

REPORT

First Semiannual 2017
Groundwater Monitoring Report
Defense Fuel Support Point
Norwalk, California

Prepared for

Kinder Morgan Energy Partners, L.P.

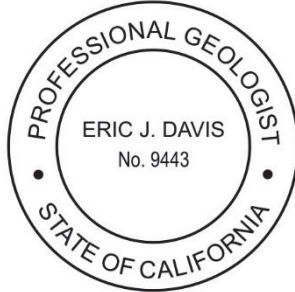
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The material and data presented in this report were prepared consistent with current and generally accepted consulting principles and practices. This work was supervised by the following CH2M licensed professional.



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Acronyms and Abbreviations

| | |
|-----------------|--|
| µg/L | microgram(s) per liter |
| 1,2-DCA | 1,2-dichloroethane |
| Alpha | Alpha Analytical, Inc. |
| amsl | above mean sea level |
| Blaine Tech | Blaine Tech Services, Inc. |
| BTEX | benzene, toluene, ethylbenzene, and total xylenes |
| CH2M | CH2M HILL Engineers, Inc. |
| CIMIS | California Irrigation Management Information System |
| DFSP | Defense Fuel Support Point |
| DIPE | di-isopropyl ether |
| DLA | Defense Logistics Agency Installation Support for Energy |
| EPA | U.S. Environmental Protection Agency |
| ETBE | ethyl tertiary butyl ether |
| ft/ft | foot-per-foot |
| GWE | groundwater extraction |
| JP ₄ | jet propellant 4 |
| JP ₅ | jet propellant 5 |
| JP ₈ | jet propellant 8 |
| Kinder Morgan | Kinder Morgan Energy Partners, L.P. |
| MRP | Monitoring and Reporting Program |
| MTBE | methyl tertiary butyl ether |
| ND | nondetect |
| NPDES | National Pollutant Discharge Elimination System |
| QA | quality assurance |
| QC | quality control |
| RAB | Restoration Advisory Board |
| RTO | regenerative thermal oxidizer |
| RWQCB | Regional Water Quality Control Board, Los Angeles Region |
| SFPP | SFPP, L.P. |
| SGI | The Source Group, Inc. |
| site | Defense Fuel Support Point, Norwalk, California |
| SVE | soil vapor extraction |

ACRONYMS AND ABBREVIATIONS

| | |
|-------|--|
| TAME | tertiary amyl methyl ether |
| TBA | tertiary butyl alcohol |
| TFE | total fluids extraction |
| TPH | total petroleum hydrocarbons |
| TPH-d | total petroleum hydrocarbons quantified as diesel fuel |
| TPH-g | total petroleum hydrocarbons quantified as gasoline |
| VOC | volatile organic compound |

Introduction

CH2M HILL Engineers, Inc. (CH2M) prepared this groundwater monitoring report on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan), and the Defense Logistics Agency Installation Support for Energy (DLA) to summarize the results of groundwater monitoring activities conducted at the Defense Fuel Support Point (DFSP), Norwalk, California (site) during the first half of 2017. The site location and vicinity are shown on Figure 1.

The results documented in this report are based on groundwater monitoring that has been conducted in accordance with revised sampling and analysis plans prepared by SFPP (CH2M, 2013) and DLA (Parsons, 2013). The Regional Water Quality Control Board, Los Angeles Region (RWQCB) approved the sampling plans on June 27, 2013, and October 23, 2013, respectively (RWQCB, 2013a, 2013b).

SFPP and DLA jointly perform groundwater monitoring events at the site to address respective impacts to groundwater by each entity. SFPP contracted CH2M, and DLA contracted The Source Group, Inc. (SGI), to perform project oversight of groundwater monitoring activities. SFPP contracted Blaine Tech Services, Inc. (Blaine Tech) to gauge and sample the designated SFPP wells; SGI personnel conducted the gauging and sampling for DLA. CH2M was retained by SFPP to compile and interpret the data from these sources and prepare this summary report.

Since 1986, environmental assessments have been performed at the DFSP facility (both onsite and offsite) by several consultants on behalf of SFPP and DLA. During these investigations, wells were installed for monitoring and as components of groundwater remediation activities. Table 1 presents a summary of groundwater monitoring and remediation wells associated with the site. These investigations evaluated and defined the extent of liquid-phase, adsorbed-phase, and dissolved-phase hydrocarbons in soil and groundwater beneath the site and offsite to the south, east, and west.

Site assessments identified the following principal constituents of concern at the site:

- Total petroleum hydrocarbons (TPH), including TPH quantified as gasoline (TPH-g), diesel fuel (TPH-d), jet propellant 4 (JP₄), jet propellant 5 (JP₅), and jet propellant 8 (JP₈)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX)
- 1,2-dichloroethane (1,2-DCA)
- Methyl tertiary butyl ether (MTBE)
- Tertiary butyl alcohol (TBA)

Additional background information regarding investigations and monitoring events at the site is presented in previously submitted semiannual groundwater monitoring reports. Monitoring wells and remediation wells are monitored on a semiannual basis to evaluate groundwater elevation and groundwater quality conditions.

In December 2014, DLA decommissioned 28 wells across the site to facilitate ongoing soil excavation (source removal) activities, as the wells were located within the footprint of the proposed excavation areas. Thirteen of the decommissioned wells were monitoring or extraction wells included in the RWQCB-approved Monitoring and Reporting Program (MRP). When soil excavation activities are complete, DLA has agreed to replace these wells at their original locations or at locations approved by the RWQCB, and to monitor them on a semiannual basis thereafter.

To date, 9 of the 13 decommissioned wells in the MRP have been replaced (replacement wells are shown in parentheses below):

- DLA wells: GMW-32 (GMW-32R), GMW-35 (GMW-35R), GMW-66 (GMW-66R), GW-14 (GW-14R), and TF-20 (TF-20R)
- SFPP wells: GMW-4 (GMW-4R), GMW-14 (GMW-14R), GWR-1 (GWR-1R), and MW-15 (MW-15R)

The remaining four decommissioned wells in the MRP have not yet been replaced; consequently, no groundwater analytical or elevation data for the April 2017 event are presented for these wells in this report:

- DLA wells: GMW-17, TF-9, and TF-17
- SFPP well – GMW-27

In addition, SGI and Blaine Tech did not gauge or sample the following wells in April 2017 because the wells either could not be located or could not be accessed:

- DLA wells: GMW-42 and MW-SF-9
- SFPP wells: GMW-1 and GMW-3

Once these wells become accessible, they will be gauged and sampled in accordance with the revised MRP during future semiannual events.

This report provides information pertaining to the April 2017 Semiannual Groundwater Monitoring Event (conducted from April 17 to 24, 2017) and includes groundwater gauging and sampling data from selected wells throughout the DFSP site and from wells located offsite to the south, east, and west. This report also provides a summary of remediation progress for the first half of 2017, and an updated description of the status of the dissolved-phase and liquid-phase hydrocarbon plumes.

Field and Laboratory Activities

An overview of the semiannual monitoring event is provided in Section 2.1. Field and laboratory methods are described in Section 2.2.

2.1 Semiannual Groundwater Monitoring

Groundwater levels were gauged and samples collected as follows:

- SFPP wells were gauged by Blaine Tech on April 17, 2017.
- DLA wells were gauged by SGI between April 17 and 20, 2017.
- SFPP and DLA wells were sampled by Blaine Tech and SGI, respectively, from April 17 through 24, 2017.

Overall, water levels were measured in 167 wells, of which 12 were dry and three (EXP-1, EXP-2, and EXP-3) were gauged twice. Groundwater samples were collected from 116 of the wells. In total, 119 samples were collected because two split samples were included for EXP-1, EXP-2, and EXP-3.

Sampling was conducted using low-flow methods as described in Section 2.2. Tables 2 and 3 list the wells that were gauged and sampled during the first semiannual 2017 event, respectively, as well as their associated groundwater elevations and analytical results. Well gauging and sampling records for the semiannual event are provided in Appendix A.

2.2 Field and Laboratory Methods

Field activities were conducted in accordance with the revised sampling plans as described in Section 1. Groundwater samples collected for DLA were submitted to American Analytics in Chatsworth, California. Groundwater samples collected for SFPP were submitted to Alpha Analytical, Inc. (Alpha) in Sparks, Nevada. Both analytical laboratories are certified by the Environmental Laboratory Accreditation Program of the California Department of Public Health. Samples were submitted to these laboratories for the analyses described in Section 2.2.2.

2.2.1 Field Methods

Prior to starting gauging, purging, and sampling activities, SFPP and DLA remediation systems were shut down for approximately 1 week. Subsequently, SGI or Blaine Tech measured depth to water in each well using an electronic water level sounder, or depth to water and free product thickness using an interface probe. The down-well field instruments used to gauge the wells were cleaned with a laboratory-grade, nondetergent cleaner, and then rinsed successively in two containers with distilled water before each use.

Before sampling, each well was purged by using low-flow purge techniques at a rate of approximately 200 to 500 milliliters per minute. During purging, groundwater field parameters consisting of temperature, pH, electrical conductivity, turbidity, dissolved oxygen, and oxidation-reduction potential were monitored. Water levels also were monitored during low-flow purging to verify minimal drawdown. Samples for SFPP were collected using a 2-inch-diameter submersible Grundfos pump with new or dedicated tubing, whereas samples for DLA were collected using a 2-inch-diameter Mega-Monsoon submersible pump with new or dedicated tubing used for each well. Well gauging and sampling records are provided in Appendix A.

Water samples were collected after groundwater field parameters stabilized. Water samples to be analyzed for TPH-g, TPH-d, and volatile organic compounds (VOCs) were collected in 40-milliliter volatile organic analysis (VOA) vials containing hydrochloric acid preservative, filled slightly above the top of the vial to form a positive meniscus (that is, zero headspace), and sealed with Teflon septa and airtight caps. DLA water samples for TPH-d analysis were collected in 1/2-liter amber bottles and sealed with Teflon-lined airtight caps. The samples were labeled and placed on ice for transport to the laboratory following proper chain-of-custody procedures.

2.2.2 Laboratory Analytical Methods

Samples collected for DLA were sent to American Analytics for laboratory analysis; samples collected for SFPP were sent to Alpha for laboratory analysis. The laboratory analytical program for the sampling events included analysis for VOCs using U.S. Environmental Protection Agency (EPA) Method 8260B, and TPH using purge-and-trap and/or extraction sample preparation techniques followed by EPA Method 8015 (modified). Results for TPH analyses using the purge-and-trap preparation technique were quantified and reported against a commercial gasoline standard (C4 to C13) and are abbreviated as “TPH-g” throughout this report. Results for TPH analyses using extraction sample preparation for groundwater samples were quantified and reported against a commercial diesel standard (C14 to C22) and are abbreviated as “TPH-d” throughout this report. Copies of the laboratory analytical reports are presented in Appendix B.

Groundwater Gauging Results

Measurements of groundwater levels and free product thickness collected during the semiannual monitoring event are described in this section. Groundwater extraction (GWE) systems for both DLA and SFPP were shut down approximately 1 week prior to the first semiannual 2017 groundwater gauging and sampling activities. Free product thicknesses, depths to groundwater, and calculated groundwater elevations are presented in Table 2. Groundwater elevations in wells with measurable free product were corrected for water-product density differences using the estimated specific gravity for the free product. The measured product thickness was multiplied by the specific gravity value and then added to the groundwater elevation (resulting in the Corrected Groundwater Elevation values in Table 2). A specific gravity value of 0.80 was used for DLA wells; the specific gravity for SFPP's wells, ranging from 0.77 to 0.83, was based on field measurements collected during baildown testing conducted in 2014. Wells with minimal measured product thicknesses (less than 0.05 foot) assumed a specific gravity of 1.0. Groundwater elevation contours for the uppermost groundwater zone, along with estimated extents of free product, are shown on Figure 2. Historical groundwater level measurements, free product thicknesses, and groundwater elevations are presented in Appendix C. Wells meeting at least one of the following criteria were not considered in contouring groundwater elevation in the uppermost groundwater zone (and are denoted with an asterisk "*" in the well name on Figure 2):

- Wells screened in the deeper Exposition aquifer (denoted as "EXP" wells), which is separated from the uppermost groundwater zone by the Bellflower aquitard (CH2M, 2013)
- Wells screened near the bottom of the uppermost aquifer (denoted as "MID" wells)
- Wells with groundwater elevations that were inconsistent with surrounding groundwater elevations

3.1 Groundwater Flow Conditions

Overall, groundwater flow and gradient conditions encountered during the first half semiannual 2017 monitoring event differed from conditions observed during previous first half semiannual monitoring events at the site. During the first half semiannual monitoring events from 2010 through 2016, the overall flow direction in the uppermost aquifer was to the north/northwest/northeast, generally with inferred converging flow toward the site. This has been largely driven by relative similarity in groundwater elevations in wells to the east/southeast (such as GMW-O-16, GMW-O-17, GMW-O-19, GMW-O-24, PZ-5, PZ-7A, PZ-7B, and MW-8) and wells to the west/southwest (such as WCW-1, WCW-2, WCW-3, WCW-10, WCW-11, WCW-12, WCW-13, WCW-14, and GMW-O-8) with lower groundwater elevations in the south-central portion of the site (where there is a high density of remediation wells). As shown on Figure 2, there was a difference of almost 2 feet in groundwater elevation between these sets of wells (to the southwest/southeast) during this monitoring event, inferring an overall flow direction to the west/northwest. Unlike previous monitoring events, the converging flow in the southern portion of the site was not present. Groundwater elevations used in contouring ranged from 40.87 feet above mean sea level (amsl) in WCW-13 (northwest of the site) to 44.36 feet amsl in GMW-SF-8 (in the southeast corner of the site).

In general, groundwater elevations were higher in April 2017 (increases of up to nearly 4 feet) than those reported in April 2016 east of and across most the site, and lower (decreases to 1.5 feet) in the very western portion of and west of the site (CH2M, 2016). These differences in groundwater elevation contributed to the overall inferred west/northwesterly groundwater flow direction. The estimated horizontal hydraulic gradient during this event ranged from approximately 0.0011 to 0.0021 foot per foot (ft/ft) (Figure 2).

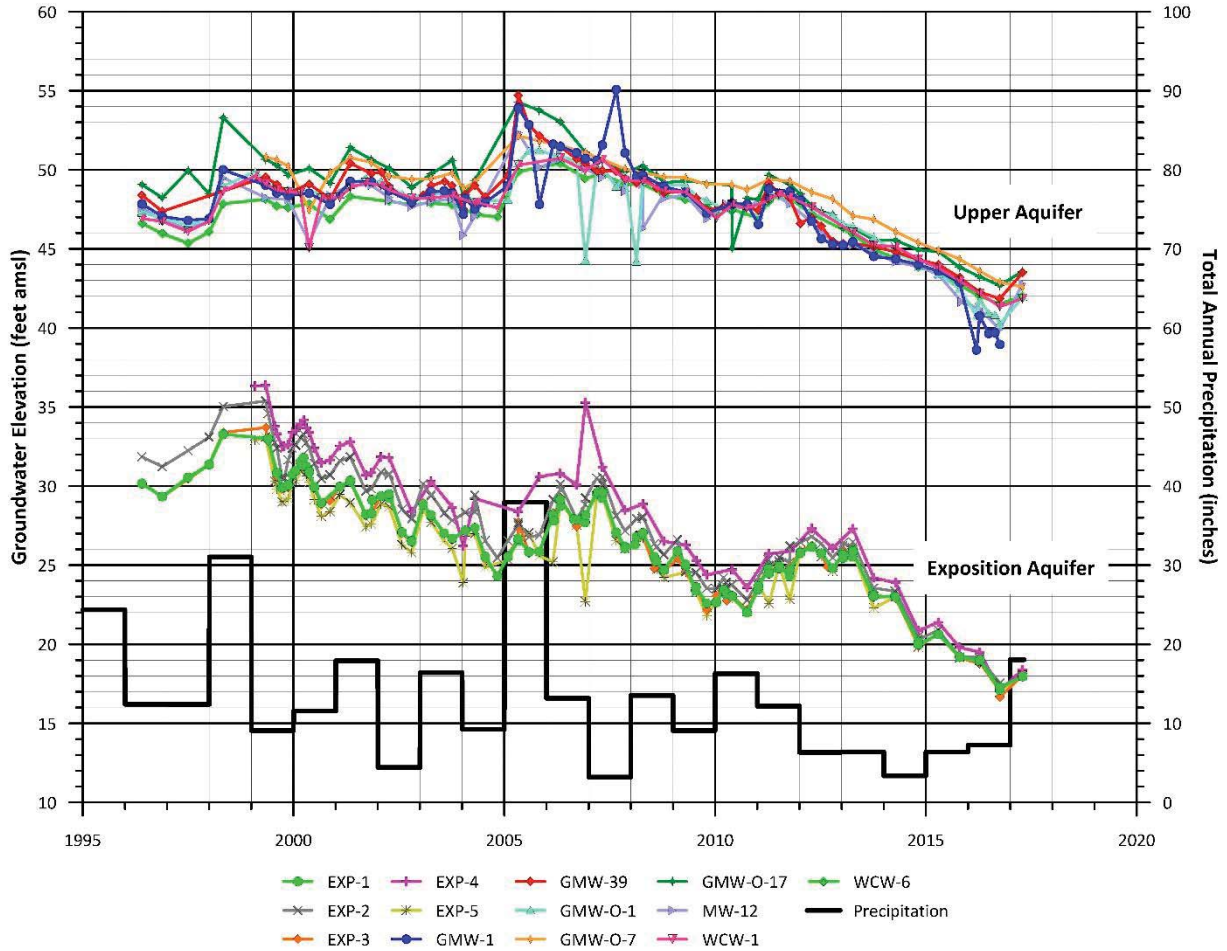
As shown on Figure 2, several groundwater depressions are interpreted across the gauging area. One such depression is located on the eastern border of the site extending from MW-17 northeast to GMW-63. A second relatively larger groundwater depression is located in the northern portion of the site, extending from TF-24 eastward to GMW-66R. Several smaller depressions are centered around single wells, such as GMW-10, GMW-24, GMW-44, and GMW-54. As shown on Figure 2, a relatively small groundwater mound is inferred in the east-central portion of the site, centered on wells GMW-59 and TF-19. This is consistent with past interpretations of a groundwater mound in this area. Smaller mounds are interpreted in the south-central portion of the site, including wells MW-SF-1, MW-SF-13, and MW-SF-16. As previously discussed, past interpretations included converging groundwater flow toward the south-central portion of the site. The differences between the April 2017 gauging event and previous events may be related to factors such as increased precipitation during the 2016-2017 rainy season, differing operation of the remediation systems in this area (at the time of the April 2017 event, the soil vapor extraction [SVE] and biosparge systems had been shut down for nearly 6 months, as discussed in Section 5.1.2 below), a longer period of system shutdown prior to gauging, quicker recovery in groundwater levels, or changes in regional groundwater use. Groundwater elevations in this area were generally 2 feet higher in April 2017 as compared to April 2016. Small groundwater mounds are interpreted as being centered on single wells: GMW-SF-8 (in the southeast corner of the site) and GMW-43 (in the north-central portion of the site).

Groundwater levels in MW-18 (MID), MW-19 (MID), MW-20 (MID), MW-21 (MID), and MW-22 (MID) screened in the lower section of the uppermost aquifer varied from groundwater levels measured in nearby wells installed in the upper portion of the uppermost aquifer. Groundwater elevations in these five “MID” wells ranged from 38.17 feet amsl in MW-18 (MID) to 42.81 feet amsl in MW-21 (MID).

Groundwater levels were measured in the five Exposition aquifer wells (EXP-1 through EXP-5) on and near the site. Groundwater elevations used in contouring the Exposition aquifer ranged from 17.97 feet amsl in EXP-1 (in the east-central portion of the site) to 18.40 feet amsl in EXP-4 (northwest of the site). Figure 3 shows the inferred groundwater elevation contours for the Exposition aquifer. Groundwater elevations in the Exposition aquifer were approximately 1 foot lower than those in April 2016 (CH2M, 2016). The groundwater gradient in the Exposition aquifer beneath the site in April 2017 was 0.0003 ft/ft toward the east-northeast, indicating a flow direction generally similar to those previously interpreted for the site. The groundwater flow direction in the Exposition aquifer remains substantially different from the uppermost groundwater zone.

Groundwater elevations across the site in the uppermost aquifer are higher than elevations in the Exposition aquifer by approximately 20 to 25 feet (as shown in Exhibit 1 below). This vertical gradient across the aquitard is consistent with historical conditions and indicates that the aquitard impedes groundwater flow from the uppermost aquifer to the Exposition aquifer. Additionally, the difference in groundwater flow direction between the uppermost aquifer and Exposition aquifer (northwestward and east-northeastward, respectively) also indicates that there is limited communication between the two water bearing zones.

Exhibit 1. Groundwater Elevations in the Uppermost Aquifer and Exposition Aquifer



3.2 Distribution of Free Product

During this semiannual monitoring event, measurable free product was observed in 18 of the 167 wells that were gauged:

- North-central area: wells GMW-7, GMW-45, PZ-3, TF-16, RTF-18-E, RTF-18-W, and RTF-18-NW
- Eastern area: wells GMW-62 and GMW-68
- South-central area: wells GMW-23, GMW-24, GMW-29, GMW-30, GMW-O-11, GMW-O-12, and MW-O-2
- Southeastern area: wells GMW-O-15 and GMW-O-18

Free product was detected at thicknesses ranging from 0.01 foot in well PZ-3 to 4.20 feet in offsite well GMW-O-12. Free product thicknesses, well gauging data, and groundwater elevations are summarized in Table 2. The detection of free product in these wells during this sampling event were used in interpreting the current extent of free product at the site. These interpretations are shown on Figure 2 and indicate free product in the northern tank farm area (the north-central area), the eastern area, the south-central area, and the southeastern 24-inch block valve area.

Free product was present in the north-central area in wells GMW-7, GMW-45, PZ-3, TF-16, RTF-18-E, RTF-18-W, and RTF-18-NW. The product thickness for these wells ranged from 0.01 foot in well PZ-3 to 1.42 feet in well GMW-45. The extent of the north-central free product plumes are interpreted as isolated or separate plumes, with the exception of the "RTF"- series wells.

In the eastern area, a limited extent of free product was interpreted based on a measurable thickness of free product in wells GMW-62 and GMW-68 (0.02 and 0.98 foot thick, respectively). Free product has been detected in both GMW-62 and GMW-68 during past events.

Free product was detected in the south-central area in wells GMW-23, GMW-24, GMW-29, GMW-30, GMW-O-11, GMW-O-12, and MW-O-2. Free product has been detected in south-central area wells during past events. The product thickness ranged from 0.06 foot in well MW-O-2 to 4.20 feet in well GMW-O-12. The magnitude and extent of free product in the south-central area has declined since April 2016. The extent of the south-central area free product plume has been interpreted as one continuous plume in recent years; however, the plume is now interpreted as separate smaller plumes. It is believed that the decrease in product thickness and areal extent is a result of increased precipitation in 2016-2017 compared to 2015-2016 (18.06 versus 7.26 inches, respectively, as measured by the Long Beach, California Irrigation Management Information System [CIMIS] Number 174 weather station [California Department of Water Resources, 2017]) and biosparging that has been implemented in the south-central area since January 2016 (however, the biosparge system was shut down between November 2016 and June 2017; further details regarding biosparging operations are provided in Section 5.1).

Free product was detected in the southeastern 24-inch block valve area in wells GMW-O-15 and GMW-O-18 (0.13 and 0.03 foot, respectively) during this monitoring event. Observation of free product in these wells is consistent with historical data.

Continued total fluids extraction (TFE), manual bailing, and the use of fuel-absorbent socks should continue to remove product that has accumulated in wells across the site.

Groundwater Quality

Groundwater quality results for the semiannual monitoring event are presented in Section 4.1. Related quality assurance/quality control (QA/QC), water disposal, and health and safety are discussed in Sections 4.2 through 4.4.

4.1 Results for the First Semiannual 2017 Groundwater Monitoring Event

The April 2017 analytical results for TPH, benzene, 1,2-DCA, MTBE, and TBA were used to develop isoconcentration contours and interpret the extent of these analytes in groundwater beneath the site. Isoconcentration contours for TPH, benzene, 1,2-DCA, MTBE, and TBA are shown on Figures 4 through 8, respectively. Analytical results from the current semiannual monitoring event (April 2017) and two previous semiannual monitoring events (April and October 2016) are also posted on these figures. The data labels are color-coded to indicate whether concentrations from the April 2017 semiannual event are increasing, decreasing, or stable compared with concentrations from the April 2016 semiannual event. A blue data label indicates a decrease in concentration greater than or equal to 10 percent from the previous year, a red label indicates an increase greater than or equal to 10 percent, and a white label indicates that the change is less than 10 percent or the change could not be determined because of insufficient data.

Laboratory analytical results for TPH, BTEX, 1,2-DCA, MTBE, TBA, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), and tertiary amyl methyl ether (TAME) are summarized in Table 3; other VOCs analyzed by EPA Method 8260B are summarized in Table 4. Historical analytical results for TPH, BTEX, 1,2-DCA, MTBE, TBA, DIPE, ETBE, and TAME are presented in Appendix D. Time series charts for select monitoring and remediation wells are presented in Appendix E. Copies of the laboratory reports for the April 2017 semiannual monitoring event are presented in Appendix B. The following subsections summarize the results for selected analytes or analyte groups.

4.1.1 Total Petroleum Hydrocarbons

As shown on Figure 4, the analytical results for TPH-g and TPH-d reported for each well during the first semiannual 2017 monitoring event are summed and contoured as “TPH.” Where both TPH-g and TPH-d were detected, the TPH concentration included in the isoconcentration contour represents the sum of the detected concentrations. Where only one of the components was detected, that value was considered in the isoconcentration contouring. The concentrations of TPH-g and TPH-d components are listed separately in Table 3. The maximum reported concentration of TPH-g was 54,000 micrograms per liter ($\mu\text{g/L}$) in well TF-18 in the north-central portion of the site. This well also had the maximum reported concentration of TPH-d (7,300 $\mu\text{g/L}$). As shown on Figure 4, the maximum concentrations of both TPH-g and TPH-d during the April 2016 semiannual sampling event were reported for well GW-O-18 in the southeastern 24-inch-block valve area. The 2016 concentrations were anomalously high (11,000,000 and 5,900,000 $\mu\text{g/L}$ for TPH-g and TPH-d, respectively) and were attributed to the presence of free product in the groundwater sample. Groundwater quality samples were not collected from wells with measurable free product (including GMW-O-18) during the April 2017 semiannual event.

As shown on Figure 4, the following wells had TPH concentrations that increased or decreased by more than 10 percent relative to the April 2016 sampling event:

- Decrease: GMW-8, GMW-15, GMW-36, GMW-59, GMW-69, GMW-O-10, GMW-O-14, GMW-O-16, MW-9, MW-18(MID), MW-22(MID), MW-26, MW-27, PZ-2, and TF-8.
 - The largest decrease was reported at well GMW-O-10 (999 µg/L in April 2016 to 52 µg/L in April 2017), located offsite to the south.
- Increase: GMW-21, GMW-47, GMW-57, GMW-58, GMW-60, GMW-61, MW-21(MID), and PZ-5.
 - The largest increase was at well PZ-5 (1,260 µg/L in April 2016 to 16,840 µg/L in April 2017), located in the southeastern 24-inch block valve area. These concentrations are within the historical range for this well, as indicated by the data in Appendix D.
- Detect to Nondetect (ND): GMW-26, GMW-28, GMW-67, GMW-O-9, HL-2, HL-3, and MW-19(MID).
- ND to Detect: GMW-66R, GMW-O-3, GMW-O-19, GW-2, WCW-2, and WCW-13.

The areal extent of TPH shown on Figure 4 was relatively similar to the April 2016 monitoring event. Other observations regarding the April 2017 TPH plumes include the following:

- The extent of TPH in the eastern area was reduced as a result of decreased concentrations at GMW-67 and GMW-69.
- The increase in TPH concentration at GMW-66R results in a larger extent of the plume to the northeast.
- The inferred extent of TPH exceeding 1,000 µg/L in the northeastern area was slightly smaller in April 2017 than in April 2016 due to several wells not being sampled in 2017 (PZ-3, GMW-7, GMW-18, TF-15, and TF-16), and there is a new inferred area of TPH exceeding 10,000 µg/L located around wells TF-18 (61,300 µg/L), RTF-18-N (30,200 µg/L), and RTF-18-NNW (36,900 µg/L).
- The areal extent of TPH in the northwestern portion of the site expanded slightly to the north to encompass detected concentrations at wells GW-2 (170 µg/L) and MW-14 (160 µg/L).
- Isolated detections of TPH were recorded in two western offsite wells (230 µg/L at WCW-2 and 450 µg/L at WCW-13) during April 2017. These are the only detections of TPH at wells WCW-2 and WCW-13 since monitoring began in 1996.
- The areal extent of TPH in the south-central and southern offsite areas expanded slightly to the south to encompass well GMW-O-3 (260 µg/L).
- The extent of TPH exceeding 1,000 µg/L in the south-central portion of the site decreased due to decreased concentrations at wells GMW-O-10, GMW-O-14, and several wells not being sampled in April 2017 (such as GMW-23, GMW-29, GMW-30, and MW-SF-14).
- The previously interpreted area of TPH exceeding 1,000 µg/L near the truck rack area is not present in the current dataset due to relatively lower TPH detections at wells GMW-4R (154 µg/L), MW-9 (699 µg/L), and GMW-15R (210 µg/L).
- In the southeastern part of the site, the interpreted extent of TPH expanded slightly to encompass well GMW-O-19 (52 µg/L).
- TPH was not detected in any of the Exposition aquifer wells.

4.1.2 Benzene

Figure 5 presents the benzene isoconcentration contours interpreted from data collected during the April 2017 semiannual monitoring event. Analytical results for benzene in groundwater samples collected during this semiannual event indicate that concentrations ranged from ND in many wells to a maximum of 5,800 µg/L in southeastern offsite well PZ-5. As discussed in Section 4.1.1, elevated dissolved-phase concentrations in several wells (including remediation wells southeast of the site) reported during the April 2016 monitoring event were attributed to residual free product in the groundwater samples. Groundwater quality samples were not collected from wells with measurable free product during the April 2017 monitoring event.

As shown on Figure 5, the following wells had benzene concentrations that increased or decreased by more than 10 percent relative to April 2016:

- Decrease: GMW-28, GMW-67, GMW-69, and GMW-O-14.
 - The largest decreases were in wells GMW-28 (370 µg/L in April 2016 to 0.69 µg/L in April 2017) and GMW-O-14 (1,300 µg/L in April 2016 to 0.59 µg/L in April 2017).
- Increase: GMW-36, GMW-58, GMW-59, GMW-60, and GMW-61.
 - The largest increase was reported in well GMW-61 (0.65 µg/L in April 2016 to 18 µg/L in April 2017) in the eastern portion of the site.
- Detect to ND: GMW-6, GMW-15, GMW-O-10, GW-2, GW-3, GW-13(6"), MW-9, MW-13, MW-16, MW-18(MID), MW-26, MW-27, PZ-2, and TF-8.
- ND to Detect: GMW-O-3 (1.3 µg/L), GMW-O-16 (1.2 µg/L), GMW-O-19 (2.2 µg/L), GMW-O-24 (0.8 µg/L), and PZ-5 (5,800 µg/L).

The areal extent of benzene in groundwater beneath the site in April 2017 was relatively unchanged from the plume configuration observed during the April 2016 monitoring event, with the exception of the plume footprint in the northwest corner of the site. Previously, the plume in the northwest corner of the site was inferred from low-level benzene results at wells GW-2, GW-3, GW-13, MW-26, MW-27, and TF-8, which were all ND for benzene in April 2017. Other observations regarding the April 2017 benzene plumes include the following:

- The areal extent of the benzene plume located in the north-central/eastern portion of the site presented on Figure 5 is slightly smaller than inferred during April 2016, due to ND concentrations in wells GMW-6, GMW-15, and GMW-19 in April 2017.
- Although several wells in the north-central/eastern area were not sampled during April 2017 due to the presence of free product (GMW-7, GMW-45, GMW-62, GMW-68, TF-16, RTF-18-NW, RTF-18-W, RTF-18-E, and PZ-3) the footprint of the plume was extended to encompass these locations, recognizing the presence of product likely indicates that historical elevated concentrations at many of these wells persists.
- An area of benzene in groundwater exceeding 1,000 µg/L is inferred between Tanks 80008 and 55004 based on concentrations at wells RTF-18-N (1,700 µg/L) and RTF-18-NNW (5,000 µg/L). Wells defining the April 2016 area of benzene exceeding 1,000 µg/L in the eastern portion of the site (GMW-62, GMW-68, and GW-15[6"]) were not sampled in April 2017.
- In the south-central area, the northern extent of the plume contracted due to ND concentrations at wells GWR-1R, GMW-25, and MW-18(MID), and because well GMW-10 was not sampled during April 2017.

- The southern extent of the plume in the south-central area expanded to include offsite well GMW-O-3.
- The extent of benzene exceeding 1,000 µg/L in the south-central area in April 2016 is not present in the April 2017 dataset due to relatively lower detected concentrations at wells GMW-9, GMW-O-14, GMW-O-20, GMW-O-21, GMW-O-23, and MW-SF-6, and because wells with historically high benzene concentrations (such as GMW-23 and GMW-30) were not sampled during April 2017 due to the presence of free product.
- Due to the single detection of benzene in new replacement monitoring well GMW-4R, an isolated plume was interpreted south of the truck rack area. The area of detected benzene centralized on well MW-9 in April 2016 was not present as results from this well were ND in April 2017.
- The overall areal extent of the benzene plume in the southeastern area of the site and southeastern offsite area expanded between April 2016 and April 2017 due to increases in concentration at wells GMW-O-16, GMW-O-19, GMW-O-24, and PZ-5.
- An area of benzene exceeding 1,000 µg/L is present in the southeastern offsite area, encompassing wells PZ-5 and GMW-36.
- Benzene was not detected in wells west of the site or in any of the Exposition aquifer wells.

4.1.3 1,2-Dichloroethane

Figure 6 presents isoconcentration contours for 1,2-DCA reported during the April 2017 semiannual monitoring event. Analytical results for 1,2-DCA collected during this event ranged from ND in many wells to a maximum of 9 µg/L in well MW-20(MID) in the western onsite area. Relatively higher concentrations of 1,2-DCA were generally reported in wells screened within the deeper portion of the shallow aquifer (wells with “MID” in the name). 1,2-DCA was not detected in wells sampled in the eastern, southeastern, and western offsite areas of the site.

As shown on Figure 6, there was generally a decrease in 1,2-DCA concentrations within the inferred groundwater plume. The following wells had 1,2-DCA concentrations that increased or decreased by more than 10 percent relative to April 2016:

- Decrease: GMW-26, GW-2, GW-13(6”), MW-19(MID), MW-20(MID), MW-21(MID), and MW-22(MID).
 - The largest decrease was reported in well GW-13(6”) (6.6 µg/L in April 2016 to 1.7 µg/L in April 2017).
- Increase: MW-6 (0.72 µg/L in April 2016 to 0.99 µg/L in April 2017).
- Detect to ND: GMW-8 and MW-16.
- ND to Detect: PW-3 (0.67 µg/L), GMW-O-14 (3.7 µg/L), and EXP-3 (0.53 µg/L).

The areal extent of 1,2-DCA presented on Figure 6 is slightly larger than the extent inferred during April 2016. Other observations regarding the April 2017 1,2-DCA plumes include the following:

- The western plume was expanded to incorporate detected concentrations at wells PW-3 (0.67 µg/L, an increase since April 2016) and GWR-1R (0.72 µg/L, not sampled in April 2016) in the south-central/southwest portion of the site.
- An isolated 1,2-DCA plume was interpreted in the southern offsite area at well GMW-O-14. Elevated concentrations of 1,2-DCA have been detected at this well in the past, exceeding 100 µg/L in 2010-2011, and at a concentration of 13 µg/L more recently in August 2016.

- A second small, individual plume is interpreted based on the detection at well EXP-3 in the south-southeastern area (although the split sample collected at this well by SGI was ND for 1,2-DCA). 1,2-DCA has been periodically detected at this well in the past, at concentrations of up to 1.3 µg/L (April 2011).
- 1,2-DCA results were ND for the Exposition aquifer wells, except EXP-3, during the April 2017 monitoring event.
- As listed in Appendix D and shown on Figure 6, concentrations of 1,2-DCA in groundwater in the vicinity of the West Side Barrier and in the western offsite area have remained consistently low. Pumping of the West Side Barrier wells was discontinued in August 2008; groundwater quality conditions in the area have been stable since then and will continue to be monitored.

4.1.4 Methyl Tertiary Butyl Ether

Figure 7 presents isoconcentration contours for MTBE reported during the April 2017 semiannual monitoring event. Analytical results for MTBE indicate concentrations ranged from ND, in many wells, to a maximum of 1,900 µg/L in southeastern area well GMW-36. Elevated MTBE concentrations at the site have historically been located in the southeastern area, primarily at remediation wells GMW-O-15 and GMW-O-18, which were not sampled during this event due to the presence of free product.

As shown on Figure 7, the following wells had MTBE concentrations that increased or decreased by more than 10 percent relative to April 2016:

- Decrease: GMW-28, GMW-O-14, MW-9, MW-18(MID), MW-22(MID), PZ-2, and EXP-1.
 - The largest magnitude decrease was reported for well GMW-28 in the south-central portion of the site (from 25 µg/L in April 2016 to 4.8 µg/L in April 2017).
- Increase: GMW-36, MW-6, MW-21(MID), and PZ-5.
 - The largest magnitude increase was reported for well PZ-5, located in the southeastern offsite area (from 7.6 µg/L in April 2016 to 770 µg/L in April 2017). These concentrations are within the historical range for this well, as indicated by the data in Appendix D.
- Detect to ND: GMW-8, GMW-21, GMW-26, GMW-47, GMW-59, MW-19(MID), MW-27, and TF-8.
- ND to Detect: GMW-57 (1.7 µg/L) and GMW-O-16 (4 µg/L).

The major change to the extent of MTBE in groundwater beneath the site between April 2016 and April 2017 is the modification of the plume configuration in the western/south-central area from a single plume into two separate plumes. The modified interpretation was based on ND results at wells GMW-8, GMW-26, MW-7, and MW-19(MID). Other observations regarding the April 2017 MTBE plumes include the following:

- The areal extent of MTBE in the western area of the site decreased relative to that inferred in April 2016 based on ND concentrations at GMW-8, GMW-41, GMW-54, HL-3, MW-7, MW-26, MW-27, MW-19(MID), and TF-8; many of these wells decreased from detected concentrations to ND between April 2016 and 2017.
- MTBE was not detected in western offsite wells; however, WCW-7 (which resulted in extension of the plume slightly west of the site in April 2016) was not sampled during the April 2017 monitoring event.
- The plume in the south-central area is similar in extent to what was inferred in April 2016, with the exception of extending northeast to the truck rack area. The extent of MTBE in the truck rack area in April 2016 was limited to a detection at well MW-9, because nearby wells GMW-4, MW-14, and MW-15 were either inaccessible or decommissioned. Replacement wells GMW-4R and MW-14R had

detected MTBE concentrations of 0.74 and 0.68 µg/L, respectively. Replacement well MW-15R was ND for MTBE during this semiannual monitoring event.

- MTBE was detected in three offsite wells south of the site: GMW-O-14 (3.5 µg/L), GMW-O-20 (24 µg/L), and GMW-O-23 (4 µg/L). MTBE was not detected in monitoring wells located south of Cheshire Street.
- The areas of detected MTBE in the north-central and eastern areas of the site differ from the extents interpreted for April 2016. Previously, two isolated plumes were interpreted based on low-level detections of MTBE in well GMW-21 (2.8 µg/L) near former Tank 80002, and in wells GMW-47 (5.7 µg/L), GMW-50 (1.3 µg/L), and GMW-59 (1 µg/L) near former Tanks 80004, 80008, and 80017. MTBE in wells GMW-21, GMW-47, and GMW-59 were ND in April 2017; well GMW-50 was not sampled during this event.
- Three isolated plumes are inferred in the north/northeastern area, centered on wells TF-23 (1.5 µg/L), GMW-57 (1.7 µg/L), and EXP-1 (0.81 µg/L). As shown on Figure 7, the remainder of sampled wells in this area had ND results. Further, MTBE was not detected in eastern offsite wells in April 2017.
- The size of the area of detected MTBE in the southeastern 24-inch-block-valve area was similar to what was interpreted for April 2016; however, the location of the detected MTBE plume shifted approximately 100 feet to the southeast. This shift was based on a decrease in concentration in southeastern area well GMW-39 from 0.51 µg/L (in the QA/QC sample) in April 2016 to ND in April 2017, and an increase in concentration at offsite well GMW-O-16 from ND in April 2016 to 4 µg/L in April 2017.
- MTBE concentrations in offsite southeastern wells increased by one order of magnitude in well GMW-36 and two orders of magnitude in PZ-5 between April 2016 and 2017, and remained ND in wells GMW-O-17, GMW-O-19, and GMW-O-24 during the April 2017 sampling event.
- MTBE was detected at Exposition aquifer well EXP-1 during this semiannual monitoring event. The concentration was consistent with past detections, up to 2.2 µg/L in recent years. As shown on Figure 7, MTBE results were ND for the remaining four Exposition aquifer wells during the April 2017 monitoring event.

4.1.5 Tertiary Butyl Alcohol

Figure 8 presents the TBA isoconcentration contours interpreted from data collected during the April 2017 semiannual monitoring event. Data collected during this event indicate that TBA concentrations range from ND in 98 of the 116 wells sampled to a maximum of 47,000 µg/L in southeastern offsite area well PZ-5.

As shown on Figure 8, the following wells had TBA concentrations that increased or decreased by more than 10 percent relative to April 2016:

- Decrease: MW-9, MW-18(MID), MW-19(MID), MW-20(MID), and PZ-5.
 - The largest magnitude decrease was at well MW-19(MID) in the western area, where concentrations declined from 420 µg/L in April 2016 to 21 µg/L in April 2017.
- Increase: GMW-36 (1,400 µg/L in April 2016 to 7,800 µg/L in April 2017).
- ND to Detect: GMW-28 (32 µg/L), GMW-60 (55 µg/L), GMW-O-14 (15 µg/L), and MW-21(MID) (12 µg/L).

TBA is primarily present in the western/south-central portion of the site. Overall, the areal extent of TBA in groundwater beneath the site presented on Figure 8 is slightly smaller than what was reported during

the April 2016 monitoring event due to ND results at offsite wells GMW-O-20, GMW-O-21, and GMW-O-23 during the April 2017 monitoring event. These wells were not sampled in April 2016, and therefore did not previously limit the plume from encompassing GMW-O-12 (where free product has been observed). Other observations regarding the April 2017 TBA plumes include the following:

- The extent of the plume between the truck rack and Kinder Morgan lease areas decreased due to an ND result at well MW-SF-4 and the absence of April 2017 sample data at GMW-1, PZ-10, and MW-SF-9.
- TBA was not detected in any offsite wells to the south of Cheshire Street or west of the site.
- There are two small, isolated TBA plumes interpreted in the truck rack area based on detected results from MW-9 (20 µg/L) and replacement well MW-15R (15 µg/L). TBA was not detected in well GMW-13 or replacement wells GMW-4R and GMW-14R.
- Two small, isolated TBA plumes are interpreted in the north-central/eastern area. These are centered on detections at well TF-23 (94 µg/L) and GMW-60 (55 µg/L).
- The extent of TBA in groundwater in the southeastern area shown on Figure 8 is similar to what was interpreted for April 2016. Detected TBA concentrations ranged from 7,800 µg/L at GMW-36 to 47,000 µg/L at PZ-5.
- Offsite remediation wells GMW-O-15 and GMW-O-18 have historically shown elevated concentrations of TBA; however, these wells were not sampled during April 2017 due to the presence of free product.
- TBA was not detected in offsite wells GMW-O-16, GMW-O-17, GMW-O-19, and GMW-O-24, or onsite wells MW-8, GMW-39, GMW-SF-7, and GMW-SF-8 during the April 2017 monitoring event.
- As shown on Figure 8, TBA was not detected in wells west of the site or in any of the Exposition aquifer wells.

4.1.6 Other Fuel Oxygenates

Pursuant to the RWQCB's request in March 2009, analysis for other fuel oxygenates including ETBE, DIPE, TBA, and TAME using EPA Method 8260B was included in the April 2017 sampling event (RWQCB, 2009a, 2009b). Analytical data for these compounds are provided in Table 3. ETBE was not detected in any of the samples collected during the April 2017 sampling event. TAME was detected in two wells in the southeastern offsite area: GMW-36 (36 µg/L) and PZ-5 (44 µg/L). DIPE was detected in 12 of the 116 wells sampled. Detected concentrations of DIPE were reported in wells in the western and south-central areas ranging from 1.6 µg/L at well MW-18(MID) to 48 µg/L at well MW-SF-15.

4.2 Quality Assurance/Quality Control

Alpha and American Analytics did not report any significant QA/QC issues with the analytical work performed during the April 2017 semiannual event. A total of 14 duplicate groundwater samples, 10 trip blanks, and 12 equipment blanks were submitted to the laboratories. All trip blank and equipment blank samples were reported as ND for all analytes of concern. Analytical results for duplicate groundwater samples and trip and equipment blanks are summarized in Tables 5 and 6, respectively.

4.3 Water Disposal

Purged groundwater from this monitoring event was treated at the onsite remediation systems. Purged groundwater extracted by Blaine Tech, on behalf of SFPP, was treated in the SFPP system located in the south-central area and discharged under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0063509. Purged groundwater extracted by SGI, on behalf of DLA, was treated in the DLA system located in the northern part of the site and discharged under NPDES Permit No. CAG834001.

4.4 Health and Safety

Field activities were conducted in accordance with site-specific health and safety procedures, including protocol for safe work practices during the field portion of the project. Personnel working at the site were required to adhere to the health and safety program.

Remediation System Operations and Effectiveness

5.1 System Operations

SFPP and DLA currently submit quarterly remediation progress reports to the RWQCB and the Restoration Advisory Board (RAB) to provide details of remediation system operations. DLA created a website (www.norwalkrab.com) to house project information including agendas, minutes, and presentations from RAB meetings dating back to 1994. In addition, historical project information and reports are located in the information repository at the Norwalk Regional Library.

5.1.1 DLA

The remediation system operated at the site by DLA consists of SVE, GWE, biosparging, and absorbent sock installations for passive recovery of free product. DLA conducts GWE from two pumping wells (GW-2 and GW-13) in the northwestern corner of the site, and from two wells (GW-15 and GW-16) in the northeastern area bordering Holifield Park. The GWE system is designed to contain and reduce the extent of the free product and dissolved plumes. SVE also is conducted from a network of vertical and horizontal wells that span the entire former aboveground tank farm area, and from the northeastern and eastern boundaries of the site. Localized vacuum recovery of free product is conducted as needed, and passive absorption is conducted at specific wells.

Startup of an automated product-recovery system occurred on August 8, 2016, following the completion of permitting and well installation. The system consists of four pneumatically activated product-removal pumps deployed in key wells located in the north-central portion of the site, including wells TF-18, RTF-18-NW, RTF-18-N, and RTF-18-E.

DLA Energy conducted shallow soil remediation from January 2015 to March 2017 in accordance with the RWQCB-approved *Soil Remedial Action Plan* (SGI, 2014), *Revised Field Sampling and Analysis Plan and Sampling Strategy* (SGI, 2015a), *Workplan for VOC Analysis Results Validation* (SGI, 2015b), and *Proposed Addendum to the Soil Cleanup Goals* (SGI, 2015c). Soils in areas identified for remediation were excavated and treated onsite by the SVE system. Treatment was achieved via the construction of soil biopiles that were connected to the SVE system for South Coast Air Quality Management District permit compliance purposes. A total estimated volume of 67,574 cubic yards of petroleum-hydrocarbon-contaminated soil was excavated at the site to depths up to 35 feet below grade. The goal of this remediation was to clean up source area soils that contributed to the degradation of groundwater, and ready the real property of the site for eventual conveyance. After the RWQCB reviews confirmation sample results, the RWQCB approves use of the treated soil as backfill for the remedial excavations.

The biosparge system is currently offline due to these recently completed soil cleanup activities.

5.1.2 SFPP

The remediation systems operated by SFPP consist of SVE, TFE, GWE, and treatment of extracted soil vapor and groundwater to address the south-central and southeastern areas of the site. SFPP also previously operated a GWE system for remediation of the western offsite area (or West Side Barrier area). SFPP is currently extracting groundwater from four wells in the south-central area (GMW-9, GMW-O-20, GMW-O-23, and MW-SF-3) and from three wells in the southeastern 24-inch block valve

area (GMW-O-15, GMW-O-18, and GMW-SF-9). The TFE and GWE systems are designed to contain and reduce the extent of free product, provide hydraulic capture of dissolved constituents of concern, and lower the free product surface (where present) and groundwater table, thus exposing more hydrocarbon-impacted soil for SVE. Additionally, SFPP conducts manual bailing of free product from select wells, as needed.

In December 2015, SFPP completed installation of a horizontal biosparge system in the south-central area of the site to enhance natural attenuation of hydrocarbon constituents. Construction of the biosparge well is documented in the report titled, *Horizontal Biosparge Well and Soil Vapor Monitoring Probe Completion Report* (CH2M, 2015), and the location of the well is depicted on Figure 2 of that report. SFPP's SVE system has an interlock that prevents the biosparge system from operating unless the SVE system is operating, reducing the potential for off-gassing of VOCs during biosparge operations.

Pilot testing of the biosparge system began on January 6, 2016, and continued until both the SVE and biosparge systems were shut down on November 1, 2016, to facilitate replacement of the old thermal oxidizer with a new regenerative thermal oxidizer (RTO). Installation of the RTO was completed on June 6, 2017. The SVE was restarted on June 6, 2017, and the biosparge was restarted on June 27, 2017.

5.2 System Effectiveness

Based on the results presented in this report, it is believed that DLA's remediation systems in the north-central area and SFPP's remediation systems in the south-central and southeastern areas are effectively restricting migration of dissolved-phase constituents across the site. In general, the areal extent of dissolved-phase plumes has been reduced from the historical maximum extent and appears to be consistent with previous monitoring events.

- Except for anomalous TPH detections at wells WCW-2 and WCW-13, dissolved-phase constituents have not been detected offsite to the west, indicating the plumes in the western area generally have been contained onsite.
- Dissolved TPH and benzene in the eastern area are interpreted to extend offsite to just beyond new monitoring wells GMW-67 and GMW-69. Dissolved-phase constituents are not detected in wells GMW-63, GMW-64, and GMW-65 located to the east.
- The offsite extent of TPH and benzene in the south-central area has expanded slightly south of Cheshire Street due to detections of these compounds at well GMW-O-3. TPH and benzene have not been detected in this well since 2008 and 2007, respectively. The offsite extent of other dissolved-phase constituents in the vicinity is limited to areas north of Cheshire Street, consistent with previous monitoring events. SFPP will continue to extract groundwater in the south-central area and monitor for TPH, BTEX, MTBE, and other constituents.
- In the southeastern area, the areal extent of the dissolved-phase plume has been relatively consistent since hydrocarbon constituents were pulled downgradient from wells GMW-36 and GMW-O-15, after extraction activities were initiated at well GMW-O-18 in April 2010 in response to a request from RWQCB. With the exception of a minor detection of benzene (0.8 µg/L), downgradient well GMW-O-24 has not had detectable hydrocarbon constituents since the second semiannual 2015 event. SFPP will continue to extract groundwater in the southeastern area and monitor for MTBE and other constituents.

SFPP continues to monitor the amount of free product that has accumulated in the product holding tank of the groundwater treatment system. Two gallons of free product accumulated in the tank during the first half of 2017, whereas a year ago, 22 gallons of accumulated product was reported. The magnitude and extent of free product in the south-central area has declined substantially since April 2015. It is believed that the decrease in product thickness and areal extent is a result of biosparge operations that

have been implemented in the south-central area since January 2016. A total of 2,025,235 gallons of groundwater were extracted during the first half of 2017 by the GWE system. Since SFPP's GWE system operations first began in 1996, approximately 99.9 million gallons of groundwater have been extracted from the south-central, southeastern, and West Side Barrier areas; hydrocarbon mass removed by the GWE system is estimated to be 19,416 pounds. During the first half of 2017, the mass removal of hydrocarbons was estimated to be 85 pounds. TFE and manual product removal from extraction wells will continue to be performed during the third and fourth quarters of 2017 to maximize product removal across the site. Additionally, since SVE implementation in September 1995, a cumulative mass of 3,483,014 pounds of VOCs have been removed.

The low detections of MTBE and 1,2-DCA and the estimated plume extents in the western area do not warrant restarting the West Side Barrier treatment system. VOCs and TPH will continue to be monitored in this area.

DLA's GWE system has extracted over 76,000,000 gallons of groundwater since April 1996, with an associated mass removal estimated at nearly 10,000 pounds of diesel-range organic compounds. The system continues to successfully contain and reduce the extent of the free product and dissolved plumes. Over 6,000 gallons of product have been removed since January 2014 via bailing, skimming, the use of absorbent socks, and the recently added automated product recovery system. Additionally, the SVE system operated by DLA continues to successfully remediate the vadose zone with nearly 3,000,000 pounds of gasoline-range organic compounds removed to date. DLA anticipates that biosparge system operations will commence on an expanded basis during the next reporting period.

Summary

The first semiannual 2017 groundwater monitoring event was conducted from April 17 to 24, 2017. In general, groundwater quality conditions observed during this monitoring event are similar to observations from the April 2016 semiannual monitoring event. Free product accumulation in several remediation and monitoring wells decreased since April 2016 likely due to increased precipitation and/or biosparge system operations in the south-central area of the site that occurred in 2016. In general, the areal extent of dissolved-phase plumes has been reduced from the historical maximum extent and appears to be consistent with previous monitoring events.

6.1 Groundwater Flow Conditions

Groundwater elevations in the uppermost groundwater zone increased over most of the site (by up to 4 feet) and decreased in the western portion of the site and offsite to the west (by up to 1.5 feet) since April 2016. Groundwater levels in the Exposition aquifer decreased by approximately 1 foot since the April 2016 semiannual monitoring event. The overall flow direction during this monitoring event in the uppermost groundwater zone was to the northwest, with an estimated horizontal hydraulic gradient of approximately 0.0011 to 0.0021 ft/ft. Groundwater flow directions in the uppermost groundwater zone differed from past monitoring events due to the lack of converging flow toward the site. The horizontal hydraulic gradient in the Exposition aquifer was 0.0003 ft/ft to the east-northeast, similar to the general historical flow direction.

6.2 Distribution of Free Product

During this semiannual monitoring event, measurable free product was observed in 18 of the 167 wells that were gauged:

- North-central area: wells GMW-7, GMW-45, PZ-3, TF-16, RTF-18-E, RTF-18-W, and RTF-18-NW.
- Eastern area: wells GMW-62 and GMW-68.
- South-central area: wells GMW-23, GMW-24, GMW-29, GMW-30, GMW-O-11, GMW-O-12, and MW-O-2.
- Southeastern area: wells GMW-O-15 and GMW-O-18.

Free product was detected at thicknesses ranging from 0.01 foot to 4.20 feet. The magnitude and extent of free product in the south-central area has declined since April 2016. The extent of the south-central area free product plume has been interpreted as one continuous plume in recent years; however, it is now interpreted as separate smaller plumes. It is believed that the decrease in product thickness and areal extent is a result of increased precipitation in 2016-2017 compared to 2015-2016 (18.06 inches versus 7.26 inches, respectively, as measured by the Long Beach CIMIS Number 174 weather station [California Department of Water Resources, 2017]), and biosparging that has been implemented in the south-central area since January 2016.

6.3 Dissolved-Phase Constituents

6.3.1 Total Petroleum Hydrocarbons

The areal extent of TPH in the north-central, eastern, south-central, and southern offsite areas during April 2017 was generally similar to the interpreted plumes for April 2016. In the northwestern portion of the site, the plume was expanded slightly to encompass detected results at wells GMW-2 and MW-14. There were also slight increases in the plume extent to the south (to encompass GMW-O-3), in the southeastern area (to encompass offsite well GMW-O-19), and in the northeastern area (to encompass GMW-66R). Anomalous detections of TPH-d were reported for offsite wells west of the site (WCW-2 and WCW-13). These wells have not had reported detections of TPH since sampling began in 1996 and will continue to be monitored.

6.3.2 Benzene

Benzene was not detected in wells west of the site nor in any of the Exposition aquifer wells in April 2017. The areal extent of the benzene plume in the north-central area was slightly smaller than the April 2016 interpretation. In the south-central area, the southern extent increased to encompass offsite well GMW-O-3, while the northern extent decreased based on ND concentrations at wells GWR-1R, GMW-25, and MW-18(MID), and because well GMW-10 was not sampled during April 2017. There was an increase in the extent of the benzene plume in the southeastern area based on detections at wells GMW-O-16, GMW-O-19, and GMW-O-24.

6.3.3 1,2-Dichloroethane

The areal extent of 1,2-DCA in April 2017 was slightly larger than the April 2016 interpretation, as 1,2-DCA was detected at wells GWR-1R and PW-3. Additionally, 1,2-DCA was detected at offsite well GMW-O-14 and Exposition aquifer well EXP-3. 1,2-DCA was not detected in the remaining four Exposition aquifer wells, nor in wells in the western offsite, eastern, and southeastern areas of the site during the semiannual monitoring event.

6.3.4 Methyl Tertiary Butyl Ether

The distribution of MTBE, as inferred by the April 2017 dataset, differed slightly from the April 2016 interpretation. The continuous MTBE plume in the western/south-central area interpreted during April 2016 was separated into two distinct plumes based on ND results at several monitoring wells. The extent of detected MTBE in the southeastern area shifted to the southeast based on an ND result at GMW-39 and an increased concentration at GMW-O-16. Several small, isolated plumes are interpreted in the north-central/northeastern area of the site centered on detected results at individual wells. MTBE was detected in well EXP-1, but was not detected in the remaining four Exposition aquifer wells. MTBE was not detected in offsite wells to the west or south of Cheshire Street.

6.3.5 Tertiary Butyl Alcohol

The areal extent of TBA in April 2017 was generally similar to that interpreted for April 2016. The extent of TBA in the south-central area was slightly smaller in April 2017 than in the previous year based on ND results at wells GMW-O-20, GMW-O-21, GMW-O-23, and MW-SF-4. The extent of TBA in the southeastern area was similar to that in April 2016, but the concentrations within the plume at GMW-36 and PZ-5 increased. Several smaller, isolated plumes are interpreted based on detected TBA concentrations at single wells in the truck rack, north-central, and northeastern areas. TBA was not detected in any Exposition aquifer wells nor in offsite wells west of the site or south of Cheshire Street during the April 2017 monitoring event.

6.3.6 Other Fuel Oxygenates

Other fuel oxygenates including ETBE, DIPE, and TAME were analyzed during the April 2017 semiannual event. ETBE was not detected in any of the samples collected in April 2017. TAME was detected in two wells in the southeastern offsite area, GMW-36 (36 µg/L) and PZ-5 (44 µg/L). Of the 116 wells sampled, DIPE was detected in 12 wells located in the western and south-central areas, with concentrations ranging from 1.6 µg/L at well MW-18(MID) to 48 µg/L at well MW-SF-15.

6.4 System Effectiveness

Based on the results presented in this report, it is believed that DLA's remediation systems in the north-central area and SFPP's remediation systems in the south-central and southeastern areas are effectively restricting migration of dissolved-phase constituents across the site (despite anomalous TPH detections at wells WCW-2 and WCW-13).

- As a result of hydraulic containment by the treatment systems and natural attenuation mechanisms, the areal extent of dissolved-phase plumes has been reduced from the historical maximum extent and appears to be consistent with previous monitoring events. The hydraulic containment systems will continue to be operated.
- The magnitude and extent of free product in the south-central area has declined substantially since April 2015. It is believed that the decrease in product thickness and areal extent is a result of increased precipitation and/or biosparge operations that have been implemented in the south-central area since January 2016 (although the biosparge system was shut down between November 2016 and June 2017). TFE and manual product removal from extraction wells will continue to be performed during the third and fourth quarters of 2017 to maximize product removal across the site.
- The low detections of MTBE and 1,2-DCA and the estimated plume extents in the western area do not warrant restarting the West Side Barrier treatment system. VOCs and TPH will continue to be monitored in this area.

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Tables

Table 1. Monitoring Well Summary*Defense Fuel Support Point, Norwalk, California*

| Well | Installation Date | Installed By | Total Depth (feet bgs) | Casing Diameter (inches) | Screen Interval (feet bgs) | Slot Size (inches) | Casing Elevation (feet amsl) |
|---------|-------------------|--------------|------------------------|--------------------------|----------------------------|--------------------|------------------------------|
| BW-1 | 5/16/1996 | GMX | 55 | 5 | 31.9 - 51.4 | 0.01 | 73.17 |
| BW-2 | 5/20/1996 | GMX | 53.5 | 5 | 27 - 46.5 | 0.01 | 73.57 |
| BW-3 | 5/17/1996 | GMX | 55.5 | 5 | 30.6 - 50 | 0.01 | 74.16 |
| BW-4 | 5/20/1996 | GMX | 53.1 | 5 | 28.2 - 47 | 0.01 | 74.61 |
| BW-6 | 5/22/1996 | GMX | 52.4 | 5 | 27.6 - 46.9 | 0.01 | 73.48 |
| BW-7 | 5/22/1996 | GMX | 52 | 5 | 27.1 - 46.3 | 0.01 | 74.65 |
| BW-8 | 5/21/1996 | GMX | 51.5 | 5 | 27 - 46.4 | 0.01 | 75.08 |
| BW-9 | 5/21/1996 | GMX | 52.5 | 5 | 26.9 - 46.4 | 0.01 | 76.19 |
| EXP-1 | 3/6/1992 | WC | 128.5 | 4 | 82 - 122 | 0.01 | 78.44 |
| EXP-2 | 10/15/1992 | WC | 149 | 4 | 90 - 120 | 0.02 | 79.43 |
| EXP-3 | 10/20/1992 | WC | 150 | 4 | 85 - 115 | 0.01 | 77.58 |
| EXP-4 | 7/7/1998 | GMX | 118 | 4 | 96.1 - 115.2 | 0.02 | 79.81 |
| EXP-5 | 7/8/1998 | GMX | 120 | 4 | 94.4 - 113.4 | 0.02 | 72.41 |
| GMW-1 | 5/16/1991 | GTI | 50 | 4 | 20 - 50 | 0.01 | 74.77 |
| GMW-2 | 5/16/1991 | GTI | 50 | 4 | 20 - 50 | 0.01 | 73.57 |
| GMW-3 | 5/17/1991 | GTI | 50 | 4 | 20 - 50 | 0.01 | 75.10 |
| GMW-4R | 11/1/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | -- |
| GMW-5 | 5/21/1991 | GTI | 50 | 4 | 20 - 50 | 0.01 | 77.61 |
| GMW-6 | 7/9/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 77.31 |
| GMW-7 | 7/9/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 76.87 |
| GMW-8 | 7/10/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 73.20 |
| GMW-9 | 7/8/1991 | GTI | 50 | 4 | 20 - 50 | 0.01 | 77.16 |
| GMW-10 | 7/8/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 73.35 |
| GMW-11 | 7/9/1991 | GTI | 50 | 4 | 20 - 50 | 0.01 | 72.90 |
| GMW-12 | 7/9/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 75.21 |
| GMW-13 | 7/8/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 74.17 |
| GMW-14R | 10/31/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | 78.77 |
| GMW-15 | 7/30/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 76.21 |
| GMW-16 | 8/1/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 77.00 |
| GMW-18 | 7/31/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 75.36 |
| GMW-19 | 7/31/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 76.83 |
| GMW-20 | 8/1/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 75.10 |
| GMW-21 | 8/2/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 76.23 |
| GMW-22 | 8/2/1991 | GTI | 61 | 4 | 25 - 60 | 0.01 | 77.24 |
| GMW-23 | 8/2/1991 | GTI | 60 | 4 | 25 - 60 | 0.01 | 74.85 |
| GMW-24 | 8/5/1991 | GTI | 60 | 4 | 25 - 60 | 0.01 | 77.48 |
| GMW-25 | 1/10/1992 | GTI | 50 | 6 | 20 - 50 | 0.01 | 78.14 |
| GMW-26 | 1/7/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 74.52 |
| GMW-28 | 1/7/1992 | GTI | 50 | 4 | 20 - 50 | 0.01 | 74.68 |
| GMW-29 | 1/9/1992 | GTI | 50 | 4 | 20 - 50 | 0.01 | 77.57 |
| GMW-30 | 1/9/1992 | GTI | 51.5 | 6 | 20 - 50 | 0.01 | 74.91 |
| GMW-31 | 6/2/1993 | GTI | 65 | 4 | 25 - 65 | 0.01 | 76.50 |
| GMW-32R | 11/9/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | -- |
| GMW-33 | 6/1/1993 | GTI | 50 | 4 | 20 - 50 | 0.02 | 74.88 |
| GMW-34 | 6/3/1993 | GTI | 50 | 4 | 20 - 50 | 0.02 | 75.25 |
| GMW-35R | 11/8/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | 75.90 |
| GMW-36 | 4/11/1994 | GTI | 50 | 4 | 20 - 50 | 0.01 | 76.66 |
| GMW-37 | 4/11/1994 | GTI | 50 | 4 | 20 - 50 | 0.01 | 77.32 |
| GMW-38 | 4/12/1994 | GTI | 50 | 4 | 20 - 50 | 0.01 | 75.47 |
| GMW-39 | 4/12/1994 | GTI | 50 | 4 | 20 - 50 | 0.01 | 75.05 |
| GMW-40 | 6/29/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 73.13 |
| GMW-41 | 6/30/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 74.46 |
| GMW-42 | 6/30/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 75.50 |
| GMW-43 | 7/1/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 74.44 |
| GMW-44 | 7/1/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 74.45 |

Table 1. Monitoring Well Summary

Defense Fuel Support Point, Norwalk, California

| Well | Installation Date | Installed By | Total Depth (feet bgs) | Casing Diameter (inches) | Screen Interval (feet bgs) | Slot Size (inches) | Casing Elevation (feet amsl) |
|---------------|-------------------|--------------|------------------------|--------------------------|----------------------------|--------------------|------------------------------|
| GMW-45 | 7/1/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 75.67 |
| GMW-46 | 7/5/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 76.10 |
| GMW-47 | 7/5/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 75.98 |
| GMW-48 | 7/5/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 75.03 |
| GMW-49 | 7/6/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.01 | 74.75 |
| GMW-50 | 12/19/1994 | GTI | 46.5 | 4 | 15 - 45 | 0.01 | 75.51 |
| GMW-51 | 12/19/1994 | GTI | 41.5 | 4 | 15 - 40 | 0.01 | 75.93 |
| GMW-53 | 12/19/1994 | GTI | 46.5 | 4 | 15 - 45 | 0.01 | 74.90 |
| GMW-54 | 12/20/1994 | GTI | 46.5 | 4 | 15 - 45 | 0.01 | 75.16 |
| GMW-55 | 12/20/1994 | GTI | 41.5 | 4 | 15 - 40 | 0.01 | 74.60 |
| GMW-56 | 8/12/1998 | FDGTI | 55 | 2 | 20 - 55 | 0.02 | 76.50 |
| GMW-56 | 8/12/1998 | FDGTI | 55 | 4 | 20 - 55 | 0.02 | 76.52 |
| GMW-57 | 8/13/1998 | FDGTI | 55 | 2 | 19 - 54 | 0.02 | 76.66 |
| GMW-57 | 8/13/1998 | FDGTI | 55 | 4 | 19 - 54 | 0.02 | 76.66 |
| GMW-58 | 8/14/1998 | FDGTI | 55 | 2 | 20 - 55 | 0.02 | 75.46 |
| GMW-58 | 8/14/1998 | FDGTI | 55 | 4 | 20 - 55 | 0.02 | 75.48 |
| GMW-59 | 8/14/1998 | FDGTI | 55 | 2 | 20 - 55 | 0.02 | 75.28 |
| GMW-59 | 8/14/1998 | FDGTI | 55 | 4 | 20 - 55 | 0.02 | 75.28 |
| GMW-60 | 4/14/2004 | Parsons | 50 | 4 | 25 - 40 | 0.01 | 76.24 |
| GMW-61 | 4/14/2004 | Parsons | 50 | 4 | 30 - 40 | 0.01 | 75.6 |
| GMW-62 | 6/2/2007 | Parsons | 40.5 | 4 | 20 - 40 | 0.02 | 76.34 |
| GMW-63 | 9/29/2008 | Parsons | 41 | 4 | 20 - 40 | 0.02 | 77.32 |
| GMW-64 | 9/29/2008 | Parsons | 41 | 4 | 19.5 - 39.5 | 0.02 | 75.84 |
| GMW-65 | 7/6/2009 | Parsons | 41.5 | 4 | 21 - 41 | 0.02 | 76.78 |
| GMW-66R | 4/7/2016 | SGL | 45 | 4 | 20-45 | 0.02 | 79.23 |
| GMW-67 | 7/13/2015 | SGL | 47 | 4 | 25-45 | 0.02 | 76.00 |
| GMW-68 | 7/15/2016 | SGL | 45 | 4 | 25-45 | 0.02 | 75.52 |
| GMW-69 | 7/14/2015 | SGL | 45 | 4 | 25-45 | 0.02 | 75.31 |
| GMW-O-1 | 3/4/1992 | GTI | 51.5 | 4 | 19 - 49.5 | 0.01 | 71.45 |
| GMW-O-2 | 3/2/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 72.54 |
| GMW-O-3 | 3/2/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 72.19 |
| GMW-O-4 | 3/3/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 71.95 |
| GMW-O-4 (MID) | 3/3/1992 | GTI | 66.5 | 4 | 54.5 - 64.5 | 0.01 | 72.24 |
| GMW-O-5 | 3/4/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 72.36 |
| GMW-O-6 | 5/18/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 71.41 |
| GMW-O-7 | 5/19/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 70.98 |
| GMW-O-8 | 5/18/1992 | GTI | 51 | 4 | 19.5 - 49.5 | 0.01 | 70.91 |
| GMW-O-9 | 7/29/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 73.50 |
| GMW-O-10 | 7/29/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 73.98 |
| GMW-O-11 | 5/20/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 74.17 |
| GMW-O-12 | 5/21/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 73.49 |
| GMW-O-14 | 5/20/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 74.08 |
| GMW-O-15 | 4/19/1994 | GTI | 50 | 4 | 20 - 50 | 0.02 | 74.23 |
| GMW-O-16 | 4/19/1994 | GTI | 50 | 4 | 20 - 50 | 0.02 | 74.10 |
| GMW-O-17 | 7/26/1994 | GMX | 41 | 4 | 20.4 - 39.5 | 0.01 | 73.78 |
| GMW-O-18 | 7/25/1994 | GMX | 41 | 4 | 20.8 - 40.4 | 0.01 | 74.36 |
| GMW-O-19 | 7/29/1994 | GMX | 41.5 | 4 | 20.2 - 39.9 | 0.01 | 74.46 |
| GMW-O-20 | 6/15/1995 | GMX | 45.9 | 4 | --- | --- | 73.32 |
| GMW-O-21 | 10/1/1997 | GMX | 45.9 | 4 | 25.5 - 45.5 | 0.01 | 71.43 |
| GMW-O-22 | --- | GMX | 41 | 4 | --- | --- | 74.36 |
| GMW-O-23 | 6/25/2007 | GMX | 44 | 4 | 20 - 40 | 0.02 | 73.63 |
| GMW-O-24 | 9/24/2012 | CH2M HILL | 45 | 4 | 20 - 40 | 0.01 | 74.39 |
| GMW-SF-7 | 7/27/1994 | GMX | 41 | 4 | 20.1 - 39.9 | 0.01 | 75.26 |
| GMW-SF-8 | 7/28/1994 | GMX | 41 | 4 | 19.5 - 39.5 | 0.01 | 76.75 |
| GMW-SF-9 | 4/1/2003 | GMX | 47 | 4 | 36.6 - 46.2 | 0.02 | 73.05 |

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Defense Fuel Support Point, Norwalk, California

| Well | Installation Date | Installed By | Total Depth (feet bgs) | Casing Diameter (inches) | Screen Interval (feet bgs) | Slot Size (inches) | Casing Elevation (feet amsl) |
|-------------|-------------------|--------------|------------------------|--------------------------|----------------------------|--------------------|------------------------------|
| GMW-SF-10 | 9/23/2003 | GMX | 47 | 4 | 36.7 - 46.4 | 0.02 | 75.77 |
| GW-1 | 6/12/1995 | GTI | 63 | 1 | 25 - 60 | 0.02 | 75.46 |
| GW-1 | 6/12/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 75.97 |
| GW-2 | 6/12/1995 | GTI | 63 | 1 | 25 - 60 | 0.02 | 76.39 |
| GW-2 | 6/12/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 75.78 |
| GW-3 | 6/13/1995 | GTI | 63 | 1 | 25 - 60 | 0.02 | 76.56 |
| GW-3 | 6/13/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 75.79 |
| GW-4 | 6/13/1995 | GTI | 63 | 1 | 24 - 59 | 0.02 | 74.77 |
| GW-4 | 6/13/1995 | GTI | 63 | 4 | 24 - 59 | 0.02 | 73.86 |
| GW-5R | 11/9/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | 79.06 |
| GW-6 | 6/15/1995 | GTI | 63 | 1 | 25 - 60 | 0.02 | 77.41 |
| GW-6 | 6/15/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 76.38 |
| GW-7 | 6/16/1995 | GTI | 63 | 1 | 25 - 60 | 0.02 | 76.76 |
| GW-7 | 6/16/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 75.02 |
| GW-8 | 6/14/1995 | GTI | 63 | 1 | 24 - 59 | 0.02 | 76.88 |
| GW-8 | 6/14/1995 | GTI | 63 | 4 | 24 - 59 | 0.02 | 76.15 |
| GW-13 | 4/26/2007 | Parsons | 65 | 1 | 25 - 65 | 0.02 | 77.00 |
| GW-13 | 4/26/2007 | Parsons | 67 | 6 | 25 - 65 | 0.02 | 76.85 |
| GW-14R | 11/8/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | 78.77 |
| GW-15 | 4/26/2007 | Parsons | 62.5 | 1 | 20.5 - 60.5 | 0.02 | 75.36 |
| GW-15 | 4/24/2007 | Parsons | 62.5 | 6 | 20.5 - 60.5 | 0.02 | 74.94 |
| GW-16 | 7/7/2009 | Parsons | 61.3 | 1 | 21 - 61 | 0.02 | 76.55 |
| GW-16 | 7/7/2009 | Parsons | 62.5 | 6 | 20.5 - 60.5 | 0.02 | 76.33 |
| GW-17R | 11/10/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | 77.79 |
| GWR-1R | 11/10/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | 76.64 |
| GWR-2 | 7/12/1991 | GTI | 50 | 4 | 25 - 50 | 0.01 | 73.66 |
| GWR-3 | 1/10/1992 | GTI | 50 | 6 | 20 - 50 | 0.01 | 77.60 |
| HL-1 | 10/14/1986 | HLA | 39 | 4 | 18 - 38 | 0.01 | 75.83 |
| HL-2 | 10/13/1986 | HLA | 39 | 4 | 16.5 - 36.5 | 0.01 | 76.94 |
| HL-3 | 10/15/1986 | HLA | 44 | 4 | 19 - 39 | 0.01 | 76.86 |
| HL-5 | 10/16/1986 | HLA | 39.5 | 4 | 18.5 - 39 | 0.01 | 76.13 |
| MW-6 | 8/9/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 77.20 |
| MW-7 | 8/27/1990 | WC | 50 | 4 | 19 - 48 | 0.01 | 78.13 |
| MW-8 | 8/24/1990 | WC | 51 | 4 | 18 - 48 | 0.01 | 76.06 |
| MW-9 | 8/8/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 77.11 |
| MW-10 | 8/24/1990 | WC | 51 | 4 | 18 - 48 | 0.01 | 79.12 |
| MW-11 | 8/9/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 78.17 |
| MW-12 | 8/27/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 75.76 |
| MW-13 | 8/23/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 78.25 |
| MW-14 | 8/7/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 78.60 |
| MW-15R | 10/31/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | -- |
| MW-16 | 8/8/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 76.87 |
| MW-17 | 8/6/1990 | WC | 50 | 4 | 18 - 48 | 0.01 | 77.86 |
| MW-18 (MID) | 6/10/1991 | WC | 62.2 | 4 | 50 - 60 | 0.01 | 75.67 |
| MW-19 (MID) | 6/11/1991 | WC | 62.2 | 4 | 49.5 - 59.5 | 0.01 | 78.14 |
| MW-20 (MID) | 6/12/1991 | WC | 65.7 | 4 | 43 - 53 | 0.01 | 77.19 |
| MW-21 (MID) | 6/12/1991 | WC | 62.4 | 4 | 47 - 57 | 0.01 | 77.55 |
| MW-22 (MID) | 6/13/1991 | WC | 57.9 | 4 | 42 - 52 | 0.01 | 79.57 |
| MW-23 (MID) | 6/14/1991 | WC | 57.1 | 4 | 42 - 52 | 0.01 | 79.59 |
| MW-24 | 6/14/1991 | WC | 47 | 4 | 14 - 44 | 0.01 | 77.67 |
| MW-25 | 6/17/1991 | WC | 47.2 | 4 | 22.5 - 42.5 | 0.01 | 79.15 |
| MW-26 | 6/17/1991 | WC | 47.3 | 4 | 23.5 - 43.5 | 0.01 | 77.40 |
| MW-27 | 6/17/1991 | WC | 52.3 | 4 | 18 - 48 | 0.01 | 78.46 |
| MW-28 | 6/19/1991 | WC | 51.5 | 4 | 16.5 - 46.5 | 0.01 | 78.53 |
| MW-29 | 6/19/1991 | WC | 52.4 | 4 | 17.5 - 47.5 | 0.01 | 79.13 |

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Defense Fuel Support Point, Norwalk, California

| Well | Installation Date | Installed By | Total Depth (feet bgs) | Casing Diameter (inches) | Screen Interval (feet bgs) | Slot Size (inches) | Casing Elevation (feet amsl) |
|------------|-------------------|--------------|------------------------|--------------------------|----------------------------|--------------------|------------------------------|
| MW-SF-1 | 6/18/1990 | GMX | 40 | 4 | 25 - 40 | 0.02 | 78.93 |
| MW-SF-2 | 6/19/1990 | GMX | 40 | 4 | 25 - 40 | 0.02 | 78.53 |
| MW-SF-3 | 6/18/1990 | GMX | 40 | 4 | 25 - 40 | 0.02 | 78.12 |
| MW-SF-4 | 6/19/1990 | GMX | 40 | 4 | 25 - 40 | 0.02 | 79.38 |
| MW-SF-5 | 9/19/1990 | GMX | 40 | 4 | 23 - 38 | 0.02 | 79.74 |
| MW-SF-6 | 9/19/1990 | GMX | 40 | 4 | 24 - 39 | 0.02 | 76.80 |
| MW-SF-9 | 6/15/1995 | GMX | 40 | 4 | 25 - 40 | --- | 74.1 |
| MW-SF-10 | 9/23/2003 | GMX | 30.5 | 4 | 10.3 - 29.9 | 0.02 | 76.53 |
| MW-SF-11 | 6/19/2007 | GMX | 44 | 4 | 20 - 40 | 0.02 | 78.56 |
| MW-SF-12 | 6/18/2007 | GMX | 44 | 4 | 20 - 40 | 0.02 | 78.07 |
| MW-SF-13 | 6/19/2007 | GMX | 44 | 4 | 20 - 40 | 0.02 | 73.40 |
| MW-SF-14 | 6/21/2007 | GMX | 44 | 4 | 20 - 40 | 0.02 | 78.16 |
| MW-SF-15 | 6/21/2007 | GMX | 44 | 4 | 20 - 40 | 0.02 | 78.27 |
| MW-SF-16 | 6/20/2007 | GMX | 44 | 4 | 20 - 40 | 0.02 | 78.21 |
| MW-O-1 | 1/22/1991 | GMX | 40 | 2 | 25 - 40 | 0.02 | 75.48 |
| MW-O-2 | 1/23/1991 | GMX | 40 | 2 | 25 - 40 | 0.02 | 71.90 |
| MW-O-3 | 10/25/1991 | GMX | 41 | 6 | 20 - 39.5 | 0.01 | 74.53 |
| MW-O-4 | 10/25/1991 | GMX | 41 | 4 | 20 - 40 | 0.01 | 75.00 |
| PO-7 | 5/1/1989 | GW | 56 | 4 | 29 - 49 | 0.02 | 80.26 |
| PW-1 | 1/6/1992 | GTI | 51.5 | 4 | 20 - 50 | 0.01 | 75.52 |
| PW-2 | 1/6/1992 | GTI | 50 | 4 | 20 - 50 | 0.01 | 74.71 |
| PW-3 | 1/6/1992 | GTI | 50 | 4 | 20 - 50 | 0.01 | 73.71 |
| PZ-1 | 7/12/1991 | GTI | 50 | 2 | 25 - 50 | 0.01 | 73.74 |
| PZ-2 | 7/12/1991 | GTI | 50 | 2 | 25 - 50 | 0.01 | 73.96 |
| PZ-3 | 6/3/1993 | GTI | 65 | 2 | 25 - 65 | 0.02 | 76.17 |
| PZ-4 | 6/2/1993 | GTI | 60 | 2 | 25 - 60 | 0.02 | 76.13 |
| PZ-5 | 9/26/2000 | GMX | 40.3 | 4 | 20.6 - 39.4 | 0.01 | 73.97 |
| PZ-6 | 9/26/2000 | GMX | 37.5 | 4 | 22.8 - 37.8 | 0.01 | 73.91 |
| PZ-7A | 4/7/2003 | GMX | 32 | 2 | 21.5 - 31.2 | 0.01 | 73.87 |
| PZ-7B | 4/7/2003 | GMX | 47.5 | 2 | 42 - 46.7 | 0.01 | 73.79 |
| PZ-8A | 4/8/2003 | GMX | 31.5 | 2 | 21.2 - 31 | 0.01 | 75.81 |
| PZ-8B | 4/8/2003 | GMX | 47 | 2 | 41.4 - 46.2 | 0.01 | 75.69 |
| PZ-9A | 4/9/2003 | GMX | 32 | 2 | 21.6 - 30.9 | 0.01 | 76.14 |
| PZ-9B | 4/9/2003 | GMX | 47 | 2 | 41.5 - 46.2 | 0.01 | 76.26 |
| PZ-10 | 4/10/2003 | GMX | 38.5 | 2 | 23.2 - 37.9 | 0.02 | 74.34 |
| RTF-18-E | 12/28/2015 | SGI | 40 | 4 | 25-40 | 0.02 | 75.19 |
| RTF-18-N | 12/28/2015 | SGI | 40 | 4 | 25-40 | 0.02 | 75.17 |
| RTF-18-NNW | 12/29/2015 | SGI | 40 | 4 | 25-40 | 0.02 | 76.77 |
| RTF-18-NW | 12/29/2015 | SGI | 40 | 4 | 25-40 | 0.02 | 76.22 |
| RTF-18-W | 12/28/2015 | SGI | 40 | 4 | 25-40 | 0.02 | 74.86 |
| TF-8 | 9/22/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 75.60 |
| TF-8 | 9/22/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 74.86 |
| TF-10 | 9/25/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 74.19 |
| TF-10 | 9/25/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 73.61 |
| TF-13 | 9/26/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 75.90 |
| TF-13 | 9/26/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 75.47 |
| TF-14 | 9/27/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 74.78 |
| TF-14 | 9/27/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 74.35 |
| TF-15 | 9/28/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 75.40 |
| TF-15 | 9/28/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 74.78 |
| TF-16 | 9/28/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 76.48 |
| TF-16 | 9/28/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 75.89 |
| TF-18 | 7/6/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.02 | 73.94 |
| TF-19 | 10/3/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 75.61 |
| TF-19 | 10/3/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 75.07 |

Table 1. Monitoring Well Summary

Defense Fuel Support Point, Norwalk, California

| Well | Installation Date | Installed By | Total Depth (feet bgs) | Casing Diameter (inches) | Screen Interval (feet bgs) | Slot Size (inches) | Casing Elevation (feet amsl) |
|--------|-------------------|--------------|------------------------|--------------------------|----------------------------|--------------------|------------------------------|
| TF-20R | 11/7/2016 | SGI | 50 | 4 | 20 - 50 | 0.02 | 75.26 |
| TF-21 | 9/29/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 75.60 |
| TF-21 | 9/29/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 74.96 |
| TF-23 | 7/5/1994 | GTI | 50.5 | 4 | 20 - 50 | 0.02 | 75.31 |
| TF-24 | 9/26/1995 | GTI | 63 | 1.5 | 25 - 60 | 0.02 | 76.35 |
| TF-24 | 9/26/1995 | GTI | 63 | 4 | 25 - 60 | 0.02 | 76.43 |
| TF-25 | 4/4/2001 | GTI | 47 | 1.5 | 41 - 46 | 0.02 | 75.81 |
| TF-25 | 4/4/2001 | GTI | 47 | 5 | 26 - 36 | 0.02 | 74.85 |
| TF-26 | 4/3/2001 | GTI | 47 | 1.5 | 41 - 46 | 0.02 | 76.15 |
| TF-26 | 4/3/2001 | GTI | 47 | 5 | 26 - 36 | 0.02 | 75.85 |
| WCW-1 | 2/18/1992 | WC | 52 | 4 | 20 - 50 | 0.01 | 72.86 |
| WCW-2 | 2/21/1992 | WC | 52 | 4 | 20 - 50 | 0.01 | 75.34 |
| WCW-3 | 2/19/1992 | WC | 56.5 | 4 | 19 - 49 | 0.01 | 76.16 |
| WCW-4 | 2/20/1992 | WC | 56.5 | 4 | 20 - 50 | 0.01 | 78.05 |
| WCW-5 | 4/30/1992 | WC | 52 | 4 | 19 - 49 | 0.01 | 73.49 |
| WCW-6 | 4/20/1992 | WC | 53.5 | 4 | 20 - 50 | 0.01 | 75.52 |
| WCW-7 | 4/29/1992 | WC | 53 | 4 | 20 - 50 | 0.01 | 76.44 |
| WCW-8 | 4/21/1992 | WC | 53.5 | 4 | 20 - 50 | 0.01 | 77.34 |
| WCW-9 | 4/28/1992 | WC | 53.5 | 4 | 20 - 50 | 0.01 | 77.74 |
| WCW-10 | 9/11/1992 | WC | 56.5 | 4 | 25 - 55 | 0.01 | 74.06 |
| WCW-11 | 9/9/1992 | WC | 61.5 | 4 | 30 - 60 | 0.01 | 75.29 |
| WCW-12 | 9/8/1992 | WC | 61.5 | 4 | 30 - 60 | 0.01 | 76.27 |
| WCW-13 | 9/10/1992 | WC | 61.5 | 4 | 30 - 60 | 0.01 | 77.70 |
| WCW-14 | 8/12/1998 | FDGTI | 59 | 4 | 24 - 59 | 0.01 | 78.81 |

Notes:

Biosparge and additional soil vapor extraction wells used for remediation purposes only are not listed here.

--- = information not available

CH2M HILL = CH2M HILL Engineers, Inc.

FDGTI = Fluor Daniel GTI

feet amsl = feet above mean sea level

feet bgs = feet below ground surface

GMX = Geomatrix Consultants, Inc.

GTI = Groundwater Technology/Groundwater Technology Government Services

GW = Golden West

HLA = Harding Lawson Associates

Parsons = Parsons Corporation

SGI = The Source Group, Inc.

WC = Woodward-Clyde

Table 2. Summary of Groundwater Elevations – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Well | Date | Top of Casing Elevation (feet amsl) | Depth to Product (feet btoc) | Depth to Water (feet btoc) | Apparent Product Thickness (feet) | Assumed Specific Gravity | Corrected Groundwater Elevation (feet amsl) |
|---------|----------|-------------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------|---|
| EXP-1 | 04/17/17 | 78.44 | --- | 60.47 | --- | | 17.97 |
| EXP-1 | 04/18/17 | 78.44 | --- | 60.48 | --- | | 17.96 |
| EXP-2 | 04/17/17 | 79.43 | --- | 61.39 | --- | | 18.04 |
| EXP-2 | 04/17/17 | 79.43 | --- | 61.42 | --- | | 18.01 |
| EXP-3 | 04/17/17 | 77.58 | --- | 59.52 | --- | | 18.06 |
| EXP-3 | 04/18/17 | 77.58 | --- | 59.59 | --- | | 17.99 |
| EXP-4 | 04/17/17 | 79.81 | --- | 61.41 | --- | | 18.40 |
| EXP-5 | 04/17/17 | 72.41 | --- | 54.26 | --- | | 18.15 |
| GMW-1 | 04/17/17 | 74.77 | --- | NM | --- | | NC |
| GMW-4R | 04/17/17 | --- | --- | 36.15 | --- | | NC |
| GMW-5 | 04/17/17 | 77.61 | --- | DRY | --- | | NC |
| GMW-6 | 04/17/17 | 77.31 | --- | 34.91 | --- | | 42.40 |
| GMW-7 | 04/19/17 | 75.84 | 34.28 | 34.30 | 0.02 | 1.00 | 41.56 |
| GMW-8 | 04/17/17 | 73.20 | --- | 30.74 | --- | | 42.46 |
| GMW-9 | 04/20/17 | 77.16 | --- | 33.32 | --- | | 43.84 |
| GMW-10 | 04/20/17 | 73.35 | --- | 31.15 | --- | | 42.20 |
| GMW-11 | 04/17/17 | 72.90 | --- | 30.29 | --- | | 42.61 |
| GMW-12 | 04/20/17 | 75.21 | --- | 32.40 | --- | | 42.81 |
| GMW-13 | 04/17/17 | 74.17 | --- | 30.92 | --- | | 43.25 |
| GMW-14R | 04/17/17 | 78.77 | --- | 35.32 | --- | | 43.45 |
| GMW-15 | 04/19/17 | 76.21 | --- | 33.75 | --- | | 42.46 |
| GMW-16 | 04/17/17 | 77.00 | --- | 34.15 | --- | | 42.85 |
| GMW-18 | 04/20/17 | 75.36 | --- | 32.81 | --- | | 42.55 |
| GMW-19 | 04/21/17 | 76.83 | --- | 34.18 | --- | | 42.65 |
| GMW-20 | 04/18/17 | 75.10 | --- | 32.42 | --- | | 42.68 |
| GMW-21 | 04/19/17 | 76.23 | --- | 33.64 | --- | | 42.59 |
| GMW-22 | 04/17/17 | 77.24 | --- | 34.47 | --- | | 42.77 |
| GMW-23 | 04/17/17 | 74.85 | 31.91 | 33.40 | 1.49 | 0.80 | 42.64 |
| GMW-24 | 04/17/17 | 77.48 | 35.09 | 35.64 | 0.55 | 0.80 | 42.28 |
| GMW-25 | 04/17/17 | 78.14 | --- | 35.23 | --- | | 42.91 |
| GMW-26 | 04/17/17 | 74.52 | --- | 31.90 | --- | | 42.62 |
| GMW-28 | 04/17/17 | 74.68 | --- | 32.10 | --- | | 42.58 |
| GMW-29 | 04/17/17 | 77.57 | 31.74 | 33.80 | 2.06 | 0.80 | 45.42 |
| GMW-30 | 04/17/17 | 74.91 | 32.16 | 32.53 | 0.37 | 0.81 | 42.68 |
| GMW-31 | 04/17/17 | 76.50 | --- | 32.03 | --- | | 44.47 |
| GMW-33 | 04/18/17 | 74.88 | --- | DRY | --- | | NC |
| GMW-36 | 04/17/17 | 76.66 | --- | 32.96 | --- | | 43.70 |
| GMW-37 | 04/17/17 | 77.32 | --- | 33.68 | --- | | 43.64 |
| GMW-38 | 04/17/17 | 75.47 | --- | 31.83 | --- | | 43.64 |
| GMW-39 | 04/17/17 | 75.05 | --- | 31.57 | --- | | 43.48 |
| GMW-40 | 04/20/17 | 73.13 | --- | 32.80 | --- | | 40.33 |
| GMW-41 | 04/17/17 | 74.46 | --- | 29.79 | --- | | 44.67 |
| GMW-42 | 04/17/17 | 75.50 | --- | NM | --- | | NC |
| GMW-43 | 04/17/17 | 74.44 | --- | 31.42 | --- | | 43.02 |
| GMW-44 | 04/18/17 | 74.45 | --- | 32.08 | --- | | 42.37 |
| GMW-45 | 04/19/17 | 75.67 | 33.30 | 34.72 | 1.42 | 0.80 | 42.09 |
| GMW-47 | 04/19/17 | 75.98 | --- | 33.55 | --- | | 42.43 |
| GMW-48 | 04/19/17 | 75.03 | --- | 36.15 | --- | | 38.88 |
| GMW-54 | 04/19/17 | 75.16 | --- | 32.80 | --- | | 42.36 |
| GMW-56 | 04/17/17 | 76.52 | --- | 34.19 | --- | | 42.33 |
| GMW-57 | 04/19/17 | 76.66 | --- | 34.21 | --- | | 42.45 |
| GMW-58 | 04/19/17 | 75.48 | --- | 32.08 | --- | | 43.40 |
| GMW-59 | 04/19/17 | 75.28 | --- | 31.45 | --- | | 43.83 |

Table 2. Summary of Groundwater Elevations – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Well | Date | Top of Casing Elevation (feet amsl) | Depth to Product (feet btoc) | Depth to Water (feet btoc) | Apparent Product Thickness (feet) | Assumed Specific Gravity | Corrected Groundwater Elevation (feet amsl) |
|-----------|----------|-------------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------|---|
| GMW-60 | 04/18/17 | 76.24 | --- | 32.92 | --- | | 43.32 |
| GMW-61 | 04/19/17 | 75.60 | --- | 33.65 | --- | | 41.95 |
| GMW-62 | 04/17/17 | 76.34 | 34.14 | 34.16 | 0.02 | 1.00 | 42.20 |
| GMW-63 | 04/17/17 | 77.32 | --- | 34.43 | --- | | 42.89 |
| GMW-64 | 04/17/17 | 75.84 | --- | 32.78 | --- | | 43.06 |
| GMW-65 | 04/17/17 | 76.78 | --- | 34.43 | --- | | 42.35 |
| GMW-66R | 04/17/17 | 79.23 | --- | 36.98 | --- | | 42.25 |
| GMW-67 | 04/17/17 | 76.00 | --- | 33.44 | --- | | 42.56 |
| GMW-68 | 04/17/17 | 75.52 | 32.64 | 33.62 | 0.98 | 0.80 | 42.68 |
| GMW-69 | 04/17/17 | 75.31 | --- | 32.68 | --- | | 42.63 |
| GMW-O-1 | 04/17/17 | 71.45 | --- | 29.51 | --- | | 41.94 |
| GMW-O-2 | 04/17/17 | 72.54 | --- | 30.00 | --- | | 42.54 |
| GMW-O-3 | 04/17/17 | 72.19 | --- | 29.40 | --- | | 42.79 |
| GMW-O-4 | 04/17/17 | 71.95 | --- | 28.90 | --- | | 43.05 |
| GMW-O-5 | 04/17/17 | 72.36 | --- | 29.23 | --- | | 43.13 |
| GMW-O-6 | 04/17/17 | 71.41 | --- | 28.60 | --- | | 42.81 |
| GMW-O-7 | 04/17/17 | 70.98 | --- | 28.40 | --- | | 42.58 |
| GMW-O-8 | 04/17/17 | 70.91 | --- | 29.20 | --- | | 41.71 |
| GMW-O-9 | 04/17/17 | 73.50 | --- | 31.25 | --- | | 42.25 |
| GMW-O-10 | 04/17/17 | 73.98 | --- | 31.47 | --- | | 42.51 |
| GMW-O-11 | 04/17/17 | 74.17 | 29.96 | 30.12 | 0.16 | 0.81 | 44.18 |
| GMW-O-12 | 04/17/17 | 73.49 | 28.70 | 32.90 | 4.20 | 0.80 | 43.93 |
| GMW-O-14 | 04/17/17 | 74.08 | --- | 31.15 | --- | | 42.93 |
| GMW-O-15 | 04/20/17 | 74.86 | 29.52 | 29.65 | 0.13 | 0.77 | 45.31 |
| GMW-O-16 | 04/17/17 | 74.10 | --- | 30.49 | --- | | 43.61 |
| GMW-O-17 | 04/17/17 | 73.78 | --- | 30.20 | --- | | 43.58 |
| GMW-O-18 | 04/17/17 | 74.32 | 31.80 | 31.83 | 0.03 | 1.00 | 42.52 |
| GMW-O-19 | 04/17/17 | 74.46 | --- | 30.94 | --- | | 43.52 |
| GMW-O-20 | 04/20/17 | 73.32 | --- | 29.70 | --- | | 43.62 |
| GMW-O-21 | 04/17/17 | 71.43 | --- | 30.48 | --- | | 40.95 |
| GMW-O-23 | 04/20/17 | 73.63 | --- | 30.88 | --- | | 42.75 |
| GMW-O-24 | 04/17/17 | 74.39 | --- | 28.60 | --- | | 45.79 |
| GMW-SF-7 | 04/17/17 | 75.26 | --- | 31.47 | --- | | 43.79 |
| GMW-SF-8 | 04/17/17 | 76.75 | --- | 32.39 | --- | | 44.36 |
| GW-1 | 04/18/17 | 75.97 | --- | 34.40 | --- | | 41.57 |
| GW-2 | 04/18/17 | 75.78 | --- | 34.15 | --- | | 41.63 |
| GW-3 | 04/18/17 | 75.79 | --- | 34.35 | --- | | 41.44 |
| GW-4 | 04/17/17 | 73.86 | --- | DRY | --- | | NC |
| GW-6 | 04/17/17 | 76.38 | --- | 34.46 | --- | | 41.92 |
| GW-7 | 04/17/17 | 75.02 | --- | 32.95 | --- | | 42.07 |
| GW-8 | 04/17/17 | 76.15 | --- | 34.29 | --- | | 41.86 |
| GW-13(6") | 04/17/17 | 76.85 | --- | 35.35 | --- | | 41.50 |
| GW-15(6") | 04/20/17 | 74.94 | --- | 33.91 | --- | | 41.03 |
| GW-16(6") | 04/18/17 | 76.33 | --- | 34.07 | --- | | 42.26 |
| GWR-1R | 04/17/17 | 76.64 | --- | 33.77 | --- | | 42.87 |
| GWR-3 | 04/17/17 | 77.60 | --- | 34.88 | --- | | 42.72 |
| HL-2 | 04/17/17 | 76.94 | --- | 34.45 | --- | | 42.49 |
| HL-3 | 04/17/17 | 76.86 | --- | 34.06 | --- | | 42.80 |
| MW-6 | 04/17/17 | 77.20 | --- | 34.93 | --- | | 42.27 |
| MW-7 | 04/17/17 | 78.13 | --- | 35.26 | --- | | 42.87 |
| MW-8 | 04/17/17 | 76.06 | --- | 32.21 | --- | | 43.85 |
| MW-9 | 04/17/17 | 77.11 | --- | 31.80 | --- | | 45.31 |
| MW-12 | 04/17/17 | 75.76 | --- | 32.97 | --- | | 42.79 |

Table 2. Summary of Groundwater Elevations – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Well | Date | Top of Casing Elevation (feet amsl) | Depth to Product (feet btoc) | Depth to Water (feet btoc) | Apparent Product Thickness (feet) | Assumed Specific Gravity | Corrected Groundwater Elevation (feet amsl) |
|-------------|----------|-------------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------|---|
| MW-13 | 04/17/17 | 78.25 | --- | 35.65 | --- | | 42.60 |
| MW-14 | 04/17/17 | 78.60 | --- | 36.99 | --- | | 41.61 |
| MW-15R | 04/17/17 | --- | --- | 34.41 | --- | | NC |
| MW-16 | 04/18/17 | 76.87 | --- | 33.81 | --- | | 43.06 |
| MW-17 | 04/18/17 | 77.86 | --- | 35.22 | --- | | 42.64 |
| MW-18 (MID) | 04/17/17 | 75.67 | --- | 37.50 | --- | | 38.17 |
| MW-19 (MID) | 04/17/17 | 78.14 | --- | 38.62 | --- | | 39.52 |
| MW-20 (MID) | 04/17/17 | 77.19 | --- | 37.30 | --- | | 39.89 |
| MW-21 (MID) | 04/17/17 | 77.55 | --- | 34.74 | --- | | 42.81 |
| MW-22 (MID) | 04/17/17 | 79.57 | --- | 39.40 | --- | | 40.17 |
| MW-24 | 04/17/17 | 78.51 | --- | 34.90 | --- | | 43.61 |
| MW-26 | 04/17/17 | 77.40 | --- | 35.37 | --- | | 42.03 |
| MW-27 | 04/17/17 | 78.46 | --- | 35.85 | --- | | 42.61 |
| MW-28 | 04/17/17 | 78.53 | --- | 32.90 | --- | | 45.63 |
| MW-29 | 04/18/17 | 79.13 | --- | 36.36 | --- | | 42.77 |
| MW-O-1 | 04/17/17 | 75.48 | --- | DRY | --- | | NC |
| MW-O-2 | 04/17/17 | 71.90 | 30.85 | 30.91 | 0.06 | 0.83 | 41.04 |
| MW-SF-1 | 04/17/17 | 78.93 | --- | 35.75 | --- | | 43.18 |
| MW-SF-2 | 04/17/17 | 78.53 | --- | 35.78 | --- | | 42.75 |
| MW-SF-3 | 04/20/17 | 78.12 | --- | 35.15 | --- | | 42.97 |
| MW-SF-4 | 04/17/17 | 79.38 | --- | 36.67 | --- | | 42.71 |
| MW-SF-5 | 04/17/17 | 79.74 | --- | 36.88 | --- | | 42.86 |
| MW-SF-6 | 04/17/17 | 76.80 | --- | 34.03 | --- | | 42.77 |
| MW-SF-9 | 04/17/17 | 74.10 | --- | NM | --- | | NC |
| MW-SF-10 | 04/17/17 | 76.53 | --- | DRY | --- | | NC |
| MW-SF-11 | 04/17/17 | 78.56 | --- | 35.91 | --- | | 42.65 |
| MW-SF-12 | 04/17/17 | 78.07 | --- | 35.12 | --- | | 42.95 |
| MW-SF-13 | 04/17/17 | 73.40 | --- | 30.40 | --- | | 43.00 |
| MW-SF-14 | 04/17/17 | 78.16 | --- | DRY | --- | | NC |
| MW-SF-15 | 04/17/17 | 78.27 | --- | 35.39 | --- | | 42.88 |
| MW-SF-16 | 04/17/17 | 78.21 | --- | 35.20 | --- | | 43.01 |
| PW-1 | 04/17/17 | 75.52 | --- | DRY | --- | | NC |
| PW-2 | 04/17/17 | 74.71 | --- | DRY | --- | | NC |
| PW-3 | 04/17/17 | 73.71 | --- | 31.60 | --- | | 42.11 |
| PZ-2 | 04/17/17 | 73.96 | --- | 31.13 | --- | | 42.83 |
| PZ-3 | 04/20/17 | 76.17 | 33.55 | 33.56 | 0.01 | 1.00 | 42.62 |
| PZ-5 | 04/17/17 | 73.97 | --- | 30.07 | --- | | 43.90 |
| PZ-10 | 04/17/17 | 74.34 | --- | DRY | --- | | NC |
| RTF-18-E | 04/19/17 | 75.19 | 31.35 | 31.53 | 0.18 | 0.80 | 43.80 |
| RTF-18-N | 04/19/17 | 75.17 | --- | 31.44 | --- | | 43.73 |
| RTF-18-NNW | 04/19/17 | 76.77 | --- | 31.72 | --- | | 45.05 |
| RTF-18-NW | 04/19/17 | 76.22 | 31.04 | 31.08 | 0.04 | 1.00 | 45.18 |
| RTF-18-W | 04/19/17 | 74.86 | 30.98 | 31.15 | 0.17 | 0.80 | 43.85 |
| TF-8 | 04/17/17 | 74.86 | --- | 32.41 | --- | | 42.45 |
| TF-15 | 04/20/17 | 74.78 | --- | 31.88 | --- | | 42.90 |
| TF-16 | 04/19/17 | 75.89 | 33.26 | 33.53 | 0.27 | 0.81 | 42.58 |
| TF-18 | 04/20/17 | 73.94 | --- | 30.92 | --- | | 43.02 |
| TF-19 | 04/20/17 | 75.07 | --- | 31.60 | --- | | 43.47 |
| TF-21 | 04/19/17 | 74.96 | --- | 35.32 | --- | | 39.64 |
| TF-23 | 04/20/17 | 75.31 | --- | 32.50 | --- | | 42.81 |
| TF-24 | 04/19/17 | 76.43 | --- | 34.15 | --- | | 42.28 |
| VEW-1 | 04/17/17 | --- | --- | DRY | --- | | NC |
| VEW-2 | 04/17/17 | --- | --- | DRY | --- | | NC |

Table 2. Summary of Groundwater Elevations – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Well | Date | Top of Casing Elevation (feet amsl) | Depth to Product (feet btoc) | Depth to Water (feet btoc) | Apparent Product Thickness (feet) | Assumed Specific Gravity | Corrected Groundwater Elevation (feet amsl) |
|--------|----------|-------------------------------------|------------------------------|----------------------------|-----------------------------------|--------------------------|---|
| WCW-1 | 04/17/17 | 72.86 | --- | 31.00 | --- | | 41.86 |
| WCW-2 | 04/17/17 | 75.34 | --- | 33.62 | --- | | 41.72 |
| WCW-3 | 04/17/17 | 76.16 | --- | 34.70 | --- | | 41.46 |
| WCW-4 | 04/17/17 | 78.05 | --- | 36.61 | --- | | 41.44 |
| WCW-5 | 04/17/17 | 73.49 | --- | 31.21 | --- | | 42.28 |
| WCW-6 | 04/17/17 | 75.52 | --- | 33.51 | --- | | 42.01 |
| WCW-7 | 04/17/17 | 76.44 | --- | DRY | --- | | NC |
| WCW-8 | 04/17/17 | 77.34 | --- | 36.00 | --- | | 41.34 |
| WCW-9 | 04/17/17 | 77.74 | --- | 35.10 | --- | | 42.64 |
| WCW-10 | 04/17/17 | 74.06 | --- | 32.13 | --- | | 41.93 |
| WCW-11 | 04/17/17 | 75.29 | --- | 33.65 | --- | | 41.64 |
| WCW-12 | 04/17/17 | 76.27 | --- | 35.00 | --- | | 41.27 |
| WCW-13 | 04/17/17 | 77.70 | --- | 36.83 | --- | | 40.87 |
| WCW-14 | 04/17/17 | 78.81 | --- | 37.40 | --- | | 41.41 |

Notes:

--- = not detected, applicable, or available

DRY = No measurable water observed in the well.

feet btoc = feet below top of casing

feet amsl = feet above mean sea level, based on Los Angeles County Datum, 1980

NC = Not calculated

NM = Not measured

DLA Energy and SFPP calculated groundwater elevation in wells with measurable product using the formula:

groundwater elevation = (top of casing elevation - depth to water) + apparent product thickness x specific gravity.

(Product specific gravity of 0.80 was used for calculation above for DLA wells)

(Product specific gravity ranging between 0.77 and 0.83 was used for calculation above for SFPP wells)

(Product specific gravity of 1.0 was used for calculation in wells where the apparent product thickness was less than 0.05 foot)

The soil vapor extraction (SVE) and total fluids extraction (TFE) systems in the south-central, southeastern, and north-central areas were offline 1 week prior to semiannual gauging activities.

Table 3. Summary of Groundwater Analytical Data – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Results reported in micrograms per liter (µg/L) | | | | | | | | | | | | | |
|---|----------|-------------|-------------|-------------|-------------|--------------|------------|-------------|-------------|-------------|------------|------|-----------|
| Well | Date | TPH-g | TPH-d | Benzene | Toluene | Ethylbenzene | Xylenes | 1,2-DCA | MTBE | TBA | DIPE | ETBE | TAME |
| EXP-1 | 04/20/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| EXP-1 | 04/20/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.81 | <10 | <1 | <1 | <1 |
| EXP-2 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EXP-2 | 04/19/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| EXP-3 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.53 | <0.50 | <10 | <1 | <1 | <1 |
| EXP-3 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| EXP-4 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EXP-5 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-4R | 04/18/17 | 84 | 70 | 6.1 | <0.50 | 2.2 | 1.2 | <0.50 | 0.74 | <10 | <1 | <1 | <1 |
| GMW-6 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-8 | 04/18/17 | <50 | 170 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-9 | 04/21/17 | 750 | 760 | 9.2 | 0.98 | 0.71 | 20 | <1 | 1.9 | 18 | 5.5 | <1 | <1 |
| GMW-12 | 04/21/17 | <100 | 150 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-13 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-14R | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.68 | <10 | <1 | <1 | <1 |
| GMW-15 | 04/21/17 | <100 | 1600 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-16 | 04/19/17 | <100 | 660 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-19 | 04/21/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-20 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-21 | 04/21/17 | 180 | 3300 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-25 | 04/20/17 | <500 | 3700 | <2.5 | <2.5 | <2.5 | <2.5 | <5 | <2.5 | <50 | <5 | <5 | <5 |
| GMW-26 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.66 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-28 | 04/19/17 | <50 | <100 | 0.69 | <0.50 | <0.50 | <0.50 | <0.50 | 4.8 | 32 | 5.2 | <1 | <1 |
| GMW-31 | 04/20/17 | <100 | 120 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-36 | 04/19/17 | 6900 | 4000 | 1500 | <10 | 140 | <10 | <0.50 | 1900 | 7800 | <20 | <20 | 36 |
| GMW-37 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-38 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-39 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-41 | 04/20/17 | <100 | 140 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-42 | 04/17/17 | <100 | <100 | <0.50 | <0.50 | 1.6 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-43 | 04/17/17 | <100 | 550 | <0.50 | <0.50 | 0.98 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-44 | 04/20/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-47 | 04/21/17 | <100 | 860 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-48 | 04/21/17 | 460 | 1500 | 190 | <0.50 | 0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-54 | 04/21/17 | <100 | 850 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-56 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-57 | 04/20/17 | <100 | 670 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | 1.7 | <10 | <2 | <2 | <2 |
| GMW-58 | 04/20/17 | 150 | 1400 | 1.6 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-59 | 04/21/17 | 400 | 1300 | 130 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-60 | 04/20/17 | 220 | 1200 | 26 | <0.50 | 2.4 | <1 | <0.50 | <1 | 55 | <2 | <2 | <2 |
| GMW-61 | 04/20/17 | 140 | 1200 | 18 | <0.50 | <0.50 | 5.6 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-63 | 04/17/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-64 | 04/17/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-65 | 04/17/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-66R | 04/18/17 | <100 | 120 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |

Table 3. Summary of Groundwater Analytical Data – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Results reported in micrograms per liter (µg/L) | | | | | | | | | | | | | |
|---|----------|-------|-------|---------|---------|--------------|---------|---------|-------|------|------|------|------|
| Well | Date | TPH-g | TPH-d | Benzene | Toluene | Ethylbenzene | Xylenes | 1,2-DCA | MTBE | TBA | DIPE | ETBE | TAME |
| GMW-67 | 04/17/17 | <100 | <100 | 2.5 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-69 | 04/17/17 | 740 | 150 | 84 | <1 | 140 | 16 | <1 | <2 | <20 | <4 | <4 | <4 |
| GMW-O-1 | 04/20/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-2 | 04/20/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-3 | 04/20/17 | 260 | <50 | 1.3 | <0.50 | 1.9 | 2.6 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-4 | 04/20/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-5 | 04/20/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-9 | 04/20/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-10 | 04/21/17 | <50 | 52 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-14 | 04/21/17 | 250 | 620 | 0.59 | <0.50 | 0.82 | 2.4 | 3.7 | 3.5 | 15 | 30 | <1 | <1 |
| GMW-O-16 | 04/18/17 | 66 | <50 | 1.2 | <0.50 | <0.50 | <0.50 | <0.50 | 4.0 | <10 | <1 | <1 | <1 |
| GMW-O-17 | 04/21/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-19 | 04/18/17 | 52 | <50 | 2.2 | 2.8 | <0.50 | 11 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-O-20 | 04/21/17 | 2900 | 5900 | 850 | 14 | 24 | 85 | <10 | 24 | <200 | <10 | <10 | <10 |
| GMW-O-21 | 04/21/17 | 3100 | 1100 | 55 | 5.7 | 11 | 180 | <2 | <1 | <20 | <2 | <2 | <2 |
| GMW-O-23 | 04/21/17 | 1600 | 1300 | 11 | 3.6 | 1.6 | 220 | <2 | 4.0 | <20 | 3.5 | <2 | <2 |
| GMW-O-24 | 04/21/17 | <50 | <50 | 0.80 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-SF-7 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GMW-SF-8 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| GW-1 | 04/19/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | 1.8 | <1 | <10 | <2 | <2 | <2 |
| GW-2 | 04/19/17 | <100 | 170 | <0.50 | <0.50 | <0.50 | <1 | 0.50 | <1 | <10 | <2 | <2 | <2 |
| GW-3 | 04/19/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GW-6 | 04/19/17 | <100 | 110 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GW-7 | 04/19/17 | <100 | 270 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GW-8 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GW-13(6") | 04/19/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | 1.7 | <1 | <10 | <2 | <2 | <2 |
| GW-16(6") | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GWR-1R | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.72 | <0.50 | 93 | 4.7 | <1 | <1 |
| HL-2 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| HL-3 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| MW-6 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.99 | 2.2 | <10 | <1 | <1 | <1 |
| MW-7 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.77 | <0.50 | <10 | <1 | <1 | <1 |
| MW-8 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| MW-9 | 04/19/17 | 99 | 600 J | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 1.4 | 20 | <1 | <1 | <1 |
| MW-12 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| MW-13 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-14 | 04/19/17 | <100 | 160 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-15R | 04/19/17 | <100 | 210 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 15 | <1 | <1 | <1 |
| MW-16 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-17 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-18 (MID) | 04/20/17 | <100 | 200 | <0.50 | <0.50 | <0.50 | <0.50 | <1 | 1.3 | 32 | 1.6 | <1 | <1 |
| MW-19 (MID) | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 2.1 | <0.50 | 88 | 11 | <1 | <1 |
| MW-20 (MID) | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 9.0 | 8.1 | 21 | 6.0 | <1 | <1 |
| MW-21 (MID) | 04/19/17 | <100 | 120 | <0.50 | <0.50 | <0.50 | <0.50 | 2.2 | 1.0 | 12 | <1 | <1 | <1 |
| MW-22 (MID) | 04/19/17 | <100 | 110 | <0.50 | <0.50 | <0.50 | <1 | 2.9 | 2.1 | <10 | <2 | <2 | <2 |

Table 3. Summary of Groundwater Analytical Data – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Results reported in micrograms per liter (µg/L) | | | | | | | | | | | | | |
|---|----------|--------------|---------------|-------------|-------------|--------------|-------------|-------------|-------------|--------------|------------|------|-----------|
| Well | Date | TPH-g | TPH-d | Benzene | Toluene | Ethylbenzene | Xylenes | 1,2-DCA | MTBE | TBA | DIPE | ETBE | TAME |
| MW-24 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-26 | 04/19/17 | <100 | 100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-27 | 04/19/17 | <100 | 130 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-28 | 04/20/17 | <100 | 170 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-29 | 04/20/17 | <100 | 380 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| MW-SF-1 | 04/20/17 | <100 | 1800 | 2.1 | <0.50 | <0.50 | <0.50 | <1 | 0.92 | 17 | <1 | <1 | <1 |
| MW-SF-4 | 04/20/17 | <100 | 1400 J | 3.4 | <0.50 | 0.53 | 1.2 | <1 | 1.2 | <10 | 5.6 | <1 | <1 |
| MW-SF-6 | 04/20/17 | 2000 | 3900 | 42 | <1 | 5.8 | 37 | <2 | 21 | 130 | 22 | <2 | <2 |
| MW-SF-13 | 04/20/17 | 2000 | 1500 | 3.9 | 1.6 | 26 | 60 | <2 | 1.9 | 36 | 4.8 | <2 | <2 |
| MW-SF-15 | 04/20/17 | 190 | 550 | 2.5 | <0.50 | 0.69 | <0.50 | <1 | 17 | 300 | 48 | <1 | <1 |
| PW-3 | 04/21/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.67 | <0.50 | <10 | <1 | <1 | <1 |
| PZ-2 | 04/20/17 | <50 | 94 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.88 | <10 | <1 | <1 | <1 |
| PZ-5 | 04/21/17 | 16000 | 840 | 5800 | 450 | 910 | 1900 | <40 | 770 | 47000 | <40 | <40 | 44 |
| RTF-18-N | 04/24/17 | 25000 | 5200 | 1700 | 6.7 | 800 | 2500 | <5 | <10 | <100 | <20 | <20 | <20 |
| RTF-18-NNW | 04/24/17 | 30000 | 6900 | 5000 | 16 | 1500 | 5200 | <5 | <10 | <100 | <20 | <20 | <20 |
| TF-8 | 04/20/17 | <100 | 100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| TF-18 | 04/24/17 | 54000 | 7300 | 320 | <5 | 340 | 530 | <5 | <10 | <100 | <20 | <20 | <20 |
| TF-21 | 04/21/17 | 420 | 1400 | 10 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| TF-23 | 04/24/17 | 410 | 2900 | 2.2 | 0.62 | 0.90 | 2.4 | <0.50 | 1.5 | 94 | <2 | <2 | <2 |
| TF-24 | 04/21/17 | <100 | 1700 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| WCW-2 | 04/18/17 | <50 | 230 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-3 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-4 | 04/18/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-5 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-6 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-8 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-12 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-13 | 04/18/17 | <50 | 450 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| WCW-14 | 04/19/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |

Notes:

Bold results indicate detected concentrations.

< = not detected at or above the laboratory reporting limit shown

1,2-DCA = 1,2-dichloroethane

DIPE = di-isopropyl ether

ETBE = ethyl tertiary butyl ether

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

MTBE = methyl tertiary butyl ether

TAME = tertiary amyl methyl ether

TBA = tertiary butyl alcohol

TPH-d = total extractable petroleum hydrocarbons quantified using a diesel standard

TPH-g = total purgeable petroleum hydrocarbons quantified using a gasoline standard

Xylenes = total of m,p-xylene and o-xylene when detected

Table 4. Summary of Miscellaneous Compounds Detected in Groundwater Samples – First Semiannual 2017 Monitoring Event
Defense Fuel Support Point, Norwalk, California

| Results reported in micrograms per liter (µg/L) | | | | | | | | | | | | | | | |
|---|----------|-----------|------------|--------------------|------------------------|------------------------|------------------------|------------------|------------------|-------------|----------------|-----------------|--------------------|------------------|-------------------|
| Well | Date | Acetone | Styrene | 1,1-Dichloroethane | 1,2,4-Trimethylbenzene | 1,3,5-Trimethylbenzene | cis-1,2-Dichloroethene | Carbon Disulfide | Isopropylbenzene | Naphthalene | n-Butylbenzene | n-Propylbenzene | p-Isopropyltoluene | sec-Butylbenzene | tert-Butylbenzene |
| EXP-2 | 04/19/17 | 11 | <1 | <1 | <1 | <1 | <1 | <2.5 | <1 | <10 | <1 | <1 | <1 | <1 | <1 |
| GMW-4R | 04/18/17 | <10 | <1 | <1 | <1 | <1 | <1 | <2.5 | 1.7 | <10 | <1 | <1 | <1 | <1 | <1 |
| GMW-9 | 04/21/17 | <20 | <1 | <1 | 12 | 29 | <1 | <5 | <1 | <10 | 4.6 | <1 | <1 | 2.5 | <1 |
| GMW-15 | 04/21/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <2 | <0.5 | <0.5 | <1 | 1.5 | <0.5 |
| GMW-21 | 04/21/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 3.0 | <2 | <0.5 | <0.5 | <1 | 2.8 | 1.2 |
| GMW-36 | 04/19/17 | <400 | <20 | <20 | 500 | <20 | <20 | <100 | <20 | 150 | <20 | 63 | <20 | <20 | <20 |
| GMW-42 | 04/17/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 4.8 | <0.5 | <2 | <0.5 | <0.5 | <1 | <0.5 | <0.5 |
| GMW-48 | 04/21/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | 4.5 | <0.5 | 34 | <2 | <0.5 | 0.78 | <1 | 4.1 | 0.52 |
| GMW-57 | 04/20/17 | <10 | <0.5 | 0.58 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <2 | <0.5 | <0.5 | <1 | <0.5 | <0.5 |
| GMW-58 | 04/20/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.0 | 0.64 | <2 | <0.5 | <0.5 | <1 | <0.5 | 0.52 |
| GMW-59 | 04/21/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | 4.3 | <0.5 | 39 | 3.7 | <0.5 | 2.4 | <1 | 3.6 | 1.2 |
| GMW-60 | 04/20/17 | <10 | <0.5 | <0.5 | 9.3 | <0.5 | <0.5 | 0.54 | 10 | <2 | <0.5 | 2.8 | <1 | 0.86 | <0.5 |
| GMW-61 | 04/20/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.82 | 2.0 | <2 | <0.5 | <0.5 | <1 | <0.5 | <0.5 |
| GMW-67 | 04/17/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.3 | <2 | <0.5 | 1.2 | <1 | <0.5 | <0.5 |
| GMW-69 | 04/17/17 | <20 | <1 | <1 | 56 | <1 | <1 | <1 | 17 | 22 | <1 | 18 | <2 | <1 | <1 |
| GMW-O-3 | 04/20/17 | <10 | <1 | <1 | 12 | 8.5 | <1 | <2.5 | 1.1 | <10 | <1 | <1 | <1 | 1.2 | <1 |
| GMW-O-14 | 04/21/17 | <10 | <1 | <1 | 2.4 | <1 | <1 | <2.5 | 4.9 J | <10 | <1 | 4.7 J | <1 | 2.2 J | <1 |
| GMW-O-20 | 04/21/17 | <200 | <10 | <10 | 40 | 17 | <10 | <50 | <10 | 110 | <10 | <10 | <10 | <10 | <10 |
| GMW-O-21 | 04/21/17 | <40 | <2 | <2 | 190 | 130 | <2 | <10 | 3.6 | 95 | 2.4 | 11 | 2.8 | 2.9 | <2 |
| GMW-O-23 | 04/21/17 | <40 | 3.1 | <2 | 96 | 28 | <2 | <10 | <2 | 75 | <2 | <2 | <2 | <2 | <2 |
| MW-SF-6 | 04/20/17 | <40 | <2 | <2 | 97 | 6.4 | <2 | <10 | 4.8 | 14 | <2 | 10 | 3.4 | 2.5 | <2 |
| MW-SF-13 | 04/20/17 | <40 | <2 | <2 | 250 | <2 | <2 | <10 | 6.3 | 35 | 3.5 | 20 | <2 | 4.8 | <2 |
| MW-SF-15 | 04/20/17 | <20 | <1 | <1 | <1 | <1 | <1 | <5 | <1 | <10 | <1 | 1.2 | <1 | <1 | <1 |
| PZ-5 | 04/21/17 | <800 | <40 | <40 | 460 | 100 | <40 | <200 | <40 | 210 | <40 | 41 | <40 | <40 | 68 |
| RTF-18-N | 04/24/17 | <100 | <5 | <5 | 680 | 300 | <5 | <5 | 180 | 180 | <5 | 170 | 27 | <5 | <5 |
| RTF-18-NNW | 04/24/17 | <100 | <5 | <5 | 740 | 330 | <5 | <5 | 160 | 220 | <5 | 160 | 31 | <5 | <5 |
| TF-18 | 04/24/17 | <100 | <5 | <5 | 410 | 170 | <5 | <5 | 120 | 200 | <5 | 100 | 35 | <5 | <5 |
| TF-21 | 04/21/17 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 44 | 5.4 | <0.5 | 18 | <1 | 5.6 | 1.2 |
| TF-23 | 04/24/17 | <10 | <0.5 | 0.60 | <0.5 | <0.5 | <0.5 | <0.5 | 2.0 | 5.7 | <0.5 | 0.86 | <1 | 2.2 | 1.8 |

Notes:

Bold results indicate detected concentrations.

< = not detected at or above the laboratory reporting limit shown

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

Table 5. Summary of Field Duplicate Results – First Semiannual 2017 Monitoring Event

Defense Fuel Support Point, Norwalk, California

| Results reported in micrograms per liter (µg/L) | | | | | | | | | | | | | |
|---|----------|------------|--------------|------------|---------|--------------|------------|-------------|-------------|-----------|------------|------|------|
| Well | Date | TPH-g | TPH-d | Benzene | Toluene | Ethylbenzene | Xylenes | 1,2-DCA | MTBE | TBA | DIPE | ETBE | TAME |
| GMW-20 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-56 | 04/18/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GWR-1R | 04/18/17 | <50 | 55 J | <0.50 | <0.50 | <0.50 | <0.50 | 0.59 | <0.50 | 82 | 3.7 | <1 | <1 |
| GMW-16 | 04/19/17 | <100 | 210 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | 1.0 | <10 | <2 | <2 | <2 |
| GW-1 | 04/19/17 | <100 | <100 | <0.50 | <0.50 | <0.50 | <1 | 2.0 | <1 | <10 | <2 | <2 | <2 |
| MW-9 | 04/19/17 | 96 | 590 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 1.4 | 19 | <1 | <1 | <1 |
| MW-21 (MID) | 04/19/17 | <100 | 140 | <0.50 | <0.50 | <0.50 | <0.50 | 2.2 | 0.99 | 11 | <1 | <1 | <1 |
| GMW-31 | 04/20/17 | <100 | 130 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-58 | 04/20/17 | 100 | 1,900 | 1.5 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| PZ-2 | 04/20/17 | <50 | 81 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.80 | <10 | <1 | <1 | <1 |
| GMW-12 | 04/21/17 | <100 | 150 | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-59 | 04/21/17 | 300 | 660 | 84 | <0.50 | 0.68 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| GMW-O-14 | 04/21/17 | 330 | 680 | 1.2 | <0.50 | 1.0 | 2.9 | 4.5 | 4.6 | 19 | 40 | <1 | <1 |
| GMW-O-24 | 04/21/17 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |

Notes:

Bold results indicate detected concentrations

< = not detected at or above the laboratory reporting limit shown

1,2-DCA = 1,2-dichloroethane

DIPE = di-isopropyl ether

ETBE = ethyl tertiary butyl ether

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

MTBE = methyl tertiary butyl ether

TAME = tertiary amyl methyl ether

TBA = tertiary butyl alcohol

TPH-d = total extractable petroleum hydrocarbons quantified using a diesel standard

TPH-g = total purgeable petroleum hydrocarbons quantified using a gasoline standard

Xylenes = total of m,p-xylene and o-xylene when detected

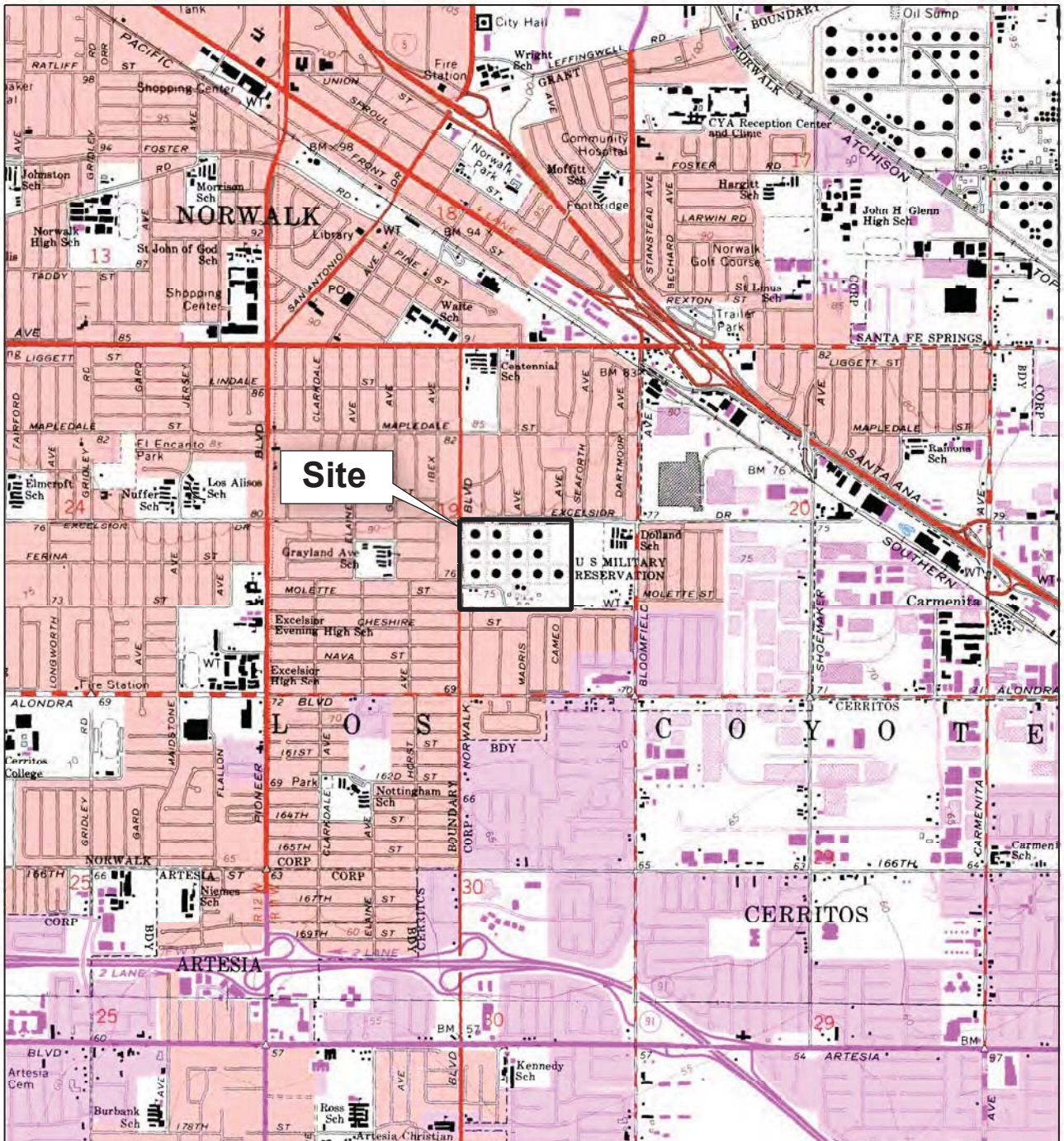
Table 6. Summary of Quality Assurance/Quality Control Analytical Data – First Semiannual 2017 Monitoring Event
Defense Fuel Support Point, Norwalk, California

| Results reported in micrograms per liter (µg/L) | | | | | | | | | | | | | | |
|---|----------|-----------------|-------|-------|---------|---------|--------------|---------|---------|-------|-----|------|------|------|
| Sample ID | Date | Sample Type | TPH-g | TPH-d | Benzene | Toluene | Ethylbenzene | Xylenes | 1,2-DCA | MTBE | TBA | DIPE | ETBE | TAME |
| QCEB | 04/17/17 | Equipment Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| QCTB | 04/17/17 | Trip Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| EB-1 | 04/18/17 | Equipment Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EB-2 | 04/18/17 | Equipment Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| QCEB | 04/18/17 | Equipment Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| QCTB | 04/18/17 | Trip Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| TB-1 | 04/18/17 | Trip Blank | --- | --- | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EB-3 | 04/19/17 | Equipment Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EB-4 | 04/19/17 | Equipment Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| QCTB | 04/19/17 | Trip Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| TB-1 | 04/19/17 | Trip Blank | --- | --- | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EB-5 | 04/20/17 | Equipment Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EB-6 | 04/20/17 | Equipment Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| QCEB | 04/20/17 | Equipment Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| QCTB | 04/20/17 | Trip Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| TB-1 | 04/20/17 | Trip Blank | --- | --- | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| EB-7 | 04/21/17 | Equipment Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| QCEB | 04/21/17 | Equipment Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| QCTB | 04/21/17 | Trip Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| TB-1 | 04/21/17 | Trip Blank | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <10 | <1 | <1 | <1 |
| QCEB | 04/24/17 | Equipment Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |
| QCTB | 04/24/17 | Trip Blank | <100 | --- | <0.50 | <0.50 | <0.50 | <1 | <0.50 | <1 | <10 | <2 | <2 | <2 |

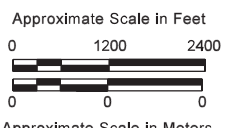
Notes:

- = not analyzed
- < = not detected at or above the laboratory reporting limit shown
- 1,2-DCA = 1,2-dichloroethane
- DIPE = di-isopropyl ether
- ETBE = ethyl tertiary butyl ether
- MTBE = methyl tertiary butyl ether
- TAME = tertiary amyl methyl ether
- TBA = tertiary butyl alcohol
- TPH-d = total extractable petroleum hydrocarbons quantified using a diesel standard
- TPH-g = total purgeable petroleum hydrocarbons quantified using a gasoline standard
- Xylenes = total of m,p-xylene and o-xylene when detected

Figures



Site



BASEMAP MODIFIED FROM U.S.G.S. 7.5 MINUTE QUADRANGLE MAP
 LOS ALAMITOS 1964, CALIFORNIA. PHOTO-REVISED 1981.
 WHITTIER 1965, CALIFORNIA. PHOTO-REVISED 1981.

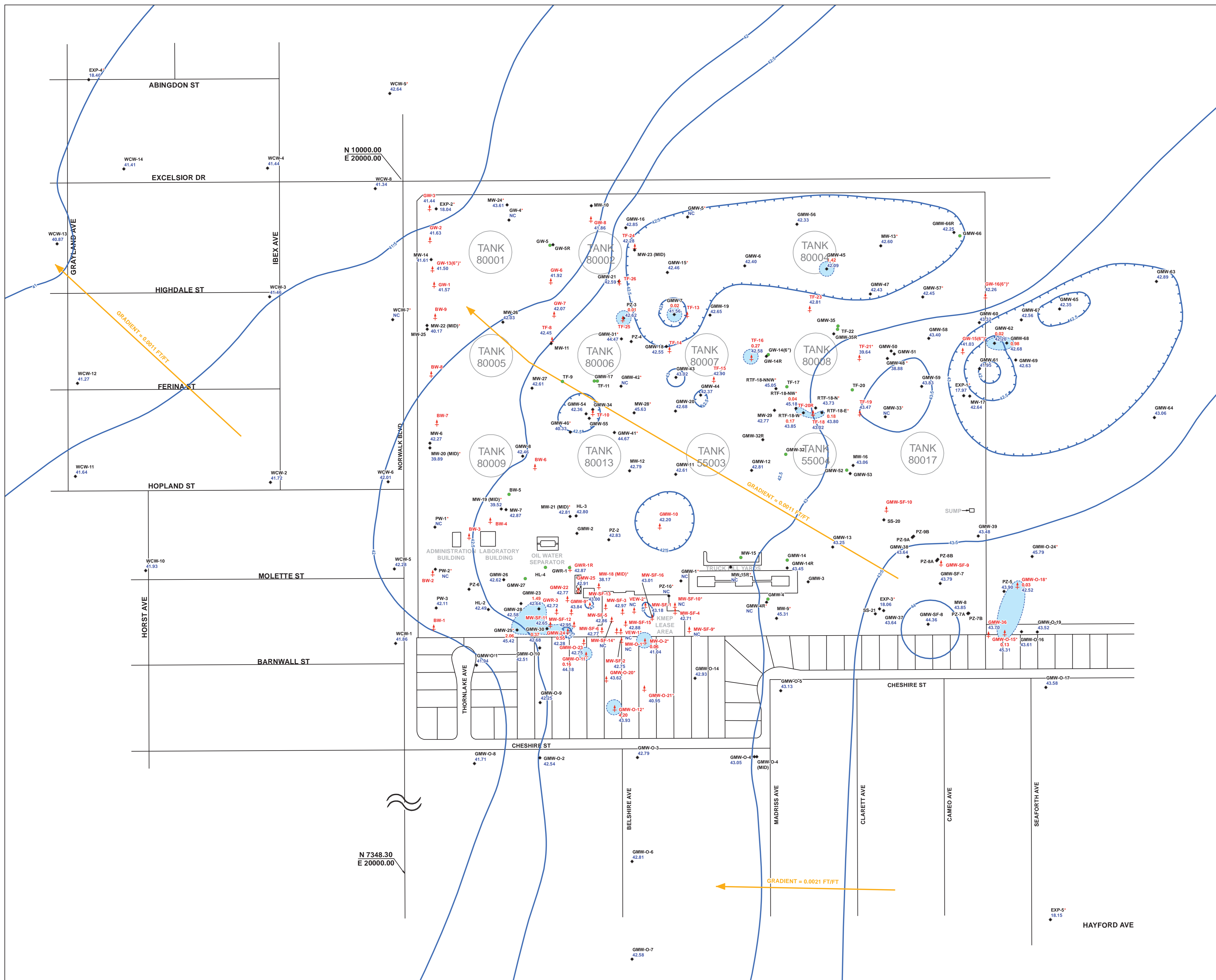
SITE LOCATION MAP

DFSP NORWALK
 Norwalk, California

By: Andy Vollmar Date: July 21, 2010 Project No: 407609



Figure 1



Explanation

- GMW-5 ● Monitoring well used for sample collection and/or water level measurement
- VIEW-1 ↓ Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
- GMW-47 ● Groundwater elevation in feet above mean sea level (MSL)
42.19
- GMW-36 ↓ Apparent thickness of free product measured in well (feet), groundwater elevations calculated by removing product head effect.
0.27
42.58
- MW-22(MID)* ● Groundwater elevation not used in contouring
40.37
- TF-17 ● Decommissioned Well
- 43.0 — Lines of equal groundwater elevation showing groundwater elevation in feet above MSL (dashed where inferred)
- Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater; dashed where inferred
- Approximate direction of groundwater flow

Notes

1. Groundwater elevations and product thicknesses shown at wells are based on data collected by SGI, Blaine Tech, and SFPP in April 2017.
2. SFPP and DLA's remediation systems were shut down approximately 1 week prior to collecting fluid level measurements in April 2017.
3. Wells screened in the Exposition aquifer or near the bottom of the uppermost aquifer are not used in contouring. Groundwater elevation contours are intended to represent generalized site-wide conditions and are interpreted from data collected by Blaine Tech. Wells with groundwater elevations not used in contouring are marked with a red asterisk (*).
4. NC = well was either dry during monitoring event, not measured, or casing elevation was not available.
5. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

Survey Notes

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-9 surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. The location of well GWR-1R is approximated based on the former location of the well that it replaced (GWR-1).

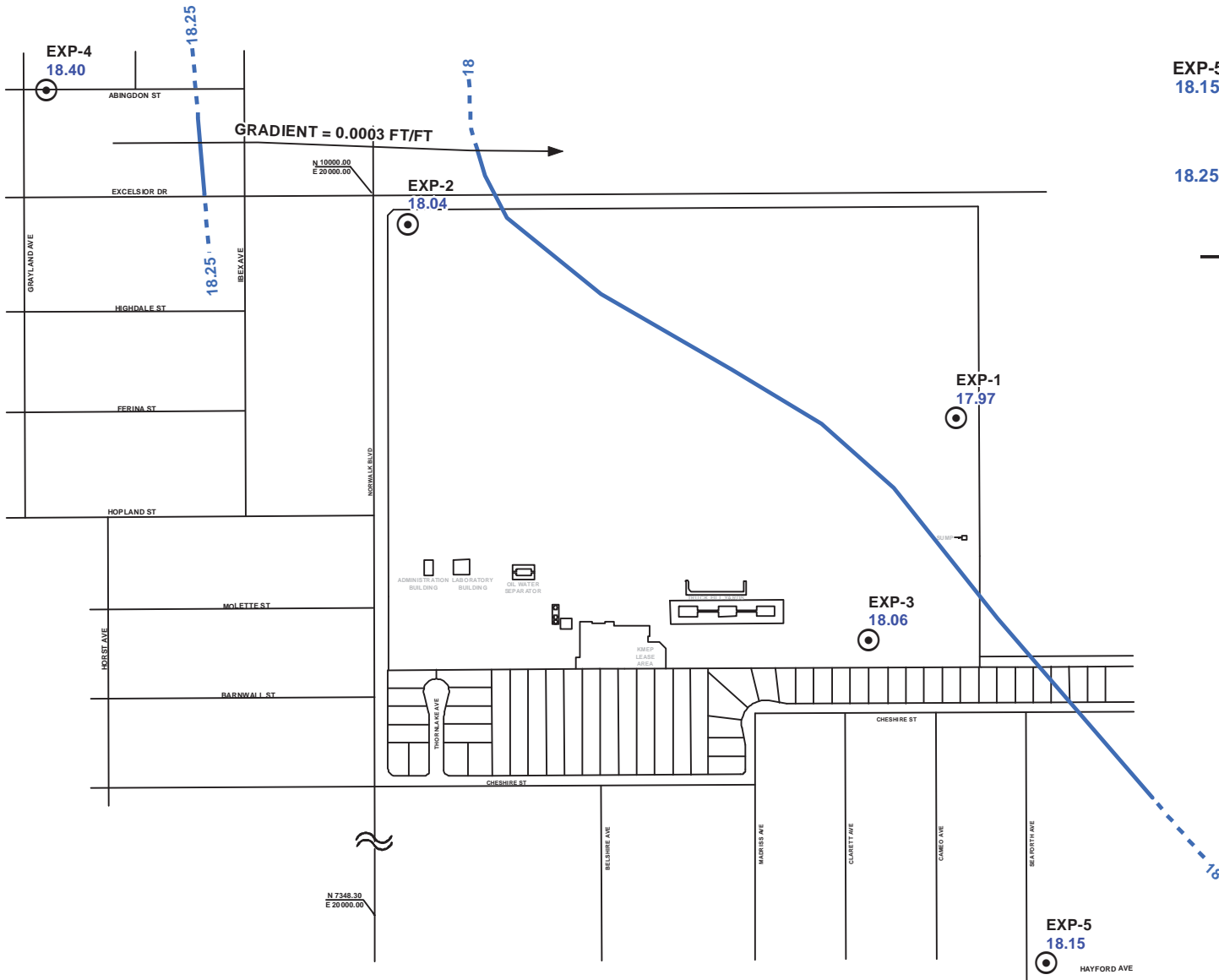
GROUNDWATER ELEVATIONS AND MEASURABLE LIQUID-PHASE HYDROCARBONS IN UPPERMOST GROUNDWATER ZONE
 April 2017
 DFSP NORWALK
 Norwalk, California

By: Chris Schaffer Date: 7/2017 Project No: 406972



Figure 2

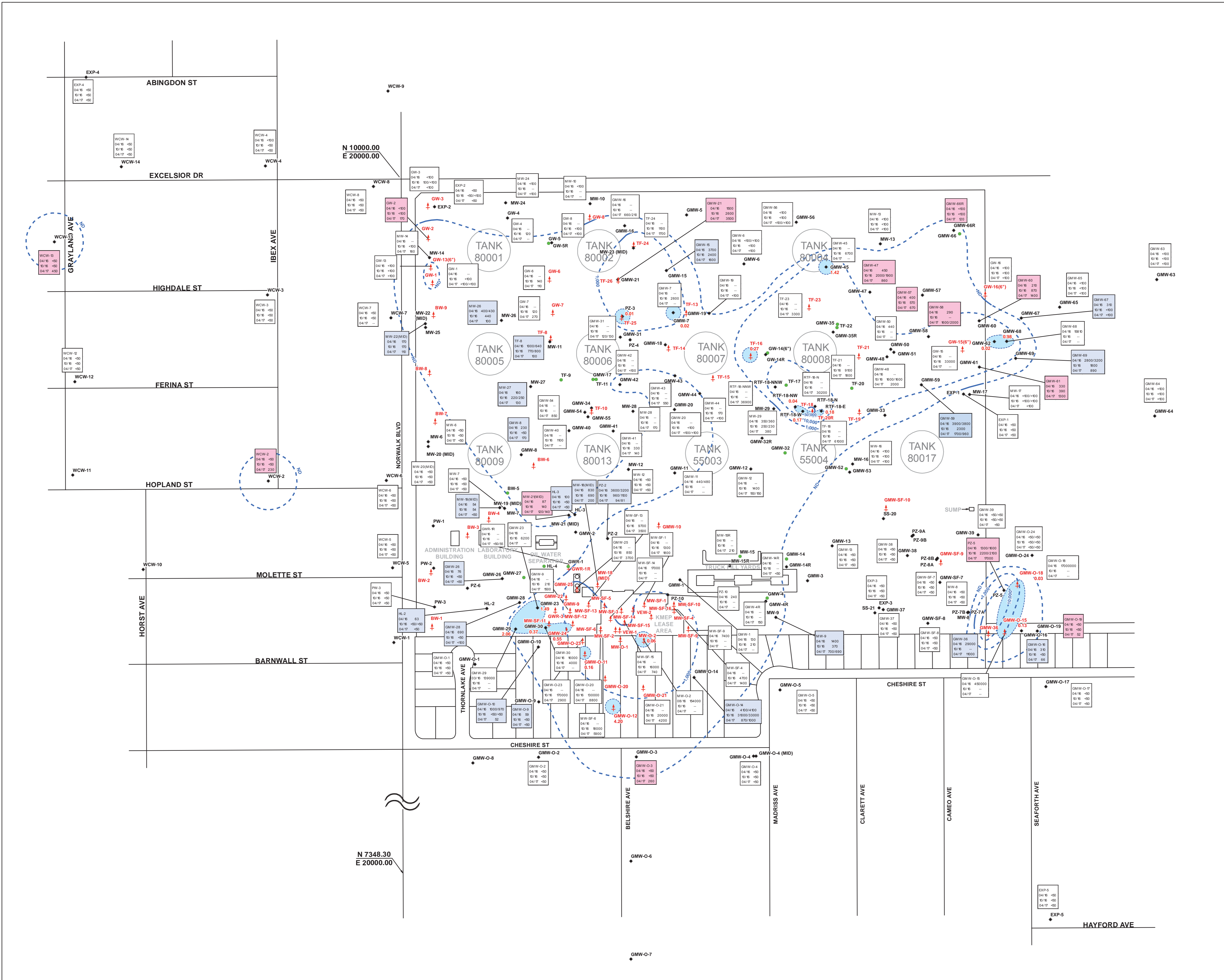
\\BOOKS\GIS_SHARE\ENR\600_PROJECTS\KINDERMORGAN\NORWALK\MAPFILES\2017\3\AREP\REPORTS\SPPP_F02_GWL_2017.MXD C:\5055422\7262017\F3028.MXD



Explanation

- EXP-5 18.15** Groundwater monitoring well and groundwater elevation in feet above mean sea level (MSL)
- 18.25** Line of equal groundwater elevation in feet MSL; dashed where inferred
- Approximate direction of groundwater flow

| | | |
|---|--------------|--------------------|
| <p>GROUNDWATER EQUIPOTENTIAL MAP FOR EXPOSITION AQUIFER April 2017</p> <p>DFSP NORWALK Norwalk, California</p> | | |
| By: Chris Schaffer | Date: 7/2017 | Project No: 406972 |
| | | Figure 3 |



Explanation

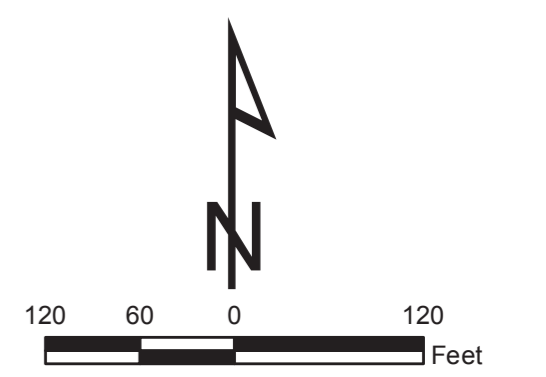
- GMW-5 ● Monitoring well and designation
- VEW-1 † Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
- TF-23 † Apparent thickness of free product measured in well (feet)
- TF-17 ● Decommissioned Well
- TPH [TPHg and TPHd] results in micrograms per liter (µg/L) for the three most recent semiannual events, where the databox is shown in white, the concentration of TPH has remained similar (concentration change is less than 10%) at that location since the first semiannual monitoring event of the previous year, or the dataset shown does not provide a basis for comparison.
- Where the databox is shown in red, the concentration of TPH has increased by 10% or more at that location since the first semiannual monitoring event of the previous year.
- Where the databox is shown in blue, the concentration of TPH has decreased by 10% or more at that location since the first semiannual monitoring event of the previous year.
- <math><100</math> Not detected at or above laboratory reporting limit shown
- Not sampled/not analyzed
- <math><100/<100</math> Primary sample analytical result/duplicate sample analytical result (µg/L)
- ND --- Estimated extent of detected dissolved TPH in groundwater (concentration dependent on laboratory reporting limit); dashed where inferred
- 1,000 --- Lines of equal TPH concentration (µg/L) in groundwater; dashed where inferred
- Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater; dashed where inferred

Notes

1. TPH included in data labels and contouring represents the sum of detected TPH-d and TPH-g concentrations.
2. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

Survey Notes

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton.
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-9 surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. The location of well GWR-1R is approximated based on the former location of the well that it replaced (GWR-1).



TOTAL PETROLEUM HYDROCARBONS IN GROUNDWATER
April 2017

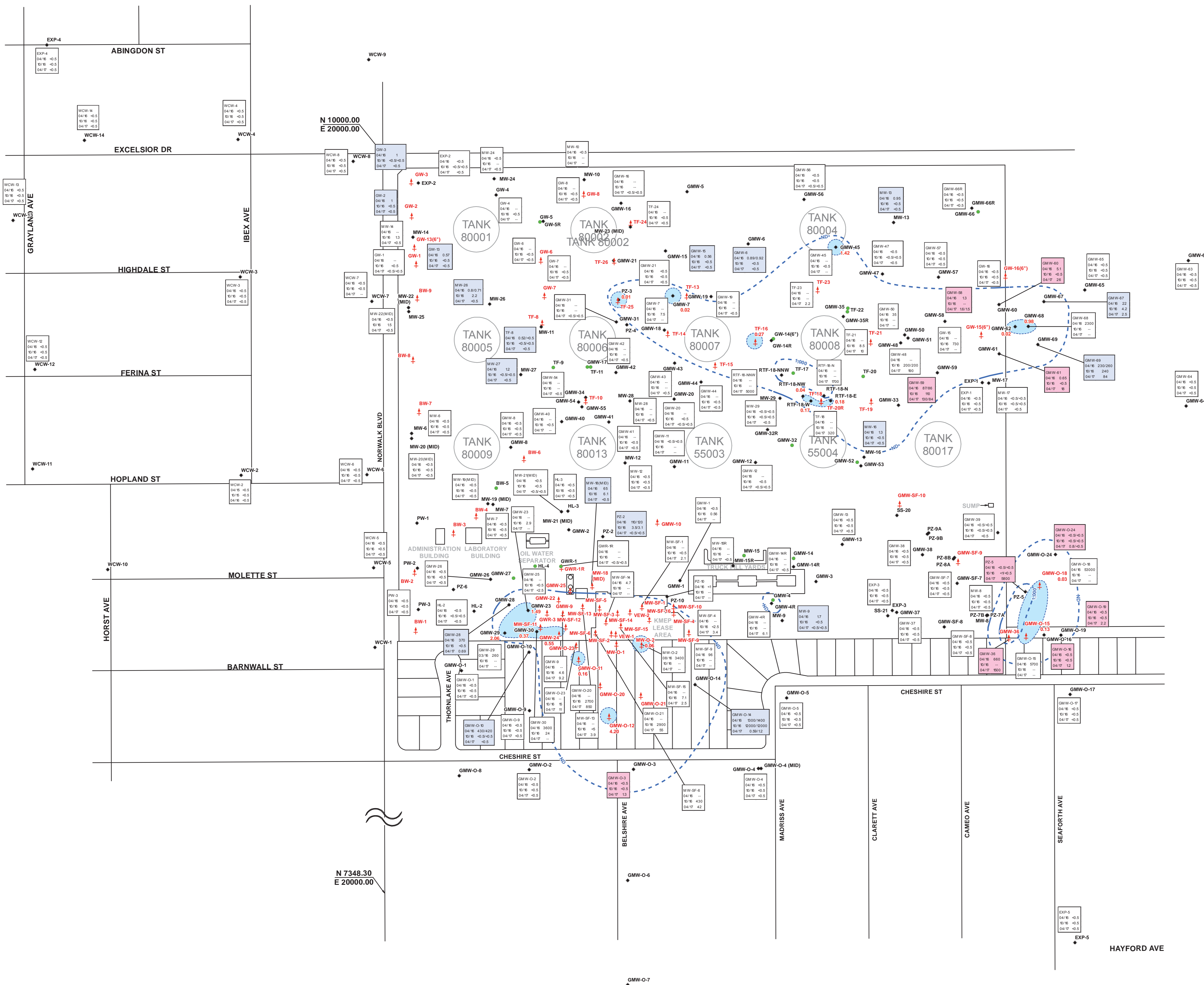
DFSP NORWALK
Norwalk, California

By: Chris Schaffer Date: 7/2017 Project No: 406972



Figure 4

\\BROOKSIDE\GIS_SHARE\ENR\002_P\ROCK\KINDERMORGAN\NORWALK\MAPFILES\2017\REPORTS\TPH_FIG4_TPH_2017.MXD 7/25/2017 10:27:16 AM



Explanation

- GMW-5 ◆ Monitoring well and designation
- VEW-1 ↑ Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
- TF-23 ↑ Apparent thickness of free product measured in well (feet)
- TF-17 ● Decommissioned Well

GMW-63
04/16 <0.5
10/16 <0.5
04/17 <0.5 Benzene results in micrograms per liter (µg/L) for the three most recent semiannual events; where the databox is shown in white, the concentration of benzene has remained similar (concentration change is less than 10%) at that location since the first semiannual monitoring event of the previous year, or the dataset shown does not provide a basis for comparison.

GMW-60
04/16 5.1
10/16 4.2
04/17 2.8 Where the databox is shown in red, the concentration of benzene has increased by 10% or more at that location since the first semiannual monitoring event of the previous year.

GMW-67
04/16 2.2
10/16 2.5
04/17 2.5 Where the databox is shown in blue, the concentration of benzene has decreased by 10% or more at that location since the first semiannual monitoring event of the previous year.

<0.5 Not detected at or above laboratory reporting limit shown

-- Not sampled/not analyzed

<0.5/<0.5 Primary sample analytical result/duplicate sample analytical result (µg/L)

ND --- Estimated extent of detected dissolved benzene in groundwater (concentration dependent on laboratory reporting limit); dashed where inferred

1,000 --- Lines of equal benzene concentration (µg/L) in groundwater; dashed where inferred

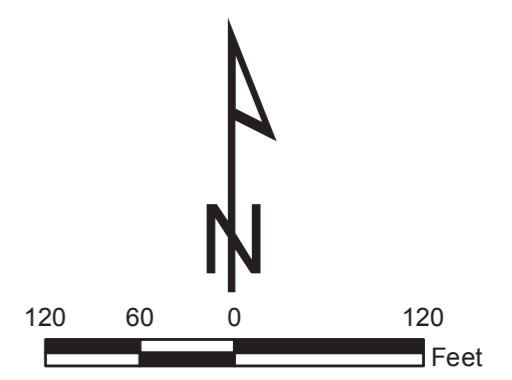
Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater; dashed where inferred

Notes

1. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

Survey Notes

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton.
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-9 surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. The location of well GWR-1R is approximated based on the former location of the well that it replaced (GWR-1).

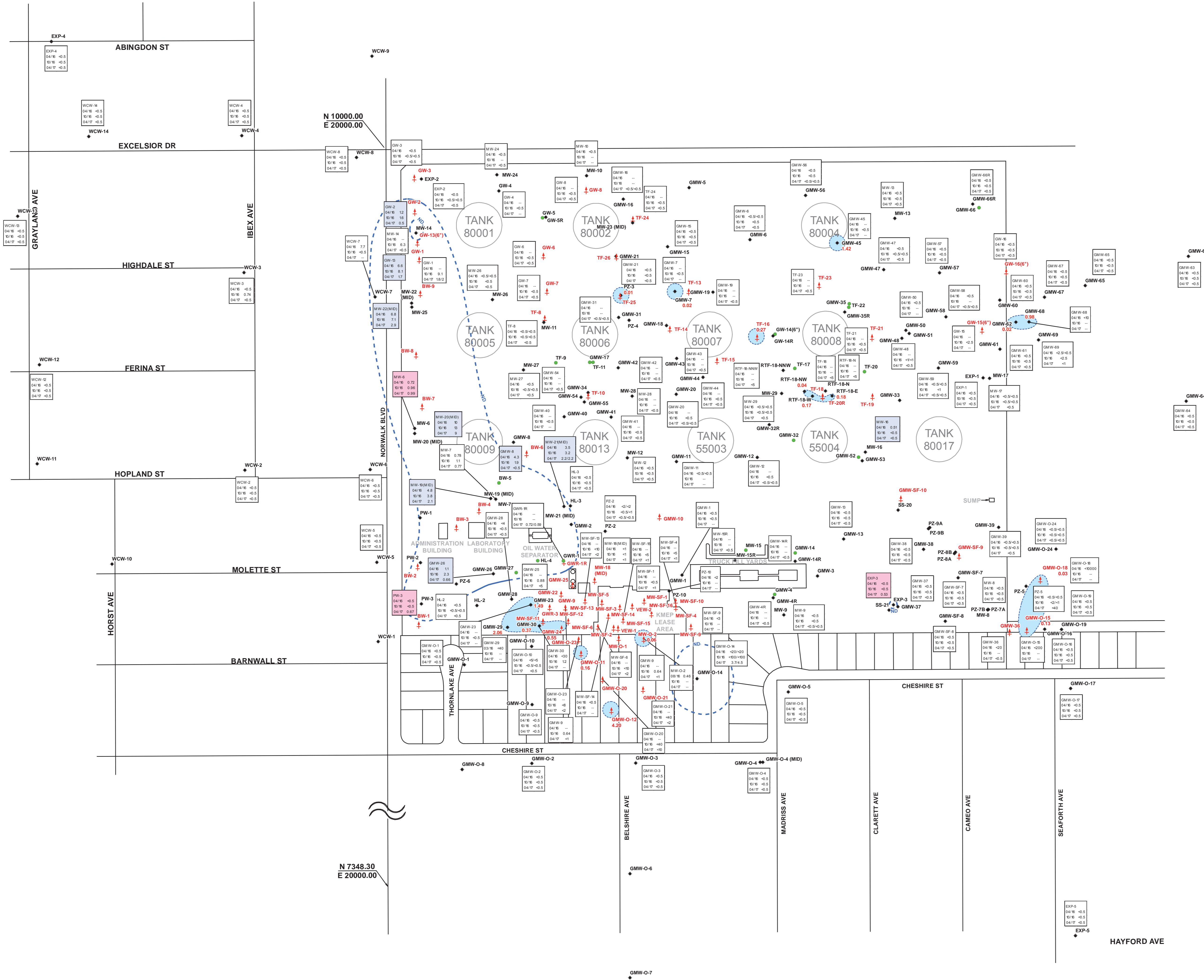


BENZENE IN GROUNDWATER
April 2017

DFSP NORWALK
Norwalk, California

By: Chris Schaffer Date: 7/2017 Project No: 420932

\\BROOKSIDE\GIS_SHARE\ENR\000_PROD\AKK\NDMORGANNORWALK\MAPFILES\2017\04\REPORT\SPFP_FIG5_BENZENE_2017.MXD 7/25/2017 9:04:49 AM



Explanation

- GMW-5 ● Monitoring well and designation
- VEW-1 † Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
- TF-23 † Apparent thickness of free product measured in well (feet)
- TF-17 ● Decommissioned Well

GMW-03
04/16 <0.5
10/16 <0.5
04/17 <0.5

1,2-DCA results in micrograms per liter (µg/L) for the three most recent semiannual events; where the databox is shown in white, the concentration of 1,2-DCA has remained similar (concentration change is less than 10%) at that location since the first semiannual monitoring event of the previous year, or the dataset shown does not provide a basis for comparison.

MW-6
04/16 0.72
10/16 0.98
04/17 0.99

Where the databox is shown in red, the concentration of 1,2-DCA has increased by 10% or more at that location since the first semiannual monitoring event of the previous year.

MW-22(MID)
04/16 6.8
10/16 7.1
04/17 2.8

Where the databox is shown in blue, the concentration of 1,2-DCA has decreased by 10% or more at that location since the first semiannual monitoring event of the previous year.

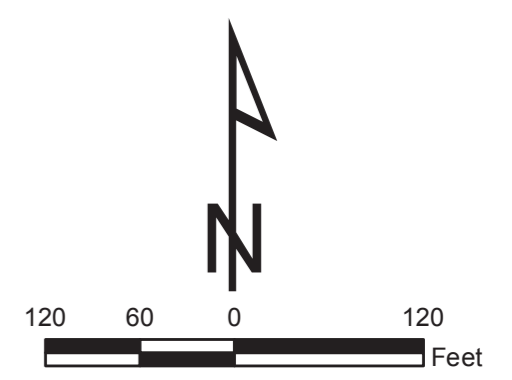
- <0.5 Not detected at or above laboratory reporting limit.
- Not sampled/not analyzed
- <0.5/<0.5 Primary sample analytical result/duplicate sample analytical result (µg/L)
- ND Estimated extent of detected dissolved 1,2-DCA in groundwater (concentration dependent on laboratory reporting limit); dashed where inferred
- Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater; dashed where inferred

Notes

1. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

Survey Notes

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton.
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-9 surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. The location of well GWR-1R is approximated based on the former location of the well that it replaced (GWR-1).



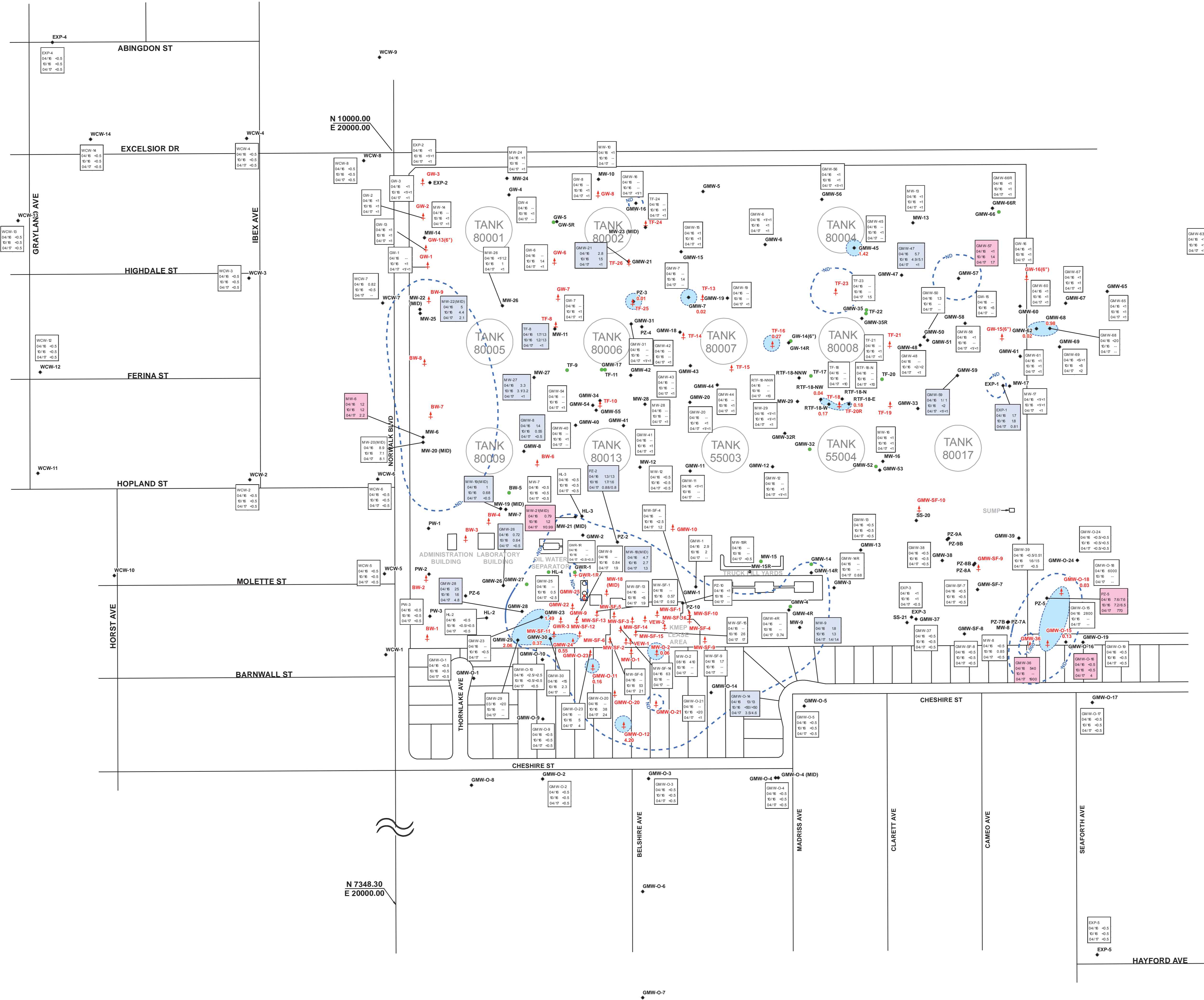
1,2-DICHLOROETHANE IN GROUNDWATER
April 2017

DFSP NORWALK
Norwalk, California

By: Chris Schaffer Date: 7/2017 Project No: 406972



Figure 6



Explanation

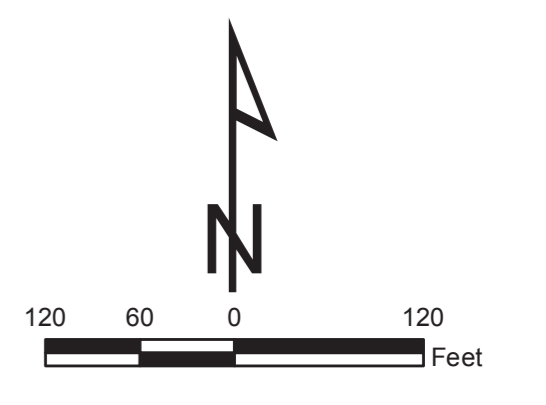
- GMW-5 ● Monitoring well and designation
 - VEW-1 † Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
 - TF-23 † Apparent thickness of free product measured in well (feet)
 - TF-17 ● Decommissioned Well
- GMW-3
04/16 <0.5
10/16 <1
04/17 <1 MTBE results in micrograms per liter (µg/L) for the three most recent semiannual events; where the databox is shown in white, the concentration of MTBE has remained similar (concentration change is less than 10%) at that location since the first semiannual monitoring event of the previous year, or the dataset shown does not provide a basis for comparison.
- GMW-6
04/16 <0.5
10/16 <0.5
04/17 4 Where the databox is shown in red, the concentration of MTBE has increased by 10% or more at that location since the first semiannual monitoring event of the previous year.
- GMW-47
04/16 5.7
10/16 4.8/5.1
04/17 <1 Where the databox is shown in blue, the concentration of MTBE has decreased by 10% or more at that location since the first semiannual monitoring event of the previous year.
- <0.5 Not detected at or above laboratory reporting limit.
- Not sampled/not analyzed
- <0.5/<0.5 Primary sample analytical result/duplicate sample analytical result (µg/L)
- ND — Estimated extent of detected dissolved MTBE in groundwater (concentration dependent on laboratory reporting limit); dashed where inferred
- Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater; dashed where inferred

Notes

1. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

Survey Notes

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton.
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-9 surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. The location of well GWR-1R is approximated based on the former location of the well that it replaced (GWR-1).

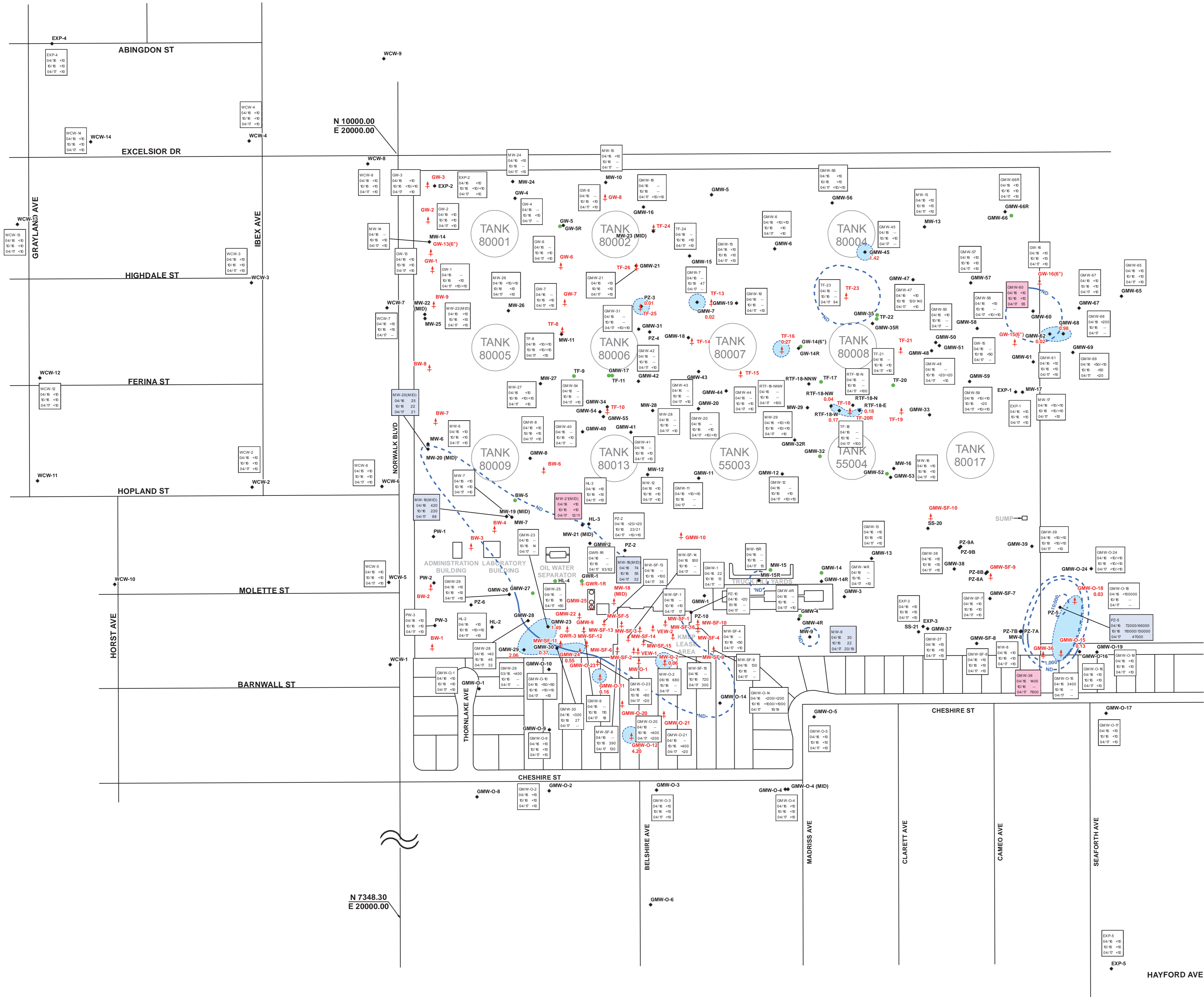


METHYL TERTIARY BUTYL ETHER IN GROUNDWATER
April 2017

DFSP NORWALK
Norwalk, California

By: Chris Schaffer Date: 7/2017 Project No: 406972

\\BROOKSIDE\GIS_SHARE\ENB00_00_PROJ\KIRK\DRMORGANNORWALK\MAPFILES\2017\REPORTS\FPP_P107_MTBE_2017.MXD 7/25/2017 9:30:35 AM



Explanation

- GMW-5 ● Monitoring well and designation
- VEW-1 † Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
- TF-23 † Apparent thickness of free product measured in well (feet)
- TF-17 ● Decommissioned Well
- | | |
|----------|----------|
| GMW-63 | 04/16 <0 |
| 04/16 <0 | 04/17 <0 |

 TBA results in micrograms per liter (µg/L) for the three most recent semiannual events; where the databox is shown in white, the concentration of TBA has remained similar (concentration change is less than 10%) at that location since the first semiannual monitoring event of the previous year, or the dataset shown does not provide a basis for comparison.
- | | |
|-----------|-----------|
| GMW-36 | 04/16 900 |
| 04/16 900 | 04/17 780 |

 Where the databox is shown in red, the concentration of TBA has increased by 10% or more at that location since the first semiannual monitoring event of the previous year.
- | | |
|----------|----------|
| MW-9 | 04/16 30 |
| 04/16 22 | 04/17 <0 |

 Where the databox is shown in blue, the concentration of TBA has decreased by 10% or more at that location since the first semiannual monitoring event of the previous year.
- <0.5 Not detected at or above laboratory reporting limit shown
- Not sampled/not analyzed
- <10/<10 Primary sample analytical result/duplicate sample analytical result (µg/L)
- ND --- Estimated extent of detected dissolved TBA in groundwater (concentration dependent on laboratory reporting limit); dashed where inferred
- 1000 --- Lines of equal TBA concentration (µg/L) in groundwater; dashed where inferred
- | | |
|----------|----------|
| GMW-63 | 04/16 <0 |
| 04/16 <0 | 04/17 <0 |

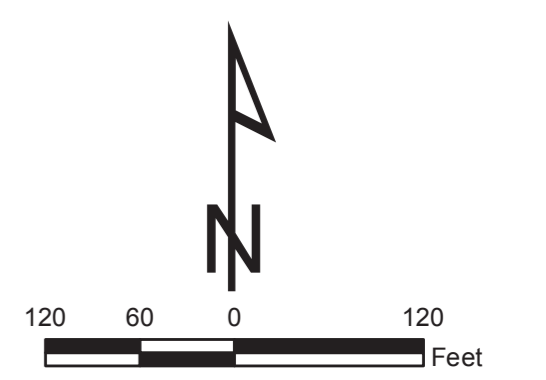
 Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater; dashed where inferred

Notes

1. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

Survey Notes

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton.
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-9 surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. The location of well GWR-1R is approximated based on the former location of the well that it replaced (GWR-1).



TERTIARY BUTYL ALCOHOL IN GROUNDWATER
April 2017

DFSP NORWALK
Norwalk, California

By: Chris Schaffer Date: 7/2017 Project No: 406972



Figure 8

\\BROOKS\DEGIS_SHARE\ENR\00_PROJECT\KINDERMORGANNORWALK\MAPFILES\2017\SAAREPORT\SI\PPP_FIG8_TBA_2017.MXD 7/25/2017 9:35:13 AM

Appendix A
Semiannual Event Field Forms
(CD ROM Only)

NORWALK WELL GAUGING DATA

 TECHNICIAN: Ben S.

 DATE: 4.17.17

 CLIENT: ICMEP

| Well ID | Well Size (in.) | Sheen / Odor | Depth to Immiscible Liquid (ft.) | Thickness of Immiscible Liquid (ft.) | Last Events SPH Thickness | Depth to water (ft.) 2Q15 | Depth to water (ft.) 4Q15 | Depth to water (ft.) 2Q16 | Depth to water (ft.) 4Q16 | Depth to water (ft.) | Depth to well bottom (ft.) | Survey Point: TOB or TOC | Time |
|-------------------|-----------------|--------------------|----------------------------------|--------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------|----------------------------|--------------------------|--------------|
| EXP-1 | 4 | | | | | 57.81 | 59.22 | | 61.31 | 60.47 | 129.09 | | 0907 |
| EXP-2 | 4 | | | | | 58.53 | 60.23 | | 61.88 | 61.39 | 128.32 | | 0915 |
| EXP-3 | 4 | | | | | 56.91 | 58.43 | | 60.52 | 59.52 | 123.09 | | 0951 |
| EXP-4 | 4 | | | | | 58.43 | 60.00 | | 62.71 | 61.41 | 115.90 | | 0900 |
| EXP-5 | 4 | | | | | 51.71 | 53.27 | | 55.40 | 54.26 | 113.21 | | 0827 |
| GMW-1 | 4 | -unable to locate- | | | | 31.19 | 31.89 | 36.16 | 35.80 | -well buried | | | |
| GMW-10 | 4 | | | | 1.55 | 34.99 | 32.96 | 34.47 | 35.10 | 31.15 | - | | - |
| GMW-11 | 4 | _____ | | | | | | | | | | | |
| GMW-13 | 4 | | | | | 30.39 | 31.16 | | 33.20 | 30.92 | 49.57 | | 1036 |
| GMW-14 R | 4 | | | | | | | | | 35.32 | 55.25 | | 1070 |
| GMW-2 | 4 | _____ | | | | | | | | | | | |
| GMW-22 | 4 | _____ | | | | | | | | | | | |
| GMW-22 | 4 | | | | | | | 39.73 | 37.70 | 34.47 | 61.32 | | 1154 |
| GMW-23 | 4 | | 31.91 | 1.49 | | 36.64 | 36.10 | 36.35 | 36.15 | 33.40 | - | | 1231 |
| GMW-24 | 4 | | 35.09 | 0.55 | | 31.94 | 32.80 | 38.83 | 39.31 | 35.64 | - | | 1154 |
| GMW-25 | 4 | | | | | Ext. Pump | 35.44 | 38.99 | 38.70 | 35.23 | 53.11 | | 1150 |
| GMW-26 | 4 | | | | | 35.19 | 35.38 | 34.56 | 35.12 | 31.90 | 48.28 | | 1121 |
| GMW-27 | 4 | _____ | | | | | | | | | | | |
| GMW-28 | 4 | | | | | 31.18 | 31.73 | | | | | | - |
| GMW-28 | 4 | | | | | 31.23 | 32.00 | 35.66 | 35.81 | 32.10 | 49.14 | | 1150 |
| GMW-29 | 4 | | 31.74 | 2.06 | 0.25 | 32.62 | 31.27 | 36.15 | 36.00 | 33.80 | - | | 1135 |
| GMW-3 | 4 | -unable to locate- | | | | 31.40 | 32.12 | -well buried- | | | | | |
| GMW-30 | 6 | | 32.16 | 0.37 | | 32.70 | 32.92 | 36.22 | 36.30 | 32.53 32.96 | 51.69 | | 1236 1174 |
| GMW-36 | 4 | | | | 0.40 | Ext. Pump | 33.55 | | 35.05 | 32.96 | 51.69 | | 1114 |
| GMW-37 | 4 | | | | | 33.51 | 34.11 | | 35.10 | 33.68 | 53.48 | | 0953 |
| GMW-38 | 4 | | | | | 31.59 | 32.33 | | 34.10 | 31.83 | 52.99 | | 1005 |
| GMW-39 | 4 | | | | | 31.04 | 31.87 | | 33.20 | 31.57 | 50.53 | | 1027 |
| GMW-4 | 4 | | | | | | | | | 36.15 | 55.18 | | 1033 |
| GMW-8 | 4 | | | | | 30.43 | 31.13 | | 33.47 | 30.74 | 44.96 | | 0930 |

NORWALK WELL GAUGING DATA

TECHNICIAN: Ben S. DATE: 4.17.17 CLIENT KMEP

| Well ID | Well Size (in.) | Sheen / Odor | Depth to Immiscible Liquid (ft.) | Thickness of Immiscible Liquid (ft.) | Last Events SPH Thickness | Depth to water (ft.) 2Q15 | Depth to water (ft.) 4Q15 | Depth to water (ft.) 2Q16 | Depth to water (ft.) 4Q16 | Depth to water (ft.) | Depth to well bottom (ft.) | Survey Point: TOB or TOG | Time |
|----------|-----------------|--------------|----------------------------------|--------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------|----------------------------|--------------------------|------|
| GMW-9 | 5 | | | | 0.24 | Ext. Pump | 34.61 | 36.10 | 38.02 | 33.32 | - | | |
| GMW-O-1 | 4 | | | | | 28.02 | 28.98 | 30.66 | 31.20 | 29.51 | 49.20 | | 1150 |
| GMW-O-10 | 4 | | | | | 30.52 | 31.17 | 32.65 | 33.13 | 31.47 | 50.07 | | 1400 |
| GMW-O-11 | 4 | | 29.96 | 0.16 | | Ext. Pump | 33.08 | 33.39 | 32.22 | 30.12 | - | | 1406 |
| GMW-O-12 | 4 | | 28.70 | 4.20 | 2.30 | 33.35 | 34.65 | 32.40 | 34.20 | 32.90 | - | | 1410 |
| GMW-O-14 | 4 | | | | | 30.32 | 30.98 | 32.62 | 34.08 | 31.15 | 50.10 | | 1500 |
| GMW-O-15 | 4 | | 29.52 | 0.13 | 0.08 | Ext. Pump | 31.91 | | 31.00 | 29.63 24.56 | - | | - |
| GMW-O-16 | 4 | | | | | 29.69 | 30.41 | | 32.00 | 30.99 | 48.82 | | 1105 |
| GMW-O-17 | 4 | | | | | 28.96 | 29.95 | | 31.10 | 30.20 | 46.00 | | 1225 |
| GMW-O-18 | 4 | | 31.80 | 0.07 | | 28.53 | 30.90 | | | 29.77 | 31.83 | | - |
| GMW-O-19 | 4 | | | | | 28.41 | 30.63 | | 32.20 | 30.94 | 40.10 | | 1109 |
| GMW-O-2 | 4 | | | | | 28.34 | 29.07 | 30.44 | 31.30 | 30.00 | 48.99 | | 1210 |
| GMW-O-20 | 4 | | | | | Ext. Pump | 31.36 | 32.54 | 33.12 | 29.70 | - | | - |
| GMW-O-21 | 4 | | | | | 30.15 | 31.43 | 33.20 | 33.45 | 30.48 | 43.17 | | 1505 |
| GMW-O-23 | 4 | | | | | Ext. Pump | 32.82 | 34.43 | 34.90 | 30.88 | - | | - |
| GMW-O-24 | 4 | | | | | 30.23 | 30.95 | | 32.39 | 28.60 | 45.12 | | 1445 |
| GMW-O-3 | 4 | | | | | 28.21 | 28.94 | 30.60 | 31.45 | 29.40 | 47.90 | | 1213 |
| GMW-O-4 | 4 | | | | | 27.79 | 28.57 | 30.55 | 30.90 | 28.90 | 49.30 | | 1217 |
| GMW-O-5 | 4 | | | | | 28.31 | 29.09 | 30.98 | 31.43 | 29.23 | 49.10 | | 1220 |
| GMW-O-6 | 4 | | | | | 26.10 | 27.50 | | 29.00 | 28.60 | 49.90 | | 1300 |
| GMW-O-7 | 4 | | | | | 26.09 | 26.63 | | 28.10 | 28.40 | 49.92 | | 1304 |
| GMW-O-8 | 4 | | | | | 26.39 | 27.53 | | 29.51 | 29.20 | 49.42 | | 1140 |
| GMW-O-9 | 4 | | | | | 29.79 | 30.33 | 31.88 | 33.03 | 31.25 | 49.91 | | 1339 |
| GMW-SF-7 | 4 | | | | | 31.30 | 32.03 | | 33.72 | 31.47 | 43.23 | | 1009 |
| GMW-SF-8 | 4 | | | | | 32.59 | 33.28 | | 35.01 | 32.39 | 43.66 | | 0959 |
| GWR-1 R | 4 | | | | | | | | | 33.77 | 52.60 | | 1148 |
| GWR-3 | 6 | | | | 0.05 | 37.25 | 35.98 | 38.60 | 39.20 | 34.88 | 50.61 | | 1204 |

NORWALK WELL GAUGING DATA

 TECHNICIAN: Ben S.

 DATE: 4.17.17

 CLIENT: Kindra Muirgan

| Well ID | Well Size (in.) | Sheen / Odor | Depth to Immiscible Liquid (ft.) | Thickness of Immiscible Liquid (ft.) | Last Events SPH Thickness | Depth to water (ft.) 2Q15 | Depth to water (ft.) 4Q15 | Depth to water (ft.) 2Q16 | Depth to water (ft.) 4Q16 | Depth to water (ft.) | Depth to well bottom (ft.) | Survey Point: TOP or TOC | Time |
|-------------|-----------------|--------------|----------------------------------|--------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------|----------------------------|--------------------------|------|
| HL-2 | 4 | | | | | 33.37 | 34.08 | | 35.17 | 34.45 | 39.10 | 1 | 1102 |
| HL-3 | 4 | | | | | 33.43 | 34.15 | 36.84 | 37.22 | 34.06 | 41.08 | | 0947 |
| MW-12 | 4 | | | | | 32.39 | | | 35.84 | 32.97 | 51.78 | | 1005 |
| MW-15 R | 4 | | | | | | | | | 34.41 | 55.28 | | 1047 |
| MW-18 (MID) | 4 | | | | | 36.29 | 36.99 | 40.70 | 40.93 | 37.50 | 65.04 | | 1159 |
| MW-19 (MID) | 4 | | | | | 37.61 | 38.26 | | 40.60 | 38.62 | 61.81 | | 0940 |
| MW-20 (MID) | 4 | | | | | 35.94 | 37.73 | | 38.22 | 37.30 | 56.35 | | 0920 |
| MW-21 (MID) | 4 | | | | | 34.08 | 34.77 | | 37.83 | 34.74 | 61.97 | | 0950 |
| MW-6 | 4 | | | | | 33.79 | 34.47 | | 35.13 | 34.93 | 52.04 | | 0925 |
| MW-7 | 4 | | | | | 34.70 | 35.36 | | 32.90 | 35.26 | 53.95 | | 0948 |
| MW-8 | 4 | | | | | 31.86 | 32.69 | | 34.20 | 32.21 | 51.88 | | 1021 |
| MW-9 | 4 | | | | | 33.24 | 34.05 | | 33.56 | 31.80 | 51.67 | | 0941 |
| MW-O-1 | 4 | | | | | 30.39 | 8.37 | DRY | DRY | 0.7 | 29.84 | | 1415 |
| MW-O-2 | 6 | | 30.85 | 0.06 | 0.08 | 30.94 | 32.39 | 35.49 | 34.30 | 30.91 | - | | 1457 |
| MW-SF-1 | 6 | | | | | 34.89 | 36.35 | 40.40 | 39.20 | 35.75 | 41.43 | | 0817 |
| MW-SF-10 | 4 | | | | | Dry | DRY | DRY | DRY | 0.7 | 29.60 | | 0829 |
| MW-SF-11 | 4 | | | | | Ext. Pump | 37.42 | 39.56 | 40.05 | 35.91 | 43.81 | | 1221 |
| MW-SF-12 | 4 | | | | | Ext. Pump | 36.78 | 39.03 | 39.45 | 35.12 | 43.93 | | 1148 |
| MW-SF-13 | 4 | | | | | 32.44 | 35.16 | 34.72 | 34.20 | 30.40 | 39.23 | | 1225 |
| MW-SF-14 | 4 | | | | | Ext. Pump | 35.25 | 36.21 | DRY | 35.40 | 35.71 | | 0927 |
| MW-SF-15 | 4 | | | | | 36.63 | 37.90 | 39.70 | 39.56 | 35.39 | 44.06 | | 0906 |
| MW-SF-16 | 4 | | | | | Ext. Pump | 34.56 | 39.60 | 39.35 | 35.20 | 39.67 | | 0820 |
| MW-SF-2 | 4 | | | | | Ext. Pump | 36.32 | 39.27 | 39.60 | 35.78 | 42.48 | | 0913 |
| MW-SF-3 | 4 | | | | | 34.52 | 35.18 | 39.43 | 39.40 | 35.15 | - | | - |
| MW-SF-4 | 4 | | | | | 37.70 | 38.12 | 40.80 | 41.05 | 36.67 | 41.99 | | 0834 |
| MW-SF-5 | 6 | | | | | 36.05 | 36.82 | DRY | DRY | 36.88 | 37.65 | | 0931 |
| MW-SF-6 | 6 | | | | | 33.23 | 34.28 | 38.10 | 38.45 | 34.03 | 41.23 | ✓ | 0918 |

Ext Pump

NORWALK WELL GAUGING DATA

TECHNICIAN: Ben S. DATE: 4.17.17 CLIENT KMEP

| Well ID | Well Size (in.) | Sheen / Odor | Depth to Immiscible Liquid (ft.) | Thickness of Immiscible Liquid (ft.) | Last Events SPH Thickness | Depth to water (ft.) 2Q15 | Depth to water (ft.) 4Q15 | Depth to water (ft.) 2Q16 | Depth to water (ft.) 4Q16 | Depth to water (ft.) | Depth to well bottom (ft.) | Survey Point: TOB or TOC | Time |
|---------|-----------------|-----------------|----------------------------------|--------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------|----------------------------|--------------------------|------|
| MW-SF-9 | 4 | - well buried - | | | | 36.69 | 31.44 | 34.14 | unable to access | | | | |
| PW-1 | 4 | | | | | Dry | DRY | | DRY | Dry | 28.16 | | 1324 |
| PW-2 | 4 | | | | | Dry | DRY | | DRY | Dry | 25.86 | | 1318 |
| PW-3 | 4 | | | | | 30.62 | 31.08 | | 33.23 | 31.60 | 50.02 | | 1009 |
| PZ-10 | 3 | | | | | 30.72 | 31.42 | DRY | DRY | Dry | 28.32 | | 0840 |
| PZ-2 | 4 | | | | | 30.48 | 31.18 | 34.72 | 34.67 | 31.13 | 48.83 | | 0955 |
| PZ-5 | 4 | | | | | 29.66 | 30.50 | | 31.00 | 30.07 | 37.75 | | BSL |
| VEW-1 | 4 | | | | | Dry | DRY | | DRY | Dry | 12.34 | | 0910 |
| VEW-2 | 4 | | | | | Dry | DRY | | DRY | Dry | 26.97 | | 0825 |
| WCW-1 | 4 | | | | | 29.08 | 29.90 | | 31.50 | 31.00 | 53.10 | | 1125 |
| WCW-10 | 4 | | | | | 29.27 | 30.00 | | 31.81 | 32.13 | 55.20 | | 1030 |
| WCW-11 | 4 | | | | | 31.19 | 32.02 | | 33.31 | 33.65 | 59.90 | | 0930 |
| WCW-12 | 4 | | | | | 32.62 | 33.32 | | 39.60 | 35.00 | 60.20 | | 0935 |
| WCW-13 | 4 | | | | | 34.10 | 34.75 | | 36.03 | 36.83 | 60.53 | | 0905 |
| WCW-14 | 4 | | | | | 35.09 | 35.71 | | 36.70 | 37.40 | 58.60 | | 0840 |
| WCW-2 | 4 | | | | | 32.84 | 32.52 | | 33.60 | 33.62 | 52.40 | | 0922 |
| WCW-3 | 4 | | | | | 32.40 | 33.38 | | 34.35 | 34.70 | 50.61 | | 0915 |
| WCW-4 | 4 | | | | | 34.52 | 35.10 | | 36.10 | 36.61 | 50.54 | | 0830 |
| WCW-5 | 4 | | | | | 29.93 | 30.77 | | 32.20 | 31.21 | 50.22 | | 1108 |
| WCW-6 | 4 | | | | | 32.08 | 32.82 | | 34.00 | 33.51 | 51.05 | | 1000 |
| WCW-7 | 4 | | | | | 33.22 | 34.05 | | 34.22 | 33.70 33.55 | | | 1100 |
| WCW-8 | 4 | | | | | 34.05 | 34.78 | | 35.70 | 36.00 | 51.51 | | 0835 |
| WCW-9 | 4 | | | | | 33.92 | 34.91 | | 35.29 | 35.10 | 52.03 | | 1050 |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|---------------------------------|--|
| Project #: <u>170417 - BNI</u> | Client: <u>KMEP</u> |
| Sampler: <u>N</u> | Start Date: <u>04-19-17</u> |
| Well I.D.: <u>EXP-4</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>115.90</u> | Depth to Water: Pre: <u>61.41</u> Post: <u>61.43</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0907 Flow Rate: 50 mL/min Pump Depth: 80

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--|----------------|
| 0910 | 20.5 | 7.35 | 1334 | 5 | 1.21 | 97.2 | 1500 | 61.43 |
| 0913 | 20.5 | 7.33 | 1335 | 3 | 1.30 | 91.1 | 3000 | 61.43 |
| 0916 | 20.6 | 7.33 | 1337 | 3 | 1.26 | 85.4 | 4500 | 61.43 |
| 0919 | 20.6 | 7.33 | 1339 | 4 | 1.25 | 84.6 | 6000 | 61.43 |
| 0922 | 20.6 | 7.32 | 1340 | 3 | 1.23 | 83.1 | 7500 | 61.43 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>7.5</u> |
| Sampling Time: <u>0924</u> | Sampling Date: <u>04-19-17</u> |
| Sample I.D.: <u>EXP-4</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>see C.O.C</u> |
| Equipment Blank I.D.: <u>@</u> Time | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|---------------------------------|--|
| Project #: <u>170417-BN1</u> | Client: <u>KMEP</u> |
| Sampler: <u>N</u> | Start Date: <u>04-19-17</u> |
| Well I.D.: <u>EXP-5</u> | Well Diameter: 2 3 <u>4</u> 6 8 _____ |
| Total Well Depth: <u>113.21</u> | Depth to Water: Pre: <u>54.26</u> Post: <u>54.26</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVO</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0820 Flow Rate: 500 mL/min Pump Depth: 95

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|-------------|---------------------|-------------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| <u>0823</u> | <u>21.4</u> | <u>7.44</u> | <u>928</u> | <u>0.2</u> | <u>1.13</u> | <u>47.3</u> | <u>1500</u> | <u>54.26</u> |
| <u>0826</u> | <u>21.5</u> | <u>7.42</u> | <u>928</u> | <u>0.5</u> | <u>1.07</u> | <u>41.7</u> | <u>3000</u> | <u>54.26</u> |
| <u>0829</u> | <u>21.6</u> | <u>7.37</u> | <u>927</u> | <u>0.4</u> | <u>0.98</u> | <u>33.3</u> | <u>4500</u> | <u>54.26</u> |
| <u>0832</u> | <u>21.6</u> | <u>7.35</u> | <u>927</u> | <u>0.4</u> | <u>0.95</u> | <u>30.9</u> | <u>6000</u> | <u>54.26</u> |
| <u>0835</u> | <u>21.7</u> | <u>7.34</u> | <u>925</u> | <u>0.5</u> | <u>0.92</u> | <u>29.3</u> | <u>7500</u> | <u>54.26</u> |
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| Did well dewater? Yes <input checked="" type="radio"/> No <input type="radio"/> | Amount actually evacuated: <u>7.5</u> |
| Sampling Time: <u>0837</u> | Sampling Date: <u>04-19-17</u> |
| Sample I.D.: <u>EXP-5</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: <u>@</u> Time | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 1704 | Client: KMEP |
| Sampler: DF | Start Date: 4/18/17 |
| Well I.D.: WCV-2 | Well Diameter: 2 3 ④ 6 8 |
| Total Well Depth: 52.33 | Depth to Water: Pre: 33.92 Post: 34.13 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0811 Flow Rate: 300 mL/min Pump Depth: 40'

| Time | Temp. (C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0814 | 20.9 | 7.56 | 2174 | 38 | 1.70 | -260.3 | 900 | 33.99 |
| 0817 | 21.7 | 7.50 | 2378 | 32 | 1.53 | -269.9 | 1800 | 34.07 |
| 0820 | 21.7 | 7.48 | 2525 | 24 | 1.11 | -288.8 | 2700 | 34.10 |
| 0823 | 21.9 | 7.45 | 2585 | 22 | 1.09 | -283.4 | 3600 | 34.13 |
| 0826 | 21.9 | 7.44 | 2599 | 21 | 1.06 | -281.6 | 4500 | 34.13 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 4500 mL |
| Sampling Time: 0828 | Sampling Date: 4/18/17 |
| Sample I.D.: WCV-2 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: SEE COC |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 1704 | Client: KMEP |
| Sampler: DF | Start Date: 4/18/17 |
| Well I.D.: WCW-03 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 50.50 | Depth to Water: Pre: 34.74 Post: 34.76 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0847 Flow Rate: 300 ml/min Pump Depth: 42'

| Time | Temp. (<u>C</u> or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>mL</u>) | Depth to water |
|------|----------------------------|------|-----------------------------------|---------------------|----------------|-------------|--|----------------|
| 0850 | 22.1 | 7.60 | 2206 | 12 | 1.57 | -229.3 | 900 | 34.75 |
| 0853 | 22.8 | 7.44 | 2215 | 10 | 1.08 | -248.6 | 1800 | 34.74 |
| 0856 | 23.3 | 7.40 | 2239 | 6 | 0.75 | -259.8 | 2200 | 34.74 |
| 0859 | 23.7 | 7.35 | 2248 | 4 | 0.48 | -263.3 | 3600 | 34.74 |
| 0902 | 23.8 | 7.33 | 2263 | 3 | 0.46 | -268.8 | 4500 | 34.74 |
| 0905 | 23.8 | 7.32 | 2264 | 3 | 0.43 | -269.9 | 5400 | 34.76 |
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| Did well dewater? Yes No | Amount actually evacuated: 5400 ml |
| Sampling Time: 0907 | Sampling Date: 4/18/17 |
| Sample I.D.: WCW-3 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See COE |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 1704 -BN1 | Client: KMEP |
| Sampler: DF | Start Date: 4/18/17 |
| Well I.D.: WCN-4 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 50.54 | Depth to Water: Pre: 36.72 Post: 37.14 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>RVS</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0937 Flow Rate: 300 ml/min Pump Depth: 42'

| Time | Temp. (<u>C</u> or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to water |
|------|----------------------------|------|-----------------------------------|---------------------|----------------|-------------|--|----------------|
| 0940 | 23.1 | 7.69 | 3295 | 57 | 2.22 | -201.7 | 900 | 36.95 |
| 0943 | 23.8 | 7.61 | 3280 | 51 | 2.03 | -219.8 | 1800 | 36.99 |
| 0946 | 24.1 | 7.53 | 3257 | 48 | 2.00 | -229.9 | 2700 | 37.04 |
| 0949 | 24.2 | 7.51 | 3250 | 41 | 1.75 | -236.9 | 3600 | 37.08 |
| 0952 | 24.2 | 7.49 | 3247 | 40 | 1.69 | -238.1 | 4500 | 37.12 |
| 0955 | 24.4 | 7.48 | 3245 | 36 | 1.61 | -247.3 | 5400 | 37.12 |
| 0958 | 24.3 | 7.49 | 3249 | 37 | 1.58 | -253.6 | 6300 | 37.14 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 6300 ml |
| Sampling Time: 1000 | Sampling Date: 4/18/17 |
| Sample I.D.: WCN-4 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: SEE EOC |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|----------------------------------|--|
| Project #: <u>170417-BN1</u> | Client: <u>KMEP</u> |
| Sampler: <u>NV</u> | Start Date: <u>04-19-17</u> |
| Well I.D.: <u>WCW-5</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>50.22</u> | Depth to Water: Pre: <u>31.21</u> Post: <u>31.53</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>(NO)</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1002 Flow Rate: 500 mL/min Pump Depth: 42

| Time | Temp. (<u>C</u> or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to water |
|-------------|----------------------------|-------------|--------------------------------------|---------------------|----------------|--------------|--|----------------|
| <u>1005</u> | <u>24.6</u> | <u>7.22</u> | <u>2536</u> | <u>17</u> | <u>0.88</u> | <u>117.1</u> | <u>900</u> | <u>31.43</u> |
| <u>1008</u> | <u>24.5</u> | <u>7.20</u> | <u>2542</u> | <u>15</u> | <u>0.88</u> | <u>109.2</u> | <u>1800</u> | <u>31.47</u> |
| <u>1011</u> | <u>24.6</u> | <u>7.19</u> | <u>2542</u> | <u>14</u> | <u>0.81</u> | <u>103.7</u> | <u>2700</u> | <u>31.49</u> |
| <u>1014</u> | <u>24.6</u> | <u>7.19</u> | <u>2541</u> | <u>15</u> | <u>0.80</u> | <u>102.5</u> | <u>3600</u> | <u>31.51</u> |
| <u>1017</u> | <u>24.6</u> | <u>7.18</u> | <u>2540</u> | <u>15</u> | <u>0.79</u> | <u>100.9</u> | <u>4500</u> | <u>31.53</u> |
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| Did well dewater? Yes <input type="checkbox"/> <u>(NO)</u> | Amount actually evacuated: <u>4.5</u> |
| Sampling Time: <u>1018</u> | Sampling Date: <u>04-19-17</u> |
| Sample I.D.: <u>WCW-5</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 170417-BN1 | Client: KMEP |
| Sampler: <i>NV</i> | Start Date: 04-19-17 |
| Well I.D.: <i>WCW-6</i> | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 51.05 | Depth to Water: Pre: 33.51 Post: 34.00 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <i>PVC</i> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1151 Flow Rate: 300 mL/min Pump Depth: 40'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1154 | 24.4 | 6.99 | 2894 | 39 | 0.54 | -68.8 | 900 | 53.96 |
| 1157 | 23.8 | 7.03 | 2892 | 35 | 0.48 | -81.5 | 1800 | 53.99 |
| 1200 | 23.8 | 7.05 | 2890 | 20 | 0.40 | -83.4 | 2700 | 34.00 |
| 1203 | 23.9 | 7.04 | 2888 | 19 | 0.42 | -84.3 | 3600 | 34.00 |
| 1206 | 23.9 | 7.05 | 2887 | 19 | 0.44 | -85.1 | 4500 | 34.00 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 4.5 L |
| Sampling Time: 1208 | Sampling Date: 04-19-17 |
| Sample I.D.: <i>WCW-6</i> | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: <i>See C.O.C</i> |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>170417-BN1</u> | Client: <u>KMEP</u> |
| Sampler: <u>NV</u> | Start Date: <u>04-19-17</u> |
| Well I.D.: <u>WCW-7</u> | Well Diameter: 2. 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>33.55</u> | Depth to Water: Pre: <u>38.53</u> Post: <u>33.55</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVE</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump ~~Peristaltic Pump~~ ~~Bladder Pump~~
 Sampling Method: Dedicated Tubing ~~New Tubing~~ ~~Other _____~~

Start Purge Time: _____ Flow Rate: 300ml/min Pump Depth: 45

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|----|------------------------------|---------------------|-------------------|-------------|--------------------------------|-----------------------------|
| | | | <u>well</u> | <u>is</u> | <u>Dry</u> | | | <u>34.26</u> ^(S) |
| | | | | | | | | <u>34.17</u> ^(S) |
| | | | <u>Dropped</u> | <u>Bailer</u> | <u>to confirm</u> | | | <u>34.17</u> ^(S) |
| | | | <u>No</u> | <u>Sample</u> | <u>taken</u> | | | |
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| Did well dewater? Yes No | Amount actually evacuated: |
| Sampling Time: | Sampling Date: <u>04-19-17</u> |
| Sample I.D.: <u>WCW-7</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.D.C</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 170417-BN1 | Client: KMEP |
| Sampler: <i>NV</i> | Start Date: 04-19-17 |
| Well I.D.: WCCW-8 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 51.51 | Depth to Water: Pre: 36.00 Post: 36.47 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1040 Flow Rate: 300 mL/min Pump Depth: 45

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1043 | 23.8 | 7.12 | 2770 | 48 | 0.17 | -85.2 | 900 | 36.44 |
| 1046 | 24.1 | 7.11 | 2771 | 46 | 0.18 | -88.8 | 1800 | 36.46 |
| 1049 | 24.2 | 7.11 | 2773 | 47 | 0.20 | -93.8 | 2700 | 36.47 |
| 1052 | 24.2 | 7.11 | 2772 | 46 | 0.22 | -95.0 | 3600 | 36.47 |
| 1055 | 24.3 | 7.12 | 2774 | 45 | 0.21 | -97.3 | 4500 | 36.47 |
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Did well dewater? Yes No Amount actually evacuated: 4.5 L

Sampling Time: 1057 Sampling Date: 04-19-17

Sample I.D.: WCCW-8 Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MTBE Other: see C.O.C

Equipment Blank I.D.: @ _____ Time Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

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|---|--|
| Project #: <u>170417-BN1</u> | Client: KMEP |
| Sampler: <u>NV</u> | Start Date: <u>04-19-17</u> |
| Well I.D.: <u>WCW-12</u> | Well Diameter: 2 3 <u>4</u> 6 8 _____ |
| Total Well Depth: <u>49.85</u> <u>60.20</u> | Depth to Water: Pre: <u>34.88</u> Post: <u>35.36</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 12:36 Flow Rate: 300 mL/min Pump Depth: 40

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>liters</u>) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--|----------------|
| 1239 | 23.7 | 7.35 | 2166 | 71000 | 0.10 | -89.7 | 900 | 35.28 |
| 1242 | 24.5 | 7.33 | 2169 | 71000 | 0.07 | -95.4 | 1800 | 35.32 |
| 1245 | 24.5 | 7.33 | 2173 | 71000 | 0.10 | -100.1 | 2700 | 35.35 |
| 1248 | 23.9 | 7.33 | 2173 | 71000 | 0.12 | -103.2 | 3600 | 35.36 |
| 1251 | 23.8 | 7.32 | 2172 | 71000 | 0.11 | -104.7 | 4500 | 35.36 |
| 1254 | 23.7 | 7.32 | 2172 | 71000 | 0.11 | -107.1 | 5400 | 35.36 |
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| Did well dewater? Yes <u>No</u> | Amount actually evacuated: <u>5.4 L</u> |
| Sampling Time: <u>12:56</u> | Sampling Date: <u>04-19-17</u> |
| Sample I.D.: <u>WCW-12</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: <u>@</u> | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: 1704 BNI | Client: KMEP |
| Sampler: DF | Start Date: 4/18/17 |
| Well I.D.: W CW-13 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 60.52 60.53 | Depth to Water: Pre: 36.49 Post: 36.64 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1015 Flow Rate: 300 mL/min Pump Depth: 50

| Time | Temp. (Cor °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to water |
|------|-------------------|------|--------------------------------------|---------------------|----------------|-------------|--|----------------|
| 1018 | 23.6 | 7.85 | 2088 | 45 | 1.73 | -198.3 | 900 | 36.59 |
| 1021 | 23.7 | 7.71 | 1995 | 31 | 1.69 | -175.4 | 1800 | 36.63 |
| 1024 | 23.7 | 7.69 | 1980 | 30 | 1.62 | -171.2 | 2700 | 36.63 |
| 1027 | 23.8 | 7.67 | 1976 | 28 | 1.59 | -169.1 | 3600 | 36.64 |
| 1030 | 23.8 | 7.65 | 1971 | 27 | 1.55 | -160.9 | 4500 | 36.64 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 4500 |
| Sampling Time: 1032 | Sampling Date: 4/18/17 |
| Sample I.D.: W CW-13 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: <u>SEE LOG</u> |
| Equipment Blank I.D.: @ _____ | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: <u>170417-BN1</u> | Client: <u>KMEP</u> |
| Sampler: <u>N</u> | Start Date: <u>04-19-17</u> |
| Well I.D.: <u>WCW-14</u> | Well Diameter: 2 3 4 6 8 _____ |
| Total Well Depth: <u>58.60</u> | Depth to Water: Pre: <u>37.40</u> Post: <u>37.51</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVD</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1339 Flow Rate: 300 mL/min Pump Depth: 43

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1342 | 23.3 | 7.46 | 1890 | 58 | 1.82 | 100.1 | 900 | 37.46 |
| 1345 | 23.3 | 7.32 | 1886 | 27 | 1.68 | 99.6 | 1800 | 37.49 |
| 1348 | 23.6 | 7.29 | 1888 | 18 | 1.63 | 97.8 | 2700 | 37.51 |
| 1351 | 23.5 | 7.28 | 1888 | 17 | 1.45 | 96.9 | 3600 | 37.51 |
| 1354 | 23.4 | 7.28 | 1884 | 18 | 1.43 | 96.5 | 4500 | 37.51 |
| 1357 | 23.4 | 7.28 | 1884 | 18 | 1.42 | 96.2 | 5400 | 37.51 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>5.4 L</u> |
| Sampling Time: <u>1358</u> | Sampling Date: <u>04-19-17</u> |
| Sample I.D.: <u>WCW-14</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: <u>EB-4</u> @ <u>1417</u> Time | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: 170417.3~1 | Client: KMEP |
| Sampler: B~ | Start Date: 4.19.17 |
| Well I.D.: mw 6 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 52.04 | Depth to Water: Pre: 34.93 Post: 34.98 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>VD</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0730 Flow Rate: 300 ^{ml}/min Pump Depth: 47'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0733 | 21.69 | 7.31 | 2956 | 27 | 1.75 | -78.7 | 900 | 34.98 |
| 0736 | 22.23 | 7.53 | 3118 | 22 | 1.49 | -86.8 | 1,800 | 34.98 |
| 0739 | 22.32 | 7.58 | 3192 | 14 | 1.78 | -97.1 | 2,700 | 34.98 |
| 0742 | 22.34 | 7.53 | 3194 | 10 | 1.25 | -98.6 | 3,600 | 34.98 |
| 0745 | 23.38 | 7.50 | 3216 | 8 | 1.05 | -99.7 | 4,500 | 34.98 |
| 0748 | 23.40 | 7.50 | 3220 | 7 | 1.03 | -100.4 | 5,400 | 34.98 |
| 0751 | 23.41 | 7.50 | 3223 | 7 | 0.99 | -100.8 | 6,300 | 34.98 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 6,300 mL |
| Sampling Time: 0752 | Sampling Date: 4.19.17 |
| Sample I.D.: mw 6 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417.321 | Client: KMEP |
| Sampler: BN | Start Date: 4/19/17 |
| Well I.D.: MW.7 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 53.95 | Depth to Water: Pre: 35.26 Post: 35.34 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0811 Flow Rate: 300 mL/min Pump Depth: 49'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0814 | 21.73 | 7.41 | 3147 | 55 | 2.10 | -82.6 | 900 | 35.31 |
| 0817 | 22.79 | 7.36 | 3154 | 31 | 1.07 | -72.1 | 1,800 | 35.33 |
| 0820 | 22.83 | 7.33 | 3164 | 12 | 0.90 | -70.2 | 2,700 | 35.34 |
| 0823 | 22.86 | 7.30 | 3165 | 10 | 0.83 | -72.2 | 3,600 | 35.34 |
| 0826 | 22.87 | 7.29 | 3161 | 11 | 0.82 | -73.1 | 4,500 | 35.34 |
| 0829 | 22.89 | 7.28 | 3157 | 10 | 0.80 | -75.6 | 5,400 | 35.34 |
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Did well dewater? Yes No Amount actually evacuated: 5,400 mL

Sampling Time: 0830 Sampling Date: 4/19/17

Sample I.D.: MW.7 Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MTBE Other: See C.B.C.

Equipment Blank I.D.: @ _____ Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>40 170417.B21</u> | Client: <u>KMEP</u> |
| Sampler: <u>B21</u> | Start Date: <u>4.19.17</u> |
| Well I.D.: <u>MW-20 (MID)</u> | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: <u>56.35</u> | Depth to Water: Pre: <u>37.30</u> Post: <u>37.38</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>P/C</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0838 Flow Rate: 300 mL/min Pump Depth: 51'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0841 | 22.08 | 7.25 | 2725 | 9 | 2.25 | -87.9 | 900 | 37.36 |
| 0844 | 22.15 | 7.26 | 2711 | 8 | 2.02 | -89.1 | 1,800 | 37.38 |
| 0847 | 22.58 | 7.28 | 2687 | 5 | 1.60 | -91.8 | 2,700 | 37.38 |
| 0850 | 22.63 | 7.29 | 2681 | 5 | 1.43 | -92.0 | 3,600 | 37.38 |
| 0853 | 22.65 | 7.29 | 2674 | 5 | 1.37 | -91.5 | 4,500 | 37.38 |
| 0856 | 22.66 | 7.30 | 2679 | 5 | 1.39 | -91.9 | 5,400 | 37.38 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>5,400</u> |
| Sampling Time: <u>0857</u> | Sampling Date: <u>4.19.17</u> |
| Sample I.D.: <u>MW-20 (MID)</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 170417.BM | Client: KMEP |
| Sampler: BW | Start Date: 4.21.17 |
| Well I.D.: PW3 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 50.02 | Depth to Water: Pre: 31.60 Post: 31.65 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>RVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1012 Flow Rate: 300 ^{ml}/min Pump Depth: 45'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1015 | 22.82 | 7.40 | 2455 | 837 | 1.58 | -77.3 | 900 | 31.65 |
| 1018 | 22.78 | 7.36 | 2531 | 499 | 1.43 | -75.5 | 1,800 | 31.65 |
| 1021 | 22.84 | 7.34 | 2577 | 134 | 1.89 | -88.1 | 2,700 | 31.65 |
| 1024 | 22.87 | 7.33 | 2594 | 117 | 1.95 | -83.8 | 3,600 | 31.65 |
| 1027 | 22.84 | 7.35 | 2620 | 84 | 1.50 | -89.5 | 4,500 | 31.65 |
| 1030 | 23.83 | 7.36 | 2625 | 72 | 1.36 | -93.1 | 5,400 | 31.65 |
| 1033 | 23.82 | 7.37 | 2670 | 70 | 1.35 | -95.1 | 6,300 | 31.65 |
| 1036 | 23.82 | 7.37 | 2676 | 69 | 1.33 | -99.9 | 7,200 | 31.65 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 7.2L |
| Sampling Time: 1037 | Sampling Date: 4.21.17 |
| Sample I.D.: PW3 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417.B.M | Client: KMEP |
| Sampler: B _N | Start Date: 4.19.17 |
| Well I.D.: MW-19(MID) | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 61.81 | Depth to Water: Pre: 38.62 Post: 38.68 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 040'09" Flow Rate: 300 mL/min Pump Depth: 57'

| Time | Temp. (° or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0922 | 22.13 | 7.19 | 2438 | 8 | 1.60 | -63.3 | 900 | 38.67 |
| 0925 | 22.21 | 7.18 | 2456 | 7 | 1.38 | -62.7 | 1,800 | 38.68 |
| 0928 | 22.42 | 7.18 | 2467 | 6 | 1.10 | -63.1 | 2,700 | 38.68 |
| 0931 | 22.47 | 7.20 | 2455 | 4 | 0.96 | -63.9 | 3,600 | 38.68 |
| 0934 | 22.48 | 7.20 | 2413 | 4 | 0.87 | -63.2 | 4,500 | 38.68 |
| 0937 | 22.54 | 7.21 | 2407 | 4 | 0.76 | -63.4 | 5,400 | 38.68 |
| 0940 | 22.53 | 7.22 | 2406 | 4 | 0.75 | -63.6 | 6,300 | 38.68 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: 6,300 |
| Sampling Time: 0941 | Sampling Date: 4.19.17 |
| Sample I.D.: MW-19(MID) | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: <u>170417.13.1</u> | Client: <u>KMEP</u> |
| Sampler: <u>BN</u> | Start Date: <u>4.19.17</u> |
| Well I.D.: <u>MW 21 (MID)</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 <u> </u> |
| Total Well Depth: <u>61.97</u> | Depth to Water: Pre: <u>34.74</u> Post: <u>34.77</u> |
| Depth to Free Product: <u> </u> | Thickness of Free Product (feet): <u> </u> |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1002 Flow Rate: 300 ml/min Pump Depth: 57'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1005 | 22.65 | 8.01 | 2247 | 7 | 0.84 | -71.2 | 900 | 34.77 |
| 1008 | 23.21 | 7.71 | 2248 | 7 | 0.75 | -60.9 | 1,800 | 34.77 |
| 1011 | 23.24 | 7.68 | 2246 | 6 | 0.73 | -55.4 | 2,700 | 34.77 |
| 1014 | 23.26 | 7.59 | 2230 | 5 | 0.70 | -55.6 | 3,600 | 34.77 |
| 1017 | 23.26 | 7.57 | 2228 | 5 | 0.70 | -59.8 | 4,500 | 34.77 |
| 1020 | 23.26 | 7.54 | 2221 | 5 | 0.69 | -60.5 | 5,400 | 34.77 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>5,400</u> |
| Sampling Time: <u>1021</u> | Sampling Date: <u>4.19.17</u> |
| Sample I.D.: <u>MW 21 (MID)</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.L</u> |
| Equipment Blank I.D.: <u> </u> @ <u> </u> Time | Duplicate I.D.: <u>Dup 2</u> |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: 170417-BN1 | Client: KMEP |
| Sampler: DF | Start Date: 4/20/17 |
| Well I.D.: GMW-0-2 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 49.29 48.99 | Depth to Water: Pre: 30.17 Post: 30.28 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0845 Flow Rate: 500mL/min Pump Depth: 44

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0843 | 21.3 | 7.01 | 2533 | 10 | 1.18 | -38.7 | 1500 | 30.25 |
| 0846 | 21.5 | 7.00 | 2544 | 6 | 0.97 | -44.2 | 3000 | 30.27 |
| 0849 | 21.7 | 7.00 | 2547 | 5 | 0.86 | -48.6 | 4500 | 30.28 |
| 0852 | 21.7 | 7.00 | 2543 | 5 | 0.83 | -51.9 | 6000 | 30.28 |
| 0855 | 21.7 | 7.00 | 2544 | 4 | 0.81 | -53.4 | 7500 | 30.28 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 7.5L |
| Sampling Time: 0857 | Sampling Date: 4/20/17 |
| Sample I.D.: GMW-0-2 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: SEECOL |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>170417-BN1</u> | Client: <u>KMEP</u> |
| Sampler: <u>DF</u> | Start Date: <u>4/20/17</u> |
| Well I.D.: <u>GMW-0-3</u> | Well Diameter: 2 3 <u>4</u> 6 8 _____ |
| Total Well Depth: <u>47.90</u> | Depth to Water: Pre: <u>29.40</u> Post: <u>47.90</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>RVD</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0920 Flow Rate: 500ml/min Pump Depth: 40'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>mL</u>) | Depth to water |
|------|---------------------|------|-----------------------------------|---------------------|----------------|-------------|--|----------------|
| 0923 | 22.3 | 7.09 | 2693 | 10 | 0.40 | -100.3 | 1500 | 29.51 |
| 0926 | 22.4 | 7.04 | 2762 | 6 | 0.75 | -109.5 | 3000 | 29.53 |
| 0929 | 22.4 | 7.00 | 2758 | 6 | 0.70 | -111.4 | 4500 | 29.53 |
| 0932 | 22.6 | 7.00 | 2804 | 5 | 0.67 | -114.6 | 6000 | 29.53 |
| 0935 | 22.6 | 6.99 | 2828 | 5 | 0.64 | -116.1 | 7500 | 29.55 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: <u>7500</u> |
| Sampling Time: <u>0937</u> | Sampling Date: <u>4/20/17</u> |
| Sample I.D.: <u>GMW-0-3</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>SEE COC</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417-BN 1 | Client: KMEP |
| Sampler: AF | Start Date: 4/20/17 |
| Well I.D.: GMW-0.4 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 49.30 | Depth to Water: Pre: 28.90 Post: 29.02 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1027 Flow Rate: 500 mL/min Pump Depth: 44'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1030 | 22.4 | 7.14 | 3968 | 12 | 1.81 | -53.2 | 1500 | 28.98 |
| 1033 | 22.5 | 7.23 | 4175 | 10 | 1.23 | -59.4 | 3000 | 28.99 |
| 1036 | 22.3 | 7.21 | 4162 | 8 | 1.00 | -63.8 | 4500 | 29.02 |
| 1039 | 22.3 | 7.17 | 4153 | 8 | 0.91 | -68.8 | 6000 | 29.02 |
| 1042 | 22.4 | 7.13 | 4169 | 7 | 0.88 | -73.9 | 7500 | 29.02 |
| 1045 | 22.4 | 7.11 | 4168 | 7 | 0.86 | -78.2 | 9000 | 29.02 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 9000 |
| Sampling Time: 1047 | Sampling Date: 4/20/17 |
| Sample I.D.: GMW-0.4 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: SE COC |
| Equipment Blank I.D.: @ | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: 170417-BN1 | Client: KMEP |
| Sampler: DF | Start Date: 4/20/17 |
| Well I.D.: GMW-0.5 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 48.9 49.10 | Depth to Water: Pre: 29.25 Post: 29.29 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1215 Flow Rate: 500 mL/min Pump Depth: 44

| Time | Temp. (C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1218 | 21.9 | 7.00 | 1589 | 10 | 1.51 | -48.9 | 1500 | 29.29 |
| 1221 | 22.4 | 7.09 | 1580 | 7 | 1.02 | -59.3 | 3000 | 29.29 |
| 1224 | 22.6 | 7.11 | 1573 | 6 | 0.67 | -81.2 | 4500 | 29.29 |
| 1227 | 22.6 | 7.13 | 1569 | 6 | 0.62 | -88.8 | 6000 | 29.29 |
| 1230 | 22.7 | 7.13 | 1555 | 5 | 0.59 | -93.6 | 7500 | 29.29 |
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| Did well dewater? Yes No | Amount actually evacuated: 7500 |
| Sampling Time: 1232 | Sampling Date: 4/20/17 |
| Sample I.D.: GMW-0.5 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.R. |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417-BN1 | Client: KMEP |
| Sampler: DP | Start Date: 4/20/17 |
| Well I.D.: GMW-0-9 | Well Diameter: 2 3 ④ 6 8 |
| Total Well Depth: 49.98 | Depth to Water: Pre: 31.16 Post: 31.24 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1356 Flow Rate: 500 mL/min Pump Depth: 45'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1359 | 21.9 | 7.07 | 1579 | 17 | 1.27 | -64.7 | 1500 | 31.19 |
| 1402 | 22.2 | 7.00 | 1636 | 8 | 1.11 | -53.2 | 3000 | 31.24 |
| 1405 | 22.4 | 6.95 | 1648 | 5 | 1.09 | -41.5 | 4500 | 31.24 |
| 1408 | 22.4 | 6.93 | 1666 | 5 | 1.07 | -38.0 | 6000 | 31.24 |
| 1411 | 22.5 | 6.91 | 1669 | 4 | 1.05 | -32.2 | 7500 | 31.24 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 7500 mL |
| Sampling Time: 1413 | Sampling Date: 4/20/17 |
| Sample I.D.: GMW-0-9 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: Free PCB |
| Equipment Blank I.D.: EB-6 @ Time 1435 | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 190417-BN1 | Client: KMEP |
| Sampler: DF | Start Date: 4/21/17 |
| Well I.D.: GMW-0.10 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 50.07 | Depth to Water: Pre: 31.35 Post: 31.48 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1145 Flow Rate: 500 mL/min Pump Depth: 45'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1148 | 24.0 | 7.15 | 2975 | 20 | 0.79 | -69.7 | 1500 | 31.45 |
| 1151 | 24.2 | 7.10 | 3432 | 17 | 0.61 | -85.3 | 3000 | 31.46 |
| 1154 | 24.2 | 7.02 | 3306 | 16 | 0.53 | -92.9 | 4500 | 31.48 |
| 1157 | 24.4 | 6.95 | 3275 | 13 | 0.43 | -111.1 | 6000 | 31.48 |
| 1200 | 24.4 | 6.92 | 3228 | 12 | 0.39 | -113.9 | 7500 | 31.48 |
| 1203 | 24.3 | 6.91 | 3215 | 12 | 0.37 | -118.6 | 9000 | 31.48 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 9.0L |
| Sampling Time: 1205 | Sampling Date: 4/21/17 |
| Sample I.D.: GMW-0.10 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See COC |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417-BN1 | Client: KMEP |
| Sampler: DF | Start Date: 4/20/17 |
| Well I.D.: GMW-0-1 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 49.20 | Depth to Water: Pre: 29.43 Post: 29.51 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1259 Flow Rate: 500ml/min Pump Depth: 44'

| Time | Temp. (C or F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|-------------------|------|-----------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1302 | 22.6 | 6.90 | 3105 | 7 | 1.78 | -69.6 | 1500 | 29.50 |
| 1305 | 22.8 | 6.85 | 3084 | 6 | 2.60 | -75.3 | 3000 | 29.51 |
| 1308 | 22.8 | 6.82 | 3071 | 6 | 1.40 | -78.8 | 4500 | 29.57 |
| 1311 | 22.9 | 6.81 | 3067 | 4 | 1.27 | -81.9 | 6000 | 29.57 |
| 1314 | 22.9 | 6.81 | 3059 | 4 | 1.25 | -84.1 | 7500 | 29.57 |
| 1317 | 22.9 | 6.79 | 3055 | 4 | 1.21 | -86.3 | 9000 | 29.57 |
| 1320 | 22.9 | 6.78 | 3052 | 4 | 1.20 | -85.5 | 10,500 | 29.51 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 10,500 mL |
| Sampling Time: 1322 | Sampling Date: 4/20/17 |
| Sample I.D.: GMW-0-1 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See Q.O.C. |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---|---|
| Project #: 170417-BN1 | Client: KMEP |
| Sampler: Df | Start Date: 4/21/17 |
| Well I.D.: GMW-0.24 | Well Diameter: 2 3 <input checked="" type="radio"/> 6 8 |
| Total Well Depth: 45.14 | Depth to Water: Pre: 30.88 Post: 31.10 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <input checked="" type="radio"/> PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Ground Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0905 Flow Rate: 400ml/min Pump Depth: 40

| Time | Temp. (<input checked="" type="radio"/> °C or °F) | pH | Cond. (mS/cm or <input checked="" type="radio"/> µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <input checked="" type="radio"/> mL) | Depth to water |
|-----------------|---|------|--|---------------------|----------------|-------------|---|---------------------|
| 0908 | 19.9 | 7.13 | 1865 | 25 | 0.99 | -47.2 | 1200 | 30.99 |
| 0911 | 20.5 | 7.09 | 1900 | 19 | 0.88 | -46.0 | 2400 | 30 31.08 |
| 0914 | 21.0 | 7.05 | 1914 | 12 | 0.81 | -41.3 | 3600 | 31.10 |
| 0917 | 21.2 | 7.01 | 1923 | 12 | 0.78 | -38.2 | 4800 | 31.10 |
| 0920 | 21.2 | 6.99 | 1936 | 11 | 0.75 | -35.6 | 6000 | 31.10 |
| 0925 | | | | | | | | |
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| Did well dewater? Yes <input checked="" type="radio"/> No | Amount actually evacuated: 6000 |
| Sampling Time: 0922 | Sampling Date: 4/17/17 |
| Sample I.D.: GMW-0.24 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See Lab C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: Dup-3 |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: 170417-BN1 | Client: KMEP |
| Sampler: # DF | Start Date: 4/21/17 |
| Well I.D.: Gmw. 0.17 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 39.79 46.00 | Depth to Water: Pre: 30.03 Post: 30.13 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: (PVC) Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1051 Flow Rate: 500 mL/min Pump Depth: 34'

| Time | Temp. (C or F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|-------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1054 | 22.3 | 7.09 | 2121 | 27 | 2.13 | -86.3 | 1500 | 30.09 |
| 1057 | 23.7 | 7.06 | 2329 | 23 | 1.17 | -60.4 | 3000 | 30.11 |
| 1100 | 23.8 | 7.02 | 2456 | 21 | 0.95 | -57.1 | 4500 | 30.11 |
| 1103 | 23.9 | 7.02 | 2469 | 20 | 0.92 | -52.6 | 6000 | 30.11 |
| 1106 | 23.9 | 7.02 | 2478 | 20 | 0.90 | -48.8 | 7500 | 30.13 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 7500 |
| Sampling Time: 1108 | Sampling Date: 4/21/17 |
| Sample I.D.: Gmw. 0.17 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: Sec C.O.C |
| Equipment Blank I.D.: @ | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 170417BW-1 | Client: KMEP |
| Sampler: <i>N</i> | Start Date: 04-18-17 |
| Well I.D.: GMW-13 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 49.57 | Depth to Water: Pre: 30.92 Post: 31.28 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0941 Flow Rate: 500 mL/min Pump Depth: 45

| Time | Temp. (<u>C</u> or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to water |
|------|----------------------------|------|------------------------------|---------------------|----------------|-------------|--|----------------|
| 0844 | 21.9 | 7.35 | 609 | 76 | 0.75 | 59.4 | 1500 | 31.24 |
| 0847 | 22.3 | 7.47 | 534 | 149 | 0.46 | 46.1 | 3000 | 31.26 |
| 0850 | 22.2 | 7.49 | 519 | 110 | 0.43 | 44.7 | 4500 | 31.27 |
| 0853 | 22.1 | 7.49 | 503 | 103 | 0.40 | 40.2 | 6000 | 31.27 |
| 0856 | 22.3 | 7.50 | 501 | 82 | 0.40 | 35.8 | 6500 | 31.28 |
| 0859 | 22.4 | 7.50 | 497 | 80 | 0.38 | 34.0 | 8000 | 31.28 |
| 0902 | 22.4 | 7.50 | 495 | 79 | 0.37 | 33.4 | 9500 | 31.28 |
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| Did well dewater? Yes <u>No</u> | Amount actually evacuated: 9.5 L |
| Sampling Time: 0903 | Sampling Date: 04-18-17 |
| Sample I.D.: GMW-13 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417.B~1 | Client: KMEP |
| Sampler: B~ | Start Date: 4.18.17 |
| Well I.D.: 6mw37 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 53.48 | Depth to Water: Pre: 33.68 Post: 33.75 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0820 Flow Rate: 300 ^{ml}/min Pump Depth: 48'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|---------------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0823 | 21.91 | 6.94 | 1135 | 36 | 1.60 | -117.2 | 900 | 33.74 |
| 0826 | 22.36 | 7.08 | 1053 | 30 | 1.05 | -124.7 | 1,800 | 33.75 |
| 0829 | 22.54 | 7.12 | 1067 | 24 | 0.81 | -123.8 | 2,700 | 33.75 |
| 0832 | 22.70 | 7.13 | 1071 | 22 | 0.78 | -148.9 | 3,600 | 33.75 |
| 0835 | 22.73 | 7.14 | 1071 | 20 | 0.77 | -147.2 | 4,500 | 33.75 |
| 0838 | 22.74 22.74 | 7.16 | 1074 | 21 | 0.75 | -145.0 | 5,400 | 33.75 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 5,400 |
| Sampling Time: 0839 | Sampling Date: 4.18.17 |
| Sample I.D.: 6mw37 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ _____ | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|-------------------------------|--|
| Project #: 170417 BN-1 | Client: KMEP |
| Sampler: <i>✓</i> | Start Date: 04-18-17 |
| Well I.D.: GMW-38 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 52.89 | Depth to Water: Pre: 31.83 Post: 32.08 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>✓</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0925 Flow Rate: 500 mL/min Pump Depth: 45

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0928 | 22.4 | 7.44 | 806 | 10 | 2.65 | 85.3 | 1500 | 32.02 |
| 0931 | 22.6 | 7.43 | 807 | 12 | 2.73 | 83.6 | 3000 | 32.05 |
| 0934 | 22.7 | 7.42 | 806 | 11 | 2.92 | 81.7 | 4500 | 32.07 |
| 0937 | 22.6 | 7.41 | 806 | 10 | 2.41 | 81.3 | 6000 | 32.08 |
| 0940 | 22.6 | 7.41 | 805 | 10 | 2.40 | 81.2 | 7500 | 32.08 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: 7.5 L |
| Sampling Time: 0942 | Sampling Date: 04-18-17 |
| Sample I.D.: GMW-38 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ _____ Time | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|-----------------------------------|--|
| Project #: <u>170417-001</u> | Client: <u>KMEP</u> |
| Sampler: <u>W</u> | Start Date: <u>04-18-17</u> |
| Well I.D.: <u>GMW-39</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>50.53</u> | Depth to Water: Pre: <u>31.57</u> Post: <u>31.65</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>(PVE)</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1006 Flow Rate: 300 mL/min Pump Depth: 45.5

| Time | Temp. (<u>C</u> or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to water |
|------|----------------------------|------|------------------------------|---------------------|----------------|-------------|--|----------------|
| 1009 | 21.5 | 7.60 | 830 | 14 | 2.71 | 98.5 | 900 | 31.63 |
| 1012 | 21.6 | 7.43 | 835 | 10 | 2.47 | 97.0 | 1800 | 31.64 |
| 1015 | 21.9 | 7.40 | 837 | 8 | 1.97 | 95.7 | 2700 | 31.64 |
| 1018 | 22.0 | 7.38 | 842 | 8 | 1.87 | 92.9 | 3600 | 31.65 |
| 1021 | 22.1 | 7.38 | 844 | 7 | 1.85 | 91.0 | 4500 | 31.65 |
| 1024 | 22.1 | 7.37 | 845 | 8 | 1.84 | 89.1 | 6000 | 31.65 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>6.0 L</u> |
| Sampling Time: <u>1025</u> | Sampling Date: <u>04-18-17</u> |
| Sample I.D.: <u>GMW-39</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>170417.3M</u> | Client: <u>KMEP</u> |
| Sampler: <u>BM</u> | Start Date: <u>4.18.17</u> |
| Well I.D.: <u>GMW-5F.7</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>43.23</u> | Depth to Water: Pre: <u>31.47</u> Post: <u>31.53</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0849 Flow Rate: 300^{ml} min Pump Depth: 38'

| Time | Temp. (<u>C</u> or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>mls</u>) | Depth to water |
|------|----------------------------|------|--------------------------------------|---------------------|----------------|-------------|---|----------------|
| 0852 | 19.56 | 6.97 | 841 | 11 | 1.79 | -75.0 | 900 | 31.52 |
| 0855 | 19.67 | 6.83 | 735 | 10 | 1.13 | -65.2 | 1,800 | 31.53 |
| 0858 | 19.94 | 6.81 | 734 | 8 | 0.85 | -59.7 | 2,700 | 31.53 |
| 0901 | 20.04 | 6.83 | 738 | 6 | 0.84 | -60.8 | 3,600 | 31.53 |
| 0904 | 20.06 | 6.83 | 738 | 6 | 0.85 | -61.7 | 4,500 | 31.53 |
| 0907 | 20.09 | 6.80 | 737 | 5 | 0.84 | -59.9 | 5,400 | 31.53 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>5,400 ml</u> |
| Sampling Time: <u>0908</u> | Sampling Date: <u>4.18.17</u> |
| Sample I.D.: <u>GMW-5F.7</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------------|--|
| Project #: 1704171321 | Client: KMEP |
| Sampler: B ₂ | Start Date: 4.18.17 |
| Well I.D.: 6-mw SF-8 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 43.66 | Depth to Water: Pre: 32.39 Post: 32.48 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PE</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0918 Flow Rate: 300 mL/min Pump Depth: 39

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0921 | 22.62 | 6.94 | 683 | 431 | 1.55 | -44.1 | 900 | 32.46 |
| 0924 | 22.96 | 6.94 | 688 | 247 | 1.06 | -44.6 | 1,800 | 32.48 |
| 0927 | 23.04 | 6.97 | 689 | 200 | 0.84 | -40.6 | 2,700 | 32.48 |
| 0930 | 23.06 | 7.00 | 687 | 43 | 0.78 | -34.2 | 3,600 | 32.48 |
| 0933 | 23.08 | 6.95 | 686 | 39 | 0.77 | -21.4 | 4,500 | 32.48 |
| 0936 | 23.10 | 6.97 | 686 | 37 | 0.74 | -25.4 | 5,400 | 32.48 |
| 0939 | 23.11 | 6.99 | 684 | 36 | 0.73 | -24.7 | 6,300 | 32.48 |
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|---|----------------------------------|
| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 6,300 |
| Sampling Time: 0940 | Sampling Date: 4.18.17 |
| Sample I.D.: 6-mw SF-8 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>170417.13M</u> | Client: <u>KMEP</u> |
| Sampler: <u>BV</u> | Start Date: <u>4.18.17</u> |
| Well I.D.: <u>MW-8</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 |
| Total Well Depth: <u>51.88</u> | Depth to Water: Pre: <u>32.21</u> Post: <u>32.28</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0952 Flow Rate: 300 mL/min Pump Depth: 47'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0955 | 21.86 | 7.31 | 1136 | 17 | 1.16 | -70.3 | 900 | 32.28 |
| 0958 | 22.34 | 7.25 | 1089 | 4 | 1.04 | -73.5 | 1,800 | 32.28 |
| 1001 | 22.36 | 7.25 | 1083 | 3 | 0.93 | -74.1 | 2,700 | 32.28 |
| 1004 | 22.44 | 7.24 | 1086 | 3 | 0.74 | -70.1 | 3,600 | 32.28 |
| 1007 | 22.47 | 7.28 | 1090 | 3 | 0.75 | -68.7 | 4,500 | 32.28 |
| 1010 | 22.47 | 7.28 | 1091 | 3 | 0.75 | -69.1 | 5,400 | 32.28 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>5,400 mL</u> |
| Sampling Time: <u>1011</u> | Sampling Date: <u>4.18.17</u> |
| Sample I.D.: <u>MW-8</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: <u>@</u> Time | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>170417-BN1</u> | Client: <u>KMEP</u> |
| Sampler: <u>NV</u> | Start Date: <u>04-18-17</u> |
| Well I.D.: <u>GMW-0-19</u> | Well Diameter: 2 3 <u>4</u> 6 8 _____ |
| Total Well Depth: <u>40.10</u> | Depth to Water: Pre: <u>30.94</u> Post: <u>31.22</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PTD</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1044 Flow Rate: 500 mL/min Pump Depth: 35'

| Time | Temp. (<u>°C</u> or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>ml</u>) | Depth to water |
|------|-----------------------------|------|------------------------------|---------------------|----------------|-------------|--|----------------|
| 1047 | 22.5 | 6.97 | 2008 | 11 | 0.15 | -127.9 | 1500 | 31.18 |
| 1050 | 22.5 | 6.97 | 2009 | 6 | 0.134 | -149.1 | 3000 | 31.20 |
| 1053 | 22.7 | 6.97 | 2010 | 3 | 0.123 | -156.0 | 4500 | 31.21 |
| 1056 | 22.8 | 6.97 | 2009 | 3 | 0.18 | -160.7 | 6000 | 31.21 |
| 1059 | 22.9 | 6.97 | 2009 | 3 | 0.17 | -163.4 | 7500 | 31.22 |
| 1102 | 22.9 | 6.98 | 2008 | 3 | 0.118 | -164.5 | 9000 | 31.22 |
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| Did well dewater? Yes <input type="checkbox"/> <u>No</u> | Amount actually evacuated: <u>9.0</u> |
| Sampling Time: <u>1104</u> | Sampling Date: <u>04-18-17</u> |
| Sample I.D.: <u>GMW-0-19</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417.13.1 | Client: KMEP |
| Sampler: B~ | Start Date: 4.18.17 |
| Well I.D.: G-MW-0-16 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 48.82 | Depth to Water: Pre: 30.49 Post: 30.55 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1029 Flow Rate: 300 ^{ml}/min Pump Depth: 43'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1032 | 23.46 | 7.85 | 1845 | 8 | 1.93 | -115.6 | 900 | 30.52 |
| 1035 | 23.72 | 8.10 | 1900 | 4 | 1.79 | -107.3 | 1,800 | 30.55 |
| 1038 | 24.01 | 7.63 | 1912 | 4 | 0.65 | -86.7 | 2,700 | 30.55 |
| 1041 | 24.09 | 7.58 | 1919 | 4 | 0.96 | -78.4 | 3,600 | 30.55 |
| 1044 | 24.13 | 7.55 | 1944 | 4 | 0.98 | -63.7 | 4,500 | 30.55 |
| 1047 | 24.14 | 7.55 | 1946 | 4 | 0.99 | -59.8 | 5,400 | 30.55 |
| 1050 | 24.16 | 7.54 | 1944 | 4 | 0.97 | -59.3 | 6,300 | 30.55 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 6,300 mL |
| Sampling Time: 1051 | Sampling Date: 4.18.17 |
| Sample I.D.: G-MW-0-16 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: Sea C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 17041713-1 | Client: KMEP |
| Sampler: B ^r | Start Date: 4.18.17 |
| Well I.D.: MW12 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 51.78 | Depth to Water: Pre: 32.97 Post: 33.03 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1145 Flow Rate: 300 ^{ml}/min Pump Depth: 47'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|-------------------------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1148 | 25.00 | 7.31 | 1148 | 12 | 2.73 | -1.9 | 900 | 33.02 |
| 1151 | 23.53 | 7.53 | 799 | 10 | 0.86 | -14.8 | 1,800 | 33.03 |
| 1154 | 23.53 | 7.41 | 793 | 9 | 0.85 | -21.0 | 2,700 | 33.03 |
| 1157 | 23.50 | 7.38 | 784 | 6 | 0.73 | -31.9 | 3,600 | 33.03 |
| 1200 | 23.51 | 7.22 | 816 | 5 | 0.83 | -34.3 | 4,500 | 33.03 |
| 1203 | 23.52 | 7.19 | 816 | 4 | 0.81 | -35.9 | 5,400 | 33.03 |
| 1206 1205 | 23.49 | 7.17 | 819 | 4 | 0.82 | -37.6 | 6,300 | 33.03 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: 6,300 mL |
| Sampling Time: 1207 | Sampling Date: 4.17.17 |
| Sample I.D.: MW12 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ Time | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---|--|
| Project #: 170417 - B.N.1 | Client: KMEP |
| Sampler: <i>NV</i> | Start Date: 04-18-17 |
| Well I.D.: HL-2 | Well Diameter: 2 3 4 6 8 <u> </u> |
| Total Well Depth: 39.16 | Depth to Water: Pre: 34.45 Post: 34.51 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <input checked="" type="radio"/> PVC <input type="radio"/> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1214 Flow Rate: 300 mL/min Pump Depth: 38

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1217 | 23.3 | 6.82 | 3453 | 95 | 0.82 | -87.8 | 900 | 34.50 |
| 1220 | 23.2 | 6.72 | 3435 | 148 | 0.36 | -89.9 | 1800 | 34.50 |
| 1223 | 23.4 | 6.67 | 3405 | 126 | 0.29 | -88.3 | 2700 | 34.51 |
| 1226 | 23.5 | 6.65 | 3398 | 120 | 0.25 | -87.6 | 3600 | 34.51 |
| 1229 | 23.5 | 6.63 | 3391 | 119 | 0.25 | -85.6 | 4500 | 34.51 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 4.5 L |
| Sampling Time: 1230 | Sampling Date: 04-18-17 |
| Sample I.D.: HL-2 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

KMEP

Project #: 170417(BN)

Client:

Sampler: BN

Start Date: 4.18.17

Well I.D.: 6mw26

Well Diameter: 2 3 4 6 8

Total Well Depth: 48.28

Depth to Water: Pre: 31.90 Post: 31.99

Depth to Free Product:

Thickness of Free Product (feet):

Referenced to:

PVC Grade

Flow Cell Type:

YSI 556

Purge Method:

2" Grundfos Pump
Dedicated Tubing

Peristaltic Pump
 New Tubing

Bladder Pump
 Other

Sampling Method:

Start Purge Time: 1225

Flow Rate: 300 mL/min Pump Depth: 43'

| Time | Temp. (C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|-----------------|------|------------------------|------------------|-------------|----------|-----------------------------|----------------|
| 1228 | 22.38 | 7.76 | 4012 | 67 | 0.78 | -43.8 | 900 | 31.98 |
| 1231 | 22.94 | 7.74 | 4045 | 59 | 0.81 | -56.4 | 1,800 | 31.99 |
| 1234 | 22.85 | 7.89 | 4128 | 47 | 0.82 | -66.4 | 2,700 | 31.99 |
| 1237 | 22.78 | 7.90 | 4169 | 44 | 0.78 | -73.9 | 3,600 | 31.99 |
| 1240 | 22.80 | 7.85 | 4202 | 34 | 0.69 | -79.9 | 4,500 | 31.99 |
| 1243 | 22.82 | 7.85 | 4212 | 33 | 0.69 | -83.0 | 5,400 | 31.99 |
| 1246 | 22.84 | 7.86 | 4208 | 35 | 0.69 | -83.1 | 6,300 | 31.99 |
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Did well dewater? Yes No

Amount actually evacuated: 6,300 mL

Sampling Time: 1247

Sampling Date: 4.18.17

Sample I.D.: 6mw26

Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MTBE

Other: See C.O.C

Equipment Blank I.D.:

Duplicate I.D.:

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: 170417-BN1 | Client: KMEP |
| Sampler: <i>W</i> | Start Date: 04-18-17 |
| Well I.D.: HL-3 | Well Diameter: 2 3' (4) 6 8 |
| Total Well Depth: 41.08 | Depth to Water: Pre: 34.06 Post: 34.11 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <input checked="" type="checkbox"/> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1248 Flow Rate: 500 mL/min Pump Depth: 37

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1251 | 23.4 | 7.04 | 1167 | 13 | 0.14 | -86.9 | 1500 | 34.09 |
| 1254 | 23.4 | 6.98 | 1177 | 11 | 0.21 | -99.8 | 3000 | 34.10 |
| 1257 | 23.6 | 6.98 | 1189 | 10 | 0.16 | -105.8 | 4500 | 34.11 |
| 1300 | 23.6 | 6.98 | 1192 | 10 | 0.14 | -108.0 | 6000 | 34.11 |
| 1303 | 23.7 | 6.97 | 1194 | 9 | 0.13 | -110.3 | 7500 | 34.11 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> | Amount actually evacuated: 7.5 |
| Sampling Time: 1305 | Sampling Date: 04-18-17 |
| Sample I.D.: HL-3 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ _____ | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>1704171321</u> | Client: <u>KMEP</u> |
| Sampler: <u>BN</u> | Start Date: <u>4.18.17</u> |
| Well I.D.: <u>GWR-12</u> | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: <u>52.60</u> | Depth to Water: Pre: <u>33.77</u> Post: <u>33.86</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1301 Flow Rate: 300 mL/min Pump Depth: 47'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|-------------------------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1304 | 24.05 | 7.40 | 3266 | 489 | 1.68 | -62.5 | 900 | 33.84 |
| 1307 | 23.84 | 7.37 | 3276 | 533 | 1.18 | -60.6 | 1,800 | 33.86 |
| 1310 | 23.81 | 7.31 | 3277 | 299 | 1.05 | -58.2 | 2,700 | 33.86 |
| 1313 | 23.88 | 7.29 | 3208 | 86 | 1.09 | -60.7 | 3,600 | 33.86 |
| 1316 | 24.01 | 7.29 | 3098 | 53 | 0.92 | -59.9 | 4,500 | 33.86 |
| 1319 | 24.05 | 7.30 | 3104 | 49 | 0.88 | -59.7 | 5,400 | 33.86 |
| 1322 | 24.07 | 7.32 | 3106 | 48 | 0.87 | -61.2 | 6,300 | 33.86 |
| 1325 1325 | 24.09 | 7.32 | 3109 | 49 | 0.86 | -63.4 | 7,200 | 33.86 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>7,200</u> |
| Sampling Time: <u>1326</u> | Sampling Date: <u>4.18.17</u> |
| Sample I.D.: <u>GWR-12</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: <u>@</u> Time | Duplicate I.D.: <u>Dup.1</u> |

LOW FLOW WELL MONITORING DATA SHEET

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| Project #: <u>170417.B-1</u> | Client: <u>KMEP</u> |
| Sampler: <u>B-1</u> | Start Date: <u>4.17.17</u> |
| Well I.D.: <u>6-mw-1</u> | Well Diameter: 2 3 4 6 8 <u> </u> |
| Total Well Depth: <u> </u> | Depth to Water: Pre: <u> </u> Post: <u> </u> |
| Depth to Free Product: <u> </u> | Thickness of Free Product (feet): <u> </u> |
| Referenced to: <u>PVC</u> <u>Grade</u> | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump ~~Peristaltic Pump~~ ~~Bladder Pump~~
 Sampling Method: Dedicated Tubing ~~New Tubing~~ ~~Other~~ _____
 Start Purge Time: _____ Flow Rate: _____ Pump Depth: _____

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|----------------------------------|----|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| | <u>- unable to locate well -</u> | | | | | | | |
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| | <u>- well buried -</u> | | | | | | | |

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|---|-------------------------------------|
| Did well dewater? Yes No | Amount actually evacuated: _____ |
| Sampling Time: _____ | Sampling Date: _____ |
| Sample I.D.: _____ | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg</u> <u>TPHfp</u> <u>VOC's</u> <u>MTBE</u> | Other: _____ |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417, Bm | Client: KMEP |
| Sampler: Bm | Start Date: 4.18.17 |
| Well I.D.: 6MW4R | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 55.18 | Depth to Water: Pre: 36.15 Post: 36.20 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1354 Flow Rate: 300 mL/min Pump Depth: 50

| Time | Temp. (C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1357 | 23.69 | 7.20 | 1543 | 721 | 1.99 | -68.7 | 900 | 36.18 |
| 1400 | 23.87 | 7.18 | 1410 | 337 | 1.36 | -74.9 | 1,800 | 36.20 |
| 1403 | 23.88 | 7.19 | 1407 | 119 | 1.17 | -78.6 | 2,700 | 36.20 |
| 1406 | 23.89 | 7.18 | 1406 | 72 | 1.04 | -80.6 | 3,600 | 36.20 |
| 1409 | 24.90 | 7.20 | 1407 | 39 | 1.20 | -81.3 | 4,500 | 36.20 |
| 1412 | 24.89 | 7.09 | 1406 | 33 | 1.16 | -82.2 | 5,400 | 36.20 |
| 1415 | 24.87 | 7.08 | 1405 | 30 | 1.17 | -83.1 | 6,300 | 36.20 |
| 1418 | 24.89 | 7.07 | 1408 | 29 | 1.15 | -84.2 | 7,200 | 36.20 |
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Did well dewater? Yes No Amount actually evacuated: 7,200 mL

Sampling Time: 1419 Sampling Date: 4.18.17

Sample I.D.: 6MW4R Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MTBE Other: See C.O.C

Equipment Blank I.D.: EB-1 @ 1445 Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>170417-BN1</u> | Client: <u>KMEP</u> |
| Sampler: <u>W</u> | Start Date: <u>04-18-17</u> |
| Well I.D.: <u>GMW-14R</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>55.25</u> | Depth to Water: Pre: <u>35.32</u> Post: <u>35.37</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PPC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1427 Flow Rate: 500 mL/min Pump Depth: 45

| Time | Temp. (<u>°C</u> or °F) | pH | Cond. (mS/cm or <u>µS/cm</u>) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or <u>mL</u>) | Depth to water |
|------|-----------------------------|------|-----------------------------------|---------------------|----------------|-------------|--|----------------|
| 1430 | 24.6 | 7.13 | 1183 | 4 | 0.17 | -73.7 | 1500 | 35.36 |
| 1433 | 24.2 | 7.09 | 1180 | 3 | 0.23 | -80.5 | 3000 | 35.37 |
| 1436 | 24.1 | 7.10 | 1187 | 3 | 0.19 | -83.5 | 4500 | 35.37 |
| 1439 | 24.2 | 7.09 | 1185 | 3 | 0.20 | -84.3 | 6000 | 35.37 |
| 1442 | 24.2 | 7.09 | 1183 | 3 | 0.18 | -88.8 | 7500 | 35.37 |
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Did well dewater? Yes No Amount actually evacuated: 7.5

Sampling Time: 1443 Sampling Date: 04-18-17

Sample I.D.: GMW-14R Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MTBE Other: see C.O.C

Equipment Blank I.D.: EB-2 @ 1457 Duplicate I.D.: _____
Time

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 1704173M | Client: KMEP |
| Sampler: BR | Start Date: 4.19.17 |
| Well I.D.: MW15R | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 55.28 | Depth to Water: Pre: 34.41 Post: 34.45 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1118 Flow Rate: 300 ml/min Pump Depth: 50'

| Time | Temp. (C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1121 | 22.87 | 7.57 | 1808 | >1000 | 2.46 | -51.2 | 900 | 34.45 |
| 1124 | 23.73 | 7.59 | 1428 | >1000 | 1.50 | -56.3 | 1,800 | 34.45 |
| 1127 | 23.79 | 7.56 | 1428 | >1000 | 0.71 | -67.8 | 2,700 | 34.45 |
| 1130 | 23.75 | 7.58 | 1431 | >1000 | 0.69 | -72.4 | 3,600 | 34.45 |
| 1133 | 23.79 | 7.58 | 1430 | >1000 | 0.69 | -74.4 | 4,500 | 34.45 |
| 1136 | 24.82 | 7.58 | 1430 | >1000 | 0.66 | -76.9 | 5,400 | 34.45 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: 5,400 ml |
| Sampling Time: 1137 | Sampling Date: 4.19.17 |
| Sample I.D.: MW15R | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 17091718-1 | Client: KMEP |
| Sampler: BW | Start Date: 4.19.17 |
| Well I.D.: MW-9 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 51.67 | Depth to Water: Pre: 31.80 Post: 31.90 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1147 Flow Rate: 300 ml/min Pump Depth: 47'

| Time | Temp. (C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1150 | 24.08 | 7.42 | 1791 | 28 | 1.07 | -91.7 | 900 | 31.88 |
| 1153 | 24.53 | 7.78 | 1791 | 24 | 1.37 | -92.7 | 1,800 | 31.90 |
| 1156 | 24.62 | 7.76 | 1792 | 20 | 1.59 | -93.1 | 2,700 | 31.90 |
| 1159 | 24.67 | 7.73 | 1776 | 18 | 1.54 | -93.8 | 3,600 | 31.90 |
| 1202 | 24.65 | 7.72 | 1762 | 14 | 1.45 | -96.0 | 4,500 | 31.90 |
| 1205 | 24.65 | 7.70 | 1707 | 10 | 1.47 | -99.9 | 5,400 | 31.90 |
| 1208 | 24.68 | 7.71 | 1706 | 9 | 1.50 | -101.8 | 6,300 | 31.90 |
| 1211 | 24.67 | 7.70 | 1709 | 9 | 1.49 | -103.1 | 7,200 | 31.90 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 7,200 ml |
| Sampling Time: 1212 | Sampling Date: 4.19.17 |
| Sample I.D.: MW-9 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: Dup. 4 Dup. 4 |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 170417-BN | Client: KMEP |
| Sampler: DF | Start Date: 4/21/07 |
| Well I.D.: P25 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 37.75 | Depth to Water: Pre: 30.33 Post: 30.53 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0809 Flow Rate: 300ml/min Pump Depth: 35

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0812 | 21.6 | 6.70 | 2395 | 19 | 0.97 | -124.1 | 900 | 30.49 |
| 0815 | 21.6 | 6.73 | 2382 | 15 | 0.69 | -129.4 | 1800 | 30.51 |
| 0818 | 21.7 | 6.72 | 2377 | 10 | 0.61 | -128.4 | 2700 | 30.52 |
| 0821 | 21.7 | 6.70 | 2380 | 7 | 0.55 | -132.4 | 3600 | 30.52 |
| 0824 | 21.8 | 6.70 | 2384 | 7 | 0.58 | -135.7 | 4500 | 30.52 |
| 0827 | 21.8 | 6.70 | 2388 | 6 | 0.56 | -139.6 | 5400 | 30.53 |
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Did well dewater? Yes No Amount actually evacuated: 5400 mL

Sampling Time: 0829 Sampling Date: 4/21/07

Sample I.D.: P25 Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MTBE Other: See C.O.C

Equipment Blank I.D.: @ _____ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------|--|
| Project #: 170417.BM | Client: KMEP |
| Sampler: BM | Start Date: 4.19.17 |
| Well I.D.: 6MW36 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 51.69 | Depth to Water: Pre: 32.96 Post: 33.02 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1231 Flow Rate: 300^{ml}/min Pump Depth: 47

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1234 | 24.85 | 7.62 | 1861 | 71000 | 1.07 | -121.1 | 900 | 33.01 |
| 1237 | 24.87 | 7.57 | 1931 | 947 | 0.62 | -158.2 | 1,800 | 33.02 |
| 1240 | 24.85 | 7.55 | 1997 | 413 | 0.54 | -161.9 | 2,700 | 33.02 |
| 1243 | 24.87 | 7.54 | 2004 | 281 | 0.50 | -164.3 | 3,600 | 33.02 |
| 1246 | 24.85 | 7.54 | 1999 | 123 | 0.53 | -167.1 | 4,500 | 33.02 |
| 1249 | 24.83 | 7.53 | 1997 | 118 | 0.53 | -167.2 | 5,400 | 33.02 |
| 1252 | 24.86 | 7.53 | 1995 | 115 | 0.53 | -168.3 | 6,300 | 33.02 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 6,300 ml |
| Sampling Time: 1253 | Sampling Date: 4.19.17 |
| Sample I.D.: 6MW36 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|------------------------------|--|
| Project #: 170417.BM1 | Client: KMEP |
| Sampler: B~ | Start Date: 4.17.17 |
| Well I.D.: 6MW015 | Well Diameter: 2 3 ④ 6 8 |
| Total Well Depth: - | Depth to Water: Pre: 29.65 Post: - |
| Depth to Free Product: 29.52 | Thickness of Free Product (feet): 0.13 |
| Referenced to: P/C Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: _____ Flow Rate: _____ Pump Depth: _____

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|----------------------|---------------------|---------------------------------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| | -0.13' | SPH detected w/ interface probe | | | | | | |
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| - NO samples taken - | | | | | | | | |

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| Did well dewater? Yes No | Amount actually evacuated: |
| Sampling Time: | Sampling Date: |
| Sample I.D.: | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: |
| Equipment Blank I.D.: | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|------------------------------|--|
| Project #: 170417.B~1 | Client: KMEP |
| Sampler: B~ | Start Date: 4.17.17 |
| Well I.D.: Gmw-0.18 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: — | Depth to Water: Pre: 31.83 Post: — |
| Depth to Free Product: 31.80 | Thickness of Free Product (feet): 0.03 |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: _____ Flow Rate: _____ Pump Depth: _____

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------------------|----|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| | - well had 0.03' split - | | | | | | | |
| | - detected w/ interface probe - | | | | | | | |
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| | - no samples taken - | | | | | | | |

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| Did well dewater? Yes No | Amount actually evacuated: |
| Sampling Time: | Sampling Date: |
| Sample I.D.: | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: |
| Equipment Blank I.D.: | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417.Bm1 | Client: KMEP |
| Sampler: Br | Start Date: 4.19.17 |
| Well I.D.: Gmw28 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 49.14 | Depth to Water: Pre: 32.10 Post: 32.18 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1350 Flow Rate: 300 mL/min Pump Depth: 45

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------------|-------------|--------------------------------|----------------|
| 1353 | 24.15 | 7.94 | 3123 | 24 | 0.81 0.76 | -198.1 | 900 | 32.17 |
| 1356 | 24.57 | 7.96 | 3184 | 20 | 0.76 | -199.7 | 1,800 | 32.18 |
| 1359 | 24.61 | 7.97 | 3188 | 15 | 0.74 | -199.8 | 2,700 | 32.18 |
| 1402 | 24.63 | 7.96 | 3193 | 14 | 0.71 | -200.1 | 3,600 | 32.18 |
| 1405 | 24.65 | 7.96 | 3199 | 12 | 0.71 | -199.2 | 4,500 | 32.18 |
| 1408 | 24.68 | 7.95 | 3204 | 12 | 0.69 | -198.6 | 5,400 | 32.18 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 5,400 mL |
| Sampling Time: 1409 | Sampling Date: 4.19.17 |
| Sample I.D.: Gmw28 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: EB4 @ Time 1435 | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|------------------------------------|
| Project #: 170917.321 | Client: KMEP |
| Sampler: BN | Start Date: 4.21.17 |
| Well I.D.: 6mw9 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 33.32 | Depth to Water: Pre: 33.32 Post: — |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other: Export
 Start Purge Time: — Flow Rate: — Pump Depth: Point Sample

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|---|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1130 | 30.76 | 7.70 | 3232 | 37 | 1.70 | -123.6 | — | — |
| — Sample taken from manifold per client request — | | | | | | | | |
| — Point Sample — | | | | | | | | |

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|--|------------------------------|
| Did well dewater? Yes No <u> </u> | Amount actually evacuated: — |
| Sampling Time: 1130 | Sampling Date: 4.21.17 |
| Sample I.D.: 6mw9 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|---------------------------------|--|
| Project #: <u>170417.B~1</u> | Client: <u>KMEP</u> |
| Sampler: <u>B~</u> | Start Date: <u>4.20.17</u> |
| Well I.D.: <u>MW-18 (MID)</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 |
| Total Well Depth: <u>65.04</u> | Depth to Water: Pre: <u>37.50</u> Post: <u>37.55</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVO</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0806 Flow Rate: 300 mL/min Pump Depth: 60'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0809 | 21.69 | 7.38 | 1607 | 11 | 2.67 | -44.8 | 900 | 37.52 |
| 0812 | 23.19 | 7.35 | 1865 | 8 | 1.69 | -96.9 | 1,800 | 37.55 |
| 0815 | 23.45 | 7.34 | 1861 | 6 | 1.77 | -105.7 | 2,700 | 37.55 |
| 0818 | 23.51 | 7.17 | 1855 | 3 | 2.00 | -110.7 | 3,600 | 37.55 |
| 0821 | 23.52 | 7.14 | 1850 | 3 | 1.96 | -109.5 | 4,500 | 37.55 |
| 0824 | 23.48 | 7.16 | 1845 | 3 | 1.92 | -109.1 | 5,400 | 37.55 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>5,400 mL</u> |
| Sampling Time: <u>0825</u> | Sampling Date: <u>4.20.17</u> |
| Sample I.D.: <u>MW-18 (MID)</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: <u>@</u> | Duplicate I.D.: <u>Time</u> |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------|--|
| Project #: 170417.B.M | Client: KMEP |
| Sampler: B ^r | Start Date: 4.20.17 |
| Well I.D.: P2.2 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 48.83 | Depth to Water: Pre: 31.13 Post: 31.20 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0838 Flow Rate: 300 ml/min Pump Depth: 43'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|------------------------|----------------------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0841 | 22.96 | 6.89 6.89 | 2369 | 73 | 2.10 | -98.5 | 900 | 31.20 |
| 0844 | 23.29 | 6.82 | 2419 | 30 | 0.99 | -95.8 | 1,800 | 31.20 |
| 0847 | 23.31 | 6.80 | 2394 | 21 | 0.92 | -93.2 | 2,700 | 31.20 |
| 0850 | 23.51 23.51 | 6.78 | 2352 | 14 | 0.89 | -95.6 | 3,600 | 31.20 |
| 0853 | 23.53 | 6.77 | 2353 | 13 | 0.89 | -96.4 | 4,500 | 31.20 |
| 0856 | 23.54 | 6.77 | 2350 | 13 | 0.88 | -98.7 | 5,400 | 31.20 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 5,400 mL |
| Sampling Time: 0857 | Sampling Date: 4.20.17 |
| Sample I.D.: P2.2 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: Dup. 6 |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------|--|
| Project #: 170417.B.21 | Client: KMEP |
| Sampler: B ₁ | Start Date: 4.20.17 |
| Well I.D.: 6MW25 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 5311 | Depth to Water: Pre: 35.23 Post: 35.27 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0910 Flow Rate: 300 ^{ml}/min Pump Depth: 48'

| Time | Temp. (°C or °F) | pH | Cond. (mS or µS) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|---------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0913 | 25.02 | 7.54 | 2504 | 71000 | 0.63 | -282.9 | 900 | 35.27 |
| 0916 | 24.97 | 7.53 | 2500 | 71000 | 0.63 | -289.8 | 1.800 | 35.27 |
| 0919 | 25.19 | 7.55 | 2491 | 3.74 | 0.62 | -314.1 | 2.700 | 35.27 |
| 0922 | 25.20 | 7.51 | 2485 | 203 | 0.62 | -326.9 | 3.600 | 35.27 |
| 0925 | 25.19 | 7.37 | 2472 | 156 | 0.60 | -334.9 | 4.500 | 35.27 |
| 0928 | 25.19 | 7.35 | 2470 | 136 | 0.57 | -335.4 | 5.400 | 35.27 |
| 0931 | 25.17 | 7.34 | 2469 | 130 | 0.57 | -335.7 | 6.300 | 35.27 |
| 0934 | 25.20 | 7.33 | 2468 | 127 | 0.56 | -336.1 | 7.200 | 35.27 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: 7.200 mL |
| Sampling Time: 0935 | Sampling Date: 4.20.17 |
| Sample I.D.: 6MW25 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|---------------------------------|--|
| Project #: <u>170417B.m</u> | Client: <u>KMEP</u> |
| Sampler: <u>Br</u> | Start Date: <u>4.20.17</u> |
| Well I.D.: <u>MW.SF.1</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 |
| Total Well Depth: <u>41.43</u> | Depth to Water: Pre: <u>35.75</u> Post: <u>35.79</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVG</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0951 Flow Rate: 300 mL/min Pump Depth: 49'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or ml) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0954 | 26.98 | 7.64 | 2429 | 36 | 0.56 | -254.4 | 900 | 35.78 |
| 0957 | 27.03 | 7.57 | 2433 | 17 | 0.54 | -246.4 | 1,800 | 35.79 |
| 1000 | 27.17 | 7.51 | 2436 | 10 | 0.52 | -240.8 | 2,700 | 35.79 |
| 1003 | 27.22 | 7.49 | 2442 | 8 | 0.50 | -241.7 | 3,600 | 35.79 |
| 1006 | 27.22 | 7.47 | 2446 | 7 | 0.49 | -242.8 | 4,500 | 35.79 |
| 1009 | 27.24 | 7.46 | 2445 | 7 | 0.48 | -242.5 | 5,400 | 35.79 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>5,400 ml</u> |
| Sampling Time: <u>1010</u> | Sampling Date: <u>4.20.17</u> |
| Sample I.D.: <u>MW.SF.1</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: _____ @ _____ Time | Duplicate I.D.: _____ |

LOW FLOW WELL MONITORING DATA SHEET

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|-------------------------------------|--|
| Project #: <u>170417-B-1</u> | Client: <u>KMEP</u> |
| Sampler: <u>B-1</u> | Start Date: <u>4.17.17</u> |
| Well I.D.: <u>FMW-30</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>-</u> | Depth to Water: Pre: <u>32.53</u> Post: <u>-</u> |
| Depth to Free Product: <u>32.16</u> | Thickness of Free Product (feet): <u>0.37</u> |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____

Start Purge Time: - Flow Rate: - Pump Depth: -

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|--|---------------------|----|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| <u>- 0.37' SPH detected w/ water table probe -</u> | | | | | | | | |
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| <u>- no samples taken -</u> | | | | | | | | |

Did well dewater? Yes No Amount actually evacuated: _____

Sampling Time: _____ Sampling Date: _____

Sample I.D.: _____ Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MTBE Other: _____

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417(3-1) | Client: KMEP |
| Sampler: BN | Start Date: 4.20.17 |
| Well I.D.: MW-5F-4 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 41.99 | Depth to Water: Pre: 36.67 Post: 36.71 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1020 Flow Rate: 300 mL/min Pump Depth: 40'

| Time | Temp. (C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|--------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1023 | 25.44 | 7.44 | 2398 | 337 | 1.35 | -207.1 | 900 | 36.70 |
| 1026 | 25.88 | 7.44 | 2415 | 286 | 0.87 | -217.5 | 1,800 | 36.71 |
| 1029 | 25.94 | 7.45 | 2430 | 249 | 0.60 | -260.4 | 2,700 | 36.71 |
| 1032 | 25.96 | 7.46 | 2431 | 212 | 0.58 | -264.3 | 3,600 | 36.71 |
| 1035 | 26.03 | 7.47 | 2418 | 152 | 0.47 | -286.1 | 4,500 | 36.71 |
| 1038 | 26.05 | 7.47 | 2410 | 150 | 0.47 | -290.0 | 5,400 | 36.71 |
| 1041 | 26.05 | 7.47 | 2411 | 147 | 0.48 | -287.3 | 6,300 | 36.71 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: 6,300 |
| Sampling Time: 1042 | Sampling Date: 4.20.17 |
| Sample I.D.: MW-5F-4 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ Time | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|----------------------------|--|
| Project #: 170417.B-1 | Client: KMEP |
| Sampler: B-1 | Start Date: 4.20.17 |
| Well I.D.: MW-5F13 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: } 9.23 | Depth to Water: Pre: 30.40 Post: 30.40 |
| Depth to Free Product: () | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1227 Flow Rate: 300 mL/min Pump Depth: 35'

| Time | Temp. (C or °F) | pH | Cond. (mS or µS) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|--------------------|------|---------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1230 | 26.19 | 7.52 | 2232 | 71000 | 1.56 | -205.3 | 900 | 30.48 |
| 1233 | 26.69 | 7.49 | 2620 | 784 | 1.30 | -234.1 | 1,800 | 30.50 |
| 1236 | 27.05 | 7.43 | 2704 | 419 | 1.57 | -239.6 | 2,700 | 30.50 |
| 1239 | 27.07 | 7.44 | 2697 | 47 | 1.65 | -242.4 | 3,600 | 30.50 |
| 1242 | 27.08 | 7.45 | 2696 | 12 | 1.26 | -254.9 | 4,500 | 30.50 |
| 1245 | 27.04 | 7.44 | 2693 | 11 | 1.22 | -256.3 | 5,400 | 30.50 |
| 1248 | 27.03 | 7.43 | 2690 | 11 | 1.20 | -257.5 | 6,300 | 30.50 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: 6,300 mL |
| Sampling Time: 1249 | Sampling Date: 4.20.17 |
| Sample I.D.: MW-5F13 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|-------------------------------------|--|
| Project #: <i>170417, B-1</i> | Client: KMEP |
| Sampler: <i>B-1</i> | Start Date: <i>4.17.17</i> |
| Well I.D.: <i>6-mw-23</i> | Well Diameter: 2 3 <u>4</u> 6 8 _____ |
| Total Well Depth: <i>-</i> | Depth to Water: Pre: <i>33.90</i> Post: <i>-</i> |
| Depth to Free Product: <i>31.91</i> | Thickness of Free Product (feet): <i>1.99</i> |
| Referenced to: <i>PVC</i> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: - Flow Rate: - Pump Depth: -

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|----|---|---------------------|----------------|-------------|--------------------------------|----------------|
| | <i>- 1.99'</i> | | <i>SpH detected - Interlock problem</i> | | | | | |
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| | <i>- NU</i> | | <i>Samples taken</i> | | | | | |

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|---|-----------------------------------|
| Did well dewater? Yes No | Amount actually evacuated: |
| Sampling Time: | Sampling Date: |
| Sample I.D.: | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: |
| Equipment Blank I.D.: | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170917BM | Client: KMEP |
| Sampler: BM | Start Date: 4.20.17 |
| Well I.D.: MW.SF.6 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 41.23 | Depth to Water: Pre: 34.03 Post: 34.07 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1316 Flow Rate: 300 mL/min Pump Depth: 39'

| Time | Temp. (°C or °F) | pH | Cond. (mS or µS) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|---------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1319 | 26.12 | 7.86 | 3012 | 71000 | 1.27 | -220.7 | 900 | 34.07 |
| 1322 | 26.42 | 7.42 | 3072 | 833 | 0.81 | -223.2 | 1,800 | 34.07 |
| 1325 | 26.46 | 7.32 | 3053 | 249 | 0.73 | -220.4 | 2,700 | 34.07 |
| 1328 | 26.41 | 7.30 | 3002 | 37 | 0.68 | -217.5 | 3,600 | 34.07 |
| 1331 | 26.43 | 7.20 | 2946 | 12 | 0.67 | -216.3 | 4,500 | 34.07 |
| 1334 | 26.46 | 7.16 | 2923 | 7 | 0.68 | -214.1 | 5,400 | 34.07 |
| 1337 | 26.50 | 7.14 | 2914 | 6 | 0.67 | -215.8 | 6,300 | 34.07 |
| 1340 | 26.48 | 7.13 | 2916 | 6 | 0.67 | -213.6 | 7,200 | 34.07 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: 7,200 mL |
| Sampling Time: 1341 | Sampling Date: 4.20.17 |
| Sample I.D.: MW.SF.6 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|--------------------------|--|
| Project #: 170417.13~1 | Client: KMEP |
| Sampler: BR | Start Date: 4.20.17 |
| Well I.D.: MW SF 15 | Well Diameter: 2 3 (4) 6 8 |
| Total Well Depth: 44.06 | Depth to Water: Pre: 35.39 Post: 35.43 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1354 Flow Rate: 300 mL/min Pump Depth: 39'

| Time | Temp. (°C or °F) | pH | Cond. (mS or µS) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|---------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1357 | 28.17 | 6.81 | 2856 | 14 | 0.77 | -247.8 | 900 | 35.43 |
| 1400 | 28.18 | 6.80 | 2854 | 10 | 0.76 | -246.6 | 1,800 | 35.43 |
| 1403 | 28.19 | 6.79 | 2848 | 8 | 0.72 | -243.2 | 2,700 | 35.43 |
| 1406 | 28.31 | 6.78 | 2831 | 5 | 0.63 | -248.0 | 3,600 | 35.43 |
| 1409 | 28.34 | 6.78 | 2828 | 4 | 0.62 | -249.1 | 4,500 | 35.43 |
| 1412 | 28.34 | 6.77 | 2825 | 4 | 0.59 | -247.6 | 5,400 | 35.43 |
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| Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: 5,400 mL |
| Sampling Time: 1413 | Sampling Date: 4.20.17 |
| Sample I.D.: MW SF 15 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: See C.O.C |
| Equipment Blank I.D.: EBS @ 1450 <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: 170417-BN1 | Client: KMEP |
| Sampler: DC | Start Date: 4/21/17 |
| Well I.D.: GMW-014 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 50.10 | Depth to Water: Pre: 31.17 Post: 31.22 |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0956 Flow Rate: 300 mL/min Pump Depth: 45'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or μS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 0959 | 22.3 | 7.17 | 2536 | 18 | 1.32 | -150.9 | 1900 | 31.19 |
| 1002 | 22.4 | 7.20 | 2585 | 9 | 0.61 | -155.8 | 1800 | 31.21 |
| 1005 | 22.4 | 7.21 | 2594 | 8 | 0.35 | -159.3 | 2700 | 31.21 |
| 1008 | 22.5 | 7.23 | 2607 | 7 | 0.32 | -167.1 | 3600 | 31.22 |
| 1011 | 22.5 | 7.23 | 2611 | 8 | 0.33 | -170.5 | 4500 | 31.22 |
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| Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/> | Amount actually evacuated: |
| Sampling Time: 1013 | Sampling Date: 4/21/17 |
| Sample I.D.: GMW-014 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: SEE COL |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: Dup-7 |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|-----------------------------------|
| Project #: 170417.B~1 | Client: KMEP |
| Sampler: B~ | Start Date: 4.21.17 |
| Well I.D.: 6.MW.020 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 29.70 | Depth to Water: Pre: — Post: — |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other: Ex 2014
 Start Purge Time: — Flow Rate: — Pump Depth: —

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|---|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1150 | 27.32 | 7.56 | 2706 | 49 | 0.95 | -130.5 | — | — |
| — Sample collected from manifold per clients request | | | | | | | | |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: — |
| Sampling Time: 1150 | Sampling Date: 4.21.17 |
| Sample I.D.: 6.MW.020 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---------------------------------|--|
| Project #: <u>170117-DF1</u> | Client: KMEP |
| Sampler: <u>DF</u> | Start Date: <u>4/21/17</u> |
| Well I.D.: <u>GMW-0.21</u> | Well Diameter: 2 3 4 <u>6</u> 8 |
| Total Well Depth: <u>43.27</u> | Depth to Water: Pre: <u>30.55</u> Post: <u>30.71</u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1259 Flow Rate: 500 ml/min Pump Depth: 36'

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mls) | Depth to water |
|------|---------------------|------|------------------------------|---------------------|----------------|-------------|---------------------------------|----------------|
| 1302 | 24.5 | 6.39 | 1569 | 27 | 1.24 | -120.9 | 1500 | 30.69 |
| 1305 | 25.6 | 6.45 | 1467 | 22 | 0.75 | -146.3 | 3000 | 30.71 |
| 1308 | 25.7 | 6.48 | 1414 | 19 | 0.50 | -148.3 | 4500 | 30.71 |
| 1311 | 25.8 | 6.46 | 1321 | 18 | 0.46 | -152.3 | 6000 | 30.71 |
| 1314 | 25.8 | 6.47 | 1329 | 18 | 0.47 | -153.9 | 7500 | 30.71 |
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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u>7500</u> |
| Sampling Time: <u>1311e</u> | Sampling Date: <u>4/21/17</u> |
| Sample I.D.: <u>GMW-0.21</u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg TPHfp VOC's MTBE</u> | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: <u>EB-7 @ Time 1340</u> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|---|------------------------------------|
| Project #: 170417.1321 | Client: KMEP |
| Sampler: BR | Start Date: 4.17.17 |
| Well I.D.: 6.14.23 G.M.W. 23 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: - | Depth to Water: Pre: 30.88 Post: - |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other: Exposure
 Start Purge Time: Flow Rate: Pump Depth:

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|---|---------------------|------|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| 1140 | 27.42 | 7.58 | 2888 | 117 | 1.32 | -1483 | - | - |
| - Sample collected from Manifold per clients request | | | | | | | | |
| - Post Sample | | | | | | | | |

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| Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Amount actually evacuated: <u> </u> |
| Sampling Time: 1140 | Sampling Date: 4.21.17 |
| Sample I.D.: G.M.W. 23 | Laboratory: Alpha Analytical |
| Analyzed for: TPHg TPHfp VOC's MTBE | Other: <u>See C.O.C</u> |
| Equipment Blank I.D.: @ <small>Time</small> | Duplicate I.D.: |

LOW FLOW WELL MONITORING DATA SHEET

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|-------------------------------------|--|
| Project #: <u>170417.13-1</u> | Client: <u>KMEP</u> |
| Sampler: <u>BR</u> | Start Date: <u>4.17.17</u> |
| Well I.D.: <u>GMW 0.12</u> | Well Diameter: 2 3 <u>(4)</u> 6 8 _____ |
| Total Well Depth: <u>-</u> | Depth to Water: Pre: <u>32.90</u> Post: <u>-</u> |
| Depth to Free Product: <u>28.70</u> | Thickness of Free Product (feet): <u>4.20</u> |
| Referenced to: <u>PVC</u> Grade | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: _____ Flow Rate: _____ Pump Depth: _____

| Time | Temp. (°C or °F) | pH | Cond. (mS or μS) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------|--------------|---------------------------|---------------------|------------------------|-------------|--------------------------------|----------------|
| | <u>-</u> | <u>4.20'</u> | <u>SPIT</u> | <u>detected</u> | <u>inter face prob</u> | | | |
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| | | | <u>- no samples taken</u> | | | | | |

Did well dewater? Yes No Amount actually evacuated: _____
 Sampling Time: _____ Sampling Date: _____
 Sample I.D.: _____ Laboratory: Alpha Analytical
 Analyzed for: TPHg TPHfp VOC's MTBE Other: _____
 Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

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|--|--|
| Project #: <u>170417-BN</u> | Client: <u>KMEP</u> |
| Sampler: <u>BN</u> | Start Date: <u>4.17.17</u> |
| Well I.D.: <u>MW-SF-9</u> | Well Diameter: 2 3 4 6 8 <u> </u> |
| Total Well Depth: <u> </u> | Depth to Water: Pre: <u> </u> Post: <u> </u> |
| Depth to Free Product: <u> </u> | Thickness of Free Product (feet): <u> </u> |
| Referenced to: <u>PVC</u> <u>Grade</u> | Flow Cell Type: <u>YSI 556</u> |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: _____ Flow Rate: _____ Pump Depth: _____

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|------|---------------------------|----|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| | <u>- unable to access</u> | | | <u>well buried</u> | | | | |
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| | <u>- no samples taken</u> | | | | | | | |

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|--|--|
| Did well dewater? Yes <input type="checkbox"/> No <input type="checkbox"/> | Amount actually evacuated: <u> </u> |
| Sampling Time: <u> </u> | Sampling Date: <u> </u> |
| Sample I.D.: <u> </u> | Laboratory: <u>Alpha Analytical</u> |
| Analyzed for: <u>TPHg</u> <u>TPHfp</u> <u>VOC's</u> <u>MTBE</u> | Other: <u> </u> |
| Equipment Blank I.D.: <u> </u> @ <u> </u> Time | Duplicate I.D.: <u> </u> |

LOW FLOW WELL MONITORING DATA SHEET

| | |
|--------------------------|--|
| Project #: 170417.B-1 | Client: KMEP |
| Sampler: BR | Start Date: 4/17/17 |
| Well I.D.: MW SF-14 | Well Diameter: 2 3 <u>4</u> 6 8 |
| Total Well Depth: 35.71 | Depth to Water: Pre: 35.40 Post: <u> </u> |
| Depth to Free Product: | Thickness of Free Product (feet): |
| Referenced to: PVC Grade | Flow Cell Type: YSI 556 |

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: Flow Rate: Pump Depth:

| Time | Temp. (°C or °F) | pH | Cond. (mS/cm or µS/cm) | Turbidity (NTUs) | D.O. (mg/L) | ORP (mV) | Water Removed (gals. or mL) | Depth to water |
|--|---------------------|----|------------------------------|---------------------|----------------|-------------|--------------------------------|----------------|
| <u>- Insf. H2O to purge or sampler</u> | | | | | | | | |
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| | | | | | | | | |
| <u>- NO Samples taken -</u> | | | | | | | | |

Did well dewater? Yes No Amount actually evacuated:

Sampling Time: Sampling Date:

Sample I.D.: Laboratory: Alpha Analytical

Analyzed for: TPHg TPHfp VOC's MPBE Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC 3 of 3

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

CHAIN OF CUSTODY

CLIENT: Kinder Morgan
 SITE: DFSP Norwalk
 15306 Norwalk Blvd, Norwalk

| SAMPLE I.D. | DATE | TIME | MATRIX AQ= Water | CONTAINERS | | | TPHg, TPHd (EPA 8015M) | VOC's & Oxygenates (EPA 8260B) | | | | | | | | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # |
|--------------------|----------|------|---------------------|------------|--------------|-------|------------------------|--------------------------------|--|--|--|--|--|--|--|-------------------|--------|-----------|--------------|
| | | | | # | Preservation | Type | | | | | | | | | | | | | |
| GMW-13 | 04-18-17 | 0903 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| GMW-35 E.M.W-35 | 04-18-17 | 0942 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| GMW-39 | 04-18-17 | 1025 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| GMW-0-19 | 04-18-17 | 1104 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| HL-2 | 04-18-17 | 1230 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| HL-3 | 04-18-17 | 1305 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| GMW-8 | 04-18-17 | 1356 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| GMW-14R | 04-18-17 | 1443 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |
| EB-2 | 04-18-17 | 1457 | AQ | 6 | HCL | Voc's | X | X | | | | | | | | | | | |

SAMPLING COMPLETED: DATE 04-18-17 TIME 1500
 SAMPLING PERFORMED BY: Nathan Veil
 RESULTS NEEDED NO LATER THAN: Standard

| | | | | |
|---------------------|------------|---------------------|---------------|------------|
| RELEASED BY: | TIME: 1550 | RECEIVED BY: Nicole | DATE: 4/18/17 | TIME: 1550 |
| RELEASED BY: Nicole | TIME: 1600 | RECEIVED BY: | DATE: 4/18/17 | TIME: 1630 |
| RELEASED BY: | TIME: 1700 | RECEIVED BY: | DATE: | TIME: |

SHIPPED VIA: TIME SENT: COOLER #:

BLAINE

ECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC 1 of 3

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

MAIN OF CUSTODY

CLIENT Kinder Morgan

SITE DFSP Norwalk

15306 Norwalk Blvd, Norwalk

| SAMPLE I.D. | DATE | TIME | MATRIX AQ= Water | CONTAINERS | | TPHg, TPHd (EPA 8015M) | VOC's & Oxygenates (EPA 8260B) | | | | | | | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # |
|-------------|---------|------|---------------------|------------|--------------|------------------------|--------------------------------|---|--|--|--|--|--|-------------------|--------|-----------|--------------|
| | | | | # | Preservation | | | | | | | | | | | | |
| TB-1 | 4.19.17 | 0700 | AQ | 2 | HCL | UOA | X | X | | | | | | | | | |
| w.6 | | 0752 | AQ | 6 | | | X | X | | | | | | | | | |
| w.7 | | 0830 | AQ | 6 | | | X | X | | | | | | | | | |
| w.20(MID) | | 0857 | AQ | 6 | | | X | X | | | | | | | | | |
| w.19(MID) | | 0841 | AQ | 6 | | | X | X | | | | | | | | | |
| Exp-2 | | 0825 | AQ | 6 | | | X | X | | | | | | | | | |
| w.21(MID) | | 1021 | AQ | 6 | | | X | X | | | | | | | | | |
| Dup-2 | | - | AQ | 6 | | | X | X | | | | | | | | | |
| w.15R | | 1137 | AQ | 6 | | | X | X | | | | | | | | | |
| Dup-4 | | - | AQ | 6 | | | X | X | | | | | | | | | |

MPLING COMPLETED DATE 4.19.17 TIME SAMPLING PERFORMED BY Ben Stevens RESULTS NEEDED NO LATER THAN Standard

LEASED BY [Signature] TIME 1600 RECEIVED BY Nicole DATE 4/19/17 TIME 1600

LEASED BY Nicole TIME RECEIVED BY DATE TIME

LEASED BY TIME RECEIVED BY DATE TIME

SHIPPED VIA TIME SENT COOLER #

BLAINE

CH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC 1 of 3

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

CHAIN OF CUSTODY

CLIENT: Kinder Morgan
 PROJECT: DFSP Norwalk
 ADDRESS: 15306 Norwalk Blvd, Norwalk

| SAMPLE I.D. | DATE | TIME | MATRIX AQ= Water | CONTAINERS | | | TPHg, TPHd (EPA 8015M) | VOC's & Oxygenates (EPA 8260B) | | | | | | | | | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # | |
|--------------------|---------|-----------------|---------------------|--------------|--------------|------|------------------------|--------------------------------|--|--|--|--|--|--|--|--|-------------------|--------|-----------|--------------|--|
| | | | | # | Preservation | Type | | | | | | | | | | | | | | | |
| 18-1 | 4/20/17 | 0700 | AQ | 2 | HCL | VVA | X | | | | | | | | | | | | | | |
| 18 (min) | | 0825 | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| Z-2 | | 0857 | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| up. 6 | | - | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| MW25 | | 0935 | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| w. SF.1 | | 1010 | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| w. SF.4 | | 1042 | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| w. SF.6 | | 1249 | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| w. SF.13 | | 1249 | AQ | 6 | | | X | X | | | | | | | | | | | | | |
| w. SF.6 | | 1341 | AQ | 6 | | | X | X | | | | | | | | | | | | | |

SAMPLING COMPLETED DATE 4/20/17 TIME PERFORMED BY Ben Stevens RESULTS NEEDED NO LATER THAN Standard

RELEASED BY [Signature] TIME 15:50 RECEIVED BY [Signature] DATE 4/20/17 TIME 15:50
 RELEASED BY [Signature] TIME 16:00 RECEIVED BY [Signature] DATE [] TIME []
 RELEASED BY [Signature] TIME [] RECEIVED BY [Signature] DATE [] TIME []

SHIPPED VIA TIME SENT COOLER #

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC 2 of 3

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

CHAIN OF CUSTODY

CLIENT

Kinder Morgan

ADDRESS

DFSP Norwalk

15306 Norwalk Blvd, Norwalk

| SAMPLE I.D. | DATE | TIME | MATRIX | CONTAINERS | | | TPHg, TPHd (EPA 8015M) | VOC's & Oxygenates (EPA 8260B) | | | | | | | | | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # |
|--------------------------|---------|------|----------|------------|--------------|------|------------------------|--------------------------------|--|--|--|--|--|--|--|--|-------------------|--------|-----------|--------------|
| | | | AQ=Water | # | Preservation | Type | | | | | | | | | | | | | | |
| EXP-1 | 4/20/17 | 1135 | AQ | 6 | HCL | UOA | X | X | | | | | | | | | | | | |
| W3F-15 | ↓ | 1413 | AQ | 6 | ↓ | ↓ | X | X | | | | | | | | | | | | |
| W3F-15 EBS | ↓ | 1450 | AQ | 6 | ↓ | ↓ | X | X | | | | | | | | | | | | |
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SAMPLING COMPLETED DATE 4/20/17 TIME 1550 SAMPLING PERFORMED BY Ben Stevens RESULTS NEEDED NO LATER THAN Standard

RELEASED BY [Signature] TIME 1550 RECEIVED BY Nicole DATE 4/20/17 TIME 1550

RELEASED BY [Signature] TIME 1600 RECEIVED BY [Signature] DATE [Signature] TIME [Signature]

RELEASED BY [Signature] TIME [Signature] RECEIVED BY [Signature] DATE [Signature] TIME [Signature]

SHIPPED VIA [Signature] TIME SENT [Signature] COOLER # [Signature]

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TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC 3 of 3

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

CHAIN OF CUSTODY

CLIENT

Kinder Morgan

SITE

DFSP Norwalk

15306 Norwalk Blvd, Norwalk

| SAMPLE I.D. | DATE | TIME | MATRIX | CONTAINERS | | TPHg, TPHd (EPA 8015M) | VOC's & Oxygenates (EPA 8260B) | | | | | | | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # | |
|-------------|---------|------|-----------|------------|--------------|------------------------|--------------------------------|---|--|--|--|--|--|-------------------|--------|-----------|--------------|------|
| | | | AQ= Water | # | Preservation | | | | | | | | | | | | | Type |
| GMW-0.2 | 4/20/07 | 0857 | AQ | 6 | HCL | VOA | X | X | | | | | | | | | | |
| GMW-0.3 | | 0937 | AQ | 6 | HCL | VOA | X | X | | | | | | | | | | |
| GMW-0.4 | | 1047 | AQ | 6 | HCL | VOA | X | X | | | | | | | | | | |
| GMW-0.5 | | 1232 | AQ | 6 | HCL | VOA | X | X | | | | | | | | | | |
| GMW-0.1 | | 1322 | AQ | 6 | HCL | VOA | X | X | | | | | | | | | | |
| GMW-0.8 | | 1413 | AQ | 6 | HCL | VOA | X | X | | | | | | | | | | |
| ES-6 | U | 1435 | AQ | 6 | HCL | VOA | X | X | | | | | | | | | | |

SAMPLING COMPLETED DATE 4/20/07 TIME 1535 SAMPLING PERFORMED BY *D. FRAZIER* RESULTS NEEDED NO LATER THAN Standard

RELEASED BY *[Signature]* TIME 1535 RECEIVED BY _____ DATE _____ TIME _____

RELEASED BY _____ TIME _____ RECEIVED BY _____ DATE _____ TIME _____

RELEASED BY _____ TIME _____ RECEIVED BY _____ DATE _____ TIME _____

SHIPPED VIA _____ TIME SENT _____ COOLER # _____

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC

1 of 2

CHAIN OF CUSTODY

CLIENT: Kinder Morgan
 SITE: DFSP Norwalk
 15306 Norwalk Blvd, Norwalk

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

| SAMPLE I.D. | DATE | TIME | MATRIX AQ= Water | CONTAINERS | | TPHg, TPHd (EPA 8015M) | VOC's & Oxygenates (EPA 8260B) | | | | | | | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # |
|-----------------------------|---------|------|---------------------|------------|--------------|------------------------|--------------------------------|---|--|--|--|--|--|-------------------|--------|-----------|--------------|
| | | | | # | Preservation | | | | | | | | | | | | |
| DW-3 | 4.21.17 | 1037 | AQ | 6 | HCL | VOA | X | Y | | | | | | | | | |
| GMW 9 | | 1130 | AQ | 6 | | | X | Y | | | | | | | | | |
| GMW 23 GMW 23 | | 1140 | AQ | 6 | | | X | Y | | | | | | | | | |
| GMW 020 | | 1150 | AQ | 6 | | | X | Y | | | | | | | | | |
| GMW 018 ED.7 | | 1300 | AQ | 6 | | | X | Y | | | | | | | | | |

SAMPLING COMPLETED: DATE 4.21.17 TIME [] SAMPLING PERFORMED BY: Ben Stevens RESULTS NEEDED NO LATER THAN: Standard

RELEASED BY: [Signature] TIME [] RECEIVED BY: [] DATE [] TIME []

RELEASED BY: [Signature] TIME [] RECEIVED BY: [] DATE [] TIME []

RELEASED BY: [Signature] TIME [] RECEIVED BY: [] DATE [] TIME []

SHIPPED VIA: TIME SENT [] COOLER # []

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC 2 of 2

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

CHAIN OF CUSTODY

CLIENT **Kinder Morgan**


SITE **DFSP Norwalk**

15306 Norwalk Blvd, Norwalk

| SAMPLE I.D. | DATE | TIME | MATRIX | CONTAINERS | | TPHg, TPHd (EPA 8015M) | VOC's & Oxygenates (EPA 8260B) | | | | | | ADD'L INFORMATION | STATUS | CONDITION | LAB SAMPLE # |
|-------------|------|------|-----------|------------|--------------|------------------------|--------------------------------|--|--|--|--|--|-------------------|--------|-----------|--------------|
| | | | AQ= Water | # | Preservation | | | | | | | | | | | |
| GMW-0-21 | | 1316 | AQ | 6 | HCL | UQA | | | | | | | | | | |
| GMW-0-10 | | 1205 | | 6 | | | | | | | | | | | | |
| GMW-0-17 | | 1108 | | 6 | | | | | | | | | | | | |
| GMW-0-14 | | 1013 | | 6 | | | | | | | | | | | | |
| GMW-0-24 | | 0922 | | 6 | | | | | | | | | | | | |
| PZ-5 | | 0829 | | 6 | | | | | | | | | | | | |
| DUP-3 | | - | | 6 | | | | | | | | | | | | |
| DUP-7 | | - | ↓ | 6 | | | | | | | | | | | | |
| EB-7 | | 1340 | AQ | 6 | ↓ | ↓ | | | | | | | | | | |
| TB-1 | | 0700 | AQ | 2 | ↓ | ↓ | | | | | | | | | | |

SAMPLING COMPLETED **4/21/17** DATE **1510** TIME
 SAMPLING PERFORMED BY **D-FRAZZER**

RESULTS NEEDED NO LATER THAN **Standard**

RELEASED BY  TIME **1535** RECEIVED BY _____ DATE _____ TIME _____

RELEASED BY _____ TIME _____ RECEIVED BY _____ DATE _____ TIME _____

SHIPPED VIA _____ TIME SENT _____ COOLER # _____

Attachment 7.3-1
 Well Inspection Checklist

WELL INSPECTION CHECKLIST
 Site - City, County, State

| WELL NAME | AS-BUILT TOTAL DEPTH (TD) | ACCESS UNOBSTRUCTED? (Y/N) | WELL EASILY VISIBLE? (Y/N) | VAULT, WELL, OR CASING CLEARLY LABELED? (Y/N) | WELL, VAULT, PAD, OR CASING FREE OF VISIBLE DAMAGE, SCOUR, OR SETTLING? (Y/N) | WELL SECURED PROPERLY WITH WATER-TIGHT WELL CAP AND LOCK? (Y/N) | WELL VAULT DRY AND FREE OF DEBRIS? (Y/N) | TD CONSISTENT WITH AS-BUILT TD? (Y/N) | COMMENTS |
|-------------|---------------------------|----------------------------|----------------------------|---|---|---|--|---------------------------------------|----------------------|
| EXP-1 | | Y | Y | Y | Y | N | Y | Y | |
| EXP-2 | | Y | Y | Y | Y | N | Y | Y | |
| MW-6 | | Y | Y | Y | Y | N | Y | Y | |
| MW-20 (ump) | | Y | Y | Y | Y | Y | Y | Y | |
| GMW-8 | | Y | Y | Y | Y | N | Y | Y | |
| MW-19 (ump) | | Y | Y | Y | Y | N | Y | Y | |
| MW-7 | | Y | Y | Y | Y | N | Y | Y | |
| RE-2 | | Y | Y | Y | Y | N | Y | Y | |
| MW-12 | | Y | Y | Y | Y | N | Y | Y | |
| GMW-4R | | Y | Y | N | Y | N | N | Y | no vault |
| GMW-14R | | Y | Y | N | N | N | N | Y | ↓ |
| GMW-15R | | Y | Y | N | N | N | N | Y | 2 1/2 holes stripped |
| GMW-0-14 | | Y | Y | Y | Y | N | Y | Y | 1/2 tabs broken |
| GMW-0-19 | | Y | Y | Y | Y | N | Y | Y | no lock |
| GMW-30 | | Y | Y | Y | Y | N | Y | Y | no lock |
| MW-18 (ump) | | Y | Y | Y | Y | N | Y | Y | no lock |
| GMW-25 | | Y | Y | Y | Y | N | Y | Y | no lock |
| MW-22 | | Y | Y | Y | Y | N | Y | Y | no lock |

Performed by: _____

Date Performed: _____

Attachment 7.3-1
 Well Inspection Checklist

WELL INSPECTION CHECKLIST

Site - City, County, State

| WELL NAME | AS-BUILT TOTAL DEPTH (TD) | ACCESS UNOBSTRUCTED? (Y/N) | WELL EASILY VISIBLE? (Y/N) | VAULT, WELL, OR CASING CLEARLY LABELED? (Y/N) | WELL, VAULT, PAD, OR CASING FREE OF VISIBLE DAMAGE, SCOUR, OR SETTLING? (Y/N) | WELL SECURED PROPERLY WITH WATER-TIGHT WELL CAP AND LOCK? (Y/N) | WELL VAULT DRY AND FREE OF DEBRIS? (Y/N) | TD CONSISTENT WITH AS-BUILT TD? (Y/N) | COMMENTS |
|-----------|---------------------------|----------------------------|----------------------------|---|---|---|--|---------------------------------------|---------------------|
| MW-SF1 | | Y | Y | Y | Y | ~ | Y | | no lock |
| MW-SF16 | | Y | Y | Y | Y | ~ | Y | | no lock |
| VEW1 | | Y | Y | Y | Y | ~ | Y | | no lock |
| MW-SF10 | | Y | Y | Y | Y | ~ | Y | | no lock |
| MW-SF14 | | Y | Y | Y | Y | ~ | Y | | no lock |
| PZ-10 | | Y | Y | Y | Y | ~ | Y | | well in use in open |
| MW-SF15 | | Y | Y | Y | Y | ~ | Y | | no cap / no lock |
| MW-SF2 | | Y | Y | Y | Y | ~ | Y | | no lock |
| MW-SF6 | | Y | Y | Y | Y | ~ | Y | | no cap / no lock |
| VEW1 | | Y | Y | Y | Y | ~ | Y | | no lock |
| MW-SF14 | | Y | Y | Y | Y | ~ | Y | | no lock |
| MW-SF5 | | Y | Y | Y | Y | ~ | Y | | no lock |
| MW9 | | Y | Y | Y | Y | ~ | Y | | no lock |
| EXP-3 | | Y | Y | Y | Y | ~ | Y | | no lock |
| GMW37 | | Y | Y | Y | Y | ~ | Y | | |
| GMW-SF8 | | Y | Y | Y | Y | ~ | Y | | |
| MW8 | | Y | Y | Y | Y | ~ | Y | | no lock |
| GMW39 | | Y | Y | Y | Y | ~ | Y | | |
| GMW37 | | Y | Y | Y | Y | ~ | Y | | no lock, stand pipe |
| HL-2 | | Y | Y | Y | Y | ~ | Y | | open body damaged |
| GMW26 | | Y | Y | ~ | ~ | ~ | Y | | |
| GMW19 | | Y | Y | Y | Y | ~ | Y | | |
| MW-SF12 | | Y | Y | Y | Y | ~ | Y | | |

Performed by: Benz


Date Performed: 4.17.17

Highlighting indicates revisions made as of the date on this procedure.

Attachment 7.3-1
 Well Inspection Checklist

WELL INSPECTION CHECKLIST
 Site - City, County, State

| WELL NAME | AS-BUILT TOTAL DEPTH (TD) | ACCESS UNOBSTRUCTED? (Y/N) | WELL EASILY VISIBLE? (Y/N) | VAULT, WELL, OR CASING CLEARLY LABELED? (Y/N) | WELL, VAULT, PAD, OR CASING FREE OF VISIBLE DAMAGE, SCOUR, OR SETTLING? (Y/N) | WELL SECURED PROPERLY WITH WATER-TIGHT WELL CAP AND LOCK? (Y/N) | WELL VAULT DRY AND FREE OF DEBRIS? (Y/N) | TD CONSISTENT WITH AS-BUILT TD? (Y/N) | COMMENTS |
|-----------|---------------------------|----------------------------|----------------------------|---|---|---|--|---------------------------------------|--|
| Wew-8 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-4 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-14 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-13 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-3 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-2 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-11 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-12 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-5 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-9 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-7 | | Y | Y | Y | Y | Y | Y | Y | |
| Wew-1 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-1 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-6 | | Y | Y | Y | Y | Y | Y | Y | - 2/2 Tabs Broken |
| Gmw-0-8 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-2 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-3 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-7 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-4 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-5 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-7 | | Y | Y | Y | Y | Y | Y | Y | |
| Gmw-0-20 | | Y | Y | Y | Y | Y | Y | Y | - vault / no Bolts - vault / no Bolts |

Performed by: 

Date Performed: 4/17/17

