0.38	0.0095*
	03/14/06	2.4	1.4	<0.50	0.0024	0.003	0.018	0.12	0.013*
	06/07/06	<0.25	1.0	<0.50	0.0011	0.023	0.049	0.21	0.021*
09/13/06	1.8	0.46	<0.50	0.0044	0.016	0.063	0.06	0.010*	
12/13/06	2.6	3.8	<0.50	<0.0025	<0.0025	0.024	0.190	0.025*	

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
MW-12	06/20/01	<0.06	1.7	<0.5	<0.001	<0.001	<0.001	<0.003	<0.004
MW-12R	02/14/02	<0.25	1.4	<0.5	0.014	<0.0005	<0.0005	<0.0005	<0.005*
	05/21/02	<0.25	2.5	<0.5	0.08	0.0013	<0.0005	0.00066	<0.005*
	08/28/02	<0.25	2.1	<0.5	0.028	0.0059	<0.0005	0.0015	<0.005*
	11/05/02	<0.25	1.3	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	02/19/03	0.26	2.5	<0.5	0.19	0.0012	<0.001	<0.001	<0.005*
	06/10/03	0.41	1.3	<0.25	0.11	0.00055	<0.0005	<0.0005	<0.005*
	09/16/03	<0.25	0.67	<0.50	0.0021	<0.0005	<0.0005	<0.0005	<0.013*
	11/19/03	0.42	<0.25	<0.50	0.26	<0.001	<0.001	<0.001	0.0078
	02/25/04	0.26	1.8	<0.50	0.099	0.0005	<0.0005	0.00076	0.010*
	05/12/04	0.56	0.74	<0.50	0.20	<0.001	<0.001	<0.001	<0.0050*
	08/26/04	0.35	0.50	<0.50	0.089	<0.001	<0.001	<0.001	<0.0050*
	12/15/04	<0.25	0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/09/05	<0.25	0.39	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/05	<0.25	0.39	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA*
	09/21/05	0.26	0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/14/06	<0.25	<0.25	<0.50	<0.001	<0.001	<0.001	<0.001	<0.0050*
	06/07/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/13/06	<0.25	0.27	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
MW-13	06/19/01	<0.05	1.3	<0.5	<0.001	<0.001	<0.001	<0.003	<0.004
MW-13R	02/14/02	<0.25	3.2	<0.5	0.056	<0.0005	<0.0005	0.00075	<0.005*
	05/21/02	<0.25	3.5	<0.5	0.0025	<0.0005	<0.0005	<0.0005	<0.005*
	08/28/02	<0.25	2.4	<0.5	<0.0005	0.0019	<0.0005	0.0007	<0.005*
	11/05/02	<0.25	2.0	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	02/19/03	<0.25	1.7	<0.5	0.00078	0.0032	<0.0005	0.00083	<0.005*
	06/10/03	<0.25	0.76	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	09/16/03	<0.25	1.4	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0078*
	11/19/03	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0066
	02/25/04	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.012*
	05/12/04	<0.25	0.61	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/26/04	<0.25	0.49	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/15/04	<0.25	0.91	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/09/05	<0.25	0.35	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/05	<0.25	0.49	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA*
	09/21/05	<0.25	0.39	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/14/06	<0.25	<0.25	<0.50	<0.001	<0.001	<0.001	<0.001	<0.0050*
	06/07/06	<0.25	<0.25	<0.50	<0.005	<0.005	<0.005	<0.005	<0.0050*
	09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/13/06	<0.25	0.33	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0077*

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
MW-14	02/13/02	2.5	37	<5.0	0.01	0.0085	0.18	0.22	NA
	05/21/02	2.9	23	1.0	0.0093	0.0057	0.18	0.15	NA
	08/29/02	2.9	28	<0.5	0.017	0.0073	0.21	0.14	NA
	11/05/02	2.0	28	0.91	0.06	0.0059	0.12	0.076	NA
	02/20/03	3.4	18	<0.5	0.056	0.0062	0.14	0.11	NA
	06/11/03	3.1	28	<0.5	0.059	0.0098	0.23	0.13	NA
	09/16/03	<1.0	15	<0.50	0.13	<0.005	0.019	0.022	NA
	11/20/03	<2.0	29	0.70	0.12	<0.01	0.02	0.031	NA
	02/24/04	2.4	21	<0.50	0.061	0.014	0.25	0.2	NA
	05/11/04	2.7	27	<0.50	0.053	0.0092	0.21	0.16	NA
	08/26/04	2.3	11	0.53	0.024	<0.0025	0.16	0.19	NA
	12/15/04	1.2	9.6	<0.50	0.0084	<0.005	0.01	0.0055	NA
	03/09/05	4.2	7.7	<0.50	0.0053	0.0094	0.18	0.099	NA
	06/08/05	3.1	8.8	<0.50	0.0043	0.0069	0.17	0.11	NA
	09/21/05	1.6	10.0	1.1	0.012	0.0048	0.077	0.068	NA
	12/14/05	3.1	2.0	<0.50	0.0059	0.0075	0.120	0.068	NA
03/14/06	0.79	2.1	<0.50	<0.0025	<0.0025	0.023	0.03	NA	
06/07/06	0.84	3.0	<0.50	<0.0025	<0.0025	0.061	0.033	NA	
09/13/06	2.4	1.8	<0.50	<0.0025	0.0060	0.100	0.056	NA	
	12/13/06	1.1	1.4	<0.50	<0.0025	<0.0025	0.044	0.029	NA
MW-16	02/13/02	<0.25	<0.25	<0.5	0.0013	0.0037	<0.0005	0.0011	NA
	05/21/02	<0.25	<0.5	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	08/29/02	<0.25	<0.5	<0.5	<0.0005	0.0022	<0.0005	0.00069	NA
	11/05/02	<0.25	0.29	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	02/19/03	<0.25	<0.25	<0.5	<0.0005	0.0018	<0.0005	<0.0005	NA
	06/10/03	<0.25	<0.25	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	NA
	09/16/03	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	11/19/03	<0.25	<0.25	<0.50	<0.0005	0.0013	<0.0005	0.00062	NA
	02/25/04	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	05/11/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	08/26/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	12/15/04	<0.25	<0.25	<0.50	0.029	<0.0005	<0.0005	<0.0005	NA
	03/10/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	06/07/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	09/20/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	12/13/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
03/15/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA	
06/08/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA	
09/12/06	<0.25	<0.25	<0.50	<0.0005	0.00062	0.0012	<0.0005	NA	
	12/12/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-18	02/13/02	7.6	0.77	<0.5	1.8	0.067	0.29	0.34	NA
	05/21/02	1.2	0.30	<0.5	0.25	0.016	0.068	0.068	NA
	08/29/02	1.6	<0.5	<0.5	0.45	0.014	0.032	0.044	NA
	11/05/02	1.1	<0.25	<0.5	<0.3	0.010	0.011	0.031	NA
	02/19/03	<0.25	<0.25	<0.5	0.0035	0.0047	<0.0005	0.0016	NA
	06/10/03	<0.25	<0.25	<0.25	0.022	0.0016	<0.0005	0.004	NA
	09/16/03	<0.25	<0.50	<0.50	0.036	0.0019	<0.0005	0.0075	NA
	11/19/03	<0.25	<0.25	<0.50	0.0042	<0.0005	<0.0005	0.0015	NA
	02/25/04	0.58	<0.25	<0.50	0.11	0.0048	0.00087	0.026	NA
	05/11/04	1.1	<0.25	<0.50	0.25	0.0073	0.0016	0.037	NA
	08/26/04	<0.25	<0.25	<0.50	0.003	<0.0005	<0.0005	<0.0005	NA
	12/15/04	0.84	<0.25	<0.50	0.14	0.006	0.0019	0.029	NA
	03/10/05	0.84	<0.25	<0.50	0.25	0.0049	0.002	0.021	NA
	06/07/05	0.68	<0.25	<0.50	0.17	0.0039	0.0019	0.0098	NA
	09/20/05	4.0	<0.25	<0.50	0.74	0.021	0.0091	0.09	NA
	12/13/05	2.3	<0.25	<0.50	0.45	0.015	0.0067	0.033	NA
03/15/06	4.9	<0.25	<0.50	1.2	0.035	0.025	0.12	NA	
06/08/06	1.2	<0.25	<0.50	0.15	0.011	0.011	0.034	NA	
09/12/06	0.35	<0.25	<0.50	0.023	0.0021	0.0022	0.0047	NA	
	12/12/06	0.28	<0.25	<0.50	0.023	0.0018	0.0019	0.0060	NA

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
MW-19	02/13/02	29	6.8	<2.5	0.057	0.73	0.58	6.5	NA
	05/21/02	30	7.7	<0.5	0.049	0.65	0.53	6.5	NA
	08/29/02	13	11	<0.5	0.14	0.29	0.20	2.1	NA
	11/05/02	8.2	3.0	<0.5	0.21	0.37	0.16	1.7	NA
	02/20/03	38	19	<0.5	0.091	1.2	0.80	8.0	NA
	06/11/03	32	15	<1.0	0.042	0.38	0.80	6.7	NA
	09/16/03	4.2	12	<0.50	0.19	0.043	0.19	1.1	NA
	11/20/03	22	10	<0.50	0.11	0.67	0.75	6.1	NA
	02/24/04	19	14	<0.50	<0.015	0.49	0.63	4.7	NA
	05/11/04	27	13	<0.50	<0.025	0.22	0.87	7.2	NA
	08/26/04	22	0.72	<0.50	0.042	0.26	0.64	4.6	NA
	12/15/04	15	7.6	<0.50	0.039	0.12	0.37	2.7	NA
	03/09/05	27	9.1	<0.50	0.073	0.18	0.56	3.4	NA
	06/08/05	17	6.3	<0.50	0.071	0.17	0.61	2.8	NA
	09/20/05	NS	NS	NS	NS	NS	NS	NS	NS
	12/14/05	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/06	NS	NS	NS	NS	NS	NS	NS	NS
06/07/06	14	1.4	<0.50	<0.010	0.043	0.29	1.4	NA	
09/13/06	11	0.5	<0.50	0.032	0.047	0.41	1.1	NA	
	12/13/06	8.0	1.4	<0.50	0.016	0.052	0.30	1.4	NA
MW-20	02/13/02	<0.25	0.64	<0.5	<0.001	<0.001	<0.001	<0.001	NA
	05/20/02	<0.25	1.3	<0.5	0.018	0.0012	0.0048	0.014	NA
	08/29/02	0.6	1.1	<0.5	0.057	0.0065	0.021	0.084	NA
	11/06/02	<0.25	0.81	<0.5	0.0023	0.00053	<0.0005	<0.0005	NA
	02/19/03	<0.25	<0.25	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	06/11/03	<0.25	0.68	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	NA
	09/17/03	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	11/20/03	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	0.00072	NA
	02/25/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	05/11/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	08/26/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	12/15/04	<0.25	0.30	<0.50	0.0013	<0.0005	<0.0005	<0.0005	NA
	03/09/05	<0.25	<0.25	<0.50	0.00074	<0.0005	<0.0005	<0.0005	NA
	06/08/05	<0.25	0.55	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	09/21/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	12/14/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	03/14/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
06/07/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA	
09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA	
	12/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-21	06/11/03	NS	NS	NS	NS	NS	NS	NS	NS
	09/17/03	NS	NS	NS	NS	NS	NS	NS	NS
	11/20/03	0.97	19	<0.50	<0.0025	<0.0025	<0.0025	<0.0025	NA
	02/26/04	2.3	35	<0.50	<0.0025	<0.0025	<0.0025	<0.0025	NA
	05/11/04	1.2	29	<0.50	<0.0025	<0.0025	<0.0025	<0.0025	NA
	08/26/04	4.3	33	<0.50	<0.001	<0.001	0.0013	0.0014	NA
	12/15/04	NS	NS	NS	NS	NS	NS	NS	NA
	03/09/05	2.4	140	<5.0	<0.0015	<0.0015	0.0016	<0.0015	NA
	06/08/05	1.8	31	0.5	<0.002	<0.002	0.0026	<0.002	NA
	09/21/05	1.7	46	3.3	<0.0010	<0.0010	0.0013	<0.0010	NA
	12/14/05	1.0	6.1	0.54	<0.002	<0.002	0.0027	<0.002	NA
	03/14/06	<0.25	33	3.1	<0.0005	<0.0005	<0.0005	<0.0005	NA
06/07/06	0.8	18	1.2	<0.0025	<0.0025	<0.0025	<0.0025	NA	
09/13/06	NS	NS	NS	NS	NS	NS	NS	NS	
	12/13/06	NS	NS	NS	NS	NS	NS	NS	NS

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
MW-22	02/13/02	0.96	9.2	<0.5	0.012	0.0053	0.017	0.0097	NA
	05/21/02	1.1	7.7	<0.5	0.16	0.049	0.023	0.03	NA
	08/29/02	1.4	2.4	<0.5	0.5	0.0093	0.044	0.0066	NA
	11/05/02	0.49	1.7	<0.5	0.14	0.0031	0.025	<0.001	NA
	02/19/03	<0.25	9.1	<0.5	<0.001	<0.001	<0.001	<0.001	NA
	06/10/03	<0.25	7.4	0.87 ^a	<0.001	<0.001	<0.001	<0.001	NA
	09/16/03	<0.25	2.7	<0.50	0.0018	<0.0005	<0.0005	<0.0005	NA
	11/19/03	<0.50	8.4	<0.50	<0.0025	<0.0025	<0.0025	<0.0025	NA
	02/25/04	<0.25	6.4	<0.50	<0.001	<0.001	<0.001	<0.001	NA
	05/11/04	<0.25	2.0	<0.50	<0.001	<0.001	<0.001	<0.001	NA
	08/25/04	<0.25	0.61	<0.50	<0.001	<0.001	<0.001	<0.001	NA*
	12/14/04	<0.25	1.1	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	03/10/05	<0.25	2.2	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	06/07/05	<0.25	3.0	<0.50	0.0049	<0.001	<0.001	<0.001	NA
	09/20/05	0.40	2.9	<0.50	<0.001	<0.001	<0.001	<0.001	NA
	12/13/05	<0.25	0.71	<0.50	<0.001	<0.001	<0.001	<0.001	NA
	03/15/06	<0.25	2.4	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	06/08/06	<0.25	0.89	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	09/12/06	<0.25	0.45	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	12/12/06	<0.25	1.4	<0.50	<0.001	<0.001	<0.001	<0.001	NA
MW-23	11/19/03	5.3	1.4	<0.50	0.87	0.016	0.098	0.23	NA
	02/25/04	3.3	0.85	<0.50	0.91	0.011	0.046	0.03	0.0052*
	05/12/04	4.2	1.3	<0.50	1.1	0.013	0.046	0.048	<0.0050*
	08/26/04	5.3	0.72	<0.50	1.1	0.023	0.2	0.17	0.014*
	12/14/04	NS	NS	NS	NS	NS	NS	NS	NS
	03/08/05	NS	NS	NS	NS	NS	NS	NS	NS
	06/07/05	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/05	NS	NS	NS	NS	NS	NS	NS	NS
	12/13/05	6.3	<0.25	<0.50	1.3	0.014	0.048	0.044	<0.0050*
	03/15/06	7.0	0.28	<0.50	1.4	0.015	0.19	0.21	<0.0050*
	06/08/06	5.2	1.30	<0.50	1.4	0.014	0.11	0.11	<0.0050*
	09/12/06	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/06	8.1	<0.25	<0.50	1.8	0.020	0.11	0.16	<0.0050*
MW-24	11/19/03	34	6.4	0.54	2.8	0.54	1.4	6	NA
	02/25/04	26	3.0	<0.50	4.3	0.085	1.0	3.3	<0.0050*
	05/12/04	NS	NS	NS	NS	NS	NS	NS	NS
	08/26/04	NS	NS	NS	NS	NS	NS	NS	NS
	12/14/04	NS	NS	NS	NS	NS	NS	NS	NS
	03/08/05	NS	NS	NS	NS	NS	NS	NS	NS
	06/07/05	NS	NS	NS	NS	NS	NS	NS	NS
	09/20/05	NS	NS	NS	NS	NS	NS	NS	NS
	12/14/05	NS	NS	NS	NS	NS	NS	NS	NS
	03/15/06	26	0.34	<0.50	4.4	0.064	0.88	4.2	0.0069
	06/08/06	21	<0.25	<0.50	1.5	0.039	0.86	4.9	0.0068
	09/12/06	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/06	20	1.1	<0.50	1.5	0.037	0.69	3.2	0.0078*
MW-25	11/20/03	<0.25	1.3	<0.50	0.0061	<0.0005	<0.0005	<0.0005	NA
	02/26/04	0.38	8.9	<0.50	0.0011	<0.0005	0.0027	<0.0005	0.012*
	5/12/04	<0.25	1.6	<0.50	<0.0005	<0.0005	0.0034	<0.0005	<0.0050*
	08/26/04	<0.25	0.27	<0.50	0.013	<0.0005	<0.0005	<0.0005	0.034 ^{a,b}
	12/14/04	<0.25	1.4	<0.50	0.0035	<0.001	<0.001	<0.001	<0.0050*
	03/10/05	0.31	3.7	<0.50	0.0014	<0.0005	0.00064	<0.0005	<0.0050*
	06/07/05	0.40	3.2	<0.50	<0.001	<0.001	0.0014	<0.001	<0.0050*
	09/20/05	0.30	1.4	<0.50	0.0016	<0.0005	<0.0005	<0.0005	0.059 ^a
	12/13/05	<0.25	1.2	<0.50	<0.001	<0.001	<0.001	<0.001	<0.0050*
	03/15/06	<0.25	1.0	<0.50	0.0019	<0.001	<0.001	<0.001	<0.0050*
	06/08/06	<0.25	1.4	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
09/12/06	<0.25	0.31	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*	
12/12/06	<0.25	0.86	<0.50	0.0052	<0.0005	<0.0005	<0.0005	<0.0050*	

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
A-5	02/14/02	<0.25	2.3	<0.5	0.00055	0.0017	<0.0005	<0.0005	NA
	05/22/02	<0.25	2.0	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	08/29/02	<0.25	1.2	<0.5	0.0017	0.00062	<0.0005	0.00099	NA
	11/06/02	<0.25	1.2	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	02/20/03	<0.25	<0.25	<0.5	0.00086	0.0019	<0.0005	0.001	NA
	06/10/03	0.26	0.4	<0.25	<0.0005	0.00067	<0.0005	0.0007	NA
	09/17/03	<0.25	0.60	<0.50	0.0042	<0.0005	<0.0005	<0.0005	NA
	11/20/03	<0.25	0.53	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	02/26/04	<0.25	3.3	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	05/12/04	0.27	0.43	<0.50	<0.0005	<0.0005	<0.0005	0.00057	NA
	08/25/04	<0.25	1.1	<0.50	0.0029	<0.0005	<0.0005	<0.0005	NA
	12/14/04	<0.25	0.43	<0.50	0.021	<0.001	<0.001	<0.001	NA
	03/10/05	0.43	5.2	<0.50	0.12	0.0025	<0.001	0.0012	NA
	06/07/05	0.54	2.4	1.70	0.12	0.0028	<0.001	0.0013	NA
	09/20/05	0.37	1.2	<0.50	0.037	0.0017	<0.001	0.0011	NA
	12/13/05	0.44	0.31	<0.50	0.049	0.0021	<0.0005	0.0013	NA
03/15/06	0.36	0.45	<0.50	0.052	0.0017	<0.001	0.0017	NA	
06/08/06	0.91	0.55	<0.50	0.099	0.0036	0.00076	0.0034	NA	
09/12/06	0.46	0.43	<0.50	0.031	0.0016	<0.001	0.0014	NA	
	12/12/06	0.70	0.53	<0.50	0.079	0.0028	<0.001	0.0025	NA
A-8	02/14/02	<0.25	1.6	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	05/22/02	<0.25	0.51	<0.5	<0.0005	0.00058	<0.0005	<0.0005	NA
	08/28/02	<0.25	<0.5	<0.5	<0.0005	0.0014	<0.0005	0.00066	NA
	11/06/02	<0.25	0.43	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	02/20/03	<0.25	<0.25	<0.5	<0.0005	0.00083	<0.0005	<0.0005	NA
	06/10/03	<0.25	<0.25	<0.25	<0.0005	0.00056	<0.0005	<0.0005	NA
	09/17/03	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	11/20/03	<0.25	1.4	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	02/26/04	0.35	1.0	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	05/12/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	08/25/04	<0.25	4.9	<0.50	<0.001	<0.001	<0.001	<0.001	NA
	12/14/04	<0.25	1.7	<0.50	0.00056	0.00052	<0.0005	0.00094	NA
	03/10/05	<0.25	2.1	<0.50	<0.0005	<0.0005	<0.0005	0.00055	NA
	06/07/05	<0.25	1.2	1.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
	09/20/05	<0.25	3.5	0.8	0.0012	<0.001	<0.001	0.0012	NA
	12/13/05	<0.25	0.54	<0.50	<0.0005	<0.0005	<0.0005	0.0011	NA
03/15/06	<0.25	0.55	<0.50	<0.001	<0.001	<0.001	<0.001	NA	
06/08/06	<0.25	0.47	<0.50	<0.001	<0.001	<0.001	<0.001	NA	
09/12/06	<0.25	0.76	<0.50	<0.001	<0.001	<0.001	0.0011	NA	
	12/12/06	0.27	0.87	<0.50	<0.001	0.0011	<0.001	0.0015	NA
A-10	02/14/02	<0.25	9.2	<0.5	<0.0005	0.00062	<0.0005	<0.0005	NA
	05/22/02	0.31	8.8	<0.5	<0.0005	0.00086	<0.0005	<0.0005	NA
	08/28/02	0.30	15	<0.5	<0.001	<0.001	<0.001	<0.001	NA
	11/06/02	0.37	13	<0.50	<0.0005	0.00057	<0.0005	<0.0005	NA
	02/20/03	<0.25	6.0	<0.5	0.0013	<0.0005	<0.0005	0.00055	NA
	06/10/03	0.45	19	<0.25	<0.001	<0.001	<0.001	<0.001	NA
	09/17/03	0.68	30	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	11/20/03	1.1	89	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	02/26/04	<0.25	35	0.74	<0.0005	<0.0005	<0.0005	<0.0005	NA
	05/12/04	<0.25	3.5	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	08/25/04	<0.25	5.1	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA*
	12/14/04	<0.25	1.1	<0.50	0.003	<0.001	<0.001	<0.001	NA
	03/10/05	<0.25	4.6	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	06/07/05	0.3	68.0	2.10	0.00069	<0.0005	<0.0005	<0.0005	NA
	09/20/05	0.6	1.5	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
	12/13/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA
03/15/06	<0.25	1.7	<0.50	<0.0005	<0.0005	<0.0005	0.0005	NA	
06/08/06	<0.25	0.7	<0.50	<0.0005	<0.0005	<0.0005	0.0005	NA	
09/12/06	<0.25	0.65	<0.50	<0.0005	<0.0005	<0.0005	0.0005	NA	
	12/12/06	<0.25	0.98	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
A-14	12/20/00	<0.05	<0.25	<0.5	<0.001	<0.001	<0.001	<0.003	0.65
A-14R	02/14/02	<0.25	<0.25	<0.5	0.00061	0.0021	<0.0005	<0.0005	0.005*
	05/22/02	<0.25	<0.5	<0.5	0.00053	0.0021	<0.0005	0.00054	0.02*
	08/28/02	<0.25	<0.5	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	11/06/02	<0.25	<0.25	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	02/20/03	<0.25	<0.25	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	06/10/03	<0.25	<0.25	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	0.02*
	09/17/03	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.025*
	11/20/03	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.032*
	02/26/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.018*
	05/12/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/25/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0072*
	03/10/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/07/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/20/05	NS	NS	NS	NS	NS	NS	NS	NS
	12/13/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/15/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/12/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/12/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
A-21	02/14/02	<0.25	<0.25	<0.5	<0.0005	0.001	<0.0005	<0.0005	<0.005*
	05/22/02	<0.25	<0.5	<0.5	0.00061	0.0017	<0.0005	0.00057	<0.005*
	08/29/02	<0.25	0.76	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	11/06/02	<0.25	0.37	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	02/19/03	<0.25	<0.5	<0.5	0.0013	0.0018	<0.0005	0.00061	<0.005*
	06/10/03	0.25	<0.25	<0.25	0.0082	0.00058	<0.0005	<0.0005	0.062*
	09/16/03	<0.25	<0.25	<0.50	0.0034	<0.0005	<0.0005	<0.0005	0.0085*
	11/19/03	0.47	<0.25	<0.50	0.061	0.0019	<0.0005	0.0029	0.0067*
	02/25/04	0.63	<0.50	<0.50	0.013	0.00066	0.045	0.0016	<0.0050*
	05/12/04	0.50	<0.25	<0.50	0.0019	<0.0005	0.0042	0.00072	<0.0050*
	08/25/04	0.26	<0.25	<0.50	0.0015	<0.0005	<0.0005	0.0015	<0.0050*
	12/14/04	0.99	<0.25	<0.50	0.061	0.0025	0.022	0.0083	<0.0050*
	03/10/05	1.5	0.26	<0.50	0.024	0.0021	0.0025	0.011	0.020*
	06/07/05	1.2	0.35	<0.50	0.0076	0.00084	0.00077	0.0043	<0.0050*
	09/20/05	1.3	<0.25	<0.50	0.011	0.0012	0.00066	0.0048	<0.0050*
	12/13/05	1.6	<0.25	<0.50	0.017	0.0016	0.0015	0.0052	<0.0050*
	03/15/06	0.97	<0.25	<0.50	0.0098	0.00097	0.0023	0.0033	<0.0050*
	06/08/06	0.82	<0.25	<0.50	0.0023	0.00059	<0.0005	0.0019	<0.0050*
	09/12/06	0.85	<0.25	<0.50	0.0019	<0.0005	<0.0005	0.0016	<0.0050*
	12/12/06	0.85	<0.25	<0.50	0.0071	<0.0005	0.0021	0.0014	<0.0050*
A-23R	02/14/02	0.26	2.1	<0.5	0.06	0.001	0.0099	0.0072	0.72 ^{ab}
	05/20/02	0.74	6.9	<0.5	0.15	<0.001	0.088	0.0067	0.095 ^{ab}
	08/28/02	0.62	2.1	<0.5	0.2	0.0035	0.021	0.0075	0.23*
	11/05/02	0.74	1.7	<0.5	0.22	<0.0015	0.0059	0.014	0.18*
	02/19/03	0.71	2.3	<0.5	0.26	0.0033	0.0054	0.0059	0.049*
	06/10/03	<0.25	1.8	<0.25	0.0073	<0.001	0.0028	<0.001	<0.005*
	09/16/03	0.70	1.3	<0.50	0.043	0.0029	0.057	0.0018	0.38*
	11/19/03	1.0	0.78	<0.50	0.08	0.0037	0.069	0.0035	0.13*
	02/25/04	1.6	0.78	<0.50	0.26	0.0072	0.061	0.015	0.081*
	05/12/04	0.28	0.45	<0.50	0.020	0.00075	0.0022	0.00082	<0.0050*
	08/25/04	2.3	0.35	<0.50	0.46	0.012	0.074	0.02	0.012*
	12/14/04	2.0	0.65	<0.50	0.37	0.0084	0.041	0.013	0.018*
	03/10/05	0.60	0.31	<0.50	0.035	0.0011	0.0045	0.0014	0.035*
	06/07/05	0.33	<0.25	<0.50	0.0080	<0.0005	0.0012	<0.0005	0.013*
	09/20/05	<0.25	<0.25	<0.50	0.00060	<0.0005	<0.0005	<0.0005	0.0096 ^a
	12/14/05	0.37	<0.25	<0.50	0.019	0.00056	0.00065	0.00058	0.032*
	03/15/06	1.1	<0.25	<0.50	0.34	0.0033	<0.0025	0.0051	<0.0050*
	06/08/06	0.34	<0.25	<0.50	0.033	<0.0005	<0.0005	0.031	0.0081*
	09/12/06	0.42	<0.25	<0.50	0.010	<0.0005	0.032	0.0013	0.035*
	12/12/06	2.1	<0.25	<0.50	0.520	0.0066	0.053	0.021	<0.0050*
Dup-1^a	09/20/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	0.42	<0.25	<0.50	0.020	0.00064	0.00081	0.00063	0.025*
	03/15/06	1.1	<0.25	<0.50	0.310	0.0036	0.0027	0.0052	0.0099*
	06/08/06	0.33	<0.25	<0.50	0.032	<0.0005	<0.0005	0.031	0.013*
	09/12/06	0.36	<0.25	<0.50	0.009	<0.0005	0.027	0.0011	0.12*
	12/12/06	2.2	<0.25	<0.50	0.520	0.0076	0.061	0.024	0.0077*

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
A-27	02/14/02	2.9	11	<0.5	0.13	0.014	0.096	0.25	NA
	05/22/02	3.3	8.2	<0.5	0.2	0.016	0.14	0.38	NA
	08/29/02	3.8	8.1	<0.5	0.24	0.016	0.14	0.29	NA
	11/06/02	3.2	8.0	<0.5	0.16	0.016	0.065	0.14	NA
	02/19/03	3.1	6.8	<0.5	0.17	0.017	0.052	0.13	NA
	06/10/03	3.7	4.5	<0.25	0.14	0.013	0.11	0.23	NA
	09/16/03	4.5	5.6	<0.50	0.27	0.02	0.18	0.38	NA
	11/19/03	5.9	5.3	<0.50	0.25	0.023	0.13	0.33	NA
	02/25/04	4.4	16.0	<0.50	0.15	0.016	0.18	0.30	NA
	05/11/04	4.6	5.2	<0.50	0.16	0.017	0.23	0.38	NA
	08/25/04	4.7	2.5	<0.50	0.25	0.018	0.17	0.24	NA*
	12/14/04	4.5	4.4	<0.50	0.11	0.012	0.099	0.14	NA
	03/10/05	5.8	4.7	<0.50	0.14	0.015	0.16	0.22	NA
	06/07/05	4.5	7.8	<0.50	0.17	0.014	0.24	0.34	NA
	09/20/05	6.3	2.3	<0.50	0.25	0.019	0.18	0.22	NA
	12/13/05	3.7	0.83	<0.50	0.13	0.012	0.083	0.095	NA
03/15/06	4.4	1.3	<0.50	0.13	0.017	0.19	0.24	NA	
06/08/06	4.5	1.1	<0.50	0.19	0.016	0.23	0.28	NA	
09/12/06	3.4	0.82	<0.50	0.17	0.011	0.12	0.12	NA	
	12/12/06	3.7	0.90	<0.50	0.110	0.0096	0.10	0.12	NA
A-28R	02/14/02	5.3	2.7	<0.5	0.66	0.027	0.42	0.2	0.035*
	05/22/02	3.1	6.7	<0.5	0.14	0.01	0.2	0.092	0.05*
	08/29/02	4	6	<0.5	0.15	0.019	0.23	0.078	0.032*
	11/06/02	3.4	1.8	<0.5	0.47	0.015	0.053	0.05	0.028*
	02/19/03	3.5	4.6	<0.5	0.46	0.015	0.051	0.05	0.013*
	06/10/03	3.7	2.9	<0.25	0.31	0.0081	0.085	0.051	0.064*
	09/16/03	3.8	2.0	<0.50	1.0	0.013	0.075	0.048	0.17*
	11/19/03	4.9	<0.25	<0.50	0.58	0.012	0.059	0.064	0.11*
	02/25/04	5.1	1.7	<0.50	0.63	0.0093	0.19	0.076	0.0080*
	05/12/04	6.5	2.6	<0.50	0.96	0.012	0.20	0.058	<0.0050*
	08/25/04	5.9	0.88	<0.50	2.1	0.018	0.05	0.053	0.043*
	12/14/04	7.6	3.0	<0.50	1.4	0.015	0.073	0.062	0.025*
	03/10/05	10	0.76	<0.50	1.9	0.019	0.077	0.064	0.0078*
	06/07/05	6	1.20	<0.50	2.1	0.015	0.069	0.048	0.0068*
	09/20/05	NS	NS	NS	NS	NS	NS	NS	NS
	12/13/05	5.4	<0.25	<0.50	0.93	0.011	0.033	0.036	0.012*
03/15/06	4.6	<0.25	<0.50	0.80	0.012	0.11	0.035	<0.0050*	
06/08/06	4.2	0.49	0.73	0.87	0.013	0.07	0.035	0.019*	
09/12/06	5.2	<0.25	<0.50	1.0	0.015	0.048	0.036	0.016*	
	12/12/06	4.0	0.57	<0.50	0.30	0.0095	0.027	0.028	<0.0050*
SH-02	12/20/00	0.078	<0.25	<0.5	0.001	<0.001	<0.001	<0.003	0.015**
SH-02R	02/13/02	<0.25	0.56	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	05/21/02	<0.25	2.4	<0.5	0.037	<0.0005	<0.0005	<0.0005	0.005*
	08/28/02	<0.25	4.3	<0.5	0.087	0.0038	0.00061	0.0023	0.006*
	11/05/02	<0.25	1.1	<0.5	0.016	<0.0005	<0.0005	<0.0005	0.005*
	02/19/03	<0.25	<0.5	<0.5	<0.0005	0.00086	<0.0005	<0.0005	<0.005*
	06/10/03	<0.25	0.97	<0.25	<0.0005	0.00051	<0.0005	<0.0005	0.0059*
	09/16/03	<0.25	3.0	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.010*
	11/19/03	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	02/25/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	05/12/04	<0.25	0.74	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/26/04	<0.25	0.58	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/15/04	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/09/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/05	<0.25	0.31	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/21/05	<0.25	0.58	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	<0.25	0.30	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0078*
03/14/06	<0.25	0.30	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0072*	
06/07/06	<0.25	0.59	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050*	
09/13/06	<0.25	<0.25	<0.50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050*	
	12/13/06	<0.25	0.49	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*

**TABLE 2
GROUNDWATER ANALYTICAL RESULTS**

Kinder Morgan Liquid Terminals, LLC
Harbor Island Terminal
2720 13th Avenue Southwest
Seattle, Washington

Sample I.D.	Date	TPH-Gasoline (ppm)	TPH-Diesel (ppm)	TPH-Oil (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	Total Lead (ppm)
SH-05	12/20/00	<0.05	1.0	<0.5	<0.001	<0.001	<0.003	<0.001	0.017**
SH-05R	05/21/02	0.71	11	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	08/28/02	0.77	10	<0.5	<0.0005	0.0015	<0.0005	<0.0005	0.006*
	11/05/02	1.4	7.1	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	0.008*
	02/19/03	0.8	6.8	<0.5	<0.001	0.0016	<0.001	<0.001	<0.005*
	06/10/03	1.1	45	<0.25	<0.0005	<0.0005	<0.0005	<0.0005	0.04*
	09/16/03	<0.25	23	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.074*
	11/19/03	0.62	19	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.075*
	02/25/04	<0.25	5.3	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	05/12/04	0.43	4.3	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/26/04	0.63	3.0	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050
	12/15/04	0.30	10	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0056*
	03/09/05	0.78	4.3	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/05	0.32	4.0	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/21/05	0.61	2.8	1.0	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	0.78	1.3	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/14/06	<0.25	1.4	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0074*
	06/07/06	<0.25	1.4	<0.50	<0.001	<0.001	<0.001	<0.001	<0.0050*
	09/13/06	0.34	0.56	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/13/06	<0.50	1.9	<0.50	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050*
MW-07R	02/13/02	<0.25	1.2	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	0.035*
	05/21/02	<0.25	2.1	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	0.005*
	08/28/02	<0.25	2.4	<0.5	<0.0005	0.0028	<0.0005	0.0012	0.006*
	11/05/02	<0.25	3.7	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.005*
	02/19/03	NS	NS	NS	NS	NS	NS	NS	NS
	06/10/03	NS	NS	NS	NS	NS	NS	NS	NS
	09/16/03	<0.25	1.9	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.045*
	11/19/03	<0.25	2.1	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.020*
	02/25/04	<0.25	<0.50	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	05/12/04	<0.25	0.48	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	08/26/04	<0.25	0.42	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	NA*
	12/15/04	<0.25	0.85	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0076*
	03/09/05	<0.25	0.54	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/08/05	<0.25	0.46	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/21/05	<0.25	0.70	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	12/14/05	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	03/14/06	<0.25	0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	06/07/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*
	09/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	0.0065
	12/13/06	<0.25	<0.25	<0.50	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050*

Notes:
 < = Denotes compound was not detected at designated detection limit.
 NA = Not analyzed for this parameter
 NS = Not sampled
 ^ = Dup-1 is a duplicate sample for A-23R; Dup-2 is a duplicate sample for MW-3.
 * = Also tested for Dissolved Lead (EPA-200.8), results are below detection limit of 0.0050 ppm.
 ** = Also tested for Dissolved Lead (EPA-200.8), results are at or above detection limit of 0.0050 ppm.
 *** = Also tested for Dissolved Lead (EPA-7421), results are below detection limit of 0.004 ppm.
^a = Insulating oil range hydrocarbons were reported for MW-22 at concentration of 0.87 ppm.
 TPH as gasoline - Analysis by Washington Method WTPH-G prior to 5/20/98; analysis by Northwest Method NWTPH-Gx from 5/20/98 through present.
 TPH as diesel and oil - Analysis by Washington Method WTPH-D+ extended prior to 5/20/98; analysis by Northwest Method NWTPH-Dx from 5/20/98 through present.
 BTEX Compounds - Analysis by EPA Method 8020 prior to 5/20/98; analysis by EPA Method 8021B from 5/20/98 through present.

TABLE 3
ANALYTICAL SUMMARY 2000 - DECEMBER 2006
CURRENT GROUNDWATER COMPLIANCE PROGRAM
 Kinder Morgan Harbor Island Terminal

Well ID	Indicator Hazardous Substances, concentration in mg/L							
	TPH-G	Benzene	Ethylbenzene	Toluene	TPH-D	TPH-O	Total Lead	Dissolved Lead
Cleanup Criteria	1.0	0.071	29.0	200.0	10	10	0.0058	--
A-5	ND - 0.54	ND - 0.12, >0.071 on 12-06	ND	ND - 0.0036	ND - 5.2	ND - 1.7		
A-8	ND - 0.35	ND - 0.0012	ND	ND - 0.0014	ND - 4.9	ND - 1.5		
A-10	ND - 1.1, <1 since 02-04	ND - 0.0030	ND	ND - 0.00086	ND - 89, <10 since 09-05	ND - 2.1		
A-14R	ND	ND - 0.002	ND	ND - 0.0021	ND	ND	ND-0.032 <0.0058 since 06-05	ND
A-21	ND - 1.6, <1 since 03-06	ND - 0.061, <0.071 since 06-01	ND - 0.045	ND - 0.0025	ND - 0.76	ND	ND-0.062 <0.0058 since 06-05	ND
A-23R	ND - 2.3, >1 on 12-06	0.00060 - 0.46, >0.071 on 12-06	ND - 0.088	ND - 0.012	ND - 6.9	ND	ND - 0.72 <0.0058 since 09-06	detected
A-27	2.0 - 6.3, >1 on 12-06	0.11 - 0.27	0.04 - 0.24	0.009 - 0.023	0.83 - 16, <10 since 05-04	ND		
A-28R	3.1 - 10	0.14 - 2.1	0.033 - 0.42	0.0081 - 0.027	ND - 6.7	ND	ND - 0.17 <0.0058 since 12-06	ND
MW-1	ND - 0.83	ND - 0.0013	ND - 0.0020	ND - 0.0067	ND - 2.0	ND	ND - 0.021 <0.0058 since 02-03	ND
MW-2	ND	ND	ND	ND - 0.00071	ND - 0.91	ND	ND - 0.062 since 09-06	detected
MW-3	ND - 45, <1 since 02-02	ND - 0.36, <0.071 since 02-03	ND - 0.23	ND - 0.18	ND - 17, <10 since 12-00	ND - 0.68	ND - 0.042 <0.0058 since 03-05	ND
MW-4	ND - 3.3, <1 since 06-03*	ND - 1.1, <0.071 since 02-03	ND - 0.034	ND - 0.023	1.1 - 280, <10 since 12-05	ND - 2.6		
MW-5	ND - 0.13	ND - 0.019	ND	ND - 0.0018	ND - 1.6	ND	ND - 0.11 >0.0058 on 12-06	ND
MW-6	ND - 1.1, <1 since 03-06	ND - 0.19, <0.071 since 09-01	ND - 0.0050	ND - 0.0070	ND - 7.3	ND	ND - 0.052 since 03-05	ND
MW-7	0.26 - 18, >1 on 09-06	ND - 0.34, >0.071 on 09-06	ND - 0.69	ND - 0.37	ND - 21, <10 since 12-04	ND - 0.81	0.0083 - 0.23 >0.058 on 09-06	detected
MW-8	ND	ND - 0.0013	ND	ND - 0.00086	0.54 - 42, <10 since 03-01	ND - 2.9	ND - 0.069 <0.0058 since 12-06	ND
MW-9	ND - 10, >1 on 12-06	ND - 0.038	0.020 - 0.23	0.0034 - 0.049	1.2 - 39 <10 since 05-04	ND - 0.72	ND - 0.053 >0.0058 on 12-06	ND
MW-12R	ND - 0.56	ND - 0.26, <0.071 since 12-04	ND	ND - 0.0059	ND - 2.5	ND	ND - 0.013 <0.0058 since 05-04	ND
MW-13R	ND	ND - 0.056	ND	ND - 0.0032	ND - 3.5	ND	ND - 0.012 <0.0058 since 05-04	ND
MW-14	ND - 6.8, >1 on 12-06	ND - 0.48, <0.071 since 02-04	0.019 - 0.26	ND - 0.014	2.0 - 37, <10 since 12-05	ND - 1.1		
MW-16	ND - 0.88	ND - 0.029	ND - 0.0010	ND - 0.0037	ND - 1.7	ND		
MW-18	ND - 7.6, <1 since 09-06	ND - 1.8, <0.071 since 09-06	ND - 0.29	ND - 0.067	ND - 0.77	ND		
MW-19	4.2 - 68	ND - 1.4, <0.071 since 06-06	0.16 - 1.1	0.12 - 4.0	0.72 - 19 <10 since 08-04	ND		
MW-20	ND - 1.8, <1 since 03-01	ND - 0.68, <0.071 since 02-02	ND - 0.067	ND - 0.020	ND - 5.0	ND - 0.7		
MW-21	ND - 4.3, SPH on 12-06	ND	ND - 0.019	ND - 0.006	6.1 - 140, SPH on 12-06	ND - 3.3 SPH on 12-06		
MW-22	ND - 5.1, <1 since 11-02	ND - 1.9, <0.071 since 02-03	ND - 0.35	ND - 0.097	0.61 - 9.2	ND - 0.87		
SH-02R	ND - 0.078	ND - 0.087, <0.071 since 11-02	ND - 0.00061	ND - 0.0038	ND - 4.3	ND	ND - 0.010 <0.0058 since 06-06	ND
SH-05R	ND - 1.4, <1 since 09-03	ND	ND	ND - 0.0016	1.3 - 45, <10 since 03-05	ND - 1.0	ND - 0.075 <0.0058 since 03-05	ND
MW-07R	ND	ND	ND	ND - 0.0028	ND - 3.7	ND	ND - 0.045 <0.0058 since 12-06	ND
MW-23	SPH, 4.2 - 7.0 >1 on 12-06	0.87 - 1.4 >0.071 on 12-06	0.046 - 0.19	0.011 - 0.023	SPH, ND - 1.4	ND	ND - 0.014 <0.0058 since 12-05	ND
MW-24	SPH, 26 - 34	2.8 - 4.4	0.88 - 1.4	0.064 - 0.54	SPH, 0.34 - 6.4	ND - 0.54	ND - 0.0069 >0.0058 on 12-07	ND
MW-25	ND - 0.40	ND - 0.013	ND - 0.0034	ND	0.27 - 8.9	ND	ND - 0.034	detected

Notes: * ND but detection limit > 1 during 2 events in 2005

Recommend reduction in monitoring frequency and/or parameters

Parameter not analyzed

TABLE 4
PROPOSED GROUNDWATER COMPLIANCE PROGRAM
RECOMMENDED MONITORING FREQUENCY
Kinder Morgan Harbor Island Terminal

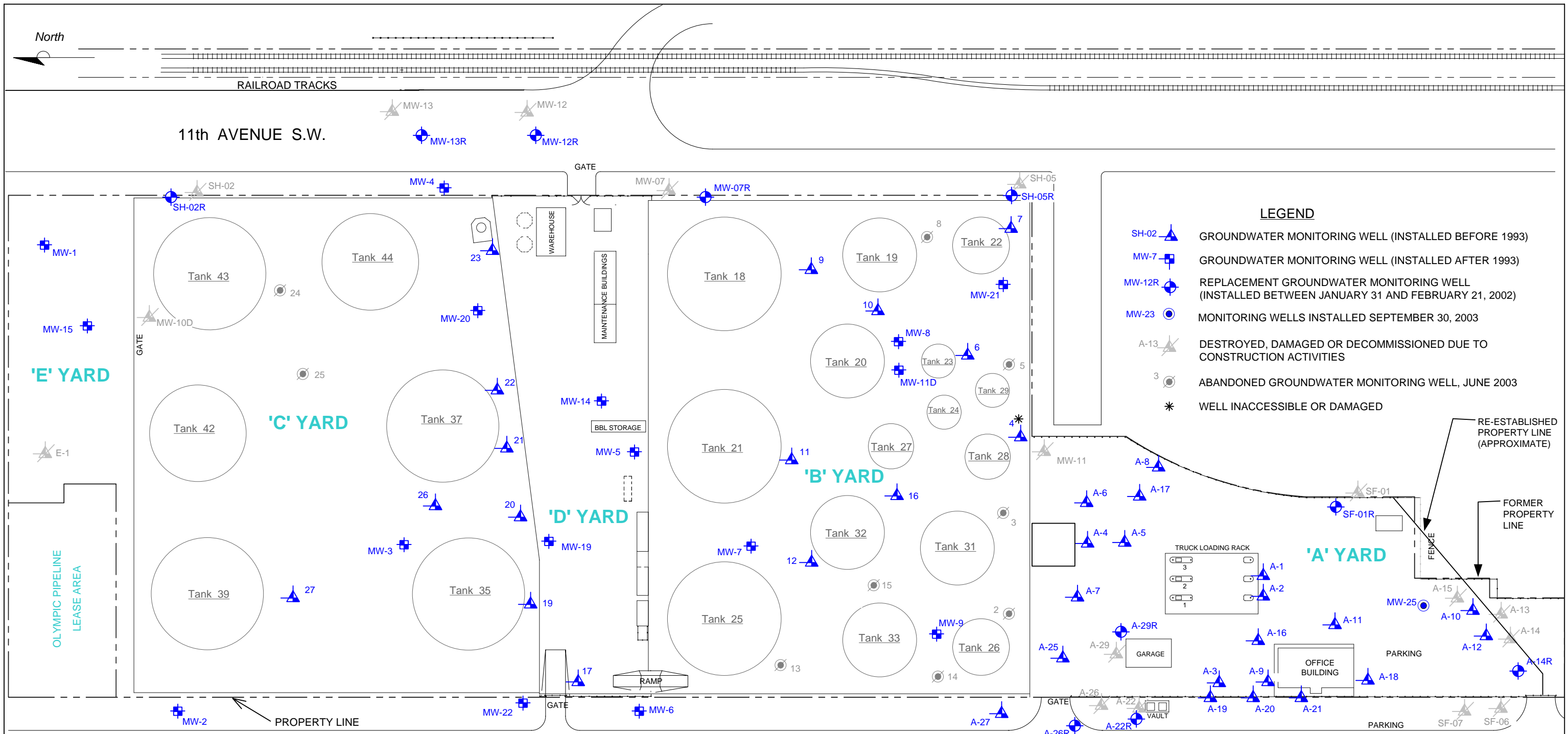
Well ID	Indicator Hazardous Substances				Natural Attenuation Parameters				
	TPH-G/ BTEX	TPH-D/TPH-O	Total Lead	Dissolved Lead	Nitrate (NO3)	Ferrous Iron	Methane	Sulfate (SO4)	Sulfide (H2S)
A-5	Quarterly	Discontinue							
A-8	Annual	Annual							
A-10	Annual	Annual			Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
A-14R	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
A-21	Quarterly	Discontinue	Annual	Discontinue	Annual	Annual	Annual	Annual	Annual
A-23R	Quarterly	Discontinue	Annual	Annual	Annual	Annual	Annual	Annual	Annual
A-27	Quarterly	Discontinue			Annual	Annual	Annual	Annual	Annual
A-28R	Quarterly	Discontinue	Annual	Discontinue	Annual	Annual	Annual	Annual	Annual
MW-1	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-2	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-3	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-4	Annual	Annual			Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-5	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-6	Quarterly	Discontinue	Annual	Discontinue	Annual	Annual	Annual	Annual	Annual
MW-7	Quarterly	Discontinue	Annual	Annual	Annual	Annual	Annual	Annual	Annual
MW-8	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-9	Quarterly	Discontinue	Annual	Discontinue	Annual	Annual	Annual	Annual	Annual
MW-12R	Annual	Annual	Annual	Discontinue					
MW-13R	Annual	Annual	Annual	Discontinue					
MW-14	Quarterly	Discontinue			Annual	Annual	Annual	Annual	Annual
MW-16	Annual	Annual							
MW-18	Quarterly	Discontinue							
MW-19	Quarterly	Discontinue			Annual	Annual	Annual	Annual	Annual
MW-20	Annual	Annual			Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-21	Quarterly	Quarterly			Annual	Annual	Annual	Annual	Annual
MW-22	Annual	Annual			Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
SH-02R	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
SH-05R	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-07R	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue
MW-23	Quarterly	Discontinue	Annual	Discontinue	Annual	Annual	Annual	Annual	Annual
MW-24	Quarterly	Discontinue	Annual	Discontinue	Annual	Annual	Annual	Annual	Annual
MW-25	Annual	Annual	Annual	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue	Discontinue

Notes: Recommended reduced monitoring frequency

Parameter not analyzed

TABLE 5
PROPOSED ANNUAL ANALYSES
GROUNDWATER COMPLIANCE PROGRAM
Kinder Morgan Harbor Island Terminal

Well ID	Indicator Hazardous Substances				Natural Attenuation Parameters				
	TPH-G/ BTEX	TPH-D+ extended	Total Lead	Dissolved Lead	Nitrate (NO3)	Ferrous Iron	Methane	Sulfate (SO4)	Sulfide (H2S)
A-5	4	0							
A-8	1	1							
A-10	1	1			0	0	0	0	0
A-14R	1	1	1	0	0	0	0	0	0
A-21	4	0	1	0	1	1	1	1	1
A-23R	4	0	1	1	1	1	1	1	1
A-27	4	0			1	1	1	1	1
A-28R	4	0	1	0	1	1	1	1	1
MW-1	1	1	1	0	0	0	0	0	0
MW-2	1	1	1	0	0	0	0	0	0
MW-3	1	1	1	0	0	0	0	0	0
MW-4	1	1			0	0	0	0	0
MW-5	1	1	1	0	0	0	0	0	0
MW-6	4	0	1	0	1	1	1	1	1
MW-7	4	0	1	1	1	1	1	1	1
MW-8	1	1	1	0	0	0	0	0	0
MW-9	4	0	1	0	1	1	1	1	1
MW-12R	1	1	1	0					
MW-13R	1	1	1	0					
MW-14	4	0			1	1	1	1	1
MW-16	1	1							
MW-18	4	0							
MW-19	4	0			1	1	1	1	1
MW-20	1	1			0	0	0	0	0
MW-21	4	4			1	1	1	1	1
MW-22	1	1			0	0	0	0	0
SH-02R	1	1	1	0	0	0	0	0	0
SH-05R	1	1	1	0	0	0	0	0	0
MW-07R	1	1	1	0	0	0	0	0	0
MW-23	4	0	1	0	1	1	1	1	1
MW-24	4	0	1	0	1	1	1	1	1
MW-25	1	1	1	0	0	0	0	0	0
Annual Total	74	22	20	2	12	12	12	12	12



LEGEND

- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
- MW-7 ■ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
- MW-12R ● REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
- MW-23 ● MONITORING WELLS INSTALLED SEPTEMBER 30, 2003
- A-13 ▲ DESTROYED, DAMAGED OR DECOMMISSIONED DUE TO CONSTRUCTION ACTIVITIES
- 3 ● ABANDONED GROUNDWATER MONITORING WELL, JUNE 2003
- * WELL INACCESSIBLE OR DAMAGED

RE-ESTABLISHED PROPERTY LINE (APPROXIMATE)

FORMER PROPERTY LINE

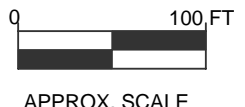
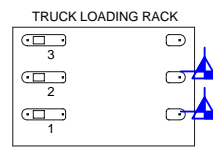


FIGURE 1
SITE MAP
KINDER MORGAN LIQUID TERMINALS, LLC
HARBOR ISLAND TERMINAL
2720 13th AVENUE SOUTHWEST
SEATTLE, WASHINGTON

PROJECT NO. STKM-001-M.0005	DRAWN BY DL March 2007
FILE NO. STKM-001-M.0005	PREPARED BY DL March 2007
REVISION NO. 0	REVIEWED BY WC



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

August 7, 2007

Robert Truedinger
Remediation Project Manager
Kinder Morgan Energy Partners
1140 Canal Boulevard
Richmond, CA 94804

Re: Reduced Groundwater Monitoring Plan

Dear Mr. Truedinger:

This letter is to indicate the Department of Ecology's approval of the Site-Wide Groundwater Compliance Monitoring Plan – Proposed Reduced Monitoring, as presented in Delta Environmental Consultants' submittal dated June 21, 2007.

Sorry that this approval has taken awhile. Further adjustments / reductions in the monitoring may be appropriate in the future.

Sincerely,

A handwritten signature in cursive script that reads "Roger K. Nye".

Roger K. Nye
Project Coordinator

cc: Ward Crell, Dawna Leong: Delta Environmental Consultants



September 4, 2008

Mr. Roger Nye
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue N.E.
Bellevue, Washington 98008-5452

Sent via FedEx Saver

SUBJ: Technical Revision Request – Low-Flow Groundwater Sampling
Kinder Morgan Harbor Island Terminal
Seattle, Washington
Delta Project No. STKM-001-P.0005



Dear Mr. Nye:

Delta Consultants (Delta) has prepared this request on behalf of Kinder Morgan Liquid Terminals, LLC (KMLT) to propose a technical revision to Appendix A (Compliance Sampling and Analysis Plan) of the Compliance Monitoring Plan, dated October 27, 1999. This letter request supersedes a previous request, dated July 16, 2008. The Compliance Monitoring Plan was included as Appendix F of the Model Toxics Control Act (MTCA) Consent Decree 00-2-07760-25EA, which was executed to implement remedial actions for the site. As discussed in a March 31, 2008 telephone conversation with you, KMLT is proposing a revision to Section 2.3.2, Sampling Procedures, of the Compliance Sampling and Analysis Plan (Plan) to replace the purge-sampling methodology with low-flow sampling techniques.

CURRENT PURGE-SAMPLING PROCEDURES

Sampling ground water traditionally involves purging a monitoring well to remove stagnant water in the well casing prior to sampling. The current sampling procedure incorporated into the Plan includes purging three to five volumes of the well prior to collecting a groundwater sample. This well evacuation approach can pose several problems, including: 1) as the well recovers, groundwater cascading in the well screen can affect contaminant and dissolved gas concentrations; 2) draining water from the sand pack surrounding the screen can result in air being trapped in the pore spaces, also affecting dissolved gas concentrations; and 3) increased turbidity can affect total and dissolved metal concentrations.

In the Revised Site-Wide Groundwater Compliance Monitoring Plan, dated June 21, 2007, Delta presented an evaluation of historical groundwater analytical results with respect to established cleanup criteria. During the preparation of the Revised Plan, Delta and Ecology discussed the periodic occurrence of dissolved lead in the wells sampled. These occurrences appeared to be random, with no apparent trend to the occurrence.

a member of:



At the time, it was mentioned that turbulence created during sampling may have caused the occurrence of dissolved lead. Eliminating turbulence during sampling may end or reduce this occurrence.

PROPOSED LOW-FLOW SAMPLING PROCEDURES

Low-flow/low-volume sampling is a method that can be used to overcome many of the problems created by traditional purge-sampling. Low-flow sampling can minimize turbidity and minimize groundwater chemistry alteration. By pumping at very low flowrates from the well screen zone, disturbance to the water column in the well is significantly reduced and stress on the surrounding formation is minimized. Samples obtained in this manner will better reflect contaminant concentrations and ground-water chemistry at ambient flow conditions.

Sampling Procedures

KMLT proposes to replace Section 2.3.2 of the Compliance Sampling and Analysis Plan with the following low-flow procedures for sampling the site's compliance wells.

Water Level Measurements

Water level measurements will be taken prior to purging and will be recorded to the nearest 0.01 foot. Measurements will be taken from least contaminated wells first followed by wells in increasing order of contamination. If product is observed, the thickness will be measured with an electronic oil/water interface meter. Wells with measurable product will not be purged or sampled.

Monitoring Well Purging

Purging will be conducted in a manner such that water levels do not drop more than two feet below static. Wells will be purged using dedicated downhole tubing connected to a surface portable peristaltic pump. The pump rate will be monitored and set at a rate of less than 1,000 ml/min. During purging, the following parameters will be monitored: dissolved oxygen, pH, specific conductance, temperature, turbidity, and depth to water. Field parameters will be measured in a flow-through container. Water level data will be collected with an electronic indicator probe. Measurements will be taken beginning with the first water purged from the well. During purging, additional measurements will be taken and recorded as frequently as possible. Measurements will be recorded to the following standards: dissolved oxygen to 0.05 mg/L; pH to ± 0.01 units; specific conductance to \pm uS/cm (measured specific conductance ≤ 99 uS/cm), to ± 10 uS/cm (99 uS/cm $<$ specific conductance $< 1,000$ uS/cm), or to ± 100 uS/cm (measured specific conductance $> 1,000$ uS/cm); temperature to $\pm 0.5^\circ\text{C}$; and turbidity to 0.1 NTU. The meters will be calibrated near the beginning and end of each sampling day.

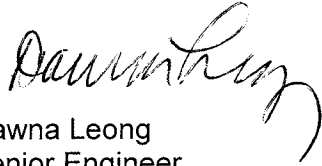
Groundwater samples will be collected after specific conductance and dissolved oxygen measurements are within 10 percent for 3 consecutive readings.

Sample Collection

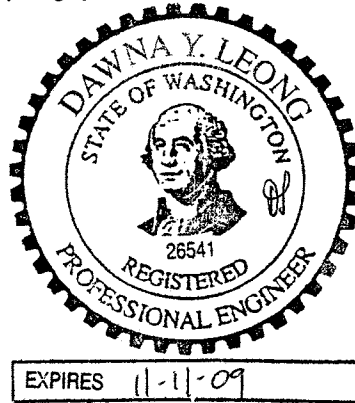
Following purging, samples will be collected for laboratory analyses. Samples will be pumped directly into laboratory-supplied sample containers, and each sample bottle will be labeled with the sample identification number, the sample date, the facility name, and the name of the technician who performed the sampling. Samples will be collected in the following order: TPH-G/BTEX, methane (if analyzed, TPH-Dx, metals (if analyzed), and field analytes (if analyzed). Duplicate samples will be collected by alternately filling the sample and the duplicate sample bottles.

KMLT proposes to implement the low-flow sampling procedures described herein upon approval from Ecology. Please call if you have any questions regarding the contents of this letter, or if you would like to discuss any aspect of the proposed sampling procedures. Delta looks forward to your approval of this proposal.

Sincerely,
DELTA CONSULTANTS, INC.



Dawna Leong
Senior Engineer



cc: Mr. Robert Truedinger, Kinder Morgan Energy Partners, L.P., Richmond, California (Electronic Copy)
Ms. Kelsy Hardy, Kinder Morgan Energy Partners, L.P., Orange, California (File Copy - CD Only)



RECEIVED BY:

FEB 11 2009

Delta Consultants - SEATTLE

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

February 9, 2009

Dawna Leong
Delta Consultants, Inc.
4006 148th Avenue NE
Redmond, Washington 98052

Re: Technical Revision Request – Low-Flow Groundwater Sampling
Kinder Morgan Harbor Island Terminal
Seattle, Washington
Consent Decree No. 00-2-07760-2SEA

Dear Ms. Leong:

This letter indicates the Department of Ecology's approval of your proposal to replace the purge-sampling methodology with low-flow sampling techniques at the Kinder Morgan Harbor Island facility as described in your letter dated September 4, 2008.

The proposal constitutes a technical revision as allowed under Section XV of the Consent Decree, to Section 2.3.2 of the Compliance Sampling and Analysis Plan (Appendix A of the Compliance Monitoring Plan - Exhibit F). The Compliance Monitoring Plan is an attachment to the Cleanup Action Plan - Exhibit B under the Consent Decree.

This letter establishes a mutual written agreement between the Department of Ecology and Kinder Morgan Liquid Terminals LLC to implement the technical revision described above.

Sincerely,

Roger K. Nye
Site Manager

cc: Robert Truedinger, Remediation Project Manager,
Kinder Morgan Energy Partners, L.P.





Ms. Maura O'Brien
Washington State Department of Ecology
Northwest Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452

Subject:

Revised Site Groundwater Monitoring Plan

Kinder Morgan Harbor Island Terminal
KMLT File No. 29.79.02 (81171)
2720 13th Avenue Southwest
Seattle, Washington 98134

Dear Ms. O'Brien:

On behalf of Kinder Morgan Liquids Terminal, LLC (KMLT), ARCADIS US, Inc (ARCADIS) is pleased to submit this Revised Site Groundwater Monitoring Plan (Plan) for the KMLT Harbor Island Terminal located at 2720 13th Avenue Southwest in Seattle, Washington (site). The purpose of this Plan is to request and provide justification to support the reduction of groundwater sampling frequency at the site for the compliance and performance monitoring programs.

Reduced frequency of groundwater monitoring at the site is warranted due to:

- Quarterly groundwater quality data has been collected at the site since 2002
- Current groundwater conditions onsite are stable and not migrating offsite
- There have been no product releases reported at the site since 2010
- SPH has only been observed in one monitoring well (A-6) in the last 9 quarterly monitoring events.

Cleanup activities at the site are being conducted under a Consent Decree (CD) number 00-2-07760-2SEA between Washington State Department of Ecology (Ecology) and GATX Terminals Corporation (GATX) executed on April 4, 2000. KMLT assumed the obligations of the CD with the purchase of GATX Harbor Island Terminal in 2001. Compliance groundwater monitoring and sampling is currently

ARCADIS U.S., Inc.
1100 Olive Way
Suite 800
Seattle
Washington 98101
Tel 206.325.5254
Fax 206.325.8218
www.arcadis-us.com

ENVIRONMENT

Date:
May 20, 2014

Contact:
Matt Annis

Phone:
206.726.4716

Email:
matt.annis@arcadis-us.com

Our ref:
WA000804.2014

performed in accordance with the *Proposed Reduced Monitoring-Site-Wide Groundwater Compliance Monitoring Plan* (Reduced Monitoring Plan [Delta Consultants Inc. (Delta) 2007]). Additionally, low-flow groundwater sampling techniques are used in accordance with the Technical Revision Request (Delta 2008).

In addition, performance monitoring groundwater samples are collected in accordance with the letter Response to Comments - *B and D Yards Groundwater Remediation Engineering Design Report* dated December 12, 2012 (ARCADIS 2012) to evaluate the overall effectiveness of the sulfate land application.

Contaminants of Concern and Cleanup Levels

The approved Reduced Monitoring Plan (Delta 2007) outlines site-specific contaminants of concern (COCs) and applicable cleanup levels for groundwater. These site-specific COCs and their cleanup levels are as follows:

- Total Petroleum Hydrocarbons as Gasoline Range Organics at 1.0 milligrams per liter (mg/L)
- Total Petroleum Hydrocarbons as Diesel Range Organics at 10 mg/L
- Total Petroleum Hydrocarbons as Heavy Oil at 10 mg/L
- Benzene at 0.071 mg/L
- Toluene at 200 mg/L
- Ethylbenzene at 29 mg/L
- Total Lead at 0.0058 mg/L
- No Product Sheen

Current Groundwater Monitoring Plan

Compliance Monitoring

In accordance with the Reduced Monitoring Plan (Delta 2007) and Technical Revision Request (Delta 2008), the current groundwater compliance plan schedule is presented in Table 1 and Figure 2.

Performance Monitoring

In accordance with the Response to Comments - *B and D Yards Groundwater Remediation Engineering Design Report* dated December 12, 2012 (ARCADIS 2012), the current groundwater performance plan schedule is presented in Table 1.

Proposed Groundwater Monitoring Plan

The section below summarizes the proposed changes to the current groundwater monitoring plan. Groundwater gauging and sample collection protocols and procedures will continue to be implemented in accordance with the Ecology-approved plans mentioned above.

Compliance Monitoring

This proposed groundwater monitoring plan was prepared with consideration for the requirements of the Model Toxics Control Act (MTCA) regulations and requirements from Exhibit F of the CD. The achievement of cleanup levels in groundwater is measured at points of performance and compliance located within the hydrocarbon plume area and at the edges of the site in accordance with section 1.2 in Exhibit F of the CD. Points of compliance will not be altered for this plan and consist of the 44 wells presented in Table 2. Hydrograph and COC trend graphs for monitoring wells MW-7, MW-9, MW-14, and MW-19 are presented in Attachment A. The graphs are representative of the compliance points and indicate stable or decreasing groundwater conditions.

Future compliance groundwater monitoring events are proposed to be conducted on a semi-annual basis until the site has achieved compliance with the applicable cleanup levels. The proposed compliance groundwater monitoring plan is summarized in Table 2 and presented in Figure 3.

Proposed Performance Groundwater Monitoring Plan

In accordance with the Response to Comments letter dated December 20, 2012 and the KMLT *Remedial Action Report – B and D Yards* (RAP) [ARCADIS 2013]), the current groundwater performance monitoring plan will be conducted quarterly through third quarter 2014.

After the completion of the third quarter 2014 monitoring event KMLT proposes to alter the performance monitoring schedule to semi-annual monitoring which will be conducted concurrently with compliance monitoring activities. The proposed performance groundwater monitoring plan is summarized in Table 2 and presented in Figure 4.

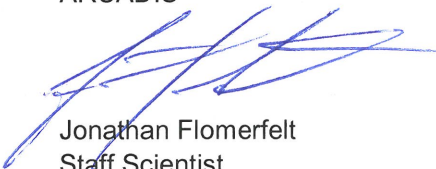
Schedule

The proposed Plan would be initiated during the third quarter 2014 sampling event upon Ecology approval; annual sampling will be conducted in the third quarter of each year.

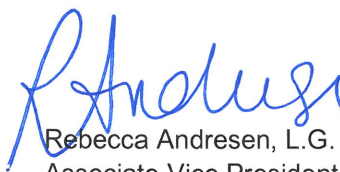
If you have any questions or comments, please contact Matt Annis at 206.726.4716 or by email at matt.annis@arcadis-us.com.

Sincerely,

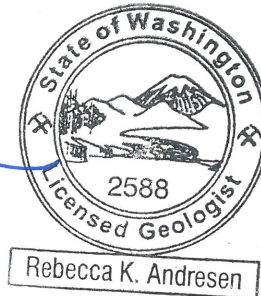
ARCADIS



Jonathan Flomerfelt
Staff Scientist



Rebecca Andresen, L.G.
Associate Vice President



Copies:

- Mr. Dave Rowland, KMLT, Seattle (CD Copy)
- Mr. Robert Truedinger, c/o Stephanie Randall, KMLT, Orange, CA (CD copy)
- Stephanie Randall, KMLT, Orange, CA (File Copy)

Tables

Table 1	Current Groundwater Monitoring
Table 2	Proposed Groundwater Monitoring Plan

Figures

Figure 1	Site Location
Figure 2	Current Groundwater Monitoring Plan
Figure 3	Proposed Groundwater Monitoring Plan
Figure 4	Proposed Performance Monitoring Plan

Attachments

Attachment A	Hydrographs and Trend Graphs
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Tables

Table 1
Current Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-4	1Q, 3Q, 4Q							X
	2Q							X
A-5	1Q, 3Q, 4Q	X			X			X
	2Q	X			X			X
A-6	1Q, 3Q, 4Q							X
	2Q							X
A-8	1Q, 3Q, 4Q							X
	2Q	X	X	X	X			X
A-10	1Q, 3Q, 4Q							X
	2Q	X	X	X	X			X
A-11	1Q, 3Q, 4Q							X
	2Q							X
A-12	1Q, 3Q, 4Q							X
	2Q							X
A-14R	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X		X
A-16	1Q, 3Q, 4Q							X
	2Q							X
A-18	1Q, 3Q, 4Q							X
	2Q							X
A-19	1Q, 3Q, 4Q							X
	2Q							X
A-20	1Q, 3Q, 4Q							X
	2Q							X

Table 1
Current Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-21	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X	X	X	X
A-22R	1Q, 3Q, 4Q							X
	2Q							X
A-23R	1Q, 3Q, 4Q	X			X			X
	2Q	X			X		X	X
A-25	1Q, 3Q, 4Q							X
	2Q							X
A-26R	1Q, 3Q, 4Q							X
	2Q							X
A-27	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X		X	X
A-28R	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X	X	X	X
12	1Q, 3Q, 4Q							X
	2Q							X
MW-1	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X		X
MW-2	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X	X	X
MW-3	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X		X
MW-4	1Q, 3Q, 4Q							X
	2Q	X	X	X	X			X

Table 1
Current Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-5	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X		X
MW-6	1Q, 3Q, 4Q	X			X			X
	2Q	X			X	X	X	X
MW-7	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X	X	X	X
MW-8	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X		X
MW-9	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X	X	X	X
MW-12R	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X	X	X
MW-14	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X		X	X
MW-16	1Q, 3Q, 4Q							X
	2Q	X	X	X	X			X
MW-18	1Q, 3Q, 4Q	X			X			X
	2Q	X			X			X
MW-19	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X		X	X
MW-20	1Q, 3Q, 4Q							X
	2Q	X	X	X	X			X
MW-21	1Q, 3Q, 4Q	X	X	X	X		X	X
	2Q	X	X	X	X		X	X

Table 1
Current Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-22	1Q, 3Q, 4Q							X
	2Q	X	X	X	X			X
MW-23	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X	X	X	X
MW-24	1Q, 3Q, 4Q	X			X		X	X
	2Q	X			X	X	X	X
MW-25	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X		X
MW-07R	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X	X	X
SH-02R	1Q, 3Q, 4Q							X
	2Q	X	X	X	X	X	X	X
SH-05R	1Q, 3Q, 4Q							X
	2Q							X
TMW-B1	1Q, 3Q, 4Q							X
	2Q	X			X			

Notes

1 Monitored Natural Attenuation (MNA) Geochemical Parameters include dissolved oxygen, methane, ferrous iron, nitrate, sulfate, and sulfide
GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics by Northwest Method NWTPH-Gx
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes by Environmental Protection Agency (EPA) Method 8260B.
1Q, 2Q, 3Q, 4Q = Denotes the quarter for each sampling event
-- Not Applicable

Table 2
Proposed Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-4	1Q							X
	3Q							X
A-5	1Q	X			X			X
	3Q	X			X			X
A-6	1Q							X
	3Q							X
A-8	1Q							X
	3Q	X	X	X	X			X
A-10	1Q							X
	3Q	X	X	X	X			X
A-11	1Q							X
	3Q							X
A-12	1Q							X
	3Q							X
A-14R	1Q							X
	3Q	X	X	X	X	X		X
A-16	1Q							X
	3Q							X
A-18	1Q							X
	3Q							X
A-19	1Q							X
	3Q							X
A-20	1Q							X
	3Q							X

Table 2
Proposed Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-21	1Q	X			X		X	X
	3Q	X			X	X	X	X
A-22R	1Q							X
	3Q							X
A-23R	1Q							X
	3Q	X			X		X	X
A-25	1Q							X
	3Q							X
A-26R	1Q							X
	3Q							X
A-27	1Q	X			X		X	X
	3Q	X			X		X	X
A-28R	1Q	X			X		X	X
	3Q	X			X	X	X	X
11 ²	1Q	X			X		X	X
	3Q	X			X		X	X
12 ²	1Q	X			X		X	X
	3Q	X	X	X	X	X	X	X
MW-1	1Q							X
	3Q	X	X	X	X	X		X
MW-2	1Q							X
	3Q	X	X	X	X	X	X	X
MW-3	1Q							X
	3Q	X	X	X	X	X		X

Table 2
Proposed Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-4	1Q							X
	3Q	X	X	X	X			X
MW-5	1Q							X
	3Q	X	X	X	X	X		X
MW-6	1Q							X
	3Q	X			X	X	X	X
MW-7 ²	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-8	1Q							X
	3Q	X	X	X	X	X		X
MW-9 ²	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-12R	1Q							X
	3Q	X	X	X	X	X	X	X
MW-14	1Q							X
	3Q	X			X		X	X
MW-16	1Q							X
	3Q	X	X	X	X			X
MW-18	1Q	X			X			X
	3Q	X			X			X
MW-19 ²	1Q	X			X		X	X
	3Q	X			X		X	X
MW-20	1Q							X
	3Q	X	X	X	X			X

Table 2
Proposed Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-21	1Q	X	X	X	X		X	X
	3Q	X	X	X	X		X	X
MW-22	1Q							X
	3Q	X	X	X	X			X
MW-23	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-24	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-25	1Q							X
	3Q	X	X	X	X	X		X
MW-07R	1Q							X
	3Q	X	X	X	X	X	X	X
SH-02R	1Q							X
	3Q	X	X	X	X	X	X	X
SH-05R	1Q							X
	3Q	X	X	X	X	X		X
TMW-B1	1Q							X
	3Q	X			X			

Table 2
Proposed Monitoring Schedule
2014 Revised Groundwater Monitoring Plan
Kinder Morgan Liquids Terminals, LLC, Harbor Island Terminal
Seattle, Washington

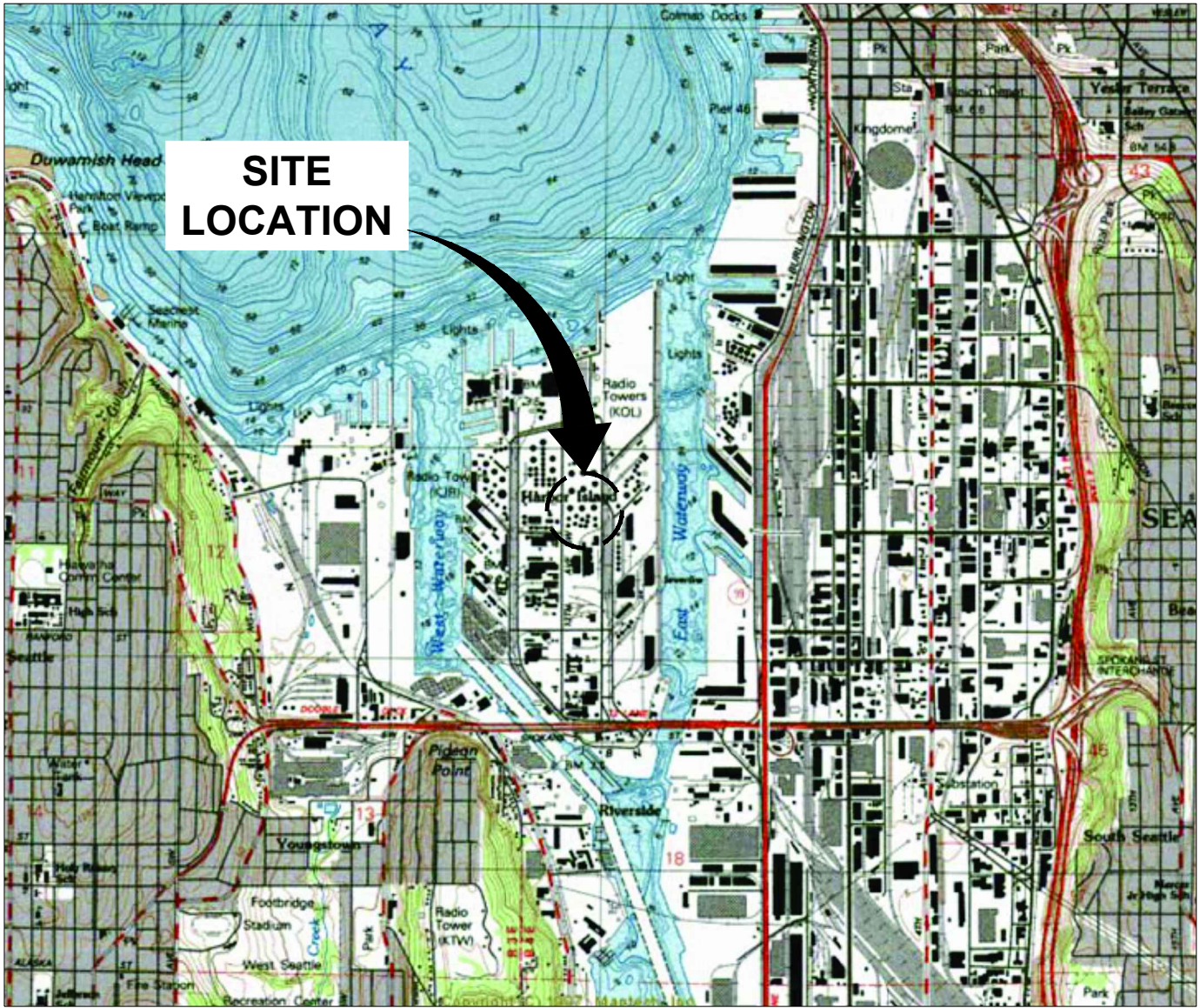
Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
TMW-1 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-2 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-3 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-4 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-5 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-6 ²	1Q	X			X		X	X
	3Q	X			X		X	X

Notes

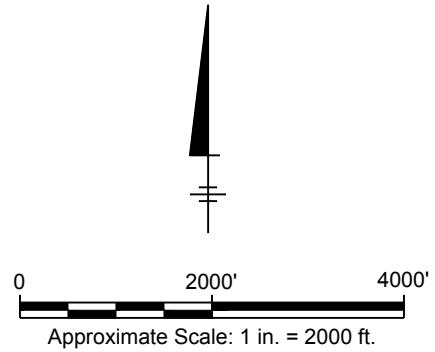
1 Monitored Natural Attenuation (MNA) Geochemical Parameters include dissolved oxygen, methane, ferrous iron, nitrate, sulfate, and sulfide
2 Performance monitoring locations
GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics by Northwest Method NWTPH-Gx
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes by Environmental Protection Agency (EPA) Method 8260B.
1Q, 2Q, 3Q, 4Q = Denotes the quarter for each sampling event
-- Not Applicable

Figures

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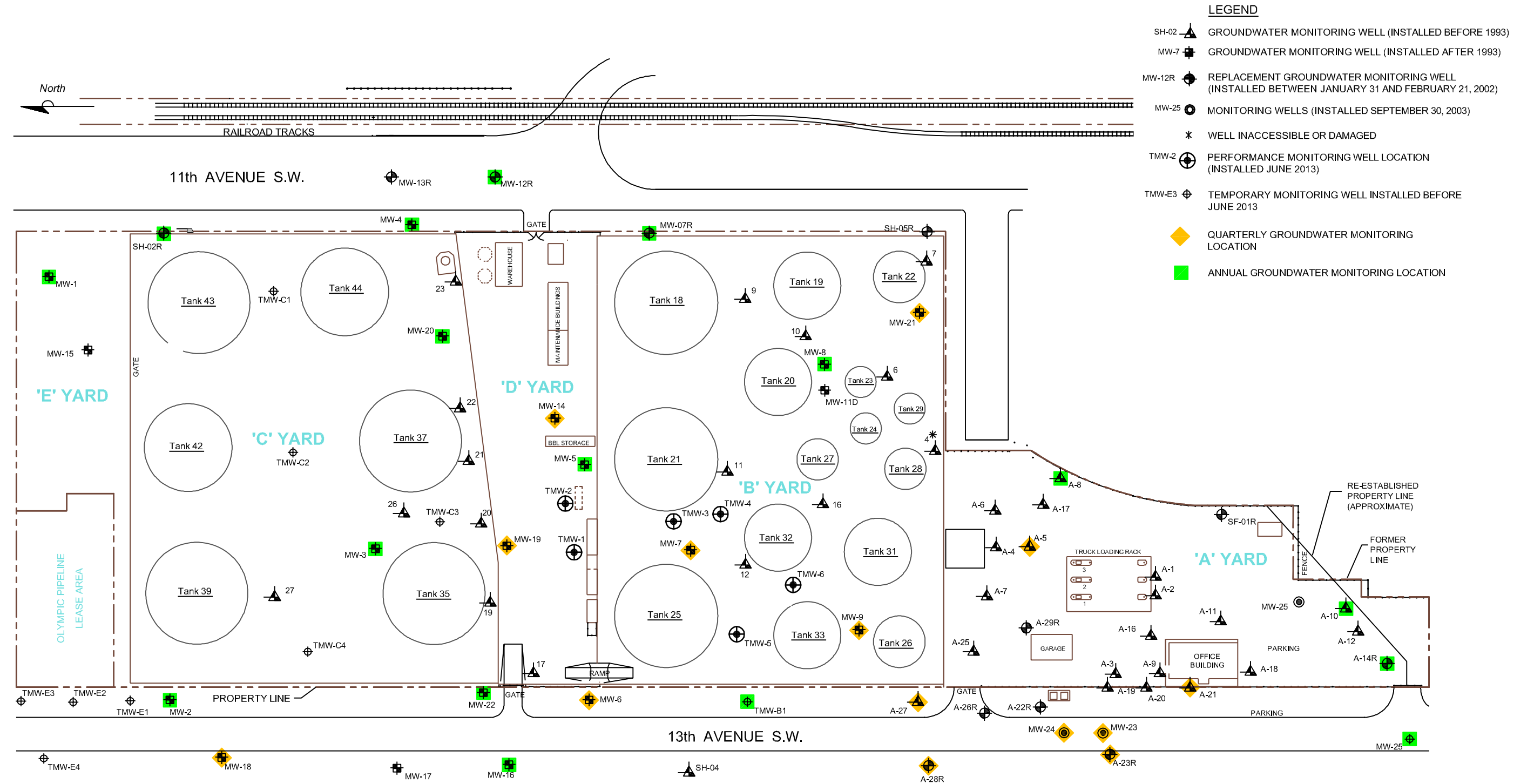


REFERENCE: BASE MAP USGS 7.5. MINUTE TOPOGRAPHIC MAP SEATTLE SOUTH, WASHINGTON 1083

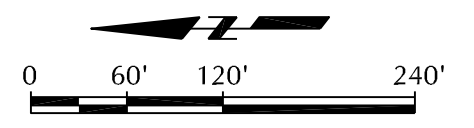


KINDER MORGAN LIQUID TERMINALS, LLC HARBOR ISLAND TERMINAL 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON 2014 REVISED GROUNDWATER MONITORING PLAN	
SITE LOCATION MAP	
	FIGURE 1

CITY:\Read\ DIV\GROUP\F\Read\ DB\Read\ LD\Op\ PIC\Op\ PM\Read\ TM\Op\ LYR\Option\OFF\REF*
 G:\EN\CAD\Inventory\file\ACT\WA000804\2014\REV\GM\PO\GM\WA000804 B12.dwg LAYOUT: 2. SAVED: 3/18/2014 11:01 AM ACADVER: 18.1 (LMS TECH) PAGES: 18. PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/18/2014 1:39 AM BY: REYES, ALEC
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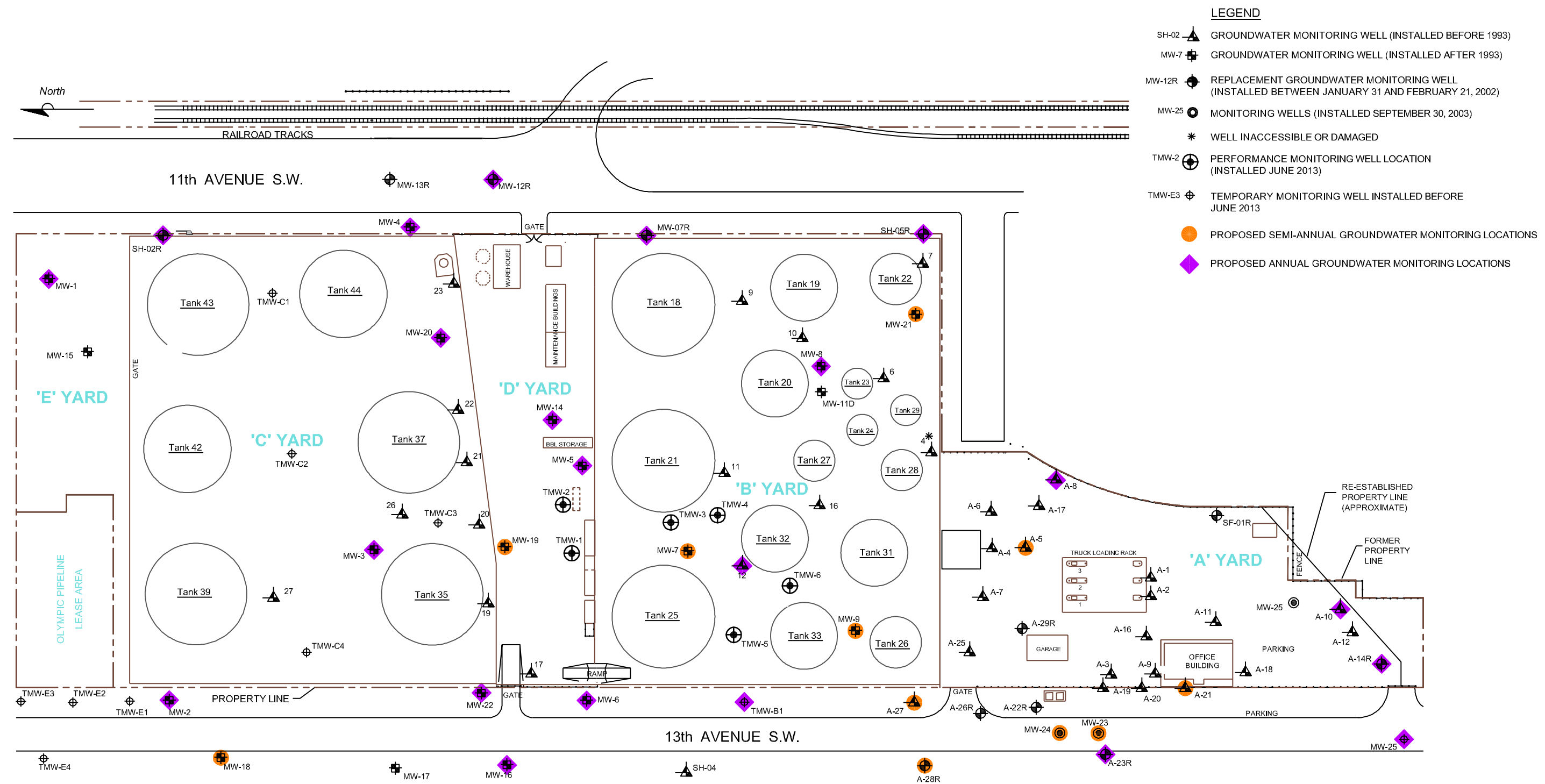
- LEGEND**
- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
 - MW-7 ■ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
 - MW-12R ● REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
 - MW-25 ◆ MONITORING WELLS (INSTALLED SEPTEMBER 30, 2003)
 - * WELL INACCESSIBLE OR DAMAGED
 - TMW-2 ⊕ PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
 - TMW-E3 ⊕ TEMPORARY MONITORING WELL INSTALLED BEFORE JUNE 2013
 - ◆ QUARTERLY GROUNDWATER MONITORING LOCATION
 - ANNUAL GROUNDWATER MONITORING LOCATION



KINDER MORGAN LIQUID TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
2014 REVISED GROUNDWATER MONITORING PLAN
CURRENT QUARTERLY AND ANNUAL GROUNDWATER MONITORING LOCATIONS

FIGURE
2

CITY:\Read\ DIV\GROUP\F\Read\ DB\Read\ LD\Op\ PIC\Op\ PM\Read\ TM\Op\ LYR\Option\OFF\REF*
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- LEGEND**
- SH-02 ▲ GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
 - MW-7 ⊕ GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
 - MW-12R ⊕ REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
 - MW-25 ● MONITORING WELLS (INSTALLED SEPTEMBER 30, 2003)
 - * WELL INACCESSIBLE OR DAMAGED
 - TMW-2 ⊕ PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
 - TMW-E3 ⊕ TEMPORARY MONITORING WELL INSTALLED BEFORE JUNE 2013
 - PROPOSED SEMI-ANNUAL GROUNDWATER MONITORING LOCATIONS
 - ◆ PROPOSED ANNUAL GROUNDWATER MONITORING LOCATIONS

KINDER MORGAN LIQUID TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
2014 REVISED GROUNDWATER MONITORING PLAN
PROPOSED SEMI-ANNUAL AND ANNUAL GROUNDWATER MONITORING LOCATIONS


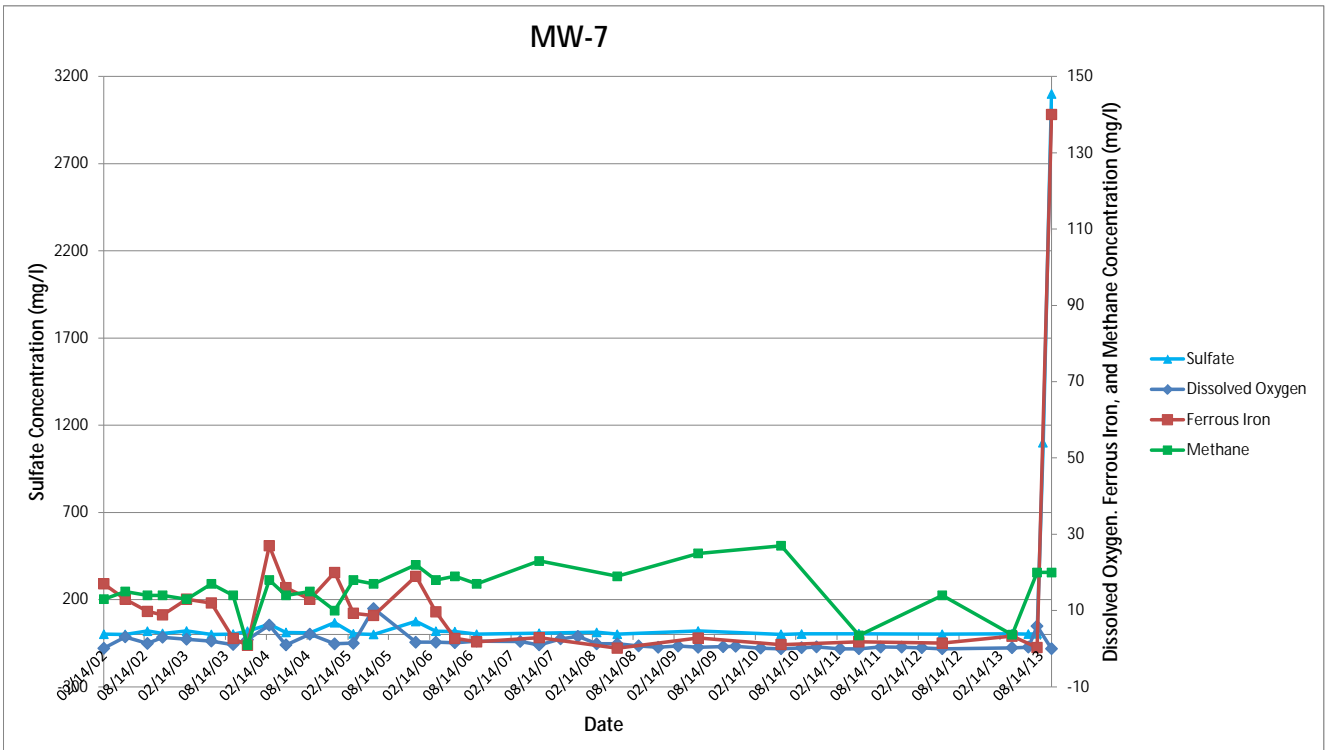
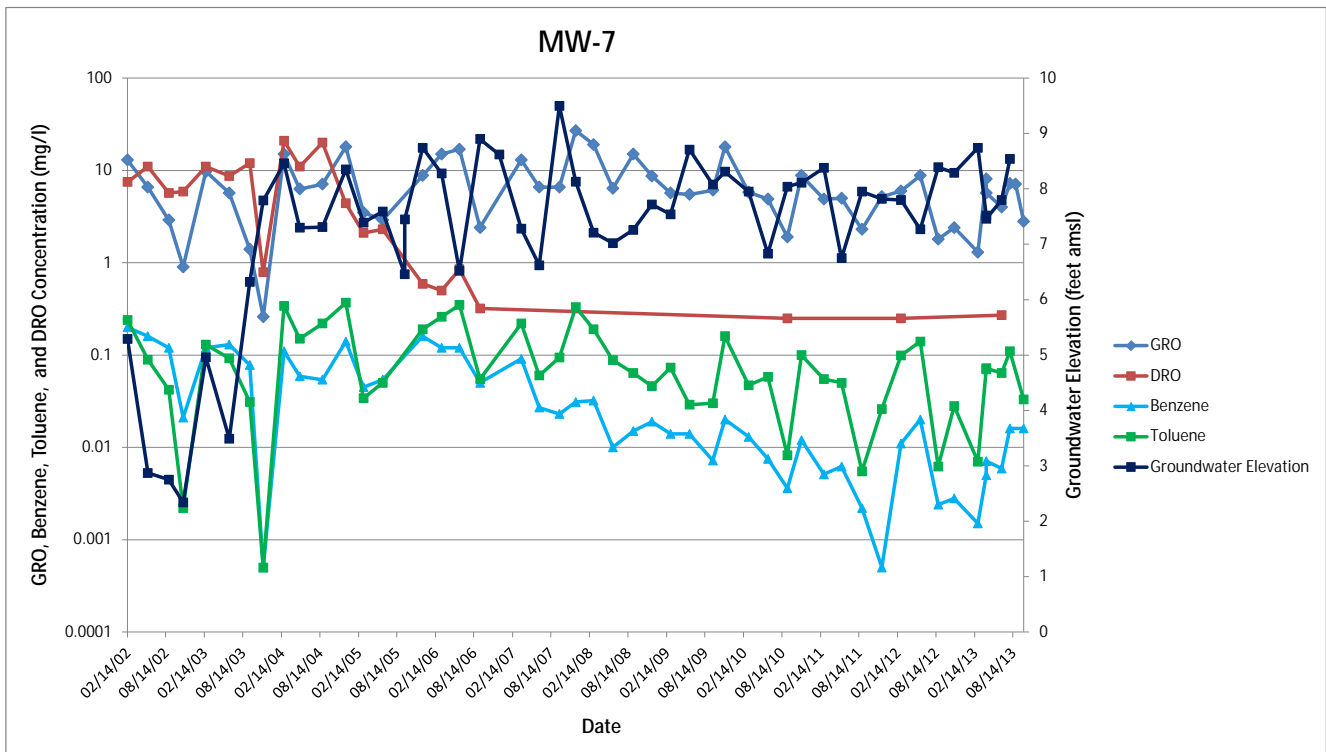



FIGURE
3

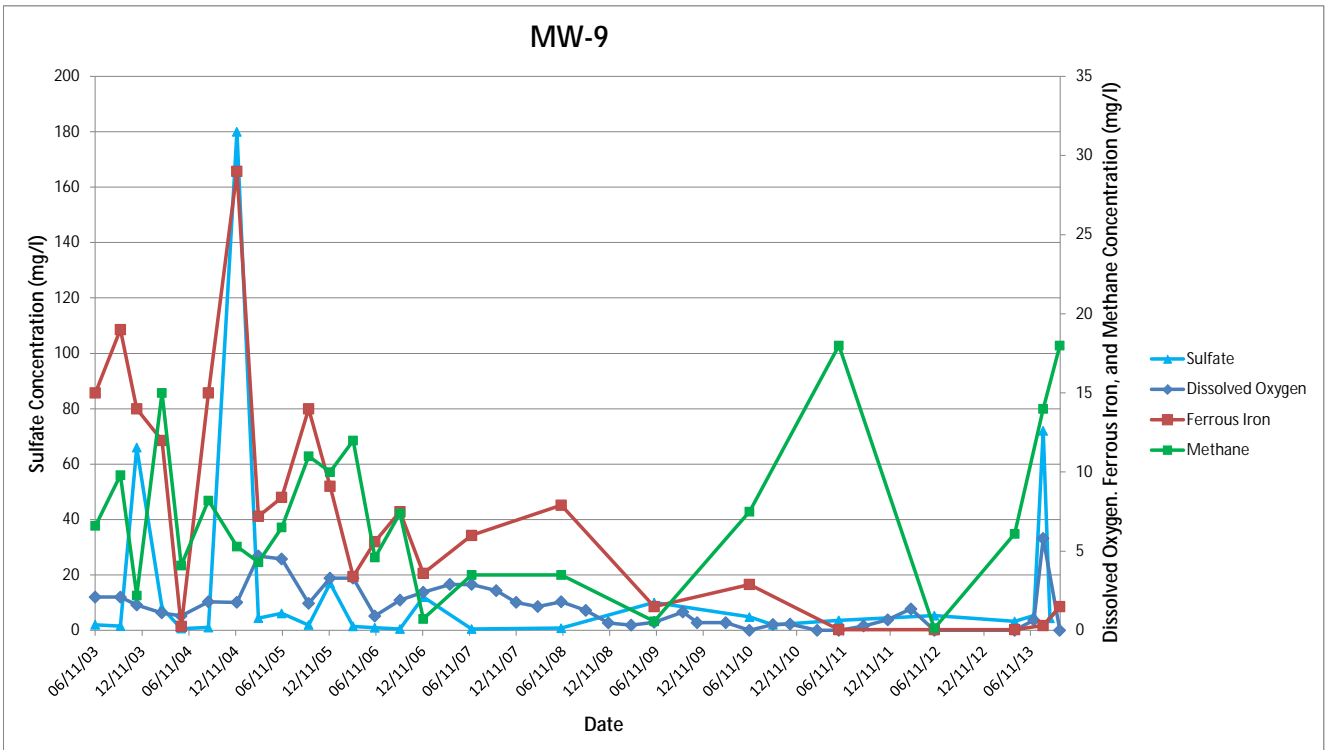
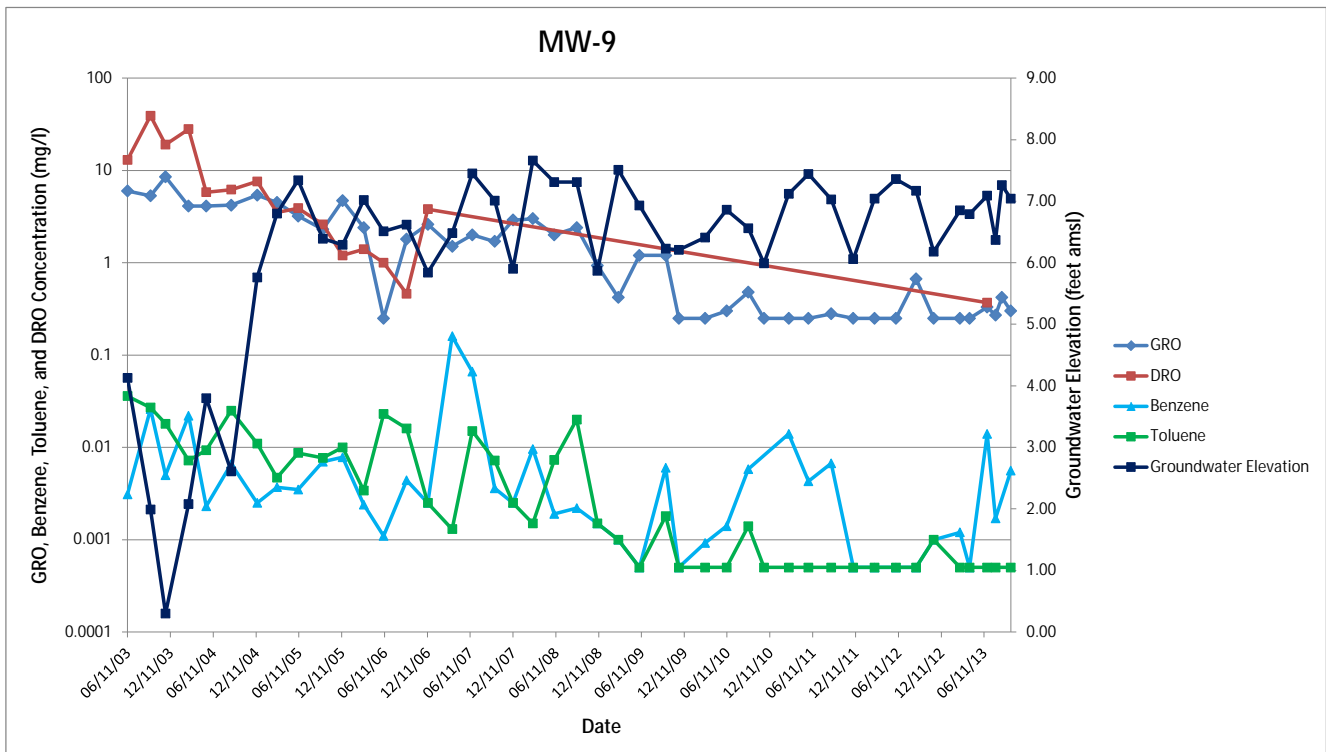


Attachment A

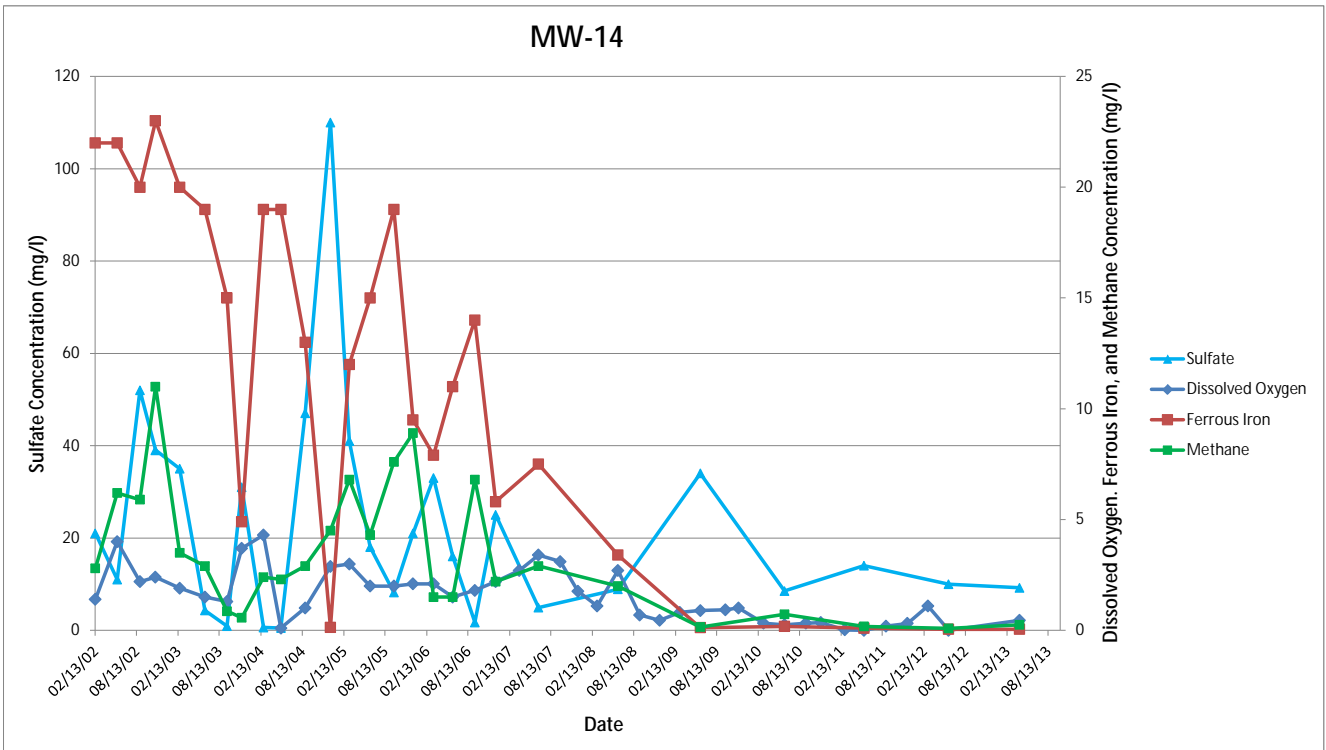
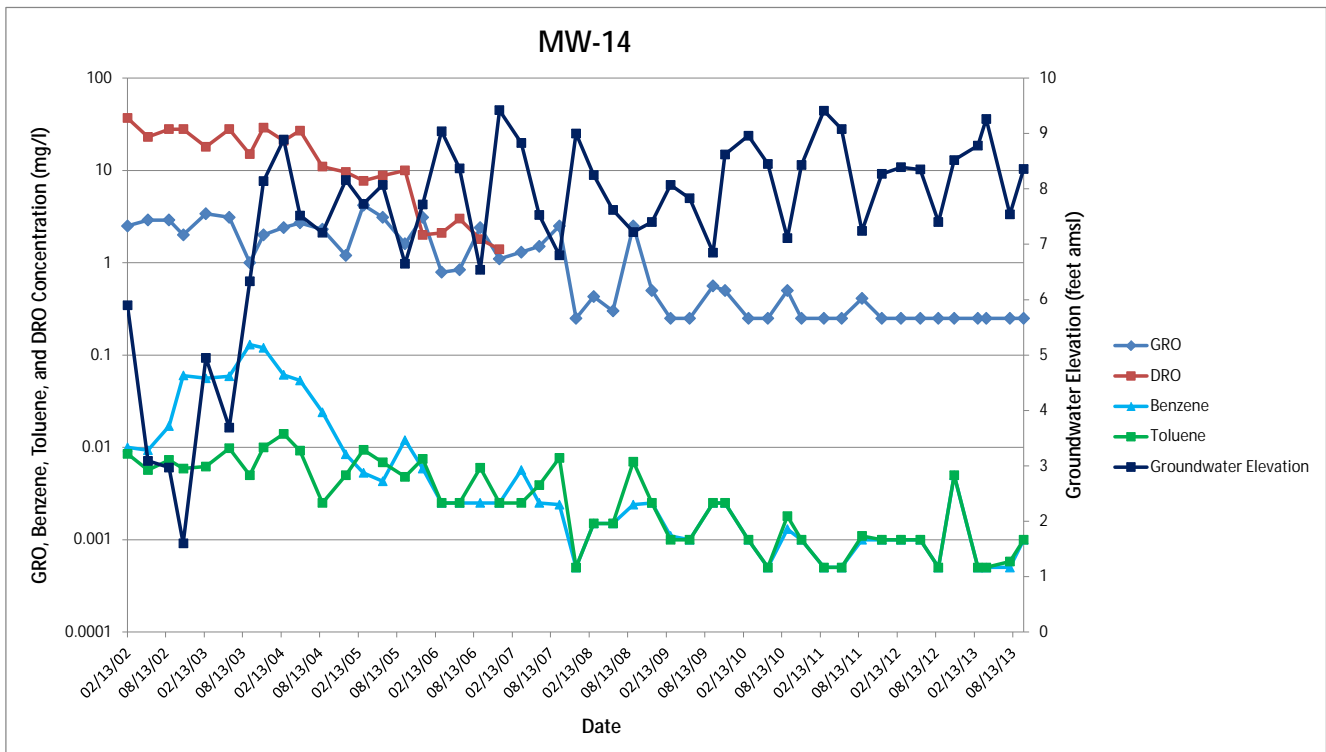


KINDER MORGAN LIQUID TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
2014 REVISED GROUNDWATER MONITORING PLAN
ATTACHMENT A
HYDROGRAPH AND CONSTITUENT TREND GRAPHS

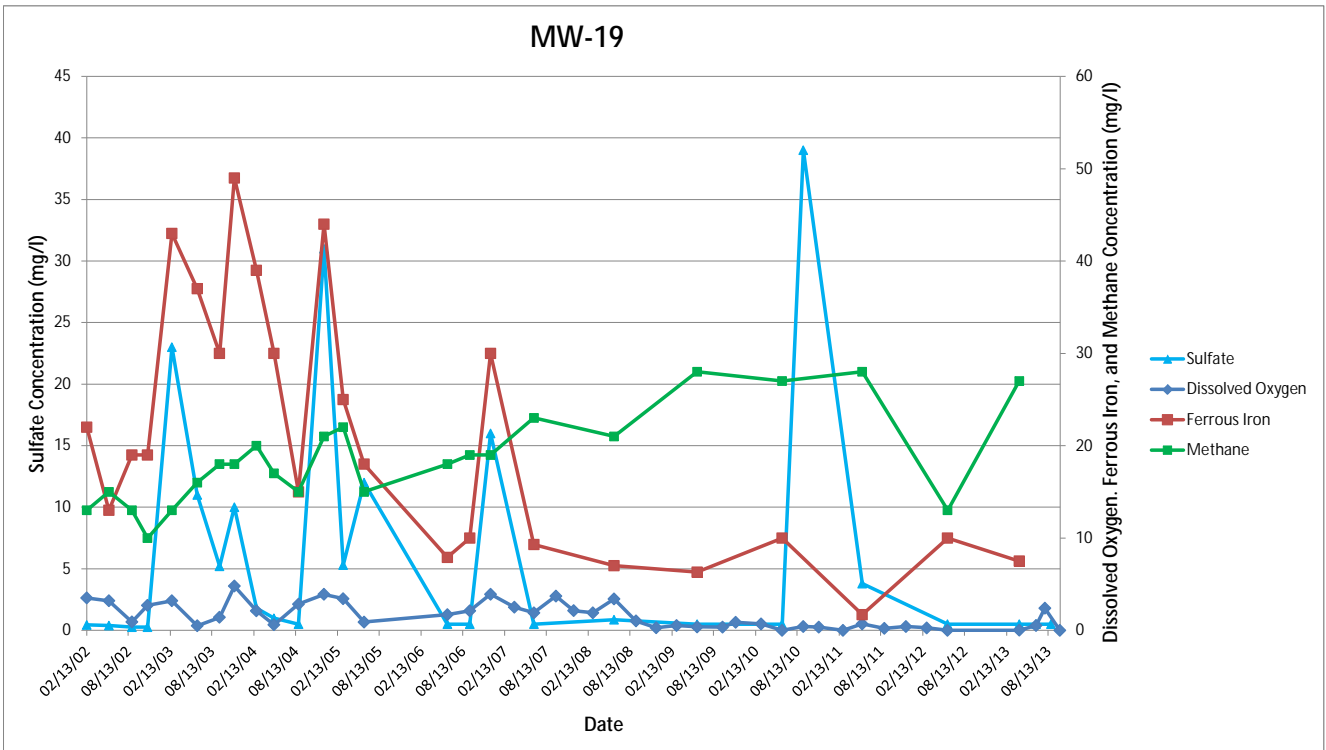
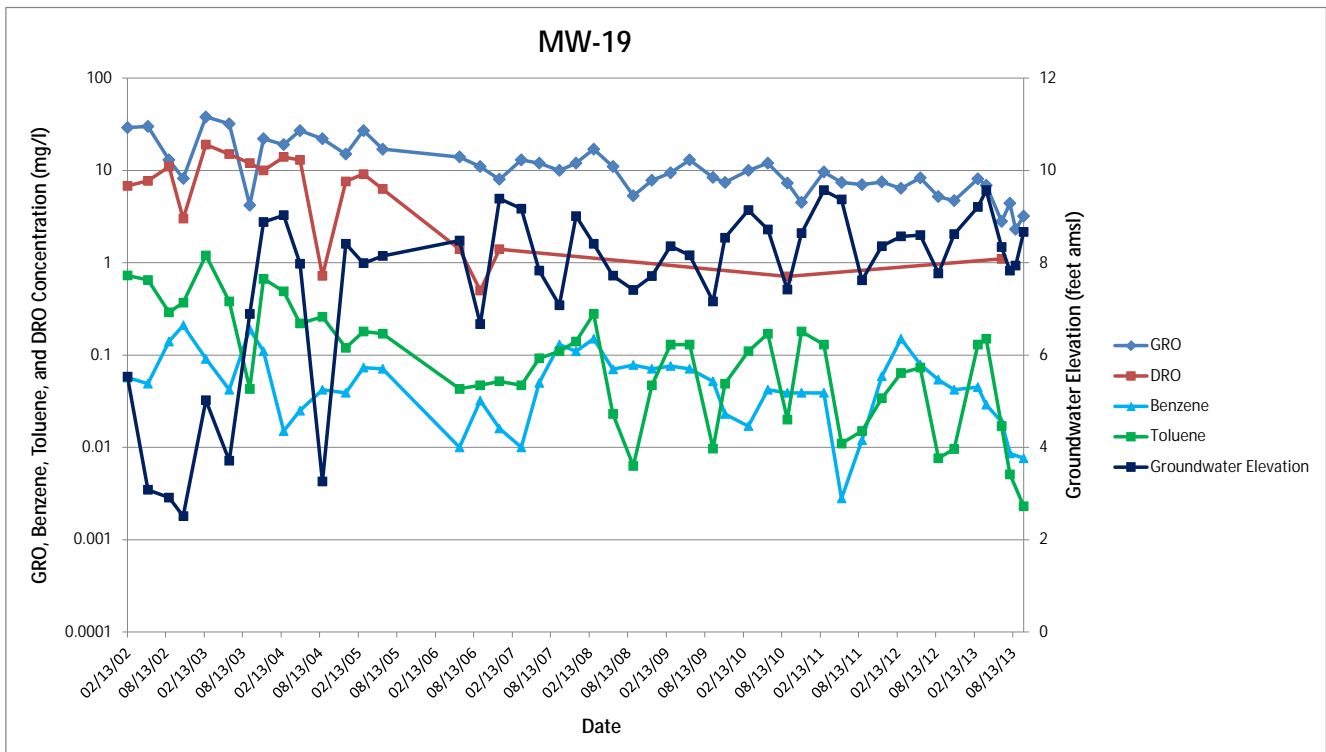

 Infrastructure · Water · Environment · Buildings




KINDER MORGAN LIQUID TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
2014 REVISED GROUNDWATER MONITORING PLAN
ATTACHMENT A
HYDROGRAPH AND CONSTITUENT TREND GRAPHS



KINDER MORGAN LIQUID TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
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KINDER MORGAN LIQUID TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON
2014 REVISED GROUNDWATER MONITORING PLAN
ATTACHMENT A
HYDROGRAPH AND CONSTITUENT TREND GRAPHS


 Infrastructure · Water · Environment · Buildings

From: [Flomerfelt, Jonathan](mailto:Flomerfelt_Jonathan)
To: [Wenning, Scott](mailto:Wenning_Scott)
Cc: [Annis, Matt](mailto:Annis_Matt)
Subject: FW: Kinder Morgan Harbor Island Terminal Proposed Revised Compliance Monitoring Plan
Date: Wednesday, August 20, 2014 9:25:42 AM

Since there were some clarifications, lets use 8/13, email below as official approval

From: O'Brien, Maura (ECY) [<mailto:MOBR461@ECY.WA.GOV>]
Sent: Wednesday, August 13, 2014 4:50 PM
To: Annis, Matt; Flomerfelt, Jonathan; Truedinger, Robert
Cc: Wang, Ching-Pi (ECY)
Subject: RE: Kinder Morgan Harbor Island Terminal Proposed Revised Compliance Monitoring Plan

This is fine.

Maura

Maura S. O'Brien, PG/HG #869
Professional Geologist/Hydrogeologist
Toxics Cleanup Program - NWRO
Department of Ecology
3190 - 160th Avenue SE
Bellevue, WA 98008-5452
Tele 425-649-7249
Fax 425-649-7098
Email mobr461@ecy.wa.gov

From: Annis, Matt [<mailto:Matt.Annis@arcadis-us.com>]
Sent: Wednesday, August 13, 2014 3:08 PM
To: O'Brien, Maura (ECY); Flomerfelt, Jonathan; Truedinger, Robert
Cc: Wang, Ching-Pi (ECY)
Subject: RE: Kinder Morgan Harbor Island Terminal Proposed Revised Compliance Monitoring Plan

Hi Maura – One last clarification. Please see below in red. Thanks.

Matt Annis | Principal Environmental Scientist | matt.annis@arcadis-us.com
ARCADIS U.S., Inc. | 1100 Olive Way, Suite 800 | Seattle, WA, 98101
T: 206.726.4716 | C: 206.434.1929 | F: 206.325.8218
www.arcadis-us.com

ARCADIS, Imagine the result

Please consider the environment before printing this email.

From: O'Brien, Maura (ECY) [<mailto:MOBR461@ECY.WA.GOV>]
Sent: Wednesday, August 13, 2014 2:07 PM
To: Annis, Matt; Flomerfelt, Jonathan; Truedinger, Robert
Cc: Wang, Ching-Pi (ECY)
Subject: RE: Kinder Morgan Harbor Island Terminal Proposed Revised Compliance Monitoring Plan

Rob Truedinger and Matt Annis,
Ecology approves the revised Kinder Morgan Harbor Island Terminal Proposed Revised Compliance Monitoring Plan for the KM Terminal prepared by Arcadis on May 20, 2014 and revised August 13, 2014. The revised plan is effective fall 2014 and the next monitoring **quarter event** will occur first quarter 2015.

Maura

Maura S. O'Brien, PG/HG #869
Professional Geologist/Hydrogeologist
Toxics Cleanup Program - NWRO
Department of Ecology
3190 - 160th Avenue SE
Bellevue, WA 98008-5452
Tele 425-649-7249
Fax 425-649-7098
Email mobr461@ecy.wa.gov

From: Annis, Matt [<mailto:Matt.Annis@arcadis-us.com>]
Sent: Wednesday, August 13, 2014 12:50 PM
To: O'Brien, Maura (ECY); Flomerfelt, Jonathan; Truedinger, Robert
Cc: Wang, Ching-Pi (ECY)
Subject: RE: Kinder Morgan Harbor Island Terminal Proposed Revised Compliance Monitoring Plan

Hi Maura,

Below in red are responses/clarifications to your comments. Thank you for reviewing the Revised Site Groundwater Monitoring Plan so quickly.

Matt Annis | Principal Environmental Scientist | matt.annis@arcadis-us.com
ARCADIS U.S., Inc. | 1100 Olive Way, Suite 800 | Seattle, WA, 98101
T: 206.726.4716 | C: 206.434.1929 | F: 206.325.8218
www.arcadis-us.com

ARCADIS, Imagine the result

Please consider the environment before printing this email.

From: O'Brien, Maura (ECY) [<mailto:MOBR461@ECY.WA.GOV>]
Sent: Thursday, August 07, 2014 3:35 PM
To: Annis, Matt; Flomerfelt, Jonathan; Truedinger, Robert
Cc: Wang, Ching-Pi (ECY)
Subject: RE: Kinder Morgan Harbor Island Terminal Proposed Revised Compliance Monitoring Plan

Hello

Thank you for your proposed Revised Site Groundwater Monitoring Plan at the Kinder Morgan Harbor Island Terminal site prepared by Arcadis US dated May 20, 2014. Ecology approves this

revised compliance plan with two additions:

-If SPH or LNAPL occur at any well, then gauging and removal will be implemented quarterly for four quarters and then to re-evaluate. If SPH or LNAPL occur at any well, ARCADIS will gauge and remove quarterly. Removal will be performed using absorbent socks, which is consistent with recent SPH/LNAPL removal performed at the site.

-If any groundwater compliance well shows concentration increase for two consecutive events, then to discuss with Ecology if additional monitoring or cleanup action needs to be implemented at that location. OK

Starting third quarter 2014, this revised annual and semi-annual monitoring will begin. The next monitoring event will occur in 1Q2015 and moving forward reporting will be conducted semi-annually.

Thanks for your hard work and continued efforts to bring this site to completion under MTCA.

Maura

Maura S. O'Brien, PG/HG #869
Professional Geologist/Hydrogeologist
Toxics Cleanup Program - NWRO
Department of Ecology
3190 - 160th Avenue SE
Bellevue, WA 98008-5452
Tele 425-649-7249
Fax 425-649-7098
Email mobr461@ecy.wa.gov

From: Annis, Matt [<mailto:Matt.Annis@arcadis-us.com>]
Sent: Thursday, August 07, 2014 11:09 AM
To: O'Brien, Maura (ECY)
Cc: Flomerfelt, Jonathan
Subject: Kinder Morgan Harbor Island Periodic Review

Hi Maura,

Under Section 2.2 of the boilerplate you sent, are you looking for a summary of all site investigations and sample results to date or just those between the last 5-year review and present? Thanks.

Matt Annis | Senior Environmental Scientist | matt.annis@arcadis-us.com
ARCADIS U.S., Inc. | 1100 Olive Way, Suite 800 | Seattle, WA, 98101
T: 206.726.4716 | C: 206.434.1929 | F: 206.325.8218
www.arcadis-us.com

ARCADIS, Imagine the result

Please consider the environment before printing this email.

SUBJECT**Kinder Morgan Harbor Island Terminal
Groundwater Analytical Reduction Request****DATE**

February 11, 2016

TO

Maura O'Brien—Washington Department of Ecology

COPY

Rob Truedinger—Kinder Morgan

PROJECT NUMBER

WA000804.2016

FROMMatt Annis—Arcadis U.S., Inc.
Kyle Haslam—Arcadis U.S., Inc.

Arcadis U.S., Inc. (Arcadis), on behalf of Kinder Morgan Energy Partners (Kinder Morgan), is requesting a revision to our current sampling scheme at the Kinder Morgan Harbor Island fuel terminal in Seattle, Washington (**Figure 1**). Kinder Morgan is currently analyzing samples from 24 wells for geochemical natural attenuation (NA) indicators (**Table 1**), such as ferrous iron and nitrate, in accordance with the Washington Department of Ecology (Ecology) approved Revised Site Groundwater Monitoring Plan (Arcadis 2014). Based on a review of recent data, it appears that a number of these 24 wells either have groundwater concentrations below site-specific cleanup levels for the constituents of concern (COCs) outlined in the Consent Decree (Ecology 2000), or are in a portion of the site undergoing remedial action via sulfate land application. Analyzing for natural attenuation indicators is not appropriate at these locations, as NA does not need to be demonstrated where groundwater concentrations are already below applicable cleanup levels and NA should not be evaluated in an area where remediation is ongoing. As such, Arcadis proposes to reduce the number of wells where full NA geochemical evaluations are performed from 24 to four (**Table 2**). The four well locations (A-27, A-28R, MW-23, and MW-24) proposed for continued evaluation of NA geochemical indicators are located within the 13th Avenue right-of-way, where NA is the approved remedy. We further propose to reduce the frequency of NA geochemical sample collection to annually, which would provide the ample data for continued NA evaluation in this area. Wells that are within the ongoing remedial area would be analyzed for facility COCs, in addition to sulfate, which is the primary remedial performance evaluation analyte. For wells outside of the ongoing remedial area and the 13th Avenue right-of-way, all of which have been below site-specific cleanup levels for at least 4 years¹ and a majority of which have been below site-specific cleanup levels for close to 10 years, Arcadis proposes to analyze for COCs only (gasoline-range organics, diesel-range organics, heavy oil, benzene, toluene, ethylbenzene, xylenes, and lead [total and dissolved]).

Arcadis would like to implement this reduced analyte sampling scheme beginning in the first quarter of 2016. Our proposed sampling start date is March 14, 2016. Please contact us if you would like any additional information regarding our request.

Enclosures:

Figure 1 – Site Plan

Table 1 – Current Groundwater Monitoring Plan

Table 2 – Proposed Groundwater Monitoring Plan

References:








Arcadis. 2014. Revised Wide Groundwater Monitoring Plan. Kinder Morgan Harbor Island Terminal. May 20.

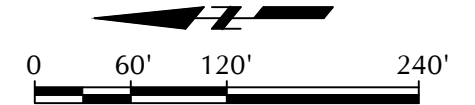
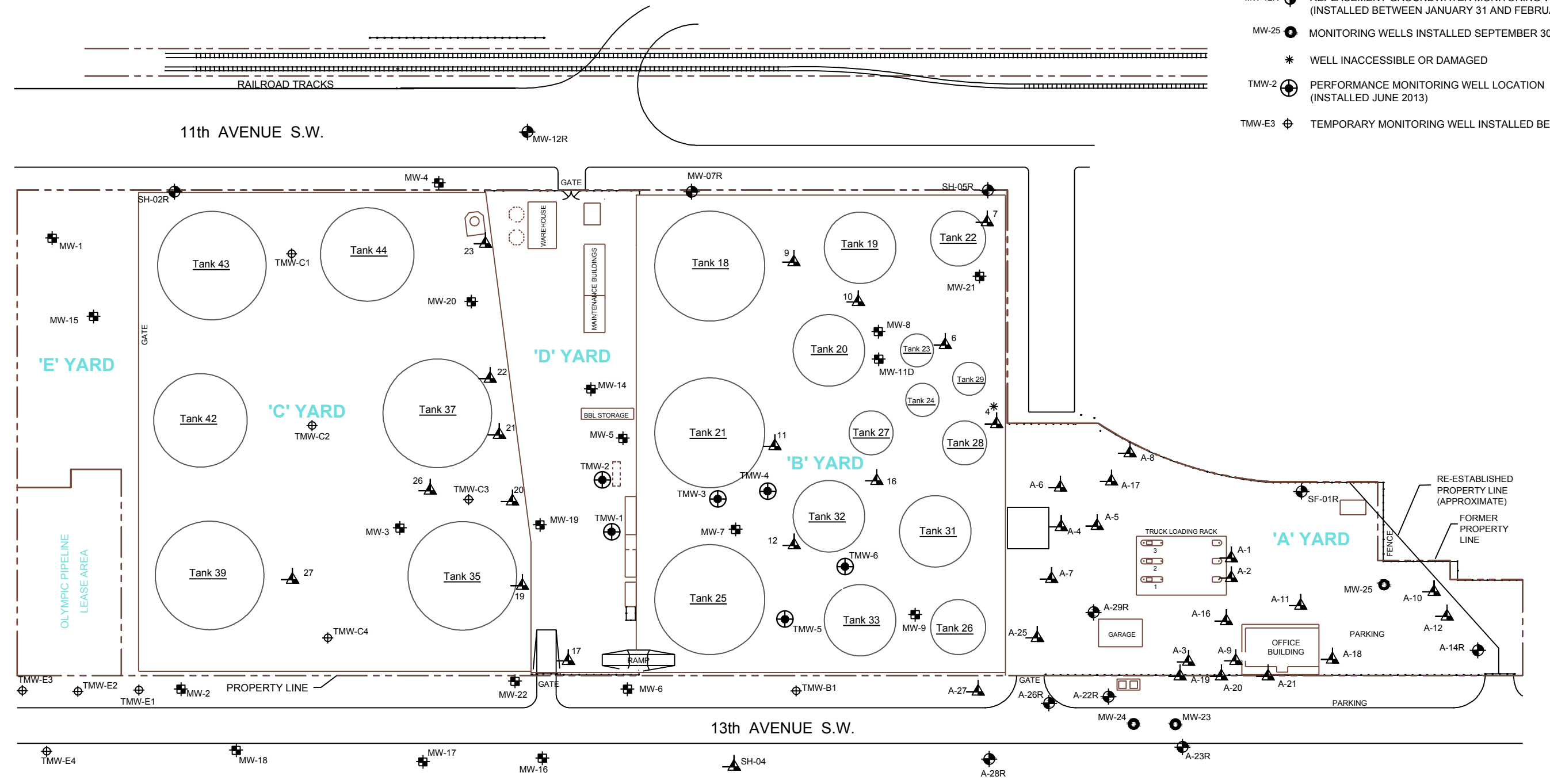
Ecology. 2000. Consent Decree 00-2-07760-2SEA. April 12.

ⁱ Well MW-8 has exceeded the site-specific cleanup level for lead since sampling of this well began in 2002. Lead is not a constituent that is subject to NA through biological means, therefore collecting NA geochemical indicator samples would not provide any benefit at this location.

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LEGEND

- SH-02  GROUNDWATER MONITORING WELL (INSTALLED BEFORE 1993)
- MW-7  GROUNDWATER MONITORING WELL (INSTALLED AFTER 1993)
- MW-12R  REPLACEMENT GROUNDWATER MONITORING WELL (INSTALLED BETWEEN JANUARY 31 AND FEBRUARY 21, 2002)
- MW-25  MONITORING WELLS INSTALLED SEPTEMBER 30, 2003
- *  WELL INACCESSIBLE OR DAMAGED
- TMW-2  PERFORMANCE MONITORING WELL LOCATION (INSTALLED JUNE 2013)
- TMW-E3  TEMPORARY MONITORING WELL INSTALLED BEFORE JUNE 2013



KINDER MORGAN LIQUID TERMINALS, LLC
 HARBOR ISLAND TERMINAL
 2720 13TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON

SITE PLAN



**Table 1
Current Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-4	1Q							X
	3Q							X
A-5	1Q	X			X			X
	3Q	X			X			X
A-6	1Q							X
	3Q							X
A-8	1Q							X
	3Q	X	X	X	X			X
A-10	1Q							X
	3Q	X	X	X	X			X
A-11	1Q							X
	3Q							X
A-12	1Q							X
	3Q							X
A-14R	1Q							X
	3Q	X	X	X	X	X		X
A-16	1Q							X
	3Q							X
A-18	1Q							X
	3Q							X
A-19	1Q							X
	3Q							X
A-20	1Q							X
	3Q							X

**Table 1
Current Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-21	1Q	X			X		X	X
	3Q	X			X	X	X	X
A-22R	1Q							X
	3Q							X
A-23R	1Q							X
	3Q	X			X		X	X
A-25	1Q							X
	3Q							X
A-26R	1Q							X
	3Q							X
A-27 ²	1Q	X			X		X	X
	3Q	X			X		X	X
A-28R	1Q	X			X		X	X
	3Q	X			X	X	X	X
11 ²	1Q	X			X		X	X
	3Q	X			X		X	X
12 ²	1Q	X			X		X	X
	3Q	X	X	X	X	X	X	X
MW-1	1Q							X
	3Q	X	X	X	X	X		X
MW-2	1Q							X
	3Q	X	X	X	X	X	X	X
MW-3	1Q							X
	3Q	X	X	X	X	X		X

**Table 1
Current Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-4	1Q							X
	3Q	X	X	X	X			X
MW-5	1Q							X
	3Q	X	X	X	X	X		X
MW-6	1Q							X
	3Q	X			X	X	X	X
MW-7 ²	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-8	1Q							X
	3Q	X	X	X	X	X		X
MW-9 ²	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-12R	1Q							X
	3Q	X	X	X	X	X	X	X
MW-14	1Q							X
	3Q	X			X		X	X
MW-16	1Q							X
	3Q	X	X	X	X			X
MW-18	1Q	X			X			X
	3Q	X			X			X
MW-19 ²	1Q	X			X		X	X
	3Q	X			X		X	X
MW-20	1Q							X
	3Q	X	X	X	X			X

**Table 1
Current Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-21	1Q	X	X	X	X		X	X
	3Q	X	X	X	X		X	X
MW-22	1Q							X
	3Q	X	X	X	X			X
MW-23	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-24	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-25	1Q							X
	3Q	X	X	X	X	X		X
MW-07R	1Q							X
	3Q	X	X	X	X	X	X	X
SH-02R	1Q							X
	3Q	X	X	X	X	X	X	X
SH-05R	1Q							X
	3Q	X	X	X	X	X		X
TMW-B1	1Q							X
	3Q	X			X			X

**Table 1
Current Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
TMW-1 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-2 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-3 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-4 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-5 ²	1Q	X			X		X	X
	3Q	X			X		X	X
TMW-6 ²	1Q	X			X		X	X
	3Q	X			X		X	X

Notes

1 Monitored Natural Attenuation (MNA) Geochemical Parameters include dissolved oxygen, methane, ferrous iron, nitrate, sulfate, and sulfide
2 Performance monitoring locations
GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics by Northwest Method NWTPH-Gx
DRO = Total Petroleum Hydrocarbons - Diesel Range Organics by Northwest Method NWTPH-Dx
HO = Total Petroleum Hydrocarbons - Heavy Oil by Northwest Method NWTPH-Gx
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes by Environmental Protection Agency (EPA) Method 8260B.
1Q, 2Q, 3Q, 4Q = Denotes the quarter for each sampling event
-- Not Applicable

**Table 2
Proposed Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-4	1Q							X
	3Q							X
A-5	1Q	X			X			X
	3Q	X			X			X
A-6	1Q							X
	3Q							X
A-8	1Q							X
	3Q	X	X	X	X			X
A-10	1Q							X
	3Q	X	X	X	X			X
A-11	1Q							X
	3Q							X
A-12	1Q							X
	3Q							X
A-14R	1Q							X
	3Q	X	X	X	X	X		X
A-16	1Q							X
	3Q							X
A-18	1Q							X
	3Q							X
A-19	1Q							X
	3Q							X
A-20	1Q							X
	3Q							X

**Table 2
Proposed Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
A-21	1Q	X			X			X
	3Q	X			X	X		X
A-22R	1Q							X
	3Q							X
A-23R	1Q							X
	3Q	X			X			X
A-25	1Q							X
	3Q							X
A-26R	1Q							X
	3Q							X
A-27 ²	1Q	X			X		X	X
	3Q	X			X		X	X
A-28R	1Q	X			X		X	X
	3Q	X			X	X	X	X
11 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X
12 ²	1Q	X			X		X ³	X
	3Q	X	X	X	X	X	X ³	X
MW-1	1Q							X
	3Q	X	X	X	X	X		X
MW-2	1Q							X
	3Q	X	X	X	X	X		X
MW-3	1Q							X
	3Q	X	X	X	X	X		X

Table 2
Proposed Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-4	1Q							X
	3Q	X	X	X	X			X
MW-5	1Q							X
	3Q	X	X	X	X	X		X
MW-6	1Q							X
	3Q	X			X	X		X
MW-7 ²	1Q	X			X		X ³	X
	3Q	X			X	X	X ³	X
MW-8	1Q							X
	3Q	X	X	X	X	X		X
MW-9 ²	1Q	X			X		X ³	X
	3Q	X			X	X	X ³	X
MW-12R	1Q							X
	3Q	X	X	X	X	X		X
MW-14	1Q							X
	3Q	X			X			X
MW-16	1Q							X
	3Q	X	X	X	X			X
MW-18	1Q	X			X			X
	3Q	X			X			X
MW-19 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X
MW-20	1Q							X
	3Q	X	X	X	X			X

**Table 2
Proposed Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington**

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
MW-21	1Q	X	X	X	X			X
	3Q	X	X	X	X			X
MW-22	1Q							X
	3Q	X	X	X	X			X
MW-23	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-24	1Q	X			X		X	X
	3Q	X			X	X	X	X
MW-25	1Q							X
	3Q	X	X	X	X	X		X
MW-07R	1Q							X
	3Q	X	X	X	X	X		X
SH-02R	1Q							X
	3Q	X	X	X	X	X		X
SH-05R	1Q							X
	3Q	X	X	X	X	X		X
TMW-B1	1Q							X
	3Q	X			X		X	X

Table 2
Proposed Groundwater Monitoring Plan
2016 Analyte Reduction Request
Kinder Morgan Harbor Island Terminal
Seattle, Washington

Well	Sampling Schedule	GRO by NWTPH-GX	DRO by NWTPH-DX	HO by NWTPH-DX	BTEX by EPA 8260B	Total and Dissolved Lead by EPA 200.8	MNA Geochemical Parameters ¹	Depth to Water/SPH by downhole meter
TMW-1 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X
TMW-2 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X
TMW-3 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X
TMW-4 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X
TMW-5 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X
TMW-6 ²	1Q	X			X		X ³	X
	3Q	X			X		X ³	X

Notes

1 = Monitored Natural Attenuation (MNA) Geochemical Parameters include dissolved oxygen, methane, ferrous iron, nitrate, sulfate, and sulfide
2 = Performance monitoring locations
3 = Sulfate is the only geochemical analysis to be run at this location
GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics by Northwest Method NWTPH-Gx
DRO = Total Petroleum Hydrocarbons - Diesel Range Organics by Northwest Method NWTPH-Dx
HO = Total Petroleum Hydrocarbons - Heavy Oil by Northwest Method NWTPH-Gx
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes by Environmental Protection Agency (EPA) Method 8260B.
1Q, 2Q, 3Q, 4Q = Denotes the quarter for each sampling event
-- Not Applicable

Ullery, Mark

From: Cruz, Jerome (ECY) <JCRU461@ECY.WA.GOV>
Sent: Thursday, September 15, 2016 4:15 PM
To: Annis, Matt
Cc: Haslam, Kyle; Truedinger, Robert (Robert_Truedinger@kindermorgan.com); Wang, Ching-Pi (ECY)
Subject: RE: Kinder Morgan Harbor Island Terminal - analyte frequency reduction request

Hi Rob, Matt, and Kyle,

Thank you for meeting with me today and for your patience while I get up to speed with the site issues and requests.

My understanding is that the reduction request will consist of eliminating only natural attenuation indicators such as ferrous iron and nitrate (with the exception of sulfate) from the list of analytes at select wells depicted in Figure 3 of the Proposed MNA Geochemical Parameters Analytical Reduction Plan. Site COCs will continue to be analyzed.

I concur with the analyte groundwater reduction request in your memo dated August 3, 2016. Please proceed in accordance with the revisions proposed in the memo.

Please also proceed with the proposed sulfate land reapplication in accordance with the August 31, 2016 field implementation memorandum.

Thanks,

Jerome



Jerome B. Cruz, Ph.D.
Toxics Cleanup Program, Northwest Regional Office
3190 - 160th SE Bellevue, WA 98008
Tel: (425) 649-7094 Fax: (425) 649-7098
Jerome.Cruz@ecy.wa.gov
<http://www.ecy.wa.gov/programs/tcp/cleanup.html>

From: Annis, Matt [mailto:Matt.Annis@arcadis.com]
Sent: Thursday, August 04, 2016 10:12 AM
To: Cruz, Jerome (ECY) <JCRU461@ECY.WA.GOV>
Cc: Haslam, Kyle <Kyle.Haslam@arcadis.com>; Truedinger, Robert (Robert_Truedinger@kindermorgan.com) <Robert_Truedinger@kindermorgan.com>
Subject: RE: Kinder Morgan Harbor Island Terminal - analyte frequency reduction request

Hi Jerome,

We have revised our analyte reduction request memo to incorporate the maps you requested below (see attached). For clarification, at this time we are not proposing to drop any wells from the program. This request is limited to dropping

NA analytical parameters from a handful of wells. Perhaps later this year we should take a look at dropping wells from the program that have been in compliance for several years. Please confirm the revisions meet the expectations of your request. Thanks.

Matt Annis | Principal Environmental Scientist | matt.annis@arcadis.com

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From: Cruz, Jerome (ECY) [<mailto:JCRU461@ECY.WA.GOV>]

Sent: Thursday, July 28, 2016 9:18 AM

To: Annis, Matt <Matt.Annis@arcadis.com>

Cc: Haslam, Kyle <Kyle.Haslam@arcadis.com>; Truedinger, Robert (Robert_Truedinger@kindermorgan.com) <Robert_Truedinger@kindermorgan.com>

Subject: RE: Kinder Morgan Harbor Island Terminal - analyte frequency reduction request

Hi Matt,

I started reviewing the analyte reduction request and first semiannual 2016 GW monitoring report. In order to understand the nature of this request and evolution, I reviewed the past requests for reduced monitoring in the semiannual monitoring report. From what I could find, there were two requests:

- June 21, 2007 to Roger Nye, approved August 7, 2007
- May 20, 2014 to Maura O'Brien, approved ??

The May 20 request had maps showing current quarterly and annual GW monitoring locations (Fig. 2), proposed semi- and annual locations (Fig. 3), and proposed performance monitoring locations (Fig. 4).

May I request similar maps for the current proposal? This will allow me to better understand the proposal, its variation from past/current monitoring, and its rationale. What might also help is to superimpose contaminant concentrations in the proposed monitoring network/frequency map for me to verify how the current proposal addresses the existing site conditions. I agree that if a well has been in compliance for several years, we should consider dropping it from the monitoring program, but I would like to identify where these are on the maps before I approve anything.

Please don't hesitate to contact me if you have questions or would like to discuss.

Thanks,

Jerome



Jerome B. Cruz, Ph.D.
Toxics Cleanup Program, Northwest Regional Office
3190 - 160th SE Bellevue, WA 98008
Tel: (425) 649-7094 Fax: (425) 649-7098
Jerome.Cruz@ecy.wa.gov
<http://www.ecy.wa.gov/programs/tcp/cleanup.html>

From: Annis, Matt [<mailto:Matt.Annis@arcadis.com>]
Sent: Wednesday, July 20, 2016 1:43 PM
To: Cruz, Jerome (ECY) <JCRU461@ECY.WA.GOV>
Cc: Haslam, Kyle <Kyle.Haslam@arcadis.com>; Truedinger, Robert (Robert_Truedinger@kindermorgan.com) <Robert_Truedinger@kindermorgan.com>
Subject: FW: Kinder Morgan Harbor Island Terminal - analyte frequency reduction request

Hi Jerome,

Please see below and attached. We are starting to plan for our Q3 monitoring event and were hoping Ecology would provide an opinion on our request before then. Please give me a call if you have questions or would like to discuss. Thanks.

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From: Annis, Matt
Sent: Wednesday, February 24, 2016 3:53 PM
To: 'mobr461@ecy.wa.gov' <mobr461@ecy.wa.gov>
Cc: Truedinger, Robert (Robert_Truedinger@kindermorgan.com) <Robert_Truedinger@kindermorgan.com>
Subject: FW: Kinder Morgan Harbor Island Terminal - analyte frequency reduction request

Hi Maura,

Thanks for taking the time to call me on 2/22 to discuss this request and your pending retirement (good for you!). You indicated you were in general agreement with our request to reduce the number of wells we have been performing natural attenuation analyses on and were also going to discuss with the new site manager (Jerome Cruz). As you suggested, we will push our Q1 sampling back to the week of 3/21 so Ecology has sufficient time to provide an opinion on our request.

Also, you mentioned having a transition meeting with Ecology, Kinder Morgan and Arcadis prior to your last day. Kinder Morgan and Arcadis definitely want to take you up on that offer. Are you and Jerome available for this transition meeting on the afternoon of 3/24? Please let us know as soon as you can as Rob will need to travel from Portland to attend. Thanks.

Matt Annis | Principal Environmental Scientist | matt.annis@arcadis.com

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www.arcadis.com

From: Annis, Matt

Sent: Thursday, February 11, 2016 2:23 PM

To: 'mobr461@ecy.wa.gov' <mobr461@ecy.wa.gov>

Cc: Truedinger, Robert (Robert_Truedinger@kindermorgan.com) <Robert_Truedinger@kindermorgan.com>; Haslam, Kyle <Kyle.Haslam@arcadis.com>

Subject: Kinder Morgan Harbor Island Terminal - analyte frequency reduction request

Hi Maura,

Attached is a memorandum that includes a request to cease the analysis of natural attenuation parameters in monitoring wells that are currently below site-specific cleanup levels (and have been for some time) at the Kinder Morgan terminal on Harbor Island. The memorandum also includes a request to temporarily cease the analysis of natural attenuation parameters (with the exception of sulfate) at the performance monitoring wells located with the sulfate land application. We are hoping to have an opinion from Ecology on this request prior to our first quarter sampling event, which is current scheduled for mid-March 2016. Please give me a call if you have any questions or would like to discuss. Thanks.

Matt Annis | Principal Environmental Scientist | matt.annis@arcadis.com

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ATTACHMENT B

Groundwater Monitoring Field Data Sheets



Site ID: **KMLT Harbor Island Terminal**
 Site Address: **2720 13th Ave SW, Seattle, WA**

 Project #: **WA000804.2016.00002**

 Date: ~~10/10/16~~ 10/11/16

Well ID	Time	Sheen/ Odor	LNAPL Depth (ft btoc)	LNAPL Thickness (feet)	DTW (feet btoc)	TD (feet btoc)	Notes
A-4	1118	—	—	—	7.32	12.55	
A-5	1033	—	—	—	8.05	14.78	
A-6	1112	HCLO	—	—	7.04	23.90	
A-8	1030	—	—	—	8.21	24.90	
MW-25 A-10	1015	—	—	—	7.65	14.82	
A-11	1022	—	—	—	8.08	24.55	
A-12	1010	—	—	—	6.90	23.33	
* A-14R	1007	—	—	—	7.92	14.87	
A-16	1123	Y,S	8.15	0.40	8.65	13.95	
A-18	1026	—	—	—	8.40	13.80	
A-19	1000	—	—	—	8.35	13.98	
A-20	0957	—	—	—	7.97	13.60	
A-21	0955	—	—	—	8.11	14.54	PID = 1.6 ppm
A-22R	1046	—	—	—	7.92	14.65	
A-23R	1234	—	—	—	9.28	14.82	
A-25	1039	HCLO	—	—	7.77	13.89	
A-26R	0923	—	—	—	7.99	14.45	
A-27	0920	HCLO	—	—	10.99	18.10	
A-28R	0917	HCLO	—	—	8.66	14.07	HCLO
11	1022	no	—	—	5.03	10.82	
12	1028	no	—	—	2.18	7.45	
MW-07R	0859	—	—	—	6.86	12.52	
MW-1	1145	—	—	—	6.35	12.88	
MW-2	0841	—	—	—	8.20	12.46	
MW-3	0905	no	—	—	4.01	13.33	

~~MW-25~~ ~~1015~~ — — — ~~7.15~~
 A-10 1013 7.21 24.15

Site ID: **KMLT Harbor Island Terminal**
 Site Address: **2720 13th Ave SW, Seattle, WA**

 Project #: **WA000804.2016.00002**
 Date:

Well ID	Time	Sheen/ Odor	LNAPL Depth (ft btoc)	LNAPL Thickness (feet)	DTW (feet btoc)	TD (feet btoc)	Notes
MW-4	0850	—	—	—	7.21	13.97	
MW-5	0935	no	—	—	3.56	13.24	
MW-6	0931	—	—	—	7.94	12.89	
MW-7	1015	no	—	—	2.95	—	
MW-8	1050	no	—	—	4.05	13.07	manometer tilted/ broken
MW-9	1040	no	—	—	3.29	12.90	
MW-12R	0853	—	—	—	8.04	14.04	
MW-14	0930	no	—	—	4.01	13.60	
MW-16	0912	—	—	—	8.06	13.90	
MW-18	0910	—	—	—	8.14	13.39	
MW-19	1000	no	—	—	3.59	—	
MW-20	0910	no	—	—	3.87	12.80	
MW-21	1048	no	—	—	3.00	11.56	
MW-22	0836	—	—	—	6.13	13.11	
MW-23	0948	HClO	—	—	7.88	14.85	PID = 133.0 ppm
MW-24	0940	HClO	—	—	7.91	14.84	PID = 391.0 ppm
SH-02R	0847	—	—	—	6.11	14.44	
SH-05R	0902	—	—	—	7.38	13.50	
TMW-B1	0926	—	—	—	8.49	14.78	
TMW-1	0950	no	—	—	3.95	—	
TMW-2	0945	no	—	—	4.01	—	
TMW-3	1010	no	—	—	4.02	—	
TMW-4	1020	no	—	—	3.71	—	
TMW-5	1025	no	—	—	3.76	—	
TMW-6	1030	no	—	—	3.12	—	

MW-25

GROUNDWATER SAMPLING LOG

Page of

Project No. WA000804.2016 Well ID 11 Date 10/14/16

Project Name/Location Kinder Morgan Harbor Island Terminal Weather Partly

Measuring Pt. Description Stick up Screen Setting (ft-bmp) Casing Diameter (in.) 4 Well Material PVC SS

Static Water Level (ft-bmp) 3.46 Total Depth (ft-bmp) Water Column/ Gallons in Well

MP Elevation Pump Intake (ft-bmp) Purge Method: LFD Sample Method Grab

Pump On/Off 1100 Volumes Purged Centrifugal Submersible Other Peril

Sample Time: Label Replicate/ Code No. Sampled by MLL

Start End

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1103	3	350			7.41	0.949	6.7	6.33	18.0	-125.2	Clear	-
1110	10	300	3.50		6.89	0.952	7.3	6.82	19.0	-99.2	Clear	-
1113	13		3.50		6.79	0.975	8.0	6.95	17.8	-87.6	Clear	-
1116	16		3.49		6.73	0.992	8.6	7.06	17.8	-76.9	Clear	-
1119	19		3.46		6.71	0.997	6.9	7.08	17.9	-71.9	Clear	-
1122	22		3.42		6.68	1.014	7.2	7.22	17.5	-65.0	Clear	-
1125	25		3.39		6.65	1.040	7.4	7.40	17.0	-57.1	Clear	-

Constituents Sampled	Container	Number	Preservative
GRO	40 mL WQA	2	HCl
BTEX	40 mL WQA	2	HCl
Sulfate	125 mL HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: Yes / No
Condition of Well: <u> </u>	Well Locked at Departure: Yes / No
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID A-5

Date 10-13-2016

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather 50°F, rain

Measuring Pt. Description toc

Screen Setting (ft-bmp) —

Casing Diameter (in.) 4'

Well Material PVC SS

Static Water Level (ft-bmp) 8.05'

Total Depth (ft-bmp) 14.78'

Water Column/ Gallons in Well 6.73 / 4.4 gallons

MP Elevation —

Pump Intake (ft-bmp) 10'

Purge Method: LFP

Sample Method grab

Pump On/Off 1256/1312

Volumes Purged 0.7 gallons

Centrifugal
Submersible
Other peristaltic

Sample Time: Label 1310
Start 1310
End 1317

Replicate/ Code No. —

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1300	4	200	7.95	0.2	6.73	774	56.2	0.67	19.3	-141.5	clear	no
1302	6	200	7.97	0.3	6.72	778	57.7	0.61	19.5	-141.8	clear	no
1304	8	200	7.97	0.4	6.72	781	58.6	0.59	19.6	-142.5	clear	no
1306	10	200	7.94	0.5	6.72	783	61.9	0.57	19.5	-143.4	clear	no

Constituents Sampled	Container	Number	Preservative
<u>GR0</u>	<u>VOA</u>	<u>2</u>	<u>HCl</u>
<u>BTEX</u>	<u>VOA</u>	<u>2</u>	<u>HCl</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>A' Yard</u>	Well Locked at Arrival: Yes / <input checked="" type="checkbox"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="checkbox"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. WA000804.2016

Well ID A-8

Date 10-13-2016

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather 50°F, rainy

Measuring Pt. Description toc

Screen Setting (ft-bmp) -

Casing Diameter (in.) 4"

Well Material PVC SS

Static Water Level (ft-bmp) 8.21'

Total Depth (ft-bmp) 24.90'

Water Column/ Gallons in Well 16.69 / 10.8 gallons

MP Elevation -

Pump Intake (ft-bmp) 9'

Purge Method: LFP

Sample Method grab

Pump On/Off 1222/1242

Volumes Purged 0.8 gallons

Centrifugal
Submersible
Other peristaltic

Sample Time: Label 1240
Start 1240
End 1242

Replicate/ Code No. -

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1226	4	200	7.90	0.2	7.01	773	201.3	0.71	17.6	-154.5	clear	no
1228	6	200	7.90	0.3	7.05	520	198.5	0.67	17.4	-162.7	clear	no
1230	8	200	7.90	0.4	7.06	500	202.0	0.66	17.3	-164.1	clear	no
1232	10	200	7.90	0.5	7.05	495.1	203.4	0.65	17.3	-164.7	clear	no
1234	12	200	7.90	0.6	7.06	492.2	201.1	0.63	17.2	-165.9	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/HO	VOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>A yard</u>	Well Locked at Arrival: Yes / <input checked="" type="radio"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="radio"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. WA000804.2016

Well ID A-10

Date 10-13-16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather heavy rain, 50°F

Measuring Pt. LOC Screen — Casing 4" Well Material X PVC
 Description — Setting (ft-bmp) — Diameter (in.) — — SS

Static Water Level (ft-bmp) 7.21 Total Depth (ft-bmp) 24.15' Water Column/Gallons in Well 16.94'/11 gallons

MP Elevation — Pump Intake (ft-bmp) 10' Purge Method: LFP Sample Method grab
 Centrifugal —
 Submersible —
 Other peristaltic

Pump On/Off 0958/1035 Volumes Purged 1.6 gallons

Sample Time: Label 1030 Replicate/Code No. — Sampled by RB
 Start 1032
 End 1035

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1004	6	200	7.12	0.3	6.25	707	10.8	0.73	19.9	-100.7	clear	no
1006	8	200	7.14	0.4	6.27	791	10.3	0.69	19.9	-106.9	clear	no
1008	10	200	7.14	0.5	6.29	843	10.4	0.67	20.0	-109.0	clear	no
1010	12	200	7.15	0.6	6.30	1022	10.5	0.65	20.0	-111.6	clear	no
1012	14	200	7.15	0.7	6.37	1763	12.6	0.67	19.9	-115.7	clear	no
1014	16	200	7.15	0.8	6.38	2205	14.0	0.63	19.9	-123.0	clear	no
1016	18	200	7.15	0.9	6.38	2581	16.5	0.63	19.8	-127.3	clear	no
1018	20	200	7.15	1.0	6.39	3314	19.1	0.62	19.8	-130.1	clear	no
1020	22	200	7.16	1.1	6.39	4044	24.1	0.62	19.8	-131.4	clear	no
1022	24	200	7.16	1.2	6.41	5108	31.6	0.61	19.7	-133.4	clear	no
1024	26	200	7.16	1.3	6.41	5574	37.0	0.61	19.8	-134.3	clear	no
1026	28	200	7.16	1.4	6.41	6208	43.9	0.61	19.8	-135.8	clear	no
1028	30	200	7.16	1.5	6.41	7226	61.2	0.61	19.7	-135.0	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/HO	VOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>"A" Yard</u>	Well Locked at Arrival: Yes / <u>No</u>
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <u>No</u>
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. WA000804.2016

Well ID A-14R

Date 10-13-2016

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather 50°F, rain 10-13-2016

Measuring Pt. Description toc Screen Setting (ft-bmp) —

Casing Diameter (in.) 2"

Well Material PVC SS

Static Water Level (ft-bmp) 7.92' Total Depth (ft-bmp) 14.87'

Water Column/ Gallons in Well 6.95 / 1.1 gallons

MP Elevation — Pump Intake (ft-bmp) 9'

Purge Method: LFP

Sample Method grab

Pump On/Off 0905/0923 Volumes Purged 0.7 gallons

Centrifugal Submersible Other peristaltic

Sample Time: Label 0920 Replicate/ Code No. —
Start 0919
End 0923

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0911	6	200	7.82	0.3	6.75	3401	3.2	0.70	19.6	-137.9	clear	no
0913	8	200	7.83	0.4	6.74	3415	3.1	0.70	19.6	-139.5	clear	no
0915	10	200	7.84	0.5	6.73	3439	3.8	0.69	19.6	-140.6	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VDA	2	HCl
BTEX	VDA	2	HCl
DRO/HO	VDA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved Lead	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>'A' YARD</u>	Well Locked at Arrival: Yes / <input checked="" type="radio"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="radio"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID A-21

Date 10-13-16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather heavy rain, 45°F

Measuring Pt. Description top

Screen Setting (ft-bmp) —

Casing Diameter (in.) 4"

Well Material PVC SS

Static Water Level (ft-bmp) 8.11'

Total Depth (ft-bmp) 14.54'

Water Column/ Gallons in Well 6.43' / 42 gallons

MP Elevation —

Pump Intake (ft-bmp) 9' ~~gallons~~

Purge Method: LFP

Sample Method grab

Pump On/Off 0826/0843

Volumes Purged 0.7 gallons

Centrifugal
Submersible
Other peristaltic

Sample Time: Label 0840
Start 0840
End 0843

Replicate/ Code No. —

Sampled by RIB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0830	4	200	7.92	0.2	6.66	34549	2.2	1.35	17.1	-72.3	clear	no
0832	6	200	7.95	0.3	6.79	34571	1.5	1.02	17.1	-86.2	clear	no
0834	8	200	7.96	0.4	6.81	34510	1.5	0.90	17.2	-92.4	clear	no
0836	10	200	7.96	0.5	6.82	34429	1.4	0.85	17.2	-94.8	clear	no
0838	12	200	7.97	0.6	6.82	34320	1.5	0.82	17.3	-96.0	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved Lead	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>in front of office building</u>	Well Locked at Arrival: Yes / <input checked="" type="checkbox"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="checkbox"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID A-23R Page 1 of 1
 Date 10/11/16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather Clear
 Measuring Pt. Screen Casing Well Material PVC
 Description Setting (ft-bmp) Diameter (in.) SS
 Static Water Level (ft-bmp) 9.28 Total Depth (ft-bmp) 14.82 Water Column/
 Gallons in Well
 MP Elevation Pump Intake (ft-bmp) Purge Method: Sample Method Grab
 Pump On/Off 1240 Volumes Purged Centrifugal
 Submersible Other LFP
 Sample Time: Label 1300 Replicate/ Code No. Sampled by mm/IRB
 Start 1300
 End 1302

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1244	4	200	9.30		6.49	1030	3.3	0.80	16.1	-60.9	Cl	-
1247	7				6.55	1.037	2.8	0.45	16.1	-71.2	Cl	-
1250	10		9.26		6.56	1.041	2.6	0.36	16.0	-76.2	Cl	-
1253	13		9.29		6.57	1.046	2.3	0.31	16.0	-72.9	Cl	-
1256	16		9.30		6.58	1.049	2.3	0.29	16.0	-80.2	Cl	-
1259	19		9.28		6.58	1.054	2.8	0.26	16.0	-81.4	Cl	-

Constituents Sampled	Container	Number	Preservative
GRO	40mL UOA	2	HCl
BTEX	40mL UOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: Yes / No
Condition of Well: <u> </u>	Well Locked at Departure: Yes / No
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

 Page 1 of 1

Project No. WA000804.2016 Well ID A-27 Date 10-14-2016
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather 50°F, stormy
 Measuring Pt. toc Screen — Casing 4" Well Material X PVC
 Description — Setting (ft-bmp) — Diameter (in.) — SS
 Static Water Level (ft-bmp) 10.99' Total Depth (ft-bmp) 18.10' Water Column/
 Gallons in Well 7.11 / 4.6 gallons
 MP Elevation — Pump Intake (ft-bmp) 12' Purge Method: LFP Sample Method grab
 Pump On/Off 1013 / 1036 Volumes Purged 0.7 gallons Centrifugal —
 Submersible — Other peristaltic
 Sample Time: Label 1030 Replicate/ Code No. — Sampled by RB
 Start 1028
 End 1036

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1019	6	200	10.70	0.4	6.28	393.7	4.5	0.36	16.9	-84.6	clear	HCL0
1021	8	200	10.72	0.4	6.26	395.9	5.0	0.32	16.7	-91.3	clear	HCL0
1023	10	200	10.73	0.5	6.26	396.6	5.1	0.50	16.7	-93.5	clear	HCL0
1025	12	200	10.73	0.6	6.26	398.4	5.2	0.29	16.7	-94.6	clear	HCL0

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
Methane	VOA	2	HCl
Nitrate, Sulfate	POLY	1	none
Sulfide	AMBER	1	NaOH+zinc acetate
Ferrous Iron (field filtered)	AMBER	1	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>13th Ave</u>	Well Locked at Arrival: Yes / <input checked="" type="radio"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="radio"/> No
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID A-28R Date 10-14-16

Project Name/Location Kinder Morgan Harbor Island Terminal Weather 50°F stormy

Measuring Pt. LOC Screen — Casing 2" Well Material X PVC — SS

Description — Setting (ft-bmp) — Diameter (in.) —

Static Water Level (ft-bmp) 8.66' Total Depth (ft-bmp) 14.07' Water Column/ Gallons in Well 5.41' / 0.87 gallons

MP Elevation — Pump Intake (ft-bmp) 10' Purge Method: LFP Sample Method grab

Pump On/Off 0915/0940 Volumes Purged 1.1 gallons Centrifugal — Submersible — Other peristaltic

Sample Time: Label 0935 Replicate/ Code No. — Sampled by RB

Start 0934 End 0940

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0921	6	200	8.20	0.3	6.36	730	3.2	0.54	17.6	-70.5	clear	no H ₂ O
0923	8	200	8.19	0.4	6.41	727	4.2	0.46	17.6	-75.5	clear	no H ₂ O
0925	10	200	8.19	0.5	6.44	726	5.5	0.41	17.6	-80.6	clear	no H ₂ O
0927	12	200	8.19	0.6	6.45	726	5.3	0.39	17.6	-83.0	clear	no H ₂ O
0929	14	200	8.19	0.7	6.45	726	5.1	0.38	17.5	-84.2	clear	no H ₂ O

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
Methane	VOA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved Lead	POLY	1	none
Nitrate / Sulfate	POLY	1	none
Sulfite	AMBER	1	NaOH + Zinc acetate
Ferrous Iron (field filtered)	AMBER	1	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: 13th Ave Well Locked at Arrival: Yes / No

Condition of Well: good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well:

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-07R

Date 10-12-2016

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather Sunny, 60°F

Measuring Pt. toc Screen — Setting (ft-bmp) —

Casing Diameter (in.) 2"

Well Material PVC SS

Static Water Level (ft-bmp) — Total Depth (ft-bmp) —

Water Column/ Gallons in Well 1 gallons

MP Elevation — Pump Intake (ft-bmp) 9'

Purge Method: LFP

Sample Method grab

Pump On/Off 1223/1251 Volumes Purged 1.2 gallons

Centrifugal
Submersible
Other peristaltic

Sample Time: Label 1245 Replicate/ Code No. —
Start 1247
End 1251

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1229	6	200	6.89	0.3	6.12	148.8	39.4	0.65	19.4	-29.0	cloudy	no
1231	8	200	6.89	0.4	6.21	166.8	36.0	0.62	19.4	-45.1	cloudy	no
1233	10	200	6.90	0.5	6.28	175.4	34.1	0.61	19.4	-54.5	cloudy	no
1235	12	200	6.90	0.6	6.35	184.9	32.3	0.60	19.4	-64.3	cloudy	no
1237	14	200	6.89	0.7	6.39	187.2	16.1	0.59	19.4	-69.5	cloudy	no
1239	16	200	6.90	0.8	6.41	189.5	14.3	0.59	19.4	-77.0	cloudy	no
1241	18	200	6.89	0.9	6.43	191.2	13.5	0.58	19.4	-78.4	cloudy	no
1243	20	200	6.90	1	6.44	193.1	13.1	0.58	19.4	-78.8	cloudy	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/HO	VOA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved Lead	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>11th Avenue</u>	Well Locked at Arrival: Yes / <input checked="" type="radio"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="radio"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Page of

Project No. WA000804.2016

Well ID MW-1

Date 10/12/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather Clear

Measuring Pt. Description _____ Screen Setting (ft-bmp) _____ Casing Diameter (in.) 4

Well Material PVC SS

Static Water Level (ft-bmp) 6.35 Total Depth (ft-bmp) _____ Water Column/ Gallons in Well _____

MP Elevation _____ Pump Intake (ft-bmp) _____ Purge Method: LFP
Centrifugal _____
Submersible _____
Other Peri

Sample Method Grab

Pump On/Off 1244 / 1315 Volumes Purged _____
Sample Time: Label 1305 Replicate/ Code No. _____
Start 1305
End 1315

Sampled by Mu

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1247	3	300	6.42		6.66	0.274	39.9	0.98	16.3	-74.5	Cloudy	-
1250	6	300	6.42		6.59	0.277	27.4	0.75	16.2	-75.15	Cloudy	-
1253	9		6.42		6.56	0.276	31.8	0.58	16.2	-74.8	Cloudy	-
1256	12		6.42		6.55	0.278	70.4	0.49	16.2	-73.7	Cloudy	-
1259	15		6.42		6.55	0.278	15.8	0.41	16.2	-74.6	Cloudy	-
1302	18		6.42		6.55	0.278	13.7	0.37	16.2	-72.6	Cloudy	-
1305	21		6.42		6.56	0.278	12.7	0.34	16.2	-74.6	Cloudy	-

Constituents Sampled	Container	Number	Preservative
G20	40 mL VOA	2	HCl
D20	40 mL VOA	2	HCl
BTEX	40 mL VOA	2	HCl
Total Lead	250 mL HOPE	1	-
Dissolved Lead	250 mL HOPE	1	HNO ₃

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____	Well Locked at Arrival: <input type="checkbox"/> Yes / <input type="checkbox"/> No
Condition of Well: _____	Well Locked at Departure: <input type="checkbox"/> Yes / <input type="checkbox"/> No
Well Completion: <input type="checkbox"/> Flush Mount / <input type="checkbox"/> Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID MW-2 Date 10-12-16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather sunny 50°F
 Measuring Pt. toc Screen - Casing Diameter (in.) 4" Well Material X PVC - SS
 Description toc Setting (ft-bmp) - Water Column/ Gallons in Well 1/ gallons
 Static Water Level (ft-bmp) - Total Depth (ft-bmp) - Purge Method: LFP Sample Method grab
 MP Elevation - Pump Intake (ft-bmp) 12' Centrifugal - Submersible - Other peristaltic
 Pump On/Off 0952/1012 Volumes Purged 0.6 gallons Sample Time: Label 1010 Replicate/ Code No. -
 Start 1007 End 1012 Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0958	6	200	8.13	0.3	6.07	66.8	11.9	1.39	17.0	14.9	clear	no
1000	8	200	8.13	0.4	6.05	66.0	5.5	1.40	17.0	20.7	clear	no
1002	10	200	8.13	0.5	6.03	65.1	5.7	1.41	17.0	25.3	clear	no
1004	12	200	8.13	0.6	6.02	64.8	5.4	1.42	16.9	29.9	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
Lead DRO/HO	VOA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved Lead	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>12th Avenue</u>	Well Locked at Arrival: Yes / <u>No</u>
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <u>No</u>
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

 Page of

 Project No. WA000804.2016

 Well ID MW-3

 Date 10/11/16 10/12/16

 Project Name/Location Kinder Morgan Harbor Island Terminal

 Weather

 Measuring Pt. Screen Casing
 Description Setting (ft-bmp) Diameter (in.)

 Well Material PVC
 SS

 Static Water Level (ft-bmp) 4.10 Total Depth (ft-bmp) 13.33 Water Column/
 Gallons in Well

 MP Elevation Pump Intake (ft-bmp) Purge Method:

 Sample Method Grab

 Pump On/Off 1109 Volumes Purged Centrifugal
 Other Submersible

 Sample Time: Label 1125 Replicate/
 Start 1124 Code No.
 End 1130

 Sampled by mu

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1109	2	275	4.18		7.32	0.222	1.8	4.36	16.5	31.5	Clear	-
1112	5	200	4.17		7.25	0.219	2.1	4.16	16.4	36.9	Clear	-
1115	8		4.17		7.22	0.218	1.9	4.10	16.5	40.0	Clear	-
1118	11		4.17		7.20	0.218	2.4	4.05	16.5	40.0	Clear	-
1124	17		4.17		7.17	0.220	2.3	3.86	16.5	44.5	Clear	-

Constituents Sampled	Container	Number	Preservative
GRO	40 mL UOA	2	HCl
DRO	40 mL UOA	2	HCl
BTEX	40 mL UOA	2	HCl
Total Lead	250 mL HDPE	1	HNO ₃ ⁻
Dissolved Lead	250 mL HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: <u> </u> Yes / <u> </u> No
Condition of Well: <u> </u>	Well Locked at Departure: <u> </u> Yes / <u> </u> No
Well Completion: <u> </u> Flush Mount / <u> </u> Stick Up	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID MW-4 Date 10-12-16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather Sunny, 53°F
 Measuring Pt. Description toc Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC — SS
 Static Water Level (ft-bmp) — Total Depth (ft-bmp) 9' Water Column/ Gallons in Well — / gallons
 MP Elevation — Pump Intake (ft-bmp) 9' Purge Method: LFP Sample Method grab
 Pump On/Off 1121/1141 Volumes Purged 0.5 gallons Centrifugal Submersible — Other peristaltic
 Sample Time: Label 1140 Replicate/ Code No. — Sampled by RB
 Start 1139
 End 1141

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1127	6	200	7.41	0.3	6.16	194.2	4.6	0.66	21.5	-75.3	clear	no
1129	8	200	7.40	0.4	6.16	193.9	4.8	0.64	21.6	-77.0	clear	no
1131	10	200	7.40	0.5	6.17	194.1	4.7	0.62	21.7	-78.6	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/HO	VOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: 11th Ave Well Locked at Arrival: Yes / No
 Condition of Well: good Well Locked at Departure: Yes / No
 Well Completion: Flush Mount / Stick Up Key Number To Well:

GROUNDWATER SAMPLING LOG

Page ___ of ___

Project No. WA000804.2016

Well ID MW-5

Date 10/10/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather Clear

Measuring Pt. _____ Screen _____ Casing _____
 Description _____ Setting (ft-bmp) _____ Diameter (in.) _____

Well Material PVC
 SS

Static Water Level (ft-bmp) 3.56 Total Depth (ft-bmp) 13.24 Water Column/ Gallons in Well _____

MP Elevation _____ Pump Intake (ft-bmp) _____
 Pump On/Off 1341/1913 Volumes Purged _____

Purge Method: LFO Sample Method Grab
 Centrifugal
 Submersible
 Other Penstaltic

Sample Time: Label 1400 Replicate/ Code No. _____
 Start 1405
 End 1415

Sampled by MU

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1343	2	350	3.64		6.75	0.292	12.4	1.57	16.4	-8.5	Cl	-
1346	5	250	3.65		6.57	0.279	18.0	0.66	16.6	10.0	Cl	-
1349	8		3.65		6.52	0.280	12.4	0.56	16.6	12.9	Cl	-
1352	11		3.65		6.50	0.282	13.6	0.50	16.6	8.3	Cl	-
1355	14		3.65		6.49	0.282	12.4	0.47	16.6	4.4	Cl	-
1359	18		3.63		6.49	0.286	6.4	0.41	16.5	-3.8	Cl	-
1402	21		3.62		6.49	0.287	7.3	0.41	16.5	-5.0	Cl	-
1405	24		3.63		6.50	0.289	4.8	0.40	16.5	-9.3	Cl	-

Constituents Sampled	Container	Number	Preservative
C7RO	20 mL VOA	2	HCl
BTEX	10 mL VOA	2	HCl
DRO/HO	10 mL VOA	2	HCl
Lead (total)	750 mL HDPE	1	-
Lead (dissolved)	250 mL HDPE	1	HNO ₃

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____	Well Locked at Arrival: Yes / No
Condition of Well: _____	Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up	Key Number To Well: _____

Dup

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-7

Date 10/13/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather Rainy

Measuring Pt. Description Screen Setting (ft-bmp) Casing Diameter (in.) 4

Well Material X PVC SS

Static Water Level (ft-bmp) 3.35 Total Depth (ft-bmp) Water Column/ Gallons in Well

MP Elevation Pump Intake (ft-bmp) Purge Method: LFP Centrifugal Submersible Other Perf

Sample Method Grab

Pump On/Off 1203 Volumes Purged

Sample Time: Label 1230 Replicate/ Code No. DUP-1 Start 1235 End 1235

Sampled by Mu

Table with columns: Time, Minutes Elapsed, Rate (gpm), Depth to Water (ft), Gallons Purged, pH, Cond. (mMhos), Turbidity (NTU), Dissolved Oxygen (mg/L), Temp. (°C), Redox (mV), Appearance (Color, Odor). Rows 1206-1223.

Table with columns: Constituents Sampled, Container, Number, Preservative. Rows: G20, BTEX, Total Lead, Dissolved Lead, Sulfate.

Well Casing Volumes table with columns: Gallons/Foot and casing diameters (1", 1.25", 1.5", 2", 2.5", 3", 3.5", 4", 6").

Well Information

Well Location, Condition of Well, Well Completion, Well Locked at Arrival/Departure, Key Number To Well.

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID MW-8 Page of
 Date 10/13/16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather Rainy
 Measuring Pt. Screen Casing Well Material PVC
 Description Setting (ft-bmp) Diameter (in.) 4 SS
 Static Water Level (ft-bmp) 4.10 Total Depth (ft-bmp) Water Column/ Gallons in Well
 MP Elevation Pump Intake (ft-bmp) Purge Method: LFO Sample Method Grab
 Pump On/Off 0925/1958 Volumes Purged Centrifugal
 Other Pen Submersible
 Sample Time: Label 0950 Replicate/ Code No. Sampled by MW
 Start 948
 End 958

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0928	3		4.35		6.18	0.181	15.5	0.73	18.3	-40.2	Cl	-
0931	6	200	4.50		6.25	0.185	14.8	0.57	18.4	-52.8	Cl	-
0934	9		4.57		6.29	0.187	15.4	0.41	18.4	-55.9	Cl	-
0937	12		4.66		6.32	0.188	15.1	0.36	18.4	-60.1	Cl	-
0942	17		4.81		6.34	0.186	15.6	0.28	18.5	-62.3	Cl	-
0945	20		4.87		6.35	0.185	15.8	0.27	18.5	-63.1	Cl	-
0948	23				6.35	0.185	15.6	0.25	18.5	-64.4	Cl	-

Constituents Sampled	Container	Number	Preservative
GEO	40ml VOA	2	HCl
DRO	40ml VOA	2	HCl
BTEX	40ml VOA	2	HCl
Total Lead	250ml HDPE	1	HNO ₃
Dissolved Lead	250ml HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: Yes / No
Condition of Well: <u> </u>	Well Locked at Departure: Yes / No
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u> </u>

* Casing broken about 2 ft from top

GROUNDWATER SAMPLING LOG

Page of

Project No. WA000804.2016 Well ID MW-9
MW-8 mu

Date 10/13/16

Project Name/Location Kinder Morgan Harbor Island Terminal Weather Partly

Measuring Pt. Screen Casing 4 Well Material X PVC
 Description Setting (ft-bmp) Diameter (in.) SS

Static Water Level (ft-bmp) 3.26 Total Depth (ft-bmp) Water Column/
 Gallons in Well

MP Elevation Pump Intake (ft-bmp) Purge Method: LFP Sample Method Grab
 Centrifugal
 Submersible
 Other Pen

Pump On/Off 1024/1048 Volumes Purged

Sample Time: Label 1045 Replicate/
 Start 1043 Code No. Sampled by MW
 End 1048

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1024	3	250	3.41		6.42	0.278	4.9	0.76	16.4	-26.0	Cl	4
1027	4		3.42		6.50	0.283	5.0	0.52	16.5	-35.0	Cl	4
1030	9		3.42		6.53	0.283	5.1	0.45	16.6	-39.2	Cl	4
1033	12		3.42		6.55	0.284	4.9	0.35	16.6	-41.9	Cl	4
1037	16		3.43		6.56	0.284	5.3	0.29	16.7	-44.6	Cl	4
1040	19		3.43		6.56	0.285	5.1	0.26	16.7	-44.5	Cl	4
1043					6.56	0.286	5.1	0.24	16.7	-48.7	Cl	4

Constituents Sampled	Container	Number	Preservative
GRO	40ml VOA	2	HCl
BTEX	40 ml VOA	2	HCl
Dissolved Lead	250ml HDPE	1	-
Total Lead	250 ml HDPE	1	HNO ₃
Sulfate	125ml HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: Yes / No
Condition of Well: <u> </u>	Well Locked at Departure: Yes / No
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-12R

Date 10-17-16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather sunny, 60°F

Measuring Pt. Description foc Screen Setting (ft-bmp) — Casing Diameter (in.) 2"

Well Material X PVC — SS

Static Water Level (ft-bmp) — Total Depth (ft-bmp) — Water Column/ Gallons in Well 1 gallons

MP Elevation — Pump Intake (ft-bmp) 9' Purge Method: LFP

Sample Method grab

Pump On/Off 1350/1411 Volumes Purged 0.8 gallons Centrifugal — Submersible — Other peristaltic

Sample Time: Label 1406 Replicate/ Code No. —
 Start 1406
 End 1411

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1356	6	200	7.97	0.3	7.10	444.4	88.3	0.63	19.0	-136.4	cloudy	no
1358	8	200	7.96	0.4	7.13	444.6	107.4	0.62	19.0	-138.5	cloudy	no
1400	10	200	7.96	0.5	7.13	444.8	113.9	0.62	19.0	-139.8	cloudy	no
1402	12	200	7.96	0.6	7.13	445.1	116.8	0.61	18.9	-140.8	cloudy	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/140	VOA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved Lead	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>11th Ave</u>	Well Locked at Arrival: Yes / <u>No</u>
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <u>No</u>
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-14

Date 10/10/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather sunny, 60°

Measuring Pt. Description toc Screen Setting (ft-bmp) —

Casing Diameter (in.) 4"

Well Material PVC SS

Static Water Level (ft-bmp) 4.01' Total Depth (ft-bmp) 13.60'

Water Column/ Gallons in Well 9.59' / 6.2 gal

MP Elevation — Pump Intake (ft-bmp) 8'

Purge Method: LFP

Sample Method LFP grs/b

Pump On/Off 1335/1355 Volumes Purged 0.1

Centrifugal Submersible Other peristaltic

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (ml/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1336	1	200	4.28	0.05	6.52	354.0	4.5	1.52	17.6	-92.2	clear	no
1339	4		4.31	0.2	6.58	354.7	4.6	0.94	17.7	-109.7		
1343	8		4.34	0.4	6.63	354.8	4.6	0.79	17.8	-127.6		
1345	10		4.35	0.5	6.63	354.7	5.1	0.75	17.8	-129.9		
1347	12	∇	4.36	0.6	6.63	354.5	4.8	0.73	17.8	-132.3	∇	∇

Constituents Sampled	Container	Number	Preservative
<u>GRO</u>	<u>VOA</u>	<u>2</u>	<u>HCl</u>
<u>BTEX</u>	<u>VOA</u>	<u>2</u>	<u>HCl</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>D pond</u>	Well Locked at Arrival: Yes / <input checked="" type="checkbox"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="checkbox"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-18

Date 10-12-16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather sunny, 60°F

Measuring Pt. toc Screen - Setting (ft-bmp) -

Casing Diameter (in.) 2"

Well Material PVC SS

Static Water Level (ft-bmp) - Total Depth (ft-bmp) -

Water Column/ Gallons in Well 1 gallons

MP Elevation - Pump Intake (ft-bmp) 10'

Purge Method: LFP

Sample Method grab

Pump On/Off 1235/1448 Volumes Purged 0.5 gallons

Centrifugal
Submersible
Other peristaltic

Sample Time: Label 1450 Replicate/ Code No. -
Start 1446
End 1448

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1241	6	200	8.04	0.3	6.59	164.1	19.5	0.69	18.2	-92.7	clear	no
1243	8	200	8.03	0.4	6.58	165.1	19.6	0.68	18.2	-92.4	clear	no
1245	10	200	8.04	0.5	6.58	164.8	19.1	0.67	18.2	-92.5	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>12th Ave</u>	Well Locked at Arrival: Yes / <input checked="" type="radio"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="radio"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-19

Date 10-10-2016

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather sunny, 60°F

Measuring Pt. Description 10c Screen Setting (ft-bmp) —

Casing Diameter (in.) 2"

Well Material PVC SS

Static Water Level (ft-bmp) 3.59' Total Depth (ft-bmp) 12.79'

Water Column/ Gallons in Well 9.2' / 1.47 gal

MP Elevation — Pump Intake (ft-bmp) 7'

Purge Method: LFP

Sample Method grab

Pump On/Off 1415/1438 Volumes Purged 0.6

Centrifugal Submersible Other peristaltic

Sample Time: Label 1435 Replicate/ Code No. —
Start 1434
End 1438

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1418	3	200	3.70	0.15	6.54	157.0	9.0	1.53	19.1	-39.4	clear	slight
1421	6	↓	3.69	0.3	6.49	155.4	7.9	1.17	19.0	-92.4	↓	↓
1424	9	↓	3.69	0.45	6.47	154.3	8.1	0.98	19.0	-94.3	↓	↓
1427	12	↓	3.70	0.6	6.48	153.6	7.9	0.80	18.9	-99.2	↓	↓
1429	14	↓	3.70	0.7	6.48	153.2	7.6	0.78	19.0	-100.2	↓	↓
1431	16	↓	3.69	0.8	6.48	154.3	7.6	0.76	19.0	-101.3	↓	↓

Constituents Sampled	Container	Number	Preservative
<u>GRD</u>	<u>VOA</u>	<u>2</u>	<u>HCl</u>
<u>BTEX</u>	<u>VOA</u>	<u>2</u>	<u>HCl</u>
<u>Sulfate</u>	<u>POLY</u>	<u>1</u>	<u>none</u>

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>"D" yard</u>	Well Locked at Arrival: Yes / <input checked="" type="checkbox"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="checkbox"/> No
Well Completion: <input checked="" type="checkbox"/> Flush Mount <input type="checkbox"/> Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-20

Date 10/12/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather

Measuring Pt. Screen Casing Well Material PVC
 Description Setting (ft-bmp) Diameter (in.) SS

Static Water Level (ft-bmp) 4.02 Total Depth (ft-bmp) Water Column/ Gallons in Well

MP Elevation Pump Intake (ft-bmp) Purge Method: LFD
 Pump On/Off 1402/1430 Volumes Purged Centrifugal
 Other Per Submersible

Sample Method Grab

Sample Time: Label 1420 Replicate/ Code No.
 Start 1426
 End 1430

Sampled by Mu

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1405	3	200	4.13		6.67	0.160	9.5	0.93	19.1	-90.9	Cloudy	-
1408	6		4.13		6.73	0.159	5.0	0.60	19.2	-104.2	Cloudy	-
1411	9		4.16		6.74	0.160	4.3	0.40	19.1	-114.7	Cloudy	-
1413	12	200	4.17		6.76	0.160	4.1	0.34	19.1	-120.1	Cloudy	-
1416	15		4.17		6.77	0.159	3.7	0.30	19.1	-123.0	Cloudy	-
1420	19		4.19		6.80	0.159	3.9	0.26	19.1	-130.7	Cloudy	-
1423	22		4.18		6.82	0.159	3.4	0.24	19.1	-131.8	" "	" "
1426	25				6.82	0.160	3.4	0.23	19.1	-132.8	" "	" "

Constituents Sampled	Container	Number	Preservative
GRO	40mL UOA	2	HCl
DRO	40mL UOA	2	HCl
BTEX	40mL UOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: <u> </u> Yes / <u> </u> No
Condition of Well: <u> </u>	Well Locked at Departure: <u> </u> Yes / <u> </u> No
Well Completion: <u> </u> Flush Mount / <u> </u> Stick Up	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID MW-21 Page of
 Date 10/13/16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather Rain
 Measuring Pt. Description Screen Setting (ft-bmp) Casing Diameter (in.) Well Material PVC SS
 Static Water Level (ft-bmp) 3.26 Total Depth (ft-bmp) Water Column/ Gallons in Well
 MP Elevation Pump Intake (ft-bmp) Purge Method: LFP Sample Method Grab
 Pump On/Off B40 Volumes Purged Centrifugal Submersible Other Peri
 Sample Time: Label 0905 Replicate/ Code No. Sampled by MU
 Start End

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
843	3	300	3.59		5.42	0.142	12.4	0.76	17.3	26.1	Clear	4
847	7		3.91		5.58	0.128	12.6	0.67	17.2	10.0	Clear	4
850	10	300	4.21		5.64	0.108	16.1	0.45	17.9	10.7	Cl	4
854	14		4.71		5.71	0.116	12.4	0.39	17.8	-5.9	Cl	4
858	18		4.52		5.74	0.123	8.4	0.37	17.8	-16.6	Cl	4
901	21		4.65		5.78	0.125	8.8	0.34	17.7	-25.3	Cl	4

Constituents Sampled	Container	Number	Preservative
GRO	40 mL WOA	2	HCl
BTEX	40 mL WOA	2	HCl
DRO	40 mL WOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: <u> </u> Yes / <u> </u> No
Condition of Well: <u> </u>	Well Locked at Departure: <u> </u> Yes / <u> </u> No
Well Completion: <u> </u> Flush Mount / <u> </u> Stick Up	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID MW-22 Date 10-12-16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather sunny, 48°F
 Measuring Pt. toc Screen — Casing Diameter (in.) 2" Well Material X PVC — SS
 Description toc Setting (ft-bmp) — Water Column/ Gallons in Well 1 gallons
 Static Water Level (ft-bmp) — Total Depth (ft-bmp) — Purge Method: LFP Sample Method grab
 MP Elevation — Pump Intake (ft-bmp) 12' Centrifugal — Submersible — Other peristaltic
 Pump On/Off 0903/0925 Volumes Purged 0.7 gallons Sample Time: Label 0920 Replicate/ Code No. — Start 0921 End 0925 Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (ml/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
0909	6	200	9.03'	0.3	6.20	177.3	22.4	1.10	18.2	-33.2	clear	no
0911	8	200	9.03'	0.4	6.21	170.0	13.3	1.01	18.3	-33.9	clear	no
0913	10	200	9.04'	0.5	6.21	171.3	12.0	0.92	18.3	-34.2	clear	no
0915	12	200	9.04'	0.6	6.22	168.8	11.0	0.88	18.3	-35.3	clear	no
0917	14	200	9.04'	0.7	6.22	169.0	11.4	0.84	18.3	-37.0	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/HO	VOA	2	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: 17th Avenue Well Locked at Arrival: Yes / No
 Condition of Well: good Well Locked at Departure: Yes / No
 Well Completion: Flush Mount / Stick Up Key Number To Well:

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID MW-23 Page of
 Date 10/19/16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather Rain
 Measuring Pt. Screen Casing 4 Well Material X PVC
 Description Setting (ft-bmp) Diameter (in.) SS
 Static Water Level (ft-bmp) 7.101 Total Depth (ft-bmp) Water Column/ Gallons in Well
 MP Elevation Pump Intake (ft-bmp) Purge Method: LEP Sample Method Grab
 Pump On/Off 1251 Volumes Purged Centrifugal Submersible Other Pen
 Sample Time: Label 1245 Replicate/ Code No. Sampled by MU
 Start End

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1229	11		7.62		6.48	2.366	1.5	1.04	16.9	-114.6	Clear	4
1232	7	2.00	7.62		6.48	2.376	1.4	0.95	17.0	-118.2	Clear	4
1235	10		7.62		6.48	2.391	1.4	0.89	16.9	-123.7	Clear	4
1240	15		7.62		6.48	2.422	1.5	0.82	16.8	-123.7	Clear	4
1244	19		7.62		6.47	2.469	1.5	0.74	17.1	-137.6	Clear	4
1247	22		7.62		6.46	2.492	1.5	0.70	17.1	-137.6	Clear	4
1250	25		7.62		6.44	2.525	1.4	0.70	17.1	-138.4	Clear	4

Constituents Sampled	Container	Number	Preservative
CO2	40 mL WBA	2	HCl
BTEX	40 mL WBA	2	HCl
Methane	40 mL WBA	2	HCl
Nitrate / Sulfate	125 mL HDPE	1	-
Sulfide	125 mL HDPE	1	ZnAc
Total Lead	25 mL HDPE	1	HClO4
Diss. Lead	25 mL HDPE	1	-
PERFORM F001	25 mL HDPE	1	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.25" = 0.06	2" = 0.16	2.5" = 0.26	3" = 0.37	3.5" = 0.50	4" = 0.65	6" = 1.47
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Well Information

Well Location: <u> </u>	Well Locked at Arrival: <u>Yes / No</u>
Condition of Well: <u> </u>	Well Locked at Departure: <u>Yes / No</u>
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID MW-24 Date 10-14-16

Project Name/Location Kinder Morgan Harbor Island Terminal Weather _____

Measuring Pt. Description loc Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material PVC SS

Static Water Level (ft-bmp) 7.91' Total Depth (ft-bmp) 14.84' Water Column/ Gallons in Well / gallons

MP Elevation — Pump Intake (ft-bmp) 10' Purge Method: LFP Sample Method grab

Pump On/Off 1218/ Volumes Purged 0.5 gallons Centrifugal Submersible Other peristaltic

Sample Time: Label 1230 Replicate/ Code No. DUP-2 Sampled by RB

Start _____ End _____

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1222	4	200	7.31	0.2	6.62	811	10.4	0.33	15.0	-103.8	clear	no
1224	6	200	7.28	0.3	6.59	803	10.6	0.31	15.1	-100.0	clear	no
1226	8	200	7.27	0.4	6.57	781	12.1	0.30	15.4	-96.0	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2 x 2	HCl
BTEX	VOA	2 x 2	HCl
Methane	VOA	2	HCl
Nitrate/Sulfate	POLY	1	NaOH + Zinc Acetate
Sulfide	AMBER	1	none
Ferrous Iron	AMBER	1	HCl
Lead	POLY	1 x 2	HNO3
Dissolved Lead	POLY	1 x 2	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: 13th Ave Well Locked at Arrival: Yes / No

Condition of Well: good Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID MW-25

Date 10-13-2016

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather rain, 50°F

Measuring Pt. Description loc

Screen Setting (ft-bmp) —

Casing Diameter (in.) 4"

Well Material PVC SS

Static Water Level (ft-bmp) 7.65'

Total Depth (ft-bmp) 14.82'

Water Column/ Gallons in Well 7.17' / 4.7 gallons

MP Elevation —

Pump Intake (ft-bmp) 10'

Purge Method: LFP

Sample Method grab

Pump On/Off 1123/1138

Volumes Purged 0.6 gallons

Centrifugal
Submersible
Other peristaltic

Sample Time: Label 1135
Start 1135
End 1138

Replicate/ Code No. —

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1127	4	200	7.57	0.2	6.17	10596	28.0	0.67	19.5	-106.1	clear	no
1129	6	200	7.58	0.3	6.18	11792	30.7	0.65	19.5	-109.5	clear	no
1131	8	200	7.58	0.4	6.19	11586	33.6	0.63	19.5	-110.4	clear	no
1133	10	200	7.58	0.5	6.19	11348	35.0	0.62	19.4	-112.0	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/HO	VOA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>'A' Yard</u>	Well Locked at Arrival: Yes / <input checked="" type="radio"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="radio"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID TMW-B1

Date 10-14-2016

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather 50°F, heavy storm

Measuring Pt. Description toc Screen Setting (ft-bmp) — Casing Diameter (in.) 2"

Well Material X PVC — SS

Static Water Level (ft-bmp) 8.49' Total Depth (ft-bmp) 14.78' Water Column/ Gallons in Well / gallons

MP Elevation — Pump Intake (ft-bmp) 12' Purge Method: LFP

Sample Method grab

Pump On/Off 1110/1130 Volumes Purged gallons Centrifugal — Submersible — Other peristaltic

Sample Time: Label 1130 Replicate/ Code No. —
Start 1124
End 1130

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1114	4	200	8.29	0.2	6.50	471.5	1.8	0.38	16.9	-106.6	clear	yes
1116	6	200	8.30	0.3	6.61	487.7	2.1	0.29	17.2	-110.0	clear	yes
1118	8	200	8.30	0.4	6.66	490.7	2.2	0.25	17.0	-113.4	clear	yes
1120	10	200	8.30	0.5	6.66	490.5	2.2	0.24	17.0	-114.7	clear	yes
1122	12	200	8.30	0.6	6.66	490.3	2.3	0.23	16.9	-115.5	clear	yes

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
Methane	VOA	2	HCl
Nitrate, Sulfate	POLY	1	none
Sulfide	AMBER	1	NaOH + Zinc acetate
Ferrous Iron (field filtered)	AMBER	1	HCl

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>13th Avenue</u>	Well Locked at Arrival: Yes / <u>No</u>
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <u>No</u>
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID SH-02R

Date 10-12-16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather sunny, 52°F

Measuring Pt. Description toc Screen Setting (ft-bmp) —

Casing Diameter (in.) 2"

Well Material PVC SS

Static Water Level (ft-bmp) ' Total Depth (ft-bmp) '

Water Column/ Gallons in Well ' gallons

MP Elevation — Pump Intake (ft-bmp) 9'

Purge Method: LFP

Sample Method grab

Pump On/Off 1046/1102 Volumes Purged 0.6 gallons

Centrifugal
Submersible
Other peristaltic

Sample Time: Label 1100 Replicate/ Code No. —
Start 1059
End 1102

Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1052	6	200	6.05	0.3	6.54	267.2	2.4	0.81	21.0	-79.5	clear	no
1054	8	200	6.04	0.4	6.56	275.0	1.9	0.68	21.5	-94.4	clear	no
1056	10	200	6.04	0.5	6.56	277.8	1.9	0.63	21.7	-98.3	clear	no
1058	12	200	6.05	0.6	6.57	277.2	1.8	0.61	21.8	-99.7	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
DRO/HO	VOA	2	HCl
Lead	POLY	1	HNO3
Dissolved Lead	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u>11th Ave</u>	Well Locked at Arrival: Yes / <input checked="" type="radio"/> No
Condition of Well: <u>good</u>	Well Locked at Departure: Yes / <input checked="" type="radio"/> No
Well Completion: <u>Flush Mount</u> / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID SH-OSR Date 10-12-2016
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather sunny, 60°F
 Measuring Pt. toc Screen — Casing Diameter (in.) 2" Well Material PVC SS
 Description — Setting (ft-bmp) — Water Column/ Gallons in Well — / — gallons
 Static Water Level (ft-bmp) — Total Depth (ft-bmp) — Purge Method: LFP Sample Method grab
 MP Elevation — Pump Intake (ft-bmp) 9' Centrifugal Submersible Other peristaltic
 Pump On/Off 1304/1322 Volumes Purged 0.7 gallons Sample Time: Label 1320 Replicate/ Code No. — Start 1318 End 1322 Sampled by RB

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°F)	Redox (mV)	Appearance	
											Color	Odor
1310	6	200	7.49	0.3	6.03	198.4	9.7	0.63	18.1	-64.5	clear	no
1312	8	200	7.50	0.4	6.14	191.5	8.9	0.62	18.1	-81.0	clear	no
1314	12	200	7.50	0.5	6.16	189.5	8.7	0.61	18.1	-90.0	clear	no
1316	14	200	7.50	0.6	6.17	189.7	9.0	0.61	18.1	-93.0	clear	no
1318	16	200	7.42	0.7	6.18	190.2	8.4	0.61	18.0	-96.1	clear	no

Constituents Sampled	Container	Number	Preservative
GRO	VOA	2	HCl
BTEX	VOA	2	HCl
PRO/HO	VOA	2	HCl
Lead	POLY	1	HNO ₃
Dissolved Lead	POLY	1	none

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: 11th Ave Well Locked at Arrival: Yes / No
 Condition of Well: good Well Locked at Departure: Yes / No
 Well Completion: Flush Mount / Stick Up Key Number To Well:

GROUNDWATER SAMPLING LOG

TMW-1
~~TMW-2~~ mml

Page ___ of ___

Project No. WA000804.2016

Well ID TMW-1

Date 10/11/16 10/12/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather Clear

Measuring Pt. Description _____ Screen Setting (ft-bmp) _____ Casing Diameter (in.) _____ Well Material PVC SS

Static Water Level (ft-bmp) 4.11 Total Depth (ft-bmp) _____ Water Column/ Gallons in Well _____

MP Elevation _____ Pump Intake (ft-bmp) _____ Purge Method: LFP Centrifugal _____ Submersible _____ Other Pen Sample Method Grab

Pump On/Off 1209 Volumes Purged _____ Sample Time: Label 1030 Replicate/ Code No. _____ Start 1032 End 1038 Sampled by mml

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1012	3		4.16		7.61	0.346	11.6	7.23	16.3	-10.4	#	
1015	6	250	4.16		7.37	0.431	8.7	6.29	16.5	0.5	Clear	-
1018	9		4.16		7.20	0.520	5.8	5.88	16.5	2.7	Clear	-
1021	12		4.16		7.07	0.593	4.1	5.96	16.5	5.1	Clear	-
1024	15		4.16		7.00	0.639	3.1	5.26	16.6	7.5	Clear	-
1027	18		4.16		6.95	0.674	2.5	5.08	16.6	9.7	Clear	-
1032	23		4.16		6.90	0.715	2.0	4.86	16.7	11.0	Clear	-

Constituents Sampled	Container	Number	Preservative
GRO	40mL VOA	2	HCl
BTEX	40mL VOA	2	HCl
Sulfate	125 mL HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____	Well Locked at Arrival: Yes / No
Condition of Well: _____	Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up	Key Number To Well: _____

* Noted orange solids flowing into cell at startup, stopped pumped and cleared flow cell, then restarted.

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016 Well ID TMW-2 Page 1 of 1
 Date 10/11/16 10/12/16
 Project Name/Location Kinder Morgan Harbor Island Terminal Weather _____
 Measuring Pt. _____ Screen _____ Casing _____ Well Material PVC
 Description _____ Setting (ft-bmp) _____ Diameter (in.) _____ SS
 Static Water Level (ft-bmp) 4.17 Total Depth (ft-bmp) _____ Water Column/ Gallons in Well _____
 MP Elevation _____ Pump Intake (ft-bmp) _____ Purge Method: LFP Sample Method Grab
 Pump On/Off 921 Volumes Purged _____ Centrifugal _____
 Sample Time: Label 950 Replicate/ Code No. _____ Submersible _____
 Start 0945 Other Pen
 End 0950 Sampled by MM

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
923	2	300	4.21		7.05	2.005	1.5	1.23	16.7	-103.8	Clear	Sulfur
0926	5	250	4.24		7.13	2.088	1.7	0.57	17.0	-123.0	Clear	Sulfur
0929	8		4.25		7.15	2.100	1.7	0.44	17.1	-124.9	Clear	"
0932	11		4.25		7.18	2.100	1.6	0.26	17.2	-137.4	Clear	"
0935	14		4.25		7.21	2.105	1.5	0.31	17.2	-142.5	Clear	" "
0938	17		4.25		7.23	2.105	1.5	0.28	17.2	-145.6	Clear	" "
0942	21		4.25		7.25	2.105	1.4	0.25	17.2	-150.5	Clear	
945	24		4.25		7.26	2.101	1.5	0.23	17.3	-153.1	Clear	" "

Constituents Sampled	Container	Number	Preservative
GFO	40 mL VOAs	2	HCl
BTEX	40 mL VOAs	2	HCl
Sulfate	125 mL HOPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____	Well Locked at Arrival: Yes / No
Condition of Well: _____	Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID TMW-3

Date 10/15/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather

Measuring Pt. Screen Casing
 Description Setting (ft-bmp) Diameter (in.) 2

Well Material PVC
 SS

Static Water Level (ft-bmp) 3.90 Total Depth (ft-bmp)
 Water Column/ Gallons in Well

MP Elevation Pump Intake (ft-bmp) Purge Method: LFP

Sample Method Grab

Pump On/Off 1252/1320 Volumes Purged
 Centrifugal
 Submersible
 Other Peri

Sample Time: Label 1315 Replicate/ Code No.
 Start 1315
 End 1320

Sampled by MLU

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1255	3	200	3.94		7.47	2.220	4.0	1.13	16.6	-175.2	Clear	Y
1258	6		3.94		7.41	2.255	4.1	0.60	16.8	-182.1	Clear	Y
1301	9		3.95		7.39	2.253	4.1	0.43	16.8	-186.8	Clear	Y
1304	12		3.95		7.37	2.247	4.1	0.32	16.9	-191.0	Clear	Y
1307	15		3.95		7.37	2.241	4.0	0.28	16.9	-194.6	Clear	Y
1310	18		3.95		7.36	2.235	3.9	0.26	16.9	-196.3	Clear	Y
1313	21		3.95		7.35	2.234	3.8	0.24	16.9	-197.8	Clear	Y

Constituents Sampled	Container	Number	Preservative
GRO	40mL WOA	2	HCl
BTEX	40mL WOA	2	HCl
Sulfate	125mL HOPE	1	

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: <u>Yes / No</u>
Condition of Well: <u> </u>	Well Locked at Departure: <u>Yes / No</u>
Well Completion: <u>Flush Mount / Stick Up</u>	Key Number To Well: <u> </u>

GROUNDWATER SAMPLING LOG

Project No. WA000804.2016

Well ID TMW-4

Date 10/14/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather Rain

Measuring Pt. _____ Screen _____
Description _____ Setting (ft-bmp) _____

Casing Diameter (in.) 2

Well Material PVC
 SS

Static Water Level (ft-bmp) 2.03 Total Depth (ft-bmp) _____

Water Column/ Gallons in Well _____

MP Elevation _____ Pump Intake (ft-bmp) _____

Purge Method: _____

Sample Method Grab

Pump On/Off 10/7/ Volumes Purged _____

Centrifugal _____
Submersible _____
Other _____

Sample Time: Label 1035 Replicate/ Code No. _____
Start 1037
End 1045

Sampled by MM

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1021	2	300	2.22		7.00	2.370	2.6	0.95	16.6	-266.5	Clear	4
1024	7		2.23		7.04	2.365	2.2	0.83	16.6	-275.4	Clear	4
1028	11		2.26		7.03	2.356	2.2	0.75	16.6	-276.4	Clear	4
1031	14		2.27		7.03	2.351	2.0	0.72	16.6	-276.4	Clear	4
1034	17		2.27		7.03	2.348	2.0	0.69	16.6	-300.7	Clear	4
1037	20				7.04	2.342	1.8	0.67	16.6	-313.1	Clear	4

Constituents Sampled	Container	Number	Preservative
GRO	40 mL UOA	2	HCl
BTEX	40 mL UOA	2	HCl
Sulfate	125 mL HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: _____	Well Locked at Arrival: <u>Yes</u> / <u>No</u>
Condition of Well: _____	Well Locked at Departure: <u>Yes</u> / <u>No</u>
Well Completion: <u>Flush Mount</u> / <u>Stick Up</u>	Key Number To Well: _____

GROUNDWATER SAMPLING LOG

Page ___ of ___

Project No. WA000804.2016 Well ID TMW-5 Date 10/12/16

Project Name/Location Kinder Morgan Harbor Island Terminal Weather Clear

Measuring Pt. Screen Casing Well Material PVC
 Description Setting (ft-bmp) Diameter (in.) SS

Static Water Level (ft-bmp) 3.82 Total Depth (ft-bmp) Water Column/
 Gallons in Well

MP Elevation Pump Intake (ft-bmp) Purge Method: LFP Sample Method Grab
 Centrifugal
 Submersible
 Other

Pump On/Off 1447/1512 Volumes Purged

Sample Time: Label 1505 Replicate/ Code No. Sampled by MU
 Start 1506
 End 1512

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1449	2	200	3.91		6.99	1.943	9.9	1.41	18.9	-205.4	Black	Y
1452	5		3.92		7.24	1.919	6.2	0.40	18.8	-243.1	Black	Y
1457	10		3.92		7.28	1.802	9.8	0.23	18.7	-286.0	Black	Y
1500	13	200	3.92		7.26	1.758	10.7	0.21	18.7	-294.6	Black	Y
1503	16		3.92		7.24	1.734	11.8	0.19	18.6	-303.2	Black	Y
1506	19		3.92		7.20	1.702	12.4	0.17	18.6	-313.6	Black	Y

Constituents Sampled	Container	Number	Preservative
GRO	40ml UOA	2	HCl
BTEX	40ml UOA	2	HCl
Sulfate	125 ml HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: Well Locked at Arrival: Yes / No

Condition of Well: Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well:

GROUNDWATER SAMPLING LOG

Page of

Project No. WA000804.2016

Well ID TMW-6

Date 10/12/16

Project Name/Location Kinder Morgan Harbor Island Terminal

Weather

Measuring Pt. Description Screen Setting (ft-bmp) Casing Diameter (in.)

Well Material PVC SS

Static Water Level (ft-bmp) 3.16 Total Depth (ft-bmp) Water Column/ Gallons in Well

MP Elevation Pump Intake (ft-bmp) Purge Method: LFP

Sample Method Grab

Pump On/Off 1528 Volumes Purged Centrifugal Submersible Other Peri

Sampled by MU

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Cond. (mMhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1531	3	250	3.35		7.15	2.391	1.7	0.89	17.3	-179.4	Clear	4
1534	6	200	3.34		6.95	2.529	1.7	0.57	17.2	-184.8	Clear	4
1537	9		3.32		6.90	2.628	1.7	0.41	17.2	-189.3	Clear	4
1540	12		3.31		6.88	2.709	1.8	0.34	17.1	-195.1	Clear	4
1544	16		3.32		6.88	2.727	1.8	0.31	17.1	-198.1	Clear	4
1547	19		3.34		6.88	2.756	1.9	0.27	17.1	-200.5	Clear	4

Constituents Sampled	Container	Number	Preservative
GRO	40ml VOA	2	HCl
BTEX	40ml VOA	2	HCl
Sulfate	125ml HDPE	1	-

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: <u> </u>	Well Locked at Arrival: <u> </u> Yes / No
Condition of Well: <u> </u>	Well Locked at Departure: <u> </u> Yes / No
Well Completion: <u> </u> Flush Mount / <u> </u> Stick Up	Key Number To Well: <u> </u>

ATTACHMENT C

Laboratory Reports and Chain-of-Custody Documentation



Kinder Morgan- Orange, CA

Sample Delivery Group: L866327
Samples Received: 10/15/2016
Project Number: WA000804.2016.00002
Description: KMEP Harbor Island
Site: KMLT HARBOR ISLAND
Report To: Rob Truedinger / Kyle Haslam
1100 Olive Way, Suite 800
Seattle, WA 98101

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹Cp: Cover Page	1
²Tc: Table of Contents	2
³Ss: Sample Summary	3
⁴Cn: Case Narrative	5
⁵Sr: Sample Results	6
A-27 L866327-01	6
A-28R L866327-02	7
MW-23 L866327-03	8
MW-24 L866327-04	9
TMW-B1 L866327-05	10
⁶Qc: Quality Control Summary	11
Wet Chemistry by Method 3500Fe B-2011	11
Wet Chemistry by Method 4500S2 D-2011	12
Wet Chemistry by Method 9056A	13
Metals (ICPMS) by Method 6020	15
Volatile Organic Compounds (GC) by Method NWTPHGX	17
Volatile Organic Compounds (GC) by Method RSK175	18
Volatile Organic Compounds (GC/MS) by Method 8260C	19
⁷Gl: Glossary of Terms	20
⁸Al: Accreditations & Locations	21
⁹Sc: Chain of Custody	22



SAMPLE SUMMARY



A-27 L866327-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by	MU / RB			Collected date/time	Received date/time
				10/14/16 10:30	10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 16:26	10/17/16 16:26	DWR
Volatile Organic Compounds (GC) by Method RSK175	WG919220	5	10/20/16 15:15	10/20/16 15:15	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 23:45	10/20/16 23:45	BMB
Wet Chemistry by Method 3500Fe B-2011	WG917517	50	10/17/16 12:49	10/17/16 12:49	MHM
Wet Chemistry by Method 4500S2 D-2011	WG917951	1	10/18/16 21:05	10/18/16 21:05	MZ
Wet Chemistry by Method 9056A	WG917538	1	10/15/16 23:13	10/15/16 23:13	CM
Wet Chemistry by Method 9056A	WG917538	20	10/16/16 01:47	10/16/16 01:47	CM

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

A-28R L866327-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by	MU / RB			Collected date/time	Received date/time
				10/14/16 09:35	10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:26	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 15:51	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 16:55	10/17/16 16:55	DWR
Volatile Organic Compounds (GC) by Method RSK175	WG919220	20	10/20/16 15:17	10/20/16 15:17	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/21/16 00:07	10/21/16 00:07	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	10	10/23/16 17:40	10/23/16 17:40	HJF
Wet Chemistry by Method 3500Fe B-2011	WG917517	50	10/17/16 12:49	10/17/16 12:49	MHM
Wet Chemistry by Method 4500S2 D-2011	WG917951	1	10/18/16 21:05	10/18/16 21:05	MZ
Wet Chemistry by Method 9056A	WG917538	1	10/15/16 23:28	10/15/16 23:28	CM

MW-23 L866327-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by	MU / RB			Collected date/time	Received date/time
				10/14/16 12:45	10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:29	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 15:56	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 17:24	10/17/16 17:24	DWR
Volatile Organic Compounds (GC) by Method RSK175	WG919220	20	10/20/16 15:21	10/20/16 15:21	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/21/16 00:28	10/21/16 00:28	BMB
Wet Chemistry by Method 3500Fe B-2011	WG917517	50	10/17/16 12:49	10/17/16 12:49	MHM
Wet Chemistry by Method 4500S2 D-2011	WG917951	1	10/18/16 21:06	10/18/16 21:06	MZ
Wet Chemistry by Method 9056A	WG917538	1	10/15/16 23:43	10/15/16 23:43	CM

MW-24 L866327-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by	MU / RB			Collected date/time	Received date/time
				10/14/16 12:30	10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:32	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:02	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	10	10/17/16 17:53	10/17/16 17:53	DWR
Volatile Organic Compounds (GC) by Method RSK175	WG919220	10	10/20/16 15:23	10/20/16 15:23	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	10	10/20/16 19:31	10/20/16 19:31	BMB
Wet Chemistry by Method 3500Fe B-2011	WG917517	25	10/17/16 12:50	10/17/16 12:50	MHM
Wet Chemistry by Method 4500S2 D-2011	WG917951	1	10/18/16 21:06	10/18/16 21:06	MZ
Wet Chemistry by Method 9056A	WG917538	1	10/16/16 00:30	10/16/16 00:30	CM

SAMPLE SUMMARY



TMW-B1 L866327-05 GW

Collected by
MU / RB

Collected date/time
10/14/16 11:30

Received date/time
10/15/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 18:22	10/17/16 18:22	DWR
Volatile Organic Compounds (GC) by Method RSK175	WG919220	20	10/20/16 15:25	10/20/16 15:25	MJ
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	10	10/20/16 19:52	10/20/16 19:52	BMB
Wet Chemistry by Method 3500Fe B-2011	WG917517	25	10/17/16 12:50	10/17/16 12:50	MHM
Wet Chemistry by Method 4500S2 D-2011	WG917951	1	10/18/16 21:07	10/18/16 21:07	MZ
Wet Chemistry by Method 9056A	WG917538	1	10/16/16 00:45	10/16/16 00:45	CM

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
 Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L866327-01	A-27	3500Fe B-2011
L866327-02	A-28R	3500Fe B-2011
L866327-03	MW-23	3500Fe B-2011
L866327-04	MW-24	3500Fe B-2011
L866327-05	TMW-B1	3500Fe B-2011

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	24300		2500	50	10/17/2016 12:49	WG917517

1 Cp

2 Tc

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	10/18/2016 21:05	WG917951

3 Ss

4 Cn

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate	ND		100	1	10/15/2016 23:13	WG917538
Sulfate	105000		100000	20	10/16/2016 01:47	WG917538

5 Sr

6 Qc

7 Gl

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1420		100	1	10/17/2016 16:26	WG917641
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.8		62.0-128		10/17/2016 16:26	WG917641

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	2020		50.0	5	10/20/2016 15:15	WG919220

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	67.0		1.00	1	10/20/2016 23:45	WG918854
Toluene	ND		5.00	1	10/20/2016 23:45	WG918854
Ethylbenzene	10.1		1.00	1	10/20/2016 23:45	WG918854
Total Xylenes	4.90		3.00	1	10/20/2016 23:45	WG918854
(S) <i>Toluene-d8</i>	104		90.0-115		10/20/2016 23:45	WG918854
(S) <i>Dibromofluoromethane</i>	88.8		79.0-121		10/20/2016 23:45	WG918854
(S) <i>a,a,a</i> -Trifluorotoluene	103		90.4-116		10/20/2016 23:45	WG918854
(S) <i>4</i> -Bromofluorobenzene	95.5		80.1-120		10/20/2016 23:45	WG918854



Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ferrous Iron	32900		2500	50	10/17/2016 12:49	WG917517

1 Cp

2 Tc

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfide	ND		50.0	1	10/18/2016 21:05	WG917951

3 Ss

4 Cn

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Nitrate	ND		100	1	10/15/2016 23:28	WG917538
Sulfate	ND		5000	1	10/15/2016 23:28	WG917538

5 Sr

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/20/2016 11:26	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 15:51	WG918531

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	3650		100	1	10/17/2016 16:55	WG917641
(S) a,a,a-Trifluorotoluene(FID)	82.9		62.0-128		10/17/2016 16:55	WG917641

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Methane	9230		200	20	10/20/2016 15:17	WG919220

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	208		10.0	10	10/23/2016 17:40	WG918854
Toluene	9.79		5.00	1	10/21/2016 00:07	WG918854
Ethylbenzene	10.6		1.00	1	10/21/2016 00:07	WG918854
Total Xylenes	7.04		3.00	1	10/21/2016 00:07	WG918854
(S) Toluene-d8	104		90.0-115		10/21/2016 00:07	WG918854
(S) Toluene-d8	102		90.0-115		10/23/2016 17:40	WG918854
(S) Dibromofluoromethane	96.1		79.0-121		10/23/2016 17:40	WG918854
(S) Dibromofluoromethane	92.0		79.0-121		10/21/2016 00:07	WG918854
(S) a,a,a-Trifluorotoluene	103		90.4-116		10/21/2016 00:07	WG918854
(S) a,a,a-Trifluorotoluene	101		90.4-116		10/23/2016 17:40	WG918854
(S) 4-Bromofluorobenzene	111		80.1-120		10/23/2016 17:40	WG918854
(S) 4-Bromofluorobenzene	93.8		80.1-120		10/21/2016 00:07	WG918854



Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Ferrous Iron	15400		2500	50	10/17/2016 12:49	WG917517

1 Cp

2 Tc

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Sulfide	ND		50.0	1	10/18/2016 21:06	WG917951

3 Ss

4 Cn

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Nitrate	ND		100	1	10/15/2016 23:43	WG917538
Sulfate	42300		5000	1	10/15/2016 23:43	WG917538

5 Sr

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Lead	ND		2.00	1	10/20/2016 11:29	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 15:56	WG918531

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1630		100	1	10/17/2016 17:24	WG917641
(S) a,a,a-Trifluorotoluene(FID)	87.3		62.0-128		10/17/2016 17:24	WG917641

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Methane	5360		200	20	10/20/2016 15:21	WG919220

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Benzene	85.2		1.00	1	10/21/2016 00:28	WG918854
Toluene	ND		5.00	1	10/21/2016 00:28	WG918854
Ethylbenzene	ND		1.00	1	10/21/2016 00:28	WG918854
Total Xylenes	ND		3.00	1	10/21/2016 00:28	WG918854
(S) Toluene-d8	104		90.0-115		10/21/2016 00:28	WG918854
(S) Dibromofluoromethane	89.6		79.0-121		10/21/2016 00:28	WG918854
(S) a,a,a-Trifluorotoluene	102		90.4-116		10/21/2016 00:28	WG918854
(S) 4-Bromofluorobenzene	96.7		80.1-120		10/21/2016 00:28	WG918854



Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ferrous Iron	6230		1250	25	10/17/2016 12:50	WG917517

1 Cp

2 Tc

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfide	ND		50.0	1	10/18/2016 21:06	WG917951

3 Ss

4 Cn

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate	ND		100	1	10/16/2016 00:30	WG917538
Sulfate	ND		5000	1	10/16/2016 00:30	WG917538

5 Sr

6 Qc

7 Gl

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Lead	3.90		2.00	1	10/20/2016 11:32	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 16:02	WG918531

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	5280		1000	10	10/17/2016 17:53	WG917641
(S) a,a,a-Trifluorotoluene(FID)	99.4		62.0-128		10/17/2016 17:53	WG917641

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	2530		100	10	10/20/2016 15:23	WG919220

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	106		10.0	10	10/20/2016 19:31	WG918854
Toluene	ND		50.0	10	10/20/2016 19:31	WG918854
Ethylbenzene	201		10.0	10	10/20/2016 19:31	WG918854
Total Xylenes	280		30.0	10	10/20/2016 19:31	WG918854
(S) Toluene-d8	102		90.0-115		10/20/2016 19:31	WG918854
(S) Dibromofluoromethane	86.0		79.0-121		10/20/2016 19:31	WG918854
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/20/2016 19:31	WG918854
(S) 4-Bromofluorobenzene	96.9		80.1-120		10/20/2016 19:31	WG918854



Wet Chemistry by Method 3500Fe B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ferrous Iron	15200		1250	25	10/17/2016 12:50	WG917517

1 Cp

2 Tc

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfide	ND		50.0	1	10/18/2016 21:07	WG917951

3 Ss

4 Cn

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Nitrate	ND		100	1	10/16/2016 00:45	WG917538
Sulfate	ND		5000	1	10/16/2016 00:45	WG917538

5 Sr

6 Qc

7 Gl

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	7030		100	1	10/17/2016 18:22	WG917641
(S) a,a,a-Trifluorotoluene(FID)	123		62.0-128		10/17/2016 18:22	WG917641

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Methane	9420		200	20	10/20/2016 15:25	WG919220

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	22.7		10.0	10	10/20/2016 19:52	WG918854
Toluene	ND		50.0	10	10/20/2016 19:52	WG918854
Ethylbenzene	69.0		10.0	10	10/20/2016 19:52	WG918854
Total Xylenes	ND		30.0	10	10/20/2016 19:52	WG918854
(S) Toluene-d8	101		90.0-115		10/20/2016 19:52	WG918854
(S) Dibromofluoromethane	85.7		79.0-121		10/20/2016 19:52	WG918854
(S) a,a,a-Trifluorotoluene	103		90.4-116		10/20/2016 19:52	WG918854
(S) 4-Bromofluorobenzene	94.9		80.1-120		10/20/2016 19:52	WG918854



Method Blank (MB)

(MB) R3171046-1 10/17/16 12:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ferrous Iron	U		15.0	50.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L866248-01 Original Sample (OS) • Duplicate (DUP)

(OS) L866248-01 10/17/16 12:40 • (DUP) R3171046-4 10/17/16 12:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ferrous Iron	2840	2870	1	1.00		20

L866327-05 Original Sample (OS) • Duplicate (DUP)

(OS) L866327-05 10/17/16 12:50 • (DUP) R3171046-7 10/17/16 12:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ferrous Iron	15200	18100	25	17.0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171046-2 10/17/16 12:37 • (LCSD) R3171046-3 10/17/16 12:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ferrous Iron	1000	995	1010	100	101	85.0-115			1.00	20

L866248-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866248-01 10/17/16 12:40 • (MS) R3171046-5 10/17/16 12:41 • (MSD) R3171046-6 10/17/16 12:43

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Ferrous Iron	1500	2840	4180	4150	90.0	87.0	1	80.0-120	E	E	1.00	20



Method Blank (MB)

(MB) R3171462-1 10/18/16 21:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfide	U		6.50	50.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L814912-28 Original Sample (OS) • Duplicate (DUP)

(OS) L814912-28 10/18/16 21:04 • (DUP) R3171462-4 10/18/16 21:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfide	ND	ND	1	0.000		20

7 Gl

8 Al

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171462-2 10/18/16 21:02 • (LCSD) R3171462-3 10/18/16 21:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfide	500	510	516	102	103	85.0-115			1.00	20

9 Sc

L866327-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866327-05 10/18/16 21:07 • (MS) R3171462-5 10/18/16 21:07 • (MSD) R3171462-6 10/18/16 21:07

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfide	1000	ND	1170	1190	117	119	1	80.0-120			1.00	20



Method Blank (MB)

(MB) R3170998-1 10/15/16 21:25

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L864833-01 Original Sample (OS) • Duplicate (DUP)

(OS) L864833-01 10/16/16 01:32 • (DUP) R3170998-5 10/16/16 02:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	3440	3500	1	2		15

L866327-04 Original Sample (OS) • Duplicate (DUP)

(OS) L866327-04 10/16/16 00:30 • (DUP) R3170998-6 10/16/16 03:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	ND	0.000	1	0		15
Sulfate	ND	0.000	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3170998-2 10/15/16 21:40 • (LCSD) R3170998-3 10/15/16 21:55

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Nitrate	8000	8360	8360	105	105	80-120			0	15
Sulfate	40000	40200	40500	101	101	80-120			1	15

L866296-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L866296-04 10/15/16 22:57 • (MS) R3170998-4 10/16/16 01:01

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Nitrate	5000	3850	8850	100	1	80-120	
Sulfate	50000	95800	140000	89	1	80-120	E



L866327-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866327-05 10/16/16 00:45 • (MS) R3170998-7 10/16/16 04:37 • (MSD) R3170998-8 10/16/16 04:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits
Nitrate	5000	ND	5210	5320	104	106	1	80-120			2	15
Sulfate	50000	ND	51900	52000	104	104	1	80-120			0	15

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3172016-1 10/20/16 10:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead	U		0.240	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172016-2 10/20/16 10:15 • (LCSD) R3172016-3 10/20/16 10:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead	50.0	49.7	49.7	99	99	80-120			0	20

L865718-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L865718-01 10/20/16 10:21 • (MS) R3172016-5 10/20/16 10:28 • (MSD) R3172016-6 10/20/16 10:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead	50.0	ND	49.2	48.8	98	97	1	75-125			1	20

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3172567-1 10/21/16 15:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead,Dissolved	U		0.240	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172567-2 10/21/16 15:19 • (LCSD) R3172567-3 10/21/16 15:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	54.7	50.5	109	101	80-120			8	20

L866330-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866330-08 10/21/16 15:30 • (MS) R3172567-5 10/21/16 15:40 • (MSD) R3172567-6 10/21/16 15:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	ND	50.6	50.4	101	100	1	75-125			1	20

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3173045-3 10/17/16 11:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	102			62.0-128

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173045-1 10/17/16 10:28 • (LCSD) R3173045-2 10/17/16 10:57

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	5080	5860	92.3	107	66.0-123			14.4	20
(S) a,a,a-Trifluorotoluene(FID)				99.7	101	62.0-128				

L866169-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866169-13 10/17/16 14:02 • (MS) R3173045-4 10/17/16 14:31 • (MSD) R3173045-5 10/17/16 14:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	331	5940	6050	102	104	1	47.5-136			1.87	20
(S) a,a,a-Trifluorotoluene(FID)					100	100		62.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3172136-1 10/20/16 15:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		2.91	10.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L866284-09 Original Sample (OS) • Duplicate (DUP)

(OS) L866284-09 10/20/16 15:11 • (DUP) R3172136-2 10/20/16 15:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	706	720	2	1.90		20

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172136-3 10/20/16 15:37 • (LCSD) R3172136-4 10/20/16 15:40

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	63.6	65.7	93.8	96.9	85.0-115			3.33	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3172648-3 10/20/16 17:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			90.0-115
(S) Dibromofluoromethane	87.0			79.0-121
(S) a,a,a-Trifluorotoluene	104			90.4-116
(S) 4-Bromofluorobenzene	95.4			80.1-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172648-1 10/20/16 15:53 • (LCSD) R3172648-2 10/20/16 16:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Benzene	25.0	20.3	21.6	81.0	86.4	73.0-122			6.41	20
Ethylbenzene	25.0	23.5	25.3	93.9	101	80.9-121			7.49	20
Toluene	25.0	22.6	23.8	90.2	95.0	77.9-116			5.18	20
Xylenes, Total	75.0	70.6	75.7	94.1	101	79.2-122			6.99	20
(S) Toluene-d8				103	103	90.0-115				
(S) Dibromofluoromethane				85.1	83.9	79.0-121				
(S) a,a,a-Trifluorotoluene				103	105	90.4-116				
(S) 4-Bromofluorobenzene				98.4	101	80.1-120				

L866327-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866327-04 10/20/16 19:31 • (MS) R3172648-4 10/20/16 17:45 • (MSD) R3172648-5 10/20/16 18:06

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Benzene	25.0	106	376	374	108	107	10	58.6-133			0.490	20
Ethylbenzene	25.0	201	520	513	128	125	10	62.7-136			1.30	20
Toluene	25.0	ND	305	294	122	118	10	67.8-124			3.51	20
Xylenes, Total	75.0	280	1200	1170	123	119	10	65.6-133			2.90	20
(S) Toluene-d8					105	104		90.0-115				
(S) Dibromofluoromethane					85.4	86.0		79.0-121				
(S) a,a,a-Trifluorotoluene					106	103		90.4-116				
(S) 4-Bromofluorobenzene					99.1	98.7		80.1-120				



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.



State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

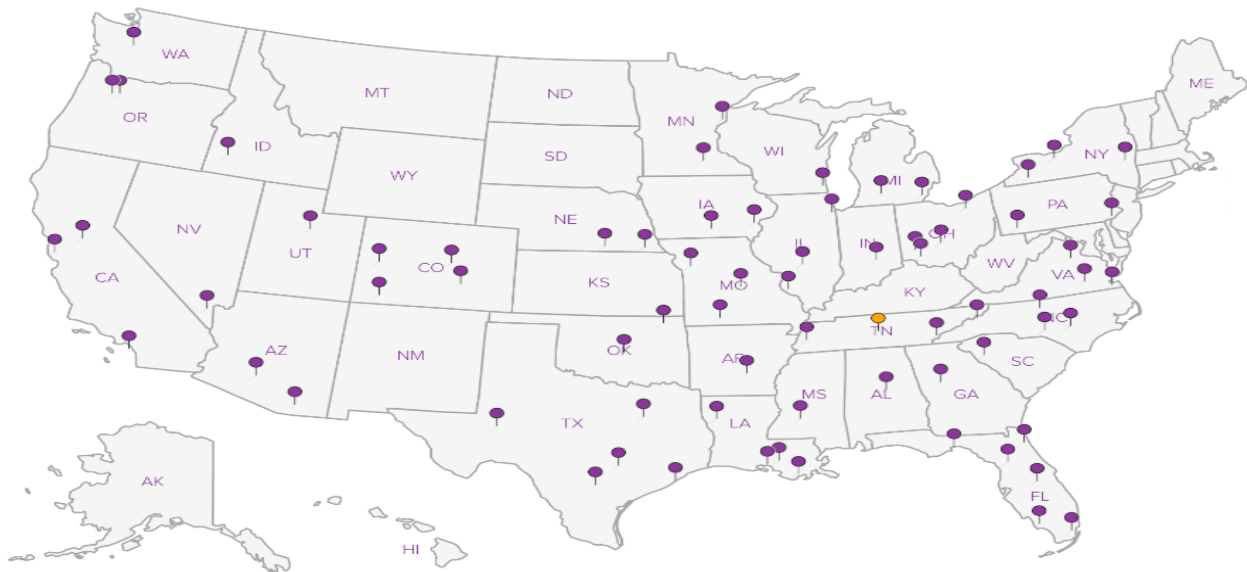
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Kinder Morgan- Orange, CA

1100 Olive Way, Suite 800
Seattle, WA 98101

Billing Information & Quote Number:
Accounts Payable- Rob Truedinger
1100 Town and Country Rd
Orange, CA 92868

Report to:
Rob Truedinger / Kyle Haslam

Email To: Kyle.Haslam@arcadis.com;
Scott.Wenning@arcadis.com;

Project
Description: **KMEP Harbor Island**

City/State
Collected: **Seattle, WA**

Phone: **206-726-4753**
Fax:

Client Project #
WA000804.2016.00002

Lab Project #
KINMOROCA-HARBORISLA

Collected by (print):
Mark Ullery / Ryan Broadbent

Site/Facility ID #
KMCT Harbor Island

P.O. #
WA000804.2016

Collected by (signature):

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
Standard TAT

Email? ___ No **X** Yes
 FAX? ___ No ___ Yes

No. of
Cntrs

Immediately
Packed on Ice N ___ Y **X**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dissolved Lead 250mlHDPE-NoPres	FERUSFE 250mlAmb-HCl	NITRATE,SULFATE 125mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	RSK175 (methane) 40mlAmb HCl	SULFIDE 125mlAmb-S-NaOH+ZnAc	Total Lead 250mlHDPE-HNO3	V8260BTEXC 40mlAmb-HCl	V8260BTEXC trip blk 40mlAmb-HCl-Bik
A-27	grab	GW		10-14-2016	1030	9		X	X	X	X	X		X	
A-28R	↓	GW			0935	11	X	X	X	X	X	X	X		
MW-23	↓	GW			1245	11	X	X	X	X	X	X	X		
MW-24	↓	GW			1230	11	X	X	X	X	X	X	X		
TMW-B1	↓	GW			1130	9		X	X	X	X	X		X	
		GW				11	X	X	X	X	X	X	X		
		GW				11	X	X	X	X	X	X	X		
		GW				11	X	X	X	X	X	X	X		
		GW				1								X	
		GW				11	X	X	X	X	X	X	X		

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **L866327**
G219

Acctnum: **KINMOROCA**
 Template: **T116370**
 Prelogin: **P572252**
 TSR: **110 - Brian Ford**
 PB:

Shipped Via:
 Rem./Contaminant Sample # (lab only)

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: Nitrate has a 48 hour hold time. Ferrous Fe will be field filtered and preserved. Dissolved Lead will be lab filtered and preserved. Lead by method 6020.

pH _____ Temp _____
 Flow _____ Other _____

Hold # _____
 Condition: (lab use only)

Relinquished by: (Signature) Ryan W. Bell	Date: 10-14-16	Time: 1500	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Temp: 2.4 °C Bottles Received: 51+TB	Condition: 1089	(lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 10/15/16	Time: 0900	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	OK
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Tridha N...	Date: 10/15/16	Time: 0900	pH Checked:	NCF:



L · A · B S · C · I · E · N · C · E · S

YOUR LAB OF CHOICE

Cooler Receipt Form			
Client:	KINMOROCA	SDG#	LB66327
Cooler Received/Opened On: 10/15 /16	Receipt:	Temperature Upon	2.4 °c
Received By: Rickey Mosley			
Signature: <i>Rickey Mosley</i>			
Receipt Check List			
	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were custody papers properly filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If applicable, was an observable VOA headspace present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non Conformance Generated. (If yes see attached NCF)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Kinder Morgan- Orange, CA

Sample Delivery Group: L866330
Samples Received: 10/15/2016
Project Number: WA000804.2016.00002
Description: KMEP Harbor Island
Site: KMEP HARBOR ISLAND
Report To: Rob Truedinger / Kyle Haslam
1100 Olive Way, Suite 800
Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹Cp: Cover Page	1
²Tc: Table of Contents	2
³Ss: Sample Summary	3
⁴Cn: Case Narrative	5
⁵Sr: Sample Results	6
A-5 L866330-01	6
A-8 L866330-02	7
A-10 L866330-03	8
A-14R L866330-04	9
A-21 L866330-05	10
A-23R L866330-06	11
MW-1 L866330-07	12
MW-2 L866330-08	13
MW-3 L866330-09	14
⁶Qc: Quality Control Summary	15
Metals (ICPMS) by Method 6020	15
Volatile Organic Compounds (GC) by Method NWTPHGX	17
Volatile Organic Compounds (GC/MS) by Method 8260C	18
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	19
⁷Gl: Glossary of Terms	20
⁸Al: Accreditations & Locations	21
⁹Sc: Chain of Custody	22

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY



A-5 L866330-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU / RB				Collected date/time 10/13/16 13:10	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 18:51	10/17/16 18:51	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/21/16 00:49	10/21/16 00:49	BMB

1
Cp

2
Tc

3
Ss

4
Cn

A-8 L866330-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU / RB				Collected date/time 10/13/16 12:40	Received date/time 10/15/16 09:00
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/17/16 23:48	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 19:20	10/17/16 19:20	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/21/16 01:10	10/21/16 01:10	BMB

5
Sr

6
Qc

7
Gl

A-10 L866330-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU / RB				Collected date/time 10/13/16 10:30	Received date/time 10/15/16 09:00
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 00:04	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 19:48	10/17/16 19:48	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 20:13	10/20/16 20:13	BMB

8
Al

9
Sc

A-14R L866330-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU / RB				Collected date/time 10/13/16 09:20	Received date/time 10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:45	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:18	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 00:21	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 20:18	10/17/16 20:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 20:34	10/20/16 20:34	BMB

A-21 L866330-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU / RB				Collected date/time 10/13/16 08:40	Received date/time 10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:48	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:23	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 22:38	10/17/16 22:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 20:56	10/20/16 20:56	BMB

A-23R L866330-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU / RB				Collected date/time 10/11/16 13:00	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 23:07	10/17/16 23:07	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/23/16 17:52	10/23/16 17:52	HJF

SAMPLE SUMMARY



MW-1 L866330-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:51	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:28	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 00:38	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/17/16 23:36	10/17/16 23:36	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 21:17	10/20/16 21:17	BMB

Collected by MU / RB
Collected date/time 10/12/16 13:05
Received date/time 10/15/16 09:00

1
Cp

2
Tc

3
Ss

4
Cn

MW-2 L866330-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:54	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 15:30	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 00:54	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/18/16 00:05	10/18/16 00:05	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 21:38	10/20/16 21:38	BMB

Collected by MU / RB
Collected date/time 10/12/16 10:10
Received date/time 10/15/16 09:00

5
Sr

6
Qc

7
Gl

8
Al

MW-3 L866330-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918369	1	10/19/16 07:46	10/20/16 11:57	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:34	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 01:11	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/18/16 00:34	10/18/16 00:34	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 21:59	10/20/16 21:59	BMB

Collected by MU / RB
Collected date/time 10/12/16 11:25
Received date/time 10/15/16 09:00

9
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	498		100	1	10/17/2016 18:51	WG917641
(S) a,a,a-Trifluorotoluene(FID)	100		62.0-128		10/17/2016 18:51	WG917641

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/21/2016 00:49	WG918854
Toluene	ND		5.00	1	10/21/2016 00:49	WG918854
Ethylbenzene	ND		1.00	1	10/21/2016 00:49	WG918854
Total Xylenes	ND		3.00	1	10/21/2016 00:49	WG918854
(S) Toluene-d8	103		90.0-115		10/21/2016 00:49	WG918854
(S) Dibromofluoromethane	87.1		79.0-121		10/21/2016 00:49	WG918854
(S) a,a,a-Trifluorotoluene	103		90.4-116		10/21/2016 00:49	WG918854
(S) 4-Bromofluorobenzene	93.9		80.1-120		10/21/2016 00:49	WG918854

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	341		100	1	10/17/2016 19:20	WG917641
(S) a,a,a-Trifluorotoluene(FID)	100		62.0-128		10/17/2016 19:20	WG917641

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/21/2016 01:10	WG918854
Toluene	ND		5.00	1	10/21/2016 01:10	WG918854
Ethylbenzene	ND		1.00	1	10/21/2016 01:10	WG918854
Total Xylenes	ND		3.00	1	10/21/2016 01:10	WG918854
(S) Toluene-d8	103		90.0-115		10/21/2016 01:10	WG918854
(S) Dibromofluoromethane	86.8		79.0-121		10/21/2016 01:10	WG918854
(S) a,a,a-Trifluorotoluene	104		90.4-116		10/21/2016 01:10	WG918854
(S) 4-Bromofluorobenzene	94.8		80.1-120		10/21/2016 01:10	WG918854

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	498		250	1	10/17/2016 23:48	WG917686
Residual Range Organics (RRO)	ND		500	1	10/17/2016 23:48	WG917686
(S) o-Terphenyl	112		50.0-150		10/17/2016 23:48	WG917686

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/17/2016 19:48	WG917641
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		10/17/2016 19:48	WG917641

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/20/2016 20:13	WG918854
Toluene	ND		5.00	1	10/20/2016 20:13	WG918854
Ethylbenzene	ND		1.00	1	10/20/2016 20:13	WG918854
Total Xylenes	ND		3.00	1	10/20/2016 20:13	WG918854
(S) Toluene-d8	102		90.0-115		10/20/2016 20:13	WG918854
(S) Dibromofluoromethane	87.7		79.0-121		10/20/2016 20:13	WG918854
(S) a,a,a-Trifluorotoluene	104		90.4-116		10/20/2016 20:13	WG918854
(S) 4-Bromofluorobenzene	96.5		80.1-120		10/20/2016 20:13	WG918854

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	640		250	1	10/18/2016 00:04	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 00:04	WG917686
(S) o-Terphenyl	108		50.0-150		10/18/2016 00:04	WG917686

9 Sc



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/20/2016 11:45	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 16:18	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/17/2016 20:18	WG917641
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		10/17/2016 20:18	WG917641

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/20/2016 20:34	WG918854
Toluene	ND		5.00	1	10/20/2016 20:34	WG918854
Ethylbenzene	ND		1.00	1	10/20/2016 20:34	WG918854
Total Xylenes	ND		3.00	1	10/20/2016 20:34	WG918854
(S) Toluene-d8	103		90.0-115		10/20/2016 20:34	WG918854
(S) Dibromofluoromethane	86.5		79.0-121		10/20/2016 20:34	WG918854
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/20/2016 20:34	WG918854
(S) 4-Bromofluorobenzene	97.9		80.1-120		10/20/2016 20:34	WG918854

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/18/2016 00:21	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 00:21	WG917686
(S) o-Terphenyl	112		50.0-150		10/18/2016 00:21	WG917686



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/20/2016 11:48	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 16:23	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/17/2016 22:38	WG917641
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		10/17/2016 22:38	WG917641

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/20/2016 20:56	WG918854
Toluene	ND		5.00	1	10/20/2016 20:56	WG918854
Ethylbenzene	ND		1.00	1	10/20/2016 20:56	WG918854
Total Xylenes	ND		3.00	1	10/20/2016 20:56	WG918854
(S) Toluene-d8	100		90.0-115		10/20/2016 20:56	WG918854
(S) Dibromofluoromethane	86.8		79.0-121		10/20/2016 20:56	WG918854
(S) a,a,a-Trifluorotoluene	104		90.4-116		10/20/2016 20:56	WG918854
(S) 4-Bromofluorobenzene	96.7		80.1-120		10/20/2016 20:56	WG918854

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	10/17/2016 23:07	WG917641
(S) a,a,a-Trifluorotoluene(FID)	97.2		62.0-128		10/17/2016 23:07	WG917641

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	1.09		1.00	1	10/23/2016 17:52	WG918854
Toluene	ND		5.00	1	10/23/2016 17:52	WG918854
Ethylbenzene	ND		1.00	1	10/23/2016 17:52	WG918854
Total Xylenes	ND		3.00	1	10/23/2016 17:52	WG918854
(S) Toluene-d8	100		90.0-115		10/23/2016 17:52	WG918854
(S) Dibromofluoromethane	93.9		79.0-121		10/23/2016 17:52	WG918854
(S) a,a,a-Trifluorotoluene	100		90.4-116		10/23/2016 17:52	WG918854
(S) 4-Bromofluorobenzene	112		80.1-120		10/23/2016 17:52	WG918854

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/20/2016 11:51	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 16:28	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/17/2016 23:36	WG917641
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/17/2016 23:36	WG917641

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/20/2016 21:17	WG918854
Toluene	ND		5.00	1	10/20/2016 21:17	WG918854
Ethylbenzene	ND		1.00	1	10/20/2016 21:17	WG918854
Total Xylenes	ND		3.00	1	10/20/2016 21:17	WG918854
(S) Toluene-d8	101		90.0-115		10/20/2016 21:17	WG918854
(S) Dibromofluoromethane	88.7		79.0-121		10/20/2016 21:17	WG918854
(S) a,a,a-Trifluorotoluene	104		90.4-116		10/20/2016 21:17	WG918854
(S) 4-Bromofluorobenzene	96.1		80.1-120		10/20/2016 21:17	WG918854

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/18/2016 00:38	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 00:38	WG917686
(S) o-Terphenyl	116		50.0-150		10/18/2016 00:38	WG917686



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/20/2016 11:54	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 15:30	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 00:05	WG917641
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		10/18/2016 00:05	WG917641

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/20/2016 21:38	WG918854
Toluene	ND		5.00	1	10/20/2016 21:38	WG918854
Ethylbenzene	ND		1.00	1	10/20/2016 21:38	WG918854
Total Xylenes	ND		3.00	1	10/20/2016 21:38	WG918854
(S) Toluene-d8	102		90.0-115		10/20/2016 21:38	WG918854
(S) Dibromofluoromethane	88.6		79.0-121		10/20/2016 21:38	WG918854
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/20/2016 21:38	WG918854
(S) 4-Bromofluorobenzene	96.3		80.1-120		10/20/2016 21:38	WG918854

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/18/2016 00:54	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 00:54	WG917686
(S) o-Terphenyl	102		50.0-150		10/18/2016 00:54	WG917686



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/20/2016 11:57	WG918369
Lead,Dissolved	ND		2.00	1	10/21/2016 16:34	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 00:34	WG917641
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 00:34	WG917641

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/20/2016 21:59	WG918854
Toluene	ND		5.00	1	10/20/2016 21:59	WG918854
Ethylbenzene	ND		1.00	1	10/20/2016 21:59	WG918854
Total Xylenes	ND		3.00	1	10/20/2016 21:59	WG918854
(S) Toluene-d8	102		90.0-115		10/20/2016 21:59	WG918854
(S) Dibromofluoromethane	87.9		79.0-121		10/20/2016 21:59	WG918854
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/20/2016 21:59	WG918854
(S) 4-Bromofluorobenzene	97.0		80.1-120		10/20/2016 21:59	WG918854

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/18/2016 01:11	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 01:11	WG917686
(S) o-Terphenyl	112		50.0-150		10/18/2016 01:11	WG917686



Method Blank (MB)

(MB) R3172016-1 10/20/16 10:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead	U		0.240	2.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172016-2 10/20/16 10:15 • (LCSD) R3172016-3 10/20/16 10:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead	50.0	49.7	49.7	99	99	80-120			0	20

L865718-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L865718-01 10/20/16 10:21 • (MS) R3172016-5 10/20/16 10:28 • (MSD) R3172016-6 10/20/16 10:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead	50.0	ND	49.2	48.8	98	97	1	75-125			1	20

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3172567-1 10/21/16 15:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead,Dissolved	U		0.240	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172567-2 10/21/16 15:19 • (LCSD) R3172567-3 10/21/16 15:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	54.7	50.5	109	101	80-120			8	20

L866330-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866330-08 10/21/16 15:30 • (MS) R3172567-5 10/21/16 15:40 • (MSD) R3172567-6 10/21/16 15:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	ND	50.6	50.4	101	100	1	75-125			1	20

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3173045-3 10/17/16 11:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	102			62.0-128

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173045-1 10/17/16 10:28 • (LCSD) R3173045-2 10/17/16 10:57

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	5080	5860	92.3	107	66.0-123			14.4	20
(S) a,a,a-Trifluorotoluene(FID)				99.7	101	62.0-128				

L866169-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866169-13 10/17/16 14:02 • (MS) R3173045-4 10/17/16 14:31 • (MSD) R3173045-5 10/17/16 14:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	331	5940	6050	102	104	1	47.5-136			1.87	20
(S) a,a,a-Trifluorotoluene(FID)					100	100		62.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3172648-3 10/20/16 17:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			90.0-115
(S) Dibromofluoromethane	87.0			79.0-121
(S) a,a,a-Trifluorotoluene	104			90.4-116
(S) 4-Bromofluorobenzene	95.4			80.1-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172648-1 10/20/16 15:53 • (LCSD) R3172648-2 10/20/16 16:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Benzene	25.0	20.3	21.6	81.0	86.4	73.0-122			6.41	20
Ethylbenzene	25.0	23.5	25.3	93.9	101	80.9-121			7.49	20
Toluene	25.0	22.6	23.8	90.2	95.0	77.9-116			5.18	20
Xylenes, Total	75.0	70.6	75.7	94.1	101	79.2-122			6.99	20
(S) Toluene-d8				103	103	90.0-115				
(S) Dibromofluoromethane				85.1	83.9	79.0-121				
(S) a,a,a-Trifluorotoluene				103	105	90.4-116				
(S) 4-Bromofluorobenzene				98.4	101	80.1-120				

7 Gl

8 Al

9 Sc

L866327-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866327-04 10/20/16 19:31 • (MS) R3172648-4 10/20/16 17:45 • (MSD) R3172648-5 10/20/16 18:06

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Benzene	25.0	106	376	374	108	107	10	58.6-133			0.490	20
Ethylbenzene	25.0	201	520	513	128	125	10	62.7-136			1.30	20
Toluene	25.0	ND	305	294	122	118	10	67.8-124			3.51	20
Xylenes, Total	75.0	280	1200	1170	123	119	10	65.6-133			2.90	20
(S) Toluene-d8					105	104		90.0-115				
(S) Dibromofluoromethane					85.4	86.0		79.0-121				
(S) a,a,a-Trifluorotoluene					106	103		90.4-116				
(S) 4-Bromofluorobenzene					99.1	98.7		80.1-120				



Method Blank (MB)

(MB) R3171332-1 10/17/16 21:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		83.3	250
Residual Range Organics (RRO)	U		167	500
(S) o-Terphenyl	111			64.0-146

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171332-2 10/17/16 21:36 • (LCSD) R3171332-3 10/17/16 21:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Diesel Range Organics (DRO)	750	839	790	112	105	50.0-150			6.05	20
Residual Range Organics (RRO)	750	822	768	110	102	50.0-150			6.83	20
(S) o-Terphenyl				116	117	64.0-146				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.



State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

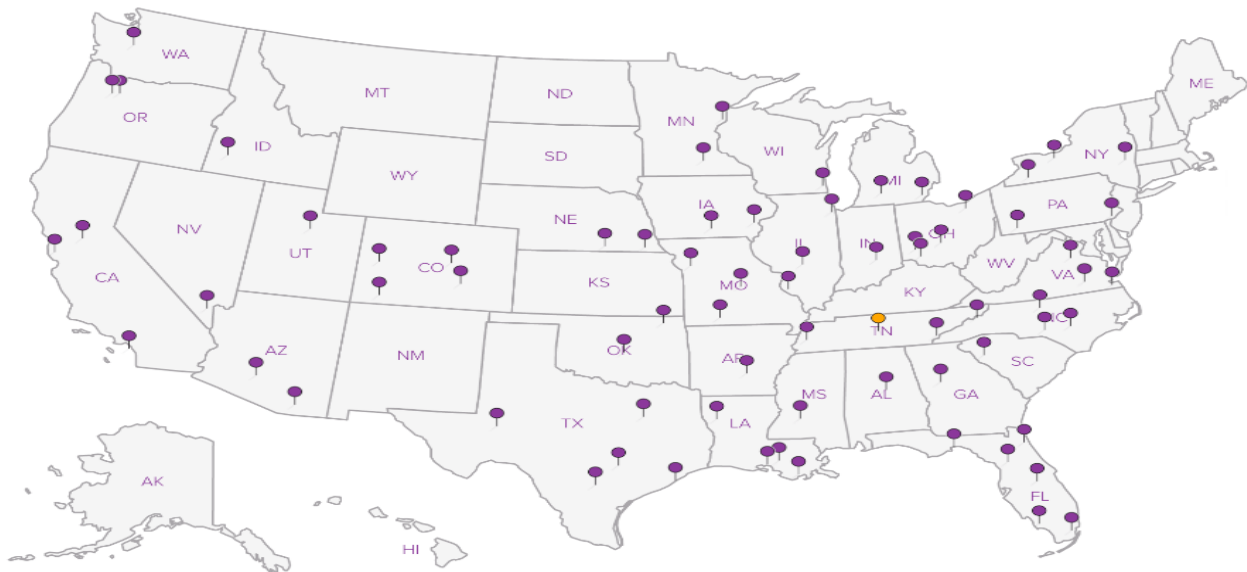
Third Party & Federal Accreditations


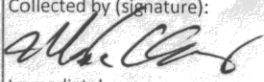
A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

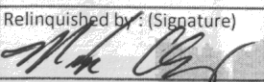
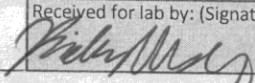


Kinder Morgan- Orange, CA 1100 Olive Way, Suite 800 Seattle, WA 98101				Billing Information & Quote Number: Accounts Payable- Rob Truedinger 1100 Town and Country Rd Orange, CA 92868				Analysis / Container / Preservative Dissolved Lead 250mlHDPE-NoPres FERUSFE 250mlAmb-HCl NITRATE,SULFATE 125mlHDPE-NoPres NWTPHGX 40mlAmb HCl RSK175 (methane) 40mlAmb HCl SULFIDE 125mlAmb-S-NaOH+ZnAc Total Lead 250mlHDPE-HNO3 V8260BTEXC 40mlAmb-HCl V8260BTEXC trip blk 40mlAmb-HCl-Bk										Chain of Custody Page ___ of ___  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859			
Report to: Rob Truedinger / Kyle Haslam				Email To: Kyle.Haslam@arcadis.com; Scott.Wenning@arcadis.com;														L# L866330 G230			
Project Description: KMEP Harbor Island				City/State Collected: Seattle, WA														Acctnum: KINMOROCA Template: T116370 Prelogin: P572252 TSR: 110 - Brian Ford PB:			
Phone: 206-726-4753 Fax:		Client Project # WA000804.2016.00002		Lab Project # KINMOROCA-HARBORISLA														Shipped Via:			
Collected by (print): Marta Ullery / Ryan Brauchler		Site/Facility ID # KMEP Harbor Island		P.O. # WA000804.2016														Rem./Contaminant Sample # (lab only)			
Collected by (signature): 		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day200% <input type="checkbox"/> Next Day100% <input type="checkbox"/> Two Day50% <input checked="" type="checkbox"/> Three Day25%		Date Results Needed Standard TAT		Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes		No. of Cntrs													
Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>																					
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time																
		GW				11	X	X	X	X	X	X	X	X	X	X	X	X			
A-5	Grab	GW		10/13/16	1310	4															
A-8	Grab	GW		10/13/16	1240	6															
A-10	Grab	GW		10/13/16	1030	6															
A-14R	Grab	GW		10/13/16	0920	8	X							X	X		X				
A-21	Grab	GW		10/13/16	0840	6	X							X	X		X				
A-23R	Grab	GW		10/11/16	1300	4															
MW-1	Grab	GW		10/12/16	1305	8	X							X	X		X				
MW-2	Grab	GW		10/12/16	1010	8	X							X	X		X				
MW-3	Grab	GW		10/12/16	1125	8	X							X	X		X				

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: Nitrate has a 48 hour hold time. Ferrous Fe will be field filtered and preserved. Dissolved Lead will be lab filtered and preserved. Lead by method 6020.

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) 	Date: 10/13/16	Time: 1630	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only) 0139
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.4 °C Bottles Received: 58+TB	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 10-15-16 Time: 0900	pH Checked: L2 NCF:



L · A · B · S · C · I · E · N · C · E · S

YOUR LAB OF CHOICE

Cooler Receipt Form

Client:	KINMORCA	SDG#	2866330
Cooler Received/Opened On:	10/15 /16	Temperature Upon Receipt:	3.4 °c
Received By: Rickey Mosley			
Signature: <i>Rickey Mosley</i>			

Receipt Check List			
	Yes	No	N/A
Were custody seals on outside of cooler and intact?	✓		
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	✓		
If applicable, was an observable VOA headspace present?			✓
Non Conformance Generated. (If yes see attached NCF)			

Kinder Morgan- Orange, CA

Sample Delivery Group: L866331
Samples Received: 10/15/2016
Project Number: WA000804.2016.00002
Description: KMEP Harbor Island
Site: KMLT HARBOR ISLAND
Report To: Rob Truedinger / Kyle Haslam
1100 Olive Way, Suite 800
Seattle, WA 98101

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹Cp: Cover Page	1
²Tc: Table of Contents	2
³Ss: Sample Summary	3
⁴Cn: Case Narrative	4
⁵Sr: Sample Results	5
11 L866331-01	5
12 L866331-02	6
TMW-4 L866331-03	7
DUP-2 L866331-04	8
⁶Qc: Quality Control Summary	9
Wet Chemistry by Method 9056A	9
Metals (ICPMS) by Method 6020	11
Volatile Organic Compounds (GC) by Method NWTPHGX	13
Volatile Organic Compounds (GC/MS) by Method 8260C	14
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	15
⁷Gl: Glossary of Terms	16
⁸Al: Accreditations & Locations	17
⁹Sc: Chain of Custody	18



SAMPLE SUMMARY



11 L866331-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by				10/14/16 11:30	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/18/16 01:03	10/18/16 01:03	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/20/16 22:20	10/20/16 22:20	BMB
Wet Chemistry by Method 9056A	WG918299	20	10/19/16 23:32	10/19/16 23:32	SAM

1 Cp

2 Tc

3 Ss

12 L866331-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by				10/14/16 09:50	Received date/time 10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918375	1	10/19/16 07:14	10/21/16 20:54	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:39	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/19/16 23:52	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/18/16 01:32	10/18/16 01:32	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	1	10/23/16 18:05	10/23/16 18:05	HJF
Wet Chemistry by Method 9056A	WG919075	20	10/20/16 17:09	10/20/16 17:09	SAM

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

TMW-4 L866331-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by				10/14/16 10:35	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/18/16 02:01	10/18/16 02:01	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	5	10/20/16 23:03	10/20/16 23:03	BMB
Wet Chemistry by Method 9056A	WG919075	20	10/20/16 20:23	10/20/16 20:23	SAM

9 Sc

DUP-2 L866331-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by				10/14/16 00:00	Received date/time 10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918375	1	10/19/16 07:14	10/21/16 20:57	JPD
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:44	JPD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917641	1	10/18/16 02:30	10/18/16 02:30	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG918854	10	10/20/16 23:24	10/20/16 23:24	BMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfate	548000		100000	20	10/19/2016 23:32	WG918299

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 01:03	WG917641
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		10/18/2016 01:03	WG917641

3 Ss

4 Cn

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/20/2016 22:20	WG918854
Toluene	ND		5.00	1	10/20/2016 22:20	WG918854
Ethylbenzene	ND		1.00	1	10/20/2016 22:20	WG918854
Total Xylenes	ND		3.00	1	10/20/2016 22:20	WG918854
(S) Toluene-d8	101		90.0-115		10/20/2016 22:20	WG918854
(S) Dibromofluoromethane	86.5		79.0-121		10/20/2016 22:20	WG918854
(S) a,a,a-Trifluorotoluene	104		90.4-116		10/20/2016 22:20	WG918854
(S) 4-Bromofluorobenzene	97.0		80.1-120		10/20/2016 22:20	WG918854

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfate	791000		100000	20	10/20/2016 17:09	WG919075

1 Cp

2 Tc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	18.7		2.00	1	10/21/2016 20:54	WG918375
Lead,Dissolved	3.36		2.00	1	10/21/2016 16:39	WG918531

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	1620		100	1	10/18/2016 01:32	WG917641
(S) a,a,a-Trifluorotoluene(FID)	92.1		62.0-128		10/18/2016 01:32	WG917641

6 Qc

7 Gl

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	3.63		1.00	1	10/23/2016 18:05	WG918854
Toluene	9.50		5.00	1	10/23/2016 18:05	WG918854
Ethylbenzene	72.1		1.00	1	10/23/2016 18:05	WG918854
Total Xylenes	30.6		3.00	1	10/23/2016 18:05	WG918854
(S) Toluene-d8	103		90.0-115		10/23/2016 18:05	WG918854
(S) Dibromofluoromethane	98.1		79.0-121		10/23/2016 18:05	WG918854
(S) a,a,a-Trifluorotoluene	102		90.4-116		10/23/2016 18:05	WG918854
(S) 4-Bromofluorobenzene	108		80.1-120		10/23/2016 18:05	WG918854

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	713		250	1	10/19/2016 23:52	WG918494
Residual Range Organics (RRO)	ND		500	1	10/19/2016 23:52	WG918494
(S) o-Terphenyl	92.4		50.0-150		10/19/2016 23:52	WG918494



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfate	936000		100000	20	10/20/2016 20:23	WG919075

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	3130		100	1	10/18/2016 02:01	WG917641
(S) a,a,a-Trifluorotoluene(FID)	85.6		62.0-128		10/18/2016 02:01	WG917641

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	25.0		5.00	5	10/20/2016 23:03	WG918854
Toluene	ND		25.0	5	10/20/2016 23:03	WG918854
Ethylbenzene	211		5.00	5	10/20/2016 23:03	WG918854
Total Xylenes	ND		15.0	5	10/20/2016 23:03	WG918854
(S) Toluene-d8	102		90.0-115		10/20/2016 23:03	WG918854
(S) Dibromofluoromethane	87.4		79.0-121		10/20/2016 23:03	WG918854
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/20/2016 23:03	WG918854
(S) 4-Bromofluorobenzene	95.5		80.1-120		10/20/2016 23:03	WG918854

6 Qc

7 Gl

8 Al

9 Sc



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	4.04		2.00	1	10/21/2016 20:57	WG918375
Lead,Dissolved	ND		2.00	1	10/21/2016 16:44	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	5590		100	1	10/18/2016 02:30	WG917641
(S) a,a,a-Trifluorotoluene(FID)	82.3		62.0-128		10/18/2016 02:30	WG917641

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	113		10.0	10	10/20/2016 23:24	WG918854
Toluene	ND		50.0	10	10/20/2016 23:24	WG918854
Ethylbenzene	206		10.0	10	10/20/2016 23:24	WG918854
Total Xylenes	287		30.0	10	10/20/2016 23:24	WG918854
(S) Toluene-d8	102		90.0-115		10/20/2016 23:24	WG918854
(S) Dibromofluoromethane	88.5		79.0-121		10/20/2016 23:24	WG918854
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/20/2016 23:24	WG918854
(S) 4-Bromofluorobenzene	94.3		80.1-120		10/20/2016 23:24	WG918854

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3171908-1 10/19/16 07:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L866168-03 Original Sample (OS) • Duplicate (DUP)

(OS) L866168-03 10/19/16 15:50 • (DUP) R3171908-4 10/19/16 16:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	22200	22100	1	1		15

L866326-01 Original Sample (OS) • Duplicate (DUP)

(OS) L866326-01 10/19/16 19:56 • (DUP) R3171908-6 10/19/16 20:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	ND	375	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171908-2 10/19/16 08:09 • (LCSD) R3171908-3 10/19/16 08:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	38900	38900	97	97	80-120			0	15

L866319-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L866319-01 10/19/16 17:22 • (MS) R3171908-5 10/19/16 17:37

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	23400	71600	96	1	80-120	

L866342-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866342-03 10/20/16 00:49 • (MS) R3171908-7 10/20/16 01:04 • (MSD) R3171908-8 10/20/16 01:20

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	40100	86100	87500	92	95	1	80-120			2	15



Method Blank (MB)

(MB) R3172300-1 10/20/16 08:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L866033-01 Original Sample (OS) • Duplicate (DUP)

(OS) L866033-01 10/20/16 14:10 • (DUP) R3172300-4 10/20/16 14:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	677000	677000	10	0		15

L866284-11 Original Sample (OS) • Duplicate (DUP)

(OS) L866284-11 10/20/16 18:23 • (DUP) R3172300-6 10/20/16 18:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	18500	18500	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172300-2 10/20/16 08:52 • (LCSD) R3172300-3 10/20/16 09:07

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	39100	39000	98	97	80-120			0	15

L866284-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L866284-08 10/20/16 14:54 • (MS) R3172300-5 10/20/16 15:39

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	13900	62200	97	1	80-120	

L866284-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866284-09 10/20/16 18:53 • (MS) R3172300-7 10/20/16 19:08 • (MSD) R3172300-8 10/20/16 19:23

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	30000	77600	77800	95	96	1	80-120			0	15



Method Blank (MB)

(MB) R3172565-1 10/21/16 19:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead	U		0.240	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172565-2 10/21/16 19:35 • (LCSD) R3172565-3 10/21/16 19:38

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead	50.0	49.4	50.1	99	100	80-120			1	20

⁵ Sr

⁶ Qc

L866374-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866374-04 10/21/16 19:41 • (MS) R3172565-5 10/21/16 19:48 • (MSD) R3172565-6 10/21/16 19:51

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead	50.0	ND	49.7	50.1	99	100	1	75-125			1	20

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3172567-1 10/21/16 15:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead,Dissolved	U		0.240	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172567-2 10/21/16 15:19 • (LCSD) R3172567-3 10/21/16 15:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	54.7	50.5	109	101	80-120			8	20

L866330-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866330-08 10/21/16 15:30 • (MS) R3172567-5 10/21/16 15:40 • (MSD) R3172567-6 10/21/16 15:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	ND	50.6	50.4	101	100	1	75-125			1	20

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3173045-3 10/17/16 11:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	102			62.0-128

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173045-1 10/17/16 10:28 • (LCSD) R3173045-2 10/17/16 10:57

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	5080	5860	92.3	107	66.0-123			14.4	20
(S) a,a,a-Trifluorotoluene(FID)				99.7	101	62.0-128				

L866169-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866169-13 10/17/16 14:02 • (MS) R3173045-4 10/17/16 14:31 • (MSD) R3173045-5 10/17/16 14:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	331	5940	6050	102	104	1	47.5-136			1.87	20
(S) a,a,a-Trifluorotoluene(FID)					100	100		62.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3172648-3 10/20/16 17:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			90.0-115
(S) Dibromofluoromethane	87.0			79.0-121
(S) a,a,a-Trifluorotoluene	104			90.4-116
(S) 4-Bromofluorobenzene	95.4			80.1-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172648-1 10/20/16 15:53 • (LCSD) R3172648-2 10/20/16 16:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Benzene	25.0	20.3	21.6	81.0	86.4	73.0-122			6.41	20
Ethylbenzene	25.0	23.5	25.3	93.9	101	80.9-121			7.49	20
Toluene	25.0	22.6	23.8	90.2	95.0	77.9-116			5.18	20
Xylenes, Total	75.0	70.6	75.7	94.1	101	79.2-122			6.99	20
(S) Toluene-d8				103	103	90.0-115				
(S) Dibromofluoromethane				85.1	83.9	79.0-121				
(S) a,a,a-Trifluorotoluene				103	105	90.4-116				
(S) 4-Bromofluorobenzene				98.4	101	80.1-120				

6 Qc

7 Gl

8 Al

9 Sc

L866327-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866327-04 10/20/16 19:31 • (MS) R3172648-4 10/20/16 17:45 • (MSD) R3172648-5 10/20/16 18:06

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Benzene	25.0	106	376	374	108	107	10	58.6-133			0.490	20
Ethylbenzene	25.0	201	520	513	128	125	10	62.7-136			1.30	20
Toluene	25.0	ND	305	294	122	118	10	67.8-124			3.51	20
Xylenes, Total	75.0	280	1200	1170	123	119	10	65.6-133			2.90	20
(S) Toluene-d8					105	104		90.0-115				
(S) Dibromofluoromethane					85.4	86.0		79.0-121				
(S) a,a,a-Trifluorotoluene					106	103		90.4-116				
(S) 4-Bromofluorobenzene					99.1	98.7		80.1-120				



Method Blank (MB)

(MB) R3171932-1 10/19/16 19:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		83.3	250
Residual Range Organics (RRO)	U		167	500
<i>(S) o-Terphenyl</i>	132			50.0-150

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171932-2 10/19/16 20:11 • (LCSD) R3171932-3 10/19/16 20:28

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Diesel Range Organics (DRO)	750	726	778	96.7	104	50.0-150			7.02	20
Residual Range Organics (RRO)	750	566	609	75.5	81.2	50.0-150			7.23	20
<i>(S) o-Terphenyl</i>				95.1	98.4	50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

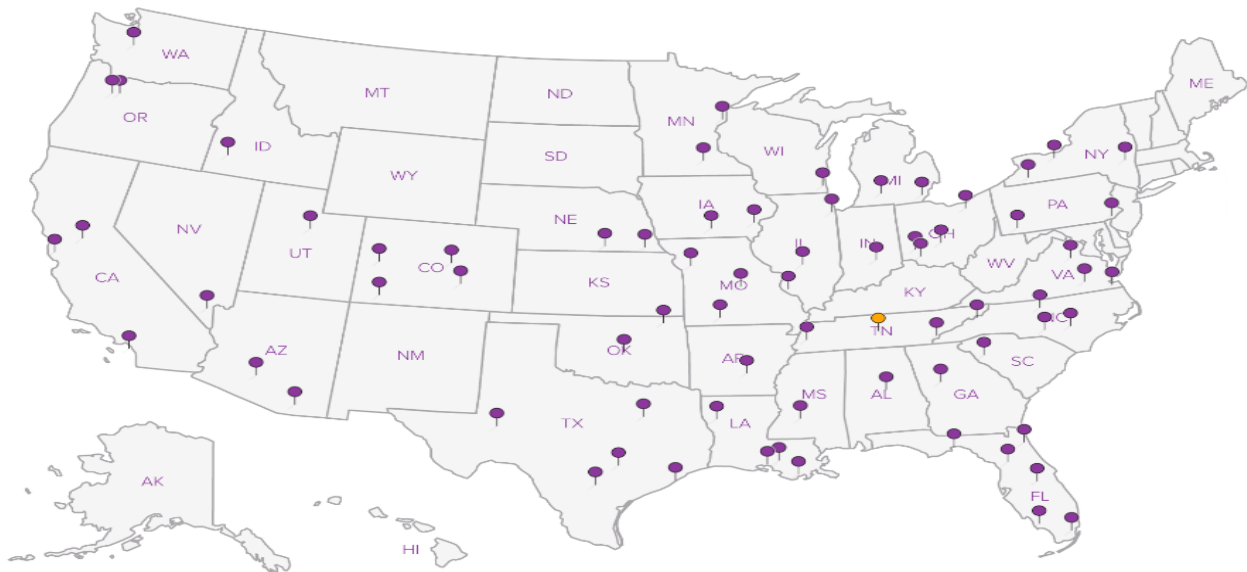
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L · A · B S · C · I · E · N · C · E · S

YOUR LAB OF CHOICE

Cooler Receipt Form

Client:	KENMOROCA	SDG#	L866331
Cooler Received/Opened On:	10/15/16	Temperature Upon Receipt:	3.1 °c
Received By: Alex Schulert			
Signature: <i>Alex</i>			

Receipt Check List			
	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were custody papers properly filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If applicable, was an observable VOA headspace present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non Conformance Generated. (If yes see attached NCF)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Kinder Morgan- Orange, CA

Sample Delivery Group: L866366
Samples Received: 10/15/2016
Project Number: WA000804.2016.00002
Description: KMEP Harbor Island
Site: KMEP HARBOR ISLAND
Report To: Rob Truedinger / Kyle Haslam
1100 Olive Way, Suite 800
Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹Cp: Cover Page	1
²Tc: Table of Contents	2
³Ss: Sample Summary	3
⁴Cn: Case Narrative	6
⁵Sr: Sample Results	7
MW-14 L866366-01	7
MW-16 L866366-02	8
MW-18 L866366-03	9
MW-19 L866366-04	10
MW-20 L866366-05	11
MW-21 L866366-06	12
MW-22 L866366-07	13
MW-25 L866366-08	14
SH-02R L866366-09	15
SH-05R L866366-10	16
TMW-1 L866366-11	17
TMW-2 L866366-12	18
TMW-3 L866366-13	19
TMW-5 L866366-14	20
TMW-6 L866366-15	21
⁶Qc: Quality Control Summary	22
Wet Chemistry by Method 9056A	22
Metals (ICPMS) by Method 6020	23
Volatile Organic Compounds (GC) by Method NWTPHGX	25
Volatile Organic Compounds (GC/MS) by Method 8260C	26
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	27
⁷Gl: Glossary of Terms	28
⁸Al: Accreditations & Locations	29
⁹Sc: Chain of Custody	30



SAMPLE SUMMARY



MW-14 L866366-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/11/16 13:50	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 13:58	10/18/16 13:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 06:23	10/22/16 06:23	JHH

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

MW-16 L866366-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 15:25	Received date/time 10/15/16 09:00
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/20/16 00:08	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 15:54	10/18/16 15:54	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 06:44	10/22/16 06:44	JHH

MW-18 L866366-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 14:50	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 16:23	10/18/16 16:23	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 07:05	10/22/16 07:05	JHH

MW-19 L866366-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/11/16 14:35	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 16:52	10/18/16 16:52	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 07:26	10/22/16 07:26	JHH
Wet Chemistry by Method 9056A	WG918741	1	10/20/16 13:15	10/20/16 13:15	SAM

MW-20 L866366-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 14:20	Received date/time 10/15/16 09:00
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/20/16 00:25	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 17:21	10/18/16 17:21	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 07:47	10/22/16 07:47	JHH

MW-21 L866366-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/13/16 09:05	Received date/time 10/15/16 09:00
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/20/16 00:42	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 17:50	10/18/16 17:50	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 08:08	10/22/16 08:08	JHH

MW-22 L866366-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 09:20	Received date/time 10/15/16 09:00
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/20/16 00:59	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 18:19	10/18/16 18:19	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 08:29	10/22/16 08:29	JHH

SAMPLE SUMMARY



MW-25 L866366-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918486	1	10/20/16 14:42	10/24/16 14:51	JDG
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:50	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/20/16 01:15	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 18:48	10/18/16 18:48	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 08:50	10/22/16 08:50	JHH

Collected by MU/RB Collected date/time 10/13/16 11:35 Received date/time 10/15/16 09:00

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

SH-02R L866366-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918486	1	10/20/16 14:42	10/24/16 14:07	JDG
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 16:55	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/20/16 01:32	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 19:17	10/18/16 19:17	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 09:12	10/22/16 09:12	JHH

Collected by MU/RB Collected date/time 10/12/16 11:00 Received date/time 10/15/16 09:00

SH-05R L866366-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918486	1	10/20/16 14:42	10/24/16 14:54	JDG
Metals (ICPMS) by Method 6020	WG918531	1	10/20/16 16:39	10/21/16 17:00	JPD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG918494	1	10/18/16 18:10	10/20/16 01:49	TRF
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 19:46	10/18/16 19:46	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 09:33	10/22/16 09:33	JHH

Collected by MU/RB Collected date/time 10/12/16 13:20 Received date/time 10/15/16 09:00

TMW-1 L866366-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 20:16	10/18/16 20:16	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 09:54	10/22/16 09:54	JHH
Wet Chemistry by Method 9056A	WG918741	10	10/20/16 13:44	10/20/16 13:44	SAM

Collected by MU/RB Collected date/time 10/12/16 10:30 Received date/time 10/15/16 09:00

TMW-2 L866366-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 22:50	10/18/16 22:50	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 10:15	10/22/16 10:15	JHH
Wet Chemistry by Method 9056A	WG918741	20	10/20/16 13:58	10/20/16 13:58	SAM

Collected by MU/RB Collected date/time 10/12/16 09:50 Received date/time 10/15/16 09:00

TMW-3 L866366-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 23:19	10/18/16 23:19	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 10:36	10/22/16 10:36	JHH
Wet Chemistry by Method 9056A	WG918741	20	10/20/16 14:13	10/20/16 14:13	SAM

Collected by MU/RB Collected date/time 10/12/16 13:15 Received date/time 10/15/16 09:00

SAMPLE SUMMARY



TMW-5 L866366-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 15:05	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/18/16 23:48	10/18/16 23:48	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 10:58	10/22/16 10:58	JHH
Wet Chemistry by Method 9056A	WG918741	20	10/20/16 14:27	10/20/16 14:27	SAM

1 Cp

2 Tc

3 Ss

4 Cn

TMW-6 L866366-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 15:50	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/19/16 00:17	10/19/16 00:17	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	1	10/22/16 11:19	10/22/16 11:19	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919304	10	10/26/16 12:38	10/26/16 12:38	BMB
Wet Chemistry by Method 9056A	WG918741	20	10/20/16 14:42	10/20/16 14:42	SAM

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	1110		100	1	10/18/2016 13:58	WG918122
(S) a,a,a-Trifluorotoluene(FID)	99.1		62.0-128		10/18/2016 13:58	WG918122

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 06:23	WG919304
Toluene	ND		5.00	1	10/22/2016 06:23	WG919304
Ethylbenzene	25.7		1.00	1	10/22/2016 06:23	WG919304
Total Xylenes	30.9		3.00	1	10/22/2016 06:23	WG919304
(S) Toluene-d8	102		90.0-115		10/22/2016 06:23	WG919304
(S) Dibromofluoromethane	82.5		79.0-121		10/22/2016 06:23	WG919304
(S) a,a,a-Trifluorotoluene	106		90.4-116		10/22/2016 06:23	WG919304
(S) 4-Bromofluorobenzene	91.9		80.1-120		10/22/2016 06:23	WG919304

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 15:54	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 15:54	WG918122

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 06:44	WG919304
Toluene	ND		5.00	1	10/22/2016 06:44	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 06:44	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 06:44	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 06:44	WG919304
(S) Dibromofluoromethane	87.6		79.0-121		10/22/2016 06:44	WG919304
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/22/2016 06:44	WG919304
(S) 4-Bromofluorobenzene	93.0		80.1-120		10/22/2016 06:44	WG919304

4 Cn

5 Sr

6 Qc

7 Gl

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/20/2016 00:08	WG918494
Residual Range Organics (RRO)	ND		500	1	10/20/2016 00:08	WG918494
(S) o-Terphenyl	90.3		50.0-150		10/20/2016 00:08	WG918494

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 16:23	WG918122
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		10/18/2016 16:23	WG918122

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 07:05	WG919304
Toluene	ND		5.00	1	10/22/2016 07:05	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 07:05	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 07:05	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 07:05	WG919304
(S) Dibromofluoromethane	85.9		79.0-121		10/22/2016 07:05	WG919304
(S) a,a,a-Trifluorotoluene	106		90.4-116		10/22/2016 07:05	WG919304
(S) 4-Bromofluorobenzene	95.3		80.1-120		10/22/2016 07:05	WG919304

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Sulfate	ND		5000	1	10/20/2016 13:15	WG918741

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1980		100	1	10/18/2016 16:52	WG918122
(S) a,a,a-Trifluorotoluene(FID)	94.3		62.0-128		10/18/2016 16:52	WG918122

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Benzene	5.27		1.00	1	10/22/2016 07:26	WG919304
Toluene	ND		5.00	1	10/22/2016 07:26	WG919304
Ethylbenzene	11.9		1.00	1	10/22/2016 07:26	WG919304
Total Xylenes	8.06		3.00	1	10/22/2016 07:26	WG919304
(S) Toluene-d8	102		90.0-115		10/22/2016 07:26	WG919304
(S) Dibromofluoromethane	85.5		79.0-121		10/22/2016 07:26	WG919304
(S) a,a,a-Trifluorotoluene	107		90.4-116		10/22/2016 07:26	WG919304
(S) 4-Bromofluorobenzene	91.6		80.1-120		10/22/2016 07:26	WG919304

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 17:21	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 17:21	WG918122

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 07:47	WG919304
Toluene	ND		5.00	1	10/22/2016 07:47	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 07:47	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 07:47	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 07:47	WG919304
(S) Dibromofluoromethane	86.9		79.0-121		10/22/2016 07:47	WG919304
(S) a,a,a-Trifluorotoluene	106		90.4-116		10/22/2016 07:47	WG919304
(S) 4-Bromofluorobenzene	95.3		80.1-120		10/22/2016 07:47	WG919304

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/20/2016 00:25	WG918494
Residual Range Organics (RRO)	ND		500	1	10/20/2016 00:25	WG918494
(S) o-Terphenyl	91.3		50.0-150		10/20/2016 00:25	WG918494

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	244		100	1	10/18/2016 17:50	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 17:50	WG918122

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 08:08	WG919304
Toluene	ND		5.00	1	10/22/2016 08:08	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 08:08	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 08:08	WG919304
(S) Toluene-d8	100		90.0-115		10/22/2016 08:08	WG919304
(S) Dibromofluoromethane	86.8		79.0-121		10/22/2016 08:08	WG919304
(S) a,a,a-Trifluorotoluene	106		90.4-116		10/22/2016 08:08	WG919304
(S) 4-Bromofluorobenzene	97.1		80.1-120		10/22/2016 08:08	WG919304

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	1640		250	1	10/20/2016 00:42	WG918494
Residual Range Organics (RRO)	ND		500	1	10/20/2016 00:42	WG918494
(S) o-Terphenyl	101		50.0-150		10/20/2016 00:42	WG918494

9 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 18:19	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 18:19	WG918122

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 08:29	WG919304
Toluene	ND		5.00	1	10/22/2016 08:29	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 08:29	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 08:29	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 08:29	WG919304
(S) Dibromofluoromethane	86.8		79.0-121		10/22/2016 08:29	WG919304
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/22/2016 08:29	WG919304
(S) 4-Bromofluorobenzene	93.9		80.1-120		10/22/2016 08:29	WG919304

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/20/2016 00:59	WG918494
Residual Range Organics (RRO)	ND		500	1	10/20/2016 00:59	WG918494
(S) o-Terphenyl	93.3		50.0-150		10/20/2016 00:59	WG918494

9 Sc



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/24/2016 14:51	WG918486
Lead,Dissolved	ND		2.00	1	10/21/2016 16:50	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 18:48	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 18:48	WG918122

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 08:50	WG919304
Toluene	ND		5.00	1	10/22/2016 08:50	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 08:50	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 08:50	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 08:50	WG919304
(S) Dibromofluoromethane	85.9		79.0-121		10/22/2016 08:50	WG919304
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/22/2016 08:50	WG919304
(S) 4-Bromofluorobenzene	96.1		80.1-120		10/22/2016 08:50	WG919304

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/20/2016 01:15	WG918494
Residual Range Organics (RRO)	ND		500	1	10/20/2016 01:15	WG918494
(S) o-Terphenyl	96.1		50.0-150		10/20/2016 01:15	WG918494



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/24/2016 14:07	WG918486
Lead,Dissolved	ND		2.00	1	10/21/2016 16:55	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 19:17	WG918122
(S) a,a,a-Trifluorotoluene(FID)	104		62.0-128		10/18/2016 19:17	WG918122

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 09:12	WG919304
Toluene	ND		5.00	1	10/22/2016 09:12	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 09:12	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 09:12	WG919304
(S) Toluene-d8	102		90.0-115		10/22/2016 09:12	WG919304
(S) Dibromofluoromethane	86.5		79.0-121		10/22/2016 09:12	WG919304
(S) a,a,a-Trifluorotoluene	107		90.4-116		10/22/2016 09:12	WG919304
(S) 4-Bromofluorobenzene	95.9		80.1-120		10/22/2016 09:12	WG919304

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/20/2016 01:32	WG918494
Residual Range Organics (RRO)	ND		500	1	10/20/2016 01:32	WG918494
(S) o-Terphenyl	89.3		50.0-150		10/20/2016 01:32	WG918494



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/24/2016 14:54	WG918486
Lead,Dissolved	ND		2.00	1	10/21/2016 17:00	WG918531

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	257		100	1	10/18/2016 19:46	WG918122
(S) a,a,a-Trifluorotoluene(FID)	101		62.0-128		10/18/2016 19:46	WG918122

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 09:33	WG919304
Toluene	ND		5.00	1	10/22/2016 09:33	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 09:33	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 09:33	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 09:33	WG919304
(S) Dibromofluoromethane	86.7		79.0-121		10/22/2016 09:33	WG919304
(S) a,a,a-Trifluorotoluene	106		90.4-116		10/22/2016 09:33	WG919304
(S) 4-Bromofluorobenzene	96.3		80.1-120		10/22/2016 09:33	WG919304

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	543		250	1	10/20/2016 01:49	WG918494
Residual Range Organics (RRO)	ND		500	1	10/20/2016 01:49	WG918494
(S) o-Terphenyl	97.8		50.0-150		10/20/2016 01:49	WG918494



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Sulfate	314000		50000	10	10/20/2016 13:44	WG918741

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 20:16	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 20:16	WG918122

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Benzene	ND		1.00	1	10/22/2016 09:54	WG919304
Toluene	ND		5.00	1	10/22/2016 09:54	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 09:54	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 09:54	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 09:54	WG919304
(S) Dibromofluoromethane	85.8		79.0-121		10/22/2016 09:54	WG919304
(S) a,a,a-Trifluorotoluene	107		90.4-116		10/22/2016 09:54	WG919304
(S) 4-Bromofluorobenzene	95.4		80.1-120		10/22/2016 09:54	WG919304

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfate	1200000		100000	20	10/20/2016 13:58	WG918741

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 22:50	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/18/2016 22:50	WG918122

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 10:15	WG919304
Toluene	ND		5.00	1	10/22/2016 10:15	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 10:15	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 10:15	WG919304
(S) Toluene-d8	100		90.0-115		10/22/2016 10:15	WG919304
(S) Dibromofluoromethane	87.9		79.0-121		10/22/2016 10:15	WG919304
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/22/2016 10:15	WG919304
(S) 4-Bromofluorobenzene	94.4		80.1-120		10/22/2016 10:15	WG919304

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfate	1190000		100000	20	10/20/2016 14:13	WG918741

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	607		100	1	10/18/2016 23:19	WG918122
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		10/18/2016 23:19	WG918122

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	10/22/2016 10:36	WG919304
Toluene	ND		5.00	1	10/22/2016 10:36	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 10:36	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 10:36	WG919304
(S) Toluene-d8	101		90.0-115		10/22/2016 10:36	WG919304
(S) Dibromofluoromethane	86.3		79.0-121		10/22/2016 10:36	WG919304
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/22/2016 10:36	WG919304
(S) 4-Bromofluorobenzene	93.6		80.1-120		10/22/2016 10:36	WG919304

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfate	765000		100000	20	10/20/2016 14:27	WG918741

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	1270		100	1	10/18/2016 23:48	WG918122
(S) a,a,a-Trifluorotoluene(FID)	96.3		62.0-128		10/18/2016 23:48	WG918122

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	8.12		1.00	1	10/22/2016 10:58	WG919304
Toluene	ND		5.00	1	10/22/2016 10:58	WG919304
Ethylbenzene	ND		1.00	1	10/22/2016 10:58	WG919304
Total Xylenes	ND		3.00	1	10/22/2016 10:58	WG919304
(S) Toluene-d8	103		90.0-115		10/22/2016 10:58	WG919304
(S) Dibromofluoromethane	84.4		79.0-121		10/22/2016 10:58	WG919304
(S) a,a,a-Trifluorotoluene	107		90.4-116		10/22/2016 10:58	WG919304
(S) 4-Bromofluorobenzene	97.1		80.1-120		10/22/2016 10:58	WG919304

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfate	1530000		100000	20	10/20/2016 14:42	WG918741

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	5820		100	1	10/19/2016 00:17	WG918122
(S) a,a,a-Trifluorotoluene(FID)	75.0		62.0-128		10/19/2016 00:17	WG918122

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	2.78		1.00	1	10/22/2016 11:19	WG919304
Toluene	6.67		5.00	1	10/22/2016 11:19	WG919304
Ethylbenzene	267		10.0	10	10/26/2016 12:38	WG919304
Total Xylenes	392		3.00	1	10/22/2016 11:19	WG919304
(S) Toluene-d8	104		90.0-115		10/22/2016 11:19	WG919304
(S) Toluene-d8	102		90.0-115		10/26/2016 12:38	WG919304
(S) Dibromofluoromethane	95.4		79.0-121		10/26/2016 12:38	WG919304
(S) Dibromofluoromethane	83.6		79.0-121		10/22/2016 11:19	WG919304
(S) a,a,a-Trifluorotoluene	107		90.4-116		10/22/2016 11:19	WG919304
(S) a,a,a-Trifluorotoluene	101		90.4-116		10/26/2016 12:38	WG919304
(S) 4-Bromofluorobenzene	110		80.1-120		10/26/2016 12:38	WG919304
(S) 4-Bromofluorobenzene	91.9		80.1-120		10/22/2016 11:19	WG919304

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3172287-1 10/20/16 09:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L866366-04 Original Sample (OS) • Duplicate (DUP)

(OS) L866366-04 10/20/16 13:15 • (DUP) R3172287-4 10/20/16 13:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	ND	946	1	0		15

L866394-03 Original Sample (OS) • Duplicate (DUP)

(OS) L866394-03 10/20/16 17:06 • (DUP) R3172287-6 10/20/16 17:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	11400	11400	1	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172287-2 10/20/16 09:50 • (LCSD) R3172287-3 10/20/16 10:04

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	38600	38600	97	97	80-120			0	15

L866374-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L866374-01 10/20/16 15:25 • (MS) R3172287-5 10/20/16 15:39

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	ND	50000	97	1	80-120	

L866374-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866374-03 10/20/16 16:08 • (MS) R3172287-7 10/20/16 19:15 • (MSD) R3172287-8 10/20/16 19:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	5980	55300	55100	99	98	1	80-120			0	15



Method Blank (MB)

(MB) R3172876-8 10/24/16 14:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead	U		0.240	2.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172876-2 10/24/16 14:01 • (LCSD) R3172876-3 10/24/16 14:04

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead	50.0	49.5	50.7	99	101	80-120			2	20

⁷Gl

⁸Al

L866366-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866366-09 10/24/16 14:07 • (MS) R3172876-5 10/24/16 14:13 • (MSD) R3172876-6 10/24/16 14:17

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead	50.0	ND	50.7	50.2	101	100	1	75-125			1	20

⁹Sc



Method Blank (MB)

(MB) R3172567-1 10/21/16 15:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead,Dissolved	U		0.240	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172567-2 10/21/16 15:19 • (LCSD) R3172567-3 10/21/16 15:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	54.7	50.5	109	101	80-120			8	20

L866330-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866330-08 10/21/16 15:30 • (MS) R3172567-5 10/21/16 15:40 • (MSD) R3172567-6 10/21/16 15:46

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	ND	50.6	50.4	101	100	1	75-125			1	20

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3173034-3 10/18/16 11:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)				62.0-128

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173034-1 10/18/16 10:14 • (LCSD) R3173034-2 10/18/16 10:43

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	5920	5390	108	98.0	66.0-123			9.41	20
(S) a,a,a-Trifluorotoluene(FID)				101	101	62.0-128				

L866366-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866366-01 10/18/16 13:58 • (MS) R3173034-4 10/18/16 14:27 • (MSD) R3173034-5 10/18/16 14:56

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	1110	6370	6960	95.5	106	1	47.5-136			8.89	20
(S) a,a,a-Trifluorotoluene(FID)					102	101		62.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3173039-3 10/22/16 05:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			90.0-115
(S) Dibromofluoromethane	87.0			79.0-121
(S) a,a,a-Trifluorotoluene	106			90.4-116
(S) 4-Bromofluorobenzene	94.4			80.1-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173039-1 10/22/16 04:42 • (LCSD) R3173039-2 10/22/16 05:03

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	21.7	21.5	86.7	86.2	73.0-122			0.660	20
Ethylbenzene	25.0	25.1	25.5	101	102	80.9-121			1.57	20
Toluene	25.0	24.6	24.6	98.5	98.4	77.9-116			0.0700	20
Xylenes, Total	75.0	76.1	76.3	102	102	79.2-122			0.200	20
(S) Toluene-d8				103	102	90.0-115				
(S) Dibromofluoromethane				84.1	83.2	79.0-121				
(S) a,a,a-Trifluorotoluene				105	106	90.4-116				
(S) 4-Bromofluorobenzene				96.1	97.9	80.1-120				

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3171932-1 10/19/16 19:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		83.3	250
Residual Range Organics (RRO)	U		167	500
<i>(S) o-Terphenyl</i>	132			50.0-150

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171932-2 10/19/16 20:11 • (LCSD) R3171932-3 10/19/16 20:28

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Diesel Range Organics (DRO)	750	726	778	96.7	104	50.0-150			7.02	20
Residual Range Organics (RRO)	750	566	609	75.5	81.2	50.0-150			7.23	20
<i>(S) o-Terphenyl</i>				95.1	98.4	50.0-150				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.



State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

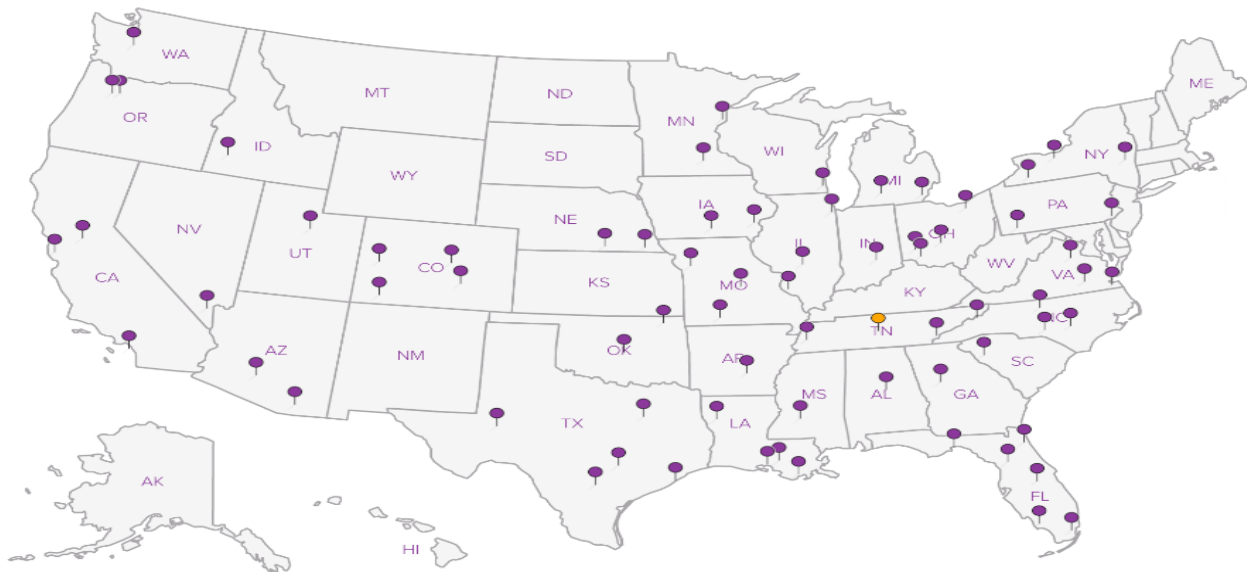
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Kinder Morgan- Orange, CA

1100 Olive Way, Suite 800
Seattle, WA 98101

Billing Information & Quote Number:

Accounts Payable- Rob Truedinger
1100 Town and Country Rd
Orange, CA 92868

Report to:
Rob Truedinger / Kyle Haslam

Email To: Kyle.Haslam@arcadis.com;
Scott.Wenning@arcadis.com;

Project
Description: **KMEP Harbor Island**

City/State
Collected: **Seattle, WA**

Phone: **206-726-4753**
Fax:

Client Project #
WA000804.2016.00002

Lab Project #
KINMOROCA-HARBORISLA

Collected by (print):
Mark Ullery / Ryan Brauchler

Site/Facility ID #
KMEP Harbor Island WA000804.2016

P.O. #

Collected by (signature):

[Signature]

Rush? (Lab MUST Be Notified)

Same Day200%
Next Day100%
Two Day50%
Three Day25%

Date Results Needed

Standard TAT

Email? No Yes

FAX? No Yes

No. of
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	Dissolved Lead 250mlHDPE-NoPres	FERUSFE 250mlAmb-HCl	NITRATE,SULFATE 125mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	RSK175 (methane) 40mlAmb HCl	SULFIDE 125mlAmb-S-NaOH+ZnAc	Total Lead 250mlHDPE-HNO3	V8260BTEXC 40mlAmb-HCl	V8260BTEXC trip blk 40mlAmb-HCl-Bk	Chain of Custody
		GW				11	X	X	X	X	X	X	X	X	X	
SH-OSR	Grab	GW		10/12/16	1320	8	X		X	X			X	X		X
TMW-1	Grab	GW		10/12/16	1030	5			X	X				X		
TMW-2	Grab	GW		10/12/16	0950	5			X	X				X		
TMW-3	Grab	GW		10/12/16	1315	5			X	X				X		
TMW-5	Grab	GW		10/12/16	1505	5			X	X				X		
TMW-6	Grab	GW		10/12/16	1550	5			X	X				X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: Nitrate has a 48 hour hold time. Ferrous Fe will be field filtered and preserved. Dissolved Lead will be lab filtered and preserved. Lead by method 6020.

pH _____ Temp _____

Flow _____ Other _____

6443 1368 8844

Hold #

Relinquished by: (Signature)

[Signature]

Date:

10/13/16

Time:

1630

Received by: (Signature)

[Signature]

Samples returned via: UPS

FedEx Courier

Condition: (lab use only)

SW 7

Relinquished by: (Signature)

[Signature]

Date:

Time:

Received by: (Signature)

[Signature]

Temp: _____ °C Bottles Received:

2.9 86+TB

COC Seal Intact: Y N NA

Relinquished by: (Signature)

[Signature]

Date:

Time:

Received for lab by: (Signature)

[Signature]

Date:

1

Time:

0900

pH Checked:

< 2

NCF:



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **L6666366**

Table #

Acctnum: **KINMOROCA**

Template: **T116370**

Prelogin: **P572252**

TSR: **110 - Brian Ford**

PB:

Shipped Via:

Rem./Contaminant Sample # (lab only)



Cooler Receipt Form

Client: KINMOROCA	SDG#	LG66366
Cooler Received/Opened On: 10/15/16	Temperature Upon Receipt:	2.9 °C
Received By: Richard Hughes		
Signature: <i>[Signature]</i>		

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			/
Were custody papers properly filled out?	/		
Did all bottles arrive in good condition?	/		
Were correct bottles used for the analyses requested?	/		
Was sufficient amount of sample sent in each bottle?	/		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	/		
If applicable, was an observable VOA headspace present?		/	
Non Conformance Generated. (If yes see attached NCF)			

Kinder Morgan- Orange, CA

Sample Delivery Group: L866446
Samples Received: 10/15/2016
Project Number: WA000804.2016.00002
Description: KMEP Harbor Island
Site: KMEP HARBOR ISLAND
Report To: Rob Truedinger / Kyle Haslam
1100 Olive Way, Suite 800
Seattle, WA 98101

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹Cp: Cover Page	1
²Tc: Table of Contents	2
³Ss: Sample Summary	3
⁴Cn: Case Narrative	5
⁵Sr: Sample Results	6
MW-4 L866446-01	6
MW-5 L866446-02	7
MW-6 L866446-03	8
MW-7 L866446-04	9
DUP-1 L866446-05	10
MW-07R L866446-06	11
MW-8 L866446-07	12
MW-9 L866446-08	13
MW-12R L866446-09	14
⁶Qc: Quality Control Summary	15
Wet Chemistry by Method 9056A	15
Metals (ICPMS) by Method 6020	16
Volatile Organic Compounds (GC) by Method NWTPHGX	18
Volatile Organic Compounds (GC/MS) by Method 8260C	20
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	21
⁷Gl: Glossary of Terms	22
⁸Al: Accreditations & Locations	23
⁹Sc: Chain of Custody	24

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY



MW-4 L866446-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 01:28	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/19/16 00:47	10/19/16 00:47	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 06:36	10/22/16 06:36	HJF

Collected by MU/RB Collected date/time 10/12/16 11:40 Received date/time 10/15/16 09:00

- 1
Cp
- 2
Tc
- 3
Ss
- 4
Cn
- 5
Sr
- 6
Qc
- 7
Gl
- 8
Al
- 9
Sc

MW-5 L866446-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:18	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:18	LAT
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 01:45	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/19/16 01:16	10/19/16 01:16	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 06:48	10/22/16 06:48	HJF

Collected by MU/RB Collected date/time 10/12/16 14:00 Received date/time 10/15/16 09:00

MW-6 L866446-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:21	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:37	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/19/16 01:46	10/19/16 01:46	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 07:43	10/22/16 07:43	HJF

Collected by MU/RB Collected date/time 10/12/16 08:45 Received date/time 10/15/16 09:00

MW-7 L866446-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:24	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:40	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/19/16 02:15	10/19/16 02:15	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 07:56	10/22/16 07:56	HJF
Wet Chemistry by Method 9056A	WG918742	20	10/20/16 20:49	10/20/16 20:49	SAM

Collected by MU/RB Collected date/time 10/13/16 12:30 Received date/time 10/15/16 09:00

DUP-1 L866446-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:27	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:43	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918122	1	10/19/16 02:44	10/19/16 02:44	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 08:09	10/22/16 08:09	HJF
Wet Chemistry by Method 9056A	WG918742	20	10/20/16 21:04	10/20/16 21:04	SAM

Collected by MU/RB Collected date/time 10/13/16 00:00 Received date/time 10/15/16 09:00

MW-07R L866446-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:30	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:46	LAT
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 02:01	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918177	1	10/18/16 15:05	10/18/16 15:05	LRL

Collected by MU/RB Collected date/time 10/12/16 12:45 Received date/time 10/15/16 09:00

SAMPLE SUMMARY



MW-07R L866446-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 12:45	Received date/time 10/15/16 09:00
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 08:21	10/22/16 08:21	HJF

1
Cp

2
Tc

3
Ss

MW-8 L866446-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/13/16 09:50	Received date/time 10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:33	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:49	LAT
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 02:18	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918177	1	10/18/16 16:41	10/18/16 16:41	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 08:34	10/22/16 08:34	HJF

4
Cn

5
Sr

6
Qc

MW-9 L866446-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/13/16 10:45	Received date/time 10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:36	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:52	LAT
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918177	1	10/18/16 17:06	10/18/16 17:06	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 08:46	10/22/16 08:46	HJF
Wet Chemistry by Method 9056A	WG918742	1	10/20/16 21:19	10/20/16 21:19	SAM

7
Gl

8
Al

9
Sc

MW-12R L866446-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by MU/RB				Collected date/time 10/12/16 14:05	Received date/time 10/15/16 09:00
Metals (ICPMS) by Method 6020	WG918945	1	10/20/16 16:06	10/24/16 08:40	LAT
Metals (ICPMS) by Method 6020	WG919259	1	10/21/16 13:48	10/24/16 04:55	LAT
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG917686	1	10/17/16 12:10	10/18/16 02:35	CLG
Volatile Organic Compounds (GC) by Method NWTPHGX	WG918177	1	10/18/16 17:29	10/18/16 17:29	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG919305	1	10/22/16 08:59	10/22/16 08:59	HJF



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	285		100	1	10/19/2016 00:47	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/19/2016 00:47	WG918122

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 06:36	WG919305
Toluene	ND		5.00	1	10/22/2016 06:36	WG919305
Ethylbenzene	ND		1.00	1	10/22/2016 06:36	WG919305
Total Xylenes	ND		3.00	1	10/22/2016 06:36	WG919305
(S) Toluene-d8	101		90.0-115		10/22/2016 06:36	WG919305
(S) Dibromofluoromethane	95.3		79.0-121		10/22/2016 06:36	WG919305
(S) a,a,a-Trifluorotoluene	103		90.4-116		10/22/2016 06:36	WG919305
(S) 4-Bromofluorobenzene	115		80.1-120		10/22/2016 06:36	WG919305

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	1270		250	1	10/18/2016 01:28	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 01:28	WG917686
(S) o-Terphenyl	121		50.0-150		10/18/2016 01:28	WG917686

9 Sc



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/24/2016 04:18	WG919259
Lead,Dissolved	ND		2.00	1	10/24/2016 08:18	WG918945

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/19/2016 01:16	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/19/2016 01:16	WG918122

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 06:48	WG919305
Toluene	ND		5.00	1	10/22/2016 06:48	WG919305
Ethylbenzene	ND		1.00	1	10/22/2016 06:48	WG919305
Total Xylenes	ND		3.00	1	10/22/2016 06:48	WG919305
(S) Toluene-d8	100		90.0-115		10/22/2016 06:48	WG919305
(S) Dibromofluoromethane	95.0		79.0-121		10/22/2016 06:48	WG919305
(S) a,a,a-Trifluorotoluene	102		90.4-116		10/22/2016 06:48	WG919305
(S) 4-Bromofluorobenzene	109		80.1-120		10/22/2016 06:48	WG919305

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/18/2016 01:45	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 01:45	WG917686
(S) o-Terphenyl	102		50.0-150		10/18/2016 01:45	WG917686



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/24/2016 04:37	WG919259
Lead,Dissolved	ND		2.00	1	10/24/2016 08:21	WG918945

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	294		100	1	10/19/2016 01:46	WG918122
(S) a,a,a-Trifluorotoluene(FID)	103		62.0-128		10/19/2016 01:46	WG918122

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 07:43	WG919305
Toluene	ND		5.00	1	10/22/2016 07:43	WG919305
Ethylbenzene	ND		1.00	1	10/22/2016 07:43	WG919305
Total Xylenes	ND		3.00	1	10/22/2016 07:43	WG919305
(S) Toluene-d8	101		90.0-115		10/22/2016 07:43	WG919305
(S) Dibromofluoromethane	95.3		79.0-121		10/22/2016 07:43	WG919305
(S) a,a,a-Trifluorotoluene	103		90.4-116		10/22/2016 07:43	WG919305
(S) 4-Bromofluorobenzene	113		80.1-120		10/22/2016 07:43	WG919305

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfate	963000		100000	20	10/20/2016 20:49	WG918742

1 Cp

2 Tc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	5.55		2.00	1	10/24/2016 04:40	WG919259
Lead,Dissolved	4.34		2.00	1	10/24/2016 08:24	WG918945

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	1870		100	1	10/19/2016 02:15	WG918122
(S) a,a,a-Trifluorotoluene(FID)	87.4		62.0-128		10/19/2016 02:15	WG918122

6 Qc

7 Gl

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	5.38		1.00	1	10/22/2016 07:56	WG919305
Toluene	ND		5.00	1	10/22/2016 07:56	WG919305
Ethylbenzene	69.0		1.00	1	10/22/2016 07:56	WG919305
Total Xylenes	81.9		3.00	1	10/22/2016 07:56	WG919305
(S) Toluene-d8	103		90.0-115		10/22/2016 07:56	WG919305
(S) Dibromofluoromethane	96.3		79.0-121		10/22/2016 07:56	WG919305
(S) a,a,a-Trifluorotoluene	105		90.4-116		10/22/2016 07:56	WG919305
(S) 4-Bromofluorobenzene	113		80.1-120		10/22/2016 07:56	WG919305

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfate	976000		100000	20	10/20/2016 21:04	WG918742

1 Cp

2 Tc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Lead	5.39		2.00	1	10/24/2016 04:43	WG919259
Lead,Dissolved	7.06		2.00	1	10/24/2016 08:27	WG918945

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1880		100	1	10/19/2016 02:44	WG918122
(S) a,a,a-Trifluorotoluene(FID)	87.5		62.0-128		10/19/2016 02:44	WG918122

6 Qc

7 Gl

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	5.57		1.00	1	10/22/2016 08:09	WG919305
Toluene	ND		5.00	1	10/22/2016 08:09	WG919305
Ethylbenzene	70.5		1.00	1	10/22/2016 08:09	WG919305
Total Xylenes	82.5		3.00	1	10/22/2016 08:09	WG919305
(S) Toluene-d8	101		90.0-115		10/22/2016 08:09	WG919305
(S) Dibromofluoromethane	94.3		79.0-121		10/22/2016 08:09	WG919305
(S) a,a,a-Trifluorotoluene	104		90.4-116		10/22/2016 08:09	WG919305
(S) 4-Bromofluorobenzene	109		80.1-120		10/22/2016 08:09	WG919305

8 Al

9 Sc



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/24/2016 04:46	WG919259
Lead,Dissolved	ND		2.00	1	10/24/2016 08:30	WG918945

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 15:05	WG918177
(S) a,a,a-Trifluorotoluene(FID)	107		62.0-128		10/18/2016 15:05	WG918177

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 08:21	WG919305
Toluene	ND		5.00	1	10/22/2016 08:21	WG919305
Ethylbenzene	ND		1.00	1	10/22/2016 08:21	WG919305
Total Xylenes	ND		3.00	1	10/22/2016 08:21	WG919305
(S) Toluene-d8	101		90.0-115		10/22/2016 08:21	WG919305
(S) Dibromofluoromethane	92.5		79.0-121		10/22/2016 08:21	WG919305
(S) a,a,a-Trifluorotoluene	102		90.4-116		10/22/2016 08:21	WG919305
(S) 4-Bromofluorobenzene	112		80.1-120		10/22/2016 08:21	WG919305

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	280		250	1	10/18/2016 02:01	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 02:01	WG917686
(S) o-Terphenyl	107		50.0-150		10/18/2016 02:01	WG917686



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	18.3		2.00	1	10/24/2016 04:49	WG919259
Lead,Dissolved	ND		2.00	1	10/24/2016 08:33	WG918945

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 16:41	WG918177
(S) a,a,a-Trifluorotoluene(FID)	107		62.0-128		10/18/2016 16:41	WG918177

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 08:34	WG919305
Toluene	ND		5.00	1	10/22/2016 08:34	WG919305
Ethylbenzene	ND		1.00	1	10/22/2016 08:34	WG919305
Total Xylenes	ND		3.00	1	10/22/2016 08:34	WG919305
(S) Toluene-d8	99.5		90.0-115		10/22/2016 08:34	WG919305
(S) Dibromofluoromethane	93.5		79.0-121		10/22/2016 08:34	WG919305
(S) a,a,a-Trifluorotoluene	102		90.4-116		10/22/2016 08:34	WG919305
(S) 4-Bromofluorobenzene	111		80.1-120		10/22/2016 08:34	WG919305

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	385		250	1	10/18/2016 02:18	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 02:18	WG917686
(S) o-Terphenyl	106		50.0-150		10/18/2016 02:18	WG917686



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Sulfate	39200		5000	1	10/20/2016 21:19	WG918742

1 Cp

2 Tc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	2.76		2.00	1	10/24/2016 04:52	WG919259
Lead,Dissolved	ND		2.00	1	10/24/2016 08:36	WG918945

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	784		100	1	10/18/2016 17:06	WG918177
(S) a,a,a-Trifluorotoluene(FID)	108		62.0-128		10/18/2016 17:06	WG918177

6 Qc

7 Gl

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 08:46	WG919305
Toluene	ND		5.00	1	10/22/2016 08:46	WG919305
Ethylbenzene	1.82		1.00	1	10/22/2016 08:46	WG919305
Total Xylenes	11.6		3.00	1	10/22/2016 08:46	WG919305
(S) Toluene-d8	101		90.0-115		10/22/2016 08:46	WG919305
(S) Dibromofluoromethane	94.3		79.0-121		10/22/2016 08:46	WG919305
(S) a,a,a-Trifluorotoluene	103		90.4-116		10/22/2016 08:46	WG919305
(S) 4-Bromofluorobenzene	111		80.1-120		10/22/2016 08:46	WG919305

8 Al

9 Sc



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Lead	ND		2.00	1	10/24/2016 04:55	WG919259
Lead,Dissolved	ND		2.00	1	10/24/2016 08:40	WG918945

1 Cp

2 Tc

3 Ss

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	10/18/2016 17:29	WG918177
(S) a,a,a-Trifluorotoluene(FID)	107		62.0-128		10/18/2016 17:29	WG918177

4 Cn

5 Sr

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	10/22/2016 08:59	WG919305
Toluene	ND		5.00	1	10/22/2016 08:59	WG919305
Ethylbenzene	ND		1.00	1	10/22/2016 08:59	WG919305
Total Xylenes	ND		3.00	1	10/22/2016 08:59	WG919305
(S) Toluene-d8	99.7		90.0-115		10/22/2016 08:59	WG919305
(S) Dibromofluoromethane	92.9		79.0-121		10/22/2016 08:59	WG919305
(S) a,a,a-Trifluorotoluene	102		90.4-116		10/22/2016 08:59	WG919305
(S) 4-Bromofluorobenzene	112		80.1-120		10/22/2016 08:59	WG919305

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		250	1	10/18/2016 02:35	WG917686
Residual Range Organics (RRO)	ND		500	1	10/18/2016 02:35	WG917686
(S) o-Terphenyl	118		50.0-150		10/18/2016 02:35	WG917686



Method Blank (MB)

(MB) R3172293-1 10/20/16 13:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L866440-01 Original Sample (OS) • Duplicate (DUP)

(OS) L866440-01 10/20/16 16:21 • (DUP) R3172293-4 10/20/16 16:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	ND	1960	1	0		15

L866444-09 Original Sample (OS) • Duplicate (DUP)

(OS) L866444-09 10/20/16 19:50 • (DUP) R3172293-6 10/20/16 20:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	U	107	1	200	J P1	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172293-2 10/20/16 13:35 • (LCSD) R3172293-3 10/20/16 13:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40000	38700	38700	97	97	80-120			0	15

L866444-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L866444-01 10/20/16 17:05 • (MS) R3172293-5 10/20/16 17:50

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50000	32300	80500	96	1	80-120	

L866455-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866455-01 10/20/16 23:33 • (MS) R3172293-7 10/20/16 23:48 • (MSD) R3172293-8 10/21/16 00:03

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50000	5110	54800	54900	99	100	1	80-120			0	15



Method Blank (MB)

(MB) R3172758-7 10/24/16 07:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead,Dissolved	U		0.240	2.00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172758-8 10/24/16 07:29 • (LCSD) R3172758-13 10/24/16 10:40

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	43.0	47.6	86	95	80-120			10	20

L866775-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866775-01 10/24/16 07:35 • (MS) R3172758-11 10/24/16 07:42 • (MSD) R3172758-12 10/24/16 07:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead,Dissolved	50.0	U	44.0	40.1	88	80	1	75-125			9	20
Lead,Dissolved	50.0	U	44.0	47.9	88	96	1	75-125			9	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3172677-1 10/24/16 04:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead	U		0.240	2.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172677-2 10/24/16 04:12 • (LCSD) R3172677-3 10/24/16 04:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Lead	50.0	43.0	44.0	86	88	80-120			2	20

L866446-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866446-02 10/24/16 04:18 • (MS) R3172677-5 10/24/16 04:24 • (MSD) R3172677-6 10/24/16 04:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead	50.0	ND	45.6	49.4	88	96	1	75-125			8	20

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3173034-3 10/18/16 11:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		31.6	100
<i>(S) a,a,a-Trifluorotoluene(FID)</i>				62.0-128

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173034-1 10/18/16 10:14 • (LCSD) R3173034-2 10/18/16 10:43

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	5920	5390	108	98.0	66.0-123			9.41	20
<i>(S) a,a,a-Trifluorotoluene(FID)</i>				101	101	62.0-128				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3171693-3 10/18/16 12:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHG C6 - C12	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)				62.0-128

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171693-1 10/18/16 11:01 • (LCSD) R3171693-2 10/18/16 11:25

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	4950	4970	90.0	90.3	66.0-123			0.320	20
(S) a,a,a-Trifluorotoluene(FID)				108	108	62.0-128				

5 Sr

6 Qc

L866446-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866446-06 10/18/16 15:05 • (MS) R3171693-4 10/18/16 15:29 • (MSD) R3171693-5 10/18/16 15:53

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHG C6 - C12	5500	ND	5600	4870	100	87.1	1	47.5-136			13.9	20
(S) a,a,a-Trifluorotoluene(FID)					109	108		62.0-128				

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3172851-3 10/21/16 22:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	103			90.0-115
(S) Dibromofluoromethane	100			79.0-121
(S) a,a,a-Trifluorotoluene	107			90.4-116
(S) 4-Bromofluorobenzene	120			80.1-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172851-1 10/21/16 20:24 • (LCSD) R3172851-2 10/21/16 20:37

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	25.1	24.4	101	97.7	73.0-122			2.83	20
Ethylbenzene	25.0	25.6	23.3	102	93.1	80.9-121			9.54	20
Toluene	25.0	25.6	24.1	102	96.4	77.9-116			5.92	20
Xylenes, Total	75.0	77.1	70.5	103	94.0	79.2-122			8.95	20
(S) Toluene-d8				106	107	90.0-115				
(S) Dibromofluoromethane				97.7	104	79.0-121				
(S) a,a,a-Trifluorotoluene				114	110	90.4-116				
(S) 4-Bromofluorobenzene				120	117	80.1-120				

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3171332-1 10/17/16 21:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		83.3	250
Residual Range Organics (RRO)	U		167	500
<i>(S) o-Terphenyl</i>	111			64.0-146

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3171332-2 10/17/16 21:36 • (LCSD) R3171332-3 10/17/16 21:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Diesel Range Organics (DRO)	750	839	790	112	105	50.0-150			6.05	20
Residual Range Organics (RRO)	750	822	768	110	102	50.0-150			6.83	20
<i>(S) o-Terphenyl</i>				116	117	64.0-146				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.



State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

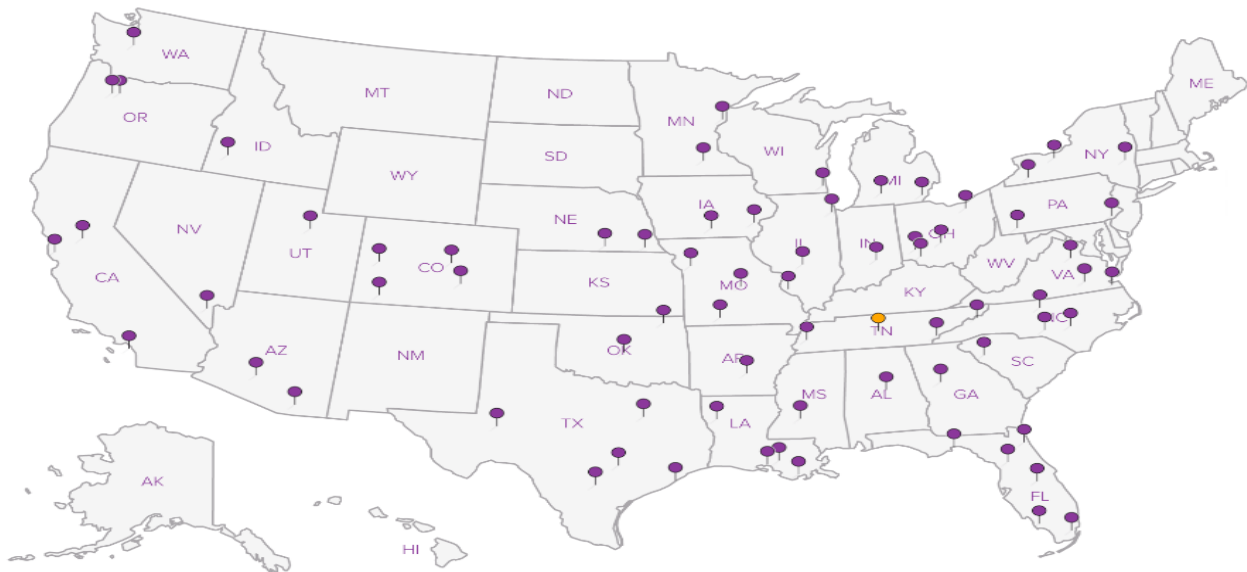
Third Party & Federal Accreditations


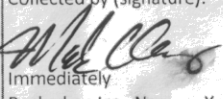
A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

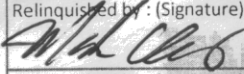
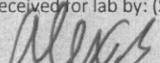


Kinder Morgan- Orange, CA 1100 Olive Way, Suite 800 Seattle, WA 98101				Billing Information & Quote Number: Accounts Payable- Rob Truedinger 1100 Town and Country Rd Orange, CA 92868				Analysis / Container / Preservative										Chain of Custody Page ___ of ___	
Report to: Rob Truedinger / Kyle Haslam				Email To: Kyle.Haslam@arcadis.com; Scott.Wenning@arcadis.com;				Dissolved Lead 250mlHDPE-NoPres FERUSFE 250mlAmb-HCl NITRATE,SULFATE 125mlHDPE-NoPres NWTPHGX 40mlAmb HCl RSK175 (methane) 40mlAmb HCl SULFIDE 125mlAmb-S-NaOH+ZnAc Total Lead 250mlHDPE-HNO3 V8260BTEXC 40mlAmb-HCl V8260BTEXC trip blk 40mlAmb-HCl-Bik										 L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE	
Project Description: KMEP Harbor Island				City/State Collected: Seattle, WA														12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Phone: 206-726-4753 Fax:		Client Project # WA000804.2016.00002		Lab Project # KINMOROCA-HARBORISLA				L# LG 66446 H008											
Collected by (print): Mark Wilery / Ryan Brauchle		Site/Facility ID # KMEP Harbor Island		P.O. # WA000804.2016														Acctnum: KINMOROCA Template: T116370 Prelogin: P572252 TSR: 110 - Brian Ford PB:	
Collected by (signature): 		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day200% <input type="checkbox"/> Next Day100% <input type="checkbox"/> Two Day50% <input type="checkbox"/> Three Day25%		Date Results Needed Standard TAT Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes				No. of Cntrs		Shipped Via:									
Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>										Rem./Contaminant		Sample # (lab only)							
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dissolved Lead 250mlHDPE-NoPres	FERUSFE 250mlAmb-HCl	NITRATE,SULFATE 125mlHDPE-NoPres	NWTPHGX 40mlAmb HCl	RSK175 (methane) 40mlAmb HCl	SULFIDE 125mlAmb-S-NaOH+ZnAc	Total Lead 250mlHDPE-HNO3	V8260BTEXC 40mlAmb-HCl	V8260BTEXC trip blk 40mlAmb-HCl-Bik	Rem./Contaminant	Sample # (lab only)		
		GW				11	X	X	X	X	X	X	X	X					
MW-4	Grab	GW		10/12/16	1140	6				X				X	X		-01		
MW-5	Grab	GW		10/12/16	1400	8	X			X			X	X	X		-02		
MW-6	Grab	GW		10/12/16	0845	6	X			X			X	X			-03		
MW-7	Grab	GW		10/13/16	1230	7	X		X	X			X	X			-04		
DUP-1	Grab	GW		10/13/16	—	7	X		X	X			X	X			-05		
MW-07R	Grab	GW		10/12/16	1245	8	X			X			X	X	X		-06		
MW-8	Grab	GW		10/13/16	0950	8	X			X			X	X	X		-07		
MW-9	Grab	GW		10/13/16	1045		X		X	X			X	X			-08		
MW-12R	Grab	GW		10/12/16	1405		X		X	X			X	X	X		-09		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: Nitrate has a 48 hour hold time. Ferrous Fe will be field filtered and preserved. Dissolved Lead will be lab filtered and preserved. Lead by method 6020.

pH _____ Temp 70.66
 Flow _____ Other _____

Relinquished by: (Signature) 	Date: 10/13/16	Time: 1630	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only) MR9
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.6 °C Bottles Received: 65 FTB	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 10/15/16 Time: 0900	pH Checked: _____ NCF: _____



Cooler Receipt Form

Client: KINMOROCA	SDG#	LG66446			
Cooler Received/Opened On: 10/15/16	Temperature Upon Receipt:	7.6 °C			
Received By: Alex Schulert					
Signature: <i>[Handwritten Signature]</i>					
Receipt Check List			Yes	No	N/A
Were custody seals on outside of cooler and intact?			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were custody papers properly filled out?			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did all bottles arrive in good condition?			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were correct bottles used for the analyses requested?			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was sufficient amount of sample sent in each bottle?			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If applicable, was an observable VOA headspace present?			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non Conformance Generated. (If yes see attached NCF)			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Kinder Morgan- Orange, CA

Sample Delivery Group: L865461
Samples Received: 10/12/2016
Project Number: WA000804.2016.00002
Description: KMEP Harbor Island
Site: KMLT HARBOR ISLAND
Report To: Rob Truedinger / Kyle Haslam
1100 Olive Way, Suite 800
Seattle, WA 98101

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹Cp: Cover Page	1	
²Tc: Table of Contents	2	
³Ss: Sample Summary	3	
⁴Cn: Case Narrative	4	
⁵Sr: Sample Results	5	
A-16-10102016 L865461-01	5	
A-16-10102016 L865461-02	6	
⁶Qc: Quality Control Summary	7	
Wet Chemistry by Method 2710 F-2011	7	
Wet Chemistry by Method D93/1010A	8	
Volatile Organic Compounds (GC) by Method NWTPHGX	9	
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	10	
⁷Gl: Glossary of Terms	11	
⁸Al: Accreditations & Locations	12	
⁹Sc: Chain of Custody	13	

SAMPLE SUMMARY



A-16-10102016 L865461-01 WW

Collected by
Mark Ullery Collected date/time
10/10/16 16:00 Received date/time
10/12/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2710 F-2011	WG916763	1	10/14/16 00:32	10/14/16 01:00	JLJ
Wet Chemistry by Method D93/1010A	WG917108	1	10/14/16 12:45	10/14/16 12:45	MAJ

1
Cp

2
Tc

3
Ss

A-16-10102016 L865461-02 Solid

Collected by
Mark Ullery Collected date/time
10/10/16 16:00 Received date/time
10/12/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG916582	5000	10/13/16 11:28	10/13/16 19:17	ACM
Volatile Organic Compounds (GC) by Method NWTPHGX	WG917074	9700	10/13/16 11:36	10/14/16 05:54	LRL

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
 Technical Service Representative

Sample Handling and Receiving

Sample quantity was not sufficient to complete analysis per recommended method guidelines for the following samples.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L865461-01	A-16-10102016	D93/1010A

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 2710 F-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Density	0.814		1	10/14/2016 01:00	WG916763

¹ Cp

² Tc

Wet Chemistry by Method D93/1010A

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Flashpoint	80.6		1	10/14/2016 12:45	WG917108

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	101000		970	9700	10/14/2016 05:54	WG917074
(S) a,a,a-Trifluorotoluene(FID)	107		59.0-128		10/14/2016 05:54	WG917074

1 Cp

2 Tc

3 Ss

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	326000		20000	5000	10/13/2016 19:17	WG916582
Residual Range Organics (RRO)	ND		50000	5000	10/13/2016 19:17	WG916582
(S) o-Terphenyl	240	<u>J7</u>	50.0-150		10/13/2016 19:17	WG916582

4 Cn

5 Sr

6 Qc

Sample Narrative:

NWTPHDX L865461-02 WG916582: Waste Dilution

7 Gl

8 Al

9 Sc



[L865461-01](#)

L865341-01 Original Sample (OS) • Duplicate (DUP)

(OS) L865341-01 10/14/16 01:00 • (DUP) WG916763-1 10/14/16 01:00

Analyte	Original Result g/cm3	DUP Result g/cm3	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Density	1.00	1.01	1	0.499		20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



L865168-02 Original Sample (OS) • Duplicate (DUP)

(OS) L865168-02 10/14/16 12:45 • (DUP) WG917108-1 10/14/16 12:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	deg F	deg F		%		%
Flashpoint	DNF at 170 F	DNF at 170 F	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG917108-2 10/14/16 12:45 • (LCSD) WG917108-3 10/14/16 12:45

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	deg F	deg F	deg F	%	%	%			%	%
Flashpoint	82.0	83.4	82.6	102	101	96.0-104			0.964	7

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3170582-3 10/13/16 21:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID) 103				59.0-128

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3170582-1 10/13/16 19:46 • (LCSD) R3170582-2 10/13/16 20:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
TPHG C6 - C12	5.50	5.90	6.34	107	115	62.2-127			7.13	20
(S) a,a,a-Trifluorotoluene(FID)				102	102	59.0-128				

5 Sr

6 Qc

L864928-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L864928-01 10/14/16 00:33 • (MS) R3170582-4 10/13/16 23:06 • (MSD) R3170582-5 10/13/16 23:35

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TPHG C6 - C12	7.12	338	1050	1010	50.8	47.3	198	20.5-134			4.72	23.8
(S) a,a,a-Trifluorotoluene(FID)					101	100		59.0-128				

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3170614-1 10/13/16 18:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Diesel Range Organics (DRO)	U		333	1000
Residual Range Organics (RRO)	U		833	2500
<i>(S) o-Terphenyl</i>	111			50.0-150

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3170614-2 10/13/16 18:52 • (LCSD) R3170614-3 10/13/16 19:05

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Diesel Range Organics (DRO)	5000	4370	4800	87.4	96.0	50.0-150			9.41	20
Residual Range Organics (RRO)	5000	3430	3660	68.7	73.2	50.0-150			6.31	20
<i>(S) o-Terphenyl</i>				107	117	50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

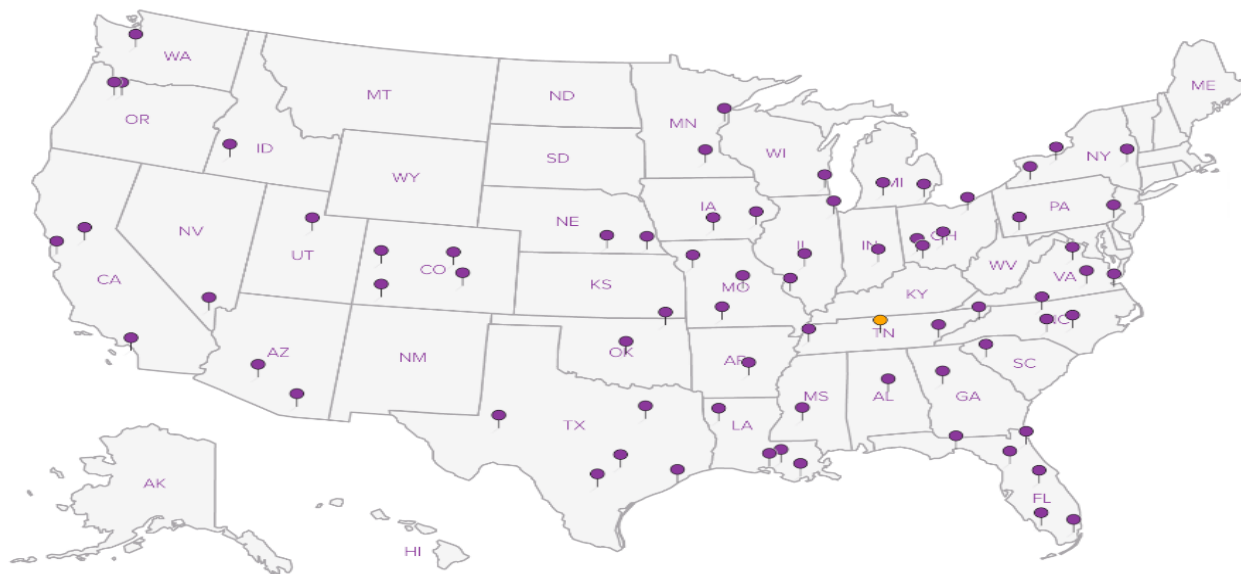
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Kinder Morgan- Orange, CA

1100 Olive Way, Suite 800
Seattle, WA 98101

Billing Information:

Accounts Payable- Rob Truedinger
1100 Town and Country Rd
Orange, CA 92868

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



Report to:
Rob Truedinger / Kyle Haslam

Email To: Kyle.Haslam@arcadis.com;
Scott.Wenning@arcadis.com;

Project
Description: **KMEP Harbor Island**

City/State
Collected: **Seattle, WA**

Phone: **206-726-4753**
Fax:

Client Project #
WA000804.2016.00002

Lab Project #
KINMOROCA-HARBORISLA

Collected by (print):
Mark Wilens

Site/Facility ID #
KMCT Harbor Island

P.O. #
WA000804.2016

Collected by (signature):
[Signature]
Immediately
Packed on Ice N ___ Y **X**

Rush? (Lab MUST Be Notified)
___ Same Day200%
___ Next Day100%
___ Two Day50%
___ Three Day25%

Date Results Needed
10/12/16
Email? ___ No **X** Yes
FAX? ___ No ___ Yes

No. of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dissolved Lead-250mlHDPE-NOPRES Modified 8015 w/ Chromatogram	FERROSE-250mlAmb-HCl Flash point	NITRATE,SULFATE-125mlHDPE-NOPRES Density	NAWTPHGX-40mlAmb-HCl	BSK175 (methane)-40mlAmb-HCl	SULFIDE-125mlAmb-5-NaOH+ZnAC	Total Lead-250mlHDPE-HW03	V8260BTEXC-40mlAmb-HCl	V8260BTEXC trip blk-40mlAmb-HCl-BIK
		GW				11	X	X	X	X	X	X	X	X	
A-16-10102016	GR	LWAPL		10/10/16	1600	10	X	X	X						
A-16-10102016	GR	LWAPL		10/10/16	1600										

L# **L865461**
1094
Acctnum: **KINMOROCA**
Template: **T116370**
Prelogin: **P570275**
TSR: **110 - Brian Ford**
PB: **9-29-16 MB**
Shipped Via: **FedEX Ground**

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: Nitrate has a 48 hour hold time. Ferrrous Fe will be field filtered and preserved. Dissolved Lead will be lab filtered and preserved. Lead by method 6020.

pH _____ Temp _____
Flow _____ Other _____

7066 8116 9183
Hold #

Relinquished by: (Signature)
[Signature]
Date: **10/10/16**
Time: **1715**

Date: _____
Time: _____

Received by: (Signature)
[Signature]
Received by: (Signature)
[Signature]
Received for lab by: (Signature)
[Signature]

Samples returned via: UPS
 FedEx Courier _____
Temp: **21°** °C Bottles Received: **11**
Date: **10-12-16** Time: **0900**

Condition: (lab use only)
TD11
COC Seal Intact: Y N NA
pH Checked: _____ NCF:



L · A · B · S · C · I · E · N · C · E · S

YOUR LAB OF CHOICE

Cooler Receipt Form

Client:	KENMOROCA	SDG#	L865461
Cooler Received/Opened On: 10/11 /2016	Temperature Upon Receipt:	2.1	°c
Received By: Michael Witherspoon			
Signature: <i>MW</i>			
Receipt Check List			
	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were custody papers properly filled out?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If applicable, was an observable VOA headspace present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non Conformance Generated. (If yes see attached NCF)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Jeremy W. Watkins

**ESC Lab Sciences
Non-Conformance Form**

LogIn #: L865461	Client: KINMOROCA	Date: 10/12/16	Evaluated by: Jeremy
------------------	-------------------	----------------	----------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time x	Login Clarification Needed	
Improper temperature	Chain of custody is incomplete	Insufficient packing material around container
Improper container type x	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation	Please specify TCLIP requested.	Improper handling by carrier (FedEx / UPS / Couri
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments:

1. All containers are Vials with Oil in them.
2. What 8015?

Client informed by:	Call	x	Email	Voice Mail	Date: 10/12/16	Time: 1140
TSR Initials: bjf	Client Contact: Kyle Haslam					

Login Instructions:

Log as R3 due 10/14. Use project KINMOROCA-HARBORWET.

- 1) Log as matrix 3 for FLASH and DENSITY. Log as matrix 4 for NWTPHGX and NWTPHDX. Add comment "Oil sample. Chromatograms needed."
- 2) 8015=NWTPHGX,NWTPHDX

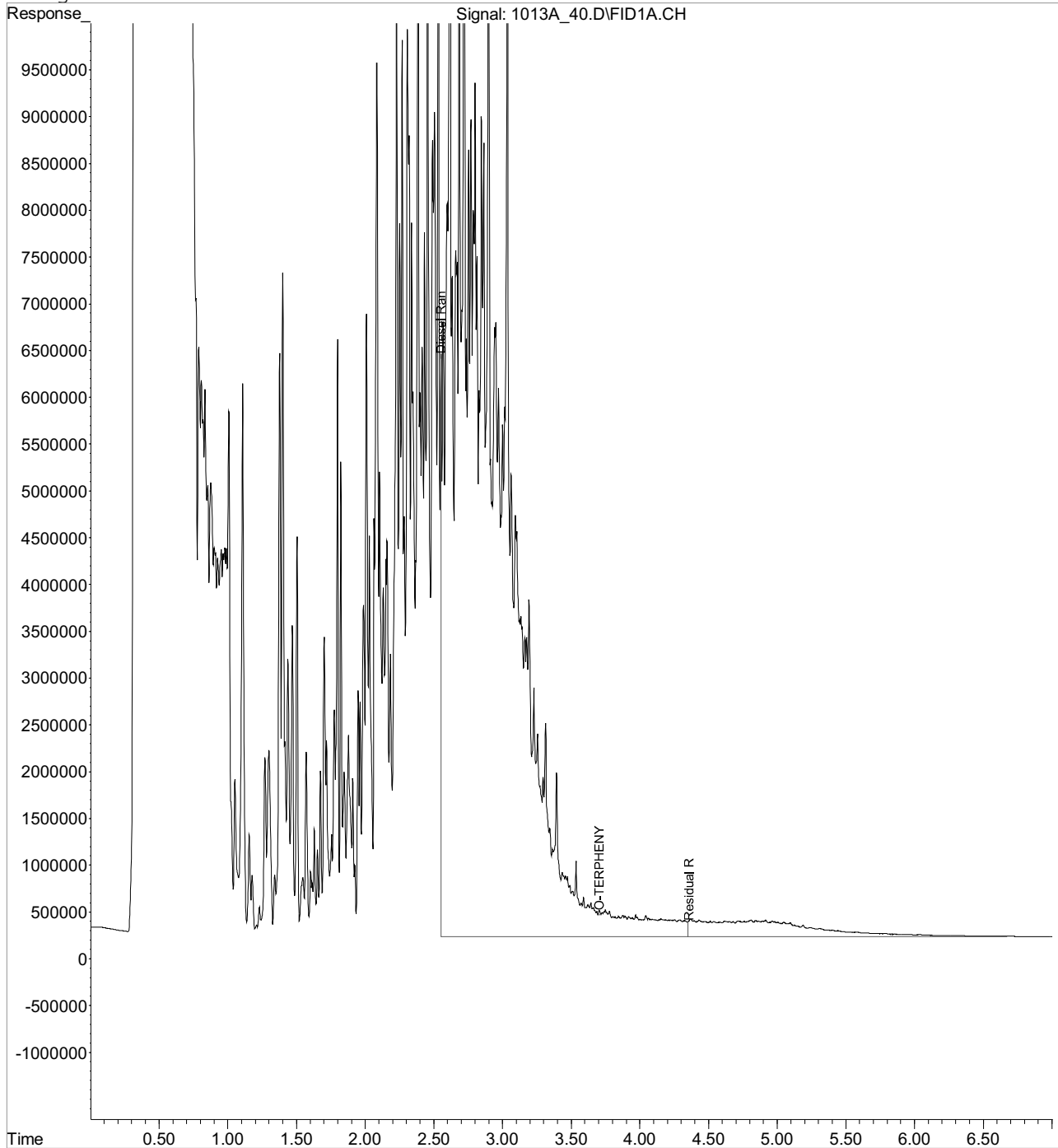
This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\1013A16\1013A 40.D Vial: 100
Acq On : 13 Oct 2016 7:17 pm Operator: 720
Sample : L865461-02 5000x WG916582 1-10 Inst : SVGC13
Misc : soil Multiplr: 200.00
IntFile : events.e
Quant Time: Oct 13 20:43 2016 Quant Results File: EP13I29P.RES

Quant Method : C:\MSDCHEM\1\METHODS\EP13I29P.M (Chemstation Integrator)
Title :
Last Update : Thu Sep 29 09:11:29 2016
Response via : Single Level Calibration
DataAcq Meth : OA10.M

Volume Inj. :
Signal Phase :
Signal Info :

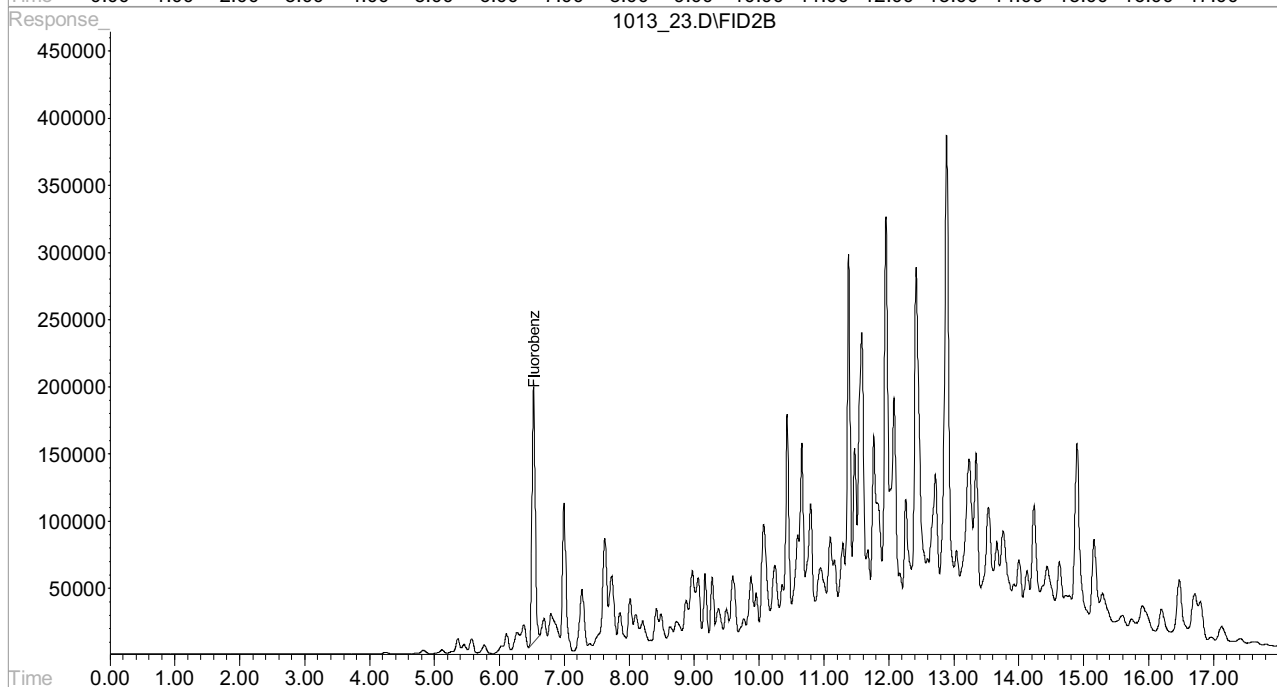
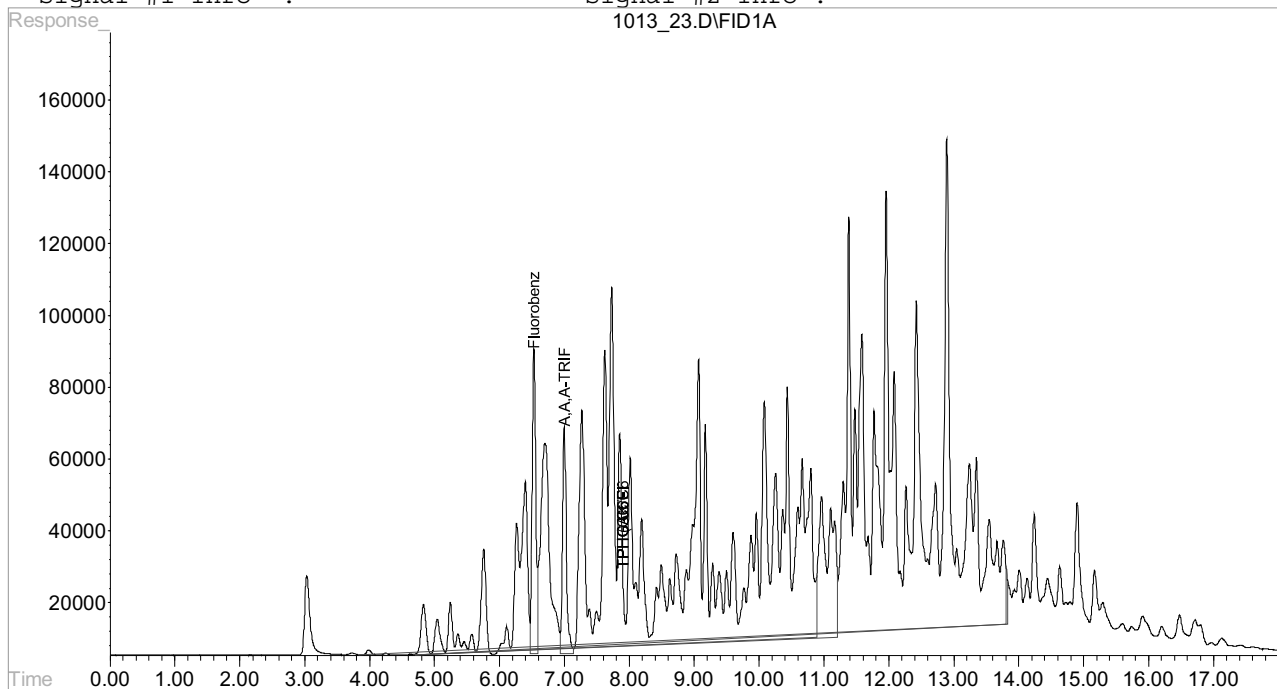


Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\101316\1013 23.D\FID1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\101316\1013 23.D\FID2B.CH
Acq On : 14 Oct 2016 5:54 am Operator: 605
Sample : L865461-02A 9700x WG917074 NWTPHGX Inst : VOCGC6
Misc : soil Multiplr: 9700.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS3.E
Quant Time: Oct 14 7:49 2016 Quant Results File: BG06L100.RES

Quant Method : C:\HPCHEM\1\METHODS\BG06L100.M (Chemstation Integrator)
Title : BTEXM/GRO VOCGC06
Last Update : Mon Dec 14 11:18:05 2015
Response via : Single Level Calibration
DataAcq Meth : BTEX.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



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Fax 206 325 8218

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A decorative graphic consisting of three thin orange lines. One line is horizontal, extending across the width of the page. Two other lines are diagonal, starting from the bottom left and extending towards the top right, crossing the horizontal line.