

Remedial Alternatives Evaluation Report

Former Fairfax I Site
Kansas City, Kansas

RACER Trust

1502 SW 41st St. Topeka Kansas 66609-1200
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1. Introduction and Purpose

GHD has prepared this Remedial Alternatives Evaluation Report (RA Report) on behalf of the Revitalizing Auto Communities Environmental Responses (RACER) Trust for the Fairfax I site, for submittal to the Kansas Department of Health and Environment (KDHE) pursuant to the Consent Agreement and Final Order (Order) Case No. 11-E-109 BER dated November 21, 2011. The Site[1] is now owned by Fairfax 74, LLC and is being managed under the KDHE Bureau of Environmental Remediation State Co-operative Program. The Order identified five known Areas of Concern (AOC) which required further characterization and/or remediation. The results of the investigations conducted to date are discussed in this report and described in detail in other reports, submitted under separate cover.

The objectives of this RA Report are to:

- Provide background information and a description of the nature and extent of contamination for the five known AOCs.
- Describe clean-up objectives and goals.
- Describe the potentially applicable remedial technologies.
- Identify the potentially applicable remedial alternatives and evaluate the alternatives against screening criteria.
- Provide cost estimate information for the remedial alternatives and summarize the funding available under the Settlement Agreement.

The five known AOCs are identified on Figure 2, and include:

- The area around soil boring S-8.
- The area around soil boring SB-110.
- The area around temporary monitoring well TMW-127.
- The area around monitoring well MW-103A.
- The area around temporary monitoring well TMW-130.

The following Sections of this report provide information regarding the identification and screening of remedial technologies and alternatives, as listed below:

- Section 2.0 includes a summary of the Site investigations and other related activities conducted at each AOC and a description of the nature and extent of contamination based on current conditions.
- Section 3.0 presents the remedial action objectives and goals and information regarding applicable or relevant and appropriate requirements (ARARs).
- Section 4.0 presents the screening of remedial technologies.
- Section 5.0 provides a description of the remedial alternatives for each AOC.

[1] In this report, the Site includes the approximate 91 acre portion of the former Fairfax I Plant that is subject to the Order.

- Section 6.0 presents the screening evaluation of remedial alternatives.
- Section 7.0 presents information regarding funding provided by RACER Trust for covering current and future costs under the Settlement Agreement.
- Section 8.0 lists the references cited in the report.

2. Site Background and Investigation Results

The Site has a long history of investigations (since the late 1980s) and remedial activities. These were performed under a variety of regulatory oversight by the KDHE and in anticipation of the sale of distinct land parcels under the KDHE Voluntary Cleanup and Property Redevelopment Program (VCPRP). Currently the Site is being managed under the KDHE Bureau of Environmental Remediation State Co-operative Program.

2.1 Site Setting

2.1.1 Site Description and Location

The Site is located at 100 Kindelberger Road in Kansas City, Kansas in an industrial area known as the Fairfax District as shown on Figure 1. The original Fairfax I property, that associated with the former Fairfax I Plant operations, covered over 107 acres. The Fairfax I Plant consisted of several buildings, a tank farm, rail support, and drum storage areas. The buildings provided over 2.2 million square feet of covered work area.

To the west and south of the Site are industrial facilities, including industrial operations, chemical companies, and refining and pipeline facilities. The Site is located south of a bend in the Missouri River, with the river located north, east, and southeast of the Site. A levee is present between the Site and the Missouri River (see Figure 1). The Fairfax II Plant was constructed by General Motors Corporation (GMC) on land adjacent to the Fairfax I property beginning in 1998. This is an active automobile assembly plant now owned and operated by General Motors LLC (GM LLC).

2.1.2 Geology and Hydrogeology

The Site is located in the floodplain of the Missouri River. Underlying Site geology typically consists of an upper layer of silty clay ranging in thickness from approximately 7 to 15 feet (ft). This silty clay is underlain by fine to medium sands to depths of 25 to 40 ft, which grade into medium to coarse sands with some gravel and clay interbeds to depths of 60 to 80 ft. This interbedded layer is underlain by medium to coarse sands and gravels to the top of the bedrock. The thick sequence of sands and gravels comprise alluvial deposits that are underlain by shale bedrock at approximately 102 to 117 ft below grade. The present Missouri River channel follows a deeper valley cut into the bedrock by the ancestral Missouri River.

Groundwater flows beneath the Site area within a fining upward sequence of alluvial sands and gravels. Groundwater flow direction is seasonal and is dependent on precipitation events and the stage of the Missouri River. Groundwater elevation data and contour maps, as provided in monitoring reports for the 2013 to 2015 groundwater monitoring program, are included in Appendix A. The contour maps illustrate shallow horizontal gradients and variable flow direction, e.g., northerly flow in January 2014 and January 2015; and southeasterly flow in July and October 2014. Groundwater elevation is dependent on precipitation events and on the stage of the

Missouri River, which is controlled by the U.S. Army Corps of Engineers. Depth to groundwater generally ranges from 20 to 25 ft below ground surface (bgs) but greater variation has occurred.

2.2 Site History

The U.S. Government constructed the Fairfax I facility in 1940, for use by North American Aviation for military aircraft assembly during World War II. In 1945, GMC negotiated a lease for the facility from the U.S. Government and began assembling automobiles. During the Korean conflict in the 1950s, GMC assembled military aircraft in addition to continuing to assemble automobiles. GM purchased the facility from the U.S. Government in 1960 and continued automobile assembly operations until 1986/1987.

The Fairfax I facility was demolished in 1987 and all structures were taken down to the ground surface. Site investigation and remediation activities were undertaken by GMC following demolition as discussed in following Sections. The western portion of the Fairfax I property, which covered approximately 16 acres and is referred to as "Tract 2", was sold to a third party. The property associated with Tract 2 was entered into the VCPRP and received a No Further Action Letter from the KDHE in February 2007.

The remaining Fairfax I property, approximately 91 acres, was also entered into the KDHE VCPRP, until the GMC bankruptcy filing, at which time KDHE determined the Site no longer qualified for the VCPRP. The Site was transferred to the KDHE State Cooperative Program in March 2011 and further Site investigations were conducted by RACER as discussed in following Sections. The Site property (approximate 91 acre portion) was sold by RACER in September 2013 for redevelopment, for industrial/commercial land use purposes.

2.3 Site Investigations

In preparation for demolishing the Fairfax I Plant buildings, HDR Engineering, Inc. (HDR) performed an Environmental Site Assessment (ESA) for GM between August 1987 and January 1988 that was designed to determine potential impacts to soil and groundwater. All aboveground storage tanks (ASTs) and underground storage tanks (USTs) were removed during that time.

In 2003, the KDHE requested that GM perform a confirmatory soil and groundwater investigation of the whole Site to address uncertainties remaining from the 1987 and 1988 studies. A number of groundwater and soil investigations had been performed by GM at a number of areas on the Site (i.e., the MW-103A area and a comprehensive groundwater investigation program). These confirmatory investigations addressed a number of sample locations and data generated previously by HDR, and were completed in stages starting in 2004 and continuing through 2009. Based on those investigation results, additional soil and groundwater investigations were initiated by RACER Trust in 2012 in support of the Remedial Alternatives Evaluation.

Appendix A presents a summary of the investigation activities conducted to date at the individual AOCs and tables that provide detected soil and groundwater analytical data, organized by AOC. Appendix A tables also include the soil and groundwater data collected from the Site that were not specifically assigned to an AOC. The detected chemical concentrations are compared to the KDHE Tier 2 risk-based standards, for both residential and non-residential property use, (hereafter referred to as "Tier 2 standards"). Off-Site soil and groundwater analytical data not assigned to a specific AOC are not included as part of this evaluation.

Figure 3 shows the soil and groundwater sample locations for the Site investigations. Figures 4 through 10 show the investigation locations and soil analytical results for the individual AOCs. Figures 11, 12 and 13 show analytical results for the current groundwater monitoring program (October 2013 through July 2015).

2.4 Site Remediation Activities

Remediation System for MW-103A

Based on investigations conducted by HDR following facility decommissioning in the 1980s, the primary sources of contamination at MW-103A area were determined to be gasoline and paint thinner from a tank farm along with suspect historical releases of PCE from prior to GM operations. GM initiated a cleanup program in 1988, including a remedial system designed to address the presence of VOCs in soils and groundwater and the intermittent presence of light non-aqueous phase liquid (LNAPL). The remediation system comprised groundwater extraction and treatment by air stripping along with soil vapor extraction and treatment by thermal oxidation, initiated in 1991 and shut down in 1994.

Interim Measures for MW-103A and TMW-130

Based on the results of investigations conducted through 2012, Interim Measures were completed to further address the impacts identified at the MW-103A area, and at the TMW-130 area. The use of interim measures is outlined in policy developed by the Kansas Department of Health and Environment (KDHE) Bureau of Environmental Remediation (BER)[2]. The policy defines an interim measure as "a set of short-term actions or activities taken to quickly prevent, mitigate or remedy unacceptable risk(s) posed to human health and the environment by an actual or potential release of a hazardous substance, pollutant or contaminant." The policy also states that interim measures may be implemented while long-term remedies are evaluated and is intended to be consistent with the final remedy. The interim measures for the Site were therefore intended to improve environmental conditions and to support the final remedy.

The objectives for each area included: removal of unsaturated zone soil from within defined excavation limits; remove LNAPL that is encountered within the unsaturated zone during excavation to the extent practical; and remove LNAPL that can reasonably be recovered from the upper portion of the saturated zone at the base of the excavation prior to backfilling. In addition it was intended, if feasible and/or as required as a contingency, to implement in situ treatment to address conditions within the upper portion of the saturated zone, prior to backfilling and/or following backfilling.

In preparation for the Interim Measures field activities, approval was requested from the Fairfax Drainage District (FDD) due to the proximity to the flood control levee. Based on comments received from FDD and the U.S. Army Corps of Engineers (USACE) the original plan was modified to limit the depth of excavation to an elevation 3 ft above the water table. This was due to USACE concerns about subsurface soil stability and potential piping initiation in the event of Missouri River flooding. The excavation activities were conducted from December 2013 to February 2014 as described in the Interim Measures Report (CRA, September 2014) and as summarized in Section 2.5.4 and 2.5.5.

[2] See BER Policy # BER-RS-029 (Revised) dated October 2006.

Institutional Controls

In 2013, RACER and KDHE executed an Environmental Use Control Agreement (EUCA) and a Long Term Care Agreement (LTCA) for the Site, both of which were recorded in the Register of Deeds for Wyandotte County, Kansas. Copies are included in Appendix B.

The EUCA includes restrictions, prohibitions and limitations related to property use, summarized as follows:

- The property shall not be used for residential purposes of any type; or as a public use area.
- The owner shall not allow water wells to be drilled, constructed or used for domestic purposes, lawn and gardening, or other means, which use involves or may involve human consumption and/or other possible human contact.
- The owner shall not file or petition to initiate re-zoning without notice to KDHE.
- The owner shall not allow soils to be excavated or otherwise disturbed unless conducted in accordance with the KDHE-approved Soil and Waste Management Plan (SWMP).
- The owner shall inform parties performing excavation activities of the potential hazards associated with direct contract and/or transport of potentially impacted soil or other material, and of any potential hazards associated with releases from impacted media.
- The owner shall preserve, protect and replace as necessary all permanent survey markers and environmental monitoring stations.

The LTCA provides for annual inspections and maintenance of the Site to ensure protection of public health and the environment.

The Soil and Waste Management Plan (SWMP) (CRA, February 2013) for the Site outlines procedures for notification regarding intrusive activities and management of soil and waste material. The SWMP was approved by KDHE via letter dated February 12, 2013.

2.5 Areas of Concern

This Section provides a summary of the current conditions for each AOC based on the investigations completed to date, as presented in Appendix A. This summary also incorporates information from the Interim Measures activities conducted for MW-103A and TMW-130 areas in 2013/2014 (CRA, September 2014).

2.5.1 S-8 Area

The soil stratigraphy in the immediate area of S-8 is characterized by the description provided on the log for TMW-147E, which identifies clay and silt/clay material from the ground surface to approximately 2 ft bgs. This is underlain by sand to the bottom of the borehole at 27 ft bgs. The stratigraphic log for SB-113 located approximately 70 ft south of S-8 identifies sand from ground surface to the bottom of the borehole at 12 ft bgs. The depth to groundwater varies from approximately 15 to 28 ft bgs based on water level data recorded at TMW-147E from October 2013 through July 2015.

The analytical results for detected volatile organic compounds (VOCs) in soil samples above Tier 2 standards are shown on Figure 4 and provided in Table A-1. Volatile organic compounds (VOCs) were detected in soil samples from one borehole (collected by HDR in 1987) in the S-8 Area at

concentrations greater than the Tier 2 standards for soil based on groundwater protection. In 2012, GHD completed further delineation with four additional boreholes in the vicinity of S-8; however, VOCs were not detected above Tier 2 standards. The former S-8 location was re-evaluated based on soil samples collected by Cardno from one borehole in 2013 and tetrachloroethene (PCE) was detected as follows: 6 ft bgs (105 micrograms per kilogram [µg/kg] and 111 µg/kg); 10 ft bgs (65.5 µg/kg); 13.5 ft bgs (312 µg/kg); and 15 ft bgs (126 µg/kg). The detected concentrations of PCE at 13.5 ft and 15 ft are greater than the Tier 2 standard (121 µg/kg). Other VOCs in soil samples were at concentrations less than their respective Tier 2 standards. None of the detected concentrations of VOCs were greater than the Tier 2 standards for direct contact.

The analytical results for detected VOCs in groundwater are provided in Table A-10. The shallow groundwater monitoring data for TMW-147E (located adjacent to S-8) indicates the presence of VOCs greater than the Tier 2 standards, including cis-1,2-DCE, PCE and TCE. Groundwater samples collected in 2012 contained cis-1,2-DCE (up to 0.197 milligrams per liter [mg/L]), PCE (up to 0.0527 mg/L) and TCE (up to 0.0347 mg/L). Groundwater samples collected from October 2013 through July 2015 (see Figure 11) contain variable concentrations of cis-1,2-DCE (up to 0.0841 mg/L), PCE (up to 0.0429 mg/L) and TCE (up to 0.0338 mg/L). Groundwater samples from other nearby shallow monitoring wells (MW-109 and TMW-148) contain detectable concentrations of VOCs, but less than the Tier 2 standards based on the October 2013 through July 2015 results.

Based on the review of current conditions outlined above the following observations are made:

- Regarding soil, the extent of impact above Tier 2 standards is very limited (S-8 soil only), the detected concentrations in soil marginally exceed the Tier 2 standards based on soil to groundwater exposure pathway and do not exceed Tier 2 standards for direct contact.
- The VOC detections in groundwater at TMW-147E appear to be localized, considering the data for MW-109 and TMW-148,and the results of the assessment of Site-wide groundwater conditions (see Section 2.6).

2.5.2 SB-110 Area

The shallow soil stratigraphy in the SB-110 Area is characterized by the description provided on the logs for SB-110 and various other boreholes that were advanced to depths of approximately 12 ft bgs. Generally these logs identify clay as the predominant soil type encountered, and some of the logs identify the presence of thin layers of sand (less than 2 ft thick). The boreholes that extend to depths greater than 12 ft bgs include SB-119A, SB-119B, SB-119C, SB-120A, and SB-137. The logs for these boreholes also identify the presence of clay and silt in the shallow soil extending to depths ranging from approximately 11 to 20 ft bgs. At SB-119A, sand was encountered over most of the interval from approximately 12 ft bgs to the base of the borehole at 27 ft bgs. Conversely, at SB-119B, SB-119C, and SB-120A, the predominant soil type encountered is clay and silt to approximately 20 ft bgs, which is underlain by sand. Sand was encountered at the base of each of these boreholes, at depth of approximately 20 ft bgs. The depth to groundwater varies from approximately 14 to 28 ft bgs based on water level data recorded at MW-125 and TMW-152 from October 2013 through July 2015. It is noted that soil investigations in this area identified the presence of concrete associated with former building foundations, which impeded borehole advancement in some locations.

The analytical results for detected VOCs in soil samples are shown on Figure 5 and summarized in Table A-2. VOCs were detected in soil samples from three boreholes in the SB-110 Area at

concentrations above Tier 2 standards for soil based on groundwater protection. The detected values above the Tier 2 standards for PCE (0.121 mg/kg) are 0.19 mg/kg at SB-110 (10 to 12 ft); 0.45 mg/kg at SB-119 (10 to 12 ft); and 0.15 mg/kg at SB-121 (9 to 10 ft). Other VOCs in soil samples were at concentrations below the respective Tier 2 standards. None of the detected concentrations are above the Tier 2 standards for direct contact. Overall, the available analytical data indicates a limited area of residual VOCs, within soil described as silty sand (at SB-110) and clay (at SB-119 and SB-121).

The analytical results for detected VOCs in groundwater are provided in Table A-10. The shallow groundwater monitoring data for the immediate area where the soil exceedances were identified (based on MW-125 and TMW-152 through July 2015) indicates that groundwater is not impacted above Tier 2 standards with one exception. At TMW-152, PCE was detected at a concentration of 0.0058 mg/L, slightly above the Tier 2 standard, in January 2015 and 0.0177 mg/L in July 2015 (see Figure 11). The 2012 groundwater monitoring results for TMW-150 and TMW-151, located approximately 150 ft northeast of SB-110, indicated the presence of TCE slightly above the Tier 2 standards. However, the more recent results (October 2013 through July 2015, see Figure 11) for these wells indicate no VOC detections above Tier 2 standards with one exception. TCE was detected at TMW-151 at a concentration of 0.0055 mg/L, slightly above the cleanup standard, in July 2015.

Based on the review of current conditions outlined above the following observations are made:

- Regarding soil, the extent of impact above Tier 2 standards is limited in extent, the detected concentrations marginally exceed the Tier 2 standards based on soil to groundwater, and do not exceed Tier 2 standards for direct contact. Moreover, the groundwater monitoring results do not indicate the presence of VOCs at concentrations above Tier 2 standards.
- Groundwater does not appear to be significantly impacted since the recent groundwater monitoring results indicate no detections above the Tier 2 standards with the exception noted above, and the results of the assessment of Site-wide groundwater conditions (see Section 2.6).

2.5.3 TMW-127 Area

The shallow soil stratigraphy in the TMW-127 Area is characterized by the description provided on the logs for SB-127 and various other boreholes (SB-125, SB-128, TMW-145, TMW-153, TMW-154, TMW-155) that were advanced to depths of up to 35 ft bgs. Generally these logs identify layers of clay, silt and sand within the upper 10 to 20 ft bgs, underlain by sand. The depth to groundwater varies from approximately 16 to 28 ft bgs based on water level data recorded at TMW-127, TMW-154, and TMW-155 from October 2013 through July 2015.

As discussed in Appendix A and summarized in Table A-3, no VOCs in soil were detected at concentrations above the Tier 2 standards in this area. The analytical results for detected VOCs in groundwater are provided in Table A-10. The historic groundwater monitoring data for this AOC indicated the presence of cis-1,2-DCE and VC at concentrations greater than the Tier 2 standards in TMW-127. In addition methylene chloride was detected at TMW-147 above Tier 2 standards but not consistently. Other nearby shallow groundwater monitoring well TMW-155 and intermediate well MW-156 also indicated the presence of cis-1,2-DCE and VC at concentrations greater than the Tier 2 standards.

Groundwater samples were collected from boreholes (using direct push technology) to delineate VOCs in groundwater in 2013 (Cardno, June 2013). The sample locations are shown on Figure 6 and the analytical results are included in Table A-13. The VOCs that were detected above Tier 2 standards include cis-1,2-DCE and VC, with the highest concentrations occurring in shallow and intermediate depth intervals. Based on the results, additional monitoring wells were installed, including TMW-144B, TMW-144C, TMW-146B, TMW-146C, TMW-156C, TMW-158A and TMW-158B.

As shown on Figure 11, groundwater samples collected from October 2013 through July 2015 in this AOC continue to have concentrations of cis-1,2-DCE and VC greater than Tier 2 standards in TMW-127. Other nearby shallow groundwater monitoring wells (TMW-155, MW-158A) also indicate the presence of VOCs above Tier 2 standards, including cis-1,2-DCE, TCE and VC and inconsistent exceedances of benzene and trans-1,2-DCE. In addition benzene and methylene chloride were detected at TMW-146 above Tier 2 standards, but not consistently. As shown on Figure 12, the presence of cis-1,2-DCE and VC at concentrations above Tier 2 standards is also indicated at intermediate wells MW-144B and MW-156; and VC at MW-146B and MW-158B. An exceedance of the Tier 2 standard for benzene was observed in one sample from TMW-144B. As shown on Figure 13, VC was detected above the Tier 2 standard at two deep wells (MW-146C and MW-156C), but not consistently. Arsenic was detected in groundwater at a concentration above Tier 2 standards at TMW-127 (2006 and 2007). Lead was detected at a concentration greater than the Tier 2 standard in one sample collected from MW-108 in 1998. Manganese was detected at a concentration greater than the Tier 2 standard in samples collected from TMW-127 (2006), MW-110 (2004 and 2006) and TMW-124, TMW-125, TMW-126, and TMW-128 (2006).

In 2013, CRA conducted a bench-scale treatability study using samples collected from the TMW-127 area (CRA Memorandum dated August 20, 2013, see Appendix C). The overall objective of the study was to determine the effectiveness of in-situ chemical oxidation (ISCO) and in-situ enhanced biodegradation (ISEB) for treating chlorinated VOCs (CVOCs) in groundwater. The conclusions and recommendations of the study are summarized as follows:

- Both ISCO and ISEB would be effective for treatment of CVOCs in the TMW-127 area.
- If ISCO is used, sodium permanganate is recommended and can be applied with a single injection event.
- The biodegradation microcosm test results indicated that dechlorination of CVOCs was successful in the un-amended samples, indicating that the use of natural attenuation processes may be sufficient to allow biodegradation to occur in a reasonable time.
- The cost for Monitored Natural Attenuation (MNA) would be expected to be lower than the cost for ISCO, but MNA would take longer to reach Tier 2 standards.

Based on the above no soil impact above Tier 2 standards has been identified, and no remedial alternatives for soil are contemplated. Monitoring was conducted to further assess Site-wide groundwater conditions. The monitoring results were also used to assess natural attenuation and plume stability. See Section 2.6 for groundwater information.

2.5.4 MW-103A Area

Investigation Results

The soil stratigraphy in the MW-103A area is characterized by various boreholes, the most recent of which is SB-50 and SB-51 completed in April 2012. These logs identify layers of clay, silt and sand within the upper 16 ft bgs, underlain by sand. The depth to groundwater varies from approximately 16 to 30 ft bgs based on water level data recorded at MW-102A, MW-104, MW-105, MW-115A and TMW-157 from October 2013 through July 2015. The analytical results for soil and groundwater are summarized in Tables A-7 and A-8, respectively.

The analytical results for VOCs detected above Tier 2 standards in soil investigation samples are shown on Figure 7. Note that this includes sample locations that were subsequently excavated during the Interim Measures conducted in 2013/2014. Within the immediate area around MW-103A, the locations exhibiting the highest concentrations include SB-42 (10 to 12 ft bgs), SB-101 (12 to 14 ft bgs), SB-102 (12 to 14 ft bgs), SB-104 (8 to 10 ft bgs and 12 to 14 ft bgs), and SB-105 (12 to 14 ft bgs). At other sample locations shown on the figures in close proximity to MW-103A, lower or non-detect concentrations are observed, indicating the variability in concentration values between locations. Detections of VOCs above the Tier 2 standards were observed at some outlying historic sampling locations including F-26, S-26, S-27, S-29, and S-30.

The intermittent presence of light non-aqueous phase liquid (LNAPL) was identified at MW-103A during the investigation stage. In January 2006 the measured LNAPL thickness was approximately 1.3 ft, at a depth of approximately 30 ft bgs, but LNAPL was not observed during more recent monitoring events.

The analytical results for detected VOCs and total petroleum hydrocarbon (TPH) in groundwater are provided in Table A-10. As shown on the table, the organic parameters detected above the Tier 2 standards at MW-103A, where the intermittent presence of LNAPL was observed, include methyl-iso-butyl-ketone (MIBK), acetone, BTEX, and TPH (diesel range and gasoline range). The analytical results for other monitoring wells in the area (MW-102A, MW-102B, MW-102C, MW-103A, MW-103B, MW103C, MW-104, MW-105, and MW-115A) indicate generally non-detect values. Overall, the groundwater monitoring data demonstrate that observations of chemical concentrations above Tier 2 standards are limited to MW-103A where the intermittent presence of LNAPL was observed.

As indicated above, the investigations at this area identified the presence of VOCs in borehole soil samples at concentrations above Tier 2 standards for soil based on direct contact and groundwater protection. The groundwater monitoring data has shown that groundwater is not impacted above Tier 2 standards with the exception of MW-103A where the intermittent presence of LNAPL was observed. The well was removed during Interim Measures as discussed below.

Interim Measures

Interim Measures for the excavation and removal of impacted soil around MW-103A was conducted in 2013/2014 as described in the Interim Measures Report (CRA, September 2014). This included removal of the suspected source material within the unsaturated zone, related to the presence of LNAPL. The vertical limit of excavation was maximized by conducting the work during a period of seasonal low water level for the Missouri River, and at the same time complying with FDD/USACE permit limitations for working near the levee. Historically, the groundwater elevations measured in

monitoring well MW-103A ranged from a high of 731.44 feet above mean sea level (AMSL) in May 1999 to a low of 715.89 feet AMSL in January 2006. The elevation of the screened interval of MW-103A was 725.5 to 715.5 feet AMSL (CRA, September 2014). During the interim measure excavation activities, the groundwater elevation ranged from 716.58 to 717.67 in shallow monitoring wells in the MW-103A area. As a result the interim measures excavation removed soil to an approximate elevation of 721 feet AMSL (as dictated by FDD/USACE permit limitations) indicating that the excavation reached depths that removed a significant amount of source material. As part of the Interim Measures MW-103A and other nearby monitoring wells (MW-103B, MW-103C) were plugged and abandoned. The analytical results for post-excavation soil samples are provided in Table A-5. Figure 8 shows the analytical results for soil samples representing conditions following completion of the Interim Measures soil excavation. This includes investigative locations that were not excavated and post-excavation samples collected prior to backfilling.

As summarized in the Interim Measures Report:

- Approximately 4,966 cubic yard (yd^3) of material was excavated and transported to the onsite landfarm for treatment.
- The excavation was expanded beyond the original defined limits to incorporate observed sidewall impacts along the east and west sides.
- Three of the sidewall samples representing soils left in-place collected between 8 ft and 15 ft bgs (SW Trench-1 8', NE Corner 15', and North Wall 12') had detections above the KDHE Tier 2 "soil pathway" non-residential criteria.
- No LNAPL was observed in the excavation sidewalls or base.

KDHE and RACER reviewed the soil analytical data and decided that no further excavation was warranted based on the location and depth of the impacted material, absence of groundwater impacts, FDD/USACE restrictions, and the implementation of EUCs.

Summary

Following completion of the Interim Measures, impacted soil material has been removed from the former MW-103A location and vicinity, reducing the potential for future accumulation of LNAPL. The identified soil sample locations with concentrations above Tier 2 standards are shown on Figure 8. Regarding groundwater, current monitoring results indicate very limited impacts above Tier 2 standards. Although residual hydrocarbon material may exist at depth below the IM excavation limit (as indicated by the historic presence of LNAPL at MW-103A) this does not appear to have a significant effect on groundwater quality. Monitoring was conducted to assess Site-wide groundwater conditions (see Section 2.6).

2.5.5 TMW-130 Area

Investigation Results

The soil stratigraphy in the TMW-130 Area is characterized by various boreholes advanced to depths up to 35 ft bgs. The logs identify layers of clay, silt and sand within the upper 10 to 15 ft bgs, underlain by sand. The depth to groundwater varies from approximately 16 to 28 ft bgs based on water level data recorded at TMW-144, TMW-145, TMW-146, and TMW-153 from October 2013 through July 2015. The analytical results for soil and groundwater are summarized in Tables A-6 and A-10, respectively.

The analytical results for VOCs and other organic parameters detected above Tier 2 standards in soil investigation samples are shown on Figure 9. In November 2006 a sample collected from soil boring SB-130 (5 to 7.5 ft bgs) had exceedances of the Tier 2 standards for 2-methylnaphthalene, dibenzofuran, and naphthalene. In September 2009 methylene chloride was detected in four locations (SB-B3-A [13 to 15 ft bgs], SB-D4-A [1 to 3 ft bgs], SB-E4-A [17 to 19 ft bgs]), and SB-F4-A (17 to 19 ft bgs). Also TPH – diesel range organics (DRO) was detected at concentrations greater than the Tier 2 standards in four locations (SB-B3-A, SB-D4-A, SB-E4-A, and SB-F4-A) and TPH – gasoline range organics (GRO) in two locations (SB-B3-A and SB-E4-A). Figure 9 also shows the approximate extent of observed LNAPL and the average fluorescence based on the laser induced fluorescence/ultraviolet optical screening tools (LIF/UVOST) survey conducted in 2008. As shown on Figure 9, there are relatively few detected concentrations in soil that are above the Tier 2 standards although it is apparent that the presence of hydrocarbon-impact potentially comprised an area approximately 200 ft by 350 ft.

Based on examination of the LIF/UVOST survey logs, the vertical extent of potential hydrocarbon impact was found to be variable. At some survey locations the apparent hydrocarbon impact extended through the unsaturated soil zone and into the underlying saturated soil, while at other survey locations the apparent hydrocarbon impact existed within discrete zones within the saturated zone only. The survey results indicated that the maximum vertical extent of potential hydrocarbon impact was located in the center of the LNAPL body in the vicinity of TMW-130 (LIF-D4) from approximately 1 to 35 ft bgs. The vertical extent of potential hydrocarbon impact tapers off significantly toward the periphery (e.g., 26 to 29 ft bgs at LIF-F2). Given the average depth to the water table in the area, it is apparent that the potential hydrocarbon impact extended 10+ ft into the saturated zone (but may be limited in thickness).

The areal extent where LNAPL was observed in monitoring wells (or the area where LNAPL was more likely to be present at saturation levels high enough that mobile/recoverable fractions may be present) is represented by the "approximate extent of observed LNAPL" shown on Figure 9. This area encompasses TMW-130, TMW-139, TMW-140, TMW-141, and TMW-142, with a diameter of around 160 ft. The LNAPL was identified through fingerprint testing as a significantly degraded middle distillate type product such as diesel fuel or heating oil, and would not result in significant dissolved or vapor phase effects based on these characteristics.

The analytical results for detected VOCs and TPH in groundwater are provided in Table A-10. As shown on the table, the organic parameters detected above the Tier 2 standards include benzene at TMW-139, TCE at TMW-144 and TPH (GRO) at TMW-130. Manganese was also detected above Tier 2 standard at TMW-132 in 2006. The latter result was not confirmed in subsequent sampling. The presence of benzene at TMW-139 may be related to the presence of LNAPL in that monitoring well. In general, the groundwater analytical data indicates very limited groundwater impact associated with the presence of LNAPL in this area. This finding is consistent with the properties of the LNAPL as discussed above.

As indicated above, the investigations at this area identified the presence of VOCs and other parameters in borehole soil samples at concentrations above Tier 2 standards for soil based on direct contact and groundwater protection. The groundwater monitoring data has shown that groundwater is marginally impacted above Tier 2 standards for benzene, TCE and TPH. The presence of LNAPL has been observed in some wells, removed during Interim Measures as discussed below.

Interim Measures

Interim Measures for the excavation and removal of impacted soil around TMW-130 was conducted in 2013/2014 as described in the Interim Measures Report (CRA, September 2014). This included removal of the suspected source material within the unsaturated zone, related to the presence of LNAPL. LIF/UVOST survey logs indicate that the maximum vertical extent of potential hydrocarbon impacted was approximately 35 feet bgs or approximately 708 feet AMSL at LIF-D4 (TMW-130). The vertical limit of excavation was maximized by conducting the work during a period of seasonal low water level for the Missouri River, and at the same time complying with FDD/USACE permit limitations for working near the levee. During the interim measure excavation activities, the groundwater elevation ranged from 716.70 to 718.65 feet AMSL in monitoring wells in the TMW-130 area. The maximum depth of soil excavated during interim measures (as dictated by FDD/USACE permit limitations) reached a depth of approximately 22 feet bgs or an approximate elevation of 721 feet AMSL (CRA, September 2014), indicating that the excavation reached depths that removed a significant amount of source material.

As part of the Interim Measures TMW-130 and other nearby monitoring wells (TMW-139, TMW-140, TMW-141, and TMW-142) were plugged and abandoned. The analytical results for post-excavation soil samples are provided in Table A-7. Figure 10 shows the analytical results for soil samples representing conditions following completion of the Interim Measures soil excavation. This includes investigative locations that were not excavated and post-excavation samples collected prior to backfilling.

As summarized in the Interim Measures Report:

- Approximately 14,951 yd^3 of material was excavated and transported to the onsite landfarm for treatment.
- The excavation was expanded beyond the original defined limits to the east towards the property line and to join Areas 2 and 3. The eastern boundary was extended toward the property line.
- Three of the 9 ft bgs sidewall samples (22-9', 31-9', and 32-9') representing soils left in-place had detections above the "soil pathway" non-residential criteria.
- The constituents detected above soil-to-groundwater non-residential criteria were detected at depths greater than 9 ft bgs, the zone of seasonal groundwater fluctuation.
- No LNAPL was observed in the excavation sidewalls or base.

KDHE and RACER reviewed the soil analytical data and decided that no further excavation was warranted based on the location and depth of the impacted material, absence of groundwater impacts, FDD/USACE restrictions, and the implementation of EUCs.

Summary

Following completion of the Interim Measures, impacted soil material has been removed from the former location of TMW-130 and vicinity, reducing the potential for future accumulation of LNAPL. The identified soil sample locations with concentrations above Tier 2 standards are shown on Figure 10. Regarding groundwater, current monitoring results indicate very limited impacts above Tier 2 standards. Although residual hydrocarbon material may exist at depth below the IM excavation limit (as indicated by the historic presence of LNAPL at TMW-130 and other wells, and

the LIF investigation results) this does not appear to have a significant effect on groundwater quality. This finding is consistent with the hydrocarbon material characterization testing results discussed above. Monitoring was conducted to assess Site-wide groundwater conditions (see Section 2.6).

2.6 Site-wide Groundwater

Site groundwater conditions were monitored in accordance with the Groundwater Monitoring Plan (CRA, August 2013). This program included eight quarterly sampling events, which commenced in October 2013 and was completed in July 2015. The program includes collection of groundwater samples from various monitoring wells, including those associated with individual AOCs as discussed in preceding Sections.

A preliminary Natural Attenuation assessment based on the data from the first four quarterly events (CRA' Memorandum dated October 23, 2014) included recommendations for modifications to the monitoring plan, which were implemented for the remaining quarterly events. The results of the Natural Attenuation assessment are provided in the GHD memorandum dated November 3, 2015, included in Appendix D. In addition GHD conducted an analysis of groundwater plume stability based on VOC data for the TMW-127 Area, the results of which are provided in the GHD memorandum dated November 20, 2015 included in Appendix E.

Based on the results of the current monitoring program (see Tables A-12 of Appendix A) through July 2015[3], VOCs were detected in on-Site monitoring well samples at concentrations above Tier 2 standards for groundwater at the following locations:

- Shallow groundwater (see Figure 11): TMW-147E, TMW-151, TMW-152, TMW-157, MW-105, MW-158A, TMW-155, TMW-127, MW-110A, and TMW-146.
- Intermediate groundwater (see Figure 12): MW-158B, MW-156, MW-144B, MW-146B, MW-118B, and MW-111.
- Deep groundwater (see Figure 13): MW-146C and MW-156C

At some of the locations listed above, individual VOCs were not consistently detected at concentrations above Tier 2 standards. The area of the Site that exhibits the highest VOC concentrations on a consistent basis is centered on the TMW-127 area. Generally, this includes shallow groundwater (in the vicinity of TMW-127, TMW-155, and MW-158A) and intermediate groundwater (in the vicinity of MW-144B, MW-146B, MW-156, and MW-158B). Within this area, the detected VOCs include benzene (up to 0.0155 mg/L); cis-1,2-DCE (up to 1.48 mg/L); trans-1,2-DCE (up to 0.107 mg/L); PCE (up to 0.00017 mg/L); TCE (up to 0.141 mg/L); and vinyl chloride (up to 0.192 mg/L). In addition, PCE (up to 0.0429 mg/L) and TCE (up to 0.0338 mg/L) were consistently detected at TMW-147E, in the S-8 area.

The general areas of consistent VOC detections above Tier 2 standards are indicated on Figures 11 and 12 for shallow and intermediate groundwater respectively. As shown on Figure 11, a localized area of VOC impact in shallow groundwater around TMW-147E is indicated, and a larger area extending from MW-158A to TMW-127. The latter area overlaps the area of VOC impact in the intermediate groundwater shown on Figure 12, which appears to extend from the vicinity of MW-158B to MW-156, continuing to MW-146B, along a southeasterly axis. Although groundwater

[3] This includes eight quarterly groundwater sampling events, conducted in October 2013, January 2014, April 2014, July 2014, October 2014, January 2015, April 2015, and July 2015.

level measurements indicate variability in depth and flow direction, a southeasterly flow pattern has been observed during some monitoring events (for example see groundwater contour maps for July and October 2014 included in Appendix A). It is noted that the area of VOC impact in groundwater indicated by the results from the wells in the TMW-130 area does not appear to be related to the soil and LNAPL conditions in that area. As discussed in preceding Sections, the historic presence of LNAPL in MW-103A and TMW-130 areas does not appear to have a significant effect on groundwater quality.

The MNA evaluation (Appendix D) was conducted using a "weight-of-evidence" approach by assessing contaminant concentration trends; presence of by-products; and geochemical conditions in groundwater. The study concluded that some natural attenuation of the plume via reductive biodegradation is occurring at the Site, based on the following observations: i) VOC concentrations appear to decrease along the assumed groundwater flowpath in the TMW-127 Area; ii) daughter products of PCE and TCE have been detected in groundwater; and iii) groundwater conditions are reducing, and likely in the nitrate-reducing to iron-reducing range, which is sufficient for the reductive degradation of PCE and TCE. It was noted that some COCs were detected in samples from wells at and just beyond the Site boundary. The study recommended long-term monitoring to provide information regarding groundwater conditions and potential VOC migration.

The plume stability analysis (Appendix E) includes a review of site and regional information related to geologic and hydrogeologic conditions. A set of 20 monitoring wells in the TMW-127 Area was used as the basis for examining concentration trends and to calculate TCE-equivalent CVOC concentrations based on measured concentrations of TCE and daughter products (i.e., cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride) during the October 2013 to July 2015 monitoring period. The stability of the TCE-equivalent plume was investigated with respect to: planar plume areas; area-averaged plume concentrations; plume mass; and locations of the centers of plume mass. In conclusion the following points (reproduced from Appendix E) are noted:

- Based on the results of the plume stability analysis, which evaluated groundwater concentrations sampled over a limited data set between October 2013 and July 2015, at the 99 percent confidence level the groundwater plume area, average concentration, and mass appear to be stable. There do appear to be early signs of a decreasing trend of groundwater plume area and plume mass but these trends are not statistically significant.
- The location of the groundwater TCE-equivalent CVOC plume center of mass oscillates back and forth to the northwest and southeast. The center of mass moves as changing water levels in the Missouri River induce a change in the hydraulic gradient across the Site. The changing groundwater flow direction should aid in keeping the groundwater plume stable.
- Preliminary conclusions based on the limited (October 2013 to July 2015) data set may be supplemented with additional monitoring data collected over the next 3 to 5 year in order to make longer-term evaluations of groundwater plume stability.

3. Remedial Action Objectives and Goals and ARARs

3.1 Remedial Action Objectives and Goals

In general, the remedial action objectives include:

- Provide protection of public health and the environment.

- Comply with applicable local, State, and Federal regulations.
- Mitigate or eliminate the AOCs.
- Provide practical, cost-effective remediation.
- Utilize remedies which may be completed in a short time frame, where applicable.

To achieve the remedial action objectives, selected remedial technologies and remedial alternative goals have been evaluated.

Section 4.0 provides information regarding general response action, remedial technologies and process options that have been considered and screened for purposes of assembling alternatives (in Section 5.0).

The remedial action goals that have been assessed include KDHE Tier 2 risk-based standards (residential and non-residential). KDHE Tier 3 risk-based standards have not been developed for the Site at this time.

The implementation of an Environmental Use Control (EUC) has been considered where required to eliminate potential exposure pathways through the development of permanent land use restrictions. The existing EUCs for the Site are discussed in Section 2.4.

The remedial alternative evaluation has been completed on an AOC basis except as follows. Groundwater has been evaluated on a Site-wide basis in order to consider the overall spatial and temporal data distribution.

Long-term operation, maintenance, and monitoring (OMM) has also been evaluated where necessary to demonstrate achievement of the remedial action objectives and goals.

3.2 Applicable or Relevant and Appropriate Requirements (ARARs)

ARARs represent standards, requirements, and criteria limitations under Federal, State, or local regulations that may govern Site remediation. ARARs are identified to help prepare a list of remedial alternatives, to evaluate remedial alternatives, and, ultimately, to select a remedy. The KDHE ARARs Policy Document (BER-RS-015) was used to identify potential ARARs.

A review of potential ARARs was conducted as summarized in Table 3.1. The ARARs are categorized as either chemical-specific, location-specific, or action-specific as described below:

- **Chemical-Specific** - Chemical-specific requirements define acceptable exposure levels for specific hazardous substances and, therefore, may be used as basis for establishing preliminary remediation goals and cleanup levels for chemicals of concern in the designated media. Chemical-specific ARARs also are used to determine treatment and disposal requirements that may occur in a remedial activity. In the event a chemical has more than one requirement, the more stringent requirement will govern.
- **Location-Specific** - Location-specific requirements set restrictions on the types of remedial activities that can be performed based on site-specific characteristics or location. Alternative remedial actions may be restricted or precluded based on Federal, State, or local zoning laws for hazardous waste facilities, proximity to wetlands or floodplains, or to man-made features such as existing landfills, disposal areas, and local historic landmarks or buildings.

- **Action-Specific** - Action-specific requirements set controls or restrictions on the design, implementation, and performance of waste management actions. The particular types of treatment or remedial actions that are selected to accomplish the cleanup trigger them. After remedial alternatives are developed, action-specific ARARs that specify performance levels, as well as specific levels for discharges or residual chemicals, provide a basis for assessing the feasibility and effectiveness of the remedial actions.

In accordance with KDHE BER Policy (#BER-RS-015), another category is added to the Table 3.1. The category "To Be Considered" is included, which identifies non-promulgated standards that could factor into the remedial alternatives.

4. Identification and Screening of Remedial Technologies

This Section describes the list of remedial technologies that have been considered and the screening procedure used to identify suitable technologies for the assembly of remedial alternatives for the AOCs.

4.1 Soil

To address soil impacts, the general response actions and associated remedial technologies evaluated as part of this feasibility evaluation included:

- No Action.
- Institutional Controls (i.e., access restrictions).
- In Situ Treatment including biological treatment, physical/chemical treatment, and thermal treatment.
- Ex Situ Treatment assuming excavation and including biological treatment and thermal treatment.
- Soil Removal (i.e., excavation).
- Containment (i.e., cap).

Combinations of the above may also be considered in the development of remedial alternatives. Specific process options for each of the above noted response actions and remedial technologies were identified, and a description for each alternative considered, is provided in Table 4.1.

Each remedial response action, technology, and process option, was evaluated based on relative effectiveness, implementability, and costs. The results of this screening evaluation are also provided in Table 4.1.

Based on this evaluation, certain remedial technologies were retained for the development of remedial alternatives, as indicated in Table 4.1.

4.2 Groundwater

To address groundwater impacts, the general response actions and associated remedial technologies evaluated as part of this feasibility evaluation included:

- No Action.
- Institutional Controls including access restrictions and monitoring.
- Monitored Natural Attenuation (MNA).
- In Situ Treatment including biological treatment, physical/chemical treatment, and thermal treatment.
- Extraction/treatment including ex situ biological treatment, ex situ physical/chemical treatment, and off-Site treatment.
- Containment including capping and vertical barriers.

Combinations of the above may also be considered in the development of remedial alternatives. Specific process options for each of the above noted response actions and remedial technologies were identified, and a description for each alternative considered, is provided in Table 4.2.

Each remedial response action, technology, and process option, was evaluated based on relative effectiveness, implementability, and costs. The results of this screening evaluation are also provided in Table 4.2.

Based on this evaluation, certain remedial technologies were retained for the development of remedial alternatives, as indicated in Table 4.2.

5. Identification and Description of Remedial Alternatives

The following Sections present the alternatives that are considered for each AOC based on the current conditions information (Section 2.0 and Appendix A) remedial action objectives and goals (Section 3.0), and technology screening (Section 4.0).

5.1 S-8 Area

As discussed in Section 2.5.1 and Appendix A, VOCs were detected in soil samples from one borehole in the S-8 Area at concentrations above Tier 2 standards for soil based on groundwater protection. The groundwater monitoring data for TMW-147E indicates the presence of VOCs above Tier 2 standards (see Section 5.6). The remedial alternatives described below focus on the presence of VOCs in soil at S-8, based on the estimated extent of soil impacted above Tier 2 standards for protection of groundwater as shown on Figure 4.

The remedial alternatives developed for this area include the following:

Soil (S-8)

- No Action
- Engineering controls/containment with Institutional Controls

- Soil Vapor Extraction (SVE)
- Soil excavation and disposal

The No Action alternative is included to provide a basis for comparison to other alternatives that involve specific actions to remediate soil impacted above the Tier 2 standards.

Engineering controls/containment includes the use of physical barriers to prevent direct contact and/or to reduce potential leaching of contaminants in the unsaturated soil zone to underlying groundwater. Examples of controls/containment include capping with soil cover or other types of impervious surface material such as concrete or asphalt pavement. This alternative may also include institutional controls to prevent disturbance and maintain integrity of the containment system. Existing EUCs include restrictions on property and groundwater use as discussed in Section 2.4. These restrictions address potential soil disturbance based on the SWMP.

Soil vapor extraction (SVE) includes installation and operation of vapor extraction wells screened within the unsaturated soil zone and application of a vacuum to draw soil gas and VOCs from the soil matrix. The extracted vapors are directed into a treatment system, if required, to remove VOCs prior to discharge to the atmosphere.

Soil excavation includes physical removal of impacted soil above or near the level of the water table. Deeper excavation may also be possible in combination with dewatering to temporarily lower the water table, or other means such as the use of bentonite slurry to prevent ingress of water. Soil excavation activities may be restricted in accordance with FDD/USACE approval due to proximity to the flood control levee. The excavated material would be managed during the excavation process to segregate impacted and non-impacted soil, and other types of material (e.g., concrete rubble and debris) that may be encountered. Each type of excavated material would be stockpiled near the excavation area pending sampling and analysis for characterization purposes. The general options for managing the excavated material include off-Site treatment/disposal, on-Site treatment and re-use as backfill, and re-use as backfill without treatment. For purposes of this evaluation off-site disposal is assumed. Restoration would include backfilling and re-instatement of suitable cover.

5.2 SB-110 Area

As discussed in Section 2.5.2 and Appendix A, VOCs were detected in soil samples from three boreholes in the SB-110 Area at concentrations above Tier 2 standards for soil based on groundwater protection. The current groundwater monitoring data for the immediate area where the soil exceedances were identified indicates that groundwater is not impacted above Tier 2 standards. The remedial alternatives described below focus on the presence of VOCs in soil at SB-110 and nearby boreholes, based on the estimated extent of soil impacted above Tier 2 standards for protection of groundwater as shown on Figure 5.

The remedial alternatives developed for this area include the following:

Soil (SB-110, SB-119, SB-121)

- No Action
- Engineering controls/containment and Institutional Controls
- Soil Vapor Extraction (SVE)
- Soil excavation and disposal

The No Action alternative is included to provide a basis for comparison to other alternatives that involve specific actions to remediate soil impacted above the Tier 2 standards.

Engineering controls/containment includes the use of physical barriers to prevent direct contact and/or to reduce potential leaching of contaminants in the unsaturated soil zone to underlying groundwater. Examples of controls/containment include capping with soil cover or other types of impervious surface material such as concrete or asphalt pavement. This alternative may also include institutional controls to prevent disturbance and maintain integrity of the containment system. Existing EUCs include restrictions on property and groundwater use as discussed in Section 2.4. These restrictions address potential soil disturbance based on the SWMP.

Soil vapor extraction (SVE) includes installation and operation of vapor extraction wells screened within the unsaturated soil zone and application of a vacuum to draw soil gas and VOCs from the soil matrix. The extracted vapors are directed into a treatment system, if required, to remove VOCs prior to discharge to the atmosphere.

Soil excavation includes physical removal of impacted soil above or near the level of the water table. Deeper excavation may also be possible in combination with dewatering to temporarily lower the water table, or other means such as the use of bentonite slurry to prevent ingress of water. Soil excavation activities may be restricted in accordance with FDD/USACE approval due to proximity to the flood control levee. The excavated material would be managed during the excavation process to segregate impacted and non-impacted soil, and other types of material (e.g., concrete rubble and debris) that may be encountered. Each type of excavated material would be stockpiled near the excavation area pending sampling and analysis for characterization purposes. The general options for managing the excavated material include off-Site treatment/disposal, on-Site treatment and re-use as backfill, and re-use as backfill without treatment. For purposes of this evaluation off-site disposal is assumed. Restoration would include backfilling and re-instatement of suitable cover.

5.3 TMW-127 Area

As discussed in Section 2.5.3 and Appendix A, there is no indication of soil contamination above Tier 2 standards in the TMW-127 Area based on current information. Therefore the remedial alternatives focus on the presence of VOCs in groundwater (see Section 5.6).

5.4 MW-103A Area

As discussed in Section 2.5.4 and Appendix A, VOCs were detected in soil samples from boreholes in the MW-103A area at concentrations above Tier 2 standards for soil based on direct contact and groundwater protection. The current groundwater monitoring data indicates that groundwater is not impacted above Tier 2 standards with the exception of MW-103A where the intermittent presence of LNAPL has been observed.

The Interim Measures conducted in 2014 involved well removal (including MW-103A); and excavation and removal of impacted soil centered on the former MW-103A well location (extending to the limits shown on Figures 7 and 8). No additional excavation is contemplated based on the results of the Interim Measures activities. As discussed in Sections 2.5.4 and 2.5.5, the presence and mobility of NAPL is very limited and no significant effects on groundwater quality have been identified. Monitoring to confirm this is anticipated.

The remedial alternatives developed for this area include the following:

Soil

- No Further Action
- Engineering controls/containment and Institutional Controls

The No Further Action alternative is included to provide a basis for comparison to other alternatives that involve specific actions to remediate soil impacted above the Tier 2 standards and LNAPL.

Engineering controls/containment and monitoring includes the use of physical barriers to prevent direct contact and/or to reduce potential leaching of contaminants in the unsaturated soil zone to underlying groundwater. Examples of controls/containment include capping with soil cover or other types of impervious surface material such as concrete or asphalt pavement. This alternative may also include institutional controls to prevent disturbance and maintain integrity of the containment system. Existing EUCs include restrictions on property and groundwater use as discussed in Section 2.4. These restrictions address potential soil disturbance based on the SWMP.

5.5 TMW-130 Area

As discussed in Section 2.5.5 and Appendix A, VOCs were detected in soil samples from boreholes in the TMW-130 Area at concentrations above Tier 2 standards for soil based on direct contact and groundwater protection. The current groundwater monitoring data indicates that groundwater is not impacted above Tier 2 standards but the presence of LNAPL has been observed in some wells.

The Interim Measures conducted in 2014 involved well removal (including TMW-130 and other wells); and excavation and removal of impacted soil centered on the former TMW-130 well location (extending to the limits shown on Figures 9 and 10). No additional excavation is contemplated based on the results of the Interim Measures activities. As discussed in Section 2.5.5, the presence and mobility of NAPL is very limited and no significant effects on groundwater quality have been identified. Monitoring to confirm this is anticipated.

The remedial alternatives developed for this area include the following:

Soil

- No Further Action
- Engineering controls/containment and Institutional Controls

The No Further Action alternative is included to provide a basis for comparison to other alternatives that involve specific actions to remediate soil impacted above the Tier 2 standards and LNAPL.

Engineering controls/containment and monitoring includes the use of physical barriers to prevent direct contact and/or to reduce potential leaching of contaminants in the unsaturated soil zone to underlying groundwater. Examples of controls/containment include capping with soil cover or other types of impervious surface material such as concrete or asphalt pavement. This alternative may also include institutional controls to prevent disturbance and maintain integrity of the containment system. Existing EUCs include restrictions on property and groundwater use as discussed in Section 2.4. These restrictions address potential soil disturbance based on the SWMP.

5.6 Site-wide Groundwater

As discussed in Section 2.6 and Appendix A, two general areas of consistent VOC detections above Tier 2 standards have been identified. This includes a localized area of VOC impact in shallow groundwater around TMW-147E (near S-8); and a larger area extending from MW-158A to TMW-127 in shallow groundwater which overlaps the area of VOC impact in the intermediate groundwater from the vicinity of MW-158B to MW-156, continuing to MW-146B, along a southeasterly axis. These areas are shown on Figures 11 and 12. At other monitoring locations there have been occasional detections above Tier 2 standards for some chemicals, but not on a consistent basis.

The remedial alternatives described below consider site-wide groundwater conditions, but focus on the two areas noted above for purposes of assessing active remediation options. The remedial alternatives developed for groundwater include the following:

- No Action
- Institutional Controls (ICs) and Long-term Monitoring (LTM)
- In-situ Enhanced Biodegradation (with ICs and Monitoring)
- In-situ Chemical Oxidation (with ICs and Monitoring)
- Groundwater extraction and treatment (with ICs and monitoring)

Combinations of the above may also be considered in the evaluation of remedial alternatives.

The No Action alternative is included to provide a basis for comparison to other alternatives that involve specific actions to remediate groundwater impacted above the Tier 2 standards.

Institutional Controls (ICs) and Long-term Monitoring (LTM) includes the implementation of groundwater use restrictions (per existing EUCs, see Section 2.4) as necessary to prevent exposure to impacted groundwater until such time as remedial goals are attained, as determined through monitoring. This alternative relies on natural processes to attenuate the groundwater impacts to concentrations below the Tier 2 standards, also known as Monitored Natural Attenuation (MNA). The attenuation processes that may be functional include both destructive (e.g., biodegradation) and non-destructive (e.g., dispersion) processes, according to Site-specific conditions.

In situ enhanced biodegradation (ISEB) includes the introduction of nutrients and other substances in groundwater via injection wells and/or galleries to promote and accelerate in situ biodegradation processes leading to more rapid attainment of remedial goals relative to No Action and LTM alternatives. Examples of the techniques that can be considered include injection of oxygen to enhance aerobic biodegradation; injection of organic substrate to stimulate anaerobic biodegradation; nutrient supplements to enhance indigenous microbial population; and bio-augmentation by injection of microbial cultures to improve effectiveness of biodegradation. See Appendix C for bench-scale test procedures and results. This alternative also includes implementation of existing groundwater use restrictions to prevent exposure to groundwater until treatment has been completed, as determined through monitoring.

In situ chemical oxidation (ISCO) includes the introduction of chemical oxidizers in groundwater via injection wells and/or galleries to promote chemical reactions leading to the destruction of chemical compounds. Examples of typical chemical oxidizers used for treatment of dissolved VOCs in

groundwater include sodium permanganate, potassium permanganate, Fenton's reagent, sodium persulfate, and ozone. See Appendix C for bench-scale test procedures and results. This alternative also includes implementation of existing groundwater use restrictions to prevent exposure to groundwater until treatment has been completed, as determined through monitoring.

Groundwater extraction and treatment includes physical removal of impacted groundwater via extraction wells positioned within the plume area and/or hydraulic containment to prevent plume expansion. The extracted groundwater is typically treated prior to discharge to reduce chemical concentrations in accordance with permissible discharge limits. The options for treated water discharge may include surface water outfall, groundwater re-injection, municipal sewers, and re-use for industrial purposes, e.g., cooling water. The level of treatment to be applied may vary according to the discharge option that is selected. Typical treatment technologies that are utilized for dissolved VOCs in groundwater include air stripping and carbon adsorption. Pre-treatment may also be needed to prevent fouling depending on the general chemistry characteristics of the extracted groundwater.

6. Evaluation of Remedial Alternatives

6.1 Screening Criteria

The remedial alternatives have been screened against the short - and long-term aspects of effectiveness, implementability, cost, and other criteria consistent with relevant KDHE guidance for conducting Feasibility Studies and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), as detailed below.

Effectiveness

The effectiveness of each remedial alternative is assessed based on the following:

- Protection of human health and the environment.
- Reduction in toxicity, mobility and volume through treatment.
- Short-term effectiveness.
- Long-term effectiveness and permanence.

Implementability

The implementability of each remedial alternative is assessed from both the technical perspective and the administrative perspective in terms of: technical complexity; availability of services and equipment; reliability; and timeliness.

Costs

The relative cost of each remedial alternative is estimated based on previous GHD experience, available applicable guidance, industry cost averages, and engineering judgment. Cost estimate details for each alternative (except No Action) are included in Appendix F.

The cost for each alternative, and the aggregated amount for the various areas and media, also need to be considered relative to the RACER Trust funding established for the project as discussed in Section 7.0.

Compliance with ARARs

Each remedial alternative is assessed with respect to compliance with ARARs in the short and long terms.

Community Acceptance

Each remedial alternative is assessed with respect to potential community acceptance matters.

6.2 Screening Evaluation

The remedial alternatives screening evaluation is presented in tabular format for each AOC and media, as follows:

- Table 6.1 – S-8 Area Soil
- Table 6.2 – SB-110 Area Soil
- Table 6.3 –MW-103A Area Soil
- Table 6.4 – TMW-130 Area Soil
- Table 6.5 – Groundwater

Each table includes a discussion of each alternative relative to the screening criteria related to effectiveness, implementability and cost. The comparative evaluation of the alternatives is summarized in Section 6.3.

Table 6.6 provides a summary of each AOC alternative and the estimated cost for each alternative. See also Section 7.0 for information regarding RACER Trust funding.

6.3 Comparative Evaluation Summary

The overall comparative of alternatives presented in Tables 6.1 through 6.5 is reproduced for each AOC below.

6.3.1 S-8 Area - Soil

Alternatives:

1. No Action
2. Engineering Controls/ Containment and Institutional Controls
3. Soil Vapor Extraction
4. Soil Excavation and Disposal

Effectiveness - Protection of human health and the environment:

- Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards.
- Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media.
- Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs).

- Currently there is no human exposure to impacted media.
- Soil that is impacted above Tier 2 standards would remain in place for Alternatives 1 and 2. The extent of impact above Tier 2 standards is very limited. The detected VOC concentrations marginally exceed the Tier 2 standards for protection to groundwater, and do not exceed the standards for direct contact.

Effectiveness - Reduction in toxicity, mobility, volume through treatment:

- Alternatives 1 and 2 do not provide treatment.
- Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards.

Effectiveness - Short-term effectiveness; Long-term effectiveness and permanence:

- Alternatives 3 and 4 pose the lowest long term risk by being the most effective alternatives for addressing impacted media, but pose the highest short term risk due to potential exposure of impacted media to workers and the environment.
- Alternative 2 does not pose any significant short term exposure risk. This alternative poses long term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP.

Implementability:

- Alternatives 2, 3, and 4 involve the use of commonly available technologies and are readily implementable.
- Alternatives 2 and 4 are the most reliable alternatives since they involve proven methods and clear implementation processes.
- Alternative 3 is less reliable than Alternatives 2 and 4 since it uses in situ treatment methods which are not as readily controlled.
- Alternatives 2 and 4 require the least amount of time.
- Alternative 3 requires more time compared to Alternatives 2 and 4 due to the need for ongoing operation and monitoring.

Cost:

- Alternative 2 is the lowest cost alternative.
- Alternative 4 is the next highest cost alternative and has no associated ongoing costs.
- Alternative 3 is the highest cost alternative. The cost is dependent on the time required for treatment and monitoring.

Compliance with ARARs:

- Tier 2 standards established by K.A.R. 28-71-11 are chemical-specific ARARs. Compliance involves concentration reductions below Tier 2 standards or monitoring as a minimum requirement.
- Alternatives 3 and 4 involve treatment or removal and would be intended to result in concentration reductions below Tier 2 standards and hence comply with K.A.R. 28-71-11.

- Alternatives 1 and 2 do not directly address concentrations above Tier 2 standards nor include monitoring and hence do not comply with K.A.R. 28-71-11.
- Note that Alternative 2 does provide risk management and potential effects on groundwater can be evaluated through groundwater monitoring as discussed in Section 6.3.5.

Community Acceptance:

- Since the impacted soil is located on site it is anticipated that there will be no issues or concerns raised by the community relative to any of the alternatives.

Recommended Alternative:

Based on the above the recommended alternative is Alternative 2 - Engineering Controls/ Containment and Institutional Controls.

Alternative 1 (No Action) is not recommended since it is not effective in preventing potential exposure to impacted soil (except with existing EUCs). Alternative 3 (Soil Vapor Extraction) and Alternative 4 (Soil Excavation and Disposal) are not recommended since the potential risk associated with impacted soil is very limited and can be effectively managed using Alternative 2. Alternatives 3 and 4 are the highest cost alternatives.

6.3.2 SB-110 Area - Soil

Alternatives:

1. No Action
2. Engineering Controls/ Containment and Institutional Controls
3. Soil Vapor Extraction
4. Soil Excavation and Disposal

Effectiveness - Protection of human health and the environment:

- Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards.
- Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media.
- Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs).
- Currently there is no human exposure to impacted media.
- Soil that is impacted above Tier 2 standards would remain in place for Alternatives 1 and 2. The extent of impact above Tier 2 standards is very limited. The detected VOC concentrations marginally exceed the Tier 2 standards for protection to groundwater, and do not exceed the standards for direct contact.

Effectiveness - Reduction in toxicity, mobility, volume through treatment:

- Alternatives 1 and 2 do not provide treatment.
- Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards.

Effectiveness - Short-term effectiveness; Long-term effectiveness and permanence:

- Alternatives 3 and 4 pose the lowest long term risk by being the most effective alternatives for addressing impacted media, but pose the highest short term risk due to potential exposure of impacted media to workers and the environment.
- Alternative 2 does not pose any significant short term exposure risk. This alternative poses long term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP.

Implementability:

- Alternatives 2, 3, and 4 involve the use of commonly available technologies and are readily implementable.
- Alternatives 2 and 4 are the most reliable alternatives since they involve proven methods and clear implementation processes.
- Alternative 3 is less reliable than Alternatives 2 and 4 since it uses in situ treatment methods which are not as readily controlled.
- Alternatives 2 and 4 require the least amount of time.
- Alternative 3 requires more time compared to Alternatives 2 and 4 due to the need for ongoing operation and monitoring.

Cost:

- Alternative 2 is the lowest cost alternative.
- Alternative 3 is the next highest cost alternative. The cost is dependent on the time required for treatment and monitoring.
- Alternative 4 is the highest cost alternative but has no associated ongoing costs.

Compliance with ARARs:

- Tier 2 standards established by K.A.R. 28-71-11 are chemical-specific ARARs. Compliance involves concentration reductions below Tier 2 standards or monitoring as a minimum requirement.
- Alternatives 3 and 4 involve treatment or removal and would be intended to result in concentration reductions below Tier 2 standards and hence comply with K.A.R. 28-71-11.
- Alternatives 1 and 2 do not directly address concentrations above Tier 2 standards nor include monitoring and hence do not comply with K.A.R. 28-71-11.
- Note that Alternative 2 does provide risk management and potential effects on groundwater can be evaluated through groundwater monitoring as discussed in Section 6.3.5.

Community Acceptance:

- Since the impacted soil is located on site it is anticipated that there will be no issues or concerns raised by the community relative to any of the alternatives.

Recommended Alternative:

Based on the above the recommended alternative is Alternative 2 - Engineering Controls/ Containment and Institutional Controls.

Alternative 1 (No Action) is not recommended since it is not effective in preventing potential exposure to impacted soil. Alternative 3 (Soil Vapor Extraction) and Alternative 4 (Soil Excavation and Disposal) are not recommended since the potential risk associated with impacted soil is very limited and can be effectively managed using Alternative 2. Alternatives 3 and 4 are the highest cost alternatives.

6.3.3 MW-103A Area - Soil

Alternatives:

1. No Further Action
2. Engineering Controls/Containment and Institutional Controls

Effectiveness - Protection of human health and the environment:

- Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media.
- Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs).
- Currently there is no human exposure to impacted media and dissolved phase groundwater impacts are not significant.
- Media that are impacted above Tier 2 standards would remain in place for Alternatives 1 and 2 to the extent that impacted media remains following the Interim Measures.

Effectiveness - Reduction in toxicity, mobility, volume through treatment:

- Alternatives 1 and 2 do not provide treatment.

Effectiveness - Short-term effectiveness; Long-term effectiveness and permanence:

- Alternative 2 does not pose any significant short-term exposure risk. This alternative poses long-term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP. Also, these risks have been significantly reduced as a result of soil removal during Interim Measures.

Implementability:

- Alternative 2 involves the use of commonly available technologies and are readily implementable.
- Alternative 2 is the most reliable alternative since it involves proven methods and clear implementation processes.
- Alternative 2 can be implemented relatively quickly but will require ongoing maintenance.

Cost:

- The cost for Alternative 2 is relatively small as compared to the cost for Interim Measures already conducted.

Compliance with ARARs:

- Tier 2 standards established by K.A.R. 28-71-11 are chemical-specific ARARs. Compliance involves concentration reductions below Tier 2 standards or monitoring as a minimum requirement.
- Alternatives 1 and 2 do not directly address concentrations above Tier 2 standards nor include monitoring and hence do not comply with K.A.R. 28-71-11.
- Note that Alternative 2 does provide risk management and potential effects on groundwater can be evaluated through groundwater monitoring as discussed in Section 6.3.5.

Community Acceptance:

- Since the impacted soil is located on site it is anticipated that there will be no issues or concerns raised by the community relative to any of the alternatives.

Recommended Alternative:

Based on the above the recommended alternative is Alternative 2 - Engineering Controls/ Containment and Institutional Controls.

Alternative 1 (No Further Action) is not recommended since it is not effective in preventing exposure to impacted soil.

6.3.4 TMW-130 Area - Soil

Alternatives:

1. No Further Action
2. Engineering Controls/ Containment and Institutional Controls

Effectiveness - Protection of human health and the environment:

- Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media.
- Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs).
- Currently there is no human exposure to impacted media and dissolved phase groundwater impacts are not significant.
- Media that are impacted above Tier 2 standards would remain in place for Alternatives 1 and 2 to the extent that impacted media remains following the Interim Measures.

Effectiveness - Reduction in toxicity, mobility, volume through treatment:

- Alternatives 1 and 2 do not provide treatment.

Effectiveness - Short-term effectiveness; Long-term effectiveness and permanence:

- Alternative 2 does not pose any significant short-term exposure risk. This alternative poses long-term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP. Also, these risks have been significantly reduced as a result of soil removal during Interim Measures.

Implementability:

- Alternative 2 involves the use of commonly available technologies and are readily implementable.
- Alternative 2 is the most reliable alternative since it involves proven methods and clear implementation processes.
- Alternative 2 can be implemented relatively quickly but will require ongoing maintenance.

Cost:

- The cost for Alternative 2 is relatively small as compared to the cost for Interim Measures already conducted.

Compliance with ARARs:

- Tier 2 standards established by K.A.R. 28-71-11 are chemical-specific ARARs. Compliance involves concentration reductions below Tier 2 standards or monitoring as a minimum requirement.
- Alternatives 1 and 2 do not directly address concentrations above Tier 2 standards nor include monitoring and hence do not comply with K.A.R. 28-71-11.
- Note that Alternative 2 does provide risk management and potential effects on groundwater can be evaluated through groundwater monitoring as discussed in Section 6.3.5.

Community Acceptance:

- Since the impacted soil is located on site it is anticipated that there will be no issues or concerns raised by the community relative to any of the alternatives.

Recommended Alternative:

Based on the above the recommended alternative is Alternative 2 - Engineering Controls/Containment and Institutional Controls.

Alternative 1 (No Further Action) is not recommended since it is not effective in preventing exposure to impacted soil.

6.3.5 Groundwater

Alternatives:

1. No Action
2. Institutional Controls (ICs) and Long-term Monitoring (LTM)
3. In-situ Enhanced Biodegradation (with ICs and Monitoring)

4. In-situ Chemical Oxidation (with ICs and Monitoring)

5. Groundwater extraction and treatment (with ICs and monitoring)

Effectiveness - Protection of human health and the environment:

- Alternative 2, 3, 4 and 5 are effective in preventing exposure to impacted groundwater, and provide for monitoring.
- Alternative 1 is not effective since groundwater would not be monitored, although potential exposure to impacted media is addressed by the EUCs.
- Currently there is no human exposure to impacted groundwater.

Effectiveness - Reduction in toxicity, mobility, volume through treatment:

- Alternatives 1 and 2 do not provide treatment.
- Alternatives 3 and 4 may provide the highest degree of effectiveness by providing direct treatment of groundwater impacted above Tier 2 standards.
- Alternative 5 also provides a high degree of effectiveness through containment and capture of impacted groundwater.

Effectiveness - Short-term effectiveness; Long-term effectiveness and permanence:

- Alternatives 3, 4 and 5 pose the lowest long-term risk by being the most effective alternatives for addressing impacted media, but may pose short-term risks associated with potential worker exposure to treatment reagents and/or impacted media.
- Alternative 2 does not pose any significant short-term exposure risk. This alternative poses long-term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls.

Implementability:

- Alternatives 2, 3, 4, and 5 involve the use of commonly available technologies and are readily implementable.
- EUCs to prevent groundwater use have already been implemented for the Site.
- Alternatives 2 and 5 are the most reliable alternatives since they involve proven methods and clear implementation processes.
- Alternatives 3 and 4 are less reliable than Alternatives 2 and 5 since they use in-situ treatment methods which are not as readily controlled.
- Alternatives 2 and 5 require more time compared to the other alternatives due to the need for ongoing operation and/or monitoring.
- Alternatives 3 and 4 do not involve ongoing operation and maintenance and may result in a reduced time for monitoring compared to Alternatives 2 and 5.

Cost:

- Alternative 2 is the lowest cost alternative.
- Alternative 5 is the next highest cost alternative in terms of capital construction costs, but has the highest cost for ongoing operation and maintenance requirements.

- Alternative 3 has an overall cost similar to Alternative 5, but with higher initial cost and lower operation and maintenance cost.
- Alternative 4 is the highest cost alternative by a very significant margin, due to the large quantity of oxidizing agent that would be required and consumed.
- Since the costs for Alternatives 3 and 4 are heavily dependent on the extent of impacted media, it is possible to achieve lower costs by refining the treatment area/volume to focus on zones of elevated VOC concentrations.

Compliance with ARARs:

- Tier 2 standards established by K.A.R. 28-71-11 are chemical-specific ARARs. Compliance involves concentration reductions below Tier 2 standards or monitoring as a minimum requirement.
- Alternative 1 does not directly address concentrations above Tier 2 standards nor include monitoring and hence does not comply with K.A.R. 28-71-11.
- Alternative 2 does not directly address concentrations above Tier 2 standards but does include monitoring and hence complies with K.A.R. 28-71-11.
- Alternatives 3, 4 and 5 involve treatment or removal and would be intended to result in concentration reductions below Tier 2 standards and hence comply with K.A.R. 28-71-11.

Community Acceptance:

- Since the impacted groundwater is located on site it is anticipated that there will be no issues or concerns raised by the community relative to any of the alternatives. Concerns may exist in the event of migration of impacted groundwater to off-site areas.

Recommended Alternative:

Based on the above, the recommended alternative is Alternative 2 - Institutional Controls (ICs) and Long-term Monitoring (LTM).

Alternative 1 (No Action) is not recommended since it is not effective in preventing exposure to impacted groundwater.

The active groundwater remediation alternatives (Alternatives 3 and 4 which involve in-situ treatment or Alternative 5 using groundwater extraction and treatment) are not recommended based on the apparent plume stability, the observed and anticipated VOC attenuation, the absence of exposure to groundwater, and cost. As discussed in Section 2.6 longer-term assessment of the plume stability would assist in confirming the initial conclusions.

6.4 Summary

The recommended remedial alternatives as discussed above are as follows:

Soil (S-8 Area; SB-110 Area; MW-103A Area; TMW-130 Area): Engineering Controls/ Containment and Institutional Controls.

Groundwater: Institutional Controls (ICs) and Long-term Monitoring (LTM).

Contingency Plan:

If groundwater monitoring indicates unstable plume conditions a review of the current site conditions and historical data will be performed to determine the most appropriate approach for addressing the plume conditions, including additional investigation, in situ treatment in source areas, downgradient controls, and other current or newly available technologies.

7. RACER Trust Funding

Given RACER Trust was created via a Settlement Agreement with several claimants, including the State of Kansas, It must be recognized that the funding set aside for remedial work at the RACER Fairfax site is limited. Given this, remedial options must be considered within the context of that funding and the limitations on how it can be spent as stipulated in the Settlement Agreement. Remaining funding and annual budgets are reviewed and approved by KDHE. RACER Trust will continue to work closely with KDHE to use the available resources in a way that both achieves cleanup goals, and promotes redevelopment as directed in that Agreement.

8. References

CRA, August 2012. Remedial Alternatives Evaluation Work Plan and Schedule

CRA, December 2012. Work Plan for Supplemental Investigation at TMW-127 and S-8 Areas of Concern

CRA, February 2013. Soil and Waste Management Plan (SWMP)

CRA, June 2013. Interim Measures Work Plan for MW-103A and TMW-130 Areas

CRA, June 2013. Storm Water Pollution Prevention Plan (SWPPP)

CRA, June 2013. Landfarm Operating and Closure Plan

CRA, August 2013. Groundwater Monitoring Plan (GWMP)

CRA, August 20, 2013. Bench-scale treatability study using samples collected from the TMW-127 area

CRA, October 30, 2013. Proposed Modifications for Interim Measures Excavation

CRA, September 2014. Interim Measures Report

CRA, October 23, 2014. Preliminary Interim MNA Evaluation

GHD, November 3, 2015. MNA Evaluation

GHD, November 20, 2015. Groundwater Plume Stability Analysis

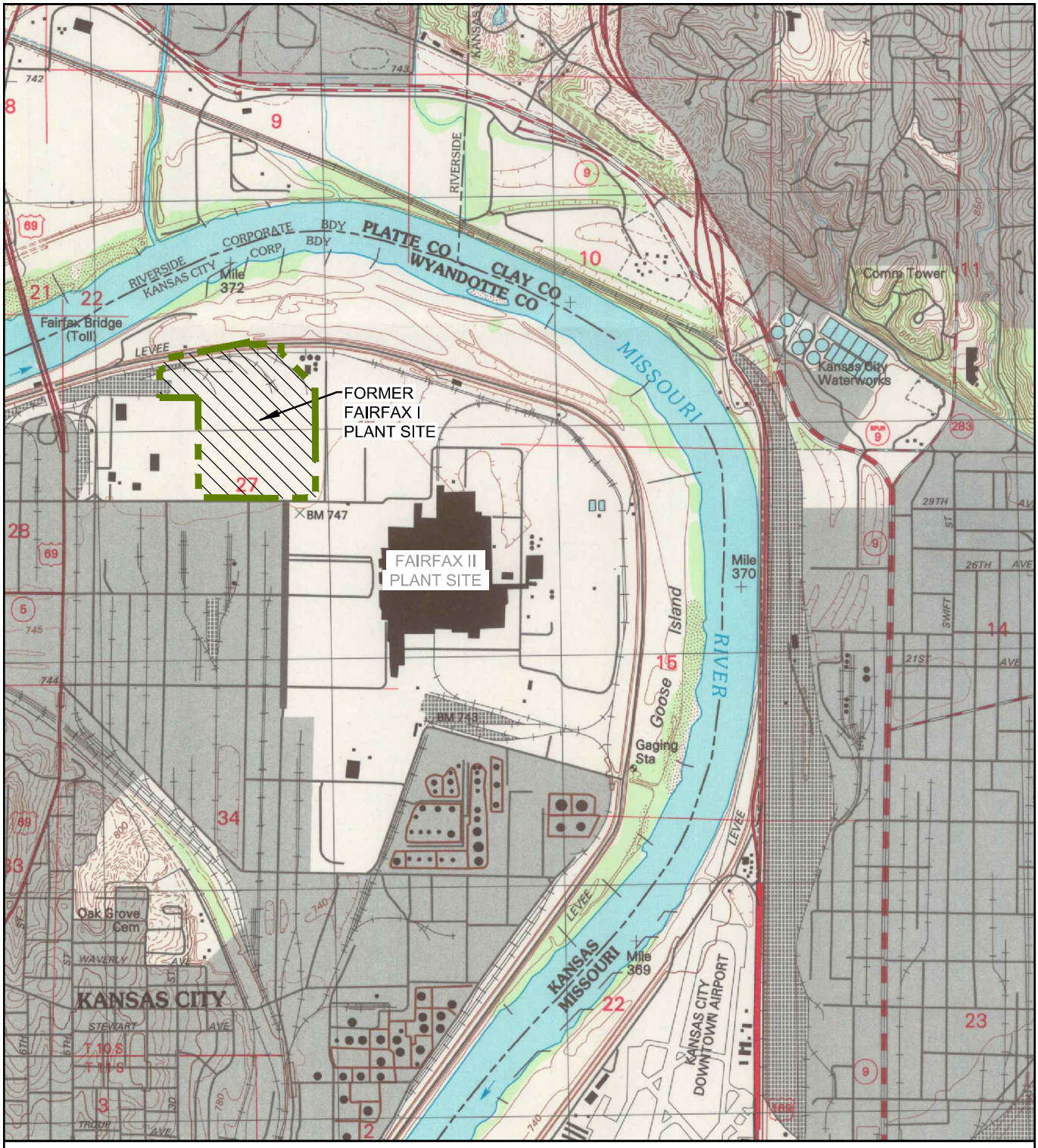
KDHE, 2003. Request to perform a confirmatory soil and groundwater investigation

KDHE, February 2007, No further action letter

KDHE, March 12, 2007. Request to re-develop and re-sample TMW-127

KDHE, September 2008. Request to install additional borings to complete soil delineation

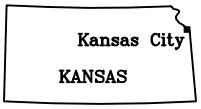
KDHE, Order dated November 21, 2011. Consent Agreement and Final Order Case No. 11-E-109 BER



BASE SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE;
NORTH KANSAS CITY, MO-KS 1990

LEGEND

FORMER FAIRFAX I PROPERTY BOUNDARY
(MLC PROPERTY ID 1289-1)

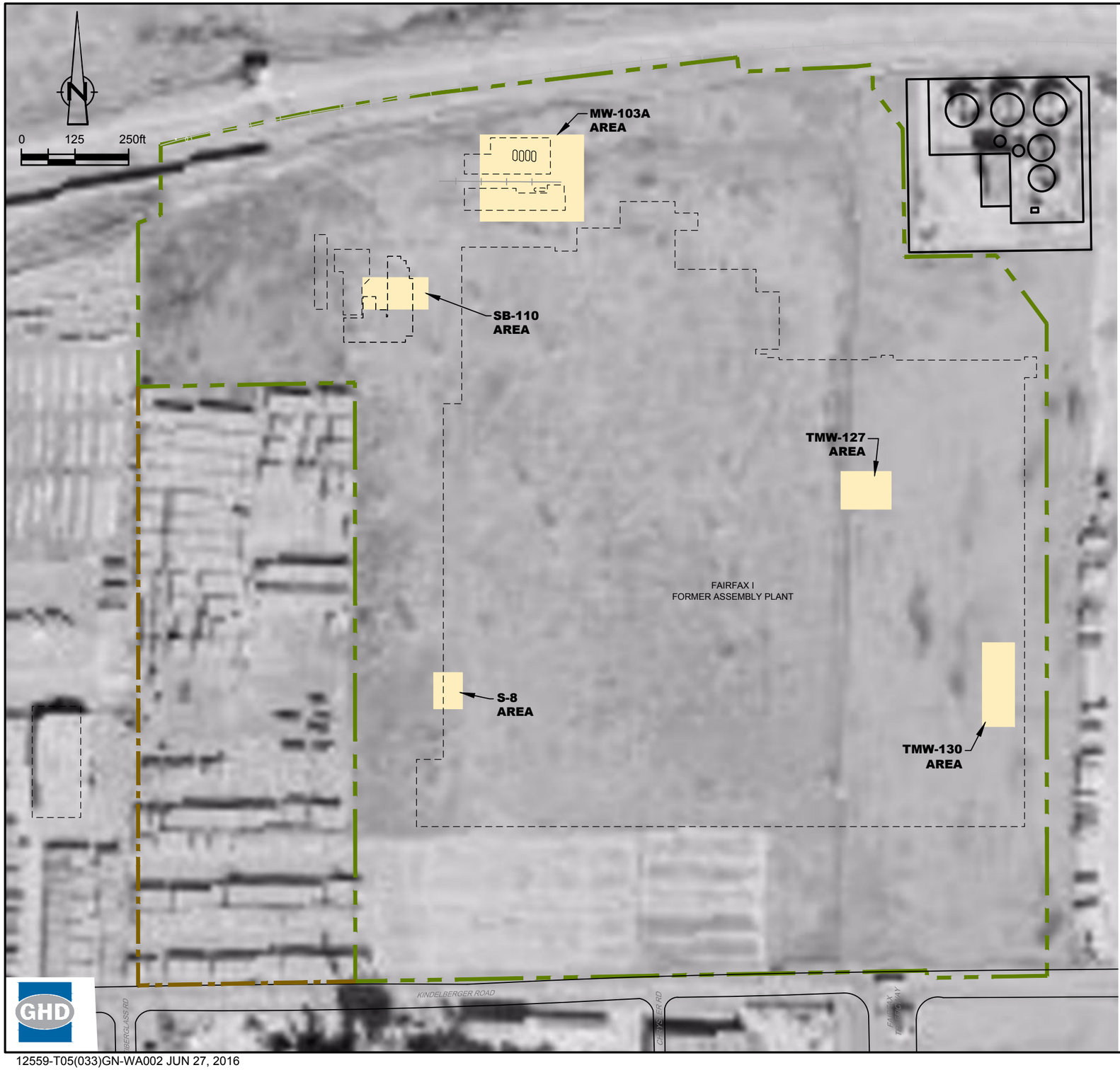


0 1/4 1/2 mile

figure 1

SITE LOCATION
REMEDIAL ALTERNATIVES EVALUATION
FORMER FAIRFAX I SITE
Kansas City, Kansas

12559-T05(033)GN-WA001 JUN 27, 2016



LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS

SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. AERIAL IMAGE: USGS, 2002.

figure 2

SITE PLAN
REMEDIAL ALTERNATIVES EVALUATION
FORMER FAIRFAX I SITE
Kansas City, Kansas

12559-T05(033)GN-WA002 JUN 27, 2016

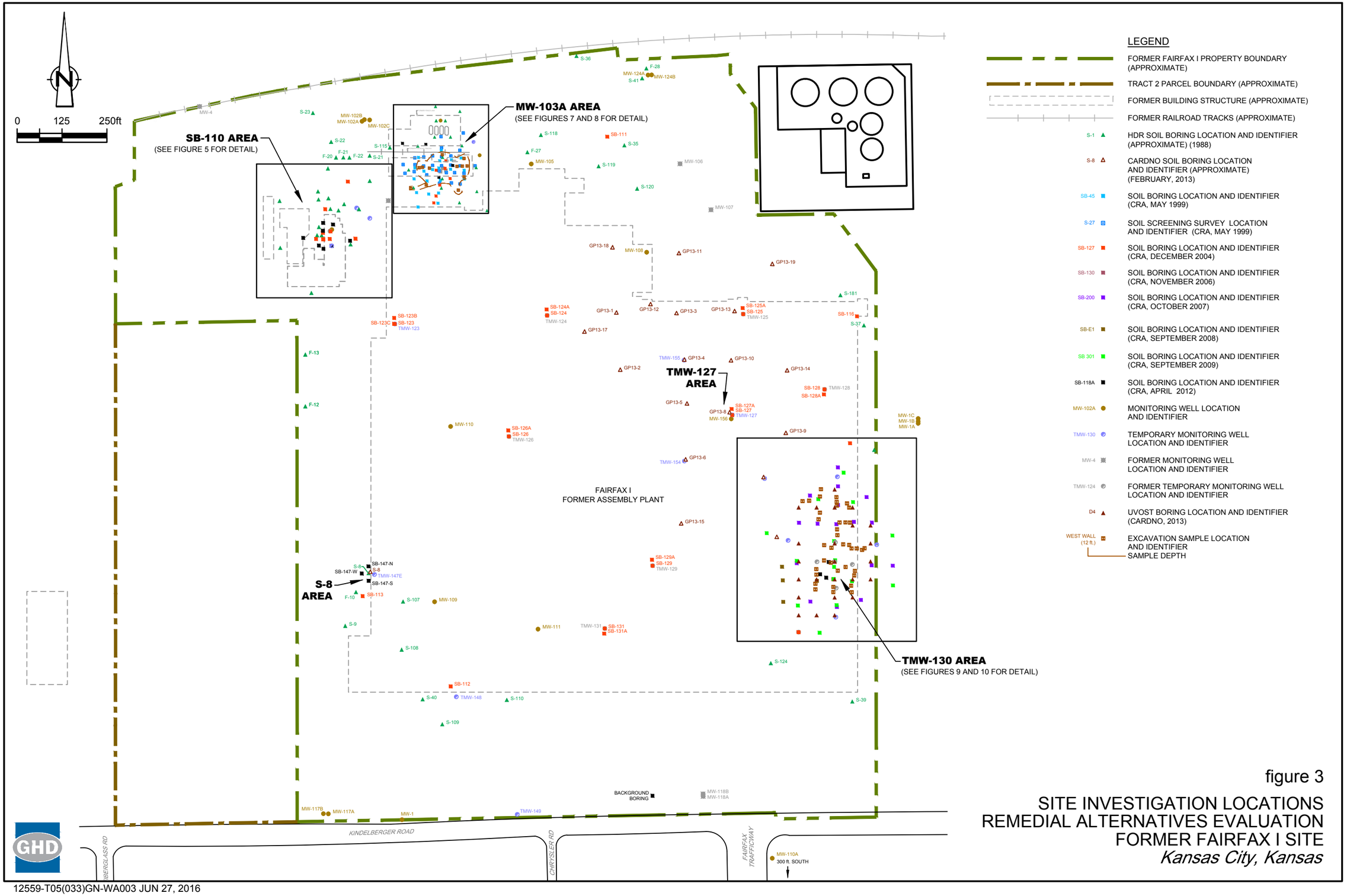
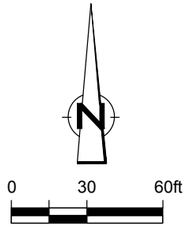


figure 3

SITE INVESTIGATION LOCATIONS
REMEDIAL ALTERNATIVES EVALUATION
FORMER FAIRFAX I SITE
Kansas City, Kansas

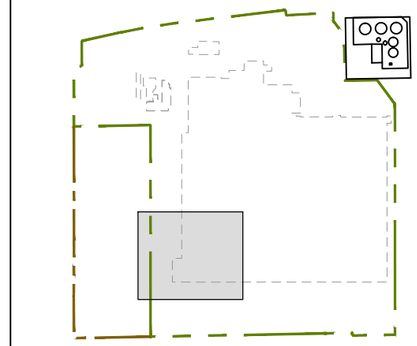
12559-T05(033)GN-WA003 JUN 27, 2016



S-8	2/12/2013 (13.5) ft BGS	2/12/2013 (15) ft BGS
PCE	0.312	0.126

S-8-HDR	8/19/1987 (10) ft BGS	8/19/1987 (15) ft BGS
PCE	2.5	0.76

SB-147-N
S-8
S-8
SB-147-W
TMW-147E
SB-147-S
F-10
SB-113
S-107
MW-109
S-9
S-108
SB-112
TMW-148
S-40
S-110
S-109


KEY PLAN

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- S-1 ▲ HDR SOIL BORING LOCATION AND IDENTIFIER (APPROXIMATE) (1988)
- S-8 △ CARDNO SOIL BORING LOCATION AND IDENTIFIER (APPROXIMATE) (FEBRUARY, 2013)
- SB-112 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, DECEMBER 2004)
- SB-147-N ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, APRIL 2012)
- MW-109 ● MONITORING WELL LOCATION AND IDENTIFIER
- TMW-147E ◐ TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER

S-8	2/12/2013	← SAMPLE IDENTIFICATION
	(13.5) ft BGS	← SAMPLE DATE / SAMPLE DEPTH
PCE	0.312	← CONCENTRATION (mg/kg)
		← PARAMETER

- NON-DETECT OR BELOW SCREENING CRITERIA
- ABOVE SCREENING CRITERIA
- EXCEEDANCE OF SCREENING CRITERIA
- ASSUMED AREA OF IMPACTED MEDIA ABOVE KDHE TIER 2 RISK-BASED CRITERIA

KDHE TIER 2 RISK-BASED CRITERIA (mg/kg)

PARAMETER	ABBREV.	NON-RESIDENTIAL SOIL PATHWAY	NON-RESIDENTIAL SOIL TO GW	RESIDENTIAL SOIL PATHWAY	RESIDENTIAL SOIL TO GW
Tetrachloroethene	PCE	210	0.121	109	0.121

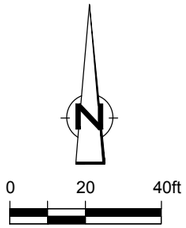
figure 4

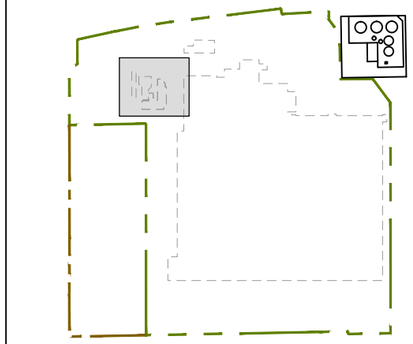
S-8 AREA - SOIL ANALYTICAL DATA REMEDIAL ALTERNATIVES EVALUATION FORMER FAIRFAX I SITE

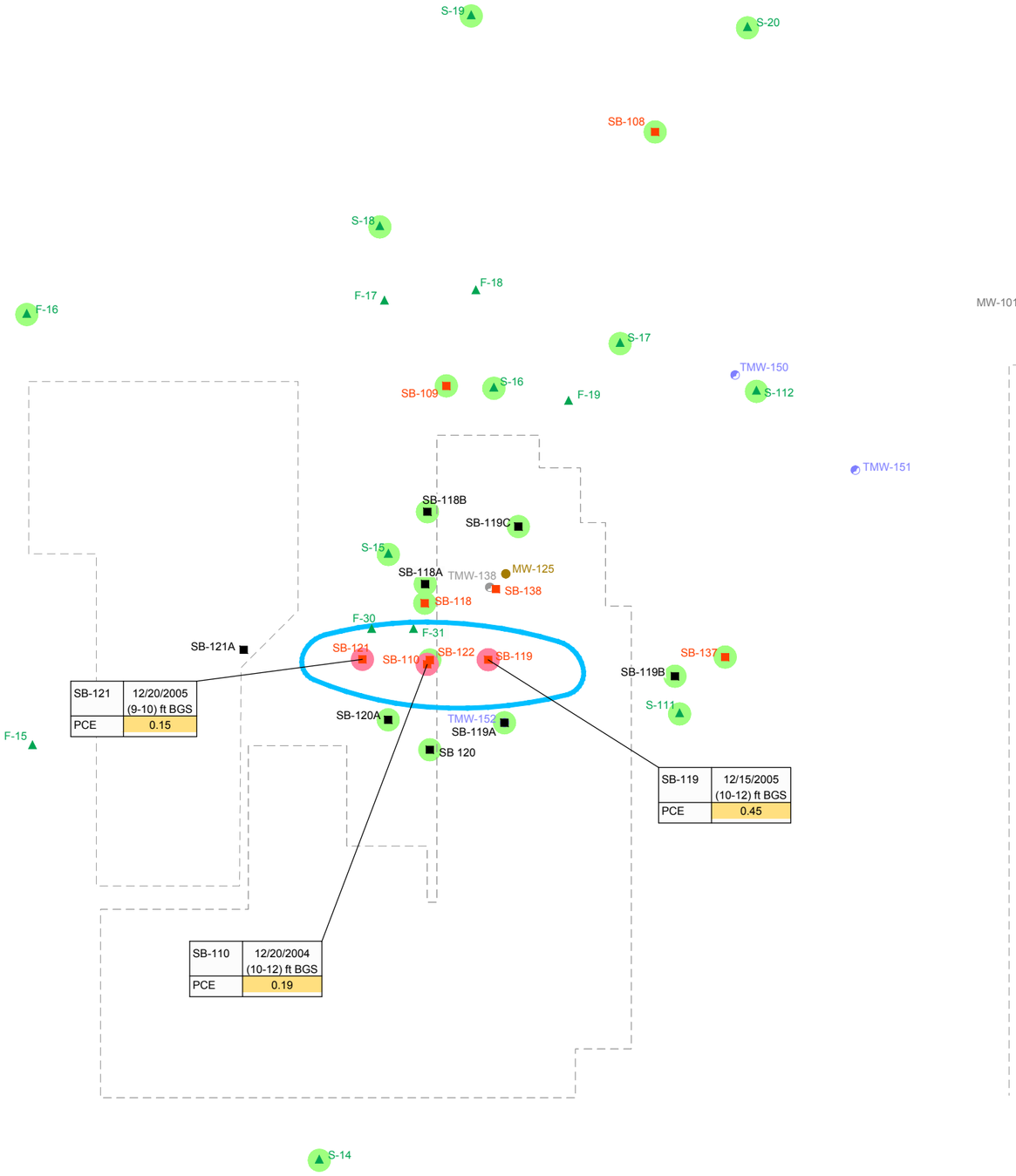
Kansas City, Kansas

GHD

12559-T05(033)GN-WA005 JUN 27, 2016







LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- S-16 — HDR SOIL BORING LOCATION AND IDENTIFIER
- SB-109 — SOIL BORING LOCATION AND IDENTIFIER (CRA, DECEMBER 2004)
- SB-118A — SOIL BORING LOCATION AND IDENTIFIER (CRA, APRIL 2012)
- MW-125 — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-152 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- MW-101 — FORMER MONITORING WELL LOCATION AND IDENTIFIER
- TMW-138 — FORMER TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER

SB-110	12/20/2004	← SAMPLE IDENTIFICATION
	10-12 ft BGS	← SAMPLE DATE / SAMPLE DEPTH
PCE	0.19	← CONCENTRATION (mg/kg)

← PARAMETER

- NON-DETECT OR BELOW SCREENING CRITERIA
- ABOVE SCREENING CRITERIA
- EXCEEDANCE OF SCREENING CRITERIA
- ASSUMED AREA OF IMPACTED MEDIA ABOVE KDHE TIER 2 RISK-BASED CRITERIA

KDHE TIER 2 RISK-BASED CRITERIA (mg/kg)

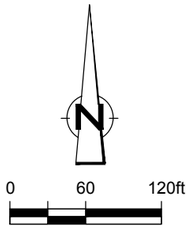
PARAMETER	ABBREV.	NON-RESIDENTIAL SOIL PATHWAY	NON-RESIDENTIAL SOIL TO GW	RESIDENTIAL SOIL PATHWAY	RESIDENTIAL SOIL TO GW
Tetrachloroethene	PCE	210	0.121	109	0.121

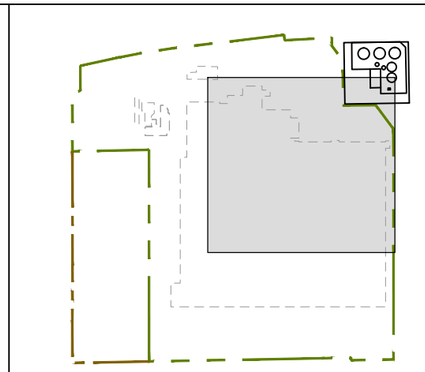
figure 5

SB-110 AREA - SOIL ANALYTICAL DATA REMEDIAL ALTERNATIVES EVALUATION FORMER FAIRFAX I SITE

Kansas City, Kansas

GHD





GP13-18
MW-108
GP13-11
GP13-19
S-181
GP13-12
SB-124A
SB-124
TMW-124
GP13-1
GP13-3
GP13-13
SB-125A
SB-125
TMW-125
SB-116
S-37
GP13-17
TMW-155
GP13-4
GP13-10
GP13-2
GP13-14
NO SOIL EXCEEDANCES
TMW-127
AREA
SB-128
TMW-128
SB-128A
GP13-5
SB-127A
GP13-8
SB-127
TMW-127
MW-156
MW-110
GP13-9
TMW-126
SB-117
S-38
TMW-154
GP13-6
SB-206
SB 302
GP13-7
TMW-153
TMW-145
FAIRFAX I
FORMER ASSEMBLY PLANT

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- S-38 — HDR SOIL BORING LOCATION AND IDENTIFIER (APPROXIMATE) (1988)
- GP13-3 — CARDNO SOIL BORING LOCATION AND IDENTIFIER (APPROXIMATE) (FEBRUARY, 2013)
- SB-127 — SOIL BORING LOCATION AND IDENTIFIER (CRA, DECEMBER 2004)
- SB 302 — SOIL BORING LOCATION AND IDENTIFIER (CRA, SEPTEMBER 2009)
- SB-206 — SOIL BORING LOCATION AND IDENTIFIER (CRA, APRIL 2012)
- MW-108 — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-154 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- TMW-124 — FORMER TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER

figure 6

TMW-127 AREA - INVESTIGATION LOCATIONS
REMEDIAL ALTERNATIVES EVALUATION
FORMER FAIRFAX I SITE
Kansas City, Kansas

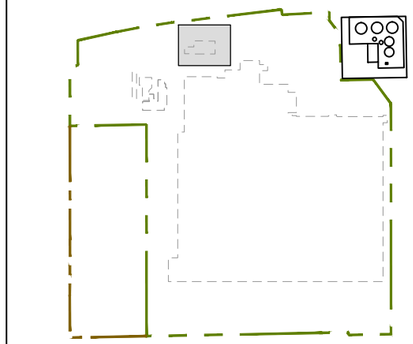
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12559-T05(033)GN-WA010 JUN 27, 2016

KDHE TIER 2 RISK-BASED CRITERIA (mg/kg)

PARAMETER	ABBREV.	NON-RESIDENTIAL SOIL PATHWAY	NON-RESIDENTIAL SOIL TO GW	RESIDENTIAL SOIL PATHWAY	RESIDENTIAL SOIL TO GW
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	MIBK	34800	27.2	4450	6.69
Acetone	ACE	406000	204	50300	51.6
Tetrachloroethene	PCE	210	0.121	109	0.121
Benzene	B	28.2	0.168	15.9	0.168
Toluene	T	29800	51.2	4320	51.2
Ethylbenzene	E	145	65.6	82	65.6
Xylene	X	1410	809	936	809

KEY PLAN



LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- S-29 — HDR SOIL BORING LOCATION AND IDENTIFIER
- SB-45 — SOIL BORING LOCATION AND IDENTIFIER (CRA, MAY 1999)
- S-27 — SOIL SCREENING SURVEY LOCATION AND IDENTIFIER (CRA, MAY 1999)
- SB-102 — SOIL BORING LOCATION AND IDENTIFIER (CRA, DECEMBER 2004)
- SB-51 — SOIL BORING LOCATION AND IDENTIFIER (CRA, APRIL 2012)
- MW-103A — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-157 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- MW-103A — FORMER MONITORING WELL LOCATION AND IDENTIFIER

SB-46	5/12/1999 (5-7) ft BGS	5/12/1999 (10-12) ft BGS
MIBK	ND(0.01)	ND(0.011)
ACE	ND(0.1)	0.24
PCE	ND(0.005)	ND(0.005)

- SAMPLE IDENTIFICATION
- SAMPLE DATE
- SAMPLE DEPTH
- CONCENTRATION (mg/kg)
- PARAMETER
- J — ESTIMATED VALUE
- -- — NOT MEASURED
- NON-DETECT OR BELOW SCREENING CRITERIA
- ABOVE SCREENING CRITERIA
- EXCEEDANCE OF SCREENING CRITERIA

S-29	8/24/1987 (5) ft BGS	8/24/1987 (10) ft BGS	8/24/1987 (15) ft BGS	8/24/1987 (20) ft BGS	8/24/1987 (25) ft BGS	8/24/1987 (30) ft BGS
B	ND(0.5)	ND(0.5)	5.3	ND(0.5)	ND(0.5)	ND(0.5)
PCE	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
T	30.0	34.0	490	380	74.0	1.2
E	4.6	8.1	390	160	62.0	0.770
X	15.0	24.0	820.0	380.0	110.0	2.40
MIBK	ND(0.5)	ND(0.5)	ND(0.5)	110	27.0	0.85

F-26	9/1/1987 (5) ft BGS
B	ND(0.5)
PCE	ND(0.5)
T	ND(0.5)
E	160.0
X	410.0
MIBK	ND(0.5)

SB-40	5/12/1999 (5-7) ft BGS	5/12/1999 (10-12) ft BGS
B	0.095 J	0.033
PCE	ND(0.005)	ND(0.005)
T	64	2.8 J
E	18	19
X	180	120
MIBK	ND(0.01)	ND(0.01)
Ace	ND(0.1)	ND(0.1)

S-27-HDR	8/26/1987 (15) ft BGS
B	ND(0.5)
PCE	0.88
T	ND(0.5)
E	0.45
X	ND(0.5)
MIBK	ND(0.5)

SB-105	12/20/2004 (8-10) ft BGS	12/20/2004 (12-14) ft BGS
B	ND(2.8)	ND(180)
PCE	ND(2.8)	ND(180)
T	3.7	5000
E	26	1500
X	230	7900
MIBK	ND(11)	ND(710)
Ace	ND(11)	ND(710)

S-26	8/25/1987 (10) ft BGS
B	4.0
PCE	5.6
T	ND(0.5)
E	46.0
X	ND(0.5)
MIBK	ND(0.5)

SB-104	12/20/2004 (8-10) ft BGS	12/20/2004 (12-14) ft BGS
B	ND(32)	ND(620)
PCE	ND(32)	ND(620)
T	630	21000
E	540	4800
X	3200	24000
MIBK	ND(130)	ND(2500)
Ace	ND(130)	280 J

S-30	8/31/1987 (15) ft BGS
B	1.5
PCE	ND(0.5)
T	ND(0.5)
E	ND(0.5)
X	ND(0.5)
MIBK	ND(0.5)

SB-42	5/12/1999 (5-7) ft BGS	5/12/1999 (10-12) ft BGS
B	0.072 J	4.7 J
PCE	ND(0.005)	ND(0.005)UJ
T	1	2300
E	2.3	890
X	11	4700
MIBK	ND(0.01)	410
Ace	ND(0.1)	190 J

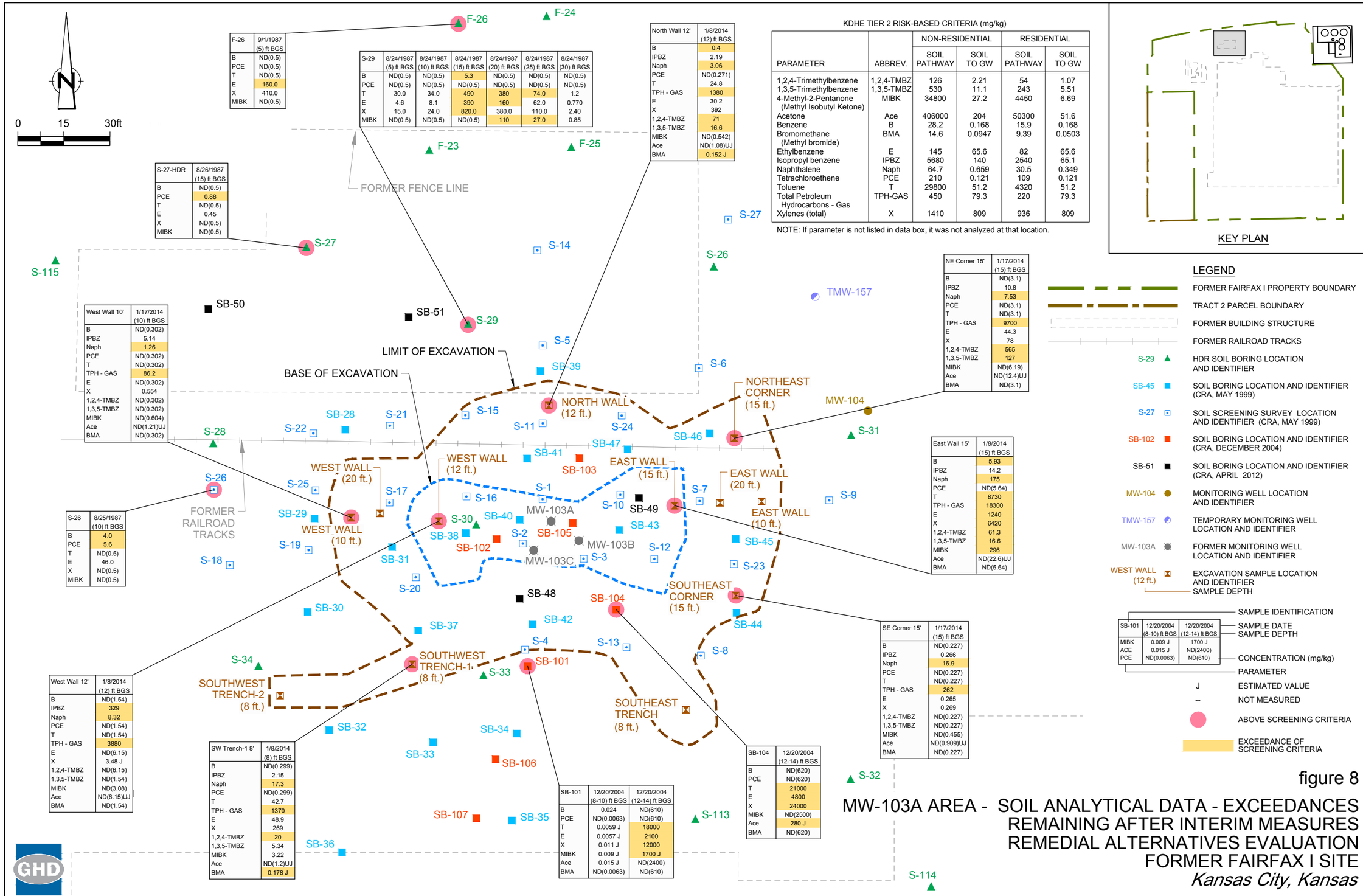
SB-102	12/20/2004 (8-10) ft BGS	12/20/2004 (12-14) ft BGS
B	0.27 J	7.9 J
PCE	ND(5.8)	ND(130)
T	ND(5.8)	4100
E	13	2000
X	250	10000
MIBK	ND(23)	ND(510)
Ace	ND(23)	ND(510)

SB-101	12/20/2004 (8-10) ft BGS	12/20/2004 (12-14) ft BGS
B	0.024	ND(610)
PCE	ND(0.0063)	ND(610)
T	0.0059 J	18000
E	0.0057 J	2100
X	0.011 J	12000
MIBK	0.009 J	1700 J
Ace	0.015 J	ND(2400)

figure 7

MW-103A AREA - SOIL INVESTIGATION ANALYTICAL DATA REMEDIAL ALTERNATIVES EVALUATION FORMER FAIRFAX I SITE

Kansas City, Kansas



F-26	9/1/1987 (5) ft BGS
B	ND(0.5)
PCE	ND(0.5)
T	ND(0.5)
E	160.0
X	410.0
MIBK	ND(0.5)

S-29	8/24/1987 (5) ft BGS	8/24/1987 (10) ft BGS	8/24/1987 (15) ft BGS	8/24/1987 (20) ft BGS	8/24/1987 (25) ft BGS	8/24/1987 (30) ft BGS
B	ND(0.5)	ND(0.5)	5.3	ND(0.5)	ND(0.5)	ND(0.5)
PCE	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
T	30.0	34.0	490	380	74.0	1.2
E	4.6	8.1	390	160	62.0	0.770
X	15.0	24.0	820.0	380.0	110.0	2.40
MIBK	ND(0.5)	ND(0.5)	ND(0.5)	110	27.0	0.85

North Wall 12'	1/8/2014 (12) ft BGS
B	0.4
IPBZ	2.19
Naph	3.06
PCE	ND(0.271)
T	24.8
TPH - GAS	1380
E	30.2
X	392
1,2,4-TMBZ	71
1,3,5-TMBZ	16.6
MIBK	ND(0.542)
Ace	ND(1.08)UJ
BMA	0.152 J

S-27-HDR	8/26/1987 (15) ft BGS
B	ND(0.5)
PCE	0.88
T	ND(0.5)
E	0.45
X	ND(0.5)
MIBK	ND(0.5)

KDHE TIER 2 RISK-BASED CRITERIA (mg/kg)

PARAMETER	ABBREV.	NON-RESIDENTIAL SOIL PATHWAY	NON-RESIDENTIAL SOIL TO GW	RESIDENTIAL SOIL PATHWAY	RESIDENTIAL SOIL TO GW
1,2,4-Trimethylbenzene	1,2,4-TMBZ	126	2.21	54	1.07
1,3,5-Trimethylbenzene	1,3,5-TMBZ	530	11.1	243	5.51
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	MIBK	34800	27.2	4450	6.69
Acetone	Ace	406000	204	50300	51.6
Benzene	B	28.2	0.168	15.9	0.168
Bromomethane (Methyl bromide)	BMA	14.6	0.0947	9.39	0.0503
Ethylbenzene	E	145	65.6	82	65.6
Isopropyl benzene	IPBZ	5680	140	2540	65.1
Naphthalene	Naph	64.7	0.659	30.5	0.349
Tetrachloroethene	PCE	210	0.121	109	0.121
Toluene	T	29800	51.2	4320	51.2
Total Petroleum Hydrocarbons - Gas	TPH-GAS	450	79.3	220	79.3
Xylenes (total)	X	1410	809	936	809

NOTE: If parameter is not listed in data box, it was not analyzed at that location.

KEY PLAN

West Wall 10'	1/17/2014 (10) ft BGS
B	ND(0.302)
IPBZ	5.14
Naph	1.26
PCE	ND(0.302)
T	ND(0.302)
TPH - GAS	86.2
E	ND(0.302)
X	0.554
1,2,4-TMBZ	ND(0.302)
1,3,5-TMBZ	ND(0.302)
MIBK	ND(0.604)
Ace	ND(1.21)UJ
BMA	ND(0.302)

NE Corner 15'	1/17/2014 (15) ft BGS
B	ND(3.1)
IPBZ	10.8
Naph	7.53
PCE	ND(3.1)
T	ND(3.1)
TPH - GAS	9700
E	44.3
X	78
1,2,4-TMBZ	565
1,3,5-TMBZ	127
MIBK	ND(6.19)
Ace	ND(12.4)UJ
BMA	ND(3.1)

East Wall 15'	1/8/2014 (15) ft BGS
B	5.93
IPBZ	14.2
Naph	175
PCE	ND(5.64)
T	8730
TPH - GAS	18300
E	1240
X	6420
1,2,4-TMBZ	61.3
1,3,5-TMBZ	16.6
MIBK	296
Ace	ND(22.6)UJ
BMA	ND(5.64)

S-26	8/25/1987 (10) ft BGS
B	4.0
PCE	5.6
T	ND(0.5)
E	46.0
X	ND(0.5)
MIBK	ND(0.5)

West Wall 12'	1/8/2014 (12) ft BGS
B	ND(1.54)
IPBZ	329
Naph	8.32
PCE	ND(1.54)
T	ND(1.54)
TPH - GAS	3880
E	ND(6.15)
X	3.48 J
1,2,4-TMBZ	ND(6.15)
1,3,5-TMBZ	ND(1.54)
MIBK	ND(3.08)
Ace	ND(6.15)UJ
BMA	ND(1.54)

SW Trench-1 8'	1/8/2014 (8) ft BGS
B	ND(0.299)
IPBZ	2.15
Naph	17.3
PCE	ND(0.299)
T	42.7
TPH - GAS	1370
E	48.9
X	269
1,2,4-TMBZ	20
1,3,5-TMBZ	5.34
MIBK	3.22
Ace	ND(1.2)UJ
BMA	0.178 J

SB-101	12/20/2004 (8-10) ft BGS	12/20/2004 (12-14) ft BGS
B	0.024	ND(610)
PCE	ND(0.0063)	ND(610)
T	0.0059 J	18000
E	0.0057 J	2100
X	0.011 J	12000
MIBK	0.009 J	1700 J
Ace	0.015 J	ND(2400)
BMA	ND(0.0063)	ND(610)

SB-104	12/20/2004 (12-14) ft BGS
B	ND(620)
PCE	ND(620)
T	21000
E	4800
X	24000
MIBK	ND(2500)
Ace	280 J
BMA	ND(620)

SE Corner 15'	1/17/2014 (15) ft BGS
B	ND(0.227)
IPBZ	0.266
Naph	16.9
PCE	ND(0.227)
T	ND(0.227)
TPH - GAS	262
E	0.265
X	0.269
1,2,4-TMBZ	ND(0.227)
1,3,5-TMBZ	ND(0.227)
MIBK	ND(0.455)
Ace	ND(0.909)UJ
BMA	ND(0.227)

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- S-29 ▲ HDR SOIL BORING LOCATION AND IDENTIFIER
- SB-45 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, MAY 1999)
- S-27 ⊡ SOIL SCREENING SURVEY LOCATION AND IDENTIFIER (CRA, MAY 1999)
- SB-102 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, DECEMBER 2004)
- SB-51 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, APRIL 2012)
- MW-104 ● MONITORING WELL LOCATION AND IDENTIFIER
- TMW-157 ◴ TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- MW-103A ● FORMER MONITORING WELL LOCATION AND IDENTIFIER
- WEST WALL (12 ft.) ⊠ EXCAVATION SAMPLE LOCATION AND IDENTIFIER / SAMPLE DEPTH

SB-101	12/20/2004 (8-10) ft BGS	12/20/2004 (12-14) ft BGS
MIBK	0.009 J	1700 J
ACE	0.015 J	ND(2400)
PCE	ND(0.0063)	ND(610)

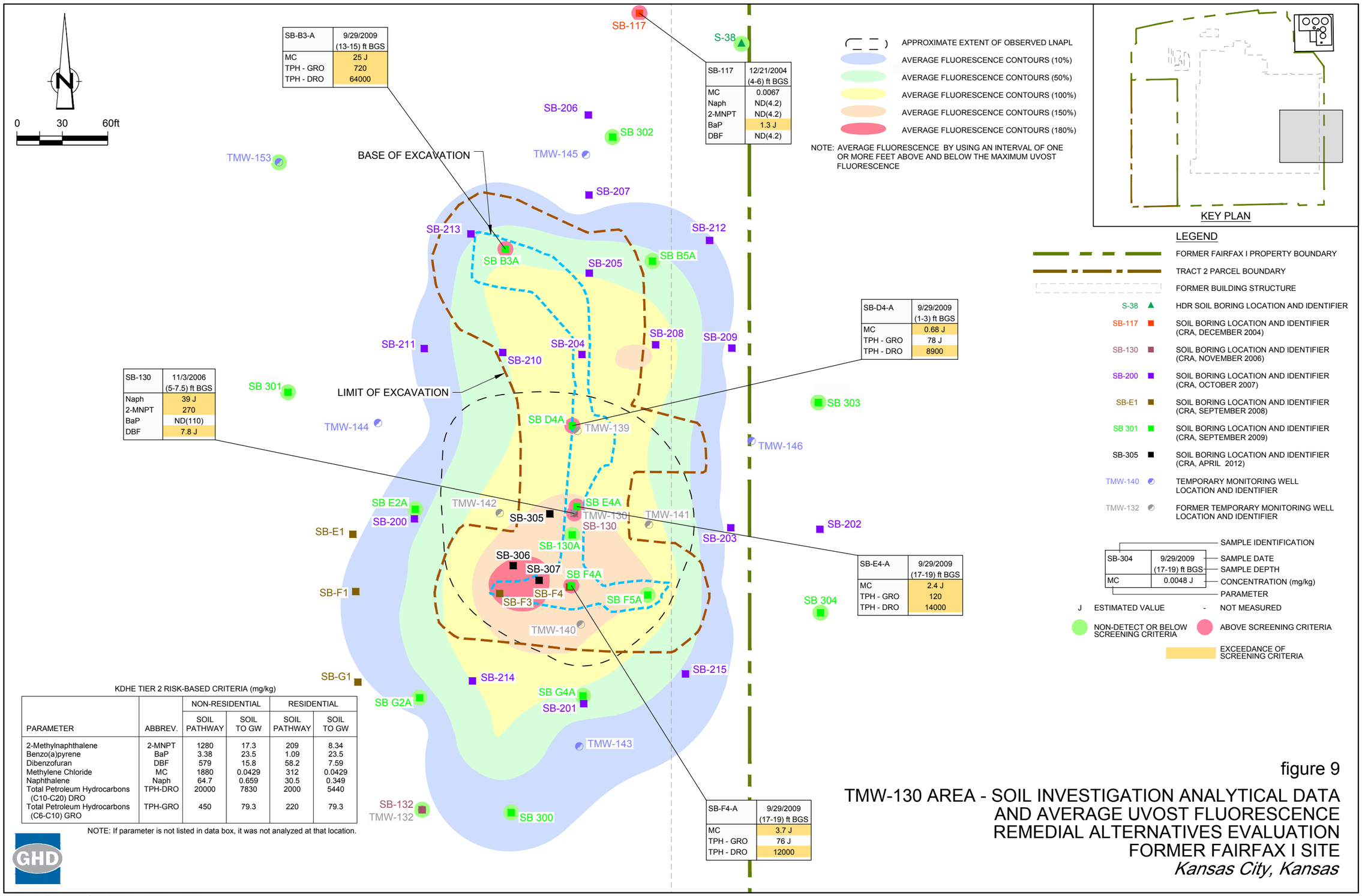
- SAMPLE IDENTIFICATION
- SAMPLE DATE / SAMPLE DEPTH
- CONCENTRATION (mg/kg)
- PARAMETER
- J ESTIMATED VALUE
- -- NOT MEASURED
- ABOVE SCREENING CRITERIA
- EXCEEDANCE OF SCREENING CRITERIA

figure 8

MW-103A AREA - SOIL ANALYTICAL DATA - EXCEEDANCES REMAINING AFTER INTERIM MEASURES REMEDIAL ALTERNATIVES EVALUATION FORMER FAIRFAX I SITE

Kansas City, Kansas

12559-T05(033)GN-WA012 JUN 27, 2016



KDHE TIER 2 RISK-BASED CRITERIA (mg/kg)

PARAMETER	ABBREV.	NON-RESIDENTIAL SOIL PATHWAY	NON-RESIDENTIAL SOIL TO GW	RESIDENTIAL SOIL PATHWAY	RESIDENTIAL SOIL TO GW
2-Methylnaphthalene	2-MNPT	1280	17.3	209	8.34
Benzo(a)pyrene	BaP	3.38	23.5	1.09	23.5
Dibenzofuran	DBF	579	15.8	58.2	7.59
Methylene Chloride	MC	1880	0.0429	312	0.0429
Naphthalene	Naph	64.7	0.659	30.5	0.349
Total Petroleum Hydrocarbons (C10-C20) DRO	TPH-DRO	20000	7830	2000	5440
Total Petroleum Hydrocarbons (C6-C10) GRO	TPH-GRO	450	79.3	220	79.3

NOTE: If parameter is not listed in data box, it was not analyzed at that location.

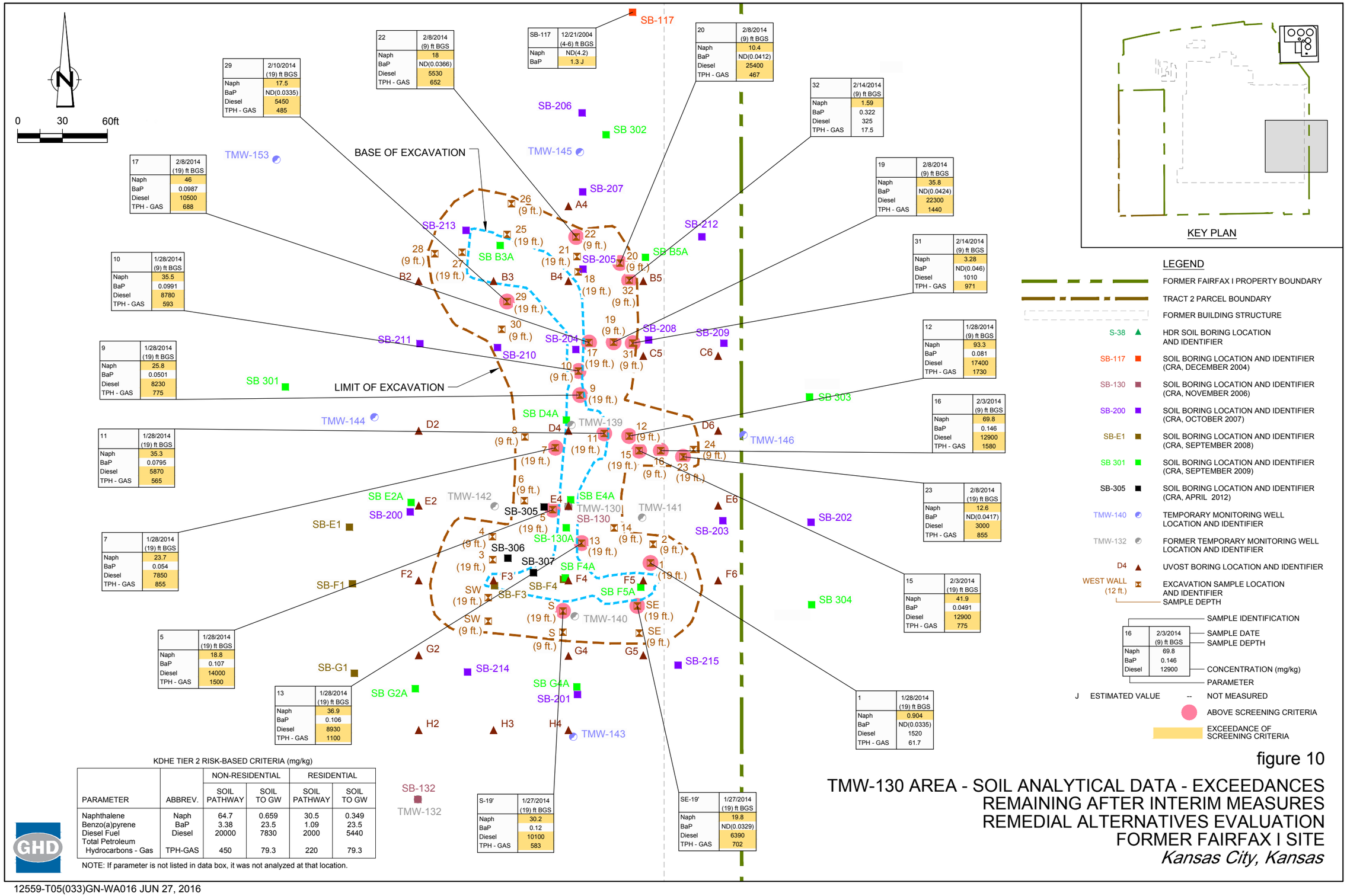
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figure 9

TMW-130 AREA - SOIL INVESTIGATION ANALYTICAL DATA AND AVERAGE UVOST FLUORESCENCE REMEDIAL ALTERNATIVES EVALUATION FORMER FAIRFAX I SITE

Kansas City, Kansas

12559-T05(033)GN-WA017 JUN 27, 2016



22	2/8/2014 (9) ft BGS
Naph	18
BaP	ND(0.0366)
Diesel	5530
TPH - GAS	652

SB-117	12/21/2004 (4-6) ft BGS
Naph	ND(4.2)
BaP	1.3 J

20	2/8/2014 (9) ft BGS
Naph	10.4
BaP	ND(0.0412)
Diesel	25400
TPH - GAS	467

29	2/10/2014 (19) ft BGS
Naph	17.5
BaP	ND(0.0335)
Diesel	5450
TPH - GAS	485

32	2/14/2014 (9) ft BGS
Naph	1.59
BaP	0.322
Diesel	325
TPH - GAS	17.5

17	2/8/2014 (19) ft BGS
Naph	46
BaP	0.0987
Diesel	10500
TPH - GAS	688

19	2/8/2014 (9) ft BGS
Naph	35.8
BaP	ND(0.0424)
Diesel	22300
TPH - GAS	1440

31	2/14/2014 (9) ft BGS
Naph	3.28
BaP	ND(0.046)
Diesel	1010
TPH - GAS	971

10	1/28/2014 (9) ft BGS
Naph	35.5
BaP	0.0991
Diesel	8780
TPH - GAS	593

12	1/28/2014 (9) ft BGS
Naph	93.3
BaP	0.081
Diesel	17400
TPH - GAS	1730

9	1/28/2014 (19) ft BGS
Naph	25.8
BaP	0.0501
Diesel	8230
TPH - GAS	775

16	2/3/2014 (9) ft BGS
Naph	69.8
BaP	0.146
Diesel	12900
TPH - GAS	1580

11	1/28/2014 (19) ft BGS
Naph	35.3
BaP	0.0795
Diesel	5870
TPH - GAS	565

23	2/8/2014 (19) ft BGS
Naph	12.6
BaP	ND(0.0417)
Diesel	3000
TPH - GAS	855

7	1/28/2014 (19) ft BGS
Naph	23.7
BaP	0.054
Diesel	7850
TPH - GAS	855

15	2/3/2014 (19) ft BGS
Naph	41.9
BaP	0.0491
Diesel	12900
TPH - GAS	775

5	1/28/2014 (19) ft BGS
Naph	18.8
BaP	0.107
Diesel	14000
TPH - GAS	1500

13	1/28/2014 (19) ft BGS
Naph	36.9
BaP	0.106
Diesel	8930
TPH - GAS	1100

1	1/28/2014 (19) ft BGS
Naph	0.904
BaP	ND(0.0335)
Diesel	1520
TPH - GAS	61.7

S-19'	1/27/2014 (19) ft BGS
Naph	30.2
BaP	0.12
Diesel	10100
TPH - GAS	583

SE-19'	1/27/2014 (19) ft BGS
Naph	19.8
BaP	ND(0.0329)
Diesel	6390
TPH - GAS	702

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- S-38 ▲ HDR SOIL BORING LOCATION AND IDENTIFIER
- SB-117 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, DECEMBER 2004)
- SB-130 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, NOVEMBER 2006)
- SB-200 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, OCTOBER 2007)
- SB-E1 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, SEPTEMBER 2008)
- SB 301 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, SEPTEMBER 2009)
- SB-305 ■ SOIL BORING LOCATION AND IDENTIFIER (CRA, APRIL 2012)
- TMW-140 ◐ TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- TMW-132 ◐ FORMER TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- D4 ▲ UVOST BORING LOCATION AND IDENTIFIER
- WEST WALL (12 ft.) ⊠ EXCAVATION SAMPLE LOCATION AND IDENTIFIER; SAMPLE DEPTH

16	2/3/2014 (9) ft BGS
Naph	69.8
BaP	0.146
Diesel	12900

SAMPLE IDENTIFICATION; SAMPLE DATE; SAMPLE DEPTH; CONCENTRATION (mg/kg); PARAMETER

J ESTIMATED VALUE -- NOT MEASURED

ABOVE SCREENING CRITERIA

EXCEEDANCE OF SCREENING CRITERIA

KDHE TIER 2 RISK-BASED CRITERIA (mg/kg)

PARAMETER	ABBREV.	NON-RESIDENTIAL SOIL PATHWAY	NON-RESIDENTIAL SOIL TO GW	RESIDENTIAL SOIL PATHWAY	RESIDENTIAL SOIL TO GW
Naphthalene	Naph	64.7	0.659	30.5	0.349
Benzo(a)pyrene	BaP	3.38	23.5	1.09	23.5
Diesel Fuel	Diesel	20000	7830	2000	5440
Total Petroleum Hydrocarbons - Gas	TPH-GAS	450	79.3	220	79.3

NOTE: If parameter is not listed in data box, it was not analyzed at that location.

figure 10

TMW-130 AREA - SOIL ANALYTICAL DATA - EXCEEDANCES REMAINING AFTER INTERIM MEASURES REMEDIAL ALTERNATIVES EVALUATION FORMER FAIRFAX I SITE

Kansas City, Kansas

MW-102A	10/9/2013	4/8/2014	7/17/2014	10/6/2014	1/14/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-115A	10/9/2013	7/17/2014	10/7/2014	1/14/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)/ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)

MW-157	10/9/2013	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00017 J	0.0394	0.001	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
VC	ND(0.001)	0.0028 AB	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	0.0064	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)

MW-124A	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00023 J	0.0004 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-150	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0054	0.0088	0.0073	0.0043	0.0046	0.0045	0.0056	0.0038
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.001	0.001	0.00096 J	0.0018	0.0017	0.00081 J	ND(0.001)	0.0046
TCE	0.0023	0.0035	0.0014	0.0023	0.0022	0.0028	0.0014	0.0035
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.00048 J	0.00068 J	0.00077 J	0.00063 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-151	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0229	0.0243	0.026	0.0141	0.0151	0.0177	0.0154	0.0196
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00062 J	0.00086 J	0.00017 J	ND(0.001)	ND(0.001)	0.0011	ND(0.001)	0.0034
TCE	0.0027	0.003	0.0019	0.0011	0.0025	0.001	0.0055 AB	
VC	ND(0.001)	ND(0.001)	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.0022	0.0017	0.0027	0.0018	0.0012	0.0012	0.0013	0.0013

MW-105	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/7/2015	7/7/2015
B	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0036/0.0037	0.0039	ND(0.001)	0.001	0.0012/0.0011	0.0023	0.0023	ND(0.001)
MC	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)/ND(0.01)	ND(0.01)	0.0037 J AB	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00017 J/ND(0.001)	ND(0.001)	ND(0.001)	0.00053 J	ND(0.001)/0.00055 J	ND(0.001)	ND(0.001)	ND(0.001)
TCE	0.0033/0.0033 J	0.00045 J	ND(0.001)	0.00082 J	ND(0.001)/ND(0.001)	0.00062 J	ND(0.001)	ND(0.001)
VC	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	0.00056 J	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-158A	10/10/2013	1/9/2014	4/10/2014	7/16/2014	10/7/2014	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.005)	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
cis-1,2-DCE	0.269 AB	0.545 AB	1.48 AB	0.175 AB	0.19 AB	0.816 AB	0.0340/0.0338
MC	ND(0.001)	ND(0.007)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
Naph	ND(0.01)	ND(0.05)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)/ND(0.01)
PCE	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
TCE	0.0036	0.0051 AB	0.00046 J	0.002	ND(0.001)	0.0027	0.0023/0.0023
VC	0.0075 AB	0.009 AB	0.0245 AB	0.0188 AB	0.0294 AB	0.0236 AB	0.0013/0.0013
trans-1,2-DCE	0.0102	0.0145	0.107 AB	0.0234	0.0142	0.0552	0.0016/0.0015

TMW-155	10/11/2013	1/8/2014	4/10/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/7/2015
B	0.0155 J AB	ND(0.001)	0.00012 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00011 J	ND(0.001)
cis-1,2-DCE	0.696 AB	0.41 AB	0.534 AB	0.841 AB	0.932 AB	0.655 AB	0.857 AB	0.8 AB
MC	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.25)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.025)	ND(0.001)	0.00017 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	0.117 AB	0.141 AB	0.0846 AB	0.103 AB	0.114 AB	0.102 AB	0.0573 AB	0.0551 AB
VC	0.0095 J AB	0.0019	0.0018	0.0041 AB	0.0084 AB	0.0027 AB	0.0068 AB	0.0055 AB
trans-1,2-DCE	0.0253	0.0209	0.0397	0.101 AB	0.0614	0.0316	0.0676	0.0788

TMW-127	10/10/2013	1/10/2014	4/9/2014	7/17/2014	10/9/2014	1/13/2015	4/7/2015	7/6/2015
B	0.001 J	0.0016 J	0.00012 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00018 J	ND(0.001)
cis-1,2-DCE	0.333 AB	0.377 AB	0.409 AB	0.298 AB	0.308 AB	0.0567	0.37 AB	0.762 AB
MC	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.05)	ND(0.1)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.005 AB	0.0176 AB	0.0063 AB	0.0088 AB	0.0059 AB	ND(0.001)	0.0032 AB	0.0128 AB
trans-1,2-DCE	0.0143	0.0171	0.0411	0.0397	0.0172	0.0028	0.0325	0.0858

MW-1A	10/10/2013	4/8/2014	10/9/2014	4/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
cis-1,2-DCE	0.00023 J	ND(0.001)	0.0009 J	0.00085 J/0.0008 J
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)/ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)

TMW-145	10/9/2013	4/9/2014	7/16/2014	10/9/2014	1/14/2015	4/7/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	0.0013	ND(0.001)
cis-1,2-DCE	0.00075 J	0.0011	0.0013/0.0011	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00018 J	0.00022 J	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	0.0004 J	0.00052 J	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	0.00025 J	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-146	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/9/2014	1/13/2015	4/7/2015	7/9/2015
B	0.00059 J	ND(0.001)	ND(0.001)	0.0095 AB	0.0018	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00032 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00021 J	ND(0.001)
MC	0.0071 AB	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.00033 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-153	10/9/2013	1/10/2014	4/9/2014	7/17/2014	10/8/2014	1/13/2015	4/7/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
cis-1,2-DCE	0.0147	0.0065	0.0139	0.0119	0.0037	ND(0.001)	0.0015	ND(0.001)/ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
TCE	0.00079 J	0.0009 J	0.00098 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
trans-1,2-DCE	0.001	0.0057 J	0.0014	0.0019	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)

TMW-143	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/8/2014	1/14/2015	4/8/2015	7/7/2015
B	0.00023 J	ND(0.001)/ND(0.001)	ND(0.001)	0.002	ND(0.0017)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00032 J	0.0004 J/0.00022 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)/ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00046 J	0.0014 J/0.00059 J	0.00025 J	0.0013	0.0011	0.0015/0.0016	0.00088 J	0.001
TCE	0.00019 J	ND(0.001)/0.00031 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)

TMW-123	10/9/2013	1/14/2014	4/9/2014	7/17/2014	10/8/2014	1/13/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00052 J	0.0054 J	ND(0.001)	ND(0.001)	0.0011	ND(0.001)	0.00059 J	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00037 J	0.00057 J	0.00052 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00045 J	ND(0.001)
TCE	0.00042 J	ND(0.001)	0.00039 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00039 J	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-154	10/10/2013	1/8/2014	4/9/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0111	0.0098	0.0088	0.0141	0.0069	0.0041	0.0065	0.0089
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00051 J	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.00014 J	0.00015 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.0015	0.00081 J	0.0011	0.0025	0.00064 J	0.00053 J	0.00088 J	ND(0.001)

TMW-147E	10/11/2013	1/7/2014	4/10/2014	7/16/2014	10/7/2014	1/13/2015	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0841 AB	0.0724 AB	0.0504	0.0452	0.0447	0.0731 AB	0.0828 AB	0.0629
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.0298 AB	0.0201 AB	0.0413 AB	0.0253 AB	0.0169 AB	0.0333 AB	0.0219 AB	0.0429 AB
TCE	0.0323 AB	0.0174 AB	0.0338 AB	0.0241 AB	0.0142 AB	0.0271 AB	0.0206 AB	0.0182 AB
VC	ND(0.001)	ND(0.001)	0.00024 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.005	0.002	0.0023	0.0045	0.0019	0.0022	0.0042	0.0041

MW-144	10/10/2013	1/14/2014	4/9/2014	7/17/2014	10/9/2014	1/13/2015	4/8/2015	7/8/2015
B	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
cis-1,2-DCE	0.0260/0.03	0.0079	0.0266/0.0271	0.0599	0.0376/0.0358	0.0204/0.0207	0.0278	0.0048 J/0.0061 J
MC	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
Naph	ND(0.01)/ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)	-	ND(0.01)/ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)
PCE	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
TCE	0.00054 J/0.00053 J	0.00019 J	0.00041 J/0.00032 J	0.0017	0.0012/0.0012	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
VC	0.00043 J/0.00041 J	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)
trans-1,2-DCE	0.0017/0.0016	0.00029 J	0.0021/0.002	0.0057	0.0017/0.0021	0.00053 J/0.00053 J	0.0021	ND(0.001)/ND(0.001)

MW-109	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015
B	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0085/0.0083	0.006	0.0053	0.0174	0.0164	0.0038	0.0045	0.0114
MC	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)/ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00014 J/0.00014 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	0.00023 J/0.00019 J	0.0003 J	0.00023 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.00026 J/0.00025 J	ND(0.001)	0.00034 J	0.0012	0.001	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.0012/0.0012	0.00067 J	0.0013	0.0034	0.0021	0.00052 J	0.00075 J	ND(0.001)

MW-117A	10/8/2013	1/10/2014
B	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)

MW-1	10/10/2013	4/8/2014	7/16/2014	10/9/2014	1/15/2015	4/8/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-148	10/10/2013	1/8/2014	4/9/2014	7/17/2014
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00045 J	0.0045 J	0.0098	0.0131
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.0008 J	0.0005 J	0.00091 J	0.00071 J
TCE	0.0024	0.0029	0.0031	0.0024
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	0.00085 J	0.0013

MW-118A	10/8/2013
B	ND(0.001)
cis-1,2-DCE	0.0013
MC	ND(0.001)
Naph	ND(0.01)
PCE	ND(0.001)
TCE	ND(0.001)
VC	ND(0.001)
trans-1,2-DCE	ND(0.001)

MW-110A	10/11/2013	1/8/2014	4/8/2014	7/16/2014	10/9/2014	1/15/2015	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0027	0.0025	0.0036	0.0031	0.0027	ND(0.001)	0.0022/0.0017	0.0024
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)
PCE	0.0045	0.0062 AB	0.0026	0.0055 AB	0.0075 AB	0.0122 AB	0.0084 AB/0.0076 AB	0.0054 AB
TCE	0.0011	0.0014	0.0007 J	0.00057 J	0.00091 J	0.00082 J	0.00089 J/0.00094 J	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)

MW-124B
10/9/2013
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.01)
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.001)

MW-144C
10/9/2013
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.01)
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.001)

MW-146C
10/9/2013
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.01)
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.001)

MW-146B
10/9/2013
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.01)
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.001)

MW-1C
10/9/2013
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.01)
ND(0.001)
ND(0.001)
ND(0.001)
ND(0.001)

MW-1B
10/9/2013
ND(0.001)
ND(0.001)

MW-102B	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	0.00036 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	0.0003 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-124B	10/10/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	0.00023 J	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)/ND(0.01)	-	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	0.00013 J/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)

MW-158B	10/10/2013	1/9/2014	4/10/2014	7/16/2014	10/7/2014	4/9/2015	7/7/2015
B	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0025/0.0013	0.0034/0.0028	0.0057	0.0016	0.0017	0.002	0.0016
MC	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)/ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	0.00045 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)/ND(0.001)	0.0078 AB/0.0076 AB	0.0064 AB	0.0036 AB	0.0017	0.0063 AB	0.0025 AB
trans-1,2-DCE	ND(0.001)/ND(0.001)	0.00069 J/0.00072 J	0.0014	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-1B	10/10/2013	4/8/2014	10/9/2014	4/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	0.00073 J	0.0007 J
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	0.001 J	0.0011
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-156	10/10/2013	1/10/2014	4/10/2014	7/17/2014	10/9/2014	1/14/2015	4/7/2015	7/9/2015
B	0.00073 J	0.0011 J/0.00082 J	0.00038 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00027 J	ND(0.001)
cis-1,2-DCE	0.14 AB	0.254 AB/0.252 AB	0.209 AB	0.155 AB	0.181 AB	0.177 AB	0.157 AB	0.195 AB
MC	ND(0.002)	ND(0.005)/ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.02)	ND(0.05)/ND(0.05)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.002)	ND(0.005)/ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.002)	ND(0.005)/ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.161 AB	0.111 AB/0.107 AB	0.192 AB	0.157 AB	0.153 AB	0.131 AB	0.149 AB	0.122 AB
trans-1,2-DCE	0.0188	0.0206/0.0209	0.0247	0.0271	0.0204	0.0163	0.0169	0.0276

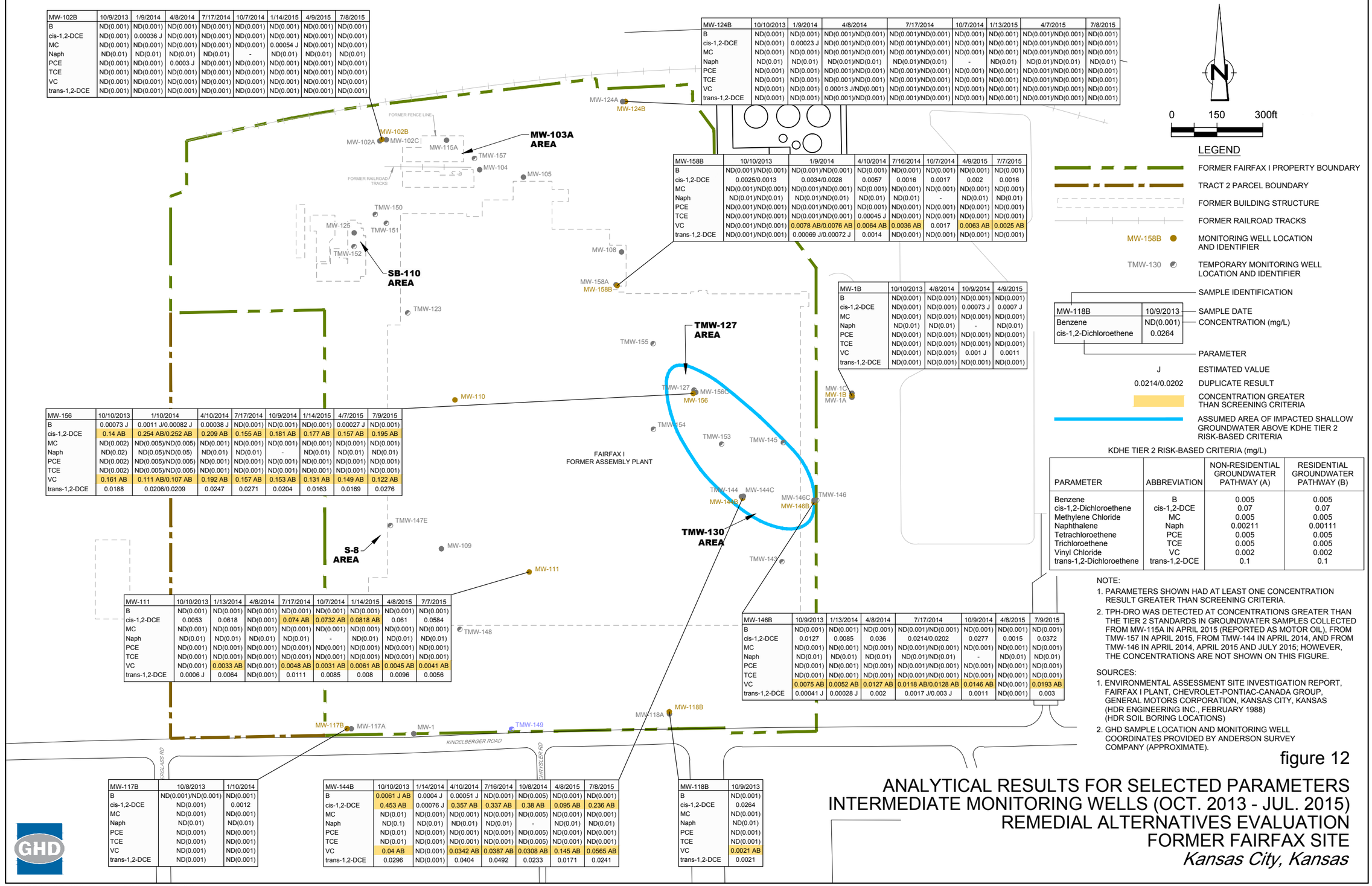
MW-111	10/10/2013	1/13/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0053	0.0618	ND(0.001)	0.074 AB	0.0732 AB	0.0818 AB	0.061	0.0584
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	0.0033 AB	ND(0.001)	0.0048 AB	0.0031 AB	0.0061 AB	0.0045 AB	0.0041 AB
trans-1,2-DCE	0.0006 J	0.0064	ND(0.001)	0.0111	0.0085	0.008	0.0096	0.0056

MW-146B	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/9/2014	4/8/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0127	0.0085	0.036	0.0214/0.0202	0.0277	0.0015	0.0372
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.0075 AB	0.0052 AB	0.0127 AB	0.0118 AB/0.0128 AB	0.0146 AB	ND(0.001)	0.0193 AB
trans-1,2-DCE	0.00041 J	0.00028 J	0.002	0.0017 J/0.003 J	0.0011	ND(0.001)	0.003

MW-117B	10/8/2013	1/10/2014
B	ND(0.001)/ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	0.0012
MC	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)

MW-144B	10/10/2013	1/14/2014	4/10/2014	7/16/2014	10/8/2014	4/8/2015	7/8/2015
B	0.0061 J AB	0.0004 J	0.00051 J	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.453 AB	0.00076 J	0.357 AB	0.337 AB	0.38 AB	0.095 AB	0.236 AB
MC	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
Naph	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
TCE	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
VC	0.04 AB	ND(0.001)	0.0342 AB	0.0387 AB	0.0308 AB	0.145 AB	0.0565 AB
trans-1,2-DCE	0.0296	ND(0.001)	0.0404	0.0492	0.0233	0.0171	0.0241

MW-118B	10/9/2013
B	ND(0.001)
cis-1,2-DCE	0.0264
MC	ND(0.001)
Naph	ND(0.01)
PCE	ND(0.001)
TCE	ND(0.001)
VC	0.0021 AB
trans-1,2-DCE	0.0021



LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- MW-158B — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-130 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER

MW-118B	10/9/2013
Benzene	ND(0.001)
cis-1,2-Dichloroethene	0.0264

- SAMPLE IDENTIFICATION
- SAMPLE DATE
- CONCENTRATION (mg/L)
- PARAMETER
- J — ESTIMATED VALUE
- 0.0214/0.0202 — DUPLICATE RESULT
- CONCENTRATION GREATER THAN SCREENING CRITERIA
- ASSUMED AREA OF IMPACTED SHALLOW GROUNDWATER ABOVE KDHE TIER 2 RISK-BASED CRITERIA

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
Benzene	B	0.005	0.005
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Methylene Chloride	MC	0.005	0.005
Naphthalene	Naph	0.00211	0.00111
Tetrachloroethene	PCE	0.005	0.005
Trichloroethene	TCE	0.005	0.005
Vinyl Chloride	VC	0.002	0.002
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1

NOTE:

1. PARAMETERS SHOWN HAD AT LEAST ONE CONCENTRATION RESULT GREATER THAN SCREENING CRITERIA.
2. TPH-DRO WAS DETECTED AT CONCENTRATIONS GREATER THAN THE TIER 2 STANDARDS IN GROUNDWATER SAMPLES COLLECTED FROM MW-115A IN APRIL 2015 (REPORTED AS MOTOR OIL), FROM TMW-157 IN APRIL 2015, FROM TMW-144 IN APRIL 2014, AND FROM TMW-146 IN APRIL 2014, APRIL 2015 AND JULY 2015; HOWEVER, THE CONCENTRATIONS ARE NOT SHOWN ON THIS FIGURE.

SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. GHD SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

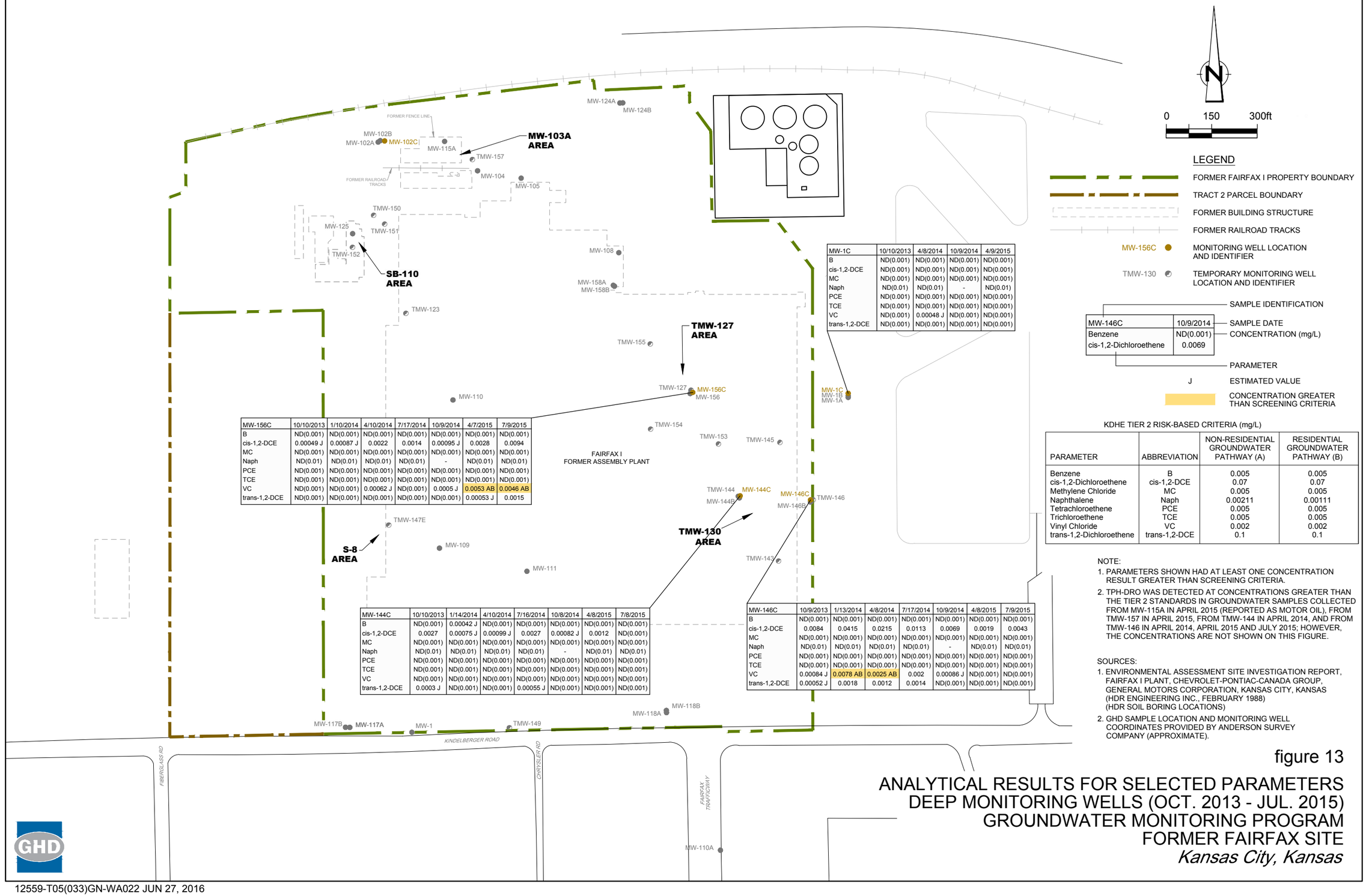
figure 12

ANALYTICAL RESULTS FOR SELECTED PARAMETERS INTERMEDIATE MONITORING WELLS (OCT. 2013 - JUL. 2015) REMEDIAL ALTERNATIVES EVALUATION FORMER FAIRFAX SITE

Kansas City, Kansas

GHD

12559-T05(033)GN-WA020 JUN 27, 2016



MW-1C	10/10/2013	4/8/2014	10/9/2014	4/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	0.00048 J	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-156C	10/10/2013	1/10/2014	4/10/2014	7/17/2014	10/9/2014	4/7/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00049 J	0.00087 J	0.0022	0.0014	0.00095 J	0.0028	0.0094
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	0.00062 J	ND(0.001)	0.0005 J	0.0053 AB	0.0046 AB
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00053 J	0.0015

MW-144C	10/10/2013	1/14/2014	4/10/2014	7/16/2014	10/8/2014	4/8/2015	7/8/2015
B	ND(0.001)	0.00042 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0027	0.00075 J	0.00099 J	0.0027	0.00082 J	0.0012	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.0003 J	ND(0.001)	ND(0.001)	0.00055 J	ND(0.001)	ND(0.001)	ND(0.001)

MW-146C	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/9/2014	4/8/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0084	0.0415	0.0215	0.0113	0.0069	0.0019	0.0043
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.00084 J	0.0078 AB	0.0025 AB	0.002	0.00086 J	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.00052 J	0.0018	0.0012	0.0014	ND(0.001)	ND(0.001)	ND(0.001)

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- MW-156C — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-130 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER

MW-146C	10/9/2014	← SAMPLE IDENTIFICATION
Benzene	ND(0.001)	← CONCENTRATION (mg/L)
cis-1,2-Dichloroethene	0.0069	← SAMPLE DATE

← PARAMETER

J — ESTIMATED VALUE

CONCENTRATION GREATER THAN SCREENING CRITERIA

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
Benzene	B	0.005	0.005
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Methylene Chloride	MC	0.005	0.005
Naphthalene	Naph	0.00211	0.00111
Tetrachloroethene	PCE	0.005	0.005
Trichloroethene	TCE	0.005	0.005
Vinyl Chloride	VC	0.002	0.002
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1

NOTE:

1. PARAMETERS SHOWN HAD AT LEAST ONE CONCENTRATION RESULT GREATER THAN SCREENING CRITERIA.
2. TPH-DRO WAS DETECTED AT CONCENTRATIONS GREATER THAN THE TIER 2 STANDARDS IN GROUNDWATER SAMPLES COLLECTED FROM MW-115A IN APRIL 2015 (REPORTED AS MOTOR OIL), FROM TMW-157 IN APRIL 2015, FROM TMW-144 IN APRIL 2014, AND FROM TMW-146 IN APRIL 2014, APRIL 2015 AND JULY 2015; HOWEVER, THE CONCENTRATIONS ARE NOT SHOWN ON THIS FIGURE.

SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. GHD SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 13

ANALYTICAL RESULTS FOR SELECTED PARAMETERS DEEP MONITORING WELLS (OCT. 2013 - JUL. 2015) GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

Chemical-Specific ARARs			
Citation	**Description**	**Category**	**Summary**
K. A. R. 28-16	Water Pollution Control	Potentially Applicable	Designates uses of rivers and streams. Provides numeric surface water quality standards for various use categories.
K.A.R. 28-71-11	Voluntary Cleanup and Property Redevelopment Program	Applicable	Remedial standards are established under this program.
42 U.S.C. § 300f et seq. as amended in 1986	Safe Drinking Water Act (SDWA) of 1974	Potentially Applicable	Although an EUC restricts groundwater use at the Site, may be applicable or relevant and appropriate if site uses change and water-use becomes un-restricted.
National Primary Drinking Water Regulations and Implementation (40 CFR 141 and 142)	Safe Drinking Water Act (SDWA) of 1974	Potentially applicable	Although an EUC restricts groundwater use at the Site, may be relevant and appropriate for groundwater cleanup at sites where potential drinking water sources are impacted at the distribution point (i.e., at the tap) should water use restrictions be modified.
National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR 300)	Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980	Potentially applicable	Federal government's blueprint for responding to spills or releases of oil and hazardous substances.

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

Chemical-Specific ARARs – continued			
Citation	**Description**	**Category**	**Summary**
42 U.S.C. § 9601 et seq. as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986	Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980	Potentially applicable	May be applicable for any site where a release of hazardous substances has occurred.
Occupational Safety and Health Standards (29 CFR 1910)	Occupational Safety and Health Act (OSHA) of 1970	Applicable	Applies because to workers and workplaces must be protected from known hazards

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

Location-Specific ARARs			
Citation	**Description**	**Category**	**Summary**
K.S.A. 65-1, 221 to 1,235	Environmental Use Controls	Applicable	Applies because an EUC has been recorded for the Site thus restricting land use, groundwater use and soil disturbing activities.
7 U.S.C. § 136; 16 U.S.C. § 460 et seq.	Endangered Species Act of 1973	Potentially Applicable	Although no threatened or endangered species have been identified at the Site, will be applicable if threatened or endangered species or their habitats are present at or near a site.
16 U.S.C. § 460	Flood Control Act of 1944	Applicable	Applies because the site is located upon the floodplain of the Missouri River.
K.S.A. 24-407	Powers of Drainage Districts	Applicable	Authorizes drainage districts, including the Fairfax Drainage District to exercise control of excavations, including well installation, within the drainage district

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

Action-Specific ARARs			
Citation	**Description**	**Category**	**Summary**
K.A.R. 66-6-1 through 66-14-12	Kansas Board of Technical Professions	Applicable	Applies to services of geologists, engineers or land surveyors working on the Site for site investigations and/or remediation.
K.A.R. 28-48-1 to 28-48-2	Spill Reporting	Potentially Applicable	Will apply if unpermitted discharges or accidental spills occur at a site.
K.A.R. 28-30-1 to 28-30-10	Water Well Contractor's License; Well Construction and Abandonment	Applicable	Applies to drilling and/or well construction of monitoring wells at a site.
K.A.R. 28-29-1 to 28-29-121 and K.A.R. 28-29-2101 to 28-29-2113	Solid Waste Management	Potentially Applicable	May apply if solid waste is generated, stored or disposed at the site during remediation.
40 CFR 61	National Emission Standards for Hazardous Air Pollutants (NESHAPS)	Relevant and Appropriate	Remedial actions are not anticipated to result in substantial emissions of contaminants to the air, but may apply depending upon the final remedy.
40 CFR 122	National Pollutant Discharge Elimination System (NPDES)	Applicable	Will apply if more than one acre of land is disturbed or if treated water is discharged to surface waters.

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

Action-Specific ARARs - continued			
Citation	**Description**	**Category**	**Summary**
40 CFR 261, 262, 263,	Resource Conservation and Recovery Act (RCRA) of 1976	Potentially Applicable	Will be applicable if hazardous waste is generated and disposed off site.
29 CFR 1910	Occupational Safety and Health Standards	Potentially Applicable	Will be applicable to workers and workplaces including hazardous waste sites.
29 CFR 1926	Safety and Health Regulations for Construction	Potentially Applicable	Will be applicable to workers during construction activities during remediation.
40 CFR 262	Standards Applicable to Generators of Hazardous Waste	Potentially Applicable	Will potentially be applicable if excavation of impacted soils is a remedial alternative.
40 CFR 144 to 148	Underground Injection Control Program	Potentially Applicable	Will be applicable if remedial injections are part of the remedial alternative.
K.A.R. 28-46-1 to 28-46-44	Underground Injection Control Regulations	Potentially Applicable	Will be applicable if the remedy involves the injection of fluids or air into the subsurface.
49 U.S.C. § 5101 et seq.	Federal Hazardous Materials Transportation Law	Potentially Applicable	Will be applicable if hazardous materials are transported to or from a site.

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

Action-Specific ARARs – continued			
Citation	**Description**	**Category**	**Summary**
40 CFR 268	Land Disposal Restrictions	Applicable	Any contained-in environmental media subject to RCRA. Proposed remedial alternative not anticipated to generate hazardous waste or trigger land disposal restrictions.
K.S.A. 24-407	Powers of Drainage Districts	Applicable	Authorizes drainage districts, including the Fairfax Drainage District to exercise control of excavations, including well installation, within the drainage district

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

To Be Considered			
Citation	**Description**	**Category**	**Summary**
BER Policy #BER-RS-033.	Consideration for Remedial Standards	To Be Considered	Identifies remedial standards and situations where they should be used.
BER Policy #BER-RS-005	Evaluating Future Land Use	To Be Considered	Future land use influences the types and frequencies of exposures that may occur to any residual contamination remaining on the site and therefore must be considered in making corrective action decisions.
EPA 530-R-97-007, May 1997.	Best Management Practices (BMPs) for Soils Treatment Technologies	To Be Considered	Describes various BMPs to be implemented during remedy implementation.
EPA 530-F-98-026, October 1998	Management of Remediation Waste under RCRA	To Be Considered	Describes management of contaminated environmental media, etc.
EPA 600-R-96-055, August 2000.	Guidance for the Data Quality Objectives Process	To Be Considered	Provides a systematic planning process to develop acceptance or performance criteria for collection, evaluation, or use of environmental data.
EPA OSWER Directive 9200.4-17P, April 21, 1999.	Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites	To Be Considered	Describes EPA's policy regarding the use of monitored natural attenuation for the remediation of contaminated soil and groundwater at sites administered by EPA's Office of Solid Waste and Emergency Response.

Table 3.1

Summary of Applicable or Relevant and Appropriate Requirements
Former Fairfax I Site, Kansas City, Kansas

To Be Considered – continued			
Citation	**Citation**	**Citation**	**Citation**
EPA 540-R-95-059, June 1995.	Remedial Design/Remedial Action Handbook	To Be Considered	Provides an overview of the remedial design and remedial action processes.
BER Policy #BER-RS-045.	Considerations for Groundwater Use and Applying RSK Standards to Contaminated Groundwater	To Be Considered	Establishes a mechanism for consistency across BER programs in protecting public health and the environment, in addition to protection of ground water resources of the State.
EPA 240-R-02-009, December 2002	Guidance for Quality Assurance Project Plans	To Be Considered	Describes the Quality Assurance Project Plan as four basic element groups covering project management, data generation and acquisition, assessment and oversight, and data validation and usability.
BER Policy #BER-RS-042	Monitored Natural Attenuation	To Be Considered	Will be applicable if MNA is selected as a remedial alternative.

Table 4.1

Initial Screening of Technologies and Process Options for Soil
Former Fairfax I Site, Kansas City, Kansas

Response Actions	Remedial Technology	Process Options	Description	Effectiveness	Implementability	Cost	Screening Comments
No Action	Not applicable (NA)	NA	No actions are taken				Required for consideration by KDHE
Institutional Actions	Access restriction	Deed restrictions	Deeds for property in the area of influence would include restrictions on property use.	Moderate	Moderate	Low	Potentially applicable
In-Situ Treatment	Biological Treatment	Bioventing	Oxygen is delivered to contaminated unsaturated soils by forced air movement (either extraction or injection of air) to increase oxygen concentrations and stimulate biodegradation.	Moderate	Moderate	Moderate	Bioventing is a medium to long-term technology. Cleanup ranges from a few months to several years.
		Enhanced Bioremediation	Enhanced bioremediation is a process in which indigenous or inoculated micro-organisms (e.g., fungi, bacteria, and other microbes) degrade (metabolize) organic contaminants found in soil and/or ground water, converting them to innocuous end products. Nutrients, oxygen, or other amendments may be used to enhance bioremediation and contaminant desorption from subsurface materials.	Moderate	Moderate-Difficult	Moderate-High	The main advantage of the in situ process is that it allows soil to be treated with minimal disturbance of site activities.
		Phytoremediation	Phytoremediation is a process that uses plants to remove, transfer, stabilize, and destroy contaminants in soil and sediment. The mechanisms of phytoremediation include enhanced rhizosphere biodegradation, phyto-extraction (also called phyto-accumulation), phyto-degradation, and phyto-stabilization.	Low	Difficult	Moderate	The depth of the treatment zone is determined by plants used in phytoremediation. In most cases, it is limited to shallow soils.
	Physical/Chemical Treatment	Chemical Oxidation	Oxidation chemically converts hazardous contaminants to non-hazardous or less toxic compounds that are more stable, less mobile, and/or inert. The oxidizing agents most commonly used are ozone, hydrogen peroxide, hypochlorites, chlorine, and chlorine dioxide.	Moderate	Moderate-Difficult	Moderate-High	Difficult to deliver chemical oxidization to treatment area and oxidant is consumed by natural organic material.
		Soil Vapor Extraction	Soil vapor extraction (SVE) is an in situ unsaturated (vadose) zone soil remediation technology in which a vacuum is applied to the soil to induce the controlled flow of air and remove volatile and some semivolatile contaminants from the soil. The gas leaving the soil may be treated to recover or destroy the contaminants, depending on local and state air discharge regulations. Vertical extraction vents are typically used at depths of 1.5 meters (5 feet) or greater and have been successfully applied as deep as 91 meters (300 feet). Horizontal extraction vents (installed in trenches or horizontal borings) can be used as warranted by contaminant zone geometry, drill rig access, or other site-specific factors.	Moderate-High	Moderate-Difficult	Moderate	Potentially applicable for soils containing VOCs
		Solidification/Stabilization	Contaminants are physically bound or enclosed within a stabilized mass (solidification), or chemical reactions are induced between the stabilizing agent and contaminants to reduce their mobility (stabilization).	Moderate-High	Moderate-Difficult	Moderate-High	Difficult to deliver stabilizing agents to treatment area and requires significant controls to prevent contaminant migration during treatment.
	Thermal Treatment	Electrical Resistance Heating	Electrodes are placed in boreholes in the contaminated zone and used to heat the subsurface. The vapors and liquids that are generated during heating are collected and treated above ground.	Moderate-High	Difficult	High	Potentially applicable but requires significant controls to prevent contaminant migration during treatment.
		Radio Frequency/Electromagnetic Heating	Radio frequency heating (RFH) is an in situ process that uses electromagnetic energy to heat soil and enhance soil vapor extraction (SVE).	Moderate-High	Difficult	High	Potentially applicable but requires significant controls to prevent contaminant migration during treatment.
		Hot Air/Steam Injection	Hot air or steam is injected below the contaminated zone to heat up contaminated soil. The heating enhances the release of contaminants from the soil matrix. Some VOCs and SVOCs are stripped from contaminated zone and brought to the surface through soil vapor extraction.	Moderate-High	Difficult	High	Potentially applicable but requires significant controls to prevent contaminant migration during treatment.

Table 4.1

Initial Screening of Technologies and Process Options for Soil
Former Fairfax I Site, Kansas City, Kansas

Response Actions	Remedial Technology	Process Options	Description	Effectiveness	Implementability	Cost	Screening Comments
Ex-Situ Treatment	Biological Treatment (assuming excavation)	Biopiles	Excavated soils are mixed with soil amendments and placed in aboveground enclosures. It is an aerated static pile composting process in which compost is formed into piles and aerated with blowers or vacuum pumps.	Moderate	Moderate	Moderate	Possible release of VOCs to atmosphere during soil handling and treatment.
		Landfarming	Contaminated soil, sediment, or sludge is excavated, applied into lined beds, and periodically turned over or tilled to aerate the waste.	Moderate	Moderate	Moderate	Possible release of VOCs to atmosphere during soil handling and treatment.
	Thermal Treatment (assuming excavation)	Hot Gas Decontamination	The process involves raising the temperature of the contaminated equipment or material for a specified period of time. The gas effluent from the material is treated in an afterburner system to destroy all volatilized contaminants.	Moderate-High	Moderate-Difficult	Moderate-High	Potentially applicable for large quantities of impacted material.
		Pyrolysis	Chemical decomposition is induced in organic materials by heat in the absence of oxygen. Organic materials are transformed into gaseous components and a solid residue (coke) containing fixed carbon and ash.	Moderate	Moderate	Moderate-High	Potentially applicable for large quantities of impacted material.
		Thermal Desorption	Wastes are heated to volatilize water and organic contaminants. A carrier gas or vacuum system transports volatilized water and organics to the gas treatment system.	Moderate	Moderate	Moderate-High	Potentially applicable for large quantities of impacted material.
Soil Removal	Excavation	Off-Site Disposal	Contaminated material is removed and transported to permitted off-site treatment and disposal facilities. Pretreatment may be required.	Moderate-High	Moderate-Difficult	Moderate	Excavation and off-site disposal is applicable to the complete range of contaminant groups with no particular target group.
		Ex-Situ Treatment	See above ex-situ options.	Moderate-High	Moderate-Difficult	Moderate-High	See above ex-situ options
Containment	Cap	Clay and soil	Compacted clay covered with soil over areas of contamination	Moderate-High	Moderate	Moderate-High	Potentially applicable
		Asphalt	Installation of a layer of asphalt over areas of contamination	Moderate	Moderate	Moderate	Potentially applicable
		Concrete	Installation of a concrete slab over areas of contamination	Moderate-High	Moderate	Moderate-High	Potentially applicable
		Multimedia cap	Clay and synthetic membrane covered by soil over areas of contamination	Moderate-High	Moderate	High	Potentially applicable

Notes:

Gray shading indicates a technology or process option that was incorporated in the development of alternatives. Effectiveness and cost scales defined as low, medium and, high. Implementability scale defined as easy, moderate, and difficult.

Table 4.2

Initial Screening of Technologies and Process Options for Groundwater
Former Fairfax I Site, Kansas City, Kansas

Response Action	Remedial Technology	Process Option	Description	Effectiveness	Implementability	Cost	Screening Comments
No Action	Not applicable (NA)	NA	No actions are taken				Required for consideration by KDHE
Institutional Controls	Access Restrictions	Deed Restrictions	Deeds for property in the area of influence would include restrictions on property / groundwater use.	Moderate	Moderate	Low	Potentially applicable in conjunction with other response actions.
	Monitoring	Groundwater Monitoring	Ongoing monitoring of wells.	Moderate	Easy	Low	Potentially applicable
Monitored Natural Attenuation (MNA)	MNA	MNA	Monitor wells to track natural decreases in contaminant concentrations that occur with time. Organic contaminants are allowed to naturally attenuate via biodegradation, dispersion, dilution, or adsorption	Low	Easy	Low	Potentially applicable in conjunction with other response actions. Requires long-term monitoring to assess remedial progress.
In Situ Treatment	Biological Treatment	Enhanced Bioremediation	The activity of naturally occurring or augmented (bioaugmentation) microbes is stimulated (biostimulation) by circulating electron donors, electron acceptors, or nutrients, through contaminated groundwater to enhance in situ biological degradation of organic contaminants.	Moderate − High	Moderate -Difficult	Moderate − High	Potentially applicable. May be difficult to implement in situ; nutrients are difficult to deliver.
		Phytoremediation	Plants are used to remove, transfer, stabilize, and destroy contaminants in groundwater	Low	Difficult	Moderate	Not effective for deeper groundwater.
	Physical/Chemical Treatment	Air Sparging/Soil Vapor Extraction	Inject air into the saturated subsurface to volatilize organic contaminants in groundwater. May be used in conjunction with soil vapor extraction, where a vacuum is applied to soil to induce controlled air flow and remove volatile and semivolatile contaminants from the unsaturated zone.	Moderate − High	Moderate - Difficult	Moderate − High	Potentially applicable. Design and effectiveness of system depends on geology and depth of contaminants; operations and maintenance (O&M) intensive. Air stream may require treatment.
		In Situ Thermal Treatment	The subsurface is heated to vaporize VOCs; vaporized contaminants can then be removed from the unsaturated zone by vacuum extraction and treated.	Moderate − High	Difficult	High	Success and required treatment time depend heavily on site-specific characteristics such as soil type, contaminant characteristics and concentrations, geology, and hydrogeology; volatilized VOCs are difficult to capture and may accumulate in buildings or follow preferential pathways; may require a large number of wells. Effective for VOCs; depends on the ability to capture vaporized contaminants.
	Chemical Treatment	In Situ Chemical Oxidation	Chemicals (such as ozone, potassium permanganate, sodium persulfate, or Fenton's reagent) are injected into the contaminated groundwater to oxidize the contaminants	Moderate − High	Moderate − Difficult	Moderate − High	Potentially applicable. Depends on site geology, which may inhibit adequate dispersion of injected chemicals; multiple injections may be necessary to achieve remediation goals. Could add total dissolved solids (TDS) within the aquifer.
		In Situ Chemical Reduction	Chemicals (such as zero valent iron) are injected into the contaminated groundwater to chemically reduce the contaminants	Moderate − High	Moderate − Difficult	Moderate − High	Potentially applicable. Depends on site geology, which may inhibit adequate dispersion of injected chemicals; multiple injections may be necessary to achieve remediation goals.
		Permeable Reactive Barriers	A permeable wall is created (often zero valent iron) to treat contaminated groundwater while groundwater passively flows through.	High	Moderate − Difficult	High	Limited to subsurface lithology that has a continuous aquitard; can be difficult to install at depths greater than conventional trenching equipment. Possibility of precipitate formation due to site geochemistry.

Table 4.2

Initial Screening of Technologies and Process Options for Groundwater
Former Fairfax I Site, Kansas City, Kansas

Response Action	Remedial Technology	Process Option	Description	Effectiveness	Implementability	Cost	Screening Comments
Collection/ Discharge	Ex Situ Physical/Chemical Treatment	Extraction and Treatment	Contaminated groundwater is removed by pumping, and contaminants are removed ex situ through treatment such as advanced oxidation processes, air stripping, GAC adsorption, ion exchange, or separation	Moderate − High	Moderate	High	Potentially applicable. Effective for organic compounds; often generates a secondary waste stream; may leave significant concentrations of COCs behind as the aquifer is dewatered. Remedial time frame may be long.
		Dual-Phase Extraction	A high vacuum system is used to extract liquid and vapor from the subsurface; liquid and vapor are then separated and treated.	Moderate − High	Moderate − Difficult	High	Requires both water treatment and vapor treatment; more applicable to light non-aqueous phase liquids (petroleum releases) than to chlorinated solvent releases
		Precipitation	Alteration of chemical equilibria to reduce solubility of the contaminants	Moderate − High	Moderate − Difficult	High	Applicable for removal of inorganics.
		Air Stripping	Application of a counter-current air stream with impacted water in a packed column or other device (e.g., stacked tray system) to promote transfer of VOCs to air	Moderate − High	Moderate − Difficult	High	Potentially applicable. Air stream may require monitoring / controls. Air stripper operation may be affected by presence of inorganics in groundwater.
		Carbon absorption	Adsorption of contaminants onto activated carbon by passing water through carbon column	Moderate − High	Moderate − Difficult	High	Potentially applicable. Carbon usage is dependent on types and concentrations of organic compounds in groundwater.
		Reverse osmosis	Use of high pressure to force water through a membrane leaving contaminants behind	Moderate − High	Moderate − Difficult	High	Generally applied to constituents not amenable to other forms of physical / chemical treatment.
		Ion exchange	Contaminated water is passed through a resin bed where ions are exchanged between resin and water	Moderate − High	Moderate − Difficult	High	Applicable for removal of inorganics.
	Off-Site Treatment/ Discharge	POTW	Extracted groundwater discharged to local POTW for treatment	Moderate	Easy	Low − Moderate	Generally only suitable for low volume discharges.
		RCRA facility	Extracted groundwater discharged to licensed RCRA facility for treatment and/or disposal	Moderate	Easy	Low − Moderate	Generally only suitable for low volume discharges.
		Surface water	Extracted groundwater discharged to off-site surface water body after treatment.	Moderate	Easy	Low − Moderate	Potentially applicable. Discharge permit is required.
Containment	Capping	Asphalt	Pave with asphalt over areas of contamination. Can be used to minimize vapor intrusion and infiltration.	Moderate	Easy	Low − Moderate	Potentially applicable
		Concrete	Place concrete over areas of contamination. Can be used to minimize vapor intrusion and infiltration	Moderate	Easy	Low − Moderate	Potentially applicable
		Compacted Clay & Soil	Place compacted clay and soil over areas of contamination. Can be used to minimize vapor intrusion and infiltration.	Moderate	Moderate	Moderate	Potentially applicable
	Vertical Barriers	Grout Curtain	Pressure injection of grout in a regular pattern of drilled holes to form a low permeability barrier	Moderate	Difficult	High	Generally applicable for isolation of areas with continuing sources of groundwater contamination such as landfills.
		Slurry Wall.	Trench around area of contamination filled with bentonite slurry material to form a low permeability barrier	Moderate	Difficult	High	Generally applicable for isolation of areas with continuing sources of groundwater contamination such as landfills.

Notes:

Gray shading indicates a technology or process option that was incorporated in the development of alternatives. Effectiveness and cost scales defined as low, medium and, high. Implementability scale defined as easy, moderate, and difficult.

Table 6.1

Remedial Alternatives Screening/Evaluation Summary
S-8 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
1	No Action	Potential receptor contact with impacted media and potential impacts to groundwater (via infiltration and leaching) are not addressed. Currently there is no human exposure to impacted soil. Soil that is impacted above Tier 2 standards would remain in place.	No treatment is provided.	No short-term risks exist. Long-term risks are associated with potential receptor contact with impacted media and potential impacts to groundwater.	Not applicable since no action is undertaken.	Not applicable since no action is undertaken.
2	Engineering Controls/ Containment and Institutional Controls	Potential receptor contact with impacted media is addressed by provision of surface cap and implementation of institutional controls on property use. Potential impacts to groundwater from unsaturated zone soil are mitigated by the surface cap which reduces infiltration and leaching. Media that are impacted above Tier 2 standards would remain in place. The existing EUCs include restrictions on property and groundwater use, which will remain in effect while being maintained. Supplemental restrictions may be needed specific to maintenance of the surface cap.	No treatment is provided.	Short-term risks during construction are very limited since there would be minimal disruption of the existing soil. Long-term risks associated with potential receptor contact with impacted media are managed but not eliminated. Potential risks associated with the presence of VOCs and effects on groundwater quality continue to exist. Potential vapor intrusion into future buildings and structures may need to be assessed and mitigated as necessary.	Construction of the surface cap (e.g., soil, asphalt, concrete) and other types of controls are readily implementable using conventional materials and methods. Property use controls are implemented through the KDHE Environmental Use Control Program. Cap systems and associated controls are demonstrated to be highly reliable for preventing exposure and reducing infiltration when maintained properly. The construction of the surface cap could be implemented in a relatively short amount of time but ongoing maintenance would be needed. This alternative does not actively reduce the amount of the impacted media over the long term.	Capital cost for construction of the surface cap is dependent on the type of material used and the size of the area requiring capping. Drainage system improvements may also be needed to prevent accumulation of surface water runoff. Operating costs would be incurred related to ongoing maintenance of the surface cap and drainage system improvements.

Table 6.1

Remedial Alternatives Screening/Evaluation Summary
S-8 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
3	Soil Vapor Extraction (SVE)	Potential receptor contact with impacted media is addressed by removal of VOCs from unsaturated (vadose) zone soil.	SVE is effective for removing VOCs from unsaturated (vadose) zone soils through use of vertical wells and/or trenches in which a vacuum is applied to withdraw volatile chemicals. The effectiveness of SVE systems is related to the ability to transfer the chemical mass that is sorbed to the soil to the soil vapor phase, for withdrawal via the vacuum piping for subsequent ex situ treatment. SVE is most effective for coarse-grained soil but can also be used for fine-grained soil. The presence of stratified soils may lead to preferential air/vapor flow through layers of coarse-grained soil and impair the overall treatment effectiveness. The presence of buried structures and utilities may also limit effectiveness due to preferential air/vapor flow. Monitoring during implementation is required, and post-treatment testing is needed to confirm effectiveness for removal of chemicals of concern.	Short-term risks are associated with installation of extraction wells. Long-term risks associated with potential receptor contact with impacted media are managed and ultimately eliminated when remedial goals are attained.	SVE systems are readily implementable using conventional drilling and construction methods. The aboveground vacuum and treatment components are available as prefabricated systems from various vendors on either a purchase or rental basis. The reliability of SVE treatment depends on the ability to maintain appropriate air/vapor flow conditions throughout the horizontal and vertical limits of soil to be treated, until remedial goals have been attained. This may be affected by the presence of preferential flow paths. SVE systems can be constructed and implemented quickly but operation and monitoring may continue for many months or years to demonstrate attainment of remedial goals. The length of time required is primarily a function of the soil type and contaminant distribution.	Capital cost for SVE treatment is dependent on the size and depth of the area to be treated. This affects the spacing/quantity and design of the SVE wells, the flow rate and sizing of the vacuum and treatment components, and the number and location of gas probes used for monitoring. Operating costs would be incurred related to the operation of the SVE vacuum system, the off-gas treatment system, disposal, and monitoring/testing/reporting.

Table 6.1

Remedial Alternatives Screening/Evaluation Summary
S-8 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
4	Soil Excavation and Disposal	Potential receptor contact with impacted media is addressed by removal of VOCs from unsaturated (vadose) zone soil	Excavation would result in removal of impacted soil required for attaining Tier 2 standards. Post-excavation testing is needed to confirm effectiveness for removal of chemicals of concern.	Short-term risks exist during excavation and on-site treatment activities due to the intrusive nature of the work and potential health and safety impacts to workers and the public. In addition risks exist related to increased vehicle activity beyond the site boundaries if off-site transportation and disposal is conducted. The excavation of VOC-impacted soil could result in VOC loss to the atmosphere during excavation activities which may require monitoring and controls. No long-term risk would remain after completion of the excavation and disposal activities.	Excavation is readily implementable for impacted unsaturated soil to depths of around 20 feet below ground surface using conventional construction methods. The soil type and depth of the excavation will determine requirements for sheeting and shoring during excavation. In addition, dewatering may be required depending on the water table conditions encountered during excavation. Approvals from the Fairfax Drainage District (FDD) for work near the flood control levee are required. Excavation and ex situ treatment or off site disposal is commonly used as a remedial approach at numerous sites and accepted as highly reliable. The excavation activities can be implemented in a relatively short amount of time. The time required for the management of the excavated material is dependent on the methods used for on-site treatment or off-site disposal. These activities could probably be accomplished in a short term scenario.	The cost for excavation is dependent on the dimensions of the area and the excavation quantity; and other factors such as the type of material being excavated, the need for sheeting/shoring, the presence of buried structures, methods for managing water from dewatering, and the availability of temporary stockpile facilities. The cost for disposal of the excavated material is dependent on the method(s) to be employed, such as on-site ex situ treatment or off-site transportation and disposal. The cost for restoration is dependent on the type and quantity of backfill material and the requirements for compaction and surface restoration.

Table 6.1

Remedial Alternatives Screening/Evaluation Summary
S-8 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
Overall Comparison of Alternatives		Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards. Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media. Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs). Currently there is no human exposure to impacted media. Soil that is impacted above Tier 2 standards would remain in place for Alternatives 1 and 2. The extent of impact above Tier 2 standards is very limited. The detected VOC concentrations marginally exceed the Tier 2 standards for protection to groundwater, and do not exceed the standards for direct contact.	Alternatives 1 and 2 do not provide treatment. Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards.	Alternatives 3 and 4 pose the lowest long term risk by being the most effective alternatives for addressing impacted media, but pose the highest short term risk due to potential exposure of impacted media to workers and the environment. Alternative 2 does not pose any significant short term exposure risk. This alternative poses long term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP.	Alternatives 2, 3, and 4 involve the use of commonly available technologies and are readily implementable. Alternatives 2 and 4 are the most reliable alternatives since they involve proven methods and clear implementation processes. Alternative 3 is less reliable than Alternatives 2 and 4 since it uses in situ treatment methods which are not as readily controlled. Alternatives 2 and 4 require the least amount of time. Alternative 3 requires more time compared to Alternatives 2 and 4 due to the need for ongoing operation and monitoring.	Alternative 2 is the lowest cost alternative. Alternative 4 is the next highest cost alternative and has no associated ongoing costs. Alternative 3 is the highest cost alternative. The cost is dependent on the time required for treatment and monitoring.

Table 6.2

Remedial Alternatives Screening/Evaluation Summary
SB-110 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
1	No Action	Potential receptor contact with impacted media and potential impacts to groundwater (via infiltration and leaching) are not addressed. Currently there is no human exposure to impacted soil. Soil that is impacted above Tier 2 standards would remain in place.	No treatment is provided.	No short-term risks exist. Long-term risks are associated with potential receptor contact with impacted media and potential impacts to groundwater.	Not applicable since no action is undertaken.	Not applicable since no action is undertaken.
2	Engineering Controls/ Containment and Institutional Controls	Potential receptor contact with impacted media is addressed by provision of surface cap and implementation of institutional controls on property use. Potential impacts to groundwater from unsaturated zone soil are mitigated by the surface cap which reduces infiltration and leaching. Media that are impacted above Tier 2 standards would remain in place. The existing EUCs include restrictions on property and groundwater use, which will remain in effect while being maintained. Supplemental restrictions may be needed specific to maintenance of the surface cap.	No treatment is provided.	Short-term risks during construction are very limited since there would be minimal disruption of the existing soil. Long-term risks associated with potential receptor contact with impacted media are managed but not eliminated. Potential risks associated with the presence of VOCs and effects on groundwater quality continue to exist. Potential vapor intrusion into future buildings and structures may need to be assessed and mitigated as necessary.	Construction of the surface cap (e.g., soil, asphalt, concrete) and other types of controls are readily implementable using conventional materials and methods. Property use controls are implemented through the KDHE Environmental Use Control Program. Cap systems and associated controls are demonstrated to be highly reliable for preventing exposure and reducing infiltration when maintained properly. The construction of the surface cap could be implemented in a relatively short amount of time but ongoing maintenance would be needed. This alternative does not actively reduce the amount of the impacted media over the long term.	Capital cost for construction of the surface cap is dependent on the type of material used and the size of the area requiring capping. Drainage system improvements may also be needed to prevent accumulation of surface water runoff. Operating costs would be incurred related to ongoing maintenance of the surface cap and drainage system improvements.

Table 6.2

Remedial Alternatives Screening/Evaluation Summary
SB-110 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
3	Soil Vapor Extraction (SVE)	Potential receptor contact with impacted media is addressed by removal of VOCs from unsaturated (vadose) zone soil.	SVE is effective for removing VOCs from unsaturated (vadose) zone soils through use of vertical wells and/or trenches in which a vacuum is applied to withdraw volatile chemicals. The effectiveness of SVE systems is related to the ability to transfer the chemical mass that is sorbed to the soil to the soil vapor phase, for withdrawal via the vacuum piping for subsequent ex situ treatment. SVE is most effective for coarse-grained soil but can also be used for fine-grained soil. The presence of stratified soils may lead to preferential air/vapor flow through layers of coarse-grained soil and impair the overall treatment effectiveness. The presence of buried structures and utilities may also limit effectiveness due to preferential air/vapor flow. Monitoring during implementation is required, and post-treatment testing is needed to confirm effectiveness for removal of chemicals of concern.	Short-term risks are associated with installation of extraction wells. Long-term risks associated with potential receptor contact with impacted media are managed and ultimately eliminated when remedial goals are attained.	SVE systems are readily implementable using conventional drilling and construction methods. The aboveground vacuum and treatment components are available as prefabricated systems from various vendors on either a purchase or rental basis. The reliability of SVE treatment depends on the ability to maintain appropriate air/vapor flow conditions throughout the horizontal and vertical limits of soil to be treated, until remedial goals have been attained. This may be affected by the presence of preferential flow paths. SVE systems can be constructed and implemented quickly but operation and monitoring may continue for many months or years to demonstrate attainment of remedial goals. The length of time required is primarily a function of the soil type and contaminant distribution.	Capital cost for SVE treatment is dependent on the size and depth of the area to be treated. This affects the spacing/quantity and design of the SVE wells, the flow rate and sizing of the vacuum and treatment components, and the number and location of gas probes used for monitoring. Operating costs would be incurred related to the operation of the SVE vacuum system, the off-gas treatment system, disposal, and monitoring/testing/reporting.

Table 6.2

Remedial Alternatives Screening/Evaluation Summary
SB-110 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
4	Soil Excavation and Disposal	Potential receptor contact with impacted media is addressed by removal of VOCs from unsaturated (vadose) zone soil	Excavation would result in removal of impacted soil required for attaining Tier 2 standards. Post-excavation testing is needed to confirm effectiveness for removal of chemicals of concern.	Short-term risks exist during excavation and on-site treatment activities due to the intrusive nature of the work and potential health and safety impacts to workers and the public. In addition risks exist related to increased vehicle activity beyond the site boundaries if off-site transportation and disposal is conducted. The excavation of VOC-impacted soil could result in VOC loss to the atmosphere during excavation activities which may require monitoring and controls. No long-term risk would remain after completion of the excavation and disposal activities.	Excavation is readily implementable for impacted unsaturated soil to depths of around 20 feet below ground surface using conventional construction methods. The soil type and depth of the excavation will determine requirements for sheeting and shoring during excavation. In addition, dewatering may be required depending on the water table conditions encountered during excavation. Approvals from the Fairfax Drainage District (FDD) for work near the flood control levee are required. Excavation and ex situ treatment or off site disposal is commonly used as a remedial approach at numerous sites and accepted as highly reliable. The excavation activities can be implemented in a relatively short amount of time. The time required for the management of the excavated material is dependent on the methods used for on-site treatment or off-site disposal. These activities could probably be accomplished in a short term scenario.	The cost for excavation is dependent on the dimensions of the area and the excavation quantity; and other factors such as the type of material being excavated, the need for sheeting/shoring, the presence of buried structures, methods for managing water from dewatering, and the availability of temporary stockpile facilities. The cost for disposal of the excavated material is dependent on the method(s) to be employed, such as on-site ex situ treatment or off-site transportation and disposal. The cost for restoration is dependent on the type and quantity of backfill material and the requirements for compaction and surface restoration.

Table 6.2

Remedial Alternatives Screening/Evaluation Summary
SB-110 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
Overall Comparison of Alternatives		Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards. Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media. Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs). Currently there is no human exposure to impacted media. Soil that is impacted above Tier 2 standards would remain in place for Alternatives 1 and 2. The extent of impact above Tier 2 standards is very limited. The detected VOC concentrations marginally exceed the Tier 2 standards for protection to groundwater, and do not exceed the standards for direct contact.	Alternatives 1 and 2 do not provide treatment. Alternatives 3 and 4 provide the highest degree of effectiveness by providing treatment or removal of soil impacted above Tier 2 standards.	Alternatives 3 and 4 pose the lowest long term risk by being the most effective alternatives for addressing impacted media, but pose the highest short term risk due to potential exposure of impacted media to workers and the environment. Alternative 2 does not pose any significant short term exposure risk. This alternative poses long term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP.	Alternatives 2, 3, and 4 involve the use of commonly available technologies and are readily implementable. Alternatives 2 and 4 are the most reliable alternatives since they involve proven methods and clear implementation processes. Alternative 3 is less reliable than Alternatives 2 and 4 since it uses in situ treatment methods which are not as readily controlled. Alternatives 2 and 4 require the least amount of time. Alternative 3 requires more time compared to Alternatives 2 and 4 due to the need for ongoing operation and monitoring.	Alternative 2 is the lowest cost alternative. Alternative 3 is the next highest cost alternative. The cost is dependent on the time required for treatment and monitoring. Alternative 4 is the highest cost alternatives but has no associated ongoing costs.

Table 6.3

Remedial Alternatives Screening/Evaluation Summary
MW-103a Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
1	No Further Action	Potential receptor contact with impacted media and potential impacts to groundwater are not addressed, to the extent that impacted media remains following the Interim Measures. Currently there is no human exposure to impacted media and dissolved phase groundwater impacts are not significant.	No treatment is provided. Media that are impacted above Tier 2 standards and LNAPL would remain in place, to a reduced extent following the removal of impacted soil during Interim Measures.	No short-term risks exist. Long-term risks are associated with potential receptor contact with impacted media and potential impacts to groundwater. These risks have been reduced as a result of soil removal during Interim Measures.	Not applicable since no further action is undertaken.	Not applicable since no further action is undertaken.
2	Engineering Controls/ Capping and Institutional Controls	Potential receptor contact with impacted media is addressed by provision of surface cap and access controls. Potential impact to groundwater from unsaturated zone soil is mitigated by surface cap which reduces infiltration and leaching. The existing EUCs include restrictions on property and groundwater use, which will remain in effect while being maintained. Supplemental restrictions may be needed specific to maintenance of the surface cap.	No treatment is provided. Media that are impacted above Tier 2 standards and LNAPL would remain in place, to a reduced extent following the removal of impacted soil during Interim Measures.	Short-term risks during construction are very limited since there would be minimal disruption of the existing soil. Long-term risks associated with potential receptor contact with impacted media are managed but not eliminated. These risks have been reduced as a result of soil removal during Interim Measures	Construction of surface cap (e.g., soil, asphalt, concrete) and other types of controls are readily implementable using conventional materials and methods. Property use controls are implemented through the KDHE Environmental Use Control Program. Cap systems and associated controls are demonstrated to be highly reliable for preventing exposure and reducing infiltration when maintained properly. The construction of the cap system could be implemented in a relatively short amount of time. This alternative does not reduce the amount of the impacted media over the long term.	Capital cost for construction of the surface cap is dependent on the type of material used and the size of the area requiring capping. Drainage system improvements may also be needed to prevent accumulation of surface water runoff. Operating costs would be incurred related to ongoing maintenance of the surface cap and drainage system improvements.

Table 6.3

Remedial Alternatives Screening/Evaluation Summary
MW-103a Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
Overall Comparison of Alternatives		Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media. Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs). Currently there is no human exposure to impacted media and dissolved phase groundwater impacts are not significant. Media that are impacted above Tier 2 standards would remain in place for Alternatives 1 and 2 to the extent that impacted media remains following the Interim Measures.	Alternatives 1 and 2 do not provide treatment.	Alternative 2 does not pose any significant short-term exposure risk. This alternative poses long-term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP. Also, these risks have been reduced as a result of soil removal during Interim Measures.	Alternative 2 involves the use of commonly available technologies and are readily implementable. Alternative 2 is the most reliable alternative since it involves proven methods and clear implementation processes. Alternative 2 can be implemented relatively quickly but will require ongoing maintenance.	The cost for Alternative 2 is relatively small as compared to the cost for Interim Measures already conducted.

Table 6.4

Remedial Alternatives Screening/Evaluation Summary
TMW-130 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
1	No Further Action	Potential receptor contact with impacted media and potential impacts to groundwater are not addressed, to the extent that impacted media remains following the Interim Measures. Currently there is no human exposure to impacted media and dissolved phase groundwater impacts are not significant.	No treatment is provided. Media that are impacted above Tier 2 standards and LNAPL would remain in place, to a reduced extent following the removal of impacted soil during Interim Measures.	No short-term risks exist. Long-term risks are associated with potential receptor contact with impacted media and potential impacts to groundwater. These risks have been reduced as a result of soil removal during Interim Measures.	Not applicable since no further action is undertaken.	Not applicable since no further action is undertaken.
2	Engineering Controls/ Capping and Institutional Controls	Potential receptor contact with impacted media is addressed by provision of surface cap and access controls. Potential impact to groundwater from unsaturated zone soil is mitigated by surface cap which reduces infiltration and leaching. The existing EUCs include restrictions on property and groundwater use, which will remain in effect while being maintained. Supplemental restrictions may be needed specific to maintenance of the surface cap.	No treatment is provided. Media that are impacted above Tier 2 standards and LNAPL would remain in place, to a reduced extent following the removal of impacted soil during Interim Measures.	Short-term risks during construction are very limited since there would be minimal disruption of the existing soil. Long-term risks associated with potential receptor contact with impacted media are managed but not eliminated. These risks have been reduced as a result of soil removal during Interim Measures	Construction of surface cap (e.g., soil, asphalt, concrete) and other types of controls are readily implementable using conventional materials and methods. Property use controls are implemented through the KDHE Environmental Use Control Program. Cap systems and associated controls are demonstrated to be highly reliable for preventing exposure and reducing infiltration when maintained properly. The construction of the cap system could be implemented in a relatively short amount of time. This alternative does not reduce the amount of the impacted media over the long term.	Capital cost for construction of the surface cap is dependent on the type of material used and the size of the area requiring capping. Drainage system improvements may also be needed to prevent accumulation of surface water runoff. Operating costs would be incurred related to ongoing maintenance of the surface cap and drainage system improvements.

Table 6.4

Remedial Alternatives Screening/Evaluation Summary
TMW-130 Area – Soil
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
Overall Comparison of Alternatives		Alternative 2 provides a moderate degree of effectiveness by preventing exposure to impacted media. Alternative 1 is not effective since potential exposure to impacted media is not addressed (except with existing EUCs). Currently there is no human exposure to impacted media and dissolved phase groundwater impacts are not significant. Media that are impacted above Tier 2 standards would remain in place for Alternatives 1 and 2 to the extent that impacted media remains following the Interim Measures.	Alternatives 1 and 2 do not provide treatment.	Alternative 2 does not pose any significant short-term exposure risk. This alternative poses long-term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls and the existing SWMP. Also, these risks have been reduced as a result of soil removal during Interim Measures.	Alternative 2 involves the use of commonly available technologies and are readily implementable. Alternative 2 is the most reliable alternative since it involves proven methods and clear implementation processes. Alternative 2 can be implemented relatively quickly but will require ongoing maintenance.	The cost for Alternative 2 is relatively small as compared to the cost for Interim Measures already conducted.

Table 6.5

Remedial Alternatives Screening/Evaluation Summary
Groundwater
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
1	No Action	Potential receptor contact with impacted Site groundwater is addressed while the existing Environmental Use Controls (EUCs) remain in effect. Currently there is no human exposure to impacted groundwater. Groundwater that is impacted above Tier 2 standards would remain in place.	No treatment is provided.	No short-term risks exist. Long-term risks are associated with potential receptor contact with impacted groundwater. This is addressed by existing EUCs.	Not applicable since no action is undertaken.	Not applicable since no action is undertaken.
2	Institutional Controls (ICs) and Long-term Monitoring (LTM)	Potential receptor contact with impacted media is addressed by implementation of institutional controls on property and groundwater use, and monitoring to confirm groundwater conditions. LTM remedies typically include contingency plans to respond to adverse changes in groundwater conditions, as necessary.	No treatment is provided. LTM may be used to demonstrate natural attenuation, which relies on natural subsurface mechanisms that are classified as either destructive or nondestructive. Biodegradation is the most important in situ destructive mechanism, while non-destructive mechanisms include sorption, dispersion, dilution, and volatilization. The effectiveness of natural attenuation depends on natural conditions within the soil/groundwater system and is demonstrated through observed changes in groundwater chemistry, reductions in concentrations of chemicals of concern, and plume stabilization.	Short-term risks are very limited since there would be no disruption to the site other than that associated with installation and sampling of monitoring wells. Long-term risks associated with potential receptor contact with impacted media are managed and ultimately eliminated when cleanup levels are attained. Ongoing monitoring is needed to assess potential risks associated with plume migration and changes in chemical concentrations. Potential vapor intrusion into future buildings and structures may need to be assessed and mitigated as necessary.	Groundwater monitoring systems are readily implementable. Groundwater use controls have been implemented through the KDHE Environmental Use Control Program. The existing EUCs (already implemented) include restrictions to prevent groundwater use which are registered on title and can only be modified with KDHE approval. Groundwater monitoring systems are demonstrated to be reliable for detecting changes in groundwater conditions over time. Groundwater use controls are demonstrated to be reliable for restricting use and preventing potential exposure. Monitoring programs can be implemented quickly but often continue for many years to demonstrate attainment of remedial goals.	Costs are dependent on the number of monitoring wells, the frequency and duration of monitoring, and the list of site-specific chemicals of concern.

Table 6.5

Remedial Alternatives Screening/Evaluation Summary
Groundwater
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
3	In-situ Enhanced Biodegradation (with ICs and Monitoring)	Potential receptor contact with impacted media is addressed by implementation of institutional controls, same as Alternative 2. In situ treatment remedies typically include contingency plans to respond to adverse changes in groundwater conditions, as necessary.	Enhanced in situ biological treatment utilizes natural biodegradation processes but with augmentation to increase nutrient levels and stimulate biological activity. The treatment may be conducted under either aerobic or anaerobic conditions whereby contaminants in the source areas are metabolized into less toxic or nontoxic compounds by naturally occurring microorganisms. The microorganisms utilize the contaminants as a source of carbon and energy. Groundwater monitoring results demonstrate the presence of daughter products of PCE/TCE. Further degradation of these daughter products may be limited according to the degree that anaerobic conditions exist in groundwater containing VOCs. This requires the use of amendments such as emulsified vegetable oil (EVO) to promote anaerobic conditions.	Short-term risks are associated with installation of injection and monitoring wells and handling of materials used for injection. Long-term risks associated with potential receptor contact with impacted media are managed and ultimately eliminated when remedial goals are attained. Ongoing monitoring is needed to assess potential risks associated with plume migration and changes in chemical concentrations. Potential vapor intrusion into future buildings and structures may need to be assessed and mitigated as necessary.	Bench-scale and/or pilot scale treatability studies are required to determine the optimal types and methods for introduction of nutrients and additives. [Note that existing bench-scale study results indicate that augmentation does not result in improved VOC removal compared to un-amended samples. The current groundwater monitoring results indicate that amendments may be needed to promote anaerobic conditions.] The use of injection wells or direct push technology for applying the material into the aquifer is readily implementable using commonly available equipment and materials. Groundwater monitoring systems are readily implementable. Groundwater use controls have been implemented through the KDHE Environmental Use Control Program as noted above. The reliability of in situ biological treatment depends on the ability to maintain appropriate groundwater conditions and nutrient levels within the aquifer until remedial goals have been attained. Groundwater monitoring systems and groundwater use controls are demonstrated to be reliable as noted above. In situ biological treatment programs can be implemented quickly but multiple treatment applications may be needed. Monitoring may continue for many years to demonstrate attainment of remedial goals.	Capital cost for in situ treatment is dependent on the size and depth of the area to be treated. This affects the spacing/quantity and design of the injection wells, and the number and location of monitoring wells. Operating costs would be incurred related to the supply and application of materials to be injected into the aquifer. Typically, multiple applications are required over time to maintain the proper conditions within the aquifer. In this case two injection applications may be sufficient. Operating costs would also include groundwater monitoring and reporting.

Table 6.5

Remedial Alternatives Screening/Evaluation Summary
Groundwater
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
4	In-situ Chemical Oxidation (ISCO) (with ICs and Monitoring)	Potential receptor contact with impacted media is addressed by implementation of institutional controls, same as Alternative 2. In situ treatment remedies typically include contingency plans to respond to adverse changes in groundwater conditions, as necessary.	ISCO is effective for using chemical oxidants which are introduced into the aquifer to address areas of localized high concentrations of organic compounds. In an oxidation reaction, the oxidizing agent breaks the chemical bonds to produce less innocuous by-products, including carbon dioxide and water. The effectiveness of ISCO is potentially affected by the ability to deliver the oxidizing agent throughout the area to be treated and the presence of natural organic material which may consume large quantities of the oxidizing agent.	Short-term risks are associated with installation of injection and monitoring wells and handling of materials used for injection. Long-term risks associated with potential receptor contact with impacted media are managed and ultimately eliminated when remedial goals are attained. Ongoing monitoring is needed to assess potential risks associated with plume migration and changes in chemical concentrations. Potential vapor intrusion into future buildings and structures may need to be assessed and mitigated as necessary.	Bench-scale and/or pilot scale treatability studies are required to determine the optimal methods for types and introduction of oxidizing agents. [Note that current bench-scale study results indicate that sodium permanganate is an effective oxidizer for the site conditions at TMW-127 area and a single injection may be sufficient.] The use of injection wells or direct push technology for applying the material into the aquifer is readily implementable using commonly available equipment and materials. Groundwater monitoring systems are readily implementable. Groundwater use controls have been implemented through the KDHE Environmental Use Control Program as noted above. The reliability of ISCO depends on the ability to deliver and maintain the required dosage of the oxidizing agent throughout the treatment area within the aquifer until remedial goals have been attained. A critical factor in the evaluation of ISCO treatment is determining the dosages required to effectively oxidize the chemicals of concern (referred to as stoichiomteric demand) as well as competing reactions. The competing reactions are typically caused by the presence of natural organic materials such as humates and fulvates, as well as metals. Groundwater monitoring systems and groundwater use controls are demonstrated to be reliable as noted above. ISCO treatment programs can be implemented quickly (assuming multiple treatment applications are not needed). Monitoring may continue for months or years to demonstrate attainment of remedial goals.	Capital cost for in situ treatment is dependent on the size and depth of the area to be treated. This affects the spacing/quantity and design of the injection wells, and the number and location of monitoring wells. Operating costs would be incurred related to the supply and application of materials to be injected into the aquifer. Typically, multiple applications are required over time to maintain the supply of the oxidizing agent within the aquifer. In this case a single injection application with sodium permanganate may be sufficient. Operating costs would also include groundwater monitoring and reporting.

Table 6.5

Remedial Alternatives Screening/Evaluation Summary
Groundwater
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
5	Groundwater extraction and treatment (with ICs and Monitoring)	Potential receptor contact with impacted media is addressed by implementation of institutional controls, same as Alternative 2.	Groundwater extraction is an effective method for hydraulic control and mass removal of dissolved chemicals in groundwater. The placement of extraction wells is critical for establishing effectiveness, and may involve use of wells for downgradient capture and/or wells within source areas or zones of higher concentrations. For source area wells, it is typical to see chemical concentrations decrease rapidly initially then more slowly in the longer term, and possibly rebound after pumping ceases. This is a function of the ability of the aquifer matrix to hold and release dissolved chemicals. A variety of effective treatment and discharge options are available for managing the extracted groundwater. VOCs are often treated by air stripping and/or carbon adsorption prior to discharge to the environment. Depending on groundwater conditions, pre-treatment may be needed to remove inorganics and solids that may impair the operation of the primary treatment equipment.	Short-term risks are associated with installation of extraction and monitoring wells. Long-term risks associated with potential receptor contact with impacted media are managed and ultimately eliminated when remedial goals are attained. Potential vapor intrusion into future buildings and structures may need to be assessed and mitigated as necessary.	Groundwater pump and treat systems are readily implementable. Pumping tests are typically required to determine aquifer characteristics in order to design the optimal extraction well layout and to estimate flow rates required for the treatment and discharge system. In addition, groundwater treatability testing may be required to aid in the design of the treatment system components. Groundwater monitoring systems are readily implementable. Groundwater use controls have been implemented through the KDHE Environmental Use Control Program as noted above. Pump and treat systems are demonstrated to be reliable for containing areas of impacted groundwater and reducing the mass of groundwater contamination. Groundwater monitoring systems and groundwater use controls are demonstrated to be reliable as noted above. Pump and treat systems require substantial time for the design, construction, start-up, and commissioning phases. Operational activities and monitoring may continue for many years. Alternatives 2 and 5 are the most reliable alternatives since they involve proven methods and clear implementation processes. Alternatives 3 and 4 are less reliable than Alternatives 2 and 5 since they use in-situ treatment methods which are not as readily controlled. Pump and treat systems require substantial time for the design, construction, start-up, and commissioning phases. Operational activities and monitoring may continue for many years.	Capital cost for pump and treat is dependent on the size and depth of the area to be treated. This affects the spacing/quantity and design of the extraction wells, and the number and location of monitoring wells. Capital costs also include construction of the treatment plant and piping system required to convey untreated and treated water. Operating costs would be incurred related to the ongoing operation of the extraction wells and the treatment plant. Operating costs would also include groundwater monitoring and reporting.

Table 6.5

Remedial Alternatives Screening/Evaluation Summary
Groundwater
Former Fairfax I Site, Kansas City, Kansas

Alternative	Name/ Description	Effectiveness: Protection of human health and the environment	Effectiveness: Reduction in toxicity, mobility and volume through treatment	Effectiveness: Short-term effectiveness Long-term effectiveness and permanence	Implementability	Costs (See Table 6.6 for Cost Estimate Summary)
Overall Comparison of Alternatives		Alternative 2, 3, 4 and 5 are effective in preventing exposure to impacted groundwater, and provide for monitoring. Alternative 1 is not effective since groundwater would not be monitored, although potential exposure to impacted media is addressed by the EUCs. Currently there is no human exposure to impacted groundwater.	Alternatives 1 and 2 do not provide treatment. Alternatives 3 and 4 may provide the highest degree of effectiveness by providing direct treatment of groundwater impacted above Tier 2 standards. Alternative 5 also provides a high degree of effectiveness through containment and capture of impacted groundwater.	Alternatives 3, 4 and 5 pose the lowest long-term risk by being the most effective alternatives for addressing impacted media, but may pose short-term risks associated with potential worker exposure to treatment reagents and/or impacted media. Alternative 2 does not pose any significant short-term exposure risk. This alternative poses long-term risks associated with the continued presence of impacted media however this risk is managed by the use of institutional controls.	Alternatives 2, 3, 4, and 5 involve the use of commonly available technologies and are readily implementable. EUCs to prevent groundwater use have already been implemented for the Site Alternatives 2 and 5 are the most reliable alternatives since they involve proven methods and clear implementation processes. Alternatives 3 and 4 are less reliable than Alternatives 2 and 5 since they use in-situ treatment methods which are not as readily controlled Alternatives 2 and 5 require more time compared to the other alternatives due to the need for ongoing operation and/or monitoring. Alternatives 3 and 4 do not involve ongoing operation and maintenance and may result in a reduced time for monitoring compared to Alternatives 2 and 5	Alternative 2 is the lowest cost alternative. Alternative 5 is the next highest cost alternative in terms of capital construction costs, but has the highest cost for ongoing operation and maintenance requirements. Alternative 3 has an overall cost similar to Alternative 5, but with higher initial cost and lower operation and maintenance cost. Alternative 4 is the highest cost alternative by a very significant margin, due to the large quantity of oxidizing agent that would be required and consumed. Since the costs for Alternatives 3 and 4 are heavily dependent on the extent of impacted media, it is possible to achieve lower costs by refining the treatment area/volume to focus on zones of elevated VOC concentrations

Table 6.6

Remedial Alternatives Cost Estimate Summary
Former Fairfax I Site, Kansas City, Kansas

Area of Concern	Alternative	Description [1]	Estimated Capital Cost [2]	Estimated Operation, Maintenance and Monitoring Cost [2,3]	Estimated Closeout Cost [2,3]	Estimated Total Cost [2,3]
S-8 Soil	1- No Action	----	$0	$0	$0	**$0**
	2- Engineering Controls/ Containment and Institutional Controls (ICs) (4)	Delineation Concrete cap installation (assumed 300 square feet) Implementation of ICs Closeout Report	$31,000	$0	$5,000	**$36,000**
	3- Soil Vapor Extraction (SVE)	Delineation Installation of one vacuum well, gas probes, collection piping, and vacuum system Operation, maintenance and monitoring (assumed 2 years) Equipment removal, Site Restoration and Closeout Report	$49,000	$176,000	$25,000	**$250,000**
	4 - Soil Excavation and Disposal	Delineation Excavation and off-site disposal (assumed 350 tons) Confirmatory sampling, backfill, and restoration Closeout Report	$105,000	$0	$15,000	**$120,000**
SB-110 Soil	1- No Action	----	$0	$0	$0	**$0**
	2- Engineering Controls/ Containment and Institutional Controls (ICs)(4)	Delineation Concrete cap installation (assumed 2,000 square feet) Implementation of ICs Closeout Report	$44,000	$0	$5,000	**$49,000**

Table 6.6

Remedial Alternatives Cost Estimate Summary
Former Fairfax I Site, Kansas City, Kansas

Area of Concern	Alternative	Description [1]	Estimated Capital Cost [2]	Estimated Operation, Maintenance and Monitoring Cost [2,3]	Estimated Closeout Cost [2,3]	Estimated Total Cost [2,3]
	3- Soil Vapor Extraction (SVE)	Delineation Installation of vive vacuum wells, gas probes, collection piping, and vacuum system Operation, maintenance and monitoring (assumed 2 years) Equipment removal, Site Restoration and Closeout Report	$75,000	$216,000	$25,000	**$316,000**
	4- Soil Excavation and Disposal	Delineation Excavation and off-site disposal (assumed 2,300 tons) Confirmatory sampling, backfill, and restoration Closeout Report	$424,000	$0	$15,000	**$439,000**
MW-103A Soil	1- No Further Action	----	$0	$0	$0	**$0**
	2- Engineering Controls/ Containment and Institutional Controls (ICs) (4)	Delineation Concrete cap installation (assumed 4,000 square feet) Implementation of ICs Closeout Report	$81,000	$0	$5,000	**$86,000**
TMW 130 Soil	1- No Further Action	----	$0	$0	$0	**$0**
	2- Engineering Controls/ Containment and Institutional Controls (ICs) (4)	Delineation Concrete cap installation (assumed 25,000 square feet) Implementation of ICs Closeout Report	$269,000	$0	$5,000	**$274,000**
Site-wide Ground Water	1- No Action	----	$0	$0	$0	**$0**
	2- Institutional Controls (ICs) and Long-term Monitoring (LTM)	Implementation of ICs Groundwater monitoring (10 years, semi-annual sampling) Closeout Report	$27,000	$399,000	$9,000	**$435,000**

Table 6.6

Remedial Alternatives Cost Estimate Summary
Former Fairfax I Site, Kansas City, Kansas

Area of Concern	Alternative	Description [1]	Estimated Capital Cost [2]	Estimated Operation, Maintenance and Monitoring Cost [2,3]	Estimated Closeout Cost [2,3]	Estimated Total Cost [2,3]
	3- In-situ Enhanced Biodegradation (ISEB) with Institutional Controls (ICs) and Long-term Monitoring (LTM) (5)	Delineation (S-8 area and TMW-127 Areas Only) ISEB: Direct push technology, 530 injection wells for 2 injection applications using emulsified vegetable oil and nutrients Implementation of ICs Groundwater monitoring (per Alternative 2) Closeout Report	$4,400,000	$399,000	$9,000	**$4,808,000**
	4- In-situ Chemical Oxidation (ISCO) with Institutional Controls (ICs) and Long-term Monitoring (LTM)	Delineation (S-8 area and TMW-127 Areas Only) ISCO: Direct push technology, 530 injection points for 1 injection application using sodium permanganate Implementation of ICs Groundwater monitoring (per Alternative 2) Closeout Report	$13,109,000	$399,000	$9,000	**$13,517,000**
	5- Groundwater Extraction and Treatment with Institutional Controls (ICs) and Long-term Monitoring (LTM)	Delineation (S-8 area and TMW-127 Areas Only) Installation of buried piping, treatment system, and assumed discharge to surface water (assumed 10 years of operation) Implementation of ICs Groundwater monitoring (per Alternative 2) Equipment removal, Site Restoration and Closeout Report	$1,908,000	$3,134,000	$70,000	**$5,112,000**

Notes:

(1) Delineation allowance included to assist with confirmation of limits of contamination and/or verify limits of required remedial action.
(2) Estimated costs are shown as 2012 dollars.
(3) Site-Side Groundwater Only: Net present worth (using 5% discount rate) presented for 10-years of Estimated Operation, Maintenance and Monitoring Costs and 10-Years Estimated Closeout Costs.
(4) Alternatives that involve capping could be integrated with plans for property development/building construction to improve cost-effectiveness.

Appendices

Appendix A
Soil and Groundwater Investigation Results

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Attachments

Attachment 1 Groundwater Contour Figures from Quarterly Monitoring Program (2013 to 2015)

1. Investigation Results

This section provides a summary of the investigation results for each Area of Concern (AOC) based on the investigations completed to date by HDR Engineering, Inc. (HDR); GHD Services Inc. (GHD) formerly [Conestoga-Rovers & Associates (CRA)]; and Cardno MM&A (Cardno).

The AOCs presented below include:

- S-8 Area
- SB-110 Area
- TMW-127 Area
- MW-103A Area
- TMW-130 Area

The Site location and AOCs are shown on Figures 1 and 2, respectively. The Site investigation locations are presented in Figure 3.

1.1 S-8 Area

One of the areas investigated during the HDR Environmental Site Assessment (ESA) was the baler room and Underground Storage Tank (UST) 10 Area (referred to in this report as the S-8 Area, as shown on Figure 2). The baler room was formerly located approximately 200 feet (ft) north of the southwest corner of the assembly building. The baler room was used to collect general plant refuse and contained a large trash compactor/baler. UST 10, which contained unleaded gasoline and was removed in August 1987, was located adjacent to the northern exterior wall of the baler room. Soil boring and groundwater monitoring locations are presented on Figure 4. Detected analytical data for soil and groundwater samples are presented in Table A-1 (soil) and Tables A-10 and A-12 (groundwater). Figure 4 shows concentrations of parameters detected greater than the Tier 2 standards for soil. Figures 11, 12, and 13 show concentrations of parameters detected greater than Tier 2 standards for the current groundwater monitoring program, for shallow, intermediate and deep monitoring wells.

Investigation Results

Soil boring S-8, installed by HDR in 1987, contained tetrachloroethene (PCE) at 10 ft bgs and 15 ft bgs at concentrations above the Tier 2 standard. No Volatile Organic Compounds (VOCs) were detected in the soil samples collected from other intervals (5, 20, 25, and 30 ft bgs). Groundwater samples collected from S-8 contained 1,2-dichlroethylene (1,2-DCE), PCE, and trichloroethene (TCE) at concentrations above the Tier 2 standards. Soil boring S-9 did not contain VOCs. Groundwater from S-9 contained benzene above the Tier 2 standard. Soil borings S-107 and S-108, installed in January 1988, contained no VOCs. 1,2-DCE was detected above the Tier 2 standard in groundwater from S-107. TCE was detected above the Tier 2 standard in groundwater from S-109, and S-110 and PCE was detected above the standard in groundwater from S-110 in 1988.

CRA collected a soil sample from soil boring SB-113 in December 2004 in the vicinity of UST 10 and the baler room at a depth of 10 to 12 ft bgs to verify that soil at the approximate depth of the

base of the tank is not impacted at levels above the Tier 2 standards. No VOCs were detected at concentrations above the Tier 2 standards at SB-113.

CRA also collected a soil sample from soil boring SB-112 in December 2004 in the southwest corner the former building structure in the vicinity of UST 10 and the baler room at a depth of 10 to 12 ft bgs. No VOCs were detected at concentrations above the Tier 2 standards at SB-112.

In April 2012, CRA collected soil samples from four boreholes located around the assumed S-8 location. The boreholes are identified as SB-147N, SB-147S, SB-147W, and SB-147E as shown on Figure 4. One soil sample was collected at each borehole (from 18 to 20 ft bgs) and analyzed for VOCs. No VOCs were detected at concentrations above the Tier 2 standards. Based on these results, one additional borehole in the immediate vicinity of previous boring S-8 (as identified on Figure 4) was installed by Cardno in February 2013 to investigate the former S-8 location. The detected VOCs include cis-1,2-DCE, PCE and TCE, all either non-detect or at concentrations below Tier 2 standards except for PCE. At this location PCE was detected as follows: 6 ft below ground surface (bgs) (105 micrograms per kilogram [µg/kg] and 111 µg/kg); 10 ft bgs (65.5 µg/kg); 13.5 ft bgs (312 µg/kg); and 15 ft bgs (126 µg/kg). The detected concentrations of PCE at 13.5 ft and 15 ft are greater than the Tier 2 standard (121 µg/kg). None of the detected concentrations of VOCs were greater than the Tier 2 standards for direct contact.

Monitoring well MW-109 is located east of the S-8 Area and groundwater samples have been collected for VOC analysis since 1989. As shown on Figure 6, no VOCs were detected at concentrations above the Tier 2 standards, with the exception of (cis-1,2-DCE) and vinyl chloride (VC) in a sample collected in June 2008. VOCs that have been detected in MW-109 from subsequent Site-wide groundwater monitoring conducted through July 2015 include cis-1,2-DCE, trans-1,2-DCE, PCE, TCE, VC, acetone and carbon disulfide (CD), but at concentrations less than the Tier 2 standards.

Three temporary monitoring wells, identified as TMW-147E, TMW-148, and TMW-149, shown on Figure 3, were installed in April 2012. TMW-147E was installed in one of the soil borings in the area around S-8 and TMW-148 was installed to delineate impacts approximately 420 ft southeast of the S-8 Area, as shown on Figures 3 and 4. TMW-149 was installed further southeast of TMW-148 (approximately 370 ft) as shown of Figure 3, to determine potential VOC migration from off Site. The screen interval for each well is from 17 to 27 ft bgs. Two sets of groundwater samples were collected from each location, in April and May 2012. In addition, groundwater samples have been collected from TMW-147E and TMW-148 through July 2015. Overall, the detected VOCs at these wells include cis-1,2-DCE, trans-1,2-DCE, PCE, TCE, VC, and CD at concentrations less than the Tier 2 standards with the exception of cis-1,2-DCE, PCE and TCE (as shown on Figure 11). Total Petroleum Hydrocarbons (TPH)-Gas was also detected in TMW147E, but below the Tier 2 standard.

None of the detected VOC concentrations at TMW-148 are above the Tier 2 standards. TMW-149 could not be located (damaged or destroyed) during all eight quarterly events, therefore no water level measurements or groundwater samples were collected.

As indicated above, groundwater samples have been collected from this area as part of the Site-wide monitoring program (initiated in October 2013), see Section 2.0.

1.2 SB-110 Area

One of the areas investigated during the HDR ESA was the powerhouse area (referred to in this report as the SB-110 Area, as shown on Figure 3). The powerhouse/SB-110 Area is located northwest of the former main plant building. Eight USTs, which were removed in August 1987, were located in the powerhouse area in three clusters. The USTs contained diesel fuel, waste fuel oil, and gasoline. Soil boring and groundwater monitoring locations are presented on Figure 3. Detected analytical data for soil and groundwater samples are presented in Tables A-2 (soil) and A-10 and A-12 (groundwater). Figure 5 shows concentrations of parameters detected greater than the Tier 2 standards for soil. Figures 11, 12, and 13 show concentrations of parameters detected greater than Tier 2 standards for the current groundwater monitoring program, for shallow, intermediate and deep monitoring wells.

Investigation Results

Soil samples were collected by HDR beneath and in the vicinity of USTs 3 and 4, formerly located in the SB-110 Area. No VOCs were detected above the Tier 2 standards in August 1987 soil samples 87-209, 87-211, and S-15 or in January 1988 soil sample S-111. No VOCs were detected above the Tier 2 standards in January 1988 groundwater samples collected at S-111.

Soil samples were collected by HDR beneath and in the vicinity of USTs 5, 6, and 11, located north of USTs 3 and 4. No VOCs were detected in two of the August 1987 soil samples while PCE (626 μg/kg) and xylenes (1,100 μg/kg) were detected in 87-206. No VOCs were detected in soil collected in August 1987 at S-16, S-17, and S-18 or in soil collected in January 1988 at S-112. No VOCs were detected in groundwater at S-16 and S-18. 1,2-DCE was detected in groundwater at S-17 (16 micrograms per liter [μg/L]) and S-112 (133 μg/L). PCE was detected in groundwater at S-17 (16 μg/L).

No VOCs were detected in soil samples S-19 through S-22 collected in August 1987 in the vicinity of USTs 7, 8, and 9, located north of USTs 5, 6, and 11).

CRA collected three soil samples in December 2004 at sample locations SB-108, SB-109, and SB-110, at depths of 10 to 12 ft bgs to verify that soil at the approximate depth of the base of the tanks is not impacted at levels above the Tier 2 standards. Soil sample SB-110 was collected in the vicinity of USTs 3 and 4, soil sample SB-109 was collected in the vicinity of USTs 5, 6, and 11, and soil sample SB-108 was collected in the vicinity of USTs 7, 8, and 9. No VOCs were detected at concentrations above Tier 2 standards at SB-108 or SB-109. PCE was detected at SB-110 above the Tier 2 standards for soil based on groundwater protection of 0.121 milligrams per kilograms (mg/kg) at a concentration of 0.19 mg/kg.

In December 2005, CRA installed and sampled five additional borings to verify the PCE concentration detected at SB-110 and to delineate PCE surrounding SB-110. SB-118 through SB-121 were advanced approximately 20 ft bgs from SB-110 in each cardinal direction. SB-122 was advanced adjacent to SB-110, as shown on Figure 5. The PCE concentration was below the Tier 2 standards in soil sample SB-120 (10 to 12 ft bgs). The PCE concentrations in soil samples SB-119 (10 to 12 ft bgs) and SB-121 (9 to 10 ft bgs) were above the Tier 2 standards. The PCE laboratory detection limit was above the Tier 2 standards in soil samples SB-118 (9 to 10 ft bgs) and SB-122 (9 to 10 ft bgs).

In November 2006, one soil boring (SB-137) was advanced to approximately 15 ft bgs to delineate PCE contamination in the soil east of soil boring SB-110. PCE was detected in soil sample SB-137 at a concentration below the Tier 2 standards.

In April 2012, CRA collected soil samples from six boreholes located in the area around SB-110. The boreholes are identified as SB-118A, SB-118B, SB-119A, SB-119B, SB-119C, and SB-120A as shown on Figure 5. One soil sample was collected at each borehole (various depths up to 20 ft bgs) and analyzed for VOCs. As shown on Figure 5, none of the detected concentrations are above the Tier 2 standards. The results for detected VOCs are shown in Table A-2.

A groundwater sample was collected from monitoring well MW-101 in October 1988. Concentrations of methylene chloride and lead were greater than the Tier 2 standard. This well has been decommissioned.

Temporary monitoring well TMW-138 was installed in November 2006 (screened from approximately 25 to 35 ft bgs) to determine if PCE was present in the shallow groundwater above the Tier 2 standard downgradient[1] of soil boring SB-110. PCE was detected in the groundwater sample at an estimated concentration well below the Tier 2 standard. Temporary monitoring well TMW-138 was abandoned in March 2007.

Monitoring well MW-125 was installed in October 2007 in the SB-110 Area near former temporary monitoring well TMW-138 to monitor PCE previously detected in soil in that area of the Site. TCE was not detected in the groundwater samples collected at MW-125 in November 2007, March 2008, June 2008, and December 2011, but was detected at low estimated concentrations less than the Tier 2 standard in December 2007 and April 2012. VOCs that have been detected in MW-125 from subsequent Site-wide groundwater monitoring conducted through July 2015 include cis-1,2-DCE, PCE and TCE, but at concentrations less than the Tier 2 standards.

Three temporary monitoring wells, identified as TMW-150, TMW-151, and TMW-152, shown on Figure 5, were installed in April 2012. The screen interval for each well is from 17 to 27 ft bgs. Two sets of groundwater samples were collected from each location, in April and May 2012. The results for detected VOCs are shown in Table A-10. TMW-152 is located in the immediate vicinity of SB-110 and the other soil borings discussed above and no VOCs were detected above Tier 2 standards. The other two wells, TMW-150 and TMW-151, are located in the area northeast of MW-125 and TMW-152, and were installed to determine potential VOC migration. TCE was detected at concentrations above the Tier 2 standard (0.005 milligrams per liter [mg/L]) at TMW-150 (up to 0.0205 mg/L) and TMW-151 (up to 0.0099 mg/L). VOCs that have been detected in TMW-150, TMW-151 and TMW-152 from subsequent Site-wide groundwater monitoring conducted through July 2015 include cis-1,2-DCE, trans-1,2-DCE, PCE, TCE, VC, CD and benzene. In July 2015, TCE was detected at concentration of 0.0055 mg/L which is slightly above the Tier 2 standard at TMW-151 and in January and July 2015, PCE was detected at concentrations (0.0058 and 0.0177 mg/L, respectively) above the Tier 2 standard at TMW-152. Remaining detected parameters were at concentrations less than the Tier 2 standards.

As indicated above, groundwater samples have been collected from this area as part of the Site-wide monitoring program (initiated in October 2013), see Section 2.0.

[1] Based on groundwater flow towards the Missouri River.

1.3 TMW-127 Area

The TMW-127 Area is located in the northeast quadrant of the footprint of the former Fairfax I Plant building (as shown on Figure 3). Soil boring and groundwater monitoring locations are presented on Figure 6. Detected analytical data for soil and groundwater samples are presented in Table A-3 (soil) and Tables A-10, 12, and 13 (groundwater). There were no detections above Tier 2 standards in soil samples collected from this area. Figures 11, 12, and 13 show concentrations of parameters detected greater than Tier 2 standards for the current groundwater monitoring program, for shallow, intermediate and deep monitoring wells.

Investigation Results

Historical soil analytical data in the general area of TMW-127 included sample locations: S-37 (collected in 1987); SB-116 (collected in 2004); and SB-124, SB-124A, SB-125, SB-126, SB-126A, SB-127A, SB-128, and SB-128A (collected in 2006). None of the detected concentrations were above the Tier 2 standards.

Soil boring SB-127/temporary monitoring well TMW-127 was installed and sampled in November 2006 in response to an August 2006 request from the KDHE to perform investigative work in areas where little to no investigative work had occurred. There were no exceedances of the Tier 2 standards in the soil sample collected at SB-127 (27.5 to 30 ft bgs). Total arsenic, manganese, cis-1,2-DCE, and methylene chloride were detected in the groundwater sample at TMW-127 at concentrations above the Tier 2 standards.

Temporary monitoring well TMW-127 was redeveloped and sampled for total and dissolved (filtered) arsenic in September 2007 in response to the March 12, 2007 letter from the KDHE. Total arsenic was detected above the Tier 2 standard and dissolved arsenic was not detected in the groundwater sample from TMW-127.

In December 2011, CRA collected groundwater samples from TMW-127, MW-108, and MW-110. The sample collected from TMW-127 contained cis-1,2-DCE at 0.14 mg/L and VC at an estimated concentration of 0.0031 mg/L. The samples collected from MW-108 and MW-110 did not have any detected VOCs above the Tier 2 standards.

In April 2012, CRA collected soil samples from three boreholes located in the area near TMW-127. Each borehole was completed as a temporary monitoring well, identified as TMW-153, TMW-154, and TMW-155 as shown on Figure 6. One soil sample was collected at each borehole (various depths up to 20 ft bgs) and analyzed for VOCs. None of the detected concentrations were above the Tier 2 standards.

Two sets of groundwater samples were collected from TMW-153, TMW-154, TMW-155 and MW-156 in April and May 2012. TMW-127 was also sampled in April 2012. The screen interval for MW-156 is from 49 to 59 ft bgs. This well is located adjacent to TMW-127, which has a screen interval from 25 to 35 ft bgs. The screen intervals for TMW-153, TMW-154 and TMW-155 are from 17 to 27 ft bgs. The VOCs that were detected at concentrations above Tier 2 standards include: cis-1,2-DCE; TCE; and VC. In April 2012, the sample collected from TMW-127 contained cis-1,2-DCE at 0.354 mg/L and VC at 0.0059 mg/L. The samples collected from MW-156 (located adjacent to TMW-127 but screened at a deeper interval) contained cis-1,2-DCE (up to 0.0999 mg/L) and VC (up to 0.385 mg/L) at concentrations above the Tier 2 standards. The samples collected from TMW-155 contained cis-1,2-DCE (up to 0.77 mg/L), TCE (up to 0.3 mg/L), and VC (up to

0.0059 mg/L) at concentrations above the Tier 2 standards. The samples collected from TMW-153 and TMW-154 did not have any detected VOCs above the Tier 2 standards.

Other groundwater analytical data in the general area of TMW-127 include groundwater samples collected from MW-108, MW-110, TMW-124, TMW-125, TMW-126, and TMW-128. None of the detected concentrations were above the Tier 2 standards with the exception of lead in one sample collected from MW-108 in 1998 and manganese in samples collected from MW-110 (2004 and 2006) and TMW-124, TMW-125, TMW-126, and TMW-128 (2006).

Based on the results of the groundwater sampling conducted through 2012, additional investigations were conducted by Cardno in January and February 2013 to characterize soil and groundwater conditions (Cardno, June 2013). This included 18 direct push borehole locations for collection of soil and groundwater samples as shown on Figure 6, followed by installation of 7 new monitoring wells in February 2013 (TMW-156C) and in May 2013 (TMW-144B/C, TMW-146B/C, and TMW-158A/B). All wells were constructed in compliance with K.A.R. 28-30 and the CRA Work Plan. In addition, samples were collected for a bench-scale groundwater treatability study conducted at CRA's laboratory (CRA Memorandum dated August 20, 2013).

In January and February 2013, Cardno collected a total of eight soil samples and one duplicate sample from eight geoprobe locations [GP13-3 (15 ft); GP13-4 (8.5 ft); GP13-5 (3 ft); GP13-7 (1.5 ft); GP13-8 (14 ft); GP13-9 (8 ft); GP13-10 (8.5 ft); and GP13-12 (1.5 ft)] and analyzed for select VOCs. The only detected VOC was methylene chloride as follows: at 1.5 ft bgs (10.8 µg/kg) and at 3 ft bgs (9.9 µg/kg). The detected concentrations of methylene chloride at 1.5 ft and 3 ft are less than Tier 2 standard for soil impact to groundwater and direct contact (42.9 µg/kg). Detected analytical data for soil samples collected by Cardno are presented in Table A-13.

In January and February 2013, Cardno collected a total of 45 groundwater samples and 5 duplicate samples from 18 geoprobe boreholes and analyzed for select VOCs. To vertically delineate the extent of contaminants in groundwater, multiple groundwater samples were collected at many of the DPT boring locations. Samples were collected at depths of 85 ft bgs, 55 ft bgs and 5 ft below the depth of the water table as specified in the CRA Work Plan. Each sample was collected in a separate boring. Although KDHE expected to depth to water at approximately 15 to 18 ft bgs, the actual depth was approximately 27 ft bgs. The shallow samples were, therefore collected at depths of 32 to 35 ft bgs.

VC and cis-1,2-DCE were detected above their Tier 2 standards of 2 and 70 µg/L, respectively, primarily in shallow and intermediate groundwater samples. However, results for VC also exceeded the Tier 2 standards in a few deep groundwater sample locations (GP13-7, GP13-8, GP13-9, GP13-14, and GP13-16). The range of detections for VC and cis-1,2-DCE that exceeded the Tier 2 standards are summarized below for shallow, intermediate, and deep samples:

- Shallow groundwater samples – VC exceedances ranged from 2.4 to 49 µg/L; cis-1,2-DCE exceedances ranged from 247 to 1330 µg/L
- Intermediate groundwater samples – VC exceedances ranged from 4.1 to 195 µg/L; cis-1,2-DCE exceedances ranged from 78.9 to 831 µg/L
- Deep groundwater samples – VC exceedances ranged from 2.3 to 6.4 µg/L; none of the detections of cis-1,2-DCE were above the Tier 2 standard

Detected analytical data for groundwater samples collected by Cardno are presented in Table A-13.

Groundwater samples have been collected from this area including newly installed monitoring wells in February and May 2013 (MW-108, MW-110, MW-144B/C, MW-146B/C, MW-156, MW-156C, MW-158A/B, TMW-127, TMW-153, TMW-154, and TMW-155) as part of the Site-wide monitoring program (initiated in October 2013), see Section 2.0. Parameters that have been detected in samples collected through July 2015 include: acetone, 1,1-dichloroethane, 1,1-dichloroethene, 1,2,4-trimethylbenzene, chloroform, MEK, MTBE, methyl chloride, cis-1,2-DCE, trans-1,2-DCE, benzene, PCE, TCE, carbon disulfide , toluene and VC, at concentrations less than the Tier 2 standards with the exception of benzene, cis-1,2-DCE, trans-1,2-DCE, TCE and VC.

Further discussions regarding comparison to Tier 2 Standard for current quarterly six rounds of monitoring is provided in Section 2.

1.4 MW-103A Area

The MW-103A Area is located at the north-central portion of the Fairfax I property (as shown on Figure 3). This area is near the former rail spur, the aboveground tank farm, and the location of the remediation system that operated from 1991 to 1994 (discussed below). Soil boring and groundwater monitoring locations are presented on Figure 7. Detected analytical data for soil investigation and confirmatory activities are presented in Tables A-4 and A-5, respectively. Detected analytical data for groundwater samples collected prior commencement of quarterly GWMP (October 2013) are presented in Table A-10 and detected analytical data for quarterly GWMP to July 2015 are presented in Table A-12. The analytical results for parameters that were detected above Tier 2 standards in soil samples are shown on Figures 7 (investigation exceedances) and 8 (exceedances remaining after interim measures). Figures 11, 12, and 13 show concentrations of parameters detected greater than Tier 2 standards for the current groundwater monitoring program, for shallow, intermediate and deep monitoring wells.

Investigation Results

Soil and groundwater contamination were discovered at the Site in 1987 during the HDR ESA. PCE, methyl isobutyl ketone (MIBK), and benzene, toluene, ethylbenzene, and xylenes (BTEX), were detected in soil at concentrations above the Tier 2 standards at sample locations S-26, S-27, S-29, S-30, and F-26. The primary sources of contamination were determined to be gasoline and paint thinner from a tank farm along with suspect historical releases of PCE from prior to GM operations. GM initiated its own cleanup program in 1988, which included semiannual groundwater monitoring, groundwater contaminant plume definition, and remedial design and construction. The remedial system was designed to address the presence of VOCs in soils and groundwater and the intermittent presence of light non-aqueous phase liquid (LNAPL). The remediation system for the small tank farm area comprised groundwater extraction and treatment by air stripping along with soil vapor extraction and treatment by thermal oxidation. The remedial action was initiated in 1991 and shut down in 1994. Semiannual groundwater monitoring was discontinued in 1994.

Comprehensive groundwater sampling event was completed in October 1998. Concentrations of VOCs were detected above Tier 2 standards at MW-103A and were similar to levels detected during the 1991 to 1994 remediation program. Concentrations of VOCs in groundwater samples collected from MW-103A indicated levels of BTEX, acetone, and MIBK greater than the Tier 2 standards. These parameters were also detected in soil samples collected in the area near MW-103A prior to plant demolition. Therefore, the continuous detection of these VOCs at MW-103A and the historical documentation of contaminated soils suggest that a local source of residual soil or LNAPL contamination may have been affecting groundwater quality. The source of the VOC

contamination in the soils and groundwater in the vicinity of MW-103A is likely the historical releases from the tanks, rail line, or building structures during historical operations. In addition to VOCs, there were exceedances of Tier 2 standard in groundwater samples collected from 1988 to 1998 from MW-103A that included arsenic, cadmium, lead, nickel and aldrin. In 1988 there was also exceedance of lead in MW-102A and MW-102C.

Subsequent studies in 1999 and 2000 delineated the area of soil impacts that are the source of a localized area of groundwater contamination and intermittent LNAPL. The following activities were completed in the MW-103A Area in May 1999.

- Performed a soil screening survey in order to identify areas of soil contamination; 27 soil screening (headspace) samples (S-1 to S-27) collected from 5 to 7 ft bgs were analyzed by an on-Site laboratory for BTEX, 2-butanone (MEK), and 4-methyl-2-pentanone (MIBK).
- Completed 20 soil borings (SB-28 to SB-47) and collected two samples per boring at shallow depths (5 to 7 ft bgs) and at depths near the water table (10 to 12 ft bgs) and submitted the samples for laboratory analysis of VOCs in order to delineate the extent of residual contamination. The soil samples collected from SB-28 to SB-47 indicated the presence of various VOCs with the highest concentrations identified at SB-42 from 10 to 12 ft bgs. At this sample location, the VOCs that were detected at concentrations above Tier 2 standards included MIBK, acetone, and BTEX. Toluene was detected above Tier 2 standards at SB-40 from 5 to 7 ft bgs. VOCs were not detected above Tier 2 standards at any other locations.
- Collected groundwater samples from five monitoring wells (MW-102A, MW-103A, MW-104, MW-105, and MW-115A) for analysis of VOCs. The groundwater sample collected in May 1999 from MW-103A identified the presence of VOCs including MIBK, acetone, benzene and toluene at concentrations above Tier 2 standards. At the remaining wells that were sampled in May 1999, VOCs were either not detected or were detected at concentrations below Tier 2 standards.

In 2004, soil investigation activities were completed, including the advancement of seven boreholes (SB-101 through SB-107). Two samples were collected from each borehole at the sample intervals of 8 to 10 ft bgs and 12 to 14 ft bgs. In the following sample locations and intervals, MIBK, acetone, and BTEX were detected at concentrations greater than the Tier 2 standards: SB-101 (12 to 14 ft bgs), SB-102 (8 to 10 and 12 to 14 ft bgs), SB-104 (8 to 10 and 12 to14 ft bgs), and SB-105 (12 to 14 ft bgs). Also one groundwater sample was collected from MW-105 for analysis of VOCs, SVOCs, metals and selected general chemistry parameters. None of the detected concentrations exceeded Tier 2 standards, except for manganese at 1.5 mg/L exceeding Tier 2 standard of 0.05 mg/L.

Subsequent groundwater sampling and analysis conducted from 2006 through 2008 has shown generally consistent results as provided in Table A-10 from the following monitoring wells in the MW103-A area: MW-102A, MW-102B, MW-102C, MW-103A, MW-103B, MW103C, MW-104, MW-105, and MW-115A.

During previous investigations LNAPL has been observed at monitoring well MW-103A with intermittent presence. On January 17, 2006 the presence of LNAPL was recorded as 30.48 ft below top of casing (btoc), and the water level was 31.82 ft btoc. The water level condition at that time was relatively low since water levels are generally around 22 ft btoc.

In December 2011, groundwater samples were collected from MW-102A, MW-102C, MW-103A, MW-103B, MW-103C, MW-104, MW-105, and MW-115A. The sample collected from MW-103A contained various VOCs (MIBK, acetone, ethylbenzene, toluene, xylenes), SVOCs (2,4-dimethylphenol and naphthalene) and TPH, both Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) at concentrations above Tier 2 standards. At the remaining locations noted above, none of the detected concentrations exceed Tier 2 standards.

In April 2012, CRA collected soil samples from three boreholes located near the former tank area, north of MW-103A. The boreholes are identified as SB-50, SB-51, and TMW-157 (completed as a temporary monitoring well). One soil sample was collected at each borehole (from 18 to 20 ft bgs) and analyzed for VOCs. As shown on Figures 7 and Table A-4, none of the detected concentrations are above the Tier 2 standards. In addition, soil samples were collected from two boreholes located in close proximity to MW-103A for waste characterization purposes. These boreholes are identified as SB-48 and SB-49 shown on Figure 7.

One temporary monitoring well (TMW-157), shown on Figure 7, was installed in April 2012 to determine potential VOC migration toward the northeast from MW-103A. The screen interval for TMW-157 is from 17 to 27 ft bgs. Two sets of groundwater samples were collected from TMW-157, in April and May 2012. As shown on Figure 7 and Table A-10, none of the detected VOC concentrations at TMW-157 are above the Tier 2 standards.

Interim Measures for the MW-103A area included soil excavation and collection of post-excavation soil samples shown on Figure 8. In addition, the following monitoring wells were plugged and abandoned: MW-103A, MW-103B, MW-103C. These activities are described in the Interim Measures Report (CRA, September 2014).

Groundwater samples have been collected from this area (MW-102A, MW-102B MW-115A, TMW-157, and MW-105) as part of the Site-wide monitoring program (initiated in October 2013), see Section 2.0. Parameters that have been detected in samples collected through July 2015 include: MEK, 2-phenylbutane, methyl chloride, cis-1,2-DCE, trans-1,2-DCE, VC, naphthalene, n-propylbenzene, PCE, TCE, total petroleum hydrocarbons (TPH) -Diesel Range Organics (TPH-DRO) and toluene.

1.5 TMW-130 Area

The TMW-130 Area is located in the southeast quadrant of the footprint of the former Fairfax I Plant building (as shown on Figure 3).

Soil boring and groundwater monitoring locations are presented on Figure 9. Detected analytical data for soil investigation and confirmatory activities are presented in Tables A-6 and A-7, respectively. Detected analytical data for groundwater samples collected prior commencement of quarterly GWMP (October 2013) are presented in Table A-10 and detected analytical data for quarterly GWMP from October 2013 to July 2015 are presented in Table A-12. The analytical results for parameters that were detected above Tier 2 standards in soil samples are shown on Figures 7 (investigation exceedances) and 8 (exceedances remaining after interim measures). Figures 11, 12, and 13 show concentrations of parameters detected greater than Tier 2 standards for the current groundwater monitoring program, for shallow, intermediate and deep monitoring wells.

Investigation Results

In November 2006, soil boring SB-130 and temporary monitoring well TMW-130 were installed in response to an August 2006 request from KDHE to perform investigative work in areas where limited investigative work had occurred. The results indicated exceedances of the Tier 2 standards for 2-methylnaphthalene, dibenzofuran, and naphthalene in the soil sample collected at SB-130 (5 to 7.5 ft bgs). A 0.99-foot layer of LNAPL was observed in temporary well TMW-130 while collecting groundwater elevation measurements prior to groundwater sampling. Therefore, no groundwater sample was collected at TMW-130. SB-130A, SB-132, and TMW-132 were also advanced in the general area of SB-130 and there were no detected concentrations in soil and groundwater greater than the Tier 2 standards, except for manganese at concentration of 2.51 mg/L in groundwater sample collected from TMW-132 that exceeded Tier 2 standard of 0.05 mg/L.

In September 2007, a groundwater sample was collected from TMW-130 for VOCs and TPH (GRO) analysis. None of the detected concentrations exceeded Tier 2 standards, except for TPH (GRO).

In October 2007, 16 soil borings (SB-200 to SB-215) were advanced to 25 ft bgs, and the soil was screened using a photoionization detector (PID) for the presence of petroleum hydrocarbons to determine the extent of LNAPL impact. Soil samples were not submitted for laboratory analysis. In addition, eight temporary monitoring wells (TMW-139 to TMW-146) were installed. Fluid levels were monitored weekly for 6 weeks and intermittently through March 2008 at TMW-130 and the eight surrounding temporary wells. Wells with LNAPL present were bailed until the standing product within each well was removed. LNAPL was present in TMW-130 and TMW-139 to TMW-142 with thicknesses varying from a trace to 3 ft. No LNAPL was detected at TMW-143 to TMW-146.

In February 2008, a Laser-Induced Fluorescence (LIF) investigation using an ultraviolet optical screening tool (UVOST) was conducted at 24 locations to delineate the LNAPL horizontally and vertically and to approximate the LNAPL saturation profile and type. The results were used to map the magnitude of the response within the UVOST grid area, as shown on Figure 9.

In September 2008, a 2-day multi-phase extraction (MPE) pilot study was conducted at the LNAPL plume area. In addition, five soil borings (SB-E1, SB-F1, SB-F3, SB-F4, and SB-G1) were advanced within the UVOST grid. Borings SB-E1, SB-F1, and SB-G1 were soil screening borings installed at the request of the KDHE to complete soil delineation of the impacted area. Soil samples were not submitted for laboratory analysis. Borings SB-F3 and SB-F4 were installed to collect waste characterization samples from the impacted area.

In September 2009, nine soil sampling borings (SB-B3-A, SB-B5-A, SB-D4-A, SB-E4-A, SB-E2-A, SB-F4-A, SB-F5-A, SB-G2-A, and SB-G4-A) were advanced at UVOST grid locations. Soil samples for laboratory analysis were collected from 1 to 3 ft bgs and from the interval above the water table that exhibited the highest UVOST result. Five delineation borings (SB-300, SB-301, SB-302, SB-303, and SB-304) were also advanced outside the LNAPL-impacted area. Soil samples for laboratory analysis were collected from the interval above the water table. Methylene chloride was detected in all samples collected, but was greater than the Tier 2 standard in the following samples: SB-B3-A (13 to 15 ft bgs), SB-D4-A (1 to 3 ft bgs), SB-E4-A (17 to 19 ft bgs), and SB-F4-A (17 to 19 ft bgs). TPH – DRO was detected at concentrations greater than the Tier 2 standards in the shallow (1 to 3 ft bgs) samples from SB-D4-A, and in the deeper samples from SB-B3-A (13 to 15 ft bgs) and from SB-E4-A and SB-F4-A (17 to 19 ft bgs). TPH – GRO was detected at concentrations greater than the Tier 2 standards in the deeper (17 to 19 ft bgs) samples from SB-B3-A and SB-E4-A.

Groundwater samples were collected from the four temporary wells in 2009 that did not contain LNAPL (TMW-143, TMW-144, TMW-145, and TMW-146) and submitted for laboratory analysis. The sample collected from TMW-144 had a detected concentration of TCE greater than the Tier 2 standard.

Groundwater samples were also collected from these four temporary wells (TMW-143, TMW-144, TMW-145, and TMW-146) and TMW-139 in December 2011 and submitted for VOCs, SVOCs (2-methylnaphthalene) and TPH (DRO and GRO) laboratory analysis. The sample collected from TMW-139 had a detected concentration of benzene greater than the Tier 2 standard.

The LNAPL has been characterized as a degraded diesel/fuel oil distillate material based on the results of laboratory analysis of the material and is situated approximately 22 to 32 ft bgs. It was concluded that the historical source of the LNAPL may be located between TMW-130 and TMW-140, where the highest average fluorescence and the greatest observed LNAPL thickness were observed.

In April 2012, CRA collected soil samples from one borehole (identified as SB-305 on Figure 9 located in close proximity to TMW-130 for waste characterization purposes. In addition, CRA collected soil samples for geotechnical testing parameters from two boreholes.

Interim Measures for the TMW-130 area included soil excavation and collection of post-excavation soil samples shown on Figure 10. In addition, the following five monitoring wells were plugged and abandoned: TMW-130, TMW-139, TMW-140, TMW-141, and TMW-142. These activities were conducted from December 2013 to February 2014 and are described in the Interim Measures Report (CRA, September 2014).

Groundwater samples have been collected from this area (TMW-143, TMW-144, TMW-145, and TMW-146) as part of the Site-wide monitoring program (initiated in October 2013), see Section 2.0. Parameters that have been detected in samples collected through July 2015 include: 1,2,4-trimethylbenzene, methyl chloride, methylene chloride, cis-1,2-DCE, trans-1,2-DCE, VC, benzene, n-propylbenzene, PCE, TCE and carbon disulfide, at concentrations less than the Tier 2 standards with the exception of benzene and methylene chloride in samples collected in October 2013 and July 2014 at TMW-146.

Total petroleum hydrocarbons - Diesel (#2 Fuel) was detected in all four wells in April 2014 and April 2015, in TMW-144 in January 2014 and in TMW-146 in July 2014 and July 2015 at concentrations or estimated concentrations less than the Tier 2 standards with the exception of TPH-DRO [reported as Diesel (#2 Fuel)] in samples collected in April 2014 at TMW-144 and in April 2014 and April/July 2015 at TMW-146.

2. Site-Wide Groundwater Monitoring

The Site-wide groundwater monitoring program includes quarterly water level monitoring and sample collection at selected monitoring wells, based on previous results and as detailed in the Work Plan (CRA, December 2012). The monitoring procedures and results are provided in the following letter reports sent to KDHE:

- Quarterly Groundwater Monitoring Report - Quarter 1 – October 2013 (CRA, January 22, 2014)

- Quarterly Groundwater Monitoring Report – Quarter 2 – January 2014 (CRA, March 21, 2014)
- Quarterly Groundwater Monitoring Report – Quarter 3 – April 2014 (CRA, July 17, 2014)
- Quarterly Groundwater Monitoring Report – Quarter 4 – July 2014 (CRA, August 26, 2014)
- Quarterly Groundwater Monitoring Report – Year 2 Quarter 1 – October 2014 (CRA, January 14, 2015)
- Quarterly Groundwater Monitoring Report – Year 2 Quarter 2 – January 2015 (CRA, March 12, 2015)
- Quarterly Groundwater Monitoring Report – Year 2 Quarter 3 – April 2015 (CRA, June 29, 2015)
- Quarterly Groundwater Monitoring Report – Year 2 Quarter 4 – July 2015 (GHD, August 24, 2015)

The monitoring wells construction details are provided in Table A-9 and water level data are included in Table A-11, and groundwater contour maps for shallow groundwater are included in Attachment 1 (reproduced from the quarterly monitoring reports listed above).

The monitoring results are summarized in the individual tables (A-1 through A-13) following this text (according to AOC or other location). The results are also shown on Figures 11, 12, and 13, for the shallow, intermediate and deep groundwater intervals. Note that the figures include parameters which were detected in at least one sample at a concentration above Tier 2 standards.

The following tables (A-14 through A-20) indicate concentrations above Tier 2 standards by AOC and location:

Table A.14 Summary of Groundwater Results above Tier 2 Standards for S-8 Area

				cis 1,2 DCE (mg/L)	PCE (mg/L)	TCE (mg/L)
Tier 2 Non-Residential Standard (a):				0.07	0.005	0.005
Tier 2 Residential Standard (b):				0.07	0.005	0.005
Sample Location:	**Sample Date:**	**Designation:**				
TMW 147E	10/11/2013	Shallow		0.0841[ab]	0.0298[ab]	0.0323[ab]
TMW 147E	1/7/2014	Shallow		0.0724[ab]	0.0201[ab]	0.0174[ab]
TMW 147E	4/10/2014	Shallow		0.0504	0.0413[ab]	0.0338[ab]
TMW 147E	7/16/2014	Shallow		0.0452	0.0253[ab]	0.0241[ab]
TMW 147E	10/7/2014	Shallow		0.0447	0.0169[ab]	0.0142[ab]
TMW 147E	1/13/2015	Shallow		0.0731[ab]	0.0333[ab]	0.0271[ab]
TMW 147E	4/9/2015	Shallow		0.0828[ab]	0.0219[ab]	0.0206[ab]
TMW 147E	7/7/2015	Shallow		0.0629	0.0429[ab]	0.0182[ab]

Table A.15 Summary of Groundwater Results above Tier 2 Standards for SB-110 Area

				PCE (mg/L)	TCE (mg/L)
Tier 2 Non-Residential Standard (a):				0.005	0.005
Tier 2 Residential Standard (b):				0.005	0.005
Sample Location:	**Sample Date:**	**Designation:**			
TMW-152	1/14/2015	Shallow		0.0054[ab]	0.00095 J
TMW-152	1/14/2015	Shallow		0.0058[ab]	0.0013
TMW-152	7/8/2015	Shallow		0.0177[ab]	0.0014
TMW-151	7/8/2015	Shallow		0.0034	0.0055[ab]

Table A.16 Summary of Groundwater Results above Tier 2 Standards for TMW-127 Area

			Benzene (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	TCE (mg/L)	VC (mg/L)
Tier 2 Non-Residential Standard (a):			0.005	0.07	0.1	0.005	0.002
Tier 2 Residential Standard (b):			0.005	0.07	0.1	0.005	0.002
Sample Location:	**Sample Date:**	**Designation:**					
MW-144B	10/10/2013	intermediate	0.0061 J[ab]	0.453[ab]	0.0296	ND(0.01)	0.04[ab]
MW-144B	4/10/2014	intermediate	0.00051 J	0.357[ab]	0.0404	ND(0.001)	0.0342[ab]
MW-144B	7/16/2014	intermediate	ND(0.001)	0.337[ab]	0.0492	ND(0.001)	0.0387[ab]
MW-144B	10/8/2014	intermediate	ND(0.005)	0.38[ab]	0.0233	ND(0.005)	0.0308[ab]
MW-144B	4/8/2045	intermediate	ND(0.001)	0.095[ab]	0.0171	ND(0.001)	0.145[ab]
MW-144B	7/8/2015	intermediate	ND(0.001)	0.236[ab]	0.0241	ND(0.001)	0.0565[ab]
MW-146B	10/9/2013	intermediate	ND(0.001)	0.0127	0.00041 J	ND(0.001)	0.0075[ab]
MW-146B	1/13/2014	intermediate	ND(0.001)	0.0085	0.00028 J	ND(0.001)	0.0052[ab]
MW-146B	4/8/2014	intermediate	ND(0.001)	0.036	0.002	ND(0.001)	0.0127[ab]
MW-146B	7/17/2014	intermediate	ND(0.001)	0.0214	0.0017 J	ND(0.001)	0.0118[ab]
MW-146B	7/17/2014	intermediate	ND(0.001)	0.0202	0.003 J	ND(0.001)	0.0128[ab]
MW-146B	10/9/2014	intermediate	ND(0.001)	0.0277	0.0011	ND(0.001)	0.0146[ab]
MW-146B	7/9/2015	intermediate	ND(0.001)	0.0372	0.003	ND(0.001)	0.0193[ab]
MW-146C	1/13/2014	deep	ND(0.001)	0.0415	0.0018	ND(0.001)	0.0078[ab]
MW-146C	4/8/2014	deep	ND(0.001)	0.0215	0.0012	ND(0.001)	0.0025[ab]
MW-156	10/10/2013	intermediate	0.00073 J	0.14[ab]	0.0188	ND(0.002)	0.161[ab]
MW-156	1/10/2014	intermediate	0.0011 J	0.254[ab]	0.0206	ND(0.005)	0.111[ab]
MW-156	1/10/2014	intermediate	0.00082 J	0.252[ab]	0.0209	ND(0.005)	0.107[ab]
MW-156	4/10/2014	intermediate	0.00038 J	0.209[ab]	0.0247	ND(0.001)	0.192[ab]
MW-156	7/17/2014	intermediate	ND(0.001)	0.155[ab]	0.0271	ND(0.001)	0.157[ab]
MW-156	10/9/2014	intermediate	ND(0.001)	0.181[ab]	0.0204	ND(0.001)	0.153[ab]
MW-156	1/14/2015	intermediate	ND(0.001)	0.177[ab]	0.0163	ND(0.001)	0.131[ab]
MW-156	4/7/2015	intermediate	0.00027 J	0.157[ab]	0.0169	ND(0.001)	0.149[b]
MW-156	7/9/2015	intermediate	ND(0.001)	0.195[ab]	0.0276	ND(0.001)	0.122[ab]
MW-156C	4/7/2015	deep	ND(0.001)	0.0028	0.00053 J	ND(0.001)	0.0053[ab]
MW-156C	7/9/2015	deep	ND(0.001)	0.0094	0.0015	ND(0.001)	0.0046[ab]
TMW-127	10/10/2013	shallow	0.001 J	0.333[ab]	0.0143	ND(0.005)	0.005[ab]
TMW-127	1/10/2014	shallow	0.0016 J	0.377[ab]	0.0171	ND(0.01)	0.0176[ab]
TMW-127	4/9/2014	shallow	0.00012 J	0.409[ab]	0.0411	ND(0.001)	0.0063[ab]

Table A.16 Summary of Groundwater Results above Tier 2 Standards for TMW-127 Area

			Benzene (mg/L)	cis-1,2-DCE (mg/L)	trans-1,2-DCE (mg/L)	TCE (mg/L)	VC (mg/L)
Tier 2 Non-Residential Standard (a):			0.005	0.07	0.1	0.005	0.002
Tier 2 Residential Standard (b):			0.005	0.07	0.1	0.005	0.002
Sample Location:	**Sample Date:**	**Designation:**					
TMW-127	7/17/2014	shallow	ND(0.001)	0.298[ab]	0.0397	ND(0.001)	0.0088[ab]
TMW-127	10/9/2014	shallow	ND(0.001)	0.308[ab]	0.0172	ND(0.001)	0.0059[ab]
TMW-127	4/7/2015	shallow	0.00018 J	0.370[ab]	0.0325	ND(0.001)	0.0032[ab]
TMW-127	7/9/2015	shallow	ND(0.001)	0.762[ab]	0.0858	ND(0.001)	0.0128[ab]
MW-158A	10/10/2013	shallow	ND(0.001)	0.269[ab]	0.0102	0.0036	0.0075[ab]
MW-158A	1/9/2014	shallow	ND(0.005)	0.545[ab]	0.0145	0.0051[ab]	0.009[ab]
MW-158A	4/10/2014	shallow	0.00021 J	1.48[ab]	0.107[ab]	0.00046 J	0.0245[ab]
MW-158A	7/16/2014	shallow	ND(0.001)	0.175[ab]	0.0234	0.002	0.0188[ab]
MW-158A	10/7/2014	shallow	ND(0.001)	0.19[ab]	0.0142	ND(0.001)	0.0294[ab]
MW-158A	4/9/2015	shallow	ND(0.001)	0.816[ab]	0.0552	0.0027	0.0236[ab]
MW-158B	1/9/2014	intermediate	ND(0.001)	0.0034	0.00069 J	ND(0.001)	0.0078[ab]
MW-158B	1/9/2014	intermediate	ND(0.001)	0.0028	0.00072 J	ND(0.001)	0.0076[ab]
MW-158B	4/10/2014	intermediate	ND(0.001)	0.0057	0.0014	0.00045 J	0.0064[ab]
MW-158B	7/16/2014	intermediate	ND(0.001)	0.0016	ND(0.001)	ND(0.001)	0.0036[ab]
MW-158B	4/9/2015	intermediate	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.0063[ab]
MW-158B	7/7/2015	intermediate	ND(0.001)	0.0016	ND(0.001)	ND(0.001)	0.0025[ab]
TMW-155	10/11/2013	shallow	0.0155 J[ab]	0.696[ab]	0.0253	0.117[ab]	0.0095 J[ab]
TMW-155	1/8/2014	shallow	ND(0.001)	0.41[ab]	0.0209	0.141[ab]	0.0019
TMW-155	4/10/2014	shallow	0.00012 J	0.534[ab]	0.0397	0.0846[ab]	0.0018
TMW-155	7/17/2014	shallow	ND(0.001)	0.841[ab]	0.101[ab]	0.103[ab]	0.0041[ab]
TMW-155	10/7/2014	shallow	ND(0.001)	0.902[ab]	0.0614	0.114[ab]	0.0084[ab]
TMW-155	1/14/2015	shallow	ND(0.001)	0.655[ab]	0.0316	0.102[ab]	0.0027[ab]
TMW-155	4/9/2015	shallow	0.00011 J	0.857[ab]	0.0676	0.0573[ab]	0.0068[ab]
TMW-155	7/7/2015	shallow	ND(0.001)	0.800[ab]	0.0788	0.0551[ab]	0.0055[ab]

Table A.17 Summary of Groundwater Results above Tier 2 Standards for MW-103A Area

			Naphthalene (mg/L)	VC (mg/L)	TPH-DRO (mg/L)
Tier 2 Non-Residential Standard (a):			0.00211	0.002	0.72
Tier 2 Residential Standard (b):			0.00111	0.002	0.50
Sample Location:	**Sample Date:**	**Designation:**			
MW-105	4/8/2014	Shallow	0.0037 J[ab]	ND(0.001)	--
MW-115A	4/7/2015	Shallow	ND(0.001)	ND(0.001)	0.54[b]
TMW-157	4/8/2014	Shallow	ND(0.01)	0.0028[ab]	--
TMW-157	4/9/2015	Shallow	ND(0.001)	ND(0.001)	3.2 J[ab]
TMW-157	4/9/2015	Shallow	ND(0.001)	ND(0.001)	3.0 J[ab]

Table A.18 Summary of Groundwater Results above Tier 2 Standards for TMW-130 Area

			Benzene (mg/L)	TPH-DRO (mg/L)
Tier 2 Non-Residential Standard (a):			0.005	0.72
Tier 2 Residential Standard (b):			0.005	0.50
Sample Location:	**Sample Date:**	**Designation:**		
TMW-144	4/9/2014	shallow	ND(0.001)	0.79[ab]
TMW-144	4/9/2014	shallow	ND(0.001)	0.73[ab]
TMW-146	7/17/2014	shallow	0.0095[ab]	0.30 J
TMW-146	4/8/2014	shallow	ND(0.001)	1.3[ab]
TMW-146	4/7/2015	shallow	ND(0.001)	1.0 J[ab]
TMW-146	7/9/2015	shallow	ND(0.001)	0.60[b]

Table A.19 Summary of Groundwater Results above Tier 2 Standards for other on-site Wells

			cis-1,2-DCE (mg/L)	VC (mg/L)
Tier 2 Non-Residential Standard (a):			0.07	0.002
Tier 2 Residential Standard (b):			0.07	0.002
Sample Location:	**Sample Date:**	**Designation:**		
MW-111	1/13/2014	intermediate	0.0618	0.0033[ab]
MW-111	7/17/2014	intermediate	0.074[ab]	0.0048[ab]
MW-111	10/7/2014	intermediate	0.0732[ab]	0.0031[ab]
MW-111	1/14/2015	intermediate	0.0818[ab]	0.0061[ab]
MW-111	4/8/2015	intermediate	0.061	0.0045[ab]
MW-111	7/7/2015	intermediate	0.0024	0.0054[ab]
MW-118B	10/9/2013	intermediate	0.0264	0.0021[ab]

Table A.20 Summary of Groundwater Results above Tier 2 Standards for off-site Wells

			PCE (mg/L)
Tier 2 Non-Residential Standard (a):			0.005
Tier 2 Residential Standard (b):			0.005
Sample Location:	**Sample Date:**	**Designation:**	
MW-110A	1/8/2014	shallow	0.0062[ab]
MW-110A	7/16/2014	shallow	0.0055[ab]
MW-110A	10/9/2014	shallow	0.0075[ab]
MW-110A	1/15/2015	shallow	0.0122[ab]
MW-110A	4/9/2015	shallow	0.0084[ab]
MW-110A	4/9/2015	shallow	0.0076[ab]
MW-110A	7/7/2015	shallow	0.0054[ab]

Table A-1

S-8 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						S-8-HDR	S-8-HDR	S-8	S-8	S-8	S-8	S-8	SB-112	SB-113	SB-147N	SB-147S	SB-147W	TMW-147E
Sample Name:						S-8-1046	S-8-1047	S-021213-YH-061	S-021213-YH-060	S-021213-YH-064	S-021213-YH-062	S-021213-YH-063	S-122104-DS-119	S-122104-DS-120	TMW 147N 18-20	TMW 147S 18-20	TMW 147W 18-20	TMW 147E 18-20
Sample Date:						8/19/1987	8/19/1987	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013	12/21/2004	12/21/2004	4/9/2012	4/9/2012	4/9/2012	4/9/2012
Sample Type:								Duplicate										
Depth:						(10) ft BGS	(15) ft BGS	(6) ft BGS	(6) ft BGS	(10) ft BGS	(13.5) ft BGS	(15) ft BGS	(10-12) ft BGS	(10-12) ft BGS	(18-20) ft BGS	(18-20) ft BGS	(18-20) ft BGS	(18-20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	HDR	HDR	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d													
Volatile Organic Compounds																		
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	-	-	-	-	-	-	-	ND(0.0061)	ND(0.0057)	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	-	-	ND(0.0051)	ND(0.0054)	ND(0.0055)	0.0035 J	ND(0.0056)	-	-	0.121	ND(0.0048)	ND(0.0053)	0.201
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	-	-	-	-	-	-	-	ND(0.025)	ND(0.023)	0.0055 J	ND(0.0096)	ND(0.0106)	0.0111 J
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (M	mg/kg	34800	27.2	4450	6.69	ND(0.5)	ND(0.5)	-	-	-	-	-	ND(0.025)	ND(0.023)	ND(0.0112)	ND(0.0096)	ND(0.0106)	ND(0.0111)
Acetone	mg/kg	406000	204	50300	51.6	-	-	ND(0.0205)	ND(0.0215)	ND(0.0221)	ND(0.0242)	ND(0.0225)	0.0039 J	0.0033 J	0.011 J	ND(0.0192)	ND(0.0211)	0.0381
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.5)	ND(0.5)	ND(0.0051)	ND(0.0054)	ND(0.0055)	ND(0.006)	ND(0.0056)	ND(0.0061)	ND(0.0057)	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	-	-	-	-	-	-	-	ND(0.0061)	ND(0.0057)	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	-	-	-	-	-	-	-	ND(0.0061)	ND(0.0057)	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	-	-	-	-	-	-	-	ND(0.0061)	ND(0.0057)	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	-	-	ND(0.0051)	ND(0.0054)	ND(0.0055)	0.0035 J	ND(0.0056)	ND(0.0061)	ND(0.0057)	0.101	ND(0.0024)	ND(0.0026)	0.163
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	ND(0.0051)	ND(0.0054)	ND(0.0055)	ND(0.006)	ND(0.0056)	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.5)	ND(0.5)	-	-	-	-	-	0.0011 J	ND(0.0057)	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	-	-	ND(0.0051)	ND(0.0054)	ND(0.0055)	ND(0.006)	ND(0.0056)	0.011	0.0083	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	ND(0.0112)	ND(0.0096)	ND(0.0106)	ND(0.0111)
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	2.5[bd]	0.76[bd]	0.111	0.105	0.0655 J	0.312[bd]	0.126[bd]	0.0039 J	0.0026 J	ND(0.0056)	0.0035 J	0.0043 J	ND(0.0056)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.5)	ND(0.5)	ND(0.0051)	ND(0.0054)	ND(0.0055)	ND(0.006)	ND(0.0056)	0.0011 J	0.00061 J	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	-	-	ND(0.0051)	ND(0.0054)	ND(0.0055)	ND(0.006)	ND(0.0056)	ND(0.0061)	ND(0.0057)	0.0195	ND(0.0024)	ND(0.0026)	0.0372
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	-	-	ND(0.0051)	ND(0.0054)	ND(0.0055)	0.0422	0.0076	0.0005 J	ND(0.0057)	0.0015 J	ND(0.0048)	ND(0.0053)	0.0064
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.5)	ND(0.5)	ND(0.0051)	ND(0.0054)	ND(0.0055)	ND(0.006)	ND(0.0056)	0.00094 J	ND(0.011)	ND(0.0056)	ND(0.0048)	ND(0.0053)	ND(0.0056)
Semi-Volatile Organic Compounds																		
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Acenaphthylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Phenanthrene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	-	-	-	-	-	-	-	ND(0.41)	ND(0.35)	-	-	-	-

Table A-1

S-8 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:		KDHE Tier 2 Risk-Based Criteria				S-8-HDR	S-8-HDR	S-8	S-8	S-8	S-8	S-8	SB-112	SB-113	SB-147N	SB-147S	SB-147W	TMW-147E
Sample Name:						S-8-1046	S-8-1047	S-021213-YH-061	S-021213-YH-060	S-021213-YH-064	S-021213-YH-062	S-021213-YH-063	S-122104-DS-119	S-122104-DS-120	TMW 147N 18-20	TMW 147S 18-20	TMW 147W 18-20	TMW 147E 18-20
Sample Date:						8/19/1987	8/19/1987	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013	12/21/2004	12/21/2004	4/9/2012	4/9/2012	4/9/2012	4/9/2012
Sample Type:								Duplicate										
Depth:						(10) ft BGS	(15) ft BGS	(6) ft BGS	(6) ft BGS	(10) ft BGS	(13.5) ft BGS	(15) ft BGS	(10-12) ft BGS	(10-12) ft BGS	(18-20) ft BGS	(18-20) ft BGS	(18-20) ft BGS	(18-20) ft BGS
Area of Concern:						S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	HDR	HDR	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d													
Metals																		
Aluminum	mg/kg	-	nc	-	nc	-	-	-	-	-	-	-	3760	1520	-	-	-	-
Antimony	mg/kg	817	nc	31.3	nc	-	-	-	-	-	-	-	ND(7.4)UJ	ND(6.3)UJ	-	-	-	-
Arsenic	mg/kg	63.2	nc	18.9	nc	-	-	-	-	-	-	-	5.6	2.3	-	-	-	-
Barium	mg/kg	277000	nc	15300	nc	-	-	-	-	-	-	-	136	50.1	-	-	-	-
Beryllium	mg/kg	3650	nc	155	nc	-	-	-	-	-	-	-	0.093 J	ND(0.52)	-	-	-	-
Cadmium	mg/kg	965	nc	39	nc	-	-	-	-	-	-	-	ND(0.61)	ND(0.52)	-	-	-	-
Calcium	mg/kg	nc	nc	-	nc	-	-	-	-	-	-	-	14500 J	4250 J	-	-	-	-
Chromium	mg/kg	111	nc	33.6	nc	-	-	-	-	-	-	-	7.5 J	3.4 J	-	-	-	-
Cobalt	mg/kg	579	nc	23.4	nc	-	-	-	-	-	-	-	5.2 J	2.6 J	-	-	-	-
Copper	mg/kg	81700	nc	3130	nc	-	-	-	-	-	-	-	5.8	1.6 J	-	-	-	-
Iron	mg/kg	nc	nc	-	nc	-	-	-	-	-	-	-	10000	4400	-	-	-	-
Lead	mg/kg	1000	nc	400	nc	-	-	-	-	-	-	-	6.7	2.9	-	-	-	-
Magnesium	mg/kg	nc	nc	-	nc	-	-	-	-	-	-	-	5550	1850	-	-	-	-
Manganese	mg/kg	66200	nc	9300	nc	-	-	-	-	-	-	-	229	81.6	-	-	-	-
Mercury	mg/kg	20	nc	2	nc	-	-	-	-	-	-	-	ND(0.12)	ND(0.10)	-	-	-	-
Nickel	mg/kg	32400	nc	1540	nc	-	-	-	-	-	-	-	12.8 J	6.7 J	-	-	-	-
Potassium	mg/kg	nc	nc		nc	-	-	-	-	-	-	-	902 J	329 J	-	-	-	-
Selenium	mg/kg	10200	nc	391	nc	-	-	-	-	-	-	-	ND(0.61)	ND(0.52)	-	-	-	-
Sodium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	ND(121)	ND(523)	-	-	-	-
Thallium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	ND(1.2)	ND(1.0)	-	-	-	-
Vanadium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	13.1	6.1	-	-	-	-
Zinc	mg/kg	613000	nc	23500	nc	-	-	-	-	-	-	-	31.7	13.3	-	-	-	-
General Chemistry																		
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	19.9	4.2	3.9	25.1
Total solids	%	nc	nc	nc	nc	-	-	-	-	-	-	-	81.5	95.6	-	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-2

SB-110 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-108	SB-109	SB-110	SB-118	SB-118A	SB-118B	SB-119	SB-119A	SB-119B	SB-119C
Sample Name:						S-122004-DS-115	S-122004-DS-116	S-122004-DS-117	S-012559-122005-SC-006	SB 118A 6-8	SB 118B 8-10	S-012559-121505-SC-001	SB 119A 18-20	SB 119B 18-20	SB 119C 18-20
Sample Date:						12/20/2004	12/20/2004	12/20/2004	12/20/2005	4/10/2012	4/11/2012	12/15/2005	4/16/2012	4/17/2012	4/10/2012
Sample Type:															
Depth:						(10-12) ft BGS	(10-12) ft BGS	(10-12) ft BGS	(9-10) ft BGS	(6-8) ft BGS	(8-10) ft BGS	(10-12) ft BGS	(18-20) ft BGS	(18-20) ft BGS	(18-20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway a	Soil to GW b	Soil Pathway c	Soil to GW d	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units														
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	ND(0.0048)	0.0224	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	-	-	-	-	ND(0.0048)	0.0024 J	-	ND(0.0048)	0.0278	ND(0.0083)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	ND(0.0048)	0.003 J	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.018)	ND(0.026)	ND(0.025)	-	0.0073 J	ND(0.0113)	-	ND(0.0097)	0.0049 J	0.0107 J
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	0.0026 J	0.0059	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (M	mg/kg	34800	27.2	4450	6.69	ND(0.018)	ND(0.026)	ND(0.025)	-	ND(0.0096)	ND(0.0113)	-	ND(0.0097)	ND(0.0132)	ND(0.0166)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.018)	0.0092 J	ND(0.025)	-	0.0225 J	ND(0.0225)	-	ND(0.0193)	0.0054 J	0.0274 J
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0048)	ND(0.0056)	-	0.0011 J	0.0015 J	ND(0.0083)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0024)	0.0024 J	-	ND(0.0024)	0.0278	ND(0.0042)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	-	-	ND(0.0048)	0.0027 J	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	0.00099 J	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	0.0026 J	0.0027 J	-	ND(0.0097)	ND(0.0132)	ND(0.0166)
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	0.0017 J	0.0076	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	ND(0.0048)	0.0033 J	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.0046)	ND(0.0065)	**0.19[bd]**	ND(0.29)	ND(0.0048)	0.0998	**0.45[bd]**	0.0013 J	ND(0.0066)	ND(0.0083)
Toluene	mg/kg	29800	51.2	4320	51.2	0.0025 J	ND(0.0065)	0.00091 J	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0046)	ND(0.0065)	ND(0.0063)	-	ND(0.0024)	ND(0.0028)	-	ND(0.0024)	ND(0.0033)	ND(0.0042)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.0046)	ND(0.0065)	0.001 J	-	ND(0.0048)	0.0044 J	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Xylenes (total)	mg/kg	1410	809	936	809	0.0081 J	ND(0.013)	ND(0.013)	-	ND(0.0048)	ND(0.0056)	-	ND(0.0048)	ND(0.0066)	ND(0.0083)
Semi-Volatile Organic Compounds															
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	ND(0.39)	ND(0.45)	0.048 J	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	nc	nc	nc	nc	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Phenanthrene	mg/kg	nc	nc	nc	nc	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	ND(0.39)	ND(0.45)	ND(0.45)	-	-	-	-	-	-	-

Table A-2

SB-110 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-108	SB-109	SB-110	SB-118	SB-118A	SB-118B	SB-119	SB-119A	SB-119B	SB-119C
Sample Name:						S-122004-DS-115	S-122004-DS-116	S-122004-DS-117	S-012559-122005-SC-006	SB 118A 6-8	SB 118B 8-10	S-012559-121505-SC-001	SB 119A 18-20	SB 119B 18-20	SB 119C 18-20
Sample Date:						12/20/2004	12/20/2004	12/20/2004	12/20/2005	4/10/2012	4/11/2012	12/15/2005	4/16/2012	4/17/2012	4/10/2012
Sample Type:															
Depth:						(10-12) ft BGS	(10-12) ft BGS	(10-12) ft BGS	(9-10) ft BGS	(6-8) ft BGS	(8-10) ft BGS	(10-12) ft BGS	(18-20) ft BGS	(18-20) ft BGS	(18-20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d										
Metals															
Aluminum	mg/kg	nc	nc	nc	nc	5660	5690	7340	-	-	-	-	-	-	-
Antimony	mg/kg	817	nc	31.3	nc	ND(0.39)	ND(0.51)	ND(0.69)	-	-	-	-	-	-	-
Arsenic	mg/kg	63.2	nc	18.9	nc	5.3	3.9	4.6	-	-	-	-	-	-	-
Barium	mg/kg	277000	nc	15300	nc	183	205	208	-	-	-	-	-	-	-
Beryllium	mg/kg	3650	nc	155	nc	0.17 J	0.14 J	0.21 J	-	-	-	-	-	-	-
Cadmium	mg/kg	965	nc	39	nc	ND(0.2)	ND(0.15)	ND(0.19)	-	-	-	-	-	-	-
Calcium	mg/kg	nc	nc	nc	nc	13000	21200	20200	-	-	-	-	-	-	-
Chromium	mg/kg	111	nc	33.6	nc	10.3	10.7	12.3	-	-	-	-	-	-	-
Cobalt	mg/kg	579	nc	23.4	nc	4.8 J	6.7 J	6.8 J	-	-	-	-	-	-	-
Copper	mg/kg	81700	nc	3130	nc	11.8	12.3	18.2	-	-	-	-	-	-	-
Iron	mg/kg	nc	nc	nc	nc	9460 J	12900 J	12200 J	-	-	-	-	-	-	-
Lead	mg/kg	1000	nc	400	nc	9.0	9.3	10.5	-	-	-	-	-	-	-
Magnesium	mg/kg	nc	nc	nc	nc	3810	8270	7500	-	-	-	-	-	-	-
Manganese	mg/kg	66200	nc	9300	nc	247	274	277	-	-	-	-	-	-	-
Mercury	mg/kg	20	nc	2	nc	0.013 J	0.0099 J	0.016 J	-	-	-	-	-	-	-
Nickel	mg/kg	32400	nc	1540	nc	12.4	16.9	17.0	-	-	-	-	-	-	-
Potassium	mg/kg	nc	nc	nc	nc	1160	1530	2110	-	-	-	-	-	-	-
Selenium	mg/kg	10200	nc	391	nc	0.43 J	ND(0.68)	ND(0.69)	-	-	-	-	-	-	-
Sodium	mg/kg	nc	nc	nc	nc	267 J	121 J	176 J	-	-	-	-	-	-	-
Thallium	mg/kg	nc	nc	nc	nc	ND(1.2)	ND(1.4)	ND(1.4)	-	-	-	-	-	-	-
Vanadium	mg/kg	nc	nc	nc	nc	16.6	18.8	19.6	-	-	-	-	-	-	-
Zinc	mg/kg	613000	nc	23500	nc	38.5	47.7	51.5	-	-	-	-	-	-	-
General Chemistry															
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	15.2	19.7	-	14.4	29.8	37.4
Total solids	%	nc	nc	nc	nc	85.4	73.4	72.6	80.5	-	-	78.5	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-2

SB-110 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-120	SB-120A	SB-121	SB-122	SB-122	SB-137
Sample Name:						S-012559-121505-SC-002	SB 120A 18-20	S-012559-122005-SC-003	S-012559-122005-SC-005	S-012559-122005-SC-004	SB137 14-15
Sample Date:						12/15/2005	4/9/2012	12/20/2005	12/20/2005	12/20/2005	11/6/2006
Sample Type:									Duplicate		
Depth:						(10-12) ft BGS	(18-20) ft BGS	(9-10) ft BGS	(9-10) ft BGS	(9-10) ft BGS	(14-15) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d						
Volatile Organic Compounds											
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	ND(0.0061)	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	-	ND(0.0061)	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	-	ND(0.0061)	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	ND(0.0061)	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	-	0.015	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	ND(0.0061)	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (I	mg/kg	34800	27.2	4450	6.69	-	ND(0.0123)	-	-	-	-
Acetone	mg/kg	406000	204	50300	51.6	-	0.0576	-	-	-	-
Benzene	mg/kg	28.2	0.168	15.9	0.168	-	ND(0.0061)	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	-	ND(0.0061)	-	-	-	-
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	-	ND(0.0061)	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	-	ND(0.0061)	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	-	ND(0.0031)	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	ND(0.0061)	-	-	-	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	-	ND(0.0061)	-	-	-	-
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	ND(0.0061)	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	-	ND(0.0061)	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	ND(0.0123)	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	ND(0.0061)	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	-	ND(0.0061)	-	-	-	-
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	ND(0.0061)	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	0.034	0.0075	**0.15[bd]**	ND(0.27)	ND(0.27)	0.024
Toluene	mg/kg	29800	51.2	4320	51.2	-	ND(0.0061)	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	-	ND(0.0031)	-	-	-	-
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	-	ND(0.0061)	-	-	-	-
Xylenes (total)	mg/kg	1410	809	936	809	-	ND(0.0061)	-	-	-	-
Semi-Volatile Organic Compounds											
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	-	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	-	-	-	-	-	-
Acenaphthylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	-	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	-	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	-	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	-	-	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	-	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-
Phenanthrene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	-	-	-	-	-	-

Table A-2

SB-110 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-120	SB-120A	SB-121	SB-122	SB-122	SB-137
Sample Name:						S-012559-121505-SC-002	SB 120A 18-20	S-012559-122005-SC-003	S-012559-122005-SC-005	S-012559-122005-SC-004	SB137 14-15
Sample Date:						12/15/2005	4/9/2012	12/20/2005	12/20/2005	12/20/2005	11/6/2006
Sample Type:									Duplicate		
Depth:						(10-12) ft BGS	(18-20) ft BGS	(9-10) ft BGS	(9-10) ft BGS	(9-10) ft BGS	(14-15) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d						
Metals											
Aluminum	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Antimony	mg/kg	817	nc	31.3	nc	-	-	-	-	-	-
Arsenic	mg/kg	63.2	nc	18.9	nc	-	-	-	-	-	-
Barium	mg/kg	277000	nc	15300	nc	-	-	-	-	-	-
Beryllium	mg/kg	3650	nc	155	nc	-	-	-	-	-	-
Cadmium	mg/kg	965	nc	39	nc	-	-	-	-	-	-
Calcium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Chromium	mg/kg	111	nc	33.6	nc	-	-	-	-	-	-
Cobalt	mg/kg	579	nc	23.4	nc	-	-	-	-	-	-
Copper	mg/kg	81700	nc	3130	nc	-	-	-	-	-	-
Iron	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Lead	mg/kg	1000	nc	400	nc	-	-	-	-	-	-
Magnesium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Manganese	mg/kg	66200	nc	9300	nc	-	-	-	-	-	-
Mercury	mg/kg	20	nc	2	nc	-	-	-	-	-	-
Nickel	mg/kg	32400	nc	1540	nc	-	-	-	-	-	-
Potassium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Selenium	mg/kg	10200	nc	391	nc	-	-	-	-	-	-
Sodium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Thallium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Vanadium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-
Zinc	mg/kg	613000	nc	23500	nc	-	-	-	-	-	-
General Chemistry											
Percent moisture	%	nc	nc	nc	nc	-	28.8	-	-	-	-
Total solids	%	nc	nc	nc	nc	72.8	-	79.5	79.1	76.9	75.6

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 201

Table A-3

TMW-127 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						GP13-10	GP13-12	GP13-3	GP13-4	GP13-5	GP13-7	GP13-8	GP13-8	GP13-9	S-37
Sample Name:						S-020113-YH-025	S-020513-YH-046	S-012513-YH-008	S-012813-YH-010	S-012813-YH-015	S-020413-YH-038	S-020413-YH-036	S-020413-YH-035	S-020413-YH-034	S-37-1223
Sample Date:						2/1/2013	2/5/2013	1/25/2013	1/28/2013	1/28/2013	2/4/2013	2/4/2013	2/4/2013	2/4/2013	8/31/1987
Sample Type:												Duplicate			
Depth:						(8.5) ft BGS	(1.5) ft BGS	(15) ft BGS	(8.5) ft BGS	(3) ft BGS	(1.5) ft BGS	(14) ft BGS	(14) ft BGS	(8) ft BGS	(15) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	HDR
	Units	a	b	c	d										
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/kg	ns	ns	ns	ns	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	-
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	-	-	-	-	-	-	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBI	mg/kg	34800	27.2	4450	6.69	-	-	-	-	-	-	-	-	-	ND(0.5)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.0203)	ND(0.0233)	ND(0.018)	ND(0.0251)	ND(0.0258)	ND(0.0227)	ND(0.0227)	ND(0.0208)	ND(0.0262)	-
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	ND(0.5)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	-
Cymene (p-Isopropyltoluene)	mg/kg	ns	ns	ns	ns	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	-	-	-	-	-	-	-	-	-	0.87
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.0051)	0.0108	ND(0.0045)	ND(0.0063)	0.0099	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	ND(0.5)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	3.0
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	-
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	-
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.0051)	ND(0.0058)	ND(0.0045)	ND(0.0063)	ND(0.0064)	ND(0.0057)	ND(0.0057)	ND(0.0052)	ND(0.0065)	1.80
Semi-Volatile Organic Compounds															
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	-	-	-	-	-	-	-	-	-	-

Table A-3

TMW-127 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						GP13-10	GP13-12	GP13-3	GP13-4	GP13-5	GP13-7	GP13-8	GP13-8	GP13-9	S-37
Sample Name:						S-020113-YH-025	S-020513-YH-046	S-012513-YH-008	S-012813-YH-010	S-012813-YH-015	S-020413-YH-038	S-020413-YH-036	S-020413-YH-035	S-020413-YH-034	S-37-1223
Sample Date:						2/1/2013	2/5/2013	1/25/2013	1/28/2013	1/28/2013	2/4/2013	2/4/2013	2/4/2013	2/4/2013	8/31/1987
Sample Type:												Duplicate			
Depth:						(8.5) ft BGS	(1.5) ft BGS	(15) ft BGS	(8.5) ft BGS	(3) ft BGS	(1.5) ft BGS	(14) ft BGS	(14) ft BGS	(8) ft BGS	(15) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	HDR
	Units	a	b	c	d										
Metals															
Aluminum	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	817	ns	31.3	ns	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	63.2	ns	18.9	ns	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	277000	ns	15300	ns	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	3650	ns	155	ns	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	965	ns	39	ns	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	111	ns	33.6	ns	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	579	ns	23.4	ns	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	81700	ns	3130	ns	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	1000	ns	400	ns	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	66200	ns	9300	ns	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	20	ns	2	ns	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	32400	ns	1540	ns	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	10200	ns	391	ns	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	ns	-	ns	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	ns	-	ns	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	ns	-	ns	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	613000	ns	23500	ns	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Percent moisture	%	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-
Total solids	%	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-3

TMW-127 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						S-37	SB-116	SB-124	SB-124A	SB-125	SB-125	SB-126	SB-126A	SB-127
Sample Name:						S-37-1224	S-122104-DS-123	SB-124	S11806KGSB124A22.5-25	SB-125-7.5-10	S11806KGSB125A7.5-10	SB-126-27.5-30	S11806KGSB126A27.5-30	SB-127 27.5-30'
Sample Date:						8/31/1987	12/21/2004	11/1/2006	11/8/2006	11/2/2006	11/8/2006	11/2/2006	11/8/2006	11/3/2006
Sample Type:														
Depth:						(20) ft BGS	(4-6) ft BGS	(22.5-25) ft BGS	(22.5-25) ft BGS	(7.5-10) ft BGS	(7.5-10) ft BGS	(27.5-30) ft BGS	(27.5-30) ft BGS	(27.5-30) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	HDR	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d									
Volatile Organic Compounds														
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	-	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
1,2-Dichloroethene (total)	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	-	ND(0.032)	-	ND(0.022)	-	ND(0.027)	-	ND(0.025)	-
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBI	mg/kg	34800	27.2	4450	6.69	ND(0.5)	ND(0.032)	-	ND(0.022)	-	ND(0.027)	-	ND(0.025)	-
Acetone	mg/kg	406000	204	50300	51.6	-	0.0044 J	-	ND(0.022)	-	ND(0.027)	-	ND(0.025)	-
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.5)	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	-	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	-	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	-	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	-	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Cymene (p-Isopropyltoluene)	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.5)	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	-	0.011	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.5)	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Toluene	mg/kg	29800	51.2	4320	51.2	0.65	0.00084 J	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	-	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	-	ND(0.0079)	-	ND(0.0056)	-	ND(0.0068)	-	ND(0.0063)	-
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.5)	ND(0.016)	-	ND(0.011)	-	ND(0.014)	-	ND(0.013)	-
Semi-Volatile Organic Compounds														
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Acenaphthene	mg/kg	30600	526	3420	255	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Acenaphthylene	mg/kg	ns	ns	ns	ns	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Anthracene	mg/kg	221000	8180	18000	3770	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Benzo(g,h,i)perylene	mg/kg	ns	ns	ns	ns	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Caprolactam	mg/kg	440000	451	30600	69.2	-	ND(0.42)	-	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Fluoranthene	mg/kg	35200	15200	2440	2830	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Fluorene	mg/kg	25900	626	2360	297	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Phenanthrene	mg/kg	ns	ns	ns	ns	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	ND(0.39)
Pyrene	mg/kg	26400	11900	1830	2190	-	ND(0.42)	ND(0.34)	-	ND(0.39)	-	ND(0.39)	-	0.018 J

Table A-3

TMW-127 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						S-37	SB-116	SB-124	SB-124A	SB-125	SB-125	SB-126	SB-126A	SB-127
Sample Name:						S-37-1224	S-122104-DS-123	SB-124	S11806KGSB124A22.5-25	SB-125-7.5-10	S11806KGSB125A7.5-10	SB-126-27.5-30	S11806KGSB126A27.5-30	SB-127 27.5-30'
Sample Date:						8/31/1987	12/21/2004	11/1/2006	11/8/2006	11/2/2006	11/8/2006	11/2/2006	11/8/2006	11/3/2006
Sample Type:														
Depth:						(20) ft BGS	(4-6) ft BGS	(22.5-25) ft BGS	(22.5-25) ft BGS	(7.5-10) ft BGS	(7.5-10) ft BGS	(27.5-30) ft BGS	(27.5-30) ft BGS	(27.5-30) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	HDR	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d									
Metals														
Aluminum	mg/kg	ns	ns	ns	ns	-	3970	1690	-	4290	-	889	-	796
Antimony	mg/kg	817	ns	31.3	ns	-	ND(7.6)UJ	ND(6.3)	-	ND(7.1)	-	ND(7.0)	-	ND(7.1)
Arsenic	mg/kg	63.2	ns	18.9	ns	-	6.6	3.5 J	-	5.4 J	-	1.2 J	-	1.4 J
Barium	mg/kg	277000	ns	15300	ns	-	170	48.3	-	189	-	21.9 J	-	15.0 J
Beryllium	mg/kg	3650	ns	155	ns	-	0.12 J	ND(0.52)	-	0.12 J	-	ND(0.59)	-	ND(0.59)
Cadmium	mg/kg	965	ns	39	ns	-	ND(0.63)	0.10 J	-	0.13 J	-	0.072 J	-	ND(0.59)
Calcium	mg/kg	ns	ns	ns	ns	-	11600 J	3740	-	16800	-	3270	-	2360
Chromium	mg/kg	111	ns	33.6	ns	-	8.3 J	3.4	-	7.9	-	2.2	-	2.0
Cobalt	mg/kg	579	ns	23.4	ns	-	5.3 J	2.8 J	-	4.9 J	-	1.8 J	-	1.8 J
Copper	mg/kg	81700	ns	3130	ns	-	8.2	ND(2.6)	-	7.8	-	0.83 J	-	0.98 J
Iron	mg/kg	ns	ns	ns	ns	-	10300	5510	-	10100	-	2710	-	2190
Lead	mg/kg	1000	ns	400	ns	-	7.8	3.4 J	-	6.7 J	-	2.0 J	-	1.7 J
Magnesium	mg/kg	ns	ns	ns	ns	-	5700	1460	-	6850	-	1070	-	835
Manganese	mg/kg	66200	ns	9300	ns	-	251	85.8	-	253	-	47.2	-	30.5
Mercury	mg/kg	20	ns	2	ns	-	ND(0.13)	ND(0.10)	-	0.016 J	-	ND(0.12)	-	ND(0.12)
Nickel	mg/kg	32400	ns	1540	ns	-	13.0 J	7.2	-	12.0	-	4.2 J	-	4.1 J
Potassium	mg/kg	ns	ns	ns	ns	-	941 J	362 J	-	1120	-	222 J	-	201 J
Selenium	mg/kg	10200	ns	391	ns	-	ND(0.63)	ND(26.1)	-	ND(29.7)	-	ND(29.4)	-	ND(29.7)
Sodium	mg/kg	-	ns	-	ns	-	ND(213)	57.0 J	-	ND(594)	-	ND(587)	-	ND(594)
Thallium	mg/kg	-	ns	-	ns	-	ND(1.3)	ND(209)	-	0.86 J	-	ND(235)	-	ND(238)
Vanadium	mg/kg	-	ns	-	ns	-	14.1	6.5	-	14.2	-	3.7 J	-	3.1 J
Zinc	mg/kg	613000	ns	23500	ns	-	34.1	17.0	-	35.8	-	9.5	-	8.9 J
General Chemistry														
Percent moisture	%	ns	ns	ns	ns	-	-	-	-	-	-	-	-	-
Total solids	%	ns	ns	ns	ns	-	79.3	95.7	89.6	84.2	73.6	85.1	79.3	84.2

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014.

Table A-3

TMW-127 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-127A	SB-128	SB-128A	TMW-153	TMW-154	TMW-155
Sample Name:						S11806KGSB127A27.5-30	SB-128 5-7.5'	S11806KGSB128A5-7.5	TMW 153 18-20	TMW 154 16-18	TMW 155 18-20
Sample Date:						11/8/2006	11/3/2006	11/8/2006	4/11/2012	4/11/2012	4/11/2012
Sample Type:											
Depth:						(27.5-30) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(18-20) ft BGS	(16-18) ft BGS	(18-20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d						
Volatile Organic Compounds											
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
1,2-Dichloroethene (total)	mg/kg	ns	ns	ns	ns	-	-	-	ND(0.0051)	ND(0.006)	0.0183
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.022)	-	ND(0.025)	ND(0.0101)	0.0239 J	ND(0.0102)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBI	mg/kg	34800	27.2	4450	6.69	ND(0.022)	-	ND(0.025)	ND(0.0101)	ND(0.012)	ND(0.0102)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.022)	-	ND(0.025)	ND(0.0202)	0.108 J	ND(0.0203)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0056)	-	ND(0.0064)	ND(0.0025)	ND(0.003)	0.0171
Cymene (p-Isopropyltoluene)	mg/kg	ns	ns	ns	ns	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	ND(0.0101)	ND(0.012)	ND(0.0102)
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
tert-Butylbenzene	mg/kg	ns	ns	ns	ns	-	-	-	ND(0.0051)	ND(0.006)	ND(0.0051)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	ND(0.0051)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0056)	-	ND(0.0064)	ND(0.0025)	ND(0.003)	0.0012 J
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.0056)	-	ND(0.0064)	ND(0.0051)	ND(0.006)	0.0442
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.011)	-	ND(0.013)	ND(0.0051)	ND(0.006)	ND(0.0051)
Semi-Volatile Organic Compounds											
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	ND(0.44)	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	ND(0.44)	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	-	ND(0.44)	-	-	-	-
Acenaphthylene	mg/kg	ns	ns	ns	ns	-	ND(0.44)	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	-	ND(0.44)	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	ND(0.44)	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	ND(0.44)	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	ND(0.44)	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	ns	ns	ns	ns	-	ND(0.44)	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	ND(0.44)	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	ND(0.44)	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	ND(0.44)	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	ND(0.44)	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	ND(0.44)	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	-	ND(0.44)	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	-	ND(0.44)	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	ND(0.44)	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	ND(0.44)	-	-	-	-
Phenanthrene	mg/kg	ns	ns	ns	ns	-	ND(0.44)	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	-	ND(0.44)	-	-	-	-

Table A-3

TMW-127 Area - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-127A	SB-128	SB-128A	TMW-153	TMW-154	TMW-155
Sample Name:						S11806KGSB127A27.5-30	SB-128 5-7.5'	S11806KGSB128A5-7.5	TMW 153 18-20	TMW 154 16-18	TMW 155 18-20
Sample Date:						11/8/2006	11/3/2006	11/8/2006	4/11/2012	4/11/2012	4/11/2012
Sample Type:											
Depth:						(27.5-30) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(18-20) ft BGS	(16-18) ft BGS	(18-20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d						
Metals											
Aluminum	mg/kg	ns	ns	ns	ns	-	6900	-	-	-	-
Antimony	mg/kg	817	ns	31.3	ns	-	ND(7.9)	-	-	-	-
Arsenic	mg/kg	63.2	ns	18.9	ns	-	7.5 J	-	-	-	-
Barium	mg/kg	277000	ns	15300	ns	-	240	-	-	-	-
Beryllium	mg/kg	3650	ns	155	ns	-	0.31 J	-	-	-	-
Cadmium	mg/kg	965	ns	39	ns	-	0.34 J	-	-	-	-
Calcium	mg/kg	ns	ns	ns	ns	-	18700	-	-	-	-
Chromium	mg/kg	111	ns	33.6	ns	-	11.5	-	-	-	-
Cobalt	mg/kg	579	ns	23.4	ns	-	6.8	-	-	-	-
Copper	mg/kg	81700	ns	3130	ns	-	16.9	-	-	-	-
Iron	mg/kg	ns	ns	ns	ns	-	14600	-	-	-	-
Lead	mg/kg	1000	ns	400	ns	-	9.9 J	-	-	-	-
Magnesium	mg/kg	ns	ns	ns	ns	-	7750	-	-	-	-
Manganese	mg/kg	66200	ns	9300	ns	-	437	-	-	-	-
Mercury	mg/kg	20	ns	2	ns	-	0.039 J	-	-	-	-
Nickel	mg/kg	32400	ns	1540	ns	-	17.6	-	-	-	-
Potassium	mg/kg	ns	ns	ns	ns	-	1670	-	-	-	-
Selenium	mg/kg	10200	ns	391	ns	-	ND(33.0)	-	-	-	-
Sodium	mg/kg	-	ns	-	ns	-	ND(661)	-	-	-	-
Thallium	mg/kg	-	ns	-	ns	-	1.2 J	-	-	-	-
Vanadium	mg/kg	-	ns	-	ns	-	20.4	-	-	-	-
Zinc	mg/kg	613000	ns	23500	ns	-	54.2	-	-	-	-
General Chemistry											
Percent moisture	%	ns	ns	ns	ns	-	-	-	2.7	25.1	16.6
Total solids	%	ns	ns	ns	ns	90.1	75.7	78.7	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014.

Table A-4

MW-103A - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						F-26	S-26	S-27-HDR	S-29	S-29	S-29	S-29	S-29	S-29	S-30	SB-28
Sample Name:						F-26-1262	S-26-1154	S-27-1161	S-29-1172	S-29-1173	S-29-1174	S-29-1175	S-29-1176	S-29-1177	S-30-1180	S-051199-PK-001
Sample Date:						9/1/1987	8/25/1987	8/26/1987	8/24/1987	8/24/1987	8/24/1987	8/24/1987	8/24/1987	8/24/1987	8/31/1987	5/11/1999
Sample Type:																
Depth:						(5) ft BGS	(10) ft BGS	(15) ft BGS	(5) ft BGS	(10) ft BGS	(15) ft BGS	(20) ft BGS	(25) ft BGS	(30) ft BGS	(15) ft BGS	(5-7) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	HDR	HDR	HDR	HDR	HDR	HDR	HDR	HDR	HDR	HDR	CRA
	Units	a	b	c	d											
Volatile Organic Compounds																
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	-	-	-	-	-	-	-	-	-	-	ND(0.005)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	ND(0.005)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	-	-	-	-	-	-	-	-	-	-	ND(0.02)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	110[bd]	27.0[d]	0.85	ND(0.5)	ND(0.01)
Acetone	mg/kg	406000	204	50300	51.6	-	-	-	-	-	-	-	-	-	-	ND(0.1)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.5)	4.0[bd]	ND(0.5)	ND(0.5)	ND(0.5)	5.3[bd]	ND(0.5)	ND(0.5)	ND(0.5)	1.5[bd]	ND(0.005)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	-	-	-	-	-	-	-	-	-	-	ND(0.01)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	-	-	-	-	-	-	-	-	-	-	ND(0.005)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	-	-	-	-	-	-	-	-	-	-	ND(0.005)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	-	-	-	-	-	-	-	-	-	-	ND(0.005)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	160.0[abcd]	46.0	0.45	4.6	8.1	390[abcd]	160[abcd]	62.0	0.770	ND(0.5)	ND(0.005)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	-	-	-	-	-	-	-	-	-	-	ND(0.005)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.5)	5.6[bd]	0.88[bd]	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.005)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.5)	ND(0.5)	ND(0.5)	30.0	34.0	490[bd]	380[bd]	74.0[bd]	1.2	ND(0.5)	ND(0.005)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	-	-	-	-	-	-	-	-	-	-	ND(0.005)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	-	-	-	-	-	-	-	-	-	-	ND(0.005)
Xylenes (total)	mg/kg	1410	809	936	809	410.0	ND(0.5)	ND(0.5)	15.0	24.0	820.0[bd]	380.0	110.0	2.40	ND(0.5)	ND(0.005)
General Chemistry																
Aerobic BTEX specific microbial population	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Ash	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
pH (solid)	s.u.	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-4

MW-103A - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-28	SB-29	SB-29	SB-30	SB-30	SB-31	SB-31	SB-32	SB-32	SB-33
Sample Name:						S-051199-PK-002	S-051199-PK-003	S-051199-PK-004	S-051199-PK-005	S-051199-PK-006	S-051199-PK-007	S-051199-PK-008	S-051199-PK-009	S-051199-PK-010	S-051199-PK-011
Sample Date:						5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999
Sample Type:															
Depth:						(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d										
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	1.1	0.31	0.01	ND(0.005)	ND(0.005)	ND(0.005)	0.033	ND(0.005)	ND(0.005)	ND(0.005)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.005)	ND(0.005)	ND(0.005)	0.012	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Xylenes (total)	mg/kg	1410	809	936	809	5.8	0.91	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ash	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
pH (solid)	s.u.	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total solids	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-4

MW-103A - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-33	SB-34	SB-34	SB-35	SB-35	SB-36	SB-36	SB-37	SB-37	SB-38
Sample Name:						S-051199-PK-012	S-051199-PK-013	S-051199-PK-014	S-051199-PK-015	S-051199-PK-016	S-051199-PK-017	S-051199-PK-018	S-051199-PK-019	S-051199-PK-020	S-051199-PK-021
Sample Date:						5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999	5/11/1999
Sample Type:															
Depth:						(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(7-9) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d										
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.022)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.011)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.11)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.011)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	0.006	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ash	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
pH (solid)	s.u.	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total solids	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-4

MW-103A - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-38	SB-39	SB-39	SB-40	SB-40	SB-41	SB-41	SB-42	SB-42	SB-43
Sample Name:						S-051199-PK-022	S-051299-PK-023	S-051299-PK-024	S-051299-PK-025	S-051299-PK-026	S-051299-PK-027	S-051299-PK-028	S-051299-PK-029	S-051299-PK-030	S-051299-PK-031
Sample Date:						5/11/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999
Sample Type:															
Depth:						(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d										
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)UJ	ND(0.006)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.008 J	ND(0.006)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	22	ND(0.022)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	410[bd]	0.93
Acetone	mg/kg	406000	204	50300	51.6	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	0.13	ND(0.1)	ND(0.1)	190 J[d]	0.33
Benzene	mg/kg	28.2	0.168	15.9	0.168	0.022	ND(0.005)	ND(0.005)	0.095 J	0.033	ND(0.005)	0.018	0.072 J	4.7 J[bd]	ND(0.006)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.011)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)UJ	ND(0.006)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)UJ	ND(0.006)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.007 J	ND(0.006)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	1.1	ND(0.005)	ND(0.005)	18	19	6.4 J	4.6	2.3	890[abcd]	1.7
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)UJ	ND(0.006)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)UJ	ND(0.006)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.005)	ND(0.005)	ND(0.005)	64[bd]	2.8 J	9.5 J	13	1	2300[bd]	0.72
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)UJ	ND(0.006)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)UJ	ND(0.006)
Xylenes (total)	mg/kg	1410	809	936	809	5.8	ND(0.005)	ND(0.005)	180	120	32	87	11	4700[abcd]	14
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ash	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
pH (solid)	s.u.	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total solids	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-4

MW-103A - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-43	SB-44	SB-44	SB-45	SB-45	SB-46	SB-46	SB-47	SB-47	SB-50
Sample Name:						S-051299-PK-032	S-051299-PK-033	S-051299-PK-034	S-051299-PK-035	S-051299-PK-036	S-051299-PK-037	S-051299-PK-038	S-051299-PK-039	S-051299-PK-040	SB 50 18-20
Sample Date:						5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	5/12/1999	4/11/2012
Sample Type:															
Depth:						(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(5-7) ft BGS	(10-12) ft BGS	(18-20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d										
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	-	-	-	ND(0.0058)
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0058)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0058)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	-	-	-	ND(0.0058)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.021)	ND(0.024)	ND(0.0117)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	-	-	-	ND(0.0058)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	0.21	ND(0.01)	0.039	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.011)	ND(0.01)	ND(0.012)	ND(0.0117)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.1)	ND(0.1)	ND(0.1)	0.1	ND(0.1)	ND(0.1)	0.24	ND(0.1)	ND(0.12)	ND(0.0234)
Benzene	mg/kg	28.2	0.168	15.9	0.168	0.084	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.007	ND(0.005)	0.12	ND(0.0058)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.011)	ND(0.01)	ND(0.012)	ND(0.0058)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.008	ND(0.005)	ND(0.006)	ND(0.0058)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0058)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0029)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	ND(0.0058)
Ethylbenzene	mg/kg	145	65.6	82	65.6	22	ND(0.005)	0.007	ND(0.005)	ND(0.005)	ND(0.005)	2.8 J	ND(0.005)	0.7	ND(0.0058)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	-	-	-	ND(0.0058)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0058)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-	-	ND(0.0117)
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	-	-	-	ND(0.0058)
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	-	-	-	ND(0.0058)
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	ND(0.0058)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0058)
Toluene	mg/kg	29800	51.2	4320	51.2	0.1 J	ND(0.005)	0.038	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0058)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0029)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.006)	ND(0.0058)
Xylenes (total)	mg/kg	1410	809	936	809	110	ND(0.005)	0.042	ND(0.005)	ND(0.005)	ND(0.005)	84	0.054	0.13	ND(0.0058)
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Ash	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	25.5
pH (solid)	s.u.	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Total solids	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
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Table A-4

MW-103A - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-51	SB-101	SB-101	SB-102	SB-102	SB-103	SB-103	SB-104	SB-104	SB-105
Sample Name:						SB 51 18-20	S-122004-DS-101	S-122004-DS-102	S-122004-DS-103	S-122004-DS-104	S-122004-DS-105	S-122004-DS-106	S-122004-DS-107	S-122004-DS-108	S-122004-DS-109
Sample Date:						4/11/2012	12/20/2004	12/20/2004	12/20/2004	12/20/2004	12/20/2004	12/20/2004	12/20/2004	12/20/2004	12/20/2004
Sample Type:															
Depth:						(18-20) ft BGS	(8-10) ft BGS	(12-14) ft BGS	(8-10) ft BGS	(12-14) ft BGS	(8-10) ft BGS	(12-14) ft BGS	(8-10) ft BGS	(12-14) ft BGS	(8-10) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d										
Volatile Organic Compounds															
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	ND(0.005)	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.005)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	ND(0.005)	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	ND(0.005)	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	0.0106 J	ND(0.025)	ND(2400)	ND(23)	ND(510)	0.0025 J	ND(1.2)UJ	ND(130)	ND(2500)	ND(11)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	ND(0.005)	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.01)	0.009 J	1700 J[bd]	ND(23)	ND(510)	ND(0.023)	ND(1.2)UJ	ND(130)	ND(2500)	ND(11)
Acetone	mg/kg	406000	204	50300	51.6	0.0426 J	0.015 J	ND(2400)	ND(23)	ND(510)	0.016 J	ND(1.2)UJ	ND(130)	280 J[bd]	ND(11)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.005)	0.024	ND(610)	0.27 J[bd]	7.9 J[bd]	0.00056 J	0.086 J	ND(32)	ND(620)	ND(2.8)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.005)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.005)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.005)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0025)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	ND(0.005)	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.005)	0.0057 J	2100[abcd]	13	2000[abcd]	0.0022 J	0.13 J	540[abcd]	4800[abcd]	26
Isopropyl benzene	mg/kg	5680	140	2540	65.1	ND(0.005)	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.005)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	ND(0.01)	-	-	-	-	-	-	-	-	-
N-Butylbenzene	mg/kg	3440	118	1420	50.9	ND(0.005)	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	14300	320	4070	110	ND(0.005)	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	ND(0.005)	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.005)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.005)	0.0059 J	18000[bcd]	ND(5.8)	4100[bd]	0.0017 J	0.43 J	630[bd]	21000[bcd]	3.7
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0025)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.005)	ND(0.0063)	ND(610)	ND(5.8)	ND(130)	ND(0.0057)	ND(0.3)UJ	ND(32)	ND(620)	ND(2.8)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.005)	0.011 J	12000[abcd]	250	10000[abcd]	0.0018 J	4.3 J	3200[abcd]	24000[abcd]	230
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	nc	nc	nc	nc	-	ND(0)	-	ND(0)	86000	500	870000	570000	5600	-
Ammonia	mg/kg	nc	nc	nc	nc	-	5.5	13	14	3.1	2.9	14	7.0	7.7	11
Ash	%	nc	nc	nc	nc	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	nc	nc	nc	nc	-	ND(6.7)	ND(6.9)	ND(6.5)	ND(5.5)	ND(5.9)	0.22 J	ND(6.9)	ND(6.7)	ND(6.2)
Percent moisture	%	nc	nc	nc	nc	19.3	-	-	-	-	-	-	-	-	-
pH (solid)	s.u.	nc	nc	nc	nc	-	7.3	6.2	7.1	7.0	7.9	7.5	7.8	8.0	7.8
Total heterotropic bacteria	cfu/mL	nc	nc	nc	nc	-	5000	-	ND(0)	310000	15000	1100000	420000	5100	-
Total kjeldahl nitrogen (TKN)	mg/kg	nc	nc	nc	nc	-	260 J	960 J	540 J	250 J	130 J	1200 J	350 J	ND(200)UJ	450 J
Total solids	%	nc	nc	nc	nc	-	74.9	72.6	77.1	90.9	84.5	79.4	72.6	74.4	80.4

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-4

MW-103A - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-105	SB-105	SB-106	SB-106	SB-107	SB-107	TMW-157
Sample Name:						S-122004-DS-102	S-122004-DS-110	S-122004-DS-111	S-122004-DS-112	S-122004-DS-113	S-122004-DS-114	TMW 157 18-20
Sample Date:						12/20/2004	12/20/2004	12/20/2004	12/20/2004	12/20/2004	12/20/2004	4/10/2012
Sample Type:												
Depth:						(12-14) ft BGS	(12-14) ft BGS	(8-10) ft BGS	(12-14) ft BGS	(8-10) ft BGS	(12-14) ft BGS	(18-20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d							
Volatile Organic Compounds												
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	-	-	-	-	-	-	ND(0.0055)
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	ND(0.0055)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	-	-	-	-	-	-	ND(0.0055)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	-	ND(710)	ND(0.023)	ND(1.2)	ND(0.023)	ND(0.024)	0.0105 J
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	-	-	-	-	-	-	ND(0.0055)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	-	ND(710)	ND(0.023)	ND(1.2)	ND(0.023)	ND(0.024)	0.0033 J
Acetone	mg/kg	406000	204	50300	51.6	-	ND(710)	0.0071 J	ND(1.2)	ND(0.023)	0.0091 J	0.0319 J
Benzene	mg/kg	28.2	0.168	15.9	0.168	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0027)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	ND(0.0055)
Ethylbenzene	mg/kg	145	65.6	82	65.6	-	**1500[abcd]**	ND(0.0057)	0.13 J	ND(0.0057)	0.0033 J	ND(0.0055)
Isopropyl benzene	mg/kg	5680	140	2540	65.1	-	-	-	-	-	-	ND(0.0055)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	ND(0.0109)
N-Butylbenzene	mg/kg	3440	118	1420	50.9	-	-	-	-	-	-	ND(0.0055)
N-Propylbenzene	mg/kg	14300	320	4070	110	-	-	-	-	-	-	ND(0.0055)
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	ND(0.0055)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
Toluene	mg/kg	29800	51.2	4320	51.2	-	**5000[bcd]**	0.0028 J	0.3 J	0.0014 J	0.01	ND(0.0055)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0027)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	-	ND(180)	ND(0.0057)	ND(0.31)	ND(0.0057)	ND(0.0061)	ND(0.0055)
Xylenes (total)	mg/kg	1410	809	936	809	-	**7900[abcd]**	ND(0.011)	0.67	ND(0.011)	0.018	ND(0.0055)
General Chemistry												
Aerobic BTEX specific microbial population	cfu/mL	nc	nc	nc	nc	5500	-	-	-	-	-	-
Ammonia	mg/kg	nc	nc	nc	nc	-	2.3	-	-	-	-	-
Ash	%	nc	nc	nc	nc	-	-	3.6	3.6	1.7	2.7	-
Nitrate (as N)	mg/kg	nc	nc	nc	nc	-	ND(5.9)	-	-	-	-	-
Percent moisture	%	nc	nc	nc	nc	-	-	-	-	-	-	22.4
pH (solid)	s.u.	nc	nc	nc	nc	-	8.0	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	nc	nc	nc	nc	10000	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/kg	nc	nc	nc	nc	-	98 J	-	-	-	-	-
Total solids	%	nc	nc	nc	nc	-	85.1	75.3	81.7	80.9	77.2	-

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
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Table A-5

MW-103A - Soil Analytical Data Summary Interim Measures
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						East Wall 10'	East Wall 15'	East Wall 20'	NE Corner 15'	North Wall 12'	SE Corner 15'	SE Trench 8'	SW Trench-1 8'
Sample Name:						EAST WALL 10'	E WALL 15'	EAST WALL 20'	NE CORNER 15'	N WALL 12'	SE CORNER 15'	SE TRENCH 8'	SW TRENCH-1 8'
Sample Date:						1/17/2014	1/8/2014	1/17/2014	1/17/2014	1/8/2014	1/17/2014	1/8/2014	1/8/2014
Depth:						(10) ft BGS	(15) ft BGS	(20) ft BGS	(15) ft BGS	(12) ft BGS	(15) ft BGS	(8) ft BGS	(8) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
	Units	a	b	c	d								
Volatile Organic Compounds													
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	ND(0.0057)	61.3 bcd	ND(0.289)	565 abcd	71 bcd	ND(0.227)	ND(0.0048)	20 bd
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	ND(0.0057)	16.6 bd	ND(0.289)	127 bd	16.6 bd	ND(0.227)	ND(0.0048)	5.34
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.0114)	ND(11.3)	ND(0.578)	ND(6.19)	0.381 J	ND(0.455)	ND(0.0097)	0.365 J
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	0.0137	ND(5.64)	0.803	18	1.04	ND(0.227)	ND(0.0048)	0.876
Methyl isobutyl ketone (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.0114)	296 bd	ND(0.578)	ND(6.19)	ND(0.542)	ND(0.455)	ND(0.0097)	3.22
Acetone	mg/kg	406000	204	50300	51.6	ND(0.0227)UJ	ND(22.6)UJ	ND(1.16)UJ	ND(12.4)UJ	ND(1.08)UJ	ND(0.909)UJ	0.012 J	ND(1.2)UJ
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0057)	5.93 bd	ND(0.289)	ND(3.1)	0.4 bd	ND(0.227)	ND(0.0048)	ND(0.299)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	0.152 J bd	ND(0.227)	ND(0.0048)	0.178 J bd
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	ND(0.0057)	3.04 J	ND(0.289)	17.9	0.854	ND(0.227)	ND(0.0048)	0.703
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.0057)	1240 abcd	0.62	44.3	30.2	0.265	ND(0.0048)	48.9
Isopropyl benzene	mg/kg	5680	140	2540	65.1	0.0134	14.2	ND(0.289)	10.8	2.19	0.266	ND(0.0048)	2.15
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	ND(0.0114)	175 abcd	ND(0.578)	7.53 bd	3.06 bd	16.9 bd	ND(0.0097)	17.3 bd
N-Butylbenzene	mg/kg	3440	118	1420	50.9	ND(0.0057)	42.5	1.52	43.4	3.3	2.49	ND(0.0048)	5.58
N-Propylbenzene	mg/kg	14300	320	4070	110	0.0175	12.2	0.733	46.1	10.9	0.471	ND(0.0048)	3
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	0.0131	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.0057)	8730 bcd	2.13	ND(3.1)	24.8	ND(0.227)	0.0025 J	42.7
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.0057)	ND(5.64)	ND(0.289)	ND(3.1)	ND(0.271)	ND(0.227)	ND(0.0048)	ND(0.299)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.0057)	6420 abcd	2.51	78	392	0.269	ND(0.0048)	269
Petroleum Products													
Total Petroleum Hydrocarbons - Gas	mg/kg	450	79.3	220	79.3	17.0	18300 abcd	447 bcd	9700 abcd	1380 abcd	262 bcd	ND(0.97)	1370 abcd
General Chemistry													
Percent moisture	%	nc	nc	nc	nc	24.3	22.7	15.1	19.0	22.8	25.1	25.9	19.8

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-5

MW-103A - Soil Analytical Data Summary Interim Measures
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SW Trench-2 8'	West Wall 10'	West Wall 12'	West Wall 20'
Sample Name:						SW TRENCH-2 8'	WEST WALL 10'	W WALL 12'	WEST WALL 20'
Sample Date:						1/8/2014	1/17/2014	1/8/2014	1/17/2014
Depth:						(8) ft BGS	(10) ft BGS	(12) ft BGS	(20) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				MW-103A	MW-103A	MW-103A	MW-103A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
	Units	a	b	c	d				
Volatile Organic Compounds									
1,2,4-Trimethylbenzene	mg/kg	126	2.21	54	1.07	ND(0.0059)	ND(0.302)	ND(6.15)	ND(0.0207)
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
1,2-Dichloroethene (total)	mg/kg	nc	nc	nc	nc	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
1,3,5-Trimethylbenzene	mg/kg	530	11.1	243	5.51	ND(0.0059)	ND(0.302)	ND(1.54)	0.0064
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.0117)	ND(0.604)	ND(3.08)	ND(0.0125)
2-Phenylbutane (sec-Butylbenzene)	mg/kg	6540	202	2760	82.7	ND(0.0059)	ND(0.302)	8	0.0068
Methyl isobutyl ketone (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.0117)	ND(0.604)	ND(3.08)	0.039
Acetone	mg/kg	406000	204	50300	51.6	0.0122 J	ND(1.21)UJ	ND(6.15)UJ	0.0584 J
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0059)	ND(0.302)	ND(1.54)	0.0136
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
Cymene (p-Isopropyltoluene)	mg/kg	nc	nc	nc	nc	ND(0.0059)	ND(0.302)	3.59	ND(0.0063)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.0059)	ND(0.302)	ND(6.15)	0.0454
Isopropyl benzene	mg/kg	5680	140	2540	65.1	ND(0.0059)	5.14	**329[bd]**	0.0927
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	ND(0.0117)	**1.26[bd]**	**8.32[bd]**	0.0145
N-Butylbenzene	mg/kg	3440	118	1420	50.9	ND(0.0059)	ND(0.302)	10.1	0.0093
N-Propylbenzene	mg/kg	14300	320	4070	110	ND(0.0059)	0.812	8.78	0.0153
tert-Butylbenzene	mg/kg	nc	nc	nc	nc	ND(0.0059)	ND(0.302)	3.15	ND(0.0063)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.0059)	ND(0.302)	ND(1.54)	0.106
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.0059)	ND(0.302)	ND(1.54)	ND(0.0063)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.0059)	0.554	3.48 J	0.205
Petroleum Products									
Total Petroleum Hydrocarbons - Gas	mg/kg	450	79.3	220	79.3	ND(1.2)	**86.2[bd]**	**3880[abcd]**	4.9
General Chemistry									
Percent moisture	%	nc	nc	nc	nc	13.0	26.6	17.8	25.3

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Apper

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-117	SB-130	SB-130A	SB-130A	SB-132	SB-300	SB-301	SB-301
Sample Name:						S-122104-DS-124	SB-130 5-7.5'	DUP-2	S11806KGSB130A5-7.5	SB132 2.5-5	S-092809-JH-001	S-092809-JH-002	S-092809-JH-003
Sample Date:						12/21/2004	11/3/2006	11/8/2006	11/8/2006	11/6/2006	9/28/2009	9/28/2009	9/28/2009
Sample Type:								Duplicate					
Depth:						(4-6) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(2.5-5) ft BGS	(18-20) ft BGS	(9-11) ft BGS	(17-19) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d								
Volatile Organic Compounds													
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.019)	-	ND(13)	ND(6.5)	ND(0.023)	ND(0.011)	ND(0.012)	ND(0.01)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.019)	-	ND(13)	ND(6.5)	ND(0.023)	ND(0.011)	ND(0.012)	ND(0.01)
Acetone	mg/kg	406000	204	50300	51.6	0.0033 J	-	ND(13)	ND(6.5)	0.0037 J	ND(0.011)	ND(0.012)	ND(0.01)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.0048)	-	0.26 J	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	0.0067	-	ND(3.1)	ND(1.6)	ND(0.0063)	0.0051 J	0.0028 J	0.0038 J
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Toluene	mg/kg	29800	51.2	4320	51.2	0.00045 J	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.0048)	-	ND(3.1)	ND(1.6)	ND(0.0058)	ND(0.011)	ND(0.012)	ND(0.01)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.0096)	-	1.1 J	0.11 J	ND(0.012)	ND(0.011)	ND(0.012)	ND(0.01)
Semi-Volatile Organic Compounds													
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	ND(4.2)	ND(110)	-	-	ND(0.38)	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	ND(4.2)	**270 bcd**	-	-	ND(0.38)	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	ND(4.2)	ND(110)	-	-	ND(0.38)	-	-	-
Acenaphthylene	mg/kg	nc	nc	nc	nc	ND(4.2)	ND(110)	-	-	ND(0.38)	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	0.53 J	5.3 J	-	-	ND(0.38)	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	1.5 J	ND(110)	-	-	0.023 J	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	**1.3 J c**	ND(110)	-	-	0.018 J	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	1.8 J	ND(110)	-	-	0.036 J	-	-	-
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	0.84 J	ND(110)	-	-	ND(0.38)	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	0.79 J	ND(110)	-	-	ND(0.38)	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	18	ND(110)	-	-	ND(0.38)	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	ND(4.2)	-	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	1.5 J	ND(110)	-	-	0.021 J	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	0.2 J	ND(110)	-	-	ND(0.38)	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	ND(4.2)	**7.8 J d**	-	-	ND(0.38)	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	3.7 J	ND(110)	-	-	0.048 J	-	-	-
Fluorene	mg/kg	25900	626	2360	297	ND(4.2)	12 J	-	-	ND(0.38)	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	0.92 J	ND(110)	-	-	ND(0.38)	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	ND(4.2)	**39 J bcd**	-	-	ND(0.38)	-	-	-
Phenanthrene	mg/kg	nc	nc	nc	nc	1.9 J	41 J	-	-	0.029 J	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	2.8 J	7.2 J	-	-	0.04 J	-	-	-
Petroleum Products													
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/kg	20000	7830	2000	5440	-	-	-	-	-	ND(12)	ND(10)	ND(11)
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/kg	450	79.3	220	79.3	-	-	-	-	-	ND(0.11)	ND(0.12)	ND(0.11)

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-117	SB-130	SB-130A	SB-130A	SB-132	SB-300	SB-301	SB-301
Sample Name:						S-122104-DS-124	SB-130 5-7.5'	DUP-2	S11806KGSB130A5-7.5	SB132 2.5-5	S-092809-JH-001	S-092809-JH-002	S-092809-JH-003
Sample Date:						12/21/2004	11/3/2006	11/8/2006	11/8/2006	11/6/2006	9/28/2009	9/28/2009	9/28/2009
Sample Type:								Duplicate					
Depth:						(4-6) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(2.5-5) ft BGS	(18-20) ft BGS	(9-11) ft BGS	(17-19) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d								
Metals													
Aluminum	mg/kg	nc	nc	nc	nc	339	6680	-	-	4200	-	-	-
Antimony	mg/kg	817	nc	31.3	nc	ND(6.2)UJ	ND(7.8)	-	-	ND(7.0)UJ	-	-	-
Arsenic	mg/kg	63.2	nc	18.9	nc	1.5	5.2 J	-	-	5.5 J	-	-	-
Barium	mg/kg	277000	nc	15300	nc	17.9 J	216	-	-	128	-	-	-
Beryllium	mg/kg	3650	nc	155	nc	ND(0.51)	0.35 J	-	-	0.19 J	-	-	-
Cadmium	mg/kg	965	nc	39	nc	ND(0.51)	0.31 J	-	-	0.40 J	-	-	-
Calcium	mg/kg	nc	nc	nc	nc	305 J	15200	-	-	76900	-	-	-
Chromium	mg/kg	111	nc	33.6	nc	2.1 J	10.6	-	-	7.3	-	-	-
Cobalt	mg/kg	579	nc	23.4	nc	0.76 J	6.1 J	-	-	4.2 J	-	-	-
Copper	mg/kg	81700	nc	3130	nc	1.2 J	16.0	-	-	11.2	-	-	-
Iron	mg/kg	nc	nc	nc	nc	1870	12400	-	-	9350	-	-	-
Lead	mg/kg	1000	nc	400	nc	2.4	9.6 J	-	-	12.9	-	-	-
Magnesium	mg/kg	nc	nc	nc	nc	112 J	5960	-	-	5370	-	-	-
Manganese	mg/kg	66200	nc	9300	nc	7.4	258	-	-	279	-	-	-
Mercury	mg/kg	20	nc	2	nc	ND(0.10)	0.027 J	-	-	0.024 J	-	-	-
Nickel	mg/kg	32400	nc	1540	nc	ND(1.2)	16.4	-	-	11.2	-	-	-
Potassium	mg/kg	nc	nc	nc	nc	124 J	1490	-	-	1110	-	-	-
Selenium	mg/kg	10200	nc	391	nc	ND(0.51)	ND(32.6)	-	-	ND(29.2)	-	-	-
Sodium	mg/kg	nc	nc	nc	nc	ND(514)	ND(652)	-	-	158 J	-	-	-
Thallium	mg/kg	nc	nc	nc	nc	ND(1.0)	ND(261)	-	-	0.63 J	-	-	-
Vanadium	mg/kg	nc	nc	nc	nc	3.2 J	17.8	-	-	12.6	-	-	-
Zinc	mg/kg	613000	nc	23500	nc	4.2	48.9	-	-	44.0	-	-	-
General Chemistry													
Total solids	%	nc	nc	nc	nc	97.3	76.7	78.5	76.6	85.8	85.7	96.5	94.9

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
NC - No Criteria
GRO/DRO - gasoline range/diesel range
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-302	SB-303	SB-304	SB-B3-A	SB-B3-A	SB-B5-A	SB-B5-A	SB-D4-A
Sample Name:						S-092809-JH-004	S-092809-JH-005	S-092909-JH-006	S-092909-JH-021	S-092909-JH-022	S-092909-JH-023	S-092909-JH-024	S-092909-JH-017
Sample Date:						9/28/2009	9/28/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009
Sample Type:													
Depth:						(17-19) ft BGS	(17-19) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(13-15) ft BGS	(1-3) ft BGS	(13-15) ft BGS	(1-3) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	off-site	off-site	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d								
Volatile Organic Compounds													
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.011)	ND(0.013)	ND(0.011)	0.0037 J	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.011)	ND(0.013)	ND(0.011)	0.015	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	5.5 J	ND(0.012)	ND(0.011)	0.31 J
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	0.0033 J	0.0054 J	0.0048 J	0.0047 J	**25 J[bd]**	0.0061 J	0.0015 J	**0.68 J[bd]**
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	0.00039 J	ND(0.011)	ND(1.1)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	ND(32)	ND(0.012)	ND(0.011)	ND(1.1)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.011)	ND(0.013)	ND(0.011)	ND(0.011)	43	ND(0.012)	ND(0.011)	0.15 J
Semi-Volatile Organic Compounds													
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	-	-	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	-	-	-	-	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	-	-	-	-	-	-	-	-
Petroleum Products													
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/kg	20000	7830	2000	5440	ND(10)	ND(12)	ND(10)	6.7 J	**64000[abcd]**	ND(12)	ND(12)	**8900[bcd]**
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/kg	450	79.3	220	79.3	ND(0.11)	ND(0.13)	ND(0.11)	ND(0.12)	**720[abcd]**	ND(6)	ND(6)	78 J

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-302	SB-303	SB-304	SB-B3-A	SB-B3-A	SB-B5-A	SB-B5-A	SB-D4-A
Sample Name:						S-092809-JH-004	S-092809-JH-005	S-092909-JH-006	S-092909-JH-021	S-092909-JH-022	S-092909-JH-023	S-092909-JH-024	S-092909-JH-017
Sample Date:						9/28/2009	9/28/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009
Sample Type:													
Depth:						(17-19) ft BGS	(17-19) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(13-15) ft BGS	(1-3) ft BGS	(13-15) ft BGS	(1-3) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	off-site	off-site	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d								
Metals													
Aluminum	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Antimony	mg/kg	817	nc	31.3	nc	-	-	-	-	-	-	-	-
Arsenic	mg/kg	63.2	nc	18.9	nc	-	-	-	-	-	-	-	-
Barium	mg/kg	277000	nc	15300	nc	-	-	-	-	-	-	-	-
Beryllium	mg/kg	3650	nc	155	nc	-	-	-	-	-	-	-	-
Cadmium	mg/kg	965	nc	39	nc	-	-	-	-	-	-	-	-
Calcium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Chromium	mg/kg	111	nc	33.6	nc	-	-	-	-	-	-	-	-
Cobalt	mg/kg	579	nc	23.4	nc	-	-	-	-	-	-	-	-
Copper	mg/kg	81700	nc	3130	nc	-	-	-	-	-	-	-	-
Iron	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Lead	mg/kg	1000	nc	400	nc	-	-	-	-	-	-	-	-
Magnesium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Manganese	mg/kg	66200	nc	9300	nc	-	-	-	-	-	-	-	-
Mercury	mg/kg	20	nc	2	nc	-	-	-	-	-	-	-	-
Nickel	mg/kg	32400	nc	1540	nc	-	-	-	-	-	-	-	-
Potassium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Selenium	mg/kg	10200	nc	391	nc	-	-	-	-	-	-	-	-
Sodium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Thallium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Vanadium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Zinc	mg/kg	613000	nc	23500	nc	-	-	-	-	-	-	-	-
General Chemistry													
Total solids	%	nc	nc	nc	nc	96.0	83.0	96.8	83.0	78.1	83.2	84.0	83.7

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
NC - No Criteria
GRO/DRO - gasoline range/diesel range
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-D4-A	SB-E2-A	SB-E2-A	SB-E4-A	SB-E4-A	SB-F4-A	SB-F4-A	SB-F5-A
Sample Name:						S-092909-JH-018	S-092909-JH-019	S-092909-JH-020	S-092909-JH-015	S-092909-JH-016	S-092909-JH-011	S-092909-JH-012	S-092909-JH-013
Sample Date:						9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009
Sample Type:													
Depth:						(8-10) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d								
Volatile Organic Compounds													
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	0.0065 J	ND(0.011)	ND(0.013)	0.007 J	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Acetone	mg/kg	406000	204	50300	51.6	0.036	ND(0.011)	ND(0.013)	0.035	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Benzene	mg/kg	28.2	0.168	15.9	0.168	0.0031 J	ND(0.011)	ND(0.013)	0.00082 J	0.078 J	ND(0.011)	0.12 J	ND(0.011)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Ethylbenzene	mg/kg	145	65.6	82	65.6	0.0022 J	ND(0.011)	ND(0.013)	0.0051 J	1.4 J	ND(0.011)	1.3 J	ND(0.011)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	0.0079 J	0.0047 J	0.0051 J	0.0065 J	2.4 J[bd]	0.0015 J	3.7 J[bd]	0.0066 J
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.013)	0.00032 J	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.013)	ND(0.011)	ND(0.013)	ND(0.013)	ND(3.7)	ND(0.011)	ND(5.5)	ND(0.011)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.013)	ND(0.011)	ND(0.013)	0.0037 J	0.18 J	ND(0.011)	0.38 J	ND(0.011)
Semi-Volatile Organic Compounds													
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	-	-	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	-	-	-	-	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	-	-	-	-	-	-	-	-
Petroleum Products													
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/kg	20000	7830	2000	5440	31	850	ND(11)	54	14000[bcd]	6.4 J	12000[bcd]	3.7 J
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/kg	450	79.3	220	79.3	0.17	ND(0.11)	ND(0.13)	0.085 J	120[bd]	ND(0.12)	76 J	ND(0.11)

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-D4-A	SB-E2-A	SB-E2-A	SB-E4-A	SB-E4-A	SB-F4-A	SB-F4-A	SB-F5-A
Sample Name:						S-092909-JH-018	S-092909-JH-019	S-092909-JH-020	S-092909-JH-015	S-092909-JH-016	S-092909-JH-011	S-092909-JH-012	S-092909-JH-013
Sample Date:						9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009
Sample Type:													
Depth:						(8-10) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d								
Metals													
Aluminum	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Antimony	mg/kg	817	nc	31.3	nc	-	-	-	-	-	-	-	-
Arsenic	mg/kg	63.2	nc	18.9	nc	-	-	-	-	-	-	-	-
Barium	mg/kg	277000	nc	15300	nc	-	-	-	-	-	-	-	-
Beryllium	mg/kg	3650	nc	155	nc	-	-	-	-	-	-	-	-
Cadmium	mg/kg	965	nc	39	nc	-	-	-	-	-	-	-	-
Calcium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Chromium	mg/kg	111	nc	33.6	nc	-	-	-	-	-	-	-	-
Cobalt	mg/kg	579	nc	23.4	nc	-	-	-	-	-	-	-	-
Copper	mg/kg	81700	nc	3130	nc	-	-	-	-	-	-	-	-
Iron	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Lead	mg/kg	1000	nc	400	nc	-	-	-	-	-	-	-	-
Magnesium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Manganese	mg/kg	66200	nc	9300	nc	-	-	-	-	-	-	-	-
Mercury	mg/kg	20	nc	2	nc	-	-	-	-	-	-	-	-
Nickel	mg/kg	32400	nc	1540	nc	-	-	-	-	-	-	-	-
Potassium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Selenium	mg/kg	10200	nc	391	nc	-	-	-	-	-	-	-	-
Sodium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Thallium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Vanadium	mg/kg	nc	nc	nc	nc	-	-	-	-	-	-	-	-
Zinc	mg/kg	613000	nc	23500	nc	-	-	-	-	-	-	-	-
General Chemistry													
Total solids	%	nc	nc	nc	nc	79.4	84.3	87.7	80.5	93.4	81.1	96.8	84.0

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
NC - No Criteria
GRO/DRO - gasoline range/diesel range
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-F5-A	SB-G2-A	SB-G2-A	SB-G4-A	SB-G4-A
Sample Name:						S-092909-JH-014	S-092909-JH-009	S-092909-JH-010	S-092909-JH-007	S-092909-JH-008
Sample Date:						9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009
Sample Type:										
Depth:						(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d					
Volatile Organic Compounds										
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	0.0024 J	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Acetone	mg/kg	406000	204	50300	51.6	0.016	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	0.0097 J	0.003 J	0.0042 J	0.0042 J	0.0048 J
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.012)	ND(0.012)	ND(0.011)	ND(0.0097)	ND(0.012)
Semi-Volatile Organic Compounds										
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	-	-	-	-	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	-	-	-	-	-
Acenaphthene	mg/kg	30600	526	3420	255	-	-	-	-	-
Acenaphthylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Anthracene	mg/kg	221000	8180	18000	3770	-	-	-	-	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	-	-	-	-	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	-	-	-	-	-
Caprolactam	mg/kg	440000	451	30600	69.2	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	-	-	-	-	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	-	-	-	-	-
Fluoranthene	mg/kg	35200	15200	2440	2830	-	-	-	-	-
Fluorene	mg/kg	25900	626	2360	297	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	-	-	-	-	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	-	-	-	-	-
Phenanthrene	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Pyrene	mg/kg	26400	11900	1830	2190	-	-	-	-	-
Petroleum Products										
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/kg	20000	7830	2000	5440	8.7 J	19	ND(10)	15	ND(12)
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/kg	450	79.3	220	79.3	ND(0.11)	ND(0.12)	ND(0.11)	ND(0.095)	ND(0.12)

Table A-6

TMW-130 Area - Soil Investigation Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-F5-A	SB-G2-A	SB-G2-A	SB-G4-A	SB-G4-A
Sample Name:						S-092909-JH-014	S-092909-JH-009	S-092909-JH-010	S-092909-JH-007	S-092909-JH-008
Sample Date:						9/29/2009	9/29/2009	9/29/2009	9/29/2009	9/29/2009
Sample Type:										
Depth:						(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS	(1-3) ft BGS	(17-19) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d					
Metals										
Aluminum	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Antimony	mg/kg	817	nc	31.3	nc	-	-	-	-	-
Arsenic	mg/kg	63.2	nc	18.9	nc	-	-	-	-	-
Barium	mg/kg	277000	nc	15300	nc	-	-	-	-	-
Beryllium	mg/kg	3650	nc	155	nc	-	-	-	-	-
Cadmium	mg/kg	965	nc	39	nc	-	-	-	-	-
Calcium	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Chromium	mg/kg	111	nc	33.6	nc	-	-	-	-	-
Cobalt	mg/kg	579	nc	23.4	nc	-	-	-	-	-
Copper	mg/kg	81700	nc	3130	nc	-	-	-	-	-
Iron	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Lead	mg/kg	1000	nc	400	nc	-	-	-	-	-
Magnesium	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Manganese	mg/kg	66200	nc	9300	nc	-	-	-	-	-
Mercury	mg/kg	20	nc	2	nc	-	-	-	-	-
Nickel	mg/kg	32400	nc	1540	nc	-	-	-	-	-
Potassium	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Selenium	mg/kg	10200	nc	391	nc	-	-	-	-	-
Sodium	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Thallium	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Vanadium	mg/kg	nc	nc	nc	nc	-	-	-	-	-
Zinc	mg/kg	613000	nc	23500	nc	-	-	-	-	-
General Chemistry										
Total solids	%	nc	nc	nc	nc	90.3	80.8	95.7	95.6	86.7

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
NC - No Criteria
GRO/DRO - gasoline range/diesel range
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-7

TMW-130 Area - Soil Analytical Data Interim Measures Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:		KDHE Tier 2 Risk-Based Criteria				1	10	11	12	13	14	15	16	17	18	19	2
Sample Name:						1-19'	10-9'	11-19'	12-9'	13-19'	14-9'	15-19'	16-9'	17-19'	18-19'	19-9'	2-9'
Sample Date:						1/28/2014	1/28/2014	1/28/2014	1/28/2014	1/28/2014	1/28/2014	2/3/2014	2/3/2014	2/8/2014	2/8/2014	2/8/2014	1/28/2014
Depth:						(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(19) ft BGS	(9) ft BGS	(9) ft BGS
Area of Concern:						TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway a	Soil to GW b	Soil Pathway c	Soil to GW d	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
Volatile Organic Compounds																	
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.22)	ND(1.52)	ND(1.59)	ND(3.31)	ND(2.67)	ND(0.0077)	ND(1.62)	ND(2.93)	ND(0.291)	ND(0.0064)	ND(0.305)	ND(0.0058)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.22)	ND(1.52)	ND(1.59)	4.06	ND(2.67)	ND(0.0077)	1.7	1.95 J	1.22	ND(0.0064)	3.04	ND(0.0058)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.22)	ND(1.52)	ND(1.59)	ND(3.31)	ND(2.67)	ND(0.0077)	ND(1.62)	ND(2.93)	ND(0.291)	ND(0.0064)	ND(0.305)	ND(0.0058)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.22)	ND(1.52)	ND(1.59)	ND(3.31)	ND(2.67)	ND(0.0077)	2.02	3.14	ND(0.291)	ND(0.0064)	7.25	ND(0.0058)
Semi-Volatile Organic Compounds																	
Acenaphthene	mg/kg	30600	526	3420	255	0.971	4.5	3.92	6.33	4.38	0.0202	4.73	7.02	4.86	0.0208	4.11	0.0153
Acenaphthylene	mg/kg	nc	nc	nc	nc	0.233	1.17	0.901	1.58	0.941	0.005	1.13	1.79	1.18	ND(0.0068)	0.935	ND(0.0039)
Anthracene	mg/kg	221000	8180	18000	3770	0.38	2.49	1.88	4.35	2.26	0.0061	2.53	5.24	2.72	ND(0.0068)	1.62	0.0051
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	0.0708	0.324	0.281	0.32	0.401	ND(0.0034)	0.186	0.606	0.337	ND(0.0068)	0.098	ND(0.0039)
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	ND(0.0335)	0.0991	0.0795	0.081	0.106	ND(0.0034)	0.0491	0.146	0.0987	ND(0.0068)	ND(0.0424)	ND(0.0039)
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	ND(0.0335)	0.0547	0.0873	0.0448	0.109	ND(0.0034)	ND(0.0473)	0.0768	0.127	ND(0.0068)	ND(0.0424)	ND(0.0039)
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	ND(0.0335)	0.0944	ND(0.0336)	ND(0.0447)	ND(0.0334)	ND(0.0034)	ND(0.0473)	0.0478	ND(0.0337)	ND(0.0068)	ND(0.0424)	ND(0.0039)
Benzo(k)fluoranthene	mg/kg	338	638	109	190	ND(0.0335)	ND(0.0434)	0.0487	ND(0.0447)	0.06	ND(0.0034)	ND(0.0473)	ND(0.0418)	0.0536	ND(0.0068)	ND(0.0424)	ND(0.0039)
Chrysene	mg/kg	3380	2710	1090	805	0.102	0.518	0.345	0.495	0.462	ND(0.0034)	0.284	0.854	0.382	ND(0.0068)	0.132	ND(0.0039)
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	ND(0.0335)	ND(0.0434)	ND(0.0336)	ND(0.0447)	ND(0.0334)	ND(0.0034)	ND(0.0473)	ND(0.0418)	ND(0.0337)	ND(0.0068)	ND(0.0424)	ND(0.0039)
Fluoranthene	mg/kg	35200	15200	2440	2830	0.168	0.541	0.997	0.662	1.38	ND(0.0034)	0.519	1.19	1.72	ND(0.0068)	0.297	ND(0.0039)
Fluorene	mg/kg	25900	626	2360	297	1.36	6.69	5.53	20	5.88	0.0282	6.28	8.44	6.43	0.0301	5.6	0.0202
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	ND(0.0335)	ND(0.0434)	ND(0.0336)	ND(0.0447)	ND(0.0334)	ND(0.0034)	ND(0.0473)	ND(0.0418)	ND(0.0337)	ND(0.0068)	ND(0.0424)	ND(0.0039)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	**0.904**[bd]	**35.5**[bcd]	**35.3**[bcd]	**93.3**[abcd]	**36.9**[bcd]	0.0899	**41.9**[bcd]	**69.8**[abcd]	**46**[bcd]	0.0924	**35.8**[bcd]	0.0186
Phenanthrene	mg/kg	nc	nc	nc	nc	3.87	25.7	20.1	54.2	23.1	0.0675	26.1	45.2	28.3	0.0849	20.7	0.0556
Pyrene	mg/kg	26400	11900	1830	2190	0.66	4.18	2.67	4.36	3.48	0.0069	1.5	3.03	1.94	0.007	1.1	0.0079
Petroleum Products																	
Benzene	mg/kg	28.2	0.168	15.9	0.168	-	-	-	-	-	-	-	-	-	-	-	-
Diesel fuel	mg/kg	20000	7830	2000	5440	1520	**8780**[bcd]	**5870**[cd]	**17400**[bcd]	**8930**[bcd]	ND(20.0)	**12900**[bcd]	**12900**[bcd]	**10500**[bcd]	70.7	**22300**[abcd]	ND(20.0)
Ethylbenzene	mg/kg	145	65.6	82	65.6	-	-	-	-	-	-	-	-	-	-	-	-
Motor oil	mg/kg	nc	nc	nc	nc	ND(20.5)	ND(120)	ND(99.2)	ND(256)	ND(95.3)	ND(20.0)	ND(724)	ND(644)	ND(519)	ND(10.6)	ND(1300)	ND(20.0)
Petroleum hydrocarbons	mg/kg	nc	nc	nc	nc	ND(20.5)	ND(120)	ND(99.2)	ND(256)	ND(95.3)	ND(20.0)	ND(724)	ND(644)	ND(519)	ND(10.6)	ND(1300)	ND(20.0)
Toluene	mg/kg	29800	51.2	4320	51.2	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons - Gas	mg/kg	450	79.3	220	79.3	61.7	**593**[abcd]	**565**[abcd]	**1730**[abcd]	**1100**[abcd]	ND(1.5)	**775**[abcd]	**1580**[abcd]	**688**[abcd]	2.8	**1440**[abcd]	ND(1.2)
Xylenes (total)	mg/kg	1410	809	936	809	-	-	-	-	-	-	-	-	-	-	-	-
Metals																	
Arsenic	mg/kg	63.2	nc	18.9	nc	2.3	7.0	1.6	7.8	1.8	2.5	5.2	4.5	2.0	2.1	6.2	4.2
Barium	mg/kg	277000	nc	15300	nc	31.3	239	28.5	246	24.6	37.7	207	180	34.6	33.7	252	163
Cadmium	mg/kg	965	nc	39	nc	ND(0.49)	ND(0.60)	ND(0.45)	0.73	ND(0.48)	ND(0.49)	ND(0.67)	ND(0.59)	ND(0.46)	ND(0.47)	ND(0.59)	ND(0.55)
Chromium	mg/kg	111	nc	33.6	nc	2.6	20.1	2.4	20.6	2.1	3.9	11.4	9.7	2.3	2.1	15.9	8.3
Lead	mg/kg	1000	nc	400	nc	2.2	13.8	2.3	16.0	2.0	3.0	9.0	7.6	2.3	2.3	10.8	5.5
Mercury	mg/kg	20	nc	2	nc	ND(0.045)	ND(0.062)	ND(0.041)	ND(0.062)	ND(0.041)	ND(0.043)	0.080	0.076	ND(0.046)	ND(0.047)	ND(0.048)	ND(0.051)
Selenium	mg/kg	10200	nc	391	nc	ND(1.5)	ND(1.8)	ND(1.4)	ND(1.9)	ND(1.4)	ND(1.5)	ND(2.0)	ND(1.8)	ND(1.4)	ND(1.4)	ND(1.8)	ND(1.7)
General Chemistry																	
Percent moisture	%	nc	nc	nc	nc	2.4	24.1	4.5	28.4	2.8	2.8	30.9	22.3	3.6	6.0	23.2	16.2

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-7

TMW-130 Area - Soil Analytical Data Interim Measures Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						20	21	22	23	24	25	26	27	28	29	3	30
Sample Name:						20-9'	21-19'	22-9'	23-19'	24-9'	25-19'	26-9'	27-19'	28-9'	29-19'	3-19'	30-9'
Sample Date:						2/8/2014	2/8/2014	2/8/2014	2/8/2014	2/8/2014	2/10/2014	2/10/2014	2/10/2014	2/10/2014	2/10/2014	1/28/2014	2/10/2014
Depth:						(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(19) ft BGS	(9) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
	Units	a	b	c	d												
Volatile Organic Compounds																	
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.288)	ND(0.0055)	ND(0.403)	ND(0.297)	ND(0.0059)	ND(0.0061)	ND(0.006)	ND(0.0076)	ND(0.0072)	ND(0.291)	ND(0.0056)	ND(0.0064)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.288)	ND(0.0055)	ND(0.403)	0.987	ND(0.0059)	ND(0.0061)	ND(0.006)	ND(0.0076)	ND(0.0072)	0.576	ND(0.0056)	ND(0.0064)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.288)	ND(0.0055)	ND(0.403)	ND(0.297)	0.0098	ND(0.0061)	ND(0.006)	ND(0.0076)	ND(0.0072)	ND(0.291)	ND(0.0056)	ND(0.0064)
Xylenes (total)	mg/kg	1410	809	936	809	0.85	ND(0.0055)	ND(0.403)	0.366	0.0081	ND(0.0061)	ND(0.006)	ND(0.0076)	ND(0.0072)	ND(0.291)	ND(0.0056)	ND(0.0064)
Semi-Volatile Organic Compounds																	
Acenaphthene	mg/kg	30600	526	3420	255	4.25	0.0243	2.24	1.89	0.0046	ND(0.0035)	0.0035	ND(0.0034)	ND(0.0047)	2.68	0.0037	0.0467
Acenaphthylene	mg/kg	nc	nc	nc	nc	1	ND(0.0066)	0.596	0.644	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	ND(0.0335)	ND(0.0035)	0.013
Anthracene	mg/kg	221000	8180	18000	3770	2.09	0.008	1.58	1.23	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	0.998	ND(0.0035)	0.0101
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	0.106	ND(0.0066)	0.186	0.138	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	0.123	ND(0.0035)	ND(0.0044)
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	ND(0.0412)	ND(0.0066)	ND(0.0366)	ND(0.0417)	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	ND(0.0335)	ND(0.0035)	ND(0.0044)
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	ND(0.0412)	ND(0.0066)	ND(0.0366)	ND(0.0417)	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	ND(0.0335)	ND(0.0035)	ND(0.0044)
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	ND(0.0412)	ND(0.0066)	ND(0.0366)	ND(0.0417)	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	ND(0.0335)	ND(0.0035)	ND(0.0044)
Benzo(k)fluoranthene	mg/kg	338	638	109	190	ND(0.0412)	ND(0.0066)	ND(0.0366)	ND(0.0417)	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	ND(0.0335)	ND(0.0035)	ND(0.0044)
Chrysene	mg/kg	3380	2710	1090	805	0.147	ND(0.0066)	0.234	0.183	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	0.174	ND(0.0035)	ND(0.0044)
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	ND(0.0412)	ND(0.0066)	ND(0.0366)	ND(0.0417)	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	ND(0.0335)	ND(0.0035)	ND(0.0044)
Fluoranthene	mg/kg	35200	15200	2440	2830	0.342	ND(0.0066)	0.263	0.238	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	0.242	ND(0.0035)	ND(0.0044)
Fluorene	mg/kg	25900	626	2360	297	4.87	0.0282	3.56	3.14	0.0061	ND(0.0035)	0.0051	0.0045	ND(0.0047)	4.43	ND(0.0035)	0.0637
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	ND(0.0412)	ND(0.0066)	ND(0.0366)	ND(0.0417)	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	ND(0.0335)	ND(0.0035)	ND(0.0044)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	10.4[bd]	0.0863	18[bd]	12.6[bd]	0.0218	0.0066	0.0161	0.0149	0.01	17.5[bd]	0.0051	0.213
Phenanthrene	mg/kg	nc	nc	nc	nc	14.7	0.0823	12.9	11.3	0.0178	ND(0.0035)	0.0127	0.0115	ND(0.0047)	12.9	0.0077	0.155
Pyrene	mg/kg	26400	11900	1830	2190	1.29	0.0111	1.71	1.42	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)	ND(0.0047)	1.24	ND(0.0035)	0.0088
Petroleum Products																	
Benzene	mg/kg	28.2	0.168	15.9	0.168	-	-	-	-	-	-	-	-	-	-	-	-
Diesel fuel	mg/kg	20000	7830	2000	5440	25400[abcd]	28.1	5530[cd]	3000[c]	55.5	ND(10.8)	ND(10.4)	11.1	ND(14.0)	5450[cd]	ND(19.3)	79.5
Ethylbenzene	mg/kg	145	65.6	82	65.6	-	-	-	-	-	-	-	-	-	-	-	-
Motor oil	mg/kg	nc	nc	nc	nc	ND(1260)	ND(10.2)	ND(285)	ND(128)	ND(11.4)	ND(10.8)	ND(10.4)	ND(10.2)	ND(14.0)	ND(204)	ND(19.3)	ND(13.4)
Petroleum hydrocarbons	mg/kg	nc	nc	nc	nc	ND(1260)	ND(10.2)	ND(285)	ND(128)	ND(11.4)	ND(10.8)	ND(10.4)	ND(10.2)	ND(14.0)	ND(204)	ND(19.3)	ND(13.4)
Toluene	mg/kg	29800	51.2	4320	51.2	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons - Gas	mg/kg	450	79.3	220	79.3	467[abcd]	ND(1.1)	652[abcd]	855[abcd]	ND(1.2)	ND(1.2)	ND(1.2)	ND(1.5)	ND(1.4)	485[abcd]	ND(1.1)	3.2
Xylenes (total)	mg/kg	1410	809	936	809	-	-	-	-	-	-	-	-	-	-	-	-
Metals																	
Arsenic	mg/kg	63.2	nc	18.9	nc	5.9	1.7	4.8	3.9	4.1	4.7	2.5	2.7	9.4	2.0	2.9	6.9
Barium	mg/kg	277000	nc	15300	nc	234	24.3	201	260	305	183	55.3	63.9	282	43.4	50.5	258
Cadmium	mg/kg	965	nc	39	nc	ND(0.55)	ND(0.46)	ND(0.52)	ND(0.58)	ND(0.57)	ND(0.47)	ND(0.47)	ND(0.45)	ND(0.68)	ND(0.45)	ND(0.49)	ND(0.65)
Chromium	mg/kg	111	nc	33.6	nc	13.0	1.9	9.8	9.8	8.7	7.9	2.9	3.5	20.6	2.5	4.4	17.0
Lead	mg/kg	1000	nc	400	nc	9.2	2.1	6.9	6.5	4.9	5.2	2.3	2.8	12.4	2.2	3.6	9.9
Mercury	mg/kg	20	nc	2	nc	ND(0.053)	ND(0.036)	ND(0.052)	ND(0.055)	ND(0.048)	ND(0.045)	ND(0.049)	ND(0.043)	ND(0.055)	ND(0.047)	ND(0.044)	ND(0.053)
Selenium	mg/kg	10200	nc	391	nc	ND(1.7)	ND(1.4)	ND(1.6)	ND(1.7)	ND(1.7)	ND(1.4)	ND(1.4)	ND(1.3)	ND(2.1)	ND(1.3)	ND(1.5)	ND(1.9)
General Chemistry																	
Percent moisture	%	nc	nc	nc	nc	20.9	1.9	12.4	21.7	12.4	7.5	4.9	4.1	29.7	3.3	6.9	25.8

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2

Table A-7

TMW-130 Area - Soil Analytical Data Interim Measures Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						31	32	4	5	6	7	8	9	S-19'	S-9'	SE-19'	SE-9'
Sample Name:						31-9'	32-9'	4-9'	5-19'	6-9'	7-19'	8-9'	9-19'	S 19'	S 9'	SE 19'	SE 9'
Sample Date:						2/14/2014	2/14/2014	1/28/2014	1/28/2014	1/28/2014	1/28/2014	1/28/2014	1/28/2014	1/27/2014	1/27/2014	1/27/2014	1/27/2014
Depth:						(9) ft BGS	(9) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(19) ft BGS	(9) ft BGS	(19) ft BGS	(9) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
	Units	a	b	c	d												
Volatile Organic Compounds																	
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0069)	ND(0.0053)	ND(0.0055)	ND(3.22)	ND(0.0066)	ND(1.7)	ND(0.0063)	ND(1.57)	ND(2.3)	ND(0.0061)	ND(2.38)	ND(0.0056)
Ethylbenzene	mg/kg	145	65.6	82	65.6	0.0254	0.0056	ND(0.0055)	ND(3.22)	ND(0.0066)	ND(1.7)	ND(0.0063)	ND(1.57)	ND(2.3)	ND(0.0061)	ND(2.38)	ND(0.0056)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.0069)	ND(0.0053)	ND(0.0055)	ND(3.22)	ND(0.0066)	ND(1.7)	ND(0.0063)	ND(1.57)	ND(2.3)	ND(0.0061)	ND(2.38)	ND(0.0056)
Xylenes (total)	mg/kg	1410	809	936	809	0.0372	0.0147	ND(0.0055)	ND(3.22)	ND(0.0066)	ND(1.7)	ND(0.0063)	ND(1.57)	11.6	ND(0.0061)	ND(2.38)	ND(0.0056)
Semi-Volatile Organic Compounds																	
Acenaphthene	mg/kg	30600	526	3420	255	0.95	0.307	ND(0.004)	4.81	0.0216	3.15	0.0125	3.03	4.61	0.0195	3.41	0.0121
Acenaphthylene	mg/kg	nc	nc	nc	nc	0.226	0.0605	ND(0.004)	1.08	0.006	0.703	0.0076	0.683	1.07	ND(0.0044)	0.812	ND(0.0039)
Anthracene	mg/kg	221000	8180	18000	3770	0.386	0.204	ND(0.004)	2.69	0.0068	1.28	0.0064	1.31	2.59	0.0124	1.87	0.0051
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	ND(0.046)	0.4	ND(0.004)	0.377	ND(0.0042)	0.181	ND(0.0034)	0.174	0.424	0.0249	0.355	0.005
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	ND(0.046)	0.322	ND(0.004)	0.107	ND(0.0042)	0.054	ND(0.0034)	0.0501	0.12	0.0233	ND(0.0329)	0.0043
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	ND(0.046)	0.622	ND(0.004)	0.105	ND(0.0042)	0.0526	ND(0.0034)	0.0485	0.111	0.0344 J	0.0953	0.0062
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	ND(0.046)	0.215	ND(0.004)	ND(0.0345)	ND(0.0042)	ND(0.0336)	ND(0.0034)	ND(0.0347)	0.0406	0.0197	0.0376	ND(0.0039)
Benzo(k)fluoranthene	mg/kg	338	638	109	190	ND(0.046)	ND(0.0388)	ND(0.004)	0.0537	ND(0.0042)	ND(0.0336)	ND(0.0034)	ND(0.0347)	0.0547	0.0158	0.0521	ND(0.0039)
Chrysene	mg/kg	3380	2710	1090	805	ND(0.046)	0.401	ND(0.004)	0.422	ND(0.0042)	0.207	ND(0.0034)	0.198	0.522	0.0272	0.457	0.0048
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	ND(0.046)	0.0646	ND(0.004)	ND(0.0345)	ND(0.0042)	ND(0.0336)	ND(0.0034)	ND(0.0347)	ND(0.0339)	0.0053	ND(0.0329)	ND(0.0039)
Fluoranthene	mg/kg	35200	15200	2440	2830	0.082	0.885	ND(0.004)	1.37	ND(0.0042)	0.703	0.0043	0.613	1.13	0.0645 J	1	0.0141
Fluorene	mg/kg	25900	626	2360	297	1.26	0.363	ND(0.004)	6.73	0.0285	4.47	0.0169	4.3	6.48	0.0219	4.93	0.0161
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	ND(0.046)	0.163	ND(0.004)	ND(0.0345)	ND(0.0042)	ND(0.0336)	ND(0.0034)	ND(0.0347)	ND(0.0339)	0.0141	ND(0.0329)	ND(0.0039)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	**3.28[bd]**	**1.59[bd]**	0.0067	**18.8[bd]**	0.0637	**23.7[bd]**	0.0625	**25.8[bd]**	**30.2[bd]**	0.0243	**19.8[bd]**	0.035
Phenanthrene	mg/kg	nc	nc	nc	nc	3.98	1.24	0.0067	29.6	0.0742	15.1	0.0426	14.7	27.4	0.085 J	18.9	0.0457
Pyrene	mg/kg	26400	11900	1830	2190	0.373	0.884	ND(0.004)	3.7	0.0088	1.83	0.009	1.8	3.94	0.053 J	3.3	0.0147
Petroleum Products																	
Benzene	mg/kg	28.2	0.168	15.9	0.168	-	-	-	-	-	-	-	-	-	-	-	-
Diesel fuel	mg/kg	20000	7830	2000	5440	1010	325	ND(21.0)	**14000[bcd]**	ND(24.1)	**7850[bcd]**	ND(18.0)	**8230[bcd]**	**10100[bcd]**	ND(26.8)	**6390[cd]**	ND(23.6)
Ethylbenzene	mg/kg	145	65.6	82	65.6	-	-	-	-	-	-	-	-	-	-	-	-
Motor oil	mg/kg	nc	nc	nc	nc	ND(14.3)	ND(11.9)	ND(21.0)	ND(178)	ND(24.1)	ND(91.3)	ND(18.0)	ND(103)	ND(189)	ND(26.8)	ND(92.0)	ND(23.6)
Petroleum hydrocarbons	mg/kg	nc	nc	nc	nc	ND(14.3)	ND(11.9)	ND(21.0)	ND(178)	ND(24.1)	ND(91.3)	ND(18.0)	ND(103)	ND(189)	ND(26.8)	ND(92.0)	ND(23.6)
Toluene	mg/kg	29800	51.2	4320	51.2	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons - Gas	mg/kg	450	79.3	220	79.3	**971[abcd]**	17.5	ND(1.1)	**1500[abcd]**	ND(1.3)	**855[abcd]**	ND(1.3)	**775[abcd]**	**583[abcd]**	ND(1.2)	**702[abcd]**	ND(1.1)
Xylenes (total)	mg/kg	1410	809	936	809	-	-	-	-	-	-	-	-	-	-	-	-
Metals																	
Arsenic	mg/kg	63.2	nc	18.9	nc	9.2	3.7	5.1	2.0	5.6	1.4	2.6	5.0	1.9	7.2	2.1	6.0
Barium	mg/kg	277000	nc	15300	nc	202	91.9	237	26.0	220	22.3	50.3	109	38.3	223	47.7	262
Cadmium	mg/kg	965	nc	39	nc	ND(0.62)	ND(0.56)	ND(0.61)	ND(0.50)	ND(0.64)	ND(0.44)	ND(0.48)	ND(0.52)	ND(0.40)	ND(0.65)	ND(0.43)	ND(0.55)
Chromium	mg/kg	111	nc	33.6	nc	17.0	6.3	12.6	4.4	11.9	2.2	3.7	5.9	3.0	16.3	3.1	12.6
Lead	mg/kg	1000	nc	400	nc	12.8	5.8	8.1	2.3	7.8	1.9	2.7	7.0	2.2	12.0	2.6	8.5
Mercury	mg/kg	20	nc	2	nc	0.066	ND(0.052)	ND(0.053)	ND(0.039)	ND(0.058)	ND(0.040)	ND(0.048)	0.053	ND(0.050)	ND(0.050)	ND(0.044)	ND(0.054)
Selenium	mg/kg	10200	nc	391	nc	ND(1.9)	ND(1.7)	ND(1.8)	ND(1.5)	ND(1.9)	ND(1.3)	ND(1.4)	ND(1.5)	ND(1.2)	ND(1.9)	ND(1.3)	ND(1.7)
General Chemistry																	
Percent moisture	%	nc	nc	nc	nc	30.2	15.6	19.2	4.3	21.9	2.7	4.8	6.7	2.8	25.6	2.5	16.4

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2

Table A-7

TMW-130 Area - Soil Analytical Data Interim Measures Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SW-19'	SW-9'
Sample Name:						SP-1	SP-2	SP-3	SP-4	SP-5	SP-6	SP-7	SP-8	SP-9	SW 19'	SW 9'
Sample Date:						1/17/2014	1/17/2014	1/17/2014	1/23/2014	1/23/2014	1/23/2014	1/23/2014	1/30/2014	1/30/2014	1/27/2014	1/27/2014
Depth:						-	-	-	-	-	-	-	-	-	(19) ft BGS	(9) ft BGS
Area of Concern:		KDHE Tier 2 Risk-Based Criteria				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway a	Soil to GW b	Soil Pathway c	Soil to GW d	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
	Units															
Volatile Organic Compounds																
Benzene	mg/kg	28.2	0.168	15.9	0.168	-	-	-	ND(0.0074)	ND(0.0067)	ND(0.0064)	ND(0.0053)	ND(0.0065)	ND(0.0051)	ND(0.0065)	ND(0.0066)
Ethylbenzene	mg/kg	145	65.6	82	65.6	-	-	-	ND(0.0074)	ND(0.0067)	ND(0.0064)	ND(0.0053)	ND(0.0065)	ND(0.0051)	ND(0.0065)	ND(0.0066)
Toluene	mg/kg	29800	51.2	4320	51.2	-	-	-	ND(0.0074)	ND(0.0067)	ND(0.0064)	ND(0.0053)	0.0069	ND(0.0051)	ND(0.0065)	ND(0.0066)
Xylenes (total)	mg/kg	1410	809	936	809	-	-	-	ND(0.0074)	ND(0.0067)	ND(0.0064)	ND(0.0053)	ND(0.0065)	ND(0.0051)	ND(0.0065)	ND(0.0066)
Semi-Volatile Organic Compounds																
Acenaphthene	mg/kg	30600	526	3420	255	0.0118	0.159	0.0856	0.0258 J	ND(0.0036)	0.0788	0.137	0.0285 J	0.112	0.0057	0.0083
Acenaphthylene	mg/kg	nc	nc	nc	nc	ND(0.0038)	0.034	0.0162	0.0043	ND(0.0036)	0.014	0.0095	ND(0.0037)	0.0226	ND(0.0034)	ND(0.0034)
Anthracene	mg/kg	221000	8180	18000	3770	0.0281 J	0.0907	0.0538	0.0227 J	0.0055	0.0541	0.226	0.0739 J	0.0913	ND(0.0034)	ND(0.0034)
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	0.115 J	0.0568	0.0877	0.0559 J	0.0256	0.0614	0.509	0.207	0.235	ND(0.0034)	ND(0.0034)
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	0.13 J	0.046	0.0833	0.0539 J	0.0301	0.0564	0.468	0.177	0.227	ND(0.0034)	ND(0.0034)
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	0.166	0.0947	0.13	0.081 J	0.0424	0.0875	0.657	0.355	0.432	ND(0.0034)	ND(0.0034)
Benzo(g,h,i)perylene	mg/kg	nc	nc	nc	nc	0.196	0.0303	0.0574	0.0409 J	0.0263	0.0432	0.268	0.127 J	0.177	ND(0.0034)	ND(0.0034)
Benzo(k)fluoranthene	mg/kg	338	638	109	190	0.0967 J	ND(0.0036)	0.0574	0.0425 J	0.0254	0.0363	0.32	ND(0.0037)	ND(0.0035)	ND(0.0034)	ND(0.0034)
Chrysene	mg/kg	3380	2710	1090	805	0.121 J	0.062	0.0943	0.0572 J	0.0286	0.0659	0.471	0.22	0.247	ND(0.0034)	ND(0.0034)
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	0.0264	0.0072	0.0141	0.0096 J	0.0064	0.0106	0.073	0.0297 J	0.0377	ND(0.0034)	ND(0.0034)
Fluoranthene	mg/kg	35200	15200	2440	2830	0.265	0.142	0.2	0.145 J	0.0539	0.17	1.28	0.547	0.559	ND(0.0034)	ND(0.0034)
Fluorene	mg/kg	25900	626	2360	297	0.0093	0.293	0.124	0.0374	0.0037	0.148	0.156	0.0282 J	0.173	0.006	0.0103
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	0.0719 J	0.0234	0.045	0.0308 J	0.019	0.0324	0.226	0.0962 J	0.128	ND(0.0034)	ND(0.0034)
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	ND(0.0038)	0.28	0.146	0.0226	0.0058	0.11	0.0722	0.0089	0.126	0.0139	0.028
Phenanthrene	mg/kg	nc	nc	nc	nc	0.127 J	0.956	0.492	0.172	0.0258	0.495	0.974	0.328	0.725	0.0158	0.0299
Pyrene	mg/kg	26400	11900	1830	2190	0.206	0.265	0.221	0.121 J	0.0371	0.163	0.896	0.433	0.488	ND(0.0034)	0.0038
Petroleum Products																
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0535)	ND(0.0618)	ND(0.0525)	-	-	-	-	-	-	-	-
Diesel fuel	mg/kg	20000	7830	2000	5440	ND(22.5)	ND(21.0)	ND(22.9)	ND(19.5)	ND(20.9)	41.5	ND(19.2)	ND(21.6)	164	ND(19.0)	ND(20.5)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.107)	ND(0.124)	ND(0.105)	-	-	-	-	-	-	-	-
Motor oil	mg/kg	nc	nc	nc	nc	ND(22.5)	ND(21.0)	ND(22.9)	ND(19.5)	67.9	ND(21.5)	ND(19.2)	ND(21.6)	ND(20.6)	ND(19.0)	ND(20.5)
Petroleum hydrocarbons	mg/kg	nc	nc	nc	nc	ND(22.5)	268	113	ND(19.5)	ND(20.9)	ND(21.5)	ND(19.2)	ND(21.6)	ND(20.6)	ND(19.0)	ND(20.5)
Toluene	mg/kg	29800	51.2	4320	51.2	ND(0.107)	ND(0.124)	ND(0.105)	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons - Gas	mg/kg	450	79.3	220	79.3	ND(26.8)	ND(30.9)	ND(26.2)	ND(1.5)	ND(1.3)	ND(1.3)	ND(1.1)	ND(1.3)	ND(1.0)	ND(1.3)	ND(1.3)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.268)	ND(0.309)	ND(0.262)	-	-	-	-	-	-	-	-
Metals																
Arsenic	mg/kg	63.2	nc	18.9	nc	5.1	6.2	5.7	6.3	8.3	6.5	5.8	5.9	6.9	2.3	2.4
Barium	mg/kg	277000	nc	15300	nc	164	118	184	214	217	230	209	217	192	34.7	58.7
Cadmium	mg/kg	965	nc	39	nc	ND(0.50)	ND(0.49)	ND(0.50)	ND(0.50)	ND(0.53)	ND(0.48)	4.5	ND(0.50)	0.55	ND(0.47)	ND(0.41)
Chromium	mg/kg	111	nc	33.6	nc	7.9	5.9	8.4	11.2	11.8	12.0	11.3	12.7	9.0	2.7	3.8
Lead	mg/kg	1000	nc	400	nc	12.0	6.7	9.0	9.1	10.5	9.3	9.2	9.6	10.3	2.1	2.5
Mercury	mg/kg	20	nc	2	nc	ND(0.052)	ND(0.040)	ND(0.056)	ND(0.052)	ND(0.047)	ND(0.055)	ND(0.049)	ND(0.053)	ND(0.042)	ND(0.043)	ND(0.048)
Selenium	mg/kg	10200	nc	391	nc	ND(1.5)	ND(1.5)	ND(1.5)	ND(1.5)	ND(1.6)	ND(1.5)	ND(1.4)	ND(1.5)	ND(1.5)	ND(1.4)	ND(1.2)
General Chemistry																
Percent moisture	%	nc	nc	nc	nc	12.7	8.0	13.2	10.7	8.7	12.5	10.6	10.8	5.5	2.5	3.1

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March :

Table A-8

Site-Wide/Non-AOC - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:		KDHE Tier 2 Risk-Based Criteria				SB-111	SB-123	SB-123B	SB-123C	SB-129	SB-129A	SB-129A	SB-131	SB-131A
Sample Name:						S-122104-DS-118	MW-123 10-12.5	S112006KGSB123B22.5-25	SB-123-22.5-25	SB-129	DUP-1	S11806KGSB129A5-7.5	SB-131	S11806KGSB131A12.5-15
Sample Date:						12/21/2004	10/31/2006	11/20/2006	11/2/2006	11/1/2006	11/8/2006	11/8/2006	11/1/2006	11/8/2006
Sample Type:											Duplicate			
Depth:						(10-12) ft BGS	(10-12.5) ft BGS	(22.5-25) ft BGS	(22.5-25) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(12.5-15) ft BGS	(12.5-15) ft BGS
Area of Concern:						N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		Non-Residential		Residential		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d									
Volatile Organic Compounds														
1,2-Dichloroethane	mg/kg	10.9	0.06	6.27	0.06	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	101000	57.8	26000	24.2	ND(0.025)	-	ND(0.021)	-	-	ND(0.024)UJ	ND(0.026)	-	ND(0.021)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	34800	27.2	4450	6.69	ND(0.025)	-	ND(0.021)	-	-	ND(0.024)UJ	ND(0.026)	-	ND(0.021)
Acetone	mg/kg	406000	204	50300	51.6	ND(0.025)	-	ND(0.021)	-	-	ND(0.024)UJ	ND(0.026)	-	ND(0.021)
Benzene	mg/kg	28.2	0.168	15.9	0.168	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Bromomethane (Methyl bromide)	mg/kg	14.6	0.0947	9.39	0.0503	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Carbon disulfide	mg/kg	1680	15.6	1020	6.71	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Chloroform (Trichloromethane)	mg/kg	7.14	0.85	4.22	0.85	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
cis-1,2-Dichloroethene	mg/kg	38.7	0.855	23	0.855	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Ethylbenzene	mg/kg	145	65.6	82	65.6	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Methylene chloride	mg/kg	1880	0.0429	312	0.0429	0.0041 J	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Tetrachloroethene	mg/kg	210	0.121	109	0.121	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Toluene	mg/kg	29800	51.2	4320	51.2	0.0005 J	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
trans-1,2-Dichloroethene	mg/kg	333	1.22	202	1.22	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Trichloroethene	mg/kg	9.91	0.0842	5.85	0.0842	ND(0.0061)	-	ND(0.0053)	-	-	ND(0.0059)UJ	ND(0.0064)	-	ND(0.0051)
Xylenes (total)	mg/kg	1410	809	936	809	ND(0.012)	-	ND(0.011)	-	-	ND(0.012)UJ	ND(0.013)	-	ND(0.01)
Semi-Volatile Organic Compounds														
2,4-Dimethylphenol	mg/kg	17600	190	1220	29.9	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
2-Methylnaphthalene	mg/kg	1280	17.3	209	8.34	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Acenaphthene	mg/kg	30600	526	3420	255	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Acenaphthylene	mg/kg	-	-	-	-	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Anthracene	mg/kg	221000	8180	18000	3770	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Benzo(a)anthracene	mg/kg	33.8	26.5	10.9	7.89	ND(0.44)	ND(0.37)	-	ND(0.34)	0.032 J	-	-	ND(0.34)	-
Benzo(a)pyrene	mg/kg	3.38	23.5	1.09	23.5	ND(0.44)	ND(0.37)	-	ND(0.34)	0.027 J	-	-	ND(0.34)	-
Benzo(b)fluoranthene	mg/kg	33.8	64.4	10.9	19.2	ND(0.44)	ND(0.37)	-	ND(0.34)	0.031 J	-	-	ND(0.34)	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Benzo(k)fluoranthene	mg/kg	338	638	109	190	ND(0.44)	ND(0.37)	-	ND(0.34)	0.017 J	-	-	ND(0.34)	-
Butyl benzylphthalate (BBP)	mg/kg	13000	1610	4190	478	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Caprolactam	mg/kg	440000	451	30600	69.2	0.041 J	-	-	-	-	-	-	-	-
Chrysene	mg/kg	3380	2710	1090	805	ND(0.44)	ND(0.37)	-	ND(0.34)	0.027 J	-	-	ND(0.34)	-
Dibenz(a,h)anthracene	mg/kg	3.38	10.3	1.09	3.08	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Dibenzofuran	mg/kg	579	15.8	58.2	7.59	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Fluoranthene	mg/kg	35200	15200	2440	2830	ND(0.44)	ND(0.37)	-	ND(0.34)	0.058 J	-	-	ND(0.34)	-
Fluorene	mg/kg	25900	626	2360	297	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Indeno(1,2,3-cd)pyrene	mg/kg	33.8	153	10.9	45.5	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Naphthalene	mg/kg	64.7	0.659	30.5	0.349	ND(0.44)	ND(0.37)	-	ND(0.34)	ND(0.36)	-	-	ND(0.34)	-
Phenanthrene	mg/kg	-	-	-	-	ND(0.44)	ND(0.37)	-	ND(0.34)	0.037 J	-	-	ND(0.34)	-
Pyrene	mg/kg	26400	11900	1830	2190	ND(0.44)	ND(0.37)	-	ND(0.34)	0.047 J	-	-	ND(0.34)	-

Table A-8

Site-Wide/Non-AOC - Soil Analytical Data Summary
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:						SB-111	SB-123	SB-123B	SB-123C	SB-129	SB-129A	SB-129A	SB-131	SB-131A
Sample Name:						S-122104-DS-118	MW-123 10-12.5	S112006KGSB123B22.5-25	SB-123-22.5-25	SB-129	DUP-1	S11806KGSB129A5-7.5	SB-131	S11806KGSB131A12.5-15
Sample Date:						12/21/2004	10/31/2006	11/20/2006	11/2/2006	11/1/2006	11/8/2006	11/8/2006	11/1/2006	11/8/2006
Sample Type:											Duplicate			
Depth:						(10-12) ft BGS	(10-12.5) ft BGS	(22.5-25) ft BGS	(22.5-25) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(5-7.5) ft BGS	(12.5-15) ft BGS	(12.5-15) ft BGS
Area of Concern:						N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria				Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
		Non-Residential		Residential										
Sampling Company:		Soil Pathway	Soil to GW	Soil Pathway	Soil to GW	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	a	b	c	d									
Metals														
Aluminum	mg/kg	-	-	-	-	7320	4520	-	674	4950	-	-	2500	-
Antimony	mg/kg	817	-	31.3	-	ND(8.1)UJ	ND(6.8)UJ	-	ND(6.1)	0.46 J	-	-	ND(6.2)	-
Arsenic	mg/kg	63.2	-	18.9	-	8.5	5.3	-	1.7 J	4.6 J	-	-	2.9 J	-
Barium	mg/kg	277000	-	15300	-	239	172	-	18.3 J	170	-	-	93.0	-
Beryllium	mg/kg	3650	-	155	-	0.27 J	0.35 J	-	ND(0.51)	0.19 J	-	-	ND(0.52)	-
Cadmium	mg/kg	965	-	39	-	0.11 J	0.14 J	-	0.056 J	0.29 J	-	-	0.12 J	-
Calcium	mg/kg	-	-	-	-	19400 J	12900	-	2940	10800	-	-	7290	-
Chromium	mg/kg	111	-	33.6	-	12.3 J	8.6	-	1.9	7.5	-	-	5.0	-
Cobalt	mg/kg	579	-	23.4	-	8.4	5.1 J	-	1.6 J	4.4 J	-	-	3.1 J	-
Copper	mg/kg	81700	-	3130	-	15.6	4.0	-	0.69 J	9.8	-	-	4.0	-
Iron	mg/kg	-	-	-	-	15000	10400	-	2510	9450	-	-	6040	-
Lead	mg/kg	1000	-	400	-	10.4	6.2	-	1.6 J	7.1 J	-	-	3.8 J	-
Magnesium	mg/kg	-	-	-	-	7480	5340	-	922	4800	-	-	2920	-
Manganese	mg/kg	66200	-	9300	-	465	215	-	45.4	238	-	-	131	-
Mercury	mg/kg	20	-	2	-	0.012 J	ND(0.037)	-	ND(0.10)	0.015 J	-	-	ND(0.10)	-
Nickel	mg/kg	32400	-	1540	-	21.4 J	12.4	-	3.6 J	11.5	-	-	8.0	-
Potassium	mg/kg	-	-	-	-	1830 J	923	-	161 J	1170	-	-	596	-
Selenium	mg/kg	10200	-	391	-	ND(0.67)	ND(1.7)	-	ND(25.5)	ND(27.3)	-	-	ND(26.0)	-
Sodium	mg/kg	-	-	-	-	ND(189)	ND(567)	-	ND(510)	96.7 J	-	-	64.8 J	-
Thallium	mg/kg	-	-	-	-	ND(1.3)	ND(4.0)	-	ND(204)	ND(218)	-	-	ND(208)	-
Vanadium	mg/kg	-	-	-	-	21.6	16.2 J	-	2.8 J	13.3	-	-	8.9	-
Zinc	mg/kg	613000	-	23500	-	52.6	32.6	-	7.0	37.2	-	-	20.5	-
General Chemistry														
Percent moisture	%	-	-	-	-	-	11.8	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	74.2	-	95.1	98.0	91.7	84.2	78.2	96.3	97.3

Notes:

ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
nc - No Criteria
--: Not Analyzed
Boxed values exceed criteria
mg/kg - milligrams per kilograms
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-9

Monitoring Well Construction Details
Groundwater Monitoring Plan
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Part of Program	Reference Elevation: Top of Casing (ft AMSL)[1]	Reference Elevation: Ground Surface (ft AMSL)	Completion Date	Well Material[2]	Screened Interval: Depth: Top (ft bgs)[3]	Screened Interval: Depth: Bottom (ft bgs)	Screened Interval: Top (ft AMSL)	Screened Interval: Bottom (ft AMSL)
MW-109	S-8	Shallow	Yes	746.11	743.5	6/89	--	--	30.0	--	713.5
TMW-147E	S-8	Shallow	Yes	744.11	741.6	4/13/12	PVC	17.0	27.0	724.6	714.6
TMW-148	S-8	Shallow	Yes	745.85	743.6	4/16/12	PVC	17.0	27.0	726.6	716.6
TMW-149	S-8	Shallow	Yes	745.96	743.9	4/16/12	PVC	17.0	27.0	726.9	716.9
MW-125	SB-110	Shallow	Yes	745.34	742.3	10/31/07	PVC	25.0	35.0	717.3	707.3
TMW-150	SB-110	Shallow	Yes	746.26	742.7	4/13/12	PVC	17.0	27.0	725.7	715.7
TMW-151	SB-110	Shallow	Yes	744.79	742.9	4/13/12	PVC	17.0	27.0	725.9	715.9
TMW-152	SB-110	Shallow	Yes	744.02	742.0	4/16/12	PVC	17.0	27.0	725.0	715.0
MW-108	TMW-127	Shallow	Yes	747.17	744.0	1/6/88	PVC	--	28.5	--	715.5
MW-110	TMW-127	Intermediate	Yes	745.79	743.8	4/90	--	--	61.2	--	682.6
MW-156	TMW-127	Intermediate	Yes	746.88	743.7	4/11/12	PVC	49.0	59.0	694.7	684.7
TMW-127	TMW-127	Shallow	Yes	746.02	743.5	11/3/06	PVC	25.0	35.0	718.5	708.5
MW-144B	TMW-127	Intermediate	Yes	745.70	743.1	5/14/13	PVC	49.2	59.2	693.9	683.9
MW-144C	TMW-127	Deep	Yes	745.83	743.0	5/14/13	PVC	78.6	88.6	664.5	654.5
MW-146B	TMW-127	Intermediate	Yes	745.44	743.1	5/15/13	PVC	49.7	59.7	693.4	683.4
MW-146C	TMW-127	Deep	Yes	745.73	743.1	5/15/13	PVC	79.9	89.9	663.2	653.2
TMW-153	TMW-127	Shallow	Yes	745.82	743.1	4/12/12	PVC	17.0	27.0	726.1	716.1
TMW-154	TMW-127	Shallow	Yes	745.41	743.4	4/12/12	PVC	17.0	27.0	726.4	716.4
TMW-155	TMW-127	Shallow	Yes	746.27	743.9	4/12/12	PVC	17.0	27.0	726.9	716.9
MW-156C	TMW-127	Deep	Yes	746.46	743.8	2/19/13	PVC	80.5	90.5	663.4	653.4
MW-158A	TMW-127	Shallow	Yes	746.06	743.4	5/16/13	PVC	9.7	29.7	733.7	713.7
MW-158B	TMW-127	Intermediate	Yes	745.88	743.3	5/16/13	PVC	49.6	59.6	693.7	683.7
MW-102A	MW-103A	Shallow	Yes	748.82	746.1	1/9/88	PVC	--	29.3	--	716.9
MW-102B	MW-103A	Intermediate	Yes	749.15	746.1	1/13/88	PVC	--	61.2	--	684.9
MW-102C	MW-103A	Deep	Yes	749.20	746.2	1/12/88	PVC	--	94.0	--	652.2
MW-103A	MW-103A		No - Decommissioned during IM	747.71	745.1	1/88	SS	--	29.6	--	715.5
MW-103B	MW-103A		No - Decommissioned during IM	746.30	745.1	1/88	SS	--	61.4	--	683.8
MW-103C	MW-103A		No - Decommissioned during IM	745.90	745.1	1/88	SS	--	102.1	--	643.0
MW-104	MW-103A	Shallow	Yes	746.51	744.8	1/10/88	PVC	--	28.4	--	716.4
MW-105	MW-103A	Shallow	Yes	746.70	744.1	1/8/88	PVC	--	30.2	--	713.9
MW-115A	MW-103A	Shallow	Yes	748.07	745.7	5/12/99	PVC	11.7	26.7	734.0	719.0
TMW-157	MW-103A	Shallow	Yes	747.37	744.9	4/12/12	PVC	17.0	27.0	727.9	717.9

Table A-9

Monitoring Well Construction Details
Groundwater Monitoring Plan
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Part of Program	Reference Elevation		Completion Date	Well Material[2]	Screened Interval			
				Top of Casing (ft AMSL)[1]	Ground Surface (ft AMSL)			Depth			
								Top (ft bgs)[3]	Bottom (ft bgs)	Top (ft AMSL)	Bottom (ft AMSL)
TMW-130	TMW-130		No - Decommissioned during IM	744.86	742.8	11/3/06	PVC	25.0	35.0	717.8	707.8
TMW-139	TMW-130		No - Decommissioned during IM	745.63	743.0	10/15/07	PVC	20.0	30.0	723.0	713.0
TMW-140	TMW-130		No - Decommissioned during IM	745.13	742.6	10/15/07	PVC	20.0	30.0	722.6	712.6
TMW-141	TMW-130		No - Decommissioned during IM	745.39	742.3	10/16/07	PVC	20.0	30.0	722.3	712.3
TMW-142	TMW-130		No - Decommissioned during IM	744.93	742.8	10/16/07	PVC	20.0	30.0	722.8	712.8
TMW-143	TMW-130	Shallow	Yes	745.28	742.7	10/30/07	PVC	19.0	29.0	723.7	713.7
TMW-144	TMW-130	Shallow	Yes	745.08	742.8	10/30/07	PVC	19.5	29.5	723.3	713.3
TMW-145	TMW-130	Shallow	Yes	745.36	743.0	10/30/07	PVC	19.5	29.5	723.5	713.5
TMW-146	TMW-130	Shallow	Yes	744.93	742.8	10/30/07	PVC	19.0	29.0	723.8	713.8
MW-1	N/A	Shallow	Yes	746.43	744.2	9/2/87	PVC	--	30.0	--	714.2
MW-111	N/A	Intermediate	Yes	745.96	744.1	4/90	--	--	59.8	--	684.3
MW-117A	N/A	Shallow	Yes	743.72	744.0	12/13/05	PVC	20.0	30.0	724.0	714.0
MW-117B	N/A	Intermediate	Yes	743.75	744.0	12/15/05	PVC	49.0	59.0	695.0	685.0
MW-118A	N/A	Shallow	Yes	747.02	744.0	12/12/05	PVC	20.0	30.0	724.0	714.0
MW-118B	N/A	Intermediate	Yes	746.86	744.0	12/13/05	PVC	48.5	58.5	695.5	685.5
MW-124A	N/A	Shallow	Yes	747.22	744.8	11/10/06	PVC	25.0	35.0	719.8	709.8
MW-124B	N/A	Intermediate	Yes	747.15	744.6	11/10/06	PVC	50.0	60.0	694.6	684.6
TMW-123	N/A	Shallow	Yes	745.16	742.9	11/2/06	PVC	25.0	35.0	717.9	707.9
MW-1A	OFF-SITE	Shallow	Yes	745.93	743.7	3/27/85	PVC	15.0	35.0	728.7	708.7
MW-1B	OFF-SITE	Intermediate	Yes	745.40	743.6	3/27/85	PVC	65.0	85.0	678.6	658.6
MW-1C	OFF-SITE	Deep	Yes	746.13	743.6	4/1/85	PVC	87.0	107.0	656.6	636.6
MW-110A	OFF-SITE	Deep	Yes	743.89	743.5	--	--	--	36.1	--	707.4

Notes:

Site Reference Datum = NVGD 29 (USGS) Datum - 0.88 feet (as per Anderson Survey Company September 11, 2013 email correspondence). Missouri River Level from Record of daily Gage Height Observations for USGS 06893000 Missouri River. USGS 06893000 Gage reading level 0 = 706.4 feet NGVD 29;
River level correction to USGS 06893000 Missouri River at Kansas City for Fairfax Site taken as + 4.2 feet

[1] ft AMSL - feet above mean sea level

[2] PVC - polyvinyl chloride; SS - stainless steel

[3] ft bgs - feet below ground surface

-- information not available

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109
Sample Name:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	GW-100398-JM-023	GW-122104-DS-005	GW-091307-NT-025	GW-120607-JH-033	GW-031308-JH-029
Sample Date:				6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/22/1994	10/3/1998	12/21/2004	9/13/2007	12/6/2007	3/13/2008
Sample Type:																				
AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway a	Groundwater Pathway b																	
Volatile Organic Compounds																				
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	0.0022 J	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.005)	ND(0.05)	ND(0.005)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	-	-	-	-	-	-	-	-	0.018	0.02	0.031	0.02	0.02
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	ND(0.005)	0.137	0.27	0.22	0.72	0.1	0.34	0.21	0.7	0.32	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	0.007	0.007	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.005)	ND(0.05)	ND(0.005)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	0.197	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.005)	ND(0.05)	ND(0.005)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.002	0.0013	0.0019	0.0015	0.0017
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00029 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	0.001	0.0012	0.00029 J	ND(0.001)
Xylenes (total)	mg/L	10	10	0.008	0.008	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.005)	ND(0.05)	ND(0.005)	ND(0.025)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)
Semi-Volatile Organic Compounds																				
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109
Sample Name:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	GW-100398-JM-023	GW-122104-DS-005	GW-091307-NT-025	GW-120607-JH-033	GW-031308-JH-029
Sample Date:				6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/22/1994	10/3/1998	12/21/2004	9/13/2007	12/6/2007	3/13/2008
Sample Type:																				
AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway																	
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0011 J	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Petroleum Products																				
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.1)	ND(0.1)	ND(0.1)
Metals																				
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.085 J	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.060)	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0029 J	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.094 J	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.0050)	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00047 J	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	205	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.0033)	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0037 J	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0023 J	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2 J	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.0030)	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.1 J	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48.2 J	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.9[ab]**	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.8[ab]**	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.00020)	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	0.015 J	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.6	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	0.037	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.010)	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32.1	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.010)	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.0012)	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.020)	-	-	-

Table A-10

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Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109
Sample Name:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	GW-100398-JM-023	GW-122104-DS-005	GW-091307-NT-025	GW-120607-JH-033	GW-031308-JH-029
Sample Date:				6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/22/1994	10/3/1998	12/21/2004	9/13/2007	12/6/2007	3/13/2008
Sample Type:																				
AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway																	
Pesticides																				
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																				
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0)	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.09)	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(10.0)	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.02)	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(3)UJ	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-109	MW-109	TMW-147E	TMW-147E	TMW-148	TMW-148	TMW-149	TMW-149	TMW-149	MW-101	MW-125	MW-125
Sample Name:				GW-062508-JH-025	WG-121311-KH-012	GW-042712-JH-20	GW-051012-NL-09	GW-042612-JH-09	GW-051012-NL-08	GW-042612-JH-01	GW-051012-NL-FD	GW-051012-NL-07	MW-101	WG-110107-JH-001	GW-120607-JH-032
Sample Date:				6/25/2008	12/13/2011	4/27/2012	5/10/2012	4/26/2012	5/10/2012	4/26/2012	5/10/2012 Duplicate	5/10/2012	10/1/1988	11/1/2007	12/6/2007
Sample Type:															
AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	SB-110	SB-110	SB-110
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	CRA	CRA
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.0033)	ND(0.001)	0.00041 J	0.00013 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	ND(0.001)	ND(0.001)	ND(0.001)	0.00026 J	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	0.177	0.209	0.0028	0.0007 J	0.001	0.001	0.00094 J	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.033)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0027 J	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.033)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.033)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0067 J	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.005)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.0033)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.00017 J	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.0033)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0247	0.00033 J	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	**0.082[ab]**	0.0057	**0.168[ab]**	**0.197[ab]**	0.0027	0.0007 J	0.001	0.001	0.00094 J	-	ND(0.0005)	0.00048 J
Cyclohexane	mg/L	14.7	7.02	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.036	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.0033)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00016 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.0324[ab]**	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.0033)UJ	0.0003 J	**0.0527[ab]**	**0.034[ab]**	0.00089 J	0.0008 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	0.00047 J
Toluene	mg/L	1	1	ND(0.0033)	ND(0.001)	ND(0.001)	ND(0.001)	0.00016 J	0.00015 J	ND(0.001)	ND(0.001)	ND(0.001)	0.0112	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0056	0.00073 J	0.009	0.0121	0.00013 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.0033)	ND(0.001)	**0.0347[ab]**	**0.0275[ab]**	0.0035	0.0025	0.00029 J	0.00014 J	0.00024 J	ND(0.005)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.02)	-	-
Vinyl chloride	mg/L	0.002	0.002	**0.0079[ab]**	ND(0.001)	0.00046 J	0.00084 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00011 J	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.0033)UJ	ND(0.002)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.005)	ND(0.001)	ND(0.001)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-109	MW-109	TMW-147E	TMW-147E	TMW-148	TMW-148	TMW-149	TMW-149	TMW-149	MW-101	MW-125	MW-125
Sample Name:				GW-062508-JH-025	WG-121311-KH-012	GW-042712-JH-20	GW-051012-NL-09	GW-042612-JH-09	GW-051012-NL-08	GW-042612-JH-01	GW-051012-NL-FD	GW-051012-NL-07	MW-101	WG-110107-JH-001	GW-120607-JH-032
Sample Date:				6/25/2008	12/13/2011	4/27/2012	5/10/2012	4/26/2012	5/10/2012	4/26/2012	5/10/2012	5/10/2012	10/1/1988	11/1/2007	12/6/2007
Sample Type:											Duplicate				
AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	SB-110	SB-110	SB-110
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	CRA	CRA
	Units	**Groundwater Pathway**	**Groundwater Pathway**												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	0.078 J	-	-	-	-	-	-	-	-	-	ND(0.1)	ND(0.1)
Metals															
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	0.007	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	0.293	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	0.004	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	0.012	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	0.013	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	**0.035[ab]**	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	0.0005	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	0.043	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	0.003	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.024	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	0.028	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-109	MW-109	TMW-147E	TMW-147E	TMW-148	TMW-148	TMW-149	TMW-149	TMW-149	MW-101	MW-125	MW-125
Sample Name:				GW-062508-JH-025	WG-121311-KH-012	GW-042712-JH-20	GW-051012-NL-09	GW-042612-JH-09	GW-051012-NL-08	GW-042612-JH-01	GW-051012-NL-FD	GW-051012-NL-07	MW-101	WG-110107-JH-001	GW-120607-JH-032
Sample Date:				6/25/2008	12/13/2011	4/27/2012	5/10/2012	4/26/2012	5/10/2012	4/26/2012	5/10/2012	5/10/2012	10/1/1988	11/1/2007	12/6/2007
Sample Type:											Duplicate				
AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	SB-110	SB-110	SB-110
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-125	MW-125	MW-125	MW-125	MW-125	TMW-138	TMW-150	TMW-150	TMW-150	TMW-151	TMW-151	TMW-152
Sample Name:				GW-031208-JH-015	GW-062508-JH-014	WG-121211-DF-010	WG-121211-DF-009	GW-042712-JH-19	GW112806GC010	GW-042712-JH-15	GW-042712-JH-13	GW-050912-NL-06	GW-042712-JH-17	GW-051012-NL-10	GW-042612-JH-07
Sample Date:				3/12/2008	6/25/2008	12/12/2011	12/12/2011	4/27/2012	11/28/2006	4/27/2012	4/27/2012	5/9/2012	4/27/2012	5/10/2012	4/26/2012
Sample Type:						Duplicate				Duplicate					
AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	0.00059 J	-	0.0119	0.0114	0.0105	0.0374	0.0333	0.00036 J
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	0.00012 J	0.00012 J	0.00012 J	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	0.0003 J	0.00031 J	ND(0.001)	-	0.0102	0.0097	0.0089	0.0343	0.0305	ND(0.001)
Cyclohexane	mg/L	14.7	7.02	-	-	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	ND(0.005)	ND(0.005)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	0.00043 J	0.00032 J	0.00047 J	0.00049 J	0.0013	0.0011	0.0013	0.0049
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.001)	ND(0.001)	-	0.0017	0.0017	0.0016	0.0031	0.0028	ND(0.001)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	0.0002 J	0.00021 J	0.00032 J	-	**0.0205[ab]**	**0.0201[ab]**	**0.0203[ab]**	**0.0099[ab]**	**0.0089[ab]**	0.0013
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0014
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	0.00027 J	0.00027 J	0.00032 J	0.00013 J	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.002)	ND(0.003)	-	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-125	MW-125	MW-125	MW-125	MW-125	TMW-138	TMW-150	TMW-150	TMW-150	TMW-151	TMW-151	TMW-152
Sample Name:				GW-031208-JH-015	GW-062508-JH-014	WG-121211-DF-010	WG-121211-DF-009	GW-042712-JH-19	GW112806GC010	GW-042712-JH-15	GW-042712-JH-13	GW-050912-NL-06	GW-042712-JH-17	GW-051012-NL-10	GW-042612-JH-07
Sample Date:				3/12/2008	6/25/2008	12/12/2011	12/12/2011	4/27/2012	11/28/2006	4/27/2012	4/27/2012	5/9/2012	4/27/2012	5/10/2012	4/26/2012
Sample Type:						Duplicate				Duplicate					
AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	ND(0.1)	ND(0.1)	-	-	-	-	-	-	-	-	-	-
Metals															
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-125	MW-125	MW-125	MW-125	MW-125	TMW-138	TMW-150	TMW-150	TMW-150	TMW-151	TMW-151	TMW-152
Sample Name:				GW-031208-JH-015	GW-062508-JH-014	WG-121211-DF-010	WG-121211-DF-009	GW-042712-JH-19	GW112806GC010	GW-042712-JH-15	GW-042712-JH-13	GW-050912-NL-06	GW-042712-JH-17	GW-051012-NL-10	GW-042612-JH-07
Sample Date:				3/12/2008	6/25/2008	12/12/2011	12/12/2011	4/27/2012	11/28/2006	4/27/2012	4/27/2012	5/9/2012	4/27/2012	5/10/2012	4/26/2012
Sample Type:						Duplicate				Duplicate					
AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-152	TMW-124	TMW-125	TMW-126	TMW-127	TMW-127	TMW-127	TMW-127	TMW-128	MW-108	MW-108	MW-108	MW-108	MW-108
Sample Name:				GW-051012-NL-11	GW112806GC008	GW112706GC001	GW112806GC011	GW112706GC003	GW-091407-NT-002	WG-121311-DF-018	GW-042712-JH-18	GW112706GC004	MW-108	MW-108	MW-108	MW-108	MW-108
Sample Date:				5/10/2012	11/28/2006	11/27/2006	11/28/2006	11/27/2006	9/14/2007	12/13/2011	4/27/2012	11/27/2006	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994
Sample Type:																	
AOC:				SB-110	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	LANGSTON	PACE	PACE	PACE	PACE
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA					
Volatile Organic Compounds																	
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	0.00042 J	ND(0.001)	ND(0.005)	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	-	-	-	-	-	ND(0.0067)	ND(0.001)	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	0.00055 J	-	-	-	-	-	-	0.366	-	-	-	-	-	ND(0.005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	-	-	-	-	-	ND(0.0067)	ND(0.001)	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	0.00096 J	ND(0.01)	-	ND(0.067)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.067)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.067)	ND(0.01)	ND(0.01)	ND(0.005)	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	0.00012 J	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.005)	ND(0.001)	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0044	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.00055 J	0.0083	ND(0.00099)	0.0072	**0.77[ab]**	-	**0.14[ab]**	**0.354[ab]**	0.0008	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	ND(0.0067)	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	0.0032 J	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	ND(0.0067)	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	-	-	-	-	-	ND(0.033)	ND(0.001)	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.027[ab]**	-	ND(0.0067)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	0.0048	ND(0.001)	0.00052 J	ND(0.001)	ND(0.001)	-	ND(0.0067)	ND(0.001)	0.0045	ND(0.005)	-	-	-	-
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	0.039	0.0005 J	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	0.00029 J	ND(0.0005)	0.00021 J	0.0057	-	0.0029 J	0.012	ND(0.0005)	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	0.0011	0.00088 J	0.00045 J	0.00044 J	ND(0.001)	-	ND(0.0067)	0.00029 J	0.00091 J	ND(0.005)	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	0.0018	-	-	-	-	-	ND(0.0067)	ND(0.001)	-	ND(0.02)	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	**0.0031 J[ab]**	**0.0059[ab]**	ND(0.001)	ND(0.01)	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	0.033	ND(0.003)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																	
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-152	TMW-124	TMW-125	TMW-126	TMW-127	TMW-127	TMW-127	TMW-127	TMW-128	MW-108	MW-108	MW-108	MW-108	MW-108
Sample Name:				GW-051012-NL-11	GW112806GC008	GW112706GC001	GW112806GC011	GW112706GC003	GW-091407-NT-002	WG-121311-DF-018	GW-042712-JH-18	GW112706GC004	MW-108	MW-108	MW-108	MW-108	MW-108
Sample Date:				5/10/2012	11/28/2006	11/27/2006	11/28/2006	11/27/2006	9/14/2007	12/13/2011	4/27/2012	11/27/2006	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994
Sample Type:																	
AOC:				SB-110	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	LANGSTON	PACE	PACE	PACE	PACE
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA					
	Units	Groundwater Pathway	Groundwater Pathway														
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	-	-	-	-	-
Petroleum Products																	
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																	
Aluminum	mg/L	-	-	-	1.88 J	2.54	1.02 J	5.46	-	-	-	1.88	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	ND(0.06)	ND(0.06)	ND(0.06)	ND(0.06)	-	-	-	ND(0.06)	ND(0.01)	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	0.0062 J	ND(0.01)	ND(0.01)	**0.0278[ab]**	**0.0484[ab]**	-	-	ND(0.01)	0.0005	-	-	-	-
Barium	mg/L	2	2	-	0.254	0.321	0.496	0.302	-	-	-	0.23	0.246	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	ND(0.005)	ND(0.001)	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	ND(0.005)	0.003	-	-	-	-
Calcium	mg/L	-	-	-	140	147	150	142	-	-	-	135	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	0.0109	0.0067 J	0.0103	0.0094 J	-	-	-	0.0087 J	0.005	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	0.0024 J	0.0041 J	ND(0.05)	0.0037 J	-	-	-	0.0029 J	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	ND(0.025)	0.0031 J	ND(0.025)	0.0087 J	-	-	-	0.002 J	0.016	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	10.8	10.6	18.8	23	-	-	-	3.34	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	0.0022 J	0.0029 J	ND(0.005)	0.007	-	-	-	0.0036 J	**0.04[ab]**	-	-	-	-
Magnesium	mg/L	-	-	-	38.2	33	42.2	38.1	-	-	-	32.8	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	**2.19[ab]**	**2.05[ab]**	**1.65[ab]**	**1.5[ab]**	-	-	-	**0.782[ab]**	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	-	-	-	ND(0.0002)	0.0005	-	-	-	-
Nickel	mg/L	2.04	0.312	-	0.0102 J	ND(0.04)	0.0079 J	ND(0.04)	-	-	-	0.0173 J	0.026	-	-	-	-
Potassium	mg/L	-	-	-	9.21	9.2	9.79	8.98	-	-	-	7.37	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	ND(0.005)	0.006	ND(0.005)	ND(0.005)	-	-	-	0.011	ND(0.001)	-	-	-	-
Silver	mg/L	0.508	0.0779	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.01)	0.004	-	-	-	-
Sodium	mg/L	-	-	-	36.5	54.4	71.2	45.8	-	-	-	23.8	-	-	-	-	-
Thallium	mg/L	-	-	-	0.0052 J	0.0071 J	0.0048 J	ND(0.01)	-	-	-	ND(0.01)	0.042	-	-	-	-
Vanadium	mg/L	-	-	-	0.0046 J	0.0068 J	0.0028 J	0.0159 J	-	-	-	0.0049 J	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	0.0135 J	ND(0.02)	0.007 J	ND(0.0314)	-	-	-	ND(0.02)	0.036	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-152	TMW-124	TMW-125	TMW-126	TMW-127	TMW-127	TMW-127	TMW-127	TMW-128	MW-108	MW-108	MW-108	MW-108	MW-108
Sample Name:				GW-051012-NL-11	GW112806GC008	GW112706GC001	GW112806GC011	GW112706GC003	GW-091407-NT-002	WG-121311-DF-018	GW-042712-JH-18	GW112706GC004	MW-108	MW-108	MW-108	MW-108	MW-108
Sample Date:				5/10/2012	11/28/2006	11/27/2006	11/28/2006	11/27/2006	9/14/2007	12/13/2011	4/27/2012	11/27/2006	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994
Sample Type:																	
AOC:				SB-110	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway	Residential Groundwater Pathway	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE
Pesticides																	
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																	
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110
Sample Name:				GW-100398-JM-027	GW-062706-JH-011	GW-091107-NT-009	GW-120507-JH-017	GW-031108-JH-010	GW-062508-JH-023	WG-121211-DF-007	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110
Sample Date:				10/3/1998	6/27/2006	9/11/2007	12/5/2007	3/11/2008	6/25/2008	12/12/2011	5/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/23/1994
Sample Type:																		
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway a	Groundwater Pathway b															
Volatile Organic Compounds																		
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-
Acetone	mg/L	45.5	11.5	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.001)	0.0004 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	-	-	-	-	-	-	-	-
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110
Sample Name:				GW-100398-JM-027	GW-062706-JH-011	GW-091107-NT-009	GW-120507-JH-017	GW-031108-JH-010	GW-062508-JH-023	WG-121211-DF-007	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110
Sample Date:				10/3/1998	6/27/2006	9/11/2007	12/5/2007	3/11/2008	6/25/2008	12/12/2011	5/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/23/1994
Sample Type:																		
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway															
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																		
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	0.03 J	ND(0.1)	ND(0.1)	0.075 J	-	-	-	-	-	-	-	-	-
Metals																		
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110
Sample Name:				GW-100398-JM-027	GW-062706-JH-011	GW-091107-NT-009	GW-120507-JH-017	GW-031108-JH-010	GW-062508-JH-023	WG-121211-DF-007	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110
Sample Date:				10/3/1998	6/27/2006	9/11/2007	12/5/2007	3/11/2008	6/25/2008	12/12/2011	5/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/23/1994
Sample Type:																		
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway															
Pesticides																		
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																		
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	TMW-153
Sample Name:				GW-100398-JM-025	GW-122104-DSDUP	GW-122104-DS-012	GW-011806-JH-008	GW-011806-JH-008	GW-091307-NT-023	GW-120607-JH-038	GW-120607-JH-037	GW-031308-JH-032	GW-062508-JH-024	WG-121211-KH-008	GW-042612-JH-16
Sample Date:				10/3/1998	12/21/2004	12/21/2004	1/18/2006	1/18/2006	9/13/2007	12/6/2007	12/6/2007	3/13/2008	6/25/2008	12/12/2011	4/26/2012
Sample Type:					Duplicate		Duplicate			Duplicate					
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0275
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.005)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.005)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.005)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	0.00049 J	ND(0.001)	-	0.00028 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.002	0.00067 J	0.00074 J	-	0.00066	0.00029 J	0.00035 J	0.00033 J	0.0004 J	0.00024 J	ND(0.001)	0.0263
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	0.0012
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0016
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00023 J
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.002)	ND(0.002)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.003)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	TMW-153
Sample Name:				GW-100398-JM-025	GW-122104-DSDUP	GW-122104-DS-012	GW-011806-JH-008	GW-011806-JH-008	GW-091307-NT-023	GW-120607-JH-038	GW-120607-JH-037	GW-031308-JH-032	GW-062508-JH-024	WG-121211-KH-008	GW-042612-JH-16
Sample Date:				10/3/1998	12/21/2004	12/21/2004	1/18/2006	1/18/2006	9/13/2007	12/6/2007	12/6/2007	3/13/2008	6/25/2008	12/12/2011	4/26/2012
Sample Type:					Duplicate		Duplicate			Duplicate					
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	0.0027 J	0.0013 J	-	ND(0.01)	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	ND(0.01)	ND(0.01)	-	0.0025 J	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	0.001 J	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	0.057 J	-	-
Metals															
Aluminum	mg/L	-	-	-	ND(0.073)	ND(0.066)	-	0.122 J	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	ND(0.060)	ND(0.060)	-	ND(0.06)	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	ND(0.010)	ND(0.010)	-	ND(0.01)	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	0.80	0.69	-	0.787	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	ND(0.00079)	ND(0.00078)	-	ND(0.005)	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	ND(0.0050)	ND(0.0050)	-	ND(0.005)	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	141	124	-	130	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	140	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	ND(0.010)	ND(0.010)	-	ND(0.01)	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	ND(0.050)	ND(0.050)	-	ND(0.05)	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	ND(0.025)	ND(0.025)	-	ND(0.025)	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	16.0	14.1	-	14.9	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	ND(0.0030)	ND(0.0030)	-	ND(0.005)	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	38.0 J	33.3 J	-	34.2	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	36.8	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	**1.5 J[ab]**	**1.4 J[ab]**	-	**1.43[ab]**	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	**1.52[ab]**	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	ND(0.00020)	ND(0.00020)	-	ND(0.0002)	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	ND(0.040)	ND(0.040)	-	ND(0.04)	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	9.3 J	8.1 J	-	8.25	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	ND(0.0050)	ND(0.0050)	-	ND(0.005)	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	ND(0.010)	ND(0.010)	-	ND(0.01)	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	101	88.1	-	102	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	ND(0.0061)	ND(0.009)	-	ND(0.01)	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	ND(0.050)	ND(0.050)	-	ND(0.05)	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	ND(0.020)	ND(0.020)	-	ND(0.02)	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	TMW-153
Sample Name:				GW-100398-JM-025	GW-122104-DSDUP	GW-122104-DS-012	GW-011806-JH-008	GW-011806-JH-008	GW-091307-NT-023	GW-120607-JH-038	GW-120607-JH-037	GW-031308-JH-032	GW-062508-JH-024	WG-121211-KH-008	GW-042612-JH-16
Sample Date:				10/3/1998	12/21/2004	12/21/2004	1/18/2006	1/18/2006	9/13/2007	12/6/2007	12/6/2007	3/13/2008	6/25/2008	12/12/2011	4/26/2012
Sample Type:					Duplicate		Duplicate			Duplicate					
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway	Residential Groundwater Pathway	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	480	480	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	ND(20)	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	ND(0.10)	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	ND(0.1)	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	7000	7600	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	2 J	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	5	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-153	TMW-154	TMW-154	TMW-155	TMW-155	MW-156	MW-156	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample Name:				GW-050912-NL-04	GW-042612-JH-03	GW-050912-NL-01	GW-042612-JH-11	GW-050912-NL-02	GW-050912-NL-03	GW-042612-JH-14	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample Date:				5/9/2012	4/26/2012	5/9/2012	4/26/2012	5/9/2012	5/9/2012	4/26/2012	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992
Sample Type:																			
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00037 J	0.00034 J	ND(0.005)	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	0.0013	0.0011	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	0.0206	0.0064	0.007	0.803	0.735	0.0526	0.113	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	0.0096 J	ND(0.01)	0.0037 J	ND(0.01)	ND(0.01)	ND(0.005)	-	-	-	-	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.00012 J	0.00011 J	0.0003 J	0.00032 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0197	0.0057	0.0061	**0.77**[ab]	**0.709**[ab]	0.0379	**0.0999**[ab]	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0005 J	ND(0.001)	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	ND(0.005)	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0002 J	ND(0.001)	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00025 J	0.00011 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.00097 J	0.00078 J	0.00089 J	0.0339	0.0354	0.0147	0.0135	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	0.0013	ND(0.001)	ND(0.001)	**0.3**[ab]	**0.283**[ab]	0.00054 J	0.00062 J	ND(0.005)	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.02)	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	0.00037 J	ND(0.001)	ND(0.001)	**0.0053**[ab]	**0.0059**[ab]	**0.385**[ab]	**0.264**[ab]	ND(0.01)	-	-	-	-	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																			
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-153	TMW-154	TMW-154	TMW-155	TMW-155	MW-156	MW-156	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample Name:				GW-050912-NL-04	GW-042612-JH-03	GW-050912-NL-01	GW-042612-JH-11	GW-050912-NL-02	GW-050912-NL-03	GW-042612-JH-14	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample Date:				5/9/2012	4/26/2012	5/9/2012	4/26/2012	5/9/2012	5/9/2012	4/26/2012	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992
Sample Type:																			
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																			
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	0.007	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	0.185	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	0.016	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	**0.03**[ab]	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	0.0005	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	0.029	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	0.003	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	0.031	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	0.08	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-153	TMW-154	TMW-154	TMW-155	TMW-155	MW-156	MW-156	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample Name:				GW-050912-NL-04	GW-042612-JH-03	GW-050912-NL-01	GW-042612-JH-11	GW-050912-NL-02	GW-050912-NL-03	GW-042612-JH-14	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample Date:				5/9/2012	4/26/2012	5/9/2012	4/26/2012	5/9/2012	5/9/2012	4/26/2012	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992
Sample Type:																			
AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																
Pesticides																			
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																			
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102B	MW-102B	MW-102B	MW-102B
Sample Name:				MW-102A	MW-102A	MW-102A	MW-102A	GW-051299-JH-102	GW-062706-JH-014	GW-091207-NT-020	GW-120507-JH-014	GW-031208-JH-016	GW-062408-JH-010	WG-121211-DF-001	MW-102B	MW-102B	MW-102B	MW-102B
Sample Date:				11/1/1992	6/1/1993	11/1/1993	6/21/1994	5/12/1999	6/27/2006	9/12/2007	12/5/2007	3/12/2008	6/24/2008	12/12/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989
Sample Type:																		
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE
	Units	Groundwater Pathway a	Groundwater Pathway b															
Volatile Organic Compounds																		
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	ND(0.005)	ND(0.001)	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-
Acetone	mg/L	45.5	11.5	-	-	-	-	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.005)	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-	-	-	-	-	ND(0.005)	-	ND(0.005)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	0.00071 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.005)	-	-	-
Toluene	mg/L	1	1	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	0.0009 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.02)	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.003)	ND(0.001)	0.00071 J	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102B	MW-102B	MW-102B	MW-102B
Sample Name:				MW-102A	MW-102A	MW-102A	MW-102A	GW-051299-JH-102	GW-062706-JH-014	GW-091207-NT-020	GW-120507-JH-014	GW-031208-JH-016	GW-062408-JH-010	WG-121211-DF-001	MW-102B	MW-102B	MW-102B	MW-102B
Sample Date:				11/1/1992	6/1/1993	11/1/1993	6/21/1994	5/12/1999	6/27/2006	9/12/2007	12/5/2007	3/12/2008	6/24/2008	12/12/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989
Sample Type:																		
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway															
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																		
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	0.037 J	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	-
Metals																		
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	0.0005	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	0.005	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	0.011	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	0.005	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	0.019[ab]	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	0.0005	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	0.038	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	0.002	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	0.017	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102B	MW-102B	MW-102B	MW-102B
Sample Name:				MW-102A	MW-102A	MW-102A	MW-102A	GW-051299-JH-102	GW-062706-JH-014	GW-091207-NT-020	GW-120507-JH-014	GW-031208-JH-016	GW-062408-JH-010	WG-121211-DF-001	MW-102B	MW-102B	MW-102B	MW-102B
Sample Date:				11/1/1992	6/1/1993	11/1/1993	6/21/1994	5/12/1999	6/27/2006	9/12/2007	12/5/2007	3/12/2008	6/24/2008	12/12/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989
Sample Type:																		
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway															
Pesticides																		
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																		
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C
Sample Name:				MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	GW-091307-NT-021	GW-120507-JH-015	GW-031208-JH-017	GW-062408-JH-009	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C
Sample Date:				5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	9/13/2007	12/5/2007	3/12/2008	6/24/2008	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:																					
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway a	Groundwater Pathway b																		
Volatile Organic Compounds																					
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-
Acetone	mg/L	45.5	11.5	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	-	-	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	-	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-	ND(0.005)	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	-	-	-	-	-	-
Toluene	mg/L	1	1	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00018 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	-	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																					
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C
Sample Name:				MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	GW-091307-NT-021	GW-120507-JH-015	GW-031208-JH-017	GW-062408-JH-009	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C
Sample Date:				5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	9/13/2007	12/5/2007	3/12/2008	6/24/2008	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:																					
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																		
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																					
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	-	-
Metals																					
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	0.0005	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-	0.321	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-	0.02[ab]	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	0.0005	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-	0.033	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	0.002	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-	0.038	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C
Sample Name:				MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	GW-091307-NT-021	GW-120507-JH-015	GW-031208-JH-017	GW-062408-JH-009	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C
Sample Date:				5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	9/13/2007	12/5/2007	3/12/2008	6/24/2008	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:																					
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																		
Pesticides																					
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																					
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Name:				MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	GW-091307-NT-022	GW-120507-JH-016	GW-031208-JH-018	GW-062408-JH-008	WG-121411-KH-026	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Date:				5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	9/13/2007	12/5/2007	3/12/2008	6/24/2008	12/14/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:																				Duplicate
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway a	Groundwater Pathway b																	
Volatile Organic Compounds																				
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	-	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	-	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(1)	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(1)	-	-	-	-	-
Acetone	mg/L	45.5	11.5	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.5)	-	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	ND(0.005)	ND(0.005)	0.35[ab]	ND(2.5)	0.57[ab]
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	-	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	1.5[ab]	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(1)	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-	-	ND(0.5)	-	ND(0.005)	ND(0.005)	ND(2.5)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	2.45[ab]	0.018	0.018	22.5[ab]	7[ab]	7.7[ab]
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	2[ab]	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.5)	-	-	-	-	-
Toluene	mg/L	1	1	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	51.65[ab]	0.071	0.071	63.1[ab]	150[ab]	142[ab]
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.5)	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(2)	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(1)	-	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	8.75	ND(0.005)	0.005	4.33	49[ab]	44[ab]
Semi-Volatile Organic Compounds																				
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Name:				MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	GW-091307-NT-022	GW-120507-JH-016	GW-031208-JH-018	GW-062408-JH-008	WG-121411-KH-026	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Date:				5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	9/13/2007	12/5/2007	3/12/2008	6/24/2008	12/14/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:																				Duplicate
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																	
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-
Petroleum Products																				
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	-	-	-
Metals																				
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	**0.279[ab]**	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	0.254	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	**0.0083[ab]**	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	0.061	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	0.041	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	**0.34[ab]**	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	0.0005	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	**0.8[b]**	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	0.023	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	0.232	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	0.46	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Name:				MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	MW-102C	GW-091307-NT-022	GW-120507-JH-016	GW-031208-JH-018	GW-062408-JH-008	WG-121411-KH-026	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Date:				5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	9/13/2007	12/5/2007	3/12/2008	6/24/2008	12/14/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:																				Duplicate
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																	
Pesticides																				
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	0.00007[b]	-	-	-	-	-
General Chemistry																				
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	GW-100398-JM-003	GW-051399-JH-106	GW-051399-JH-105	GW-091207-NT-018
Sample Date:				11/1/1990	5/1/1991	5/1/1991	11/1/1991	11/1/1991	5/1/1992	5/1/1992	11/1/1992	6/1/1993	6/1/1993	11/1/1993	6/1/1994	6/22/1994	10/3/1998	5/13/1999	5/13/1999	9/12/2007
Sample Type:					Duplicate		Duplicate		Duplicate			Duplicate						Duplicate		Duplicate
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	CRA	CRA	CRA	CRA
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE				
Volatile Organic Compounds																				
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.25)	-	0.003	0.003	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	0.8 J	0.81 J	ND(50)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	-	-	-	-	-	-	-	-	-	**81**[ab]	**29**[ab]	**30**[ab]	**33 J**[ab]
Acetone	mg/L	45.5	11.5	-	-	-	-	-	-	-	-	-	-	-	-	-	**270**[ab]	**120**[ab]	**140**[ab]	ND(50)
Benzene	mg/L	0.005	0.005	**0.56**[ab]	**0.13**[ab]	**0.14**[ab]	**0.35**[ab]	**0.35**[ab]	ND(0.25)	ND(0.25)	**0.21**[ab]	**0.067**[ab]	**0.062**[ab]	ND(2.5)	ND(0.25)	ND(0.25)	**0.34**[ab]	**0.14**[ab]	**0.13**[ab]	ND(5)
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.005)	ND(0.005)	ND(5)
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	0.002	0.003	ND(2.5)
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.005)	ND(0.05)	ND(0.05)	ND(2.5)	ND(0.25)	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	**7.5**[ab]	0.57	0.56	**3.2**[ab]	**2.7**[ab]	**1.3**[ab]	**1.3**[ab]	**1.7**[ab]	**1.5**[ab]	**1.5**[ab]	**6.1**[ab]	0.56	0.56	**1.4**[ab]	0.57	0.5	**7.9**[ab]
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.002)	ND(0.005)	ND(0.005)	ND(5)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
Toluene	mg/L	1	1	**145**[ab]	0.29	0.35	**27**[ab]	**25**[ab]	**5.3**[ab]	**4.8**[ab]	**19**[ab]	**7.2**[ab]	**7.2**[ab]	**93**[ab]	**9.9**[ab]	**9.9**[ab]	**34**[ab]	**9**[ab]	**8.9**[ab]	**130**[ab]
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(2.5)
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(5)
Xylenes (total)	mg/L	10	10	**44**[ab]	1.2	2.3	**21**[ab]	**18**[ab]	10	9.9	**13**[ab]	7.9	9.8	**34**[ab]	3.6	3.6	**11**[ab]	3.9	3.8	**67**[ab]
Semi-Volatile Organic Compounds																				
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	GW-100398-JM-003	GW-051399-JH-106	GW-051399-JH-105	GW-091207-NT-018
Sample Date:				11/1/1990	5/1/1991	5/1/1991	11/1/1991	11/1/1991	5/1/1992	5/1/1992	11/1/1992	6/1/1993	6/1/1993	11/1/1993	6/1/1994	6/22/1994	10/3/1998	5/13/1999	5/13/1999	9/12/2007
Sample Type:					Duplicate		Duplicate		Duplicate			Duplicate						Duplicate		Duplicate
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway																	
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																				
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	380[ab]
Metals																				
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	GW-100398-JM-003	GW-051399-JH-106	GW-051399-JH-105	GW-091207-NT-018
Sample Date:				11/1/1990	5/1/1991	5/1/1991	11/1/1991	11/1/1991	5/1/1992	5/1/1992	11/1/1992	6/1/1993	6/1/1993	11/1/1993	6/1/1994	6/22/1994	10/3/1998	5/13/1999	5/13/1999	9/12/2007
Sample Type:					Duplicate		Duplicate		Duplicate			Duplicate						Duplicate		Duplicate
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway	Residential Groundwater Pathway	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA
Pesticides																					
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																					
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B
Sample Name:				GW-091207-NT-017	GW-120607-JH-031	GW-120607-JH-030	GW-031208-JH-021	GW-031208-JH-020	GW-062508-JH-019	GW-062508-JH-018	WG-121311-DF-014	WG-121311-DF-013	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B
Sample Date:				9/12/2007	12/6/2007	12/6/2007	3/12/2008	3/12/2008	6/25/2008	6/25/2008	12/13/2011	12/13/2011	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:					Duplicate		Duplicate		Duplicate		Duplicate						
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	PACE	PACE	PACE	PACE	PACE
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA					
Volatile Organic Compounds																	
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	ND(2)	ND(2)	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	ND(2)	ND(2)	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(25)	ND(25)	1.1 J	1.3 J	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	30 J[ab]	160[ab]	160[ab]	68[ab]	67[ab]	3.1 J[b]	3.5 J[b]	34[ab]	33[ab]	-	-	-	-	-
Acetone	mg/L	45.5	11.5	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(25)	ND(25)	70[ab]	70[ab]	-	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	ND(0.005)	ND(0.005)	0.015[ab]	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	ND(5)	ND(5)	ND(5)	ND(5)	2.7 J[ab]	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(1.2)	ND(1.2)	ND(2)	ND(2)	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	ND(2)	ND(2)	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	7.4[ab]	7.5[ab]	8[ab]	7.4[ab]	6.6[ab]	5.4[ab]	5.4[ab]	2.6[ab]	2.4[ab]	ND(0.005)	ND(0.005)	0.22	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	ND(2)	ND(2)	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	ND(10)	ND(10)	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)UJ	ND(2.5)UJ	ND(2)	ND(2)	-	-	-	-	-
Toluene	mg/L	1	1	120[ab]	140[ab]	150[ab]	120[ab]	120[ab]	100[ab]	100[ab]	61[ab]	57[ab]	0.028	ND(0.005)	0.055	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(1.2)	ND(1.2)	ND(2)	ND(2)	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	ND(2)	ND(2)	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2)	ND(2)	-	-	-	-	-
Xylenes (total)	mg/L	10	10	63[ab]	56[ab]	57[ab]	55[ab]	52[ab]	45[ab]	45[ab]	28[ab]	26[ab]	ND(0.005)	ND(0.005)	0.038	ND(0.005)	0.006
Semi-Volatile Organic Compounds																	
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	0.33[b]	0.35[b]	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	ND(0.26)	ND(0.26)	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	0.0087 J	0.0074 J	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	0.45	0.55	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B
Sample Name:				GW-091207-NT-017	GW-120607-JH-031	GW-120607-JH-030	GW-031208-JH-021	GW-031208-JH-020	GW-062508-JH-019	GW-062508-JH-018	WG-121311-DF-014	WG-121311-DF-013	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B
Sample Date:				9/12/2007	12/6/2007	12/6/2007	3/12/2008	3/12/2008	6/25/2008	6/25/2008	12/13/2011	12/13/2011	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:					Duplicate		Duplicate		Duplicate		Duplicate						
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		**Non-Residential**	**Residential**	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE	PACE
	Units	**Groundwater Pathway**	**Groundwater Pathway**														
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	0.58	0.72	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	ND(0.051)	ND(0.052)	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	ND(0.1)	ND(0.1)	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	ND(0.26)	ND(0.26)	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	ND(0.051)	ND(0.052)	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	ND(0.051)	ND(0.052)	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	ND(0.051)	ND(0.052)	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	0.28[ab]	0.26[ab]	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	ND(0.051)	ND(0.052)	-	-	-	-	-
Petroleum Products																	
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	9.8[ab]	7.9[ab]	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	390[ab]	540[ab]	470[ab]	360 J[ab]	210 J[ab]	260[ab]	290[ab]	180[ab]	180[ab]	-	-	-	-	-
Metals																	
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B
Sample Name:				GW-091207-NT-017	GW-120607-JH-031	GW-120607-JH-030	GW-031208-JH-021	GW-031208-JH-020	GW-062508-JH-019	GW-062508-JH-018	WG-121311-DF-014	WG-121311-DF-013	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B
Sample Date:				9/12/2007	12/6/2007	12/6/2007	3/12/2008	3/12/2008	6/25/2008	6/25/2008	12/13/2011	12/13/2011	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990
Sample Type:					Duplicate		Duplicate		Duplicate		Duplicate						
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway														
Pesticides																	
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																	
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103C	MW-103C	MW-103C	MW-103C
Sample Name:				MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	GW-091207-NT-015	GW-120507-JH-021	GW-031208-JH-022	GW-062508-JH-017	WG-121411-KH-029	MW-103C	MW-103C	MW-103C	MW-103C
Sample Date:				5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/1/1994	6/22/1994	9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/14/2011	6/1/1989	7/1/1989	11/1/1989	5/1/1990
Sample Type:																				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway a	Groundwater Pathway b																	
Volatile Organic Compounds																				
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-
Acetone	mg/L	45.5	11.5	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	-	-	-	-	0.00091 J	ND(0.001)	0.00073 J	ND(0.001)	ND(0.001)	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	-	-	-	-	0.0034	0.0064	0.0038	0.00094	0.0044	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-	-	-	-	ND(0.005)	ND(0.005)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	0.006	0.01	ND(0.005)	ND(0.005)	0.008	0.002	0.0024	ND(0.001)	ND(0.001)	0.00026 J	ND(0.001)	ND(0.001)	0.099	0.099	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	-	-	-	-
Toluene	mg/L	1	1	ND(0.005)	0.054	0.14	0.046	0.017	0.066	0.043	0.043	ND(0.001)	0.00026 J	0.0016	ND(0.001)	ND(0.001)	0.098	0.098	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	ND(0.001)	0.001	0.00057 J	ND(0.001)	ND(0.001)	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.005)	0.047	0.086	0.055	0.02	0.051	0.023	0.023	ND(0.001)	ND(0.001)	0.0016	ND(0.001)	ND(0.002)	0.025	0.025	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																				
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103C	MW-103C	MW-103C	MW-103C
Sample Name:				MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	GW-091207-NT-015	GW-120507-JH-021	GW-031208-JH-022	GW-062508-JH-017	WG-121411-KH-029	MW-103C	MW-103C	MW-103C	MW-103C
Sample Date:				5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/1/1994	6/22/1994	9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/14/2011	6/1/1989	7/1/1989	11/1/1989	5/1/1990
Sample Type:																				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																	
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																				
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	0.031 J	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	-
Metals																				
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103C	MW-103C	MW-103C	MW-103C
Sample Name:				MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	MW-103B	GW-091207-NT-015	GW-120507-JH-021	GW-031208-JH-022	GW-062508-JH-017	WG-121411-KH-029	MW-103C	MW-103C	MW-103C	MW-103C
Sample Date:				5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/1/1994	6/22/1994	9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/14/2011	6/1/1989	7/1/1989	11/1/1989	5/1/1990
Sample Type:																				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																	
Pesticides																				
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																				
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C
Sample Name:				MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	GW-100398-JM-007	GW-100398-JM-005	GW-091207-NT-016	GW-120507-JH-020	GW-031208-JH-024	GW-062508-JH-016
Sample Date:				11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/1/1994	6/22/1994	10/3/1998	10/3/1998	9/12/2007	12/5/2007	3/12/2008	6/25/2008
Sample Type:													Duplicate					
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway a	Groundwater Pathway b															
Volatile Organic Compounds																		
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	-	-	-	-	-	0.098	0.11	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.003	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.005)	0.023	ND(0.005)	ND(0.005)	ND(0.005)	0.006	ND(0.005)	ND(0.005)	0.018	0.022	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	ND(0.002)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ
Toluene	mg/L	1	1	0.032	ND(0.005)	0.3	0.04	0.025	0.005	0.042	0.003	0.0032	0.46	0.53	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	0.072	ND(0.005)	0.21	0.034	0.025	0.008	0.035	ND(0.005)	ND(0.005)	0.16	0.18	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Semi-Volatile Organic Compounds																		
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C
Sample Name:				MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	GW-100398-JM-007	GW-100398-JM-005	GW-091207-NT-016	GW-120507-JH-020	GW-031208-JH-024	GW-062508-JH-016
Sample Date:				11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/1/1994	6/22/1994	10/3/1998	10/3/1998	9/12/2007	12/5/2007	3/12/2008	6/25/2008
Sample Type:													Duplicate					
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway															
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																		
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	0.033 J	ND(0.1)	ND(0.1)	ND(0.1)
Metals																		
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C
Sample Name:				MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	MW-103C	GW-100398-JM-007	GW-100398-JM-005	GW-091207-NT-016	GW-120507-JH-020	GW-031208-JH-024	GW-062508-JH-016
Sample Date:				11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/1/1994	6/22/1994	10/3/1998	10/3/1998	9/12/2007	12/5/2007	3/12/2008	6/25/2008
Sample Type:													Duplicate					
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway															
Pesticides																		
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																		
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103C	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104
Sample Name:				WG-121411-KH-030	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	GW-051299-JH-101	GW-062706-JH-013	GW-062706-JH-012
Sample Date:				12/14/2011	10/1/1988	6/1/1989	7/1/1989	10/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/23/1994	5/12/1999	6/27/2006	6/27/2006
Sample Type:																			Duplicate	
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA
Volatile Organic Compounds																				
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.001)	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.02)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	0.0657	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.1)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	0.0072	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.0005)	0.00021 J
Cyclohexane	mg/L	14.7	7.02	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	ND(0.005)	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	**0.0429[ab]**	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	0.0079	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.02)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.002)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.003)	ND(0.001)	ND(0.001)
Semi-Volatile Organic Compounds																				
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103C	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104
Sample Name:				WG-121411-KH-030	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	GW-051299-JH-101	GW-062706-JH-013	GW-062706-JH-012
Sample Date:				12/14/2011	10/1/1988	6/1/1989	7/1/1989	10/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/23/1994	5/12/1999	6/27/2006	6/27/2006
Sample Type:																				Duplicate
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway																	
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																				
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																				
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	0.009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	0.422	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	**0.006[ab]**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	0.017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	**0.05[ab]**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	0.055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	0.032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-103C	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104
Sample Name:				WG-121411-KH-030	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	GW-051299-JH-101	GW-062706-JH-013	GW-062706-JH-012
Sample Date:				12/14/2011	10/1/1988	6/1/1989	7/1/1989	10/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993	6/23/1994	5/12/1999	6/27/2006	6/27/2006
Sample Type:																			Duplicate	
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway	Residential Groundwater Pathway	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA
Pesticides																				
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																				
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-104	MW-104	MW-104	MW-104	MW-104	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample Name:				GW-091207-NT-014	GW-120507-JH-019	GW-031208-JH-025	GW-062508-JH-021	WG-121211-DF-003	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample Date:				9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/12/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993
Sample Type:																				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway a	Groundwater Pathway b																	
Volatile Organic Compounds																				
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	0.0009 J	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.00025 J	0.00022 J	0.00023 J	ND(0.0005)	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	0.0003 J	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	0.019	-	ND(0.005)	0.015	0.026	0.012	0.011	ND(0.005)	0.018	0.009	0.009	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	0.00068 J	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	ND(0.001)	ND(0.02)	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																				
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	ND(0.0022)	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	ND(0.0054)	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	ND(0.00022)	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	ND(0.0011)	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-104	MW-104	MW-104	MW-104	MW-104	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample Name:				GW-091207-NT-014	GW-120507-JH-019	GW-031208-JH-025	GW-062508-JH-021	WG-121211-DF-003	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample Date:				9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/12/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993
Sample Type:																				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																	
3&4-Methylphenol	mg/L	-	-	-	-	-	-	ND(0.0022)	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	ND(0.0011)	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	ND(0.00022)	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	ND(0.00022)	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	ND(0.00022)	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	ND(0.0022)	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	ND(0.0054)	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	ND(0.00022)	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	ND(0.0011)	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	ND(0.0011)	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	ND(0.0011)	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	ND(0.00022)	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	ND(0.00022)	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	ND(0.0011)	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																				
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	ND(0.53)	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	0.037 J	ND(0.1)	ND(0.1)	0.034 J	ND(0.1)	-	-	-	-	-	-	-	-	-	-	-	-
Metals																				
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	0.002	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	0.235	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	**0.006[ab]**	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	**0.024[ab]**	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	0.0005	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	0.044	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	0.002	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	0.025	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-104	MW-104	MW-104	MW-104	MW-104	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample Name:				GW-091207-NT-014	GW-120507-JH-019	GW-031208-JH-025	GW-062508-JH-021	WG-121211-DF-003	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample Date:				9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/12/2011	10/1/1988	6/1/1989	7/1/1989	11/1/1989	5/1/1990	11/1/1990	5/1/1991	11/1/1991	5/1/1992	11/1/1992	6/1/1993	11/1/1993
Sample Type:																				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																	
Pesticides																				
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																				
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-115A	MW-115A
Sample Name:				MW-105	GW-051299-JH-100	GW-122004-DS-003	GW-062706-JH-010	GW-062706-JH-009	GW-091207-NT-013	GW-120507-JH-018	GW-031208-JH-026	GW-062508-JH-022	WG-121211-DF-005	GW-051399-JH-104	GW-091207-NT-019
Sample Date:				6/22/1994	5/12/1999	12/20/2004	6/27/2006	6/27/2006	9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/12/2011	5/13/1999	9/12/2007
Sample Type:							Duplicate								
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	0.015	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.00044 J
Acetone	mg/L	45.5	11.5	-	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.1)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	-	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	ND(0.001)	0.0063	0.0049	0.0049	0.0031	0.0037	0.0038	0.0012	0.00043 J	ND(0.001)	ND(0.0005)
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	0.0019
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-
Methylene chloride	mg/L	0.005	0.005	-	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	0.001	ND(0.001)	ND(0.001)	ND(0.001)	0.00063 J	0.00035 J	0.00032 J	0.0013 J	0.00034 J	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.016
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.001)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	-	ND(0.001)	ND(0.001)	0.00043 J	0.00058 J	0.0013	0.00075 J	0.0007 J	0.00053 J	0.0009 J	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-
Vinyl chloride	mg/L	0.002	0.002	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.005)	ND(0.003)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.003)	0.016
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	0.00055 J	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	**0.001 J[b]**	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-115A	MW-115A
Sample Name:				MW-105	GW-051299-JH-100	GW-122004-DS-003	GW-062706-JH-010	GW-062706-JH-009	GW-091207-NT-013	GW-120507-JH-018	GW-031208-JH-026	GW-062508-JH-022	WG-121211-DF-005	GW-051399-JH-104	GW-091207-NT-019
Sample Date:				6/22/1994	5/12/1999	12/20/2004	6/27/2006	6/27/2006	9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/12/2011	5/13/1999	9/12/2007
Sample Type:							Duplicate								
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	0.00053 J	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	0.0023 J	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	0.031 J	ND(0.1)	ND(0.1)	ND(0.1)	-	-	0.13
Metals															
Aluminum	mg/L	-	-	-	-	ND(0.033)	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	ND(0.060)	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	0.0062 J	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	0.24	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	ND(0.0050)	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	ND(0.0050)	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	172	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	169	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	ND(0.010)	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	0.0034 J	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	ND(0.025)	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	10.4	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	ND(0.0030)	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	43.1	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	42.3	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	1.5[ab]	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	1.5[ab]	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	ND(0.00020)	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	0.0052 J	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	10.2 J	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	0.0076	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	ND(0.010)	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	71.8	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	ND(0.010)	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	ND(0.050)	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	ND(0.020)	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-115A	MW-115A
Sample Name:				MW-105	GW-051299-JH-100	GW-122004-DS-003	GW-062706-JH-010	GW-062706-JH-009	GW-091207-NT-013	GW-120507-JH-018	GW-031208-JH-026	GW-062508-JH-022	WG-121211-DF-005	GW-051399-JH-104	GW-091207-NT-019
Sample Date:				6/22/1994	5/12/1999	12/20/2004	6/27/2006	6/27/2006	9/12/2007	12/5/2007	3/12/2008	6/25/2008	12/12/2011	5/13/1999	9/12/2007
Sample Type:							Duplicate								
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	65000	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	ND(0.2)	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	ND(10.0)	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	0.032 J	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	ND(0.009)	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	110000	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	ND(3)UJ	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	1	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-115A	MW-115A	MW-115A	TMW-157	TMW-157	TMW-132	TMW-139	TMW-143	TMW-143	TMW-143	TMW-144	TMW-144
Sample Name:				GW-031208-JH-019	GW-062508-JH-015	WG-121211-KH-002	GW-042612-JH-05	GW-050912-NL-05	GW112706GC005	WG-121411-DF-027	GW-093009-JH-029	GW-093009-JH-028	WG-121411-DF-028	GW-093009-JH-025	WG-121411-DF-025
Sample Date:				3/12/2008	6/25/2008	12/12/2011	4/26/2012	5/9/2012	11/27/2006	12/14/2011	9/30/2009	9/30/2009	12/14/2011	9/30/2009	12/14/2011
Sample Type:											Duplicate				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.01)	-	-	ND(0.001)	-	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	0.00014 J	0.00028 J	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.01)	-	-	ND(0.001)	-	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.11	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.00054 J	ND(0.01)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0045 J	ND(0.01)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.045[ab]**	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.001)	0.00028 J	0.0044	ND(0.01)	ND(0.0005)	ND(0.0005)	ND(0.001)	0.024	0.0071
Cyclohexane	mg/L	14.7	7.02	-	-	ND(0.001)	-	-	-	0.0015 J	-	-	ND(0.001)	-	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0081 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	ND(0.001)	-	-	-	ND(0.01)	-	-	ND(0.001)	-	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	ND(0.005)	ND(0.001)	ND(0.001)	-	ND(0.05)	-	-	ND(0.005)	-	ND(0.005)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	ND(0.01)	ND(0.01)	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	0.0016	0.0016	0.0011	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.001)	ND(0.001)	0.00022 J	ND(0.01)	ND(0.0005)	ND(0.0005)	ND(0.001)	0.0013	0.00031 J
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	**0.0051[ab]**	0.0005 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.01)	-	-	ND(0.001)	-	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.003)	ND(0.003)	ND(0.001)	ND(0.02)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.002)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	ND(0.0019)	-	-	ND(0.01)	-	-	-	ND(0.002)	-	ND(0.0021)
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	ND(0.0048)	-	-	ND(0.01)	-	-	-	ND(0.0049)	-	ND(0.0053)
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	ND(0.00019)	-	-	0.0011 J	-	-	-	ND(0.0002)	-	ND(0.00021)
2-Methylphenol	mg/L	4.78	0.744	-	-	ND(0.00095)	-	-	ND(0.01)	-	-	-	ND(0.00098)	-	ND(0.0011)

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-115A	MW-115A	MW-115A	TMW-157	TMW-157	TMW-132	TMW-139	TMW-143	TMW-143	TMW-143	TMW-144	TMW-144
Sample Name:				GW-031208-JH-019	GW-062508-JH-015	WG-121211-KH-002	GW-042612-JH-05	GW-050912-NL-05	GW112706GC005	WG-121411-DF-027	GW-093009-JH-029	GW-093009-JH-028	WG-121411-DF-028	GW-093009-JH-025	WG-121411-DF-025
Sample Date:				3/12/2008	6/25/2008	12/12/2011	4/26/2012	5/9/2012	11/27/2006	12/14/2011	9/30/2009	9/30/2009	12/14/2011	9/30/2009	12/14/2011
Sample Type:												Duplicate			
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	ND(0.0019)	-	-	-	-	-	-	ND(0.002)	-	ND(0.0021)
Acetophenone	mg/L	0.926	0.494	-	-	ND(0.00095)	-	-	-	-	-	-	ND(0.00098)	-	ND(0.0011)
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	ND(0.00019)	-	-	ND(0.01)	-	-	-	ND(0.0002)	-	ND(0.00021)
Benzo(g,h,i)perylene	mg/L	-	-	-	-	ND(0.00019)	-	-	ND(0.01)	-	-	-	ND(0.0002)	-	ND(0.00021)
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	ND(0.00019)	-	-	ND(0.01)	-	-	-	ND(0.0002)	-	ND(0.00021)
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	ND(0.0019)	-	-	ND(0.01)	-	-	-	ND(0.002)	-	ND(0.0021)
Caprolactam	mg/L	50.6	7.77	-	-	ND(0.0048)	-	-	-	-	-	-	ND(0.0049)	-	ND(0.0053)
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	ND(0.00019)	-	-	ND(0.01)	-	-	-	ND(0.0002)	-	ND(0.00021)
Diethyl phthalate	mg/L	79	12.2	-	-	ND(0.00095)	-	-	ND(0.01)	-	-	-	ND(0.00098)	-	ND(0.0011)
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	ND(0.00095)	-	-	ND(0.01)	-	-	-	ND(0.00098)	-	ND(0.0011)
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	ND(0.00095)	-	-	ND(0.01)	-	-	-	ND(0.00098)	-	ND(0.0011)
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	ND(0.00019)	-	-	ND(0.01)	-	-	-	ND(0.0002)	-	ND(0.00021)
Naphthalene	mg/L	0.00211	0.00111	-	-	ND(0.00019)	-	-	ND(0.01)	-	-	-	ND(0.0002)	-	ND(0.00021)
Phenol	mg/L	29.5	4.56	-	-	ND(0.00095)	-	-	ND(0.01)	-	-	-	ND(0.00098)	-	ND(0.0011)
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	ND(0.48)	-	-	-	-	ND(0.1)	ND(0.1)	ND(0.51)	ND(0.1)	ND(0.53)
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Metals															
Aluminum	mg/L	-	-	-	-	-	-	-	1.75	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	ND(0.06)	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	0.0093 J	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	0.473	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	182	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	0.0213	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	0.0042 J	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	0.0034 J	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	22.3	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	0.0024 J	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	44.6	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	**2.51[ab]**	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	ND(0.0002)	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	0.018 J	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	11.1	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	37.1	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	0.0057 J	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	0.0052 J	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	ND(0.02)	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-115A	MW-115A	MW-115A	TMW-157	TMW-157	TMW-132	TMW-139	TMW-143	TMW-143	TMW-143	TMW-144	TMW-144
Sample Name:				GW-031208-JH-019	GW-062508-JH-015	WG-121211-KH-002	GW-042612-JH-05	GW-050912-NL-05	GW112706GC005	WG-121411-DF-027	GW-093009-JH-029	GW-093009-JH-028	WG-121411-DF-028	GW-093009-JH-025	WG-121411-DF-025
Sample Date:				3/12/2008	6/25/2008	12/12/2011	4/26/2012	5/9/2012	11/27/2006	12/14/2011	9/30/2009	9/30/2009	12/14/2011	9/30/2009	12/14/2011
Sample Type:											Duplicate				
AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-145	TMW-145	TMW-146	TMW-146	TMW-130	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample Name:				GW-093009-JH-026	WG-121311-DF-020	GW-093009-JH-027	WG-121411-DF-023	GW-091307-NT-026	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	GW-100398-JM-001	GW-122104-DS-006	GW-091107-NT-006
Sample Date:				9/30/2009	12/13/2011	9/30/2009	12/14/2011	9/13/2007	10/1/1988	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994	10/3/1998	12/21/2004	9/11/2007
Sample Type:																	
AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA
	Units	Groundwater Pathway a	Groundwater Pathway b														
Volatile Organic Compounds																	
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	ND(0.001)	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	ND(0.001)	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.14)	ND(0.01)	-	-	-	-	-	ND(0.005)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.14)	ND(0.01)	-	-	-	-	-	ND(0.005)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.14)	ND(0.01)	-	-	-	-	-	ND(0.005)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.00015 J	0.0049 J	0.006[ab]	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.01)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.001)	ND(0.0071)	-	-	-	-	-	-	ND(0.001)	0.00036 J	ND(0.0005)
Cyclohexane	mg/L	14.7	7.02	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	ND(0.005)	-	-	ND(0.005)	0.005	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	ND(0.005)	-	ND(0.005)	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.01)	-	-	-	-	-	ND(0.002)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	0.01	0.006	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.001)	ND(0.0071)	-	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.005)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	ND(0.001)	-	ND(0.001)	-	ND(0.02)	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.014)	ND(0.01)	-	-	-	-	-	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.002)	ND(0.014)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	ND(0.002)	ND(0.001)
Semi-Volatile Organic Compounds																	
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	ND(0.002)	-	ND(0.0021)	-	-	-	-	-	-	-	-	ND(0.01)	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	ND(0.0051)	-	ND(0.0052)	-	-	-	-	-	-	-	-	ND(0.01)	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	ND(0.0002)	-	ND(0.00021)	-	-	-	-	-	-	-	-	ND(0.01)	-
2-Methylphenol	mg/L	4.78	0.744	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.01)	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-145	TMW-145	TMW-146	TMW-146	TMW-130	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample Name:				GW-093009-JH-026	WG-121311-DF-020	GW-093009-JH-027	WG-121411-DF-023	GW-091307-NT-026	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	GW-100398-JM-001	GW-122104-DS-006	GW-091107-NT-006
Sample Date:				9/30/2009	12/13/2011	9/30/2009	12/14/2011	9/13/2007	10/1/1988	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994	10/3/1998	12/21/2004	9/11/2007
Sample Type:																	
AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway														
3&4-Methylphenol	mg/L	-	-	-	ND(0.002)	-	ND(0.0021)	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	0.0024 J	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	ND(0.0002)	-	ND(0.00021)	-	-	-	-	-	-	-	-	ND(0.01)	-
Benzo(g,h,i)perylene	mg/L	-	-	-	ND(0.0002)	-	ND(0.00021)	-	-	-	-	-	-	-	-	ND(0.01)	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	ND(0.0002)	-	ND(0.00021)	-	-	-	-	-	-	-	-	ND(0.01)	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	ND(0.002)	-	ND(0.0021)	-	-	-	-	-	-	-	-	ND(0.01)	-
Caprolactam	mg/L	50.6	7.77	-	ND(0.0051)	-	ND(0.0052)	-	-	-	-	-	-	-	-	ND(0.01)	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	ND(0.0002)	-	ND(0.00021)	-	-	-	-	-	-	-	-	ND(0.01)	-
Diethyl phthalate	mg/L	79	12.2	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.01)	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	0.0028 J	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.01)	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	ND(0.0002)	-	ND(0.00021)	-	-	-	-	-	-	-	-	ND(0.01)	-
Naphthalene	mg/L	0.00211	0.00111	-	ND(0.0002)	-	ND(0.00021)	-	-	-	-	-	-	-	-	ND(0.01)	-
Phenol	mg/L	29.5	4.56	-	ND(0.001)	-	ND(0.001)	-	-	-	-	-	-	-	-	0.012	-
Petroleum Products																	
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	ND(0.1)	ND(0.51)	ND(0.1)	0.33	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.12)	**0.65[ab]**	-	-	-	-	-	-	-	-	0.042 J
Metals																	
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.064)	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.060)	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	0.0005	-	-	-	-	-	-	ND(0.010)	-
Barium	mg/L	2	2	-	-	-	-	-	0.106	-	-	-	-	-	-	0.16 J	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.00074)	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	0.003	-	-	-	-	-	-	ND(0.00051)	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	194	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	0.012	-	-	-	-	-	-	ND(0.010)	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	**0.0074 J[b]**	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	0.005	-	-	-	-	-	-	ND(0.025)	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.096 J	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	**0.039[ab]**	-	-	-	-	-	-	0.0086	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49.0 J	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.9 J	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	**1.5 J[ab]**	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	**1.5[ab]**	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	0.0005	-	-	-	-	-	-	ND(0.00020)	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	0.029	-	-	-	-	-	-	0.014 J	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.6 J	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	**0.19[ab]**	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	0.003	-	-	-	-	-	-	ND(0.010)	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45.7	-
Thallium	mg/L	-	-	-	-	-	-	-	0.045	-	-	-	-	-	-	ND(0.0067)	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.050)	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	0.015	-	-	-	-	-	-	ND(0.020)	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-145	TMW-145	TMW-146	TMW-146	TMW-130	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample Name:				GW-093009-JH-026	WG-121311-DF-020	GW-093009-JH-027	WG-121411-DF-023	GW-091307-NT-026	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	GW-100398-JM-001	GW-122104-DS-006	GW-091107-NT-006
Sample Date:				9/30/2009	12/13/2011	9/30/2009	12/14/2011	9/13/2007	10/1/1988	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994	10/3/1998	12/21/2004	9/11/2007
Sample Type:																	
AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	PACE	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway														
Pesticides																	
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																	
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23850	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09 J	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(10.0)	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.7	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04 J	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(100)	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(3)	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1	MW-1	MW-1	MW-1	MW-106	MW-106	MW-106	MW-106	MW-106	MW-107	MW-107	MW-107	MW-4	MW-4	MW-4	TMW-129
Sample Name:				GW-120407-JH-005	GW-031108-JH-006	GW-062408-JH-005	WG-121311-KH-016	MW-106	MW-106	MW-106	MW-106	MW-106	MW-107	MW-107	MW-107	MW-4	MW-4	MW-4	GW112806GC004
Sample Date:				12/4/2007	3/11/2008	6/24/2008	12/13/2011	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994	10/1/1988	6/1/1989	7/1/1989	10/1/1988	6/1/1989	7/1/1989	11/28/2006
Sample Type:																			Duplicate
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	LANGSTON	PACE	PACE	LANGSTON	PACE	PACE	CRA
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	ND(0.01)	-	-	ND(0.01)	-	-	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	ND(0.01)	-	-	ND(0.01)	-	-	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.005)	-	-	-	-	0.76	-	-	ND(0.005)	-	-	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	ND(0.01)	-	-	ND(0.01)	-	-	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	0.00061	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	0.0037
Cyclohexane	mg/L	14.7	7.02	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	0.019	-	-	0.019	-	ND(0.005)	-	-	ND(0.005)	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	ND(0.005)	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	ND(0.01)	-	-	ND(0.01)	-	-	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-	-	-	-	-	-	0.00019 J
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	-	-	-	-	ND(0.005)	-	-	ND(0.005)	-	-	0.00051 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	ND(0.001)	ND(0.02)	-	-	-	-	ND(0.02)	-	-	ND(0.02)	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	-	-	ND(0.01)	-	-	ND(0.01)	-	-	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)
Semi-Volatile Organic Compounds																			
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1	MW-1	MW-1	MW-1	MW-106	MW-106	MW-106	MW-106	MW-106	MW-107	MW-107	MW-107	MW-4	MW-4	MW-4	TMW-129
Sample Name:				GW-120407-JH-005	GW-031108-JH-006	GW-062408-JH-005	WG-121311-KH-016	MW-106	MW-106	MW-106	MW-106	MW-106	MW-107	MW-107	MW-107	MW-4	MW-4	MW-4	GW112806GC004
Sample Date:				12/4/2007	3/11/2008	6/24/2008	12/13/2011	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994	10/1/1988	6/1/1989	7/1/1989	10/1/1988	6/1/1989	7/1/1989	11/28/2006
Sample Type:																			Duplicate
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	LANGSTON	PACE	PACE	LANGSTON	PACE	PACE	CRA
	Units	Groundwater Pathway	Groundwater Pathway																
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	ND(0.004)	-	-	-	-	-	ND(0.01)
Petroleum Products																			
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49 J
Antimony	mg/L	0.006	0.006	-	-	-	-	ND(0.01)	-	-	-	-	ND(0.01)	-	-	ND(0.01)	-	-	ND(0.06)
Arsenic	mg/L	0.01	0.01	-	-	-	-	0.002	-	-	-	-	0.0005	-	-	**0.014[ab]**	-	-	ND(0.01)
Barium	mg/L	2	2	-	-	-	-	0.235	-	-	-	-	0.238	-	-	0.311	-	-	0.277
Beryllium	mg/L	0.004	0.004	-	-	-	-	ND(0.001)	-	-	-	-	ND(0.001)	-	-	ND(0.001)	-	-	ND(0.005)
Cadmium	mg/L	0.005	0.005	-	-	-	-	**0.006[ab]**	-	-	-	-	0.004	-	-	**0.007[ab]**	-	-	ND(0.005)
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	148
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	0.011	-	-	-	-	0.015	-	-	0.012	-	-	0.0111
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0025 J
Copper	mg/L	1.3	1.3	-	-	-	-	0.005	-	-	-	-	0.005	-	-	0.005	-	-	ND(0.025)
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.45
Lead	mg/L	0.015	0.015	-	-	-	-	**0.024[ab]**	-	-	-	-	**0.026[ab]**	-	-	**0.029[ab]**	-	-	ND(0.005)
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.1
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.69[ab]**
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	0.0005	-	-	-	-	0.0005	-	-	0.0005	-	-	ND(0.0002)
Nickel	mg/L	2.04	0.312	-	-	-	-	0.038	-	-	-	-	0.032	-	-	0.048	-	-	0.0126 J
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.09
Selenium	mg/L	0.05	0.05	-	-	-	-	ND(0.001)	-	-	-	-	ND(0.001)	-	-	ND(0.001)	-	-	ND(0.005)
Silver	mg/L	0.508	0.0779	-	-	-	-	0.002	-	-	-	-	0.002	-	-	0.003	-	-	ND(0.01)
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69.7
Thallium	mg/L	-	-	-	-	-	-	0.021	-	-	-	-	0.033	-	-	0.016	-	-	ND(0.01)
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.05)
Zinc	mg/L	30.5	4.67	-	-	-	-	0.067	-	-	-	-	0.081	-	-	0.055	-	-	0.0103 J

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1	MW-1	MW-1	MW-1	MW-106	MW-106	MW-106	MW-106	MW-106	MW-107	MW-107	MW-107	MW-4	MW-4	MW-4	TMW-129
Sample Name:				GW-120407-JH-005	GW-031108-JH-006	GW-062408-JH-005	WG-121311-KH-016	MW-106	MW-106	MW-106	MW-106	MW-106	MW-107	MW-107	MW-107	MW-4	MW-4	MW-4	GW112806GC004
Sample Date:				12/4/2007	3/11/2008	6/24/2008	12/13/2011	10/1/1988	6/1/1989	7/1/1989	5/1/1990	6/23/1994	10/1/1988	6/1/1989	7/1/1989	10/1/1988	6/1/1989	7/1/1989	11/28/2006
Sample Type:																			Duplicate
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	LANGSTON	PACE	PACE	LANGSTON	PACE	PACE	CRA
	Units	Groundwater Pathway	Groundwater Pathway																
Pesticides																			
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	ND(0.00005)	-	-	-	-	-	-
General Chemistry																			
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-129	TMW-131	TMW-131	S-113	S-113	S-113	S-113	S-113	TMW-123	TMW-123	TMW-123	MW-150C	MW-111	MW-111	MW-111	MW-111
Sample Name:				GW112806GC003	GW112806GC001	GW112806GC002	S-113	S-113	S-113	S-113	S-113	GW112806GC009	GW-091407-NT-001	WG-121211-KH-006	GW-100398-JM-033	MW-111	MW-111	MW-111	MW-111
Sample Date:				11/28/2006	11/28/2006	11/28/2006	10/1/1988	6/1/1989	7/1/1989	5/1/1990	11/1/1993	11/28/2006	9/14/2007	12/12/2011	10/4/1998	5/1/1990	5/1/1991	11/1/1991	5/1/1992
Sample Type:																			
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	N/A	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE
Volatile Organic Compounds																			
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	ND(0.001)	ND(0.001)	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	ND(0.01)	-	ND(0.01)	ND(0.005)	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	-	ND(0.01)	-	-	-	-	ND(0.01)	-	ND(0.01)	ND(0.005)	-	-	-	-
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	-	ND(0.005)	-	-	-	-	ND(0.01)	-	ND(0.01)	ND(0.005)	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	-	ND(0.01)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0036	0.002	-	-	-	-	-	-	0.0007	-	0.00067 J	ND(0.001)	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	ND(0.005)	-	-	ND(0.005)	ND(0.005)	-	-	-	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	-	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	-	ND(0.01)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.002)	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	-	ND(0.005)	-	-	-	-	0.00037 J	-	ND(0.001)	ND(0.001)	-	-	-	-
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	-	0.006	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.00016 J	ND(0.0005)	-	-	-	-	-	-	ND(0.0005)	-	ND(0.001)	ND(0.001)	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	0.00054 J	ND(0.001)	-	ND(0.005)	-	-	-	-	0.00044 J	-	0.0003 J	ND(0.001)	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	ND(0.02)	-	-	-	-	-	-	0.0065	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	-	ND(0.01)	-	-	-	-	ND(0.001)	-	ND(0.001)	ND(0.001)	-	-	-	-
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	-	0.0025	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	-	ND(0.002)	ND(0.001)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Semi-Volatile Organic Compounds																			
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-129	TMW-131	TMW-131	S-113	S-113	S-113	S-113	S-113	TMW-123	TMW-123	TMW-123	MW-150C	MW-111	MW-111	MW-111	MW-111
Sample Name:				GW112806GC003	GW112806GC001	GW112806GC002	S-113	S-113	S-113	S-113	S-113	GW112806GC009	GW-091407-NT-001	WG-121211-KH-006	GW-100398-JM-033	MW-111	MW-111	MW-111	MW-111
Sample Date:				11/28/2006	11/28/2006	11/28/2006	10/1/1988	6/1/1989	7/1/1989	5/1/1990	11/1/1993	11/28/2006	9/14/2007	12/12/2011	10/4/1998	5/1/1990	5/1/1991	11/1/1991	5/1/1992
Sample Type:																			
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	N/A	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE
	Units	Groundwater Pathway	Groundwater Pathway																
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Petroleum Products																			
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	0.421 J	1.2 J	0.913 J	-	-	-	-	-	5.14 J	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	ND(0.06)	ND(0.06)	ND(0.06)	ND(0.01)	-	-	-	-	ND(0.06)	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	ND(0.01)	0.0044 J	ND(0.01)	**0.035[ab]**	-	-	-	-	**0.0109[ab]**	0.0052 J	-	-	-	-	-	-
Barium	mg/L	2	2	0.274	0.285	0.292	0.515	-	-	-	-	0.219	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	**0.006[ab]**	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-
Calcium	mg/L	-	-	147	166	169	-	-	-	-	-	179	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	0.0086 J	0.0147	0.0112	0.018	-	-	-	-	0.0251	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	0.0028 J	0.0022 J	0.0023 J	-	-	-	-	-	0.0035 J	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	ND(0.025)	ND(0.025)	ND(0.025)	0.015	-	-	-	-	0.0057 J	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	5.31	14.8	15.3	-	-	-	-	-	15.1	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	ND(0.005)	0.0028 J	ND(0.005)	**0.03[ab]**	-	-	-	-	0.0062	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	38.8	41.3	42.3	-	-	-	-	-	32.2	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	**1.68[ab]**	**1.86[ab]**	**1.89[ab]**	-	-	-	-	-	**1.25[ab]**	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	ND(0.0002)	ND(0.0002)	ND(0.0002)	0.0005	-	-	-	-	ND(0.0002)	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	0.0106 J	0.0108 J	0.009 J	0.066	-	-	-	-	0.0204 J	-	-	-	-	-	-	-
Potassium	mg/L	-	-	8.95	8.89	9.08	-	-	-	-	-	10.9	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.001)	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	ND(0.01)	ND(0.01)	ND(0.01)	0.003	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Sodium	mg/L	-	-	68.9	35	36.4	-	-	-	-	-	60.4	-	-	-	-	-	-	-
Thallium	mg/L	-	-	0.0051 J	0.0064 J	ND(0.01)	0.026	-	-	-	-	0.0048 J	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	ND(0.05)	0.0032 J	0.0024 J	-	-	-	-	-	0.0131 J	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	0.0072 J	ND(0.02)	ND(0.02)	0.086	-	-	-	-	0.0284	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				TMW-129	TMW-131	TMW-131	S-113	S-113	S-113	S-113	S-113	TMW-123	TMW-123	TMW-123	MW-150C	MW-111	MW-111	MW-111	MW-111
Sample Name:				GW112806GC003	GW112806GC001	GW112806GC002	S-113	S-113	S-113	S-113	S-113	GW112806GC009	GW-091407-NT-001	WG-121211-KH-006	GW-100398-JM-033	MW-111	MW-111	MW-111	MW-111
Sample Date:				11/28/2006	11/28/2006	11/28/2006	10/1/1988	6/1/1989	7/1/1989	5/1/1990	11/1/1993	11/28/2006	9/14/2007	12/12/2011	10/4/1998	5/1/1990	5/1/1991	11/1/1991	5/1/1992
Sample Type:																			
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	N/A	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway	Residential Groundwater Pathway	CRA	CRA	CRA	LANGSTON	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	PACE	PACE	PACE	PACE
Pesticides																			
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																			
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-117A
Sample Name:				MW-111	MW-111	MW-111	MW-111	GW-122104-DS-011	GW-091307-NT-024	GW-120607-JH-036	GW-120607-JH-035	GW-031308-JH-031	GW-031308-JH-030	GW-062608-JH-026	WG-121211-KH-004	GW-011706-JH-003
Sample Date:				11/1/1992	6/1/1993	11/1/1993	6/21/1994	12/21/2004	9/13/2007	12/6/2007	12/6/2007	3/13/2008	3/13/2008	6/26/2008	12/12/2011	1/17/2006
Sample Type:										Duplicate		Duplicate				
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Volatile Organic Compounds																
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	0.003	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	-	-	ND(0.05)	ND(0.025)	ND(0.033)	ND(0.033)	ND(0.025)	ND(0.025)	ND(0.014)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	-	-	ND(0.05)	ND(0.025)	ND(0.033)	ND(0.033)	ND(0.025)	ND(0.025)	ND(0.014)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	-	-	-	-	ND(0.05)	ND(0.025)	ND(0.033)	ND(0.033)	ND(0.025)	ND(0.025)	ND(0.014)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	0.00094 J	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	-	-	**0.15[ab]**	0.07	**0.089[ab]**	**0.088[ab]**	**0.083[ab]**	**0.08[ab]**	0.049	0.023	ND(0.0005)
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	ND(0.005)	ND(0.005)	ND(0.005)	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)UJ	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-
Methylene chloride	mg/L	0.005	0.005	-	-	-	-	ND(0.005)	ND(0.0025)	0.0028 J	0.0017 J	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)UJ	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	-	-	0.011	0.0047	0.006	0.0062	0.0067	0.0057	0.0031	0.0019	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	-	-	-	-	ND(0.005)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)	-
Vinyl chloride	mg/L	0.002	0.002	-	-	-	-	**0.017[ab]**	**0.003[ab]**	**0.0067[ab]**	**0.007[ab]**	**0.0057[ab]**	**0.0062[ab]**	0.0012 J	0.0013	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.0025)	ND(0.0033)	ND(0.0033)	ND(0.0025)	ND(0.0025)	ND(0.0014)UJ	ND(0.002)	ND(0.001)
Semi-Volatile Organic Compounds																
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-111**	**MW-117A**
Sample Name:				**MW-111**	**MW-111**	**MW-111**	**MW-111**	**GW-122104-DS-011**	**GW-091307-NT-024**	**GW-120607-JH-036**	**GW-120607-JH-035**	**GW-031308-JH-031**	**GW-031308-JH-030**	**GW-062608-JH-026**	**WG-121211-KH-004**	**GW-011706-JH-003**
Sample Date:				**11/1/1992**	**6/1/1993**	**11/1/1993**	**6/21/1994**	**12/21/2004**	**9/13/2007**	**12/6/2007**	**12/6/2007**	**3/13/2008**	**3/13/2008**	**6/26/2008**	**12/12/2011**	**1/17/2006**
Sample Type:										**Duplicate**		**Duplicate**				
AOC:				**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Property:		**KDHE Tier 2 Risk-Based Criteria**		**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**	**Fairfax I**
Sampling Company		**Non-Residential**	**Residential**	**PACE**	**PACE**	**PACE**	**PACE**	**CRA**	**CRA**	**CRA**	**CRA**	**CRA**	**CRA**	**CRA**	**CRA**	**CRA**
	Units	**Groundwater Pathway**	**Groundwater Pathway**													
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	0.0039 J	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	0.00091 J	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Petroleum Products																
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	-	ND(0.1)	ND(0.12)	ND(0.13)	ND(0.1)	ND(0.1)	ND(0.1)	-	-
Metals																
Aluminum	mg/L	-	-	-	-	-	-	ND(0.20)	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	ND(0.060)	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	0.0035 J	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	0.50	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	ND(0.0050)	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	ND(0.0050)	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	176	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	ND(0.010)	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	ND(0.050)	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	ND(0.025)	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	23.2 J	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	ND(0.0030)	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	50.9 J	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	**1.7 J[ab]**	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	ND(0.00020)	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	ND(0.040)	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	7.1	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	ND(0.0050)	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	ND(0.010)	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	30.1	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	0.0051 J	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	ND(0.050)	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	ND(0.020)	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-117A
Sample Name:				MW-111	MW-111	MW-111	MW-111	GW-122104-DS-011	GW-091307-NT-024	GW-120607-JH-036	GW-120607-JH-035	GW-031308-JH-031	GW-031308-JH-030	GW-062608-JH-026	WG-121211-KH-004	GW-011706-JH-003
Sample Date:				11/1/1992	6/1/1993	11/1/1993	6/21/1994	12/21/2004	9/13/2007	12/6/2007	12/6/2007	3/13/2008	3/13/2008	6/26/2008	12/12/2011	1/17/2006
Sample Type:										Duplicate		Duplicate				
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	PACE	PACE	PACE	PACE	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway													
Pesticides																
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117B	MW-117B	MW-117B	MW-117B	MW-117B
Sample Name:				GW-062706-JH-004	GW-091107-NT-004	GW-091107-NT-003	GW-120407-JH-003	GW-031108-JH-004	GW-062408-JH-003	WG-121311-KH-015	GW-011706-JH-004	GW-062706-JH-003	GW-091107-NT-005	GW-120407-JH-004	GW-031108-JH-005
Sample Date:				6/27/2006	9/11/2007	9/11/2007	12/4/2007	3/11/2008	6/24/2008	12/13/2011	1/17/2006	6/27/2006	9/11/2007	12/4/2007	3/11/2008
Sample Type:					Duplicate										
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway a	Groundwater Pathway b												
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00019 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00027 J	ND(0.001)	0.0013	0.0011	0.0013	0.0013	0.0011
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117B	MW-117B	MW-117B	MW-117B	MW-117B
Sample Name:				GW-062706-JH-004	GW-091107-NT-004	GW-091107-NT-003	GW-120407-JH-003	GW-031108-JH-004	GW-062408-JH-003	WG-121311-KH-015	GW-011706-JH-004	GW-062706-JH-003	GW-091107-NT-005	GW-120407-JH-004	GW-031108-JH-005
Sample Date:				6/27/2006	9/11/2007	9/11/2007	12/4/2007	3/11/2008	6/24/2008	12/13/2011	1/17/2006	6/27/2006	9/11/2007	12/4/2007	3/11/2008
Sample Type:					Duplicate										
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	0.045 J	0.028 J	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	0.12	ND(0.1)	ND(0.1)
Metals															
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117A	MW-117B	MW-117B	MW-117B	MW-117B	MW-117B
Sample Name:				GW-062706-JH-004	GW-091107-NT-004	GW-091107-NT-003	GW-120407-JH-003	GW-031108-JH-004	GW-062408-JH-003	WG-121311-KH-015	GW-011706-JH-004	GW-062706-JH-003	GW-091107-NT-005	GW-120407-JH-004	GW-031108-JH-005
Sample Date:				6/27/2006	9/11/2007	9/11/2007	12/4/2007	3/11/2008	6/24/2008	12/13/2011	1/17/2006	6/27/2006	9/11/2007	12/4/2007	3/11/2008
Sample Type:					Duplicate										
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company	Units	Non-Residential Groundwater Pathway	Residential Groundwater Pathway	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-117B	MW-117B	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118B	MW-118B	MW-118B
Sample Name:				GW-062408-JH-004	WG-121511-KH-033	GW-011706-JH-006	GW-062706-JH-006	GW-091107-NT-008	GW-120407-JH-006	GW-031108-JH-008	GW-062408-JH-013	WG-121311-KH-017	GW-011706-JH-005	GW-062706-JH-005	GW-091107-NT-007
Sample Date:				6/24/2008	12/15/2011	1/17/2006	6/27/2006	9/11/2007	12/4/2007	3/11/2008	6/24/2008	12/13/2011	1/17/2006	6/27/2006	9/11/2007
Sample Type:															
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway a	Groundwater Pathway b												
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0016
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.00083	0.0013	0.0029	0.0035	0.0045	0.0031	0.0039	0.0055	0.004	0.0049	0.0027	0.0029
Cyclohexane	mg/L	14.7	7.02	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	ND(0.005)	-	-	-	-	-	-	ND(0.005)	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00024 J	ND(0.001)	0.00027 J	0.0002 J	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	0.0016	0.0013	0.00063 J	0.00064 J	0.00068 J	0.00062 J	0.00024 J	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0011	0.00038 J	0.00031 J
Xylenes (total)	mg/L	10	10	ND(0.001)UJ	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-117B	MW-117B	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118B	MW-118B	MW-118B
Sample Name:				GW-062408-JH-004	WG-121511-KH-033	GW-011706-JH-006	GW-062706-JH-006	GW-091107-NT-008	GW-120407-JH-006	GW-031108-JH-008	GW-062408-JH-013	WG-121311-KH-017	GW-011706-JH-005	GW-062706-JH-005	GW-091107-NT-007
Sample Date:				6/24/2008	12/15/2011	1/17/2006	6/27/2006	9/11/2007	12/4/2007	3/11/2008	6/24/2008	12/13/2011	1/17/2006	6/27/2006	9/11/2007
Sample Type:															
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	ND(0.1)	-	-	-	0.032 J	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	0.032 J
Metals															
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-117B	MW-117B	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118A	MW-118B	MW-118B	MW-118B
Sample Name:				GW-062408-JH-004	WG-121511-KH-033	GW-011706-JH-006	GW-062706-JH-006	GW-091107-NT-008	GW-120407-JH-006	GW-031108-JH-008	GW-062408-JH-013	WG-121311-KH-017	GW-011706-JH-005	GW-062706-JH-005	GW-091107-NT-007
Sample Date:				6/24/2008	12/15/2011	1/17/2006	6/27/2006	9/11/2007	12/4/2007	3/11/2008	6/24/2008	12/13/2011	1/17/2006	6/27/2006	9/11/2007
Sample Type:															
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-118B	MW-118B	MW-118B	MW-118B	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A
Sample Name:				GW-120407-JH-007	GW-031108-JH-009	GW-062408-JH-012	WG-121511-KH-034	GW112806GC005	GW-091207-NT-011	GW-091207-NT-010	GW-120507-JH-011	GW-031108-JH-011	GW-062408-JH-007	WG-121311-DF-011	GW112806GC006
Sample Date:				12/4/2007	3/11/2008	6/24/2008	12/15/2011	11/28/2006	9/12/2007	9/12/2007	12/5/2007	3/11/2008	6/24/2008	12/13/2011	11/28/2006
Sample Type:									Duplicate						
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway a	Groundwater Pathway b												
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0029 J
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0028	0.0034	0.0024	0.025	0.00026 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	0.00026 J
Cyclohexane	mg/L	14.7	7.02	-	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	ND(0.005)	-	-	-	-	-	-	ND(0.005)	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	0.00022 J	ND(0.0005)	0.00089 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	ND(0.001)	-	-	-	-	-	-	ND(0.001)	-
Vinyl chloride	mg/L	0.002	0.002	0.00036 J	0.00045 J	0.00044 J	**0.0038[ab]**	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.001)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-118B	MW-118B	MW-118B	MW-118B	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124B
Sample Name:				GW-120407-JH-007	GW-031108-JH-009	GW-062408-JH-012	WG-121511-KH-034	GW112806GC005	GW-091207-NT-011	GW-091207-NT-010	GW-120507-JH-011	GW-031108-JH-011	GW-062408-JH-007	WG-121311-DF-011	GW112806GC006
Sample Date:				12/4/2007	3/11/2008	6/24/2008	12/15/2011	11/28/2006	9/12/2007	9/12/2007	12/5/2007	3/11/2008	6/24/2008	12/13/2011	11/28/2006
Sample Type:									Duplicate						
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Phenol	mg/L	29.5	4.56	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	ND(0.1)	ND(0.1)	ND(0.1)	-	-	0.033 J	0.037 J	ND(0.1)	ND(0.1)	ND(0.1)	-	-
Metals															
Aluminum	mg/L	-	-	-	-	-	-	1.57 J	-	-	-	-	-	-	0.261 J
Antimony	mg/L	0.006	0.006	-	-	-	-	ND(0.06)	-	-	-	-	-	-	ND(0.06)
Arsenic	mg/L	0.01	0.01	-	-	-	-	0.0089 J	-	-	-	-	-	-	ND(0.01)
Barium	mg/L	2	2	-	-	-	-	0.526	-	-	-	-	-	-	0.769
Beryllium	mg/L	0.004	0.004	-	-	-	-	ND(0.005)	-	-	-	-	-	-	ND(0.005)
Cadmium	mg/L	0.005	0.005	-	-	-	-	ND(0.005)	-	-	-	-	-	-	ND(0.005)
Calcium	mg/L	-	-	-	-	-	-	108	-	-	-	-	-	-	125
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	0.008 J	-	-	-	-	-	-	ND(0.01)
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	ND(0.05)	-	-	-	-	-	-	ND(0.05)
Copper	mg/L	1.3	1.3	-	-	-	-	0.0023 J	-	-	-	-	-	-	ND(0.025)
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	29.1	-	-	-	-	-	-	11.6
Lead	mg/L	0.015	0.015	-	-	-	-	0.0036 J	-	-	-	-	-	-	ND(0.005)
Magnesium	mg/L	-	-	-	-	-	-	37.5	-	-	-	-	-	-	37.1
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	**2.34[ab]**	-	-	-	-	-	-	**2.32[ab]**
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	ND(0.0002)	-	-	-	-	-	-	ND(0.0002)
Nickel	mg/L	2.04	0.312	-	-	-	-	ND(0.04)	-	-	-	-	-	-	ND(0.04)
Potassium	mg/L	-	-	-	-	-	-	12.8	-	-	-	-	-	-	14.6
Selenium	mg/L	0.05	0.05	-	-	-	-	ND(0.005)	-	-	-	-	-	-	ND(0.005)
Silver	mg/L	0.508	0.0779	-	-	-	-	ND(0.01)	-	-	-	-	-	-	ND(0.01)
Sodium	mg/L	-	-	-	-	-	-	35.5	-	-	-	-	-	-	115
Thallium	mg/L	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	0.0059 J
Vanadium	mg/L	-	-	-	-	-	-	0.0047 J	-	-	-	-	-	-	ND(0.05)
Zinc	mg/L	30.5	4.67	-	-	-	-	0.0194 J	-	-	-	-	-	-	ND(0.02)

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-118B	MW-118B	MW-118B	MW-118B	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A	MW-124B
Sample Name:				GW-120407-JH-007	GW-031108-JH-009	GW-062408-JH-012	WG-121511-KH-034	GW112806GC005	GW-091207-NT-011	GW-091207-NT-010	GW-120507-JH-011	GW-031108-JH-011	GW-062408-JH-007	WG-121311-DF-011	GW112806GC006
Sample Date:				12/4/2007	3/11/2008	6/24/2008	12/15/2011	11/28/2006	9/12/2007	9/12/2007	12/5/2007	3/11/2008	6/24/2008	12/13/2011	11/28/2006
Sample Type:									Duplicate						
AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-124B	MW-124B	MW-124B	MW-124B	MW-124B	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A
Sample Name:				GW-091207-NT-012	GW-120507-JH-012	GW-031108-JH-012	GW-062408-JH-006	WG-121411-KH-024	MW-1A	Well 1A	Well 1A	GW-100398-JM-011	GW-122104-DS-013	GW-091307-NT-029	GW-120607-JH-029	GW-031308-JH-035
Sample Date:				9/12/2007	12/5/2007	3/11/2008	6/24/2008	12/14/2011	3/28/1985	3/28/1985	12/17/1986	10/3/1998	12/21/2004	9/13/2007	12/6/2007	3/13/2008
Sample Type:																
AOC:				N/A	N/A	N/A	N/A	N/A	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON			CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway a	Groundwater Pathway b													
Volatile Organic Compounds																
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	ND(0.001)	-	-	-	ND(0.001)	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	ND(0.001)	-	-	-	ND(0.001)	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	0.008	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.1)	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)	ND(0.001)	-	-	-	ND(0.001)	0.00074 J	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	0.0003 J	0.00023 J	0.00027 J	0.00027 J	0.00016 J	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	0.00022 J	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	ND(0.001)	0.00087 J	0.0004 J	0.00036 J	0.00045 J
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	ND(0.0007)	0.003	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.01)	-	ND(0.0011)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	ND(0.0004)	0.074	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	ND(0.001)	ND(0.01)	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	-	-	-	0.039	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)
Semi-Volatile Organic Compounds																
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	ND(0.05)	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	ND(0.05)	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	ND(0.025)	-	-	-	ND(0.01)	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	ND(0.05)	-	-	-	ND(0.01)	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-124B	MW-124B	MW-124B	MW-124B	MW-124B	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A
Sample Name:				GW-091207-NT-012	GW-120507-JH-012	GW-031108-JH-012	GW-062408-JH-006	WG-121411-KH-024	MW-1A	Well 1A	Well 1A	GW-100398-JM-011	GW-122104-DS-013	GW-091307-NT-029	GW-120607-JH-029	GW-031308-JH-035
Sample Date:				9/12/2007	12/5/2007	3/11/2008	6/24/2008	12/14/2011	3/28/1985	3/28/1985	12/17/1986	10/3/1998	12/21/2004	9/13/2007	12/6/2007	3/13/2008
Sample Type:																
AOC:				N/A	N/A	N/A	N/A	N/A	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON			CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway													
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	0.0015 J	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	ND(0.05)	-	-	-	ND(0.01)	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	ND(0.25)	-	-	-	ND(0.01)	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	ND(0.05)	-	-	-	ND(0.01)	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	ND(0.01)	-	-	-	**0.024[ab]**	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	0.0013 J	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	ND(0.25)	-	-	-	ND(0.01)	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	ND(0.01)	-	-	-	ND(0.01)	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	ND(0.01)	-	-	-	0.0018 J	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	ND(0.01)	-	-	-	ND(0.01)	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	ND(0.25)	-	-	-	ND(0.01)	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	ND(0.05)	-	-	-	ND(0.01)	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	ND(0.025)	-	-	-	0.0062 J	-	-	-
Petroleum Products																
Oil and grease	mg/L	-	-	-	-	-	-	-	-	-	ND(0.5)	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	0.042 J	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	-	-	ND(0.1)	ND(0.1)	ND(0.1)
Metals																
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	ND(0.054)	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	**0.54[ab]**	-	-	-	ND(0.060)	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	**0.022[ab]**	-	-	-	**0.015[ab]**	-	-	-
Barium	mg/L	2	2	-	-	-	-	-	-	-	0.12	-	0.33	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	0.003	-	-	-	0.00079 J	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	**0.007[ab]**	-	-	-	ND(0.0050)	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	129	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	-	-	0.028	-	ND(0.01)	-	ND(0.010)	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	ND(0.050)	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	0.046	-	-	-	ND(0.025)	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	17.5	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	-	-	**0.11[ab]**	-	ND(0.01)	-	ND(0.0030)	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	35.1 J	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	**1.7 J[ab]**	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	ND(0.001)	-	-	-	ND(0.00020)	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	-	-	0.043	-	ND(0.01)	-	ND(0.040)	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	7.7 J	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	ND(0.001)	-	-	-	0.0048 J	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	0.001	-	-	-	ND(0.010)	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	43.5	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	0.048	-	ND(0.02)	-	ND(0.010)	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	ND(0.050)	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	-	-	0.36	-	0.064	-	ND(0.020)	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-124B	MW-124B	MW-124B	MW-124B	MW-124B	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A
Sample Name:				GW-091207-NT-012	GW-120507-JH-012	GW-031108-JH-012	GW-062408-JH-006	WG-121411-KH-024	MW-1A	Well 1A	Well 1A	GW-100398-JM-011	GW-122104-DS-013	GW-091307-NT-029	GW-120607-JH-029	GW-031308-JH-035
Sample Date:				9/12/2007	12/5/2007	3/11/2008	6/24/2008	12/14/2011	3/28/1985	3/28/1985	12/17/1986	10/3/1998	12/21/2004	9/13/2007	12/6/2007	3/13/2008
Sample Type:																
AOC:				N/A	N/A	N/A	N/A	N/A	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA	CRA	CRA	LANGSTON			CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway													
Pesticides																
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
General Chemistry																
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1A	MW-1A	MW-1A	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B
Sample Name:				GW-062608-JH-033	GW-062608-JH-032	WG-121311-KH-021	Well 1B	GW-091307-NT-028	GW-120607-JH-028	GW-120607-JH-027	GW-031308-JH-038	GW-031308-JH-037	GW-062608-JH-031	GW-062608-JH-030	WG-121411-KH-031
Sample Date:				6/26/2008	6/26/2008	12/13/2011	12/17/1986	9/13/2007	12/6/2007	12/6/2007	3/13/2008	3/13/2008	6/26/2008	6/26/2008	12/14/2011
Sample Type:				Duplicate					Duplicate		Duplicate		Duplicate		
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	CRA	CRA	CRA		CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.00043 J	0.00034 J	0.00018 J	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00028 J	0.00026 J	ND(0.0005)	ND(0.0005)	ND(0.001)
Cyclohexane	mg/L	14.7	7.02	-	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.0007)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	ND(0.005)	-	-	-	-	-	-	-	-	ND(0.005)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)UJ	ND(0.001)UJ	ND(0.001)	ND(0.0011)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)UJ	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.001)	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.001)	ND(0.001)UJ	ND(0.002)	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1A	MW-1A	MW-1A	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B
Sample Name:				GW-062608-JH-033	GW-062608-JH-032	WG-121311-KH-021	Well 1B	GW-091307-NT-028	GW-120607-JH-028	GW-120607-JH-027	GW-031308-JH-038	GW-031308-JH-037	GW-062608-JH-031	GW-062608-JH-030	WG-121411-KH-031
Sample Date:				6/26/2008	6/26/2008	12/13/2011	12/17/1986	9/13/2007	12/6/2007	12/6/2007	3/13/2008	3/13/2008	6/26/2008	6/26/2008	12/14/2011
Sample Type:				Duplicate					Duplicate		Duplicate		Duplicate		
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential	CRA	CRA	CRA		CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	-	-	-	ND(0.5)	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	ND(0.1)	ND(0.1)	-	-	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	-
Metals															
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	0.42	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	ND(0.02)	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	0.042	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1A	MW-1A	MW-1A	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B	MW-1B
Sample Name:				GW-062608-JH-033	GW-062608-JH-032	WG-121311-KH-021	Well 1B	GW-091307-NT-028	GW-120607-JH-028	GW-120607-JH-027	GW-031308-JH-038	GW-031308-JH-037	GW-062608-JH-031	GW-062608-JH-030	WG-121411-KH-031
Sample Date:				6/26/2008	6/26/2008	12/13/2011	12/17/1986	9/13/2007	12/6/2007	12/6/2007	3/13/2008	3/13/2008	6/26/2008	6/26/2008	12/14/2011
Sample Type:				Duplicate					Duplicate		Duplicate		Duplicate		
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company	Units	Non-Residential Groundwater Pathway	Residential Groundwater Pathway	CRA	CRA	CRA		CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample Name:				Well 1C	GW-100398-JM-009	GW-091307-NT-027	GW-120507-JH-024	GW-031308-JH-039	GW-062608-JH-029	WG-121511-KH-035	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A
Sample Date:				12/17/1986	10/3/1998	9/13/2007	12/5/2007	3/13/2008	6/26/2008	12/15/2011	6/30/1987	10/29/1987	6/27/1988	9/16/1988	12/19/1988	3/21/1989
Sample Type:																
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b		CRA	CRA	CRA	CRA	CRA	CRA	NONE	NONE	NONE		NONE	NONE
Volatile Organic Compounds																
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0461	0.025	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,1-Dichloroethene	mg/L	0.007	0.007	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	ND(0.001)	-	-	-	-	ND(0.001)	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	0.005	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	ND(0.001)	-	-	-	-	ND(0.001)	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	0.041	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-
Acetone	mg/L	45.5	11.5	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	-	-	-	-	-
Benzene	mg/L	0.005	0.005	ND(0.0004)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.04[ab]	ND(0.0004)
Bromodichloromethane	mg/L	0.08	0.08	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Carbon disulfide	mg/L	1.66	0.716	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Chlorobenzene	mg/L	0.1	0.1	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.0007)	0.01	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	0.009	ND(0.0007)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-
Methylene chloride	mg/L	0.005	0.005	-	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	0.0014	ND(0.001)	-	-	-	-	-	-
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.0004)	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.0004)	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.0004)	-	-
Tetrachloroethene	mg/L	0.005	0.005	ND(0.0011)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	-	-	-	-	-	-
Toluene	mg/L	1	1	ND(0.0004)	0.21	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.044	ND(0.0004)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	-	-	-	-	-	-
Trichloroethene	mg/L	0.005	0.005	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-
Vinyl chloride	mg/L	0.002	0.002	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	-	-	-	-	-	-
Xylenes (total)	mg/L	10	10	-	0.11	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.002)	ND(0.0012)	ND(0.0012)	ND(0.0012)	-	0.041	ND(0.0012)
Semi-Volatile Organic Compounds																
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample Name:				Well 1C	GW-100398-JM-009	GW-091307-NT-027	GW-120507-JH-024	GW-031308-JH-039	GW-062608-JH-029	WG-121511-KH-035	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A
Sample Date:				12/17/1986	10/3/1998	9/13/2007	12/5/2007	3/13/2008	6/26/2008	12/15/2011	6/30/1987	10/29/1987	6/27/1988	9/16/1988	12/19/1988	3/21/1989
Sample Type:																
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential		CRA	CRA	CRA	CRA	CRA	CRA	NONE	NONE	NONE		NONE	NONE
	Units	Groundwater Pathway	Groundwater Pathway													
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Products																
Oil and grease	mg/L	-	-	ND(0.5)	-	-	-	-	-	-	ND(0.5)	ND(0.5)	1.0	0.6	1.0	ND(0.5)
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	-	-	-	-	-	-	-
Metals																
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	0.31	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	ND(0.01)	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	ND(0.02)	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	0.033	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-1C	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample Name:				Well 1C	GW-100398-JM-009	GW-091307-NT-027	GW-120507-JH-024	GW-031308-JH-039	GW-062608-JH-029	WG-121511-KH-035	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A	Well 11A/110A
Sample Date:				12/17/1986	10/3/1998	9/13/2007	12/5/2007	3/13/2008	6/26/2008	12/15/2011	6/30/1987	10/29/1987	6/27/1988	9/16/1988	12/19/1988	3/21/1989
Sample Type:																
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential		CRA	CRA	CRA	CRA	CRA	CRA	NONE	NONE	NONE		NONE	NONE
	Units	Groundwater Pathway	Groundwater Pathway													
Pesticides																
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample Name:				Well 11A/110A	Well 11A/110A	GW-100398-JM-017	GW-122104-DS-008	GW-091407-NT-034	GW-091407-NT-033	GW-120507-JH-023	GW-031308-JH-034	GW-031308-JH-033	GW-062608-JH-028	GW-062608-JH-027	WG-121311-KH-019
Sample Date:				6/21/1989	9/18/1989	10/3/1998	12/21/2004	9/14/2007	9/14/2007	12/5/2007	3/13/2008	3/13/2008	6/26/2008	6/26/2008	12/13/2011
Sample Type:								Duplicate			Duplicate		Duplicate		
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b	NONE		CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	ND(0.001)	-	-	-	-	-	-	-	-	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	-	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	-	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	-	-	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	1.66	0.716	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	-	-	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	-	-	0.002	0.004	0.0027	0.0026	0.0019	0.0058	0.0057	0.0046	0.0046	0.0016
Cyclohexane	mg/L	14.7	7.02	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7	0.7	ND(0.0007)	ND(0.0007)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)UJ	ND(0.001)
Methyl cyclohexane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)
Methylene chloride	mg/L	0.005	0.005	-	-	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	0.005	0.005	-	-	**0.029[ab]**	0.0048	**0.0073[ab]**	**0.007[ab]**	**0.0096[ab]**	0.0035	0.0035	0.002 J	0.0021 J	**0.0062[ab]**
Toluene	mg/L	1	1	ND(0.0004)	ND(0.0004)	0.023	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	-	-	ND(0.001)	0.00021 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00019 J	0.00021 J	0.0002 J	0.00019 J	ND(0.001)
Trichloroethene	mg/L	0.005	0.005	-	-	0.001	0.0019	0.0014	0.0015	0.0014	0.00087 J	0.00075 J	0.00052 J	0.00055 J	0.00058 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	-	-	-	-	-	-	-	-	-	-	-	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.0012)	ND(0.0012)	0.013	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)UJ	ND(0.002)
Semi-Volatile Organic Compounds															
1,2-Dichlorobenzene	mg/L	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.075	0.075	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	1.86	0.292	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.00187	0.000557	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	0.0346	0.0167	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	4.78	0.744	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample Name:				Well 11A/110A	Well 11A/110A	GW-100398-JM-017	GW-122104-DS-008	GW-091407-NT-034	GW-091407-NT-033	GW-120507-JH-023	GW-031308-JH-034	GW-031308-JH-033	GW-062608-JH-028	GW-062608-JH-027	WG-121311-KH-019
Sample Date:				6/21/1989	9/18/1989	10/3/1998	12/21/2004	9/14/2007	9/14/2007	12/5/2007	3/13/2008	3/13/2008	6/26/2008	6/26/2008	12/13/2011
Sample Type:								Duplicate			Duplicate		Duplicate		
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential	NONE		CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
3&4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/L	0.926	0.494	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	0.000537	0.00016	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	0.00543	0.00162	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/L	0.006	0.006	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Caprolactam	mg/L	50.6	7.77	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0.000027	0.00000805	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	79	12.2	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/L	8.4	1.35	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/L	0.0894	0.0184	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0.000392	0.000117	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Naphthalene	mg/L	0.00211	0.00111	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-
Phenol	mg/L	29.5	4.56	-	-	-	0.0045 J	-	-	-	-	-	-	-	-
Petroleum Products															
Oil and grease	mg/L	-	-	ND(0.5)	ND(0.5)	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C20) DRO	mg/L	0.72	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C6-C10) GRO	mg/L	0.5	0.5	-	-	-	-	0.17 J	ND(0.1)UJ	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	-
Metals															
Aluminum	mg/L	-	-	-	-	-	ND(0.053)	-	-	-	-	-	-	-	-
Antimony	mg/L	0.006	0.006	-	-	-	ND(0.060)	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	0.01	-	-	-	ND(0.010)	-	-	-	-	-	-	-	-
Barium	mg/L	2	2	-	-	-	0.19 J	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	0.004	-	-	-	0.00078 J	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	0.005	-	-	-	ND(0.00061)	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	159	-	-	-	-	-	-	-	-
Calcium (dissolved)	mg/L	-	-	-	-	-	155	-	-	-	-	-	-	-	-
Chromium	mg/L	0.1	0.1	-	-	-	ND(0.010)	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.0306	0.00468	-	-	-	0.0035 J	-	-	-	-	-	-	-	-
Copper	mg/L	1.3	1.3	-	-	-	ND(0.025)	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	0.57	-	-	-	-	-	-	-	-
Lead	mg/L	0.015	0.015	-	-	-	ND(0.0030)	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	48.3 J	-	-	-	-	-	-	-	-
Magnesium (dissolved)	mg/L	-	-	-	-	-	47.1 J	-	-	-	-	-	-	-	-
Manganese	mg/L	0.05	0.05	-	-	-	**1.5 J[ab]**	-	-	-	-	-	-	-	-
Manganese (dissolved)	mg/L	0.05	0.05	-	-	-	**1.2[ab]**	-	-	-	-	-	-	-	-
Mercury	mg/L	0.002	0.002	-	-	-	ND(0.00020)	-	-	-	-	-	-	-	-
Nickel	mg/L	2.04	0.312	-	-	-	0.0090 J	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	9.5 J	-	-	-	-	-	-	-	-
Selenium	mg/L	0.05	0.05	-	-	-	0.026	-	-	-	-	-	-	-	-
Silver	mg/L	0.508	0.0779	-	-	-	ND(0.010)	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	84.7	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	ND(0.010)	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	ND(0.050)	-	-	-	-	-	-	-	-
Zinc	mg/L	30.5	4.67	-	-	-	ND(0.020)	-	-	-	-	-	-	-	-

Table A-10

On-Site and Off-Site Groundwater Analytical Data Detections Summary Prior Quarterly GWMP (1985 to 2012)
Former Fairfax I Site
Kansas City, Kansas

Location Name:				MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample Name:				Well 11A/110A	Well 11A/110A	GW-100398-JM-017	GW-122104-DS-008	GW-091407-NT-034	GW-091407-NT-033	GW-120507-JH-023	GW-031308-JH-034	GW-031308-JH-033	GW-062608-JH-028	GW-062608-JH-027	WG-121311-KH-019
Sample Date:				6/21/1989	9/18/1989	10/3/1998	12/21/2004	9/14/2007	9/14/2007	12/5/2007	3/13/2008	3/13/2008	6/26/2008	6/26/2008	12/13/2011
Sample Type:								Duplicate			Duplicate		Duplicate		
AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Property:		KDHE Tier 2 Risk-Based Criteria		off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sampling Company		Non-Residential	Residential	NONE		CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA	CRA
	Units	Groundwater Pathway	Groundwater Pathway												
Pesticides															
Aldrin	mg/L	0.000166	0.0000495	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Aerobic BTEX specific microbial population	cfu/mL	-	-	-	-	-	50	-	-	-	-	-	-	-	-
Ammonia	mg/L	-	-	-	-	-	0.1 J	-	-	-	-	-	-	-	-
Chemical oxygen demand (COD)	mg/L	-	-	-	-	-	24.3	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	1.0	-	-	-	-	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	0.01 J	-	-	-	-	-	-	-	-
Total heterotropic bacteria	cfu/mL	-	-	-	-	-	100	-	-	-	-	-	-	-	-
Total kjeldahl nitrogen (TKN)	mg/L	-	-	-	-	-	ND(3)	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/L	-	-	-	-	-	4	-	-	-	-	-	-	-	-

Table A-11

Groundwater Elevation Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Top of Casing Elevation (ft AMSL)[1]	January 2006		June 2006		September 2007		December 2007		March 2008		June 2008	
				Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]
MW-1	N/A	SHALLOW	746.43	NM	- -	27.39	719.04	24.13	722.30	25.98	720.45	27.01	719.42	18.80	727.63
MW-102A	MW-103A	SHALLOW	748.82	DRY	- -	28.91	719.91	26.45	722.37	29.86	718.96	27.61	721.21	18.11	730.71
MW-102B	MW-103A	INTERMEDIATE	749.15	NM	- -	29.21	719.94	26.60	722.55	30.24	718.91	28.02	721.13	18.43	730.72
MW-102C	MW-103A	DEEP	749.20	32.18	717.02	29.21	719.99	26.80	722.40	30.24	718.96	28.02	721.18	18.43	730.77
MW-103A	MW-103A	Decommissioned During IM	747.71	31.82	715.89	27.97	719.74	25.21	722.50	28.65	719.06	26.78	720.93	17.24	730.47
MW-103B	MW-103A	Decommissioned During IM	746.30	29.22	717.08	26.50	719.80	23.78	722.52	27.15	719.15	25.33	720.97	15.81	730.49
MW-103C	MW-103A	Decommissioned During IM	745.90	28.89	717.01	26.09	719.81	23.38	722.52	26.75	719.15	24.95	720.95	15.41	730.49
MW-104	MW-103A	SHALLOW	746.51	29.52	716.99	26.74	719.77	24.03	722.48	27.45	719.06	25.56	720.95	15.98	730.53
MW-105	MW-103A	SHALLOW	746.70	29.74	716.96	26.96	719.74	24.41	722.29	27.66	719.04	25.80	720.90	16.18	730.52
MW-108	TMW-127	SHALLOW	747.17	30.22	716.95	27.65	719.52	24.91	722.26	27.74	719.43	26.63	720.54	17.11	730.06
MW-109	S-8	SHALLOW	746.11	28.97	717.14	26.44	719.67	23.85	722.26	25.88	720.23	26.36	719.75	17.73	728.38
MW-110	TMW-127	INTERMEDIATE	745.79	28.68	717.11	27.52	718.27	23.43	722.36	25.83	719.96	25.62	720.17	16.64	729.15
MW-110A	OFF-SITE	SHALLOW	743.89	NM	- -	25.61	718.28	22.25	721.64	23.36	720.53	25.07	718.82	17.86	726.03
MW-111	N/A	INTERMEDIATE	745.96	NM	- -	NM	- -	23.86	722.10	25.65	720.31	26.31	719.65	17.98	727.98
MW-115A	MW-103A	SHALLOW	748.07	DRY	- -	28.20	719.87	25.56	722.51	28.82	719.25	27.01	721.06	17.39	730.68
MW-117A	N/A	SHALLOW	743.72	26.89	716.83	24.90	718.82	21.66	722.06	23.68	720.04	24.56	719.16	16.18	727.54
MW-117B	N/A	INTERMEDIATE	743.75	26.90	716.85	24.92	718.83	21.73	722.02	23.73	720.02	24.47	719.28	16.16	727.59
MW-118A	N/A	SHALLOW	747.02	30.34	716.68	29.11	717.91	25.86	721.16	26.81	720.21	28.28	718.74	20.21	726.81
MW-118B	N/A	INTERMEDIATE	746.86	30.18	716.68	28.94	717.92	25.70	721.16	26.65	720.21	28.11	718.75	20.61	726.25
MW-124A	N/A	SHALLOW	747.22	NM	- -	NM	- -	25.13	722.09	28.56	718.66	26.42	720.80	16.81	730.41
MW-124B	N/A	INTERMEDIATE	747.15	NM	- -	NM	- -	25.06	722.09	28.48	718.67	26.48	720.67	16.75	730.40
MW-125	SB-110	SHALLOW	745.34	NI	- -	NI	- -	22.54	722.80[3]	26.34	719.00	24.81	720.53	15.39	729.95
MW-144B	TMW-127	INTERMEDIATE	745.70	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-144C	TMW-127	DEEP	745.83	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-146B	TMW-127	INTERMEDIATE	745.44	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-146C	TMW-127	DEEP	745.73	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-156	TMW-127	INTERMEDIATE	746.88	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-156C	TMW-127	DEEP	746.46	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-158A	TMW-127	SHALLOW	746.06	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-158B	TMW-127	INTERMEDIATE	745.88	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-1A	OFF-SITE	SHALLOW	745.93	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-1B	OFF-SITE	INTERMEDIATE	745.40	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-1C	OFF-SITE	DEEP	746.13	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-123	N/A	SHALLOW	745.16	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-127	TMW-127	SHALLOW	746.02	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-139	TMW-130	Decommissioned During IM	745.63	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-143	TMW-130	SHALLOW	745.28	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-144	TMW-130	SHALLOW	745.08	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-145	TMW-130	SHALLOW	745.36	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-146	TMW-130	SHALLOW	744.93	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-147E	S-8	SHALLOW	744.11	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-148	S-8	SHALLOW	745.85	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-149	S-8	SHALLOW	745.96	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-150	SB-110	SHALLOW	746.26	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-151	SB-110	SHALLOW	744.79	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-152	SB-110	SHALLOW	744.02	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-153	TMW-127	SHALLOW	745.82	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-154	TMW-127	SHALLOW	745.41	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-155	TMW-127	SHALLOW	746.27	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-157	MW-103A	SHALLOW	747.37	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -

Table A-11

Groundwater Elevation Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Top of Casing Elevation (ft AMSL)[1]	December 2011		May 2012		July 11, 2013		October 8, 2013		January 7, 2014		April 7, 2014	
				Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]
MW-1	N/A	SHALLOW	746.43	19.43	727.00	22.46	723.97	- -	- -	25.36	721.07	27.56	718.87	28.21	718.22
MW-102A	MW-103A	SHALLOW	748.82	23.05	725.77	24.63	724.19	NM	- -	27.63	721.19	31.8	717.02	29.55	719.27
MW-102B	MW-103A	INTERMEDIATE	749.15	NM	- -	24.92	724.23	NM	- -	27.91	721.24	32.07	717.08	29.88	719.27
MW-102C	MW-103A	DEEP	749.20	23.90	725.30	24.92	724.28	NM	- -	27.92	721.28	32.06	717.14	29.85	719.35
MW-103A	MW-103A	Decommissioned During IM	747.71	21.82	725.89	NM	- -	24.94	722.77	NM	- -	NM	- -	NM	- -
MW-103B	MW-103A	Decommissioned During IM	746.30	20.81	725.49	22.16	724.14	NM	- -	NM	- -	NM	- -	NM	- -
MW-103C	MW-103A	Decommissioned During IM	745.90	20.40	725.50	21.74	724.16	NM	- -	NM	- -	NM	- -	NM	- -
MW-104	MW-103A	SHALLOW	746.51	19.69	726.82	22.42	724.09	NM	- -	25.50	721.01	29.62	716.89	27.49	719.02
MW-105	MW-103A	SHALLOW	746.70	20.86	725.84	22.66	724.04	NM	- -	25.73	720.97	29.42	717.28	27.72	718.98
MW-108	TMW-127	SHALLOW	747.17	21.11	726.06	23.25	723.92	NM	- -	26.33	720.84	29.58	717.59	27.65	719.52
MW-109	S-8	SHALLOW	746.11	19.37	726.74	22.17	723.94	NM	- -	25.10	721.01	27.58	718.53	27.8	718.31
MW-110	TMW-127	INTERMEDIATE	745.79	19.30	726.49	21.77	724.02	NM	- -	24.80	720.99	27.60	718.19	27.23	718.56
MW-110A	OFF-SITE	SHALLOW	743.89	16.78	727.11	NM	- -	NM	- -	22.99	720.90	24.96	718.93	26.1	717.79
MW-111	N/A	INTERMEDIATE	745.96	19.34	726.62	22.04	723.92	NM	- -	24.95	721.01	27.35	718.61	27.73	718.23
MW-115A	MW-103A	SHALLOW	748.07	22.63	725.44	24.00	724.07	NM	- -	27.98	720.09	DRY	--	29.93	718.14
MW-117A	N/A	SHALLOW	743.72	17.04	726.68	20.08	723.64	NM	- -	23.01	720.71	25.4	718.32	NM	- -
MW-117B	N/A	INTERMEDIATE	743.75	17.42	726.33	20.09	723.66	NM	- -	23.03	720.72	25.45	718.30	NM	- -
MW-118A	N/A	SHALLOW	747.02	20.41	726.61	23.50	723.52	NM	- -	26.45	720.57	NM	--	NM	- -
MW-118B	N/A	INTERMEDIATE	746.86	20.60	726.26	23.43	723.43	NM	- -	26.32	720.54	NM	--	NM	- -
MW-124A	N/A	SHALLOW	747.22	21.85	725.37	23.50	723.72	NM	- -	26.57	720.65	30.40	716.82	28.53	718.6899
MW-124B	N/A	INTERMEDIATE	747.15	22.22	724.93	23.43	723.72	NM	- -	26.50	720.65	30.34	716.81	28.43	718.72
MW-125	SB-110	SHALLOW	745.34	19.58	725.76	21.51	723.83	NM	- -	24.56	720.78	28.15	717.19	26.62	718.72
MW-144B	TMW-127	INTERMEDIATE	745.70	NI	- -	NI	- -	NM	- -	25.00	720.70	27.67	718.03	28.81	716.89
MW-144C	TMW-127	DEEP	745.83	NI	- -	NI	- -	NM	- -	25.12	720.71	27.84	717.99	27.9	717.93
MW-146B	TMW-127	INTERMEDIATE	745.44	NI	- -	NI	- -	NM	- -	24.80	720.64	27.42	718.02	27.63	717.81
MW-146C	TMW-127	DEEP	745.73	NI	- -	NI	- -	NM	- -	25.08	720.65	27.74	717.99	27.88	717.85
MW-156	TMW-127	INTERMEDIATE	746.88	NI	- -	23.22	723.66	NM	- -	26.25	720.63	29.03	717.85	28.87	718.01
MW-156C	TMW-127	DEEP	746.46	NI	- -	NI	- -	NM	- -	25.73	720.73	29.03	717.43	28.34	718.12
MW-158A	TMW-127	SHALLOW	746.06	NI	- -	NI	- -	NM	- -	25.51	720.55	28.58	717.48	27.8	718.26
MW-158B	TMW-127	INTERMEDIATE	745.88	NI	- -	NI	- -	NM	- -	25.31	720.57	28.4	717.48	27.61	718.27
MW-1A	OFF-SITE	SHALLOW	745.93	NI	- -	NI	- -	NM	- -	25.24	720.69	28.2	717.73	27.91	718.02
MW-1B	OFF-SITE	INTERMEDIATE	745.40	NI	- -	NI	- -	NM	- -	24.69	720.71	28.74	716.66	27.37	718.03
MW-1C	OFF-SITE	DEEP	746.13	NI	- -	NI	- -	NM	- -	25.38	720.75	28.35	717.78	28.03	718.1
TMW-123	N/A	SHALLOW	745.16	19.45	725.71	23.11	722.05	NM	- -	24.41	720.75	27.62	717.54	26.55	718.61
TMW-127	TMW-127	SHALLOW	746.02	19.85	726.17	22.47	723.55	NM	- -	25.50	720.52	28.25	717.77	28.11	717.91
TMW-139	TMW-130	Decommissioned During IM	745.63	19.33	726.30	22.25	723.38	NM	- -	NM	- -	NM	- -	NM	- -
TMW-143	TMW-130	SHALLOW	745.28	18.86	726.42	21.91	723.37	NM	- -	24.84	720.44	27.01	718.27	27.75	717.53
TMW-144	TMW-130	SHALLOW	745.08	18.79	726.29	21.67	723.41	NM	- -	24.67	720.41	26.93	718.15	27.45	717.63
TMW-145	TMW-130	SHALLOW	745.36	19.18	726.18	21.95	723.41	NM	- -	24.97	720.39	27.38	717.98	27.69	717.67
TMW-146	TMW-130	SHALLOW	744.93	18.62	726.31	21.55	723.38	NM	- -	24.52	720.41	26.8	718.13	27.37	717.56
TMW-147E	S-8	SHALLOW	744.11	NI	- -	20.27	723.84	NM	- -	23.23	720.88	25.73	718.38	27.83	716.28
TMW-148	S-8	SHALLOW	745.85	NI	- -	22.02	723.83	NM	- -	24.93	720.92	27.25	718.60	27.73	718.12
TMW-149	S-8	SHALLOW	745.96	NI	- -	22.16	723.80	NM	- -	NM	- -	NM	- -	NM	- -
TMW-150	SB-110	SHALLOW	746.26	NI	- -	22.25	724.01	NM	- -	25.29	720.97	28.89	717.37	27.33	718.93
TMW-151	SB-110	SHALLOW	744.79	NI	- -	20.82	723.97	NM	- -	23.25	721.54	27.38	717.41	25.9	718.89
TMW-152	SB-110	SHALLOW	744.02	NI	- -	20.03	723.99	NM	- -	23.08	720.94	26.55	717.47	25.15	718.87
TMW-153	TMW-127	SHALLOW	745.82	NI	- -	22.17	723.65	NM	- -	25.18	720.64	27.6	718.22	27.79	718.03
TMW-154	TMW-127	SHALLOW	745.41	NI	- -	21.66	723.75	NM	- -	24.64	720.77	27.15	718.26	27.32	718.09
TMW-155	TMW-127	SHALLOW	746.27	NI	- -	22.50	723.77	NM	- -	25.53	720.74	28.34	717.93	27.98	718.29
TMW-157	MW-103A	SHALLOW	747.37	NI	- -	23.42	723.95	NM	- -	26.48	720.89	29.92	717.45	28.46	718.91

Table A-11

Groundwater Elevation Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Top of Casing Elevation (ft AMSL)[1]	July 15, 2014		October 6, 2014		January 13, 2015		April 6, 2015		July 7, 2015	
				Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]
MW-1	N/A	SHALLOW	746.43	21.1	725.33	20.22	726.21	24.14	722.29	25.45	720.98	17.14	729.29
MW-102A	MW-103A	SHALLOW	748.82	22.75	726.07	21.21	727.61	28.64	720.18	27.53	721.29	17.88	730.94
MW-102B	MW-103A	INTERMEDIATE	749.15	23.1	726.05	21.88	727.27	29.01	720.14	27.9	721.25	18.22	730.9301
MW-102C	MW-103A	DEEP	749.20	23.09	726.11	21.84	727.36	29.00	720.20	27.89	721.31	18.19	731.01
MW-103A	MW-103A	Decommissioned During IM	747.71	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
MW-103B	MW-103A	Decommissioned During IM	746.30	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
MW-103C	MW-103A	Decommissioned During IM	745.90	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
MW-104	MW-103A	SHALLOW	746.51	20.5	726.01	19.33	727.18	26.20	720.31	25.41	721.10	17.1	729.41
MW-105	MW-103A	SHALLOW	746.70	20.65	726.05	19.51	727.19	26.36	720.34	25.61	721.09	16.48	730.22
MW-108	TMW-127	SHALLOW	747.17	21.23	725.94	20.28	726.89	26.40	720.77	26.26	720.91	16.21	730.96
MW-109	S-8	SHALLOW	746.11	20.57	725.54	19.79	726.32	24.12	721.99	25.17	720.94	16.62	729.49
MW-110	TMW-127	INTERMEDIATE	745.79	20.1	725.69	19.00	726.79	24.28	721.51	24.87	720.92	16.61	729.18
MW-110A	OFF-SITE	SHALLOW	743.89	19.17	724.72	18.25	725.64	21.33	722.56	23.21	720.68	14.92	728.97
MW-111	N/A	INTERMEDIATE	745.96	20.51	725.45	19.74	726.22	24.96	721.00	25.05	720.91	16.52	729.44
MW-115A	MW-103A	SHALLOW	748.07	21.94	726.13	20.79	727.28	27.94	720.13	26.92	721.15	17.14	730.93
MW-117A	N/A	SHALLOW	743.72	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-117B	N/A	INTERMEDIATE	743.75	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-118A	N/A	SHALLOW	747.02	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-118B	N/A	INTERMEDIATE	746.86	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-124A	N/A	SHALLOW	747.22	21.46	725.7599	20.34	726.88	27.38	719.84	26.5	720.72	16.75	730.47
MW-124B	N/A	INTERMEDIATE	747.15	21.4	725.75	20.29	726.86	27.31	719.84	26.42	720.73	16.69	730.46
MW-125	SB-110	SHALLOW	745.34	19.67	725.67	18.35	726.99	24.98	720.36	24.48	720.86	15.05	730.29
MW-144B	TMW-127	INTERMEDIATE	745.70	20.4	725.3	19.71	725.99	23.86	721.84	25.11	720.59	16.23	729.47
MW-144C	TMW-127	DEEP	745.83	20.5	725.33	19.84	725.99	24.02	721.81	25.2	720.63	16.32	729.51
MW-146B	TMW-127	INTERMEDIATE	745.44	20.15	725.29	19.49	725.95	23.58	721.86	24.93	720.51	15.98	729.46
MW-146C	TMW-127	DEEP	745.73	20.42	725.31	19.78	725.95	23.92	721.81	25.2	720.53	16.32	729.41
MW-156	TMW-127	INTERMEDIATE	746.88	20.89	725.99	20.71	726.17	25.50	721.38	26.33	720.55	17.22	729.66
MW-156C	TMW-127	DEEP	746.46	21.45	725.01	20.19	726.27	25.00	721.46	25.78	720.68	16.72	729.7401
MW-158A	TMW-127	SHALLOW	746.06	20.47	725.59	19.55	726.51	25.37	720.69	25.46	720.60	16.47	729.59
MW-158B	TMW-127	INTERMEDIATE	745.88	20.3	725.58	19.38	726.50	25.19	720.69	25.27	720.61	16.28	729.6
MW-1A	OFF-SITE	SHALLOW	745.93	20.28	725.65	19.71	726.22	24.53	721.40	25.32	720.61	16.46	729.47
MW-1B	OFF-SITE	INTERMEDIATE	745.40	19.74	725.66	19.18	726.22	24.03	721.37	24.81	720.59	15.96	729.44
MW-1C	OFF-SITE	DEEP	746.13	20.45	725.68	19.90	726.23	24.71	721.42	25.48	720.65	16.64	729.49
TMW-123	N/A	SHALLOW	745.16	19.62	725.54	18.32	726.84	24.40	720.76	24.3	720.86	15.08	730.08
TMW-127	TMW-127	SHALLOW	746.02	20.64	725.38	19.95	726.07	24.72	721.30	25.54	720.48	16.43	729.59
TMW-139	TMW-130	Decommissioned During IM	745.63	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
TMW-143	TMW-130	SHALLOW	745.28	20.37	724.91	19.75	725.53	23.55	721.73	24.96	720.32	16.42	728.86
TMW-144	TMW-130	SHALLOW	745.08	20.02	725.06	19.34	725.74	23.42	721.66	24.73	720.35	15.82	729.26
TMW-145	TMW-130	SHALLOW	745.36	20.18	725.18	19.54	725.82	24.05	721.31	25.03	720.33	15.93	729.43
TMW-146	TMW-130	SHALLOW	744.93	19.92	725.01	19.20	725.73	23.30	721.63	24.66	720.27	16.72	728.21
TMW-147E	S-8	SHALLOW	744.11	18.62	725.49	17.74	726.37	22.31	721.80	23.23	720.88	14.67	729.44
TMW-148	S-8	SHALLOW	745.85	20.61	725.24	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
TMW-149	S-8	SHALLOW	745.96	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
TMW-150	SB-110	SHALLOW	746.26	20.38	725.88	18.96	727.30	25.76	720.50	25.21	721.05	15.74	730.52
TMW-151	SB-110	SHALLOW	744.79	18.92	725.87	17.51	727.28	24.26	720.53	23.77	721.02	14.29	730.5
TMW-152	SB-110	SHALLOW	744.02	18.15	725.87	16.80	727.22	23.40	720.62	22.98	721.04	13.58	730.44
TMW-153	TMW-127	SHALLOW	745.82	20.3	725.52	19.58	726.24	24.04	721.78	25.13	720.69	16	729.82
TMW-154	TMW-127	SHALLOW	745.41	19.92	725.49	19.20	726.21	24.81	720.60	24.71	720.70	16.01	729.4
TMW-155	TMW-127	SHALLOW	746.27	20.55	725.72	19.78	726.49	25.00	721.27	25.51	720.76	16.65	729.62
TMW-157	MW-103A	SHALLOW	747.37	21.47	725.9	20.57	726.80	27.25	720.12	26.41	720.96	17.14	730.23

Notes:

Site Reference Datum = NVGD 29 (USGS) Datum - 0.88 feet (as per Anderson Survey Company September 11, 2013 email correspondence). Missouri River Level from Record of daily Gage Height Observations for USGS 06893000 Missouri River. USGS 06893000 Gage reading level 0 = 706.4 feet NGVD 29; River level correction to USGS 06893000 Missouri River at Kansas City for Fairfax Site taken as + 4.2 feet.
1 - ft AMSL - feet above mean sea level.
2 - ft BTOC - feet below top of casing
3 - MW-125 - Measured November 1, 2007.
NM- Not measured; NI - Well not installed; '-- Not Calculated; N/A - on-Site well but not included with specific AOC

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Sample Location:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109
Sample ID:				WG-101113-BS-021	WG-101113-BS-022	WG-010914-NL-017	WG-041014-JR-035	WG-071614-AH-003	WG-100714-NL-009	WG-011415-NL-014	WG-040815-NL-024	WG-070715-JR-008
Sample Date:				10/11/2013	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015
		KDHE Tier 2 Risk-Based Criteria			Duplicate							
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b									
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0097	0.0095	0.0069	0.0065	0.0208	--	0.0043	0.0052	0.0124
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)UJ	0.0055 J	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	0.00042 J	0.00024 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0085	0.0083	0.006	0.0053	0.0174	0.0164	0.0038	0.0045	0.0114
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	0.00014 J	0.00014 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0012	0.0012	0.00067 J	0.0013	0.0034	0.0021	0.00052 J	0.00075 J	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Sample Location:				MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109	MW-109
Sample ID:				WG-101113-BS-021	WG-101113-BS-022	WG-010914-NL-017	WG-041014-JR-035	WG-071614-AH-003	WG-100714-NL-009	WG-011415-NL-014	WG-040815-NL-024	WG-070715-JR-008
Sample Date:				10/11/2013	10/11/2013 Duplicate	1/9/2014	4/10/2014	7/16/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015
		KDHE Tier 2 Risk-Based Criteria										
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b									
Trichloroethene	mg/L	0.005	0.005	0.00023 J	0.00019 J	0.0003 J	0.00023 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.00026 J	0.00025 J	ND(0.001)	0.00034 J	0.0012	0.001	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons												
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	ND(0.50)	ND(0.50)	--	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters												
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	4.1	--	--	5.6	--	6.3	--	2.7	--
Nitrate	mg/L	--	--	0.13	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--
Nitrite	mg/L	--	--	ND(0.10)	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--
Manganese 2+	mg/L	--	--	3.11	--	--	2.97	--	0.628	--	3.16	--
Ferrous iron	mg/L	--	--	R	--	--	--	--	0.17 J	--	ND(0.20)UJ	--
Sulfide	mg/L	--	--	ND(0.050)	--	--	ND(0.050)	--	ND(0.050)	--	0.075	--
Sulfate	mg/L	--	--	135	--	--	100	--	262	--	195	--
Alkalinity, total (as CaCO3)	mg/L	--	--	626	--	--	590	--	737	--	724	--
Chloride	mg/L	--	--	2.3	--	--	2.0	--	3.1	--	3.2	--
Ethane	mg/L	--	--	ND(0.0062)	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--
Ethene	mg/L	--	--	ND(0.0062)	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--
Methane	mg/L	--	--	0.0043 J	--	--	0.0107	--	0.0052 J	--	0.0094	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Sample Location:				TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-148	TMW-148
Sample ID:				WG-101113-BS-020	WG-010714-NL-001	WG-041014-JR-036	WG-071614-AH-005	WG-100714-NL-004	WG-011315-NL-012	WG-040915-NL-032	WG-070715-JR-010	WG-101013-NL-020	WG-010814-NL-006
Sample Date:				10/11/2013	1/7/2014	4/10/2014	7/16/2014	10/7/2014	1/13/2015	4/9/2015	7/7/2015	10/10/2013	1/8/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0891	0.0745	0.0527	0.0497	--	0.0754	0.087	0.0671	0.00045 J	0.00045 J
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	0.0002 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	**0.0841[ab]**	**0.0724[ab]**	0.0504	0.0452	0.0447	**0.0731[ab]**	**0.0828[ab]**	0.0629	0.00045 J	0.00045 J
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0323	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	**0.0298[ab]**	**0.0201[ab]**	**0.0413[ab]**	**0.0253[ab]**	**0.0169[ab]**	**0.0333[ab]**	**0.0219[ab]**	**0.0429[ab]**	0.0008 J	0.0005 J
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.005	0.002	0.0023	0.0045	0.0019	0.0022	0.0042	0.0041	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8	S-8
Sample Location:				TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-147E	TMW-148	TMW-148
Sample ID:				WG-101113-BS-020	WG-010714-NL-001	WG-041014-JR-036	WG-071614-AH-005	WG-100714-NL-004	WG-011315-NL-012	WG-040915-NL-032	WG-070715-JR-010	WG-101013-NL-020	WG-010814-NL-006
Sample Date:				10/11/2013	1/7/2014	4/10/2014	7/16/2014	10/7/2014	1/13/2015	4/9/2015	7/7/2015	10/10/2013	1/8/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.0323[ab]	0.0174[ab]	0.0338[ab]	0.0241[ab]	0.0142[ab]	0.0271[ab]	0.0206[ab]	0.0182[ab]	0.0024	0.0029
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	0.00024 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	0.12 J	--	--	--	--	--	--	--	ND(0.50)	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	3.8	--	6.1	--	3.3	--	3.6	--	--	--
Nitrate	mg/L	--	--	0.0 J	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	--	--
Nitrite	mg/L	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	--	--
Manganese 2+	mg/L	--	--	0.223	--	0.333	--	3.64	--	0.206	--	--	--
Ferrous iron	mg/L	--	--	R	--	--	--	0.74 J	--	0.83 J	--	--	--
Sulfide	mg/L	--	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)UJ	--	ND(0.050)	--	--	--
Sulfate	mg/L	--	--	313	--	278	--	167	--	221	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	601	--	577	--	586	--	683	--	--	--
Chloride	mg/L	--	--	2.7	--	2.7	--	2.6	--	2.8	--	--	--
Ethane	mg/L	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	--	--
Ethene	mg/L	--	--	0.00081 J	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	--	--
Methane	mg/L	--	--	ND(0.0066)	--	0.041	--	0.0065 J	--	0.0053 J	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:			S-8	S-8	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Sample Location:			TMW-148	TMW-148	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125
Sample ID:			WG-040914-AH-021	WG-071714-JR-031	WG-100913-NL-005	WG-010814-NL-007	WG-040914-AH-015	WG-071614-AH-013	WG-100614-NL-001	WG-011415-NL-020	WG-040715-JR-015	WG-070815-JR-022
Sample Date:			4/9/2014	7/17/2014	10/9/2013	1/8/2014	4/9/2014	7/16/2014	10/6/2014	1/14/2015	4/7/2015	7/8/2015
		KDHE Tier 2 Risk-Based Criteria										
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b									
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0094	0.0145	0.00042 J	0.0014	0.00036 J	ND(0.001)	--	0.00071 J	ND(0.001)	ND(0.001)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0086	0.0131	0.00042 J	0.0014	ND(0.001)	ND(0.001)	ND(0.001)	0.00071 J	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	0.00091 J	0.00071 J	0.00042 J	0.00077 J	0.00084 J	ND(0.001)	ND(0.001)	0.00064 J	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.00085 J	0.0013	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				S-8	S-8	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Sample Location:				TMW-148	TMW-148	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125
Sample ID:				WG-040914-AH-021	WG-071714-JR-031	WG-100913-NL-005	WG-010814-NL-007	WG-040914-AH-015	WG-071614-AH-013	WG-100614-NL-001	WG-011415-NL-020	WG-040715-JR-015	WG-070815-JR-022
Sample Date:				4/9/2014	7/17/2014	10/9/2013	1/8/2014	4/9/2014	7/16/2014	10/6/2014	1/14/2015	4/7/2015	7/8/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.0031	0.0024	0.00042 J	0.00082 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00077 J	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	ND(0.50)	--	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Sample Location:				MW-125	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-151
Sample ID:				WG-070815-JR-024	WG-101113-BS-018	WG-010914-NL-008	WG-041014-AH-031	WG-071614-AH-011	WG-100814-NL-020	WG-011415-NL-022	WG-040915-NL-030	WG-070815-JR-020	WG-101113-BS-019
Sample Date:				7/8/2015	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015	10/11/2013
		KDHE Tier 2 Risk-Based Criteria		Duplicate									
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	0.0058	0.0095	0.0081	0.005	--	0.005	0.006	0.004	0.0251
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	0.0014 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00017 J
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	0.0054	0.0088	0.0073	0.0043	0.0046	0.0045	0.0056	0.0038	0.0229
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	0.001	0.001	0.00096 J	0.0018	0.0017	0.00081 J	ND(0.001)	0.0045	0.00062 J
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	0.00048 J	0.00068 J	0.00077 J	0.00063 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0022
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Sample Location:				MW-125	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-150	TMW-151
Sample ID:				WG-070815-JR-024	WG-101113-BS-018	WG-010914-NL-008	WG-041014-AH-031	WG-071614-AH-011	WG-100814-NL-020	WG-011415-NL-022	WG-040915-NL-030	WG-070815-JR-020	WG-101113-BS-019
Sample Date:				7/8/2015	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015	10/11/2013
		KDHE Tier 2 Risk-Based Criteria		Duplicate									
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	0.0023	0.0035	0.0014	0.0023	0.0022	0.0028	0.0014	0.0035	0.0027
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	ND(0.50)	--	--	--	--	--	--	--	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	7.6	--	7.3	--	8.1	--	3.8	--	8.2
Nitrate	mg/L	--	--	--	0.0 J	--	ND(0.10)	--	ND(0.10)	--	0.028 J	--	0.0 J
Nitrite	mg/L	--	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)
Manganese 2+	mg/L	--	--	--	0.784	--	1.17	--	1.02	--	1.48	--	0.963
Ferrous iron	mg/L	--	--	--	R	--	--	--	0.028 J	--	ND(0.20)UJ	--	R
Sulfide	mg/L	--	--	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)
Sulfate	mg/L	--	--	--	69.5	--	83.2	--	90.6	--	43.7	--	95.2
Alkalinity, total (as CaCO3)	mg/L	--	--	--	586	--	627	--	610	--	675	--	585
Chloride	mg/L	--	--	--	4.3	--	4.9	--	4.6	--	5.2	--	5.2
Ethane	mg/L	--	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)
Ethene	mg/L	--	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)
Methane	mg/L	--	--	--	0.0225	--	0.142	--	ND(0.0085)	--	0.464	--	0.217

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Sample Location:				TMW-151	TMW-151	TMW-151	TMW-151	TMW-151	TMW-151	TMW-151	TMW-152	TMW-152	TMW-152
Sample ID:				WG-010914-NL-016	WG-041014-AH-033	WG-071614-AH-009	WG-100814-NL-022	WG-011415-NL-024	WG-040915-JR-035	WG-070815-JR-018	WG-100913-NL-004	WG-010714-NL-002	WG-040914-AH-017
Sample Date:				1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015	10/9/2013	1/7/2014	4/9/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.026	0.0288	0.016	--	0.0189	0.0167	0.0209	0.00052 J	0.0305	0.00061 J
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0003 J	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0243	0.026	0.0141	0.0151	0.0177	0.0154	0.0196	0.00052 J	0.0286	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	0.00086 J	0.00017 J	ND(0.001)	ND(0.001)	0.0011	ND(0.001)	0.0034	0.005	0.0007 J	0.0026
Toluene	mg/L	1	1	0.0012	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0017	0.0027	0.0018	0.0012	0.0012	0.0013	0.0013	ND(0.001)	0.0019	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	SB-110
Sample Location:				TMW-151	TMW-151	TMW-151	TMW-151	TMW-151	TMW-151	TMW-151	TMW-152	TMW-152	TMW-152
Sample ID:				WG-010914-NL-016	WG-041014-AH-033	WG-071614-AH-009	WG-100814-NL-022	WG-011415-NL-024	WG-040915-JR-035	WG-070815-JR-018	WG-100913-NL-004	WG-010714-NL-002	WG-040914-AH-017
Sample Date:				1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015	10/9/2013	1/7/2014	4/9/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.003	0.0019	0.0011	0.0011	0.0025	0.001	**0.0055[ab]**	0.0011	0.0028	0.00089 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	--	--	--	ND(0.50)	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	7.0	--	3.9	--	3.9	--	--	--	--
Nitrate	mg/L	--	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	--	--	--
Nitrite	mg/L	--	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	--	--	--
Manganese 2+	mg/L	--	--	--	1.06	--	0.723	--	0.868	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	0.076 J	--	0.26 J	--	--	--	--
Sulfide	mg/L	--	--	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	--	--	--
Sulfate	mg/L	--	--	--	87.7	--	50.3	--	41.8	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	622	--	601	--	692	--	--	--	--
Chloride	mg/L	--	--	--	6.3	--	5.4	--	4.8	--	--	--	--
Ethane	mg/L	--	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	--	--	--
Ethene	mg/L	--	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	--	--	--
Methane	mg/L	--	--	--	0.149	--	0.175	--	0.133	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				TMW-152	TMW-152	TMW-152	TMW-152	TMW-152	TMW-152	MW-144B	MW-144B	MW-144B	MW-144B
Sample ID:				WG-071714-AH-014	WG-100614-NL-002	WG-011415-NL-016	WG-011415-NL-018	WG-040815-JR-019	WG-070815-NL-021	WG-101013-BS-012	WG-011414-NL-033	WG-041014-AH-029	WG-071614-NL-006
Sample Date:				7/17/2014	10/6/2014	1/14/2015	1/14/2015	4/8/2015	7/8/2015	10/10/2013	1/14/2014	4/10/2014	7/16/2014
							Duplicate						
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	0.00063 J	0.00062 J
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	0.00028 J	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.00051 J	--	0.00055 J	0.0014	0.00095 J	0.0022	0.482	0.00076 J	0.391	0.39
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.0061 J[ab]**	0.0004 J	0.00051 J	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.05)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.0015 J	ND(0.005)	0.00026 J	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	0.00049 J	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.00051 J	0.0006 J	0.00055 J	0.0014	0.00095 J	0.0022	**0.453[ab]**	0.00076 J	**0.357[ab]**	**0.337[ab]**
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	0.0039	0.004	**0.0054[ab]**	**0.0058[ab]**	0.0042	**0.0177[ab]**	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0296	ND(0.001)	0.0404	0.0492
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				SB-110	SB-110	SB-110	SB-110	SB-110	SB-110	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				TMW-152	TMW-152	TMW-152	TMW-152	TMW-152	TMW-152	MW-144B	MW-144B	MW-144B	MW-144B
Sample ID:				WG-071714-AH-014	WG-100614-NL-002	WG-011415-NL-016	WG-011415-NL-018	WG-040815-JR-019	WG-070815-NL-021	WG-101013-BS-012	WG-011414-NL-033	WG-041014-AH-029	WG-071614-NL-006
Sample Date:				7/17/2014	10/6/2014	1/14/2015	1/14/2015	4/8/2015	7/8/2015	10/10/2013	1/14/2014	4/10/2014	7/16/2014
		KDHE Tier 2 Risk-Based Criteria					Duplicate						
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.00087 J	0.001	0.00095 J	0.0013	0.00094 J	0.0014	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.04[ab]	ND(0.001)	0.0342[ab]	0.0387[ab]
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.03)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	--	--	ND(5.0)	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	4.0	--	4.7	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	0.0 J	--	ND(0.10)	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	ND(0.10)	--	ND(0.10)	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	1.66	--	1.68	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	R	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	ND(0.050)	--	ND(0.050)	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	66.4	--	48.4	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	740	--	686	--
Chloride	mg/L	--	--	--	--	--	--	--	--	7.8	--	11.9	--
Ethane	mg/L	--	--	--	--	--	--	--	--	0.0025 J	--	ND(0.0062)	--
Ethene	mg/L	--	--	--	--	--	--	--	--	0.0064	--	ND(0.0062)	--
Methane	mg/L	--	--	--	--	--	--	--	--	1.74	--	0.654	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-144B	MW-144B	MW-144B	MW-144C	MW-144C	MW-144C	MW-144C	MW-144C	MW-144C	MW-144C
Sample ID:				WG-100814-NL-021	WG-040815-NL-022	WG-070815-JR-030	WG-101013-BS-013	WG-011414-NL-032	WG-041014-AH-027	WG-071614-NL-008	WG-100814-NL-019	WG-040815-NL-020	WG-070815-JR-028
Sample Date:				10/8/2014	4/8/2015	7/8/2015	10/10/2013	1/14/2014	4/10/2014	7/16/2014	10/8/2014	4/8/2015	7/8/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	--	0.112	0.26	0.003	0.00075 J	0.00099 J	0.0032	--	0.0012	ND(0.001)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.05)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.05)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.05)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.05)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	0.00042 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	0.00027 J	0.00014 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	0.00058 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	**0.38[ab]**	**0.095[ab]**	**0.236[ab]**	0.0027	0.00075 J	0.00099 J	0.0027	0.00082 J	0.0012	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	0.00017 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0233	0.0171	0.0241	0.0003 J	ND(0.001)	ND(0.001)	0.00055 J	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-144B	MW-144B	MW-144B	MW-144C	MW-144C	MW-144C	MW-144C	MW-144C	MW-144C	MW-144C
Sample ID:				WG-100814-NL-021	WG-040815-NL-022	WG-070815-JR-030	WG-101013-BS-013	WG-011414-NL-032	WG-041014-AH-027	WG-071614-NL-008	WG-100814-NL-019	WG-040815-NL-020	WG-070815-JR-028
Sample Date:				10/8/2014	4/8/2015	7/8/2015	10/10/2013	1/14/2014	4/10/2014	7/16/2014	10/8/2014	4/8/2015	7/8/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.0308[ab]	0.145[ab]	0.0565[ab]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.015)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	ND(0.50)	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	3.7	3.6	--	2.6	--	4.2 J	--	5.0	1.9	--
Nitrate	mg/L	--	--	ND(0.10)	ND(0.10)	--	0.0 J	--	ND(0.10)	--	ND(0.10)	ND(0.10)	--
Nitrite	mg/L	--	--	ND(0.10)	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	ND(0.10)	--
Manganese 2+	mg/L	--	--	1.24	1.63	--	0.433	--	0.377	--	0.358	0.411	--
Ferrous iron	mg/L	--	--	0.59 J	ND(0.20)UJ	--	R	--	--	--	0.14 J	ND(0.20)UJ	--
Sulfide	mg/L	--	--	ND(0.050)	0.070	--	ND(0.050)	--	ND(0.050)	--	0.055	ND(0.050)	--
Sulfate	mg/L	--	--	61.2	44.0	--	86.5	--	82.4	--	93.7	79.9	--
Alkalinity, total (as CaCO3)	mg/L	--	--	678	668	--	444	--	445	--	426	427	--
Chloride	mg/L	--	--	15.5	16.6	--	28.5	--	34.0	--	40.6	39.3	--
Ethane	mg/L	--	--	ND(0.0062)	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	ND(0.0062)	--
Ethene	mg/L	--	--	ND(0.0062)	0.0168	--	0.0051 J	--	ND(0.0062)	--	ND(0.0062)	0.0112	--
Methane	mg/L	--	--	0.111	0.504	--	0.0314	--	0.0237	--	ND(0.0266)	0.0476	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146C
Sample ID:				WG-100913-BS-005	WG-011314-NL-028	WG-040814-JR-008	WG-040914-JR-008	WG-071714-NL-030	WG-071714-NL-033	WG-100914-NL-035	WG-040815-NL-016	WG-070915-NL-027	WG-100913-BS-004
Sample Date:				10/9/2013	1/13/2014	4/8/2014	4/9/2014	7/17/2014	7/17/2014 Duplicate	10/9/2014	4/8/2015	7/9/2015	10/9/2013
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	0.00009 J
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0131	0.0088	0.038	--	0.0231	0.0232	--	0.0015	0.0402	0.0089
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)UJ	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)UJ	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0126
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	0.00015 J	ND(0.005)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	0.0011	ND(0.001)	0.00068 J
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00033 J
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0127	0.0085	0.036	--	0.0214	0.0202	0.0277	0.0015	0.0372	0.0084
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	0.000099 J	0.00027 J	0.00019 J	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.00041 J	0.00028 J	0.002	--	0.0017 J	0.003 J	0.0011	ND(0.001)	0.003	0.00052 J
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146B	MW-146C
Sample ID:				WG-100913-BS-005	WG-011314-NL-028	WG-040814-JR-008	WG-040914-JR-008	WG-071714-NL-030	WG-071714-NL-033	WG-100914-NL-035	WG-040815-NL-016	WG-070915-NL-027	WG-100913-BS-004
Sample Date:				10/9/2013	1/13/2014	4/8/2014	4/9/2014	7/17/2014	7/17/2014 Duplicate	10/9/2014	4/8/2015	7/9/2015	10/9/2013
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	**0.0075[ab]**	**0.0052[ab]**	**0.0127[ab]**	--	**0.0118[ab]**	**0.0126[ab]**	**0.0146[ab]**	ND(0.001)	**0.0193[ab]**	0.00084 J
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	--	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	7.8	--	--	6.8	--	--	3.2	3.0	--	6.6
Nitrate	mg/L	--	--	0.0 J	--	--	ND(0.10)	--	--	ND(0.10)	0.68	--	0.0 J
Nitrite	mg/L	--	--	ND(0.10)	--	--	ND(0.10)	--	--	ND(0.10)	ND(0.10)	--	ND(0.10)
Manganese 2+	mg/L	--	--	1.87	--	--	2.05	--	--	1.69	0.0606	--	0.62
Ferrous iron	mg/L	--	--	R	--	--	--	--	--	0.17 J	ND(0.20)UJ	--	R
Sulfide	mg/L	--	--	ND(0.050)	--	--	ND(0.050)	--	--	ND(0.050)	ND(0.050)	--	ND(0.050)
Sulfate	mg/L	--	--	23.0	--	--	45.9	--	--	45.5	69.7	--	71.1
Alkalinity, total (as CaCO3)	mg/L	--	--	645	--	--	646	--	--	613	435	--	487
Chloride	mg/L	--	--	15.0	--	--	13.5	--	--	15.7	20.4	--	25.8
Ethane	mg/L	--	--	0.0012 J	--	--	ND(0.0062)	--	--	ND(0.0062)	ND(0.0062)	--	0 J
Ethene	mg/L	--	--	0.001 J	--	--	ND(0.0062)	--	--	ND(0.0062)	ND(0.0062)	--	0.0014 J
Methane	mg/L	--	--	0.286	--	--	0.326	--	--	0.713	0.0039 J	--	0.0596

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-146C	MW-146C	MW-146C	MW-146C	MW-146C	MW-146C	MW-146C	MW-156	MW-156	MW-156
Sample ID:				WG-011314-NL-027	WG-040814-JR-010	WG-040914-JR-010	WG-071714-NL-027	WG-100914-NL-039	WG-040815-NL-014	WG-070915-JR-032	WG-101013-BS-016	WG-011014-NL-019	WG-011014-NL-020
Sample Date:				1/13/2014	4/8/2014	4/9/2014	7/17/2014	10/9/2014	4/8/2015	7/9/2015	10/10/2013	1/10/2014	1/10/2014 Duplicate
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00023 J	ND(0.005)	ND(0.005)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0125)	ND(0.0125)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	0.00025 J	ND(0.005)	ND(0.005)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0125)	ND(0.0125)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,2-Dichloroethene (total)	mg/L	--	--	0.0433	0.0227	--	0.0127	--	0.0019	0.0045	0.159	0.274	0.273
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.05)	ND(0.05)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.05)	ND(0.05)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.05)	ND(0.05)
Acetone	mg/L	45.5	11.5	ND(0.01)UJ	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.05)UJ	ND(0.05)UJ
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00073 J	0.0011 J	0.00082 J
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.025)	ND(0.025)
Carbon disulfide	mg/L	1.66	0.716	0.00015 J	ND(0.005)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.025)	ND(0.025)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	0.0006 J	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0415	0.0215	--	0.0113	0.0069	0.0019	0.0043	**0.14[ab]**	**0.254[ab]**	**0.252[ab]**
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	--	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.05)	ND(0.05)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0018	0.0012	--	0.0014	ND(0.001)	ND(0.001)	ND(0.001)	0.0188	0.0206	0.0209
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-146C	MW-146C	MW-146C	MW-146C	MW-146C	MW-146C	MW-146C	MW-156	MW-156	MW-156
Sample ID:				WG-011314-NL-027	WG-040814-JR-010	WG-040914-JR-010	WG-071714-NL-027	WG-100914-NL-039	WG-040815-NL-014	WG-070915-JR-032	WG-101013-BS-016	WG-011014-NL-019	WG-011014-NL-020
Sample Date:				1/13/2014	4/8/2014	4/9/2014	7/17/2014	10/9/2014	4/8/2015	7/9/2015	10/10/2013	1/10/2014	1/10/2014
													Duplicate
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.005)	ND(0.005)
Vinyl chloride	mg/L	0.002	0.002	0.0078[ab]	0.0025[ab]	--	0.002	0.00086 J	ND(0.001)	ND(0.001)	0.161[ab]	0.111[ab]	0.107[ab]
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	--	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.006)	ND(0.015)	ND(0.015)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	--	--	--	ND(1.0)	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	4.5	--	4.6	2.7	--	4.2	--	--
Nitrate	mg/L	--	--	--	--	ND(0.10)	--	ND(0.10)	0.084 J	--	0.0 J	--	--
Nitrite	mg/L	--	--	--	--	ND(0.10)	--	ND(0.10)	0.091 J	--	ND(0.10)	--	--
Manganese 2+	mg/L	--	--	--	--	0.583	--	0.381	0.255	--	2.23	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	ND(0.20)UJ	ND(0.20)UJ	--	R	--	--
Sulfide	mg/L	--	--	--	--	ND(0.050)	--	ND(0.050)	ND(0.050)	--	ND(0.050)	--	--
Sulfate	mg/L	--	--	--	--	86.9	--	68.1	130	--	29.2	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	508	--	433	203	--	754	--	--
Chloride	mg/L	--	--	--	--	27.3	--	39.3	30.1	--	15.3	--	--
Ethane	mg/L	--	--	--	--	ND(0.0062)	--	ND(0.0062)	ND(0.0062)	--	0.0019 J	--	--
Ethene	mg/L	--	--	--	--	ND(0.0062)	--	ND(0.0062)	ND(0.0062)	--	0.0143	--	--
Methane	mg/L	--	--	--	--	0.043	--	0.0048 J	0.0055 J	--	4.68	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156C	MW-156C	MW-156C	MW-156C
Sample ID:				WG-041014-JR-030	WG-071714-NL-018	WG-100914-NL-030	WG-011315-NL-011	WG-040715-NL-006	WG-070915-JR-036	WG-101013-BS-014	WG-011014-NL-021	WG-041014-JR-032	WG-071714-NL-021
Sample Date:				4/10/2014	7/17/2014	10/9/2014	1/14/2015	4/7/2015	7/9/2015	10/10/2013	1/10/2014	4/10/2014	7/17/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	0.0006 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00033 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.235	0.182	--	0.194	0.174	0.223	0.00049 J	0.00087 J	0.0025	0.0017
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.0107)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	0.00038 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00027 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00015 J	ND(0.005)	ND(0.005)	ND(0.005)	0.00062 J	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00031 J	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	**0.209[ab]**	**0.155[ab]**	**0.181[ab]**	**0.177[ab]**	**0.157[ab]**	**0.195[ab]**	0.00049 J	0.00087 J	0.0022	0.0014
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0247	0.0271	0.0204	0.0163	0.0169	0.0276	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156C	MW-156C	MW-156C	MW-156C
Sample ID:				WG-041014-JR-030	WG-071714-NL-018	WG-100914-NL-030	WG-011315-NL-011	WG-040715-NL-006	WG-070915-JR-036	WG-101013-BS-014	WG-011014-NL-021	WG-041014-JR-032	WG-071714-NL-021
Sample Date:				4/10/2014	7/17/2014	10/9/2014	1/14/2015	4/7/2015	7/9/2015	10/10/2013	1/10/2014	4/10/2014	7/17/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	**0.192[ab]**	**0.157[ab]**	**0.153[ab]**	**0.131[ab]**	**0.149[ab]**	**0.122[ab]**	ND(0.001)	ND(0.001)	0.00062 J	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	--	--	ND(0.50)	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	7.0	--	3.5	--	4.8	--	5.2	--	5.0	--
Nitrate	mg/L	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	0.0 J	--	ND(0.10)	--
Nitrite	mg/L	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--
Manganese 2+	mg/L	--	--	2.02	--	2.08	--	3.92	--	0.33	--	0.318	--
Ferrous iron	mg/L	--	--	--	--	2.0 J	--	ND(0.20)UJ	--	R	--	--	--
Sulfide	mg/L	--	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	0.38	--
Sulfate	mg/L	--	--	16.9	--	27.5	--	22.8	--	61.0	--	81.2	--
Alkalinity, total (as CaCO3)	mg/L	--	--	659	--	751	--	733	--	435	--	385	--
Chloride	mg/L	--	--	18.5	--	14.2	--	15.7	--	37.1	--	36.0	--
Ethane	mg/L	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--
Ethene	mg/L	--	--	0.0034 J	--	0.0132	--	0.008	--	ND(0.0062)	--	ND(0.0062)	--
Methane	mg/L	--	--	0.506	--	4.64	--	2.47	--	0.0122	--	0.0499	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-156C	MW-156C	MW-156C	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A
Sample ID:				WG-100914-NL-032	WG-040715-NL-004	WG-070915-NL-029	WG-101013-NL-013	WG-010914-NL-013	WG-041014-JR-034	WG-071614-NL-004	WG-100714-NL-016	WG-040915-JR-027	WG-070715-NL-009
Sample Date:				10/9/2014	4/7/2015	7/9/2015	10/10/2013	1/9/2014	4/10/2014	7/16/2014	10/7/2014	4/9/2015	7/7/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.00071 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	0.00025 J	ND(0.005)	0.00087 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0125)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0125)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	--	0.0033	0.0108	0.291	0.559	1.63	0.202	--	0.871	0.0356
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.05)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.05)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.05)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	0.0021 J	ND(0.01)	ND(0.01)	ND(0.05)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	0.00024 J	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.00095 J	0.0028	0.0094	**0.269[ab]**	**0.545[ab]**	**1.48[ab]**	**0.175[ab]**	**0.19[ab]**	**0.816[ab]**	0.034
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.007)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.05)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	0.00053 J	0.0015	0.0102	0.0145	**0.107[ab]**	0.0234	0.0142	0.0552	0.0016
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				**MW-156C**	**MW-156C**	**MW-156C**	**MW-158A**	**MW-158A**	**MW-158A**	**MW-158A**	**MW-158A**	**MW-158A**	**MW-158A**
Sample ID:				**WG-100914-NL-032**	**WG-040715-NL-004**	**WG-070915-NL-029**	**WG-101013-NL-013**	**WG-010914-NL-013**	**WG-041014-JR-034**	**WG-071614-NL-004**	**WG-100714-NL-016**	**WG-040915-JR-027**	**WG-070715-NL-009**
Sample Date:				**10/9/2014**	**4/7/2015**	**7/9/2015**	**10/10/2013**	**1/9/2014**	**4/10/2014**	**7/16/2014**	**10/7/2014**	**4/9/2015**	**7/7/2015**
		KDHE Tier 2 Risk-Based Criteria											
Parameters	**Units**	**Non-Residential Groundwater Pathway a**	**Residential Groundwater Pathway b**										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.0036	**0.0051[ab]**	0.00046 J	0.002	ND(0.001)	0.0027	0.0023
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.0005 J	**0.0053[ab]**	**0.0046[ab]**	**0.0075[ab]**	**0.009[ab]**	**0.0245[ab]**	**0.0188[ab]**	**0.0294[ab]**	**0.0236[ab]**	0.0013
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.015)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	0.27 J	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	ND(2.3)	4.3	--	7.5	--	6.5	--	6.3	3.3	--
Nitrate	mg/L	--	--	ND(0.10)	0.17	--	0.0 J	--	ND(0.10)	--	ND(0.10)	ND(0.10)	--
Nitrite	mg/L	--	--	ND(0.10)	0.058 J	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	ND(0.10)	--
Manganese 2+	mg/L	--	--	0.316	0.133	--	1.85	--	2.2	--	1.62	1.63	--
Ferrous iron	mg/L	--	--	0.12 J	ND(0.20)UJ	--	R	--	--	--	0.22 J	1.3 J	--
Sulfide	mg/L	--	--	ND(0.050)	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	ND(0.050)	--
Sulfate	mg/L	--	--	78.9	118	--	85.9	--	81.4	--	16.8	70.3	--
Alkalinity, total (as CaCO3)	mg/L	--	--	422	247	--	789	--	783	--	649	739	--
Chloride	mg/L	--	--	40.9	36.2	--	5.8	--	8.8	--	12.0	9.1	--
Ethane	mg/L	--	--	ND(0.0062)	ND(0.0062)	--	0.00085 J	--	ND(0.0062)	--	ND(0.0062)	ND(0.0062)	--
Ethene	mg/L	--	--	ND(0.0062)	0.0059 J	--	0 J	--	ND(0.0062)	--	ND(0.0062)	ND(0.0062)	--
Methane	mg/L	--	--	0.0517	0.0324	--	0.3	--	0.886	--	0.372	0.593	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-158A	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B
Sample ID:				WG-070715-NL-011	WG-101013-NL-014	WG-101013-NL-015	WG-010914-NL-014	WG-010914-NL-015	WG-041014-JR-038	WG-071614-NL-002	WG-100714-NL-018	WG-040915-NL-028	WG-070715-NL-007
Sample Date:				7/7/2015	10/10/2013	10/10/2013	1/9/2014	1/9/2014	4/10/2014	7/16/2014	10/7/2014	4/9/2015	7/7/2015
		KDHE Tier 2 Risk-Based Criteria		Duplicate		Duplicate		Duplicate					
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0354	0.0025	0.0013	0.0041	0.0035	0.0071	0.0021	--	0.0025	0.0016
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)UJ	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	0.0016	0.0017	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	0.00021 J	0.00018 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0338	0.0025	0.0013	0.0034	0.0028	0.0057	0.0016	0.0017	0.002	0.0016
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0015	ND(0.001)	ND(0.001)	0.00069 J	0.00072 J	0.0014	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				MW-158A	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B	MW-158B
Sample ID:				WG-070715-NL-011	WG-101013-NL-014	WG-101013-NL-015	WG-010914-NL-014	WG-010914-NL-015	WG-041014-JR-038	WG-071614-NL-002	WG-100714-NL-018	WG-040915-NL-028	WG-070715-NL-007
Sample Date:				7/7/2015	10/10/2013	10/10/2013	1/9/2014	1/9/2014	4/10/2014	7/16/2014	10/7/2014	4/9/2015	7/7/2015
				Duplicate		Duplicate		Duplicate					
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.0023	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00045 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.0013	ND(0.001)	ND(0.001)	0.0078[ab]	0.0076[ab]	0.0064[ab]	0.0036[ab]	0.0017	0.0063[ab]	0.0025[ab]
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	ND(0.50)	ND(0.50)	--	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	4.7 J	2.8 J	--	--	7.2	--	6.5	3.9	--
Nitrate	mg/L	--	--	--	3.3	3.3	--	--	ND(0.10)	--	ND(0.10)	ND(0.10)	--
Nitrite	mg/L	--	--	--	ND(0.10)	ND(0.10)	--	--	ND(0.10)	--	ND(0.10)	ND(0.10)	--
Manganese 2+	mg/L	--	--	--	0.0147	0.00866	--	--	0.801	--	0.574	0.786	--
Ferrous iron	mg/L	--	--	--	R	R	--	--	--	--	0.21 J	ND(0.20)UJ	--
Sulfide	mg/L	--	--	--	ND(0.050)	ND(0.050)	--	--	ND(0.050)	--	ND(0.050)	ND(0.050)	--
Sulfate	mg/L	--	--	--	124	124	--	--	ND(1.0)	--	36.4	0.95 J	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	128	127	--	--	686	--	527	672	--
Chloride	mg/L	--	--	--	24.1	24.2	--	--	18.7	--	26.5	19.2	--
Ethane	mg/L	--	--	--	0 J	0 J	--	--	ND(0.0062)	--	ND(0.0062)	ND(0.0062)	--
Ethene	mg/L	--	--	--	0 J	0 J	--	--	ND(0.0062)	--	ND(0.0062)	ND(0.0062)	--
Methane	mg/L	--	--	--	ND(0.0066)	ND(0.0066)	--	--	1.57	--	0.0757	1.45	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-153
Sample ID:				WG-101013-BS-015	WG-011014-NL-018	WG-040914-JR-028	WG-071714-NL-015	WG-100814-NL-028	WG-011315-NL-009	WG-040715-NL-002	WG-040815-NL-002	WG-070915-JR-033	WG-100913-BS-007
Sample Date:				10/10/2013	1/10/2014	4/9/2014	7/17/2014	10/9/2014	1/13/2015	4/7/2015	4/8/2015	7/9/2015	10/9/2013
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.005)	ND(0.01)	0.00049 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00035 J	--	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0125)	ND(0.025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	0.00053 J	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0125)	ND(0.025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.347	0.394	0.445	0.339	--	0.0594	0.403	--	0.847	0.0157
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	0.00052 J	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.05)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.05)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.05)	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.05)	ND(0.1)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	0.001 J	0.0016 J	0.00012 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00018 J	--	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.025)	ND(0.05)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	--	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.025)	ND(0.05)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	--	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	**0.333[ab]**	**0.377[ab]**	**0.409[ab]**	**0.298[ab]**	**0.308[ab]**	0.0567	**0.37[ab]**	--	**0.762[ab]**	0.0147
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.05)	ND(0.1)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0143	0.0171	0.0411	0.0397	0.0172	0.0028	0.0325	--	0.0858	0.001
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				**TMW-127**	**TMW-127**	**TMW-127**	**TMW-127**	**TMW-127**	**TMW-127**	**TMW-127**	**TMW-127**	**TMW-127**	**TMW-153**
Sample ID:				**WG-101013-BS-015**	**WG-011014-NL-018**	**WG-040914-JR-028**	**WG-071714-NL-015**	**WG-100814-NL-028**	**WG-011315-NL-009**	**WG-040715-NL-002**	**WG-040815-NL-002**	**WG-070915-JR-033**	**WG-100913-BS-007**
Sample Date:				**10/10/2013**	**1/10/2014**	**4/9/2014**	**7/17/2014**	**10/9/2014**	**1/13/2015**	**4/7/2015**	**4/8/2015**	**7/9/2015**	**10/9/2013**
		KDHE Tier 2 Risk-Based Criteria											
Parameters	**Units**	**Non-Residential Groundwater Pathway a**	**Residential Groundwater Pathway b**										
Trichloroethene	mg/L	0.005	0.005	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	0.00079 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	**0.005[ab]**	**0.0176[ab]**	**0.0063[ab]**	**0.0088[ab]**	**0.0059[ab]**	ND(0.001)	**0.0032[ab]**	--	**0.0128[ab]**	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.015)	ND(0.03)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	--	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	ND(2.5)	--	--	--	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	7.2 J	--	5.8	--	6.0	--	--	4.6	--	--
Nitrate	mg/L	--	--	0.0 J	--	ND(0.10)	--	0.081 J	--	ND(0.10)	--	--	--
Nitrite	mg/L	--	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	ND(0.10)	--	--	--
Manganese 2+	mg/L	--	--	1.52	--	1.76	--	1.73	--	1.47	--	--	--
Ferrous iron	mg/L	--	--	1.2 J	--	--	--	0.58 J	--	ND(0.20)UJ	--	--	--
Sulfide	mg/L	--	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	ND(0.050)	--	--	--
Sulfate	mg/L	--	--	231	--	106	--	499	--	94.8	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	689	--	704	--	649	--	697	--	--	--
Chloride	mg/L	--	--	4.9	--	5.9	--	4.3	--	10.2	--	--	--
Ethane	mg/L	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	--	--
Ethene	mg/L	--	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	ND(0.0062)	--	--	--
Methane	mg/L	--	--	0.319	--	0.443	--	0.255	--	0.389	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				TMW-153	TMW-153	TMW-153	TMW-153	TMW-153	TMW-153	TMW-153	TMW-153	TMW-154	TMW-154
Sample ID:				WG-011014-NL-022	WG-040914-JR-024	WG-071714-NL-024	WG-100814-NL-026	WG-011315-NL-007	WG-040715-NL-008	WG-070915-NL-031	WG-070915-NL-035	WG-101013-NL-016	WG-010814-NL-004
Sample Date:				1/10/2014	4/9/2014	7/17/2014	10/8/2014	1/13/2015	4/7/2015	7/9/2015	7/9/2015 Duplicate	10/10/2013	1/8/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.007	0.0153	0.0138	--	ND(0.001)	0.0015	ND(0.001)	ND(0.001)	0.0126	0.0106
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00022 J	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	0.00024 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0065	0.0139	0.0119	0.0037	ND(0.001)	0.0015	ND(0.001)	ND(0.001)	0.0111	0.0098
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00023 J
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.00057 J	0.0014	0.0019	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0015	0.00081 J
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				**TMW-153**	**TMW-153**	**TMW-153**	**TMW-153**	**TMW-153**	**TMW-153**	**TMW-153**	**TMW-153**	**TMW-154**	**TMW-154**
Sample ID:				**WG-011014-NL-022**	**WG-040914-JR-024**	**WG-071714-NL-024**	**WG-100814-NL-026**	**WG-011315-NL-007**	**WG-040715-NL-008**	**WG-070915-NL-031**	**WG-070915-NL-035**	**WG-101013-NL-016**	**WG-010814-NL-004**
Sample Date:				**1/10/2014**	**4/9/2014**	**7/17/2014**	**10/8/2014**	**1/13/2015**	**4/7/2015**	**7/9/2015**	**7/9/2015**	**10/10/2013**	**1/8/2014**
		KDHE Tier 2 Risk-Based Criteria									**Duplicate**		
Parameters	**Units**	**Non-Residential Groundwater Pathway a**	**Residential Groundwater Pathway b**										
Trichloroethene	mg/L	0.005	0.005	0.0009 J	0.00098 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00014 J	0.00015 J
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	--	--	--	--	ND(0.50)	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				TMW-154	TMW-154	TMW-154	TMW-154	TMW-154	TMW-154	TMW-155	TMW-155	TMW-155	TMW-155
Sample ID:				WG-040914-JR-022	WG-071714-JR-022	WG-100714-JR-013	WG-011415-NL-015	WG-040915-JR-025	WG-070715-NL-003	WG-101113-NL-017	WG-010814-NL-005	WG-041014-JR-037	WG-071714-JR-025
Sample Date:				4/9/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/7/2015	10/11/2013	1/8/2014	4/10/2014	7/17/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	0.00028 J	0.00033 J	0.00076 J
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	0.00034 J	0.00028 J	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0625)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0625)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0099	0.0166	--	0.0046	0.0073	0.0096	0.721	0.43	0.581	0.958
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0607 J	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.25)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.25)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.25)	ND(0.01)UJ	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0155 J[ab]	ND(0.001)	0.00012 J	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.125)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.125)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0088	0.0141	0.0069	0.0041	0.0065	0.0089	0.696[ab]	0.41[ab]	0.534[ab]	0.841[ab]
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	0.0027 J	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.00051 J	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.25)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	0.00017 J	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0011	0.0025	0.00064 J	0.00053 J	0.00088 J	ND(0.001)	0.0253	0.0209	0.0397	0.101[ab]
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Sample Location:				**TMW-154**	**TMW-154**	**TMW-154**	**TMW-154**	**TMW-154**	**TMW-154**	**TMW-155**	**TMW-155**	**TMW-155**	**TMW-155**
Sample ID:				**WG-040914-JR-022**	**WG-071714-JR-022**	**WG-100714-JR-013**	**WG-011415-NL-015**	**WG-040915-JR-025**	**WG-070715-NL-003**	**WG-101113-NL-017**	**WG-010814-NL-005**	**WG-041014-JR-037**	**WG-071714-JR-025**
Sample Date:				**4/9/2014**	**7/17/2014**	**10/7/2014**	**1/14/2015**	**4/9/2015**	**7/7/2015**	**10/11/2013**	**1/8/2014**	**4/10/2014**	**7/17/2014**
		KDHE Tier 2 Risk-Based Criteria											
Parameters	**Units**	**Non-Residential Groundwater Pathway a**	**Residential Groundwater Pathway b**										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.117[ab]**	**0.141[ab]**	**0.0846[ab]**	**0.103[ab]**
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.0095 J[ab]**	0.0019	0.0018	**0.0041[ab]**
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.075)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	--	--	ND(12.5)	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	7.5	--	6.3	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	0.0083 J	--	0.056 J	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	ND(0.10)	--	ND(0.10)	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	0.525	--	0.693	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	R	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	ND(0.050)	--	ND(0.050)	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	89.9	--	73.6	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	786	--	738	--
Chloride	mg/L	--	--	--	--	--	--	--	--	3.7	--	2.9	--
Ethane	mg/L	--	--	--	--	--	--	--	--	ND(0.0062)	--	ND(0.0062)	--
Ethene	mg/L	--	--	--	--	--	--	--	--	ND(0.0062)	--	ND(0.0062)	--
Methane	mg/L	--	--	--	--	--	--	--	--	0.132	--	ND(0.0066)	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				TMW-155	TMW-155	TMW-155	TMW-155	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample ID:				WG-100714-JR-015	WG-011415-NL-017	WG-040915-NL-026	WG-070715-NL-005	WG-100913-NL-006	WG-040814-AH-001	WG-071714-JR-037	WG-100614-NL-003	WG-011415-NL-026	WG-040715-JR-013
Sample Date:				10/7/2014	1/14/2015	4/9/2015	7/7/2015	10/9/2013	4/8/2014	7/17/2014	10/6/2014	1/14/2015	4/7/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	0.00069 J	ND(0.001)	0.00066 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	0.00054 J	ND(0.001)	0.00028 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	--	0.686	0.925	0.879	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0075 J
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	0.00011 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	**0.902[ab]**	**0.655[ab]**	**0.857[ab]**	**0.8[ab]**	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0614	0.0316	0.0676	0.0788	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-127	TMW-127	TMW-127	TMW-127	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				TMW-155	TMW-155	TMW-155	TMW-155	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A	MW-102A
Sample ID:				WG-100714-JR-015	WG-011415-NL-017	WG-040915-NL-026	WG-070715-NL-005	WG-100913-NL-006	WG-040814-AH-001	WG-071714-JR-037	WG-100614-NL-003	WG-011415-NL-026	WG-040715-JR-013
Sample Date:				10/7/2014	1/14/2015	4/9/2015	7/7/2015	10/9/2013	4/8/2014	7/17/2014	10/6/2014	1/14/2015	4/7/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.114[ab]	0.102[ab]	0.0573[ab]	0.0551[ab]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.0084[ab]	0.0027[ab]	0.0068[ab]	0.0055[ab]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	ND(0.50)	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	6.7	--	3.1	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	ND(0.10)	--	ND(0.10)	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	ND(0.10)	--	ND(0.10)	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	0.273	--	0.749	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	0.052 J	--	ND(0.20)UJ	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	ND(0.050)	--	ND(0.050)	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	79.2	--	107	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	670	--	740	--	--	--	--	--	--	--
Chloride	mg/L	--	--	22.0	--	10.1	--	--	--	--	--	--	--
Ethane	mg/L	--	--	ND(0.0062)	--	ND(0.0062)	--	--	--	--	--	--	--
Ethene	mg/L	--	--	ND(0.0062)	--	ND(0.0062)	--	--	--	--	--	--	--
Methane	mg/L	--	--	0.0147	--	0.251	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				MW-102A	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-105
Sample ID:				WG-070815-NL-017	WG-100913-NL-007	WG-010914-NL-009	WG-040814-AH-003	WG-071714-JR-034	WG-100714-NL-006	WG-011415-NL-028	WG-040915-JR-029	WG-070815-NL-015	WG-100913-NL-010
Sample Date:				7/8/2015	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/8/2015	10/9/2013
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	ND(0.001)	0.00036 J	0.00051 J	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	0.0036
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	0.00036 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0036
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.0003 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00017 J
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				MW-102A	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-105
Sample ID:				WG-070815-NL-017	WG-100913-NL-007	WG-010914-NL-009	WG-040814-AH-003	WG-071714-JR-034	WG-100714-NL-006	WG-011415-NL-028	WG-040915-JR-029	WG-070815-NL-015	WG-100913-NL-010
Sample Date:				7/8/2015	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/8/2015	10/9/2013
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00035 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	ND(0.50)	--	--	--	--	--	--	--	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-115A
Sample ID:				WG-100913-NL-011	WG-010914-NL-010	WG-040814-AH-007	WG-071714-AH-032	WG-100714-NL-012	WG-100714-NL-014	WG-011315-NL-006	WG-040715-JR-011	WG-070715-JR-012	WG-100913-NL-008
Sample Date:				10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	10/7/2014	1/13/2015	4/7/2015	7/7/2015	10/9/2013
		KDHE Tier 2 Risk-Based Criteria		Duplicate					Duplicate				
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0037	0.0039	ND(0.001)	0.001	--	--	0.0023	0.0023	ND(0.001)	ND(0.001)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	0.000078 J	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0037	0.0039	ND(0.001)	0.001	0.0012	0.0011	0.0023	0.0023	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	0.00018 J	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	**0.0037 J[ab]**	ND(0.01)	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	0.00012 J	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.00053 J	ND(0.001)	0.00055 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-115A
Sample ID:				WG-100913-NL-011	WG-010914-NL-010	WG-040814-AH-007	WG-071714-AH-032	WG-100714-NL-012	WG-100714-NL-014	WG-011315-NL-006	WG-040715-JR-011	WG-070715-JR-012	WG-100913-NL-008
Sample Date:				10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	10/7/2014	1/13/2015	4/7/2015	7/7/2015	10/9/2013
				Duplicate					Duplicate				
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.00037 J	0.00045 J	ND(0.001)	0.00082 J	ND(0.001)	ND(0.001)	0.00062 J	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00056 J	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	ND(0.50)	--	--	--	--	--	--	--	--	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				MW-115A	MW-115A	MW-115A	MW-115A	MW-115A	MW-115A	TMW-157	TMW-157	TMW-157	TMW-157
Sample ID:				WG-071714-AH-026	WG-100714-NL-008	WG-011415-NL-030	WG-040715-JR-007	WG-040715-JR-009	WG-070815-NL-019	WG-100913-NL-009	WG-040814-AH-005	WG-071714-AH-029	WG-100714-NL-010
Sample Date:				7/17/2014	10/7/2014	1/14/2015	4/7/2015	4/7/2015 Duplicate	7/8/2015	10/9/2013	4/8/2014	7/17/2014	10/7/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0458	0.001	--
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0062 J	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
4-Chlorotoluene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	0.0081 J	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000086 J	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00017 J	0.0394	0.001	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0023	ND(0.001)	0.00069 J	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0064	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A	MW-103A
Sample Location:				MW-115A	MW-115A	MW-115A	MW-115A	MW-115A	MW-115A	TMW-157	TMW-157	TMW-157	TMW-157
Sample ID:				WG-071714-AH-026	WG-100714-NL-008	WG-011415-NL-030	WG-040715-JR-007	WG-040715-JR-009	WG-070815-NL-019	WG-100913-NL-009	WG-040814-AH-005	WG-071714-AH-029	WG-100714-NL-010
Sample Date:				7/17/2014	10/7/2014	1/14/2015	4/7/2015	4/7/2015 Duplicate	7/8/2015	10/9/2013	4/8/2014	7/17/2014	10/7/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.0028[ab]**	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	ND(0.20)	ND(0.20)	ND(0.36)	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	ND(0.20)	ND(0.20)	ND(0.36)	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	ND(0.20)	ND(0.20)	ND(0.36)	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	ND(0.20)	ND(0.20)	ND(0.36)	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	0.54	0.42	ND(0.36)	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	ND(0.36)	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	ND(0.20)	ND(0.20)	ND(0.36)	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	**0.54[b]**	0.42	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-157	TMW-157	TMW-157	TMW-157	TMW-143	TMW-143	TMW-143	TMW-143	TMW-143	TMW-143
Sample ID:				WG-011315-NL-008	WG-040915-JR-031	WG-040915-JR-033	WG-070715-NL-013	WG-100913-BS-003	WG-011314-NL-029	WG-011314-NL-030	WG-040814-JR-002	WG-071714-JR-019	WG-100814-NL-017
Sample Date:				1/13/2015	4/9/2015	4/9/2015	7/7/2015	10/9/2013	1/13/2014	1/13/2014	4/8/2014	7/17/2014	10/8/2014
						Duplicate				Duplicate			
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	ND(0.001)	0.00084 J	ND(0.001)	0.00032 J	0.0004 J	ND(0.001)	0.00066 J	ND(0.001)	--
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	0.0057 J	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00023 J	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.0017)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00017 J	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	0.00084 J	ND(0.001)	0.00032 J	0.0004 J	0.00022 J	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0008 J	--
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00046 J	0.0014 J	0.00059 J	0.00025 J	0.0013	0.0011
Toluene	mg/L	1	1	0.0009 J	0.0013	0.0013	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				MW-103A	MW-103A	MW-103A	MW-103A	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-157	TMW-157	TMW-157	TMW-157	TMW-143	TMW-143	TMW-143	TMW-143	TMW-143	TMW-143
Sample ID:				WG-011315-NL-008	WG-040915-JR-031	WG-040915-JR-033	WG-070715-NL-013	WG-100913-BS-003	WG-011314-NL-029	WG-011314-NL-030	WG-040814-JR-002	WG-071714-JR-019	WG-100814-NL-017
Sample Date:				1/13/2015	4/9/2015	4/9/2015	7/7/2015	10/9/2013	1/13/2014	1/13/2014	4/8/2014	7/17/2014	10/8/2014
						Duplicate				Duplicate			
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00019 J	ND(0.001)	0.00031 J	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	ND(0.21)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.36)UJ
Fuel oil	mg/L	--	--	--	ND(0.21)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.36)UJ
Kerosene	mg/L	--	--	--	ND(0.21)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.36)UJ
Mineral spirits	mg/L	--	--	--	ND(0.21)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.36)UJ
Motor oil	mg/L	--	--	--	ND(0.21)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.36)UJ
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	3.2 J	3.0 J	0.45	ND(0.40)	ND(0.40)	ND(0.40)	0.28 J	ND(0.40)	ND(0.36)UJ
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	ND(0.21)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.36)UJ
TPH-DRO (6)	mg/L	0.72	0.50	--	3.2 J[ab]	3.0 J[ab]	0.45	--	--	--	0.28 J	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-143	TMW-143	TMW-143	TMW-143	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144
Sample ID:				WG-011415-NL-021	WG-011415-NL-023	WG-040815-NL-018	WG-070715-NL-001	WG-101013-BS-010	WG-101013-BS-011	WG-011414-NL-031	WG-040914-AH-023	WG-040914-AH-025	WG-071714-JR-016
Sample Date:				1/14/2015	1/14/2015	4/8/2015	7/7/2015	10/10/2013	10/10/2013	1/14/2014	4/9/2014	4/9/2014	7/17/2014
					Duplicate				Duplicate			Duplicate	
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0277	0.0316	0.0082	0.0288	0.0291	0.0656
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.026	0.03	0.0079	0.0266	0.0271	0.0599
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	0.0015	0.0016	0.00088 J	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0017	0.0016	0.00029 J	0.0021	0.002	0.0057
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-143	TMW-143	TMW-143	TMW-143	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144
Sample ID:				WG-011415-NL-021	WG-011415-NL-023	WG-040815-NL-018	WG-070715-NL-001	WG-101013-BS-010	WG-101013-BS-011	WG-011414-NL-031	WG-040914-AH-023	WG-040914-AH-025	WG-071714-JR-016
Sample Date:				1/14/2015	1/14/2015	4/8/2015	7/7/2015	10/10/2013	10/10/2013	1/14/2014	4/9/2014	4/9/2014	7/17/2014
		KDHE Tier 2 Risk-Based Criteria			Duplicate				Duplicate			Duplicate	
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00054 J	0.00053 J	0.00019 J	0.00041 J	0.00032 J	0.0017
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00043 J	0.00041 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	ND(0.42)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Fuel oil	mg/L	--	--	ND(0.42)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Kerosene	mg/L	--	--	ND(0.42)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Mineral spirits	mg/L	--	--	ND(0.42)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Motor oil	mg/L	--	--	ND(0.42)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	ND(0.42)	ND(0.40)	0.17 J	ND(0.36)	ND(0.40)	ND(0.40)	0.34 J	0.79	0.73	ND(0.40)
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	ND(0.42)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
TPH-DRO (6)	mg/L	0.72	0.50	--	--	0.17 J	--	--	--	0.34 J	0.79[ab]	0.73[ab]	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	6.3	4.6	--	5.5	5.2	--
Nitrate	mg/L	--	--	--	--	--	--	0.0 J	0.0 J	--	ND(0.10)	ND(0.10)	--
Nitrite	mg/L	--	--	--	--	--	--	ND(0.10)	ND(0.10)	--	ND(0.10)	ND(0.10)	--
Manganese 2+	mg/L	--	--	--	--	--	--	2.12	2.11	--	2.77	2.66	--
Ferrous iron	mg/L	--	--	--	--	--	--	R	R	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	ND(0.050)	ND(0.050)	--	ND(0.050)	ND(0.050)	--
Sulfate	mg/L	--	--	--	--	--	--	82.0	83.6	--	64.8	62.7	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	762	757	--	808	800	--
Chloride	mg/L	--	--	--	--	--	--	1.8	1.8	--	1.9	1.9	--
Ethane	mg/L	--	--	--	--	--	--	0 J	0 J	--	ND(0.0062)	ND(0.0062)	--
Ethene	mg/L	--	--	--	--	--	--	0 J	0 J	--	ND(0.0062)	ND(0.0062)	--
Methane	mg/L	--	--	--	--	--	--	0.0891 J	0.0093 J	--	0.063	0.0834	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-145	TMW-145	TMW-145
Sample ID:				WG-100914-NL-023	WG-100914-NL-025	WG-011315-NL-001	WG-011315-NL-003	WG-040815-JR-023	WG-070815-NL-023	WG-070815-NL-025	WG-100913-BS-008	WG-040914-JR-026	WG-071614-NL-010
Sample Date:				10/9/2014	10/9/2014	1/13/2015	1/13/2015	4/8/2015	7/8/2015	7/8/2015	10/9/2013	4/9/2014	7/16/2014
					Duplicate		Duplicate			Duplicate			
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	--	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	--	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	--	--	0.0209	0.0212	0.0297	0.0049 J	0.0061 J	0.00075 J	0.0011	0.0013
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0358	0.0376	0.0204	0.0207	0.0276	0.0048 J	0.0061 J	0.00075 J	0.0011	0.0013
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00018 J	0.00022 J	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0021	0.0017	0.00053 J	0.00053 J	0.0021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-144	TMW-145	TMW-145	TMW-145
Sample ID:				WG-100914-NL-023	WG-100914-NL-025	WG-011315-NL-001	WG-011315-NL-003	WG-040815-JR-023	WG-070815-NL-023	WG-070815-NL-025	WG-100913-BS-008	WG-040914-JR-026	WG-071614-NL-010
Sample Date:				10/9/2014	10/9/2014	1/13/2015	1/13/2015	4/8/2015	7/8/2015	7/8/2015	10/9/2013	4/9/2014	7/16/2014
		KDHE Tier 2 Risk-Based Criteria			Duplicate		Duplicate			Duplicate			
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.0012	0.0012	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0004 J	0.00052 J	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.21)	ND(0.36)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)
Fuel oil	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.21)	ND(0.36)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)
Kerosene	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.21)	ND(0.36)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)
Mineral spirits	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.21)	ND(0.36)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)
Motor oil	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.21)	ND(0.36)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	ND(0.48)	ND(0.40)	ND(0.40)	ND(0.40)	0.43 J	ND(0.36)	ND(0.36)	ND(0.40)	0.46	ND(0.40)
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.21)	ND(0.36)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	0.43 J	--	--	--	0.46	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	3.5	3.4	--	--	3.9	--	--	--	--	--
Nitrate	mg/L	--	--	ND(0.10)	ND(0.10)	--	--	ND(0.10)	--	--	--	--	--
Nitrite	mg/L	--	--	ND(0.10)	ND(0.10)	--	--	ND(0.10)	--	--	--	--	--
Manganese 2+	mg/L	--	--	1.35	1.35	--	--	1.62	--	--	--	--	--
Ferrous iron	mg/L	--	--	0.040 J	0.032 J	--	--	0.088 J	--	--	--	--	--
Sulfide	mg/L	--	--	ND(0.050)	ND(0.050)	--	--	ND(0.050)	--	--	--	--	--
Sulfate	mg/L	--	--	77.3	78.1	--	--	82.1	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	674	668	--	--	656	--	--	--	--	--
Chloride	mg/L	--	--	3.6	3.6	--	--	2.9	--	--	--	--	--
Ethane	mg/L	--	--	ND(0.0062)	ND(0.0062)	--	--	ND(0.0062)	--	--	--	--	--
Ethene	mg/L	--	--	ND(0.0062)	ND(0.0062)	--	--	ND(0.0062)	--	--	--	--	--
Methane	mg/L	--	--	0.0072	0.0093	--	--	0.0185 J	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-145	TMW-145	TMW-145	TMW-145	TMW-145	TMW-146	TMW-146	TMW-146	TMW-146	TMW-146
Sample ID:				WG-071614-NL-012	WG-100914-NL-034	WG-011415-NL-013	WG-040715-NL-010	WG-070915-JR-037	WG-100913-BS-006	WG-011314-NL-026	WG-040814-JR-006	WG-071714-NL-036	WG-100914-NL-033
Sample Date:				7/16/2014	10/9/2014	1/14/2015	4/7/2015	7/9/2015	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/9/2014
		KDHE Tier 2 Risk-Based Criteria		Duplicate									
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	0.00031 J	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0011	--	ND(0.001)	0.0013	ND(0.001)	ND(0.002)	ND(0.001)	0.0004 J	ND(0.001)	--
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
4-Chlorotoluene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00059 J	ND(0.001)	ND(0.001)	**0.0095[ab]**	0.0018
Bromobenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00038 J	ND(0.005)	0.00021 J	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00073 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0011	ND(0.001)	ND(0.001)	0.0013	ND(0.001)	0.00032 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	**0.0071[ab]**	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	--
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	0.00022 J	ND(0.001)	ND(0.001)	ND(0.001)	--
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130	TMW-130
Sample Location:				TMW-145	TMW-145	TMW-145	TMW-145	TMW-145	TMW-146	TMW-146	TMW-146	TMW-146	TMW-146
Sample ID:				WG-071614-NL-012	WG-100914-NL-034	WG-011415-NL-013	WG-040715-NL-010	WG-070915-JR-037	WG-100913-BS-006	WG-011314-NL-026	WG-040814-JR-006	WG-071714-NL-036	WG-100914-NL-033
Sample Date:				7/16/2014	10/9/2014	1/14/2015	4/7/2015	7/9/2015	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/9/2014
		KDHE Tier 2 Risk-Based Criteria		Duplicate									
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.00025 J	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	--
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00033 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.006)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Fuel oil	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Kerosene	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Mineral spirits	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Motor oil	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	ND(0.40)	ND(0.69)	ND(0.40)	0.17 J	ND(0.36)	ND(0.40)	ND(0.40)	1.3	0.30 J	ND(0.45)
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.20)	ND(0.36)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	0.17 J	--	--	--	1.3[ab]	0.30 J	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--		--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
							--						
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				TMW-146	TMW-146	TMW-146	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample ID:				WG-011315-NL-005	WG-040715-NL-012	WG-070915-JR-034	WG-101013-BS-009	WG-040814-JR-020	WG-071614-AH-007	WG-100914-NL-036	WG-100914-NL-038	WG-011515-NL-025	WG-040915-JR-041
Sample Date:				1/13/2015	4/7/2015	7/9/2015	10/10/2013	4/8/2014	7/16/2014	10/9/2014	10/9/2014 Duplicate	1/15/2015	4/9/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	--	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	--	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				TMW-130	TMW-130	TMW-130	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				TMW-146	TMW-146	TMW-146	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample ID:				WG-011315-NL-005	WG-040715-NL-012	WG-070915-JR-034	WG-101013-BS-009	WG-040814-JR-020	WG-071614-AH-007	WG-100914-NL-036	WG-100914-NL-038	WG-011515-NL-025	WG-040915-JR-041
Sample Date:				1/13/2015	4/7/2015	7/9/2015	10/10/2013	4/8/2014	7/16/2014	10/9/2014	10/9/2014 Duplicate	1/15/2015	4/9/2015
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	ND(0.41)	ND(0.21)	ND(0.36)	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	ND(0.41)	ND(0.21)	ND(0.36)	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	ND(0.41)	ND(0.21)	ND(0.36)	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	ND(0.41)	ND(0.21)	ND(0.36)	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	ND(0.41)	ND(0.21)	ND(0.36)	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	ND(0.41)	1.0 J	0.60	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	ND(0.41)	ND(0.21)	ND(0.36)	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	1.0 J[ab]	0.60[b]	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	ND(0.50)	ND(0.50)	ND(0.50)	--	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				MW-1	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-117A
Sample ID:				WG-070715-JR-002	WG-101013-NL-021	WG-011314-NL-025	WG-040814-JR-004	WG-071714-JR-028	WG-100714-JR-011	WG-011415-NL-019	WG-040815-JR-021	WG-070715-JR-006	WG-100813-NL-001
Sample Date:				7/7/2015	10/10/2013	1/13/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015	10/8/2013
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	0.0059	0.0682	ND(0.001)	0.0851	--	0.0898	0.0706	0.064	ND(0.001)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	0.00016 J	0.00013 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	0.0053	0.0618	ND(0.001)	**0.074[ab]**	**0.0732[ab]**	**0.0818[ab]**	0.061	0.0584	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	0.0006 J	0.0064	ND(0.001)	0.0111	0.0085	0.008	0.0096	0.0056	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				MW-1	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-117A
Sample ID:				WG-070715-JR-002	WG-101013-NL-021	WG-011314-NL-025	WG-040814-JR-004	WG-071714-JR-028	WG-100714-JR-011	WG-011415-NL-019	WG-040815-JR-021	WG-070715-JR-006	WG-100813-NL-001
Sample Date:				7/7/2015	10/10/2013	1/13/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015	10/8/2013
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	0.0033[ab]	ND(0.001)	0.0048[ab]	0.0031[ab]	0.0061[ab]	0.0045[ab]	0.0041[ab]	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	ND(0.50)	--	--	--	--	--	--	--	ND(0.50)
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				MW-117A	MW-117B	MW-117B	MW-118A	MW-118B	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A
Sample ID:				WG-011014-NL-023	WG-100813-NL-002	WG-011014-NL-024	WG-100813-BS-001	WG-100913-BS-002	WG-100913-NL-012	WG-010914-NL-011	WG-040814-AH-013	WG-071714-AH-017	WG-100714-NL-005
Sample Date:				1/10/2014	10/8/2013	1/10/2014	10/8/2013	10/9/2013	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	0.00014 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	ND(0.001)	0.0012	0.0013	0.0285	ND(0.001)	0.0004 J	0.00031 J	ND(0.001)	--
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)UJ	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	0.00013 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	0.0012	0.0013	0.0264	0.00023 J	0.0004 J	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				MW-117A	MW-117B	MW-117B	MW-118A	MW-118B	MW-124A	MW-124A	MW-124A	MW-124A	MW-124A
Sample ID:				WG-011014-NL-023	WG-100813-NL-002	WG-011014-NL-024	WG-100813-BS-001	WG-100913-BS-002	WG-100913-NL-012	WG-010914-NL-011	WG-040814-AH-013	WG-071714-AH-017	WG-100714-NL-005
Sample Date:				1/10/2014	10/8/2013	1/10/2014	10/8/2013	10/9/2013	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0021 ab	ND(0.001)	0.00015 J	0.00022 J	ND(0.001)	0.00064 J
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	ND(0.50)	--	--	--	ND(0.50)	--	--	--	--
Benzene	mg/L	0.005	0.005	--	ND(0.001)	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	ND(0.001)	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	ND(0.001)	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	ND(0.002)	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	ND(0.003)	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				MW-124A	MW-124A	MW-124A	MW-124B	MW-124B	MW-124B	MW-124B	MW-124B	MW-124B	MW-124B
Sample ID:				WG-011315-NL-002	WG-040715-JR-001	WG-070815-JR-016	WG-101013-NL-022	WG-010914-NL-012	WG-040814-AH-009	WG-040814-AH-011	WG-071714-AH-020	WG-071714-AH-023	WG-100714-JR-007
Sample Date:				1/13/2015	4/7/2015	7/8/2015	10/10/2013	1/9/2014	4/8/2014	4/8/2014 Duplicate	7/17/2014	7/17/2014 Duplicate	10/7/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.000092 J	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00029 J	ND(0.001)	ND(0.001)	--
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	0.007 J	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00025 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00023 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				MW-124A	MW-124A	MW-124A	MW-124B	MW-124B	MW-124B	MW-124B	MW-124B	MW-124B	MW-124B
Sample ID:				WG-011315-NL-002	WG-040715-JR-001	WG-070815-JR-016	WG-101013-NL-022	WG-010914-NL-012	WG-040814-AH-009	WG-040814-AH-011	WG-071714-AH-020	WG-071714-AH-023	WG-100714-JR-007
Sample Date:				1/13/2015	4/7/2015	7/8/2015	10/10/2013	1/9/2014	4/8/2014	4/8/2014 Duplicate	7/17/2014	7/17/2014 Duplicate	10/7/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00013 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	ND(0.50)	--	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Location:				MW-124B	MW-124B	MW-124B	MW-124B	TMW-123	TMW-123	TMW-123	TMW-123	TMW-123	TMW-123
Sample ID:				WG-011315-NL-004	WG-040715-JR-003	WG-040715-JR-005	WG-070815-JR-014	WG-100913-NL-003	WG-011414-NL-034	WG-040914-AH-019	WG-071714-AH-035	WG-100814-NL-024	WG-011315-NL-010
Sample Date:				1/13/2015	4/7/2015	4/7/2015	7/8/2015	10/9/2013	1/14/2014	4/9/2014	7/17/2014	10/8/2014	1/13/2015
						Duplicate							
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00061 J	0.00054 J	0.00033 J	ND(0.001)	--	ND(0.001)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	0.008 J	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00089 J	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00061 J	0.00054 J	ND(0.001)	ND(0.001)	0.0011	ND(0.001)
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00037 J	0.00057 J	0.00052 J	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Sample Location:				**MW-124B**	**MW-124B**	**MW-124B**	**MW-124B**	**TMW-123**	**TMW-123**	**TMW-123**	**TMW-123**	**TMW-123**	**TMW-123**
Sample ID:				**WG-011315-NL-004**	**WG-040715-JR-003**	**WG-040715-JR-005**	**WG-070815-JR-014**	**WG-100913-NL-003**	**WG-011414-NL-034**	**WG-040914-AH-019**	**WG-071714-AH-035**	**WG-100814-NL-024**	**WG-011315-NL-010**
Sample Date:				**1/13/2015**	**4/7/2015**	**4/7/2015**	**7/8/2015**	**10/9/2013**	**1/14/2014**	**4/9/2014**	**7/17/2014**	**10/8/2014**	**1/13/2015**
		KDHE Tier 2 Risk-Based Criteria				**Duplicate**							
Parameters	**Units**	**Non-Residential Groundwater Pathway a**	**Residential Groundwater Pathway b**										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00042 J	ND(0.001)	0.00039 J	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0025	0.0027	0.00088 J	0.0022	--	0.0018
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--	ND(0.50)	--	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sample Location:				TMW-123	TMW-123	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1B	MW-1B	MW-1B
Sample ID:				WG-040715-JR-017	WG-070815-JR-026	WG-101013-NL-017	WG-040814-JR-012	WG-100914-NL-031	WG-040915-NL-034	WG-040915-NL-036	WG-101013-NL-018	WG-040814-JR-014	WG-100814-NL-029
Sample Date:				4/7/2015	7/8/2015	10/10/2013	4/8/2014	10/9/2014	4/9/2015	4/9/2015 Duplicate	10/10/2013	4/8/2014	10/9/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.00059 J	ND(0.001)	ND(0.001)	0.00048 J	--	0.00085 J	0.0008 J	ND(0.001)	ND(0.001)	--
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0059 J	0.0061 J	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	0.00015 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.00014 J	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.00059 J	ND(0.001)	0.00023 J	ND(0.001)	0.0009 J	0.00085 J	0.0008 J	ND(0.001)	ND(0.001)	0.00073 J
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Tetrachloroethene	mg/L	0.005	0.005	0.00045 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				N/A	N/A	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sample Location:				TMW-123	TMW-123	MW-1A	MW-1A	MW-1A	MW-1A	MW-1A	MW-1B	MW-1B	MW-1B
Sample ID:				WG-040715-JR-017	WG-070815-JR-026	WG-101013-NL-017	WG-040814-JR-012	WG-100914-NL-031	WG-040915-NL-034	WG-040915-NL-036	WG-101013-NL-018	WG-040814-JR-014	WG-100814-NL-029
Sample Date:				4/7/2015	7/8/2015	10/10/2013	4/8/2014	10/9/2014	4/9/2015	4/9/2015 Duplicate	10/10/2013	4/8/2014	10/9/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	0.00039 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	0.00072 J	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001 J
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	ND(0.50)	--	--	--	--	ND(0.50)	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--	6.2	2.7	2.7	--	--	5.1
Nitrate	mg/L	--	--	--	--	--	--	ND(0.10)	ND(0.10)	ND(0.10)	--	--	ND(0.10)
Nitrite	mg/L	--	--	--	--	--	--	ND(0.10)	ND(0.10)	ND(0.10)	--	--	ND(0.10)
Manganese 2+	mg/L	--	--	--	--	--	--	1.38	1.47 J	0.439 J	--	--	0.493
Ferrous iron	mg/L	--	--	--	--	--	--	0.13 J	0.23 J	0.024 J	--	--	0.17 J
Sulfide	mg/L	--	--	--	--	--	--	ND(0.050)	ND(0.050)	ND(0.050)	--	--	ND(0.050)
Sulfate	mg/L	--	--	--	--	--	--	44.4	66.5	65.6	--	--	47.2
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--	610	675	676	--	--	496
Chloride	mg/L	--	--	--	--	--	--	3.7	5.8	4.0	--	--	32.8
Ethane	mg/L	--	--	--	--	--	--	ND(0.0062)	ND(0.0062)	ND(0.0062)	--	--	ND(0.0062)
Ethene	mg/L	--	--	--	--	--	--	ND(0.0062)	ND(0.0062)	ND(0.0062)	--	--	ND(0.0062)
Methane	mg/L	--	--	--	--	--	--	0.0585	0.004 J	ND(0.0066)	--	--	0.0384

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sample Location:				MW-1B	MW-1C	MW-1C	MW-1C	MW-1C	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample ID:				WG-040915-NL-038	WG-101013-NL-019	WG-040814-JR-016	WG-100814-NL-027	WG-040915-NL-040	WG-101113-NL-023	WG-010814-NL-003	WG-040814-JR-018	WG-071614-AH-001	WG-100914-NL-040
Sample Date:				4/9/2015	10/10/2013	4/8/2014	10/9/2014	4/9/2015	10/11/2013	1/8/2014	4/8/2014	7/16/2014	10/9/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	--	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	0.0007 J	ND(0.001)	0.00042 J	--	ND(0.001)	0.0027	0.0025	0.0036	0.0035	--
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	0.000093 J	ND(0.001)	--
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)UJ	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0007 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0027	0.0025	0.0036	0.0031	0.0027
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0045	**0.0062[ab]**	0.0026	**0.0055[ab]**	**0.0075[ab]**
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site	off-site
Sample Location:				MW-1B	MW-1C	MW-1C	MW-1C	MW-1C	MW-110A	MW-110A	MW-110A	MW-110A	MW-110A
Sample ID:				WG-040915-NL-038	WG-101013-NL-019	WG-040814-JR-016	WG-100814-NL-027	WG-040915-NL-040	WG-101113-NL-023	WG-010814-NL-003	WG-040814-JR-018	WG-071614-AH-001	WG-100914-NL-040
Sample Date:				4/9/2015	10/10/2013	4/8/2014	10/9/2014	4/9/2015	10/11/2013	1/8/2014	4/8/2014	7/16/2014	10/9/2014
		KDHE Tier 2 Risk-Based Criteria											
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b										
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0011	0.0014	0.0007 J	0.00057 J	0.00091 J
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--
Vinyl chloride	mg/L	0.002	0.002	0.0011	ND(0.001)	0.00048 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons													
Diesel fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	ND(0.50)	--	--	--	ND(0.50)	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--	--	--	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--	--	--	--	--	--	--
Natural Attenuation Parameters													
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	2.8	--	--	--	--	--	--	--	--	--
Nitrate	mg/L	--	--	ND(0.10)	--	--	--	--	--	--	--	--	--
Nitrite	mg/L	--	--	ND(0.10)	--	--	--	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	1.45	--	--	--	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	0.63 J	--	--	--	--	--	--	--	--	--
Sulfide	mg/L	--	--	ND(0.050)	--	--	--	--	--	--	--	--	--
Sulfate	mg/L	--	--	52.1	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	505	--	--	--	--	--	--	--	--	--
Chloride	mg/L	--	--	34.3	--	--	--	--	--	--	--	--	--
Ethane	mg/L	--	--	ND(0.0062)	--	--	--	--	--	--	--	--	--
Ethene	mg/L	--	--	ND(0.0062)	--	--	--	--	--	--	--	--	--
Methane	mg/L	--	--	0.0248	--	--	--	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				off-site	off-site	off-site	off-site
Sample Location:				MW-110A	MW-110A	MW-110A	MW-110A
Sample ID:				WG-011515-NL-027	WG-040915-JR-037	WG-040915-JR-039	WG-070715-JR-004
Sample Date:				1/15/2015	4/9/2015	4/9/2015 Duplicate	7/7/2015
		KDHE Tier 2 Risk-Based Criteria					
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b				
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	mg/L	0.00991	0.00535	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	0.00128	0.000694	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,3-Trichloropropane	mg/L	0.00000862	0.00000468	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	mg/L	0.0174	0.00844	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.0002	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	ND(0.001)	0.002	0.0017	0.0024
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	mg/L	0.0884	0.044	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2,2-Dichloropropane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	11.8	4.92	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chlorotoluene	mg/L	0.178	0.0889	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Hexanone	mg/L	--	--	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Phenylbutane (sec-Butylbenzene)	mg/L	0.745	0.305	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Chlorotoluene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl isobutyl ketone (MIBK)	mg/L	4.17	1.02	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromobenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	0.0132	0.00702	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon disulfide	mg/L	1.66	0.716	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroethane	mg/L	26.4	14	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	0.238	0.127	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	0.002	0.0017	0.0024
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	0.08	0.08	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromomethane	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	0.567	0.366	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	mg/L	0.7	0.7	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	mg/L	0.0212	0.00632	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl benzene	mg/L	0.968	0.451	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	mg/L	0.00211	0.00111	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
N-Butylbenzene	mg/L	0.392	0.169	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
N-Propylbenzene	mg/L	1.91	0.66	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Styrene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
tert-Butylbenzene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	**0.0122[ab]**	**0.0084[ab]**	**0.0076[ab]**	**0.0054[ab]**
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Table A-12

On-Site AND Off-Site Quarterly Groundwater Analytical Data Detections Summary Oct. 2013 to July 2015
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:				off-site	off-site	off-site	off-site
Sample Location:				MW-110A	MW-110A	MW-110A	MW-110A
Sample ID:				WG-011515-NL-027	WG-040915-JR-037	WG-040915-JR-039	WG-070715-JR-004
Sample Date:				1/15/2015	4/9/2015	4/9/2015 Duplicate	7/7/2015
		KDHE Tier 2 Risk-Based Criteria					
Parameters	Units	Non-Residential Groundwater Pathway a	Residential Groundwater Pathway b				
Trichloroethene	mg/L	0.005	0.005	0.00082 J	0.00089 J	0.00094 J	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	1.9	1.09	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Total Petroleum Hydrocarbons							
Diesel fuel	mg/L	--	--	--	--	--	--
Fuel oil	mg/L	--	--	--	--	--	--
Kerosene	mg/L	--	--	--	--	--	--
Mineral spirits	mg/L	--	--	--	--	--	--
Motor oil	mg/L	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Diesel (#2 Fuel)	mg/L	--	--	--	--	--	--
Total Petroleum Hydrocarbons - Jet Fuel	mg/L	--	--	--	--	--	--
TPH-DRO (6)	mg/L	0.72	0.50	--	--	--	--
Total Petroleum Hydrocarbons - Gas	mg/L	0.50	0.50	--	--	--	--
Benzene	mg/L	0.005	0.005	--	--	--	--
Ethylbenzene	mg/L	0.7	0.7	--	--	--	--
Toluene	mg/L	1	1	--	--	--	--
m&p-Xylenes	mg/L	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--
Xylenes (total)	mg/L	10	10	--	--	--	--
Natural Attenuation Parameters							
Dissolved organic carbon (DOC) (dissolved)	mg/L	--	--	--	--	--	--
Nitrate	mg/L	--	--	--	--	--	--
Nitrite	mg/L	--	--	--	--	--	--
Manganese 2+	mg/L	--	--	--	--	--	--
Ferrous iron	mg/L	--	--	--	--	--	--
Sulfide	mg/L	--	--	--	--	--	--
Sulfate	mg/L	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--	--	--
Chloride	mg/L	--	--	--	--	--	--
Ethane	mg/L	--	--	--	--	--	--
Ethene	mg/L	--	--	--	--	--	--
Methane	mg/L	--	--	--	--	--	--

Notes:

ND - Not detected at the associated reporting limit.
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
R- Rejected.
(1) Reported but not on Table B.2.2 of QAPP and not detected.
(2) Reported but not on Table B.2.2 of QAPP and detected.
(3) Multiple samples collected at locations not specified in QAPP.
(4) Reported by laboratory as QA/QC parameter.
(5) Multiple samples collected at locations not specified in QAPP.
(6) Summation of detections
Field data collected to be presented in Natural Attenuation Evaluation.

Table A-13

On-Site TMW-127 Area - Groundwater Analytical Data Summary Jan./Feb. 2013 Non Quarterly Sampling
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:				GP13-10	GP13-10	GP13-10	GP13-11	GP13-11	GP13-11	GP13-12	GP13-12	GP13-12	GP13-12
Sample Name:				GW-020113-YH-028	GW-020113-YH-027	GW-020113-YH-026	GW020513-YH-045	GW020513-YH-044	GW020513-YH-043	GW020513-YH-050	GW020513-YH-051	GW020513-YH-048	GW020513-YH-049
Sample Date:				2/1/2013	2/1/2013	2/1/2013	2/5/2013	2/5/2013	2/5/2013	2/5/2013	2/5/2013	2/5/2013	2/5/2013
Sample Type:											Duplicate		
Area of Concern:		KDHE Tier 2 Risk-Based Criteria		TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential	Residential	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:	Units	Groundwater Pathway a	Groundwater Pathway b	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
Volatile Organic Compounds													
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	0.00031 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0009 J	0.00088 J	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	0.00022 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00036 J	0.00036 J	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	nc	nc	0.252	0.157	0.0051	0.0012	0.00032 J	ND(0.001)	1.37	1.27	0.0075	ND(0.001)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	0.00022 J	0.00035 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00026 J	0.00024 J	0.00014 J	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.247[ab]	0.146[ab]	0.0047	0.0012	0.00032 J	0.00016 J	1.33[ab]	1.23[ab]	0.0063	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	nc	nc	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	0.00017 J	ND(0.001)	ND(0.001)	0.00044 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	0.00017 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00023 J	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0063	0.0115	0.00038 J	ND(0.001)	ND(0.001)	ND(0.001)	0.0458	0.0419	0.0011	ND(0.001)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.00013 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.0038[ab]	0.195[ab]	0.00094 J	ND(0.001)	0.00084 J	ND(0.001)	0.049[ab]	0.0462[ab]	0.0214[ab]	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)

Notes:
ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
--: Not Analyzed
nc - No Criteria
Boxed values exceed criteria.
mg/L - milligrams per liter
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Environment, March 2014, Appendix A

Table A-13

On-Site TMW-127 Area - Groundwater Analytical Data Summary Jan./Feb. 2013 Non Quarterly Sampling
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:				GP13-13	GP13-13	GP13-13	GP13-14	GP13-14	GP13-14	GP13-15	GP13-15	GP13-16	GP13-16
Sample Name:				GW-020613-YH-055	GW-020613-YH-054	GW-021213-YH-070	GW-020613-YH-058	GW-020613-YH-057	GW-020613-YH-056	GW-021313-YH-083	GW-021313-YH-081	GW-021213-YH-069	GW-021213-YH-068
Sample Date:				2/6/2013	2/6/2013	2/12/2013	2/6/2013	2/6/2013	2/6/2013	2/13/2013	2/13/2013	2/12/2013	2/12/2013
Sample Type:													
Area of Concern:		KDHE Tier 2 Risk-Based Criteria		TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential	Residential	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:	Units	Groundwater Pathway a	Groundwater Pathway b	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
Volatile Organic Compounds													
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00093 J
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00038 J
1,2-Dichloroethene (total)	mg/L	nc	nc	0.0806	0.00045 J	ND(0.001)	0.0037	0.00098 J	0.0088	ND(0.001)	ND(0.001)	0.0524	0.871
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	0.00029 J	ND(0.001)	0.00012 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00063 J
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0789[ab]	0.00045 J	0.00025 J	0.0037	0.00098 J	0.0086	ND(0.001)	ND(0.001)	0.0503	0.831[ab]
Cymene (p-Isopropyltoluene)	mg/L	nc	nc	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	0.00032 J	ND(0.001)	0.00028 J	ND(0.001)	0.00051 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	0.00019 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	0.00016 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00015 J
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0017	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00024 J	ND(0.001)	ND(0.001)	0.0021	0.0443
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	0.00085 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0052[ab]	0.00013 J
Vinyl chloride	mg/L	0.002	0.002	0.0755[ab]	0.00024 J	ND(0.001)	ND(0.001)	0.00066 J	0.0051[ab]	ND(0.001)	ND(0.001)	0.0012	0.0642[ab]
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)

Notes:
ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
--: Not Analyzed
nc - No Criteria
Boxed values exceed criteria.
mg/L - milligrams per liter
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Er

Table A-13

On-Site TMW-127 Area - Groundwater Analytical Data Summary Jan./Feb. 2013 Non Quarterly Sampling
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:				GP13-16	GP13-16	GP13-17	GP13-17	GP13-18	GP13-18	GP13-19	GP13-19	GP13-2	GP13-2
Sample Name:				GW-021213-YH-066	GW-021213-YH-067	GW-021313-YH-080	GW-021313-YH-079	GW-021313-YH-078	GW-021313-YH-077	GW-021213-YH-074	GW-021213-YH-071	GW-012513-YH-003	GW-012513-YH-002
Sample Date:				2/12/2013	2/12/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/12/2013	2/12/2013	1/25/2013	1/25/2013
Sample Type:					Duplicate								
Area of Concern:		KDHE Tier 2 Risk-Based Criteria		TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential	Residential	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:	Units	Groundwater Pathway a	Groundwater Pathway b	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
Volatile Organic Compounds													
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	nc	nc	0.0442	0.0427	0.0218	0.00044 J	0.0444	0.00056 J	0.00097 J	0.0012	0.0025	ND(0.001)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0411	0.04	0.02	ND(0.001)	0.0421	ND(0.001)	0.00097 J	0.0012	0.0021	0.00025 J
Cymene (p-Isopropyltoluene)	mg/L	nc	nc	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0039	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0031	0.0027	0.0018	ND(0.001)	0.0023	ND(0.001)	ND(0.001)	ND(0.001)	0.00038 J	ND(0.001)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00074 J	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.0024[ab]	0.0023[ab]	0.00056 J	ND(0.001)	0.008[ab]	0.0015	ND(0.001)	0.00071 J	0.0024[ab]	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)

Notes:
ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
--: Not Analyzed
nc - No Criteria
Boxed values exceed criteria.
mg/L - milligrams per liter
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Er

Table A-13

On-Site TMW-127 Area - Groundwater Analytical Data Summary Jan./Feb. 2013 Non Quarterly Sampling
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:				GP13-2	GP13-3	GP13-3	GP13-3	GP13-4	GP13-4	GP13-4	GP13-5	GP13-5	GP13-5
Sample Name:				GW-012513-YH-001	GW-012513-YH-006	GW-012513-YH-005	GW-012513-YH-004	GW-012813-YH-013	GW-012813-YH-014	GW-012813-YH-011	GW-012813-YH-018	GW-012813-YH-017	GW-012813-YH-016
Sample Date:				1/25/2013	1/25/2013	1/25/2013	1/25/2013	1/28/2013	1/28/2013	1/28/2013	1/28/2013	1/28/2013	1/28/2013
Sample Type:									Duplicate				
Area of Concern:		KDHE Tier 2 Risk-Based Criteria		TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential	Residential	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:		Groundwater Pathway	Groundwater Pathway	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
	Units	a	b										
Volatile Organic Compounds													
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	0.00084 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	0.00037 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	nc	nc	ND(0.001)	1.03	0.0048	0.00042 J	0.418	0.385	ND(0.001)	0.304	0.0949	ND(0.001)
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	0.00025 J	0.0001 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0014	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.001)	1[ab]	0.0048	0.00042 J	0.376[ab]	0.394[ab]	ND(0.001)	0.277[ab]	0.0868[ab]	ND(0.001)
Cymene (p-Isopropyltoluene)	mg/L	nc	nc	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	0.00018 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.001)	0.0342	ND(0.001)	ND(0.001)	0.0188	0.0175	ND(0.001)	0.0168	0.0081	ND(0.001)
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	ND(0.001)	0.0403[ab]	0.0041[ab]	0.00018 J	0.089[ab]	0.081[ab]	ND(0.001)	0.018[ab]	0.0373[ab]	ND(0.001)
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)

Notes:
ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
--: Not Analyzed
nc - No Criteria
Boxed values exceed criteria.
mg/L - milligrams per liter
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Er

Table A-13

On-Site TMW-127 Area - Groundwater Analytical Data Summary Jan./Feb. 2013 Non Quarterly Sampling
Remedial Alternatives Evaluation
Former Fairfax I Site
Kansas City, Kansas

Location Name:				GP13-6	GP13-6	GP13-6	GP13-6	GP13-7	GP13-7	GP13-8	GP13-9	GP13-9	GP13-9
Sample Name:				GW-013013-YH-023	GW-013013-YH-022	GW-013013-YH-020	GW-013013-YH-021	GW-020413-YH-041	GW-020413-YH-042	GW-020413-YH-037	GW-020113-YH-029	GW-020113-YH-030	GW-020113-YH-033
Sample Date:				1/30/2013	1/30/2013	1/30/2013	1/30/2013	2/4/2013	2/4/2013	2/4/2013	2/1/2013	2/1/2013	2/1/2013
Sample Type:					Duplicate		Duplicate						
Area of Concern:		KDHE Tier 2 Risk-Based Criteria		TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127	TMW-127
Property:		Non-Residential	Residential	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I	Fairfax I
Sampling Company:	Units	Groundwater Pathway a	Groundwater Pathway b	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A	Cardno MM&A
Volatile Organic Compounds													
1,1-Dichloroethane	mg/L	0.0461	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00065 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00023 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	nc	nc	0.0302	0.0289	ND(0.001)	0.0301	0.453	0.0225	0.0123	0.0056	0.0221	0.0171
Acetone	mg/L	45.5	11.5	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.0019 J	ND(0.01)	0.0055 J	ND(0.01)	ND(0.01)	ND(0.01)
Benzene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00037 J	ND(0.001)	0.00011 J	ND(0.001)	0.00011 J	0.00014 J
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0271	0.0262	ND(0.001)	0.0272	0.429[ab]	0.0211	0.0116	0.0056	0.0216	0.0165
Cymene (p-Isopropyltoluene)	mg/L	nc	nc	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	0.262	0.133	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00017 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00031 J	ND(0.001)
Methylene chloride	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	1	1	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00016 J	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0031	0.0028	ND(0.001)	0.003	0.0254	0.0014	0.00062 J	ND(0.001)	0.00046 J	0.00053 J
Trichloroethene	mg/L	0.005	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00016 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vinyl chloride	mg/L	0.002	0.002	0.0238[ab]	0.0222[ab]	ND(0.001)	0.0233[ab]	0.0923[ab]	0.0032[ab]	0.0024[ab]	ND(0.001)	0.0068[ab]	0.0065[ab]
Xylenes (total)	mg/L	10	10	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)

Notes:
ND ( ) - Not present at or above the associated value
J - Estimated concentration
UJ - Estimated reporting limit
--: Not Analyzed
nc - No Criteria
Boxed values exceed criteria.
mg/L - milligrams per liter
Risk Based Standards for Kansas, RSK Manual- 5th Version, Kansas Department of Health and Er

Attachment 1
Groundwater Contour Figures from Quarterly Monitoring Program (2013 to 2015)

0 150 300ft

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- MW-102A — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-130 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- 720.63 — GROUNDWATER ELEVATION (ft. AMSL)
- 720.7 — GROUNDWATER CONTOUR (ft. AMSL)

MW-124A 720.65
MW-102A 721.19
MW-115A 720.09
TMW-157 720.89
MW-104 721.01
MW-105 720.97
MW-103A AREA
TMW-150 720.97
TMW-151 721.54
MW-125 720.78
TMW-152 720.94
SB-110 AREA
MW-108 720.84
MW-158A 720.55
TMW-123 720.75
TMW-155 720.74
TMW-127 AREA
TMW-127 720.52
MW-1A 720.69
TMW-154 720.77
TMW-153 720.64
TMW-145 720.39
FAIRFAX I FORMER ASSEMBLY PLANT
TMW-144 720.41
TMW-146 720.41
TMW-147E 720.88
S-8 AREA
MW-109 721.01
TMW-130 AREA
TMW-143 720.44
TMW-148 720.92
MW-117A 720.71
MW-1 721.07
MW-116A 720.57
MW-110A 720.9
KINDELBERGER ROAD
FIBERGLASS RD
CHRYSLER RD
FAIRFAX TRAFFICWAY
RAILROAD TRACKS

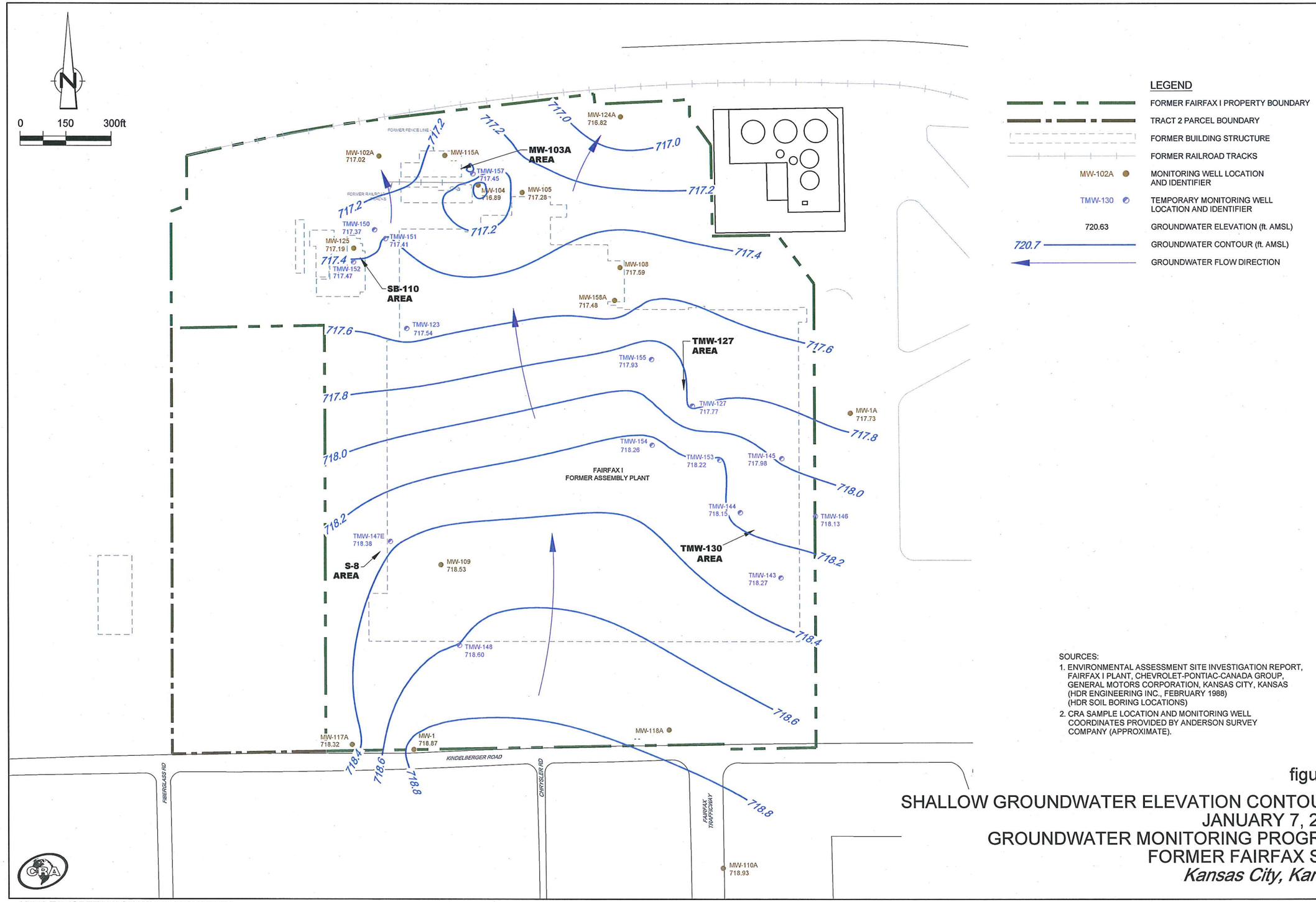
721.0 720.8 720.6 720.4 721.2 720.8 720.8 720.8 720.6 720.4 720.8 721.0 720.8 720.6 720.8

CRA

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS
OCTOBER 8, 2013
GROUNDWATER MONITORING PROGRAM
FORMER FAIRFAX SITE
Kansas City, Kansas

12559-T03(GREE001)GN-WA002 DEC 31/2013



SOURCES:

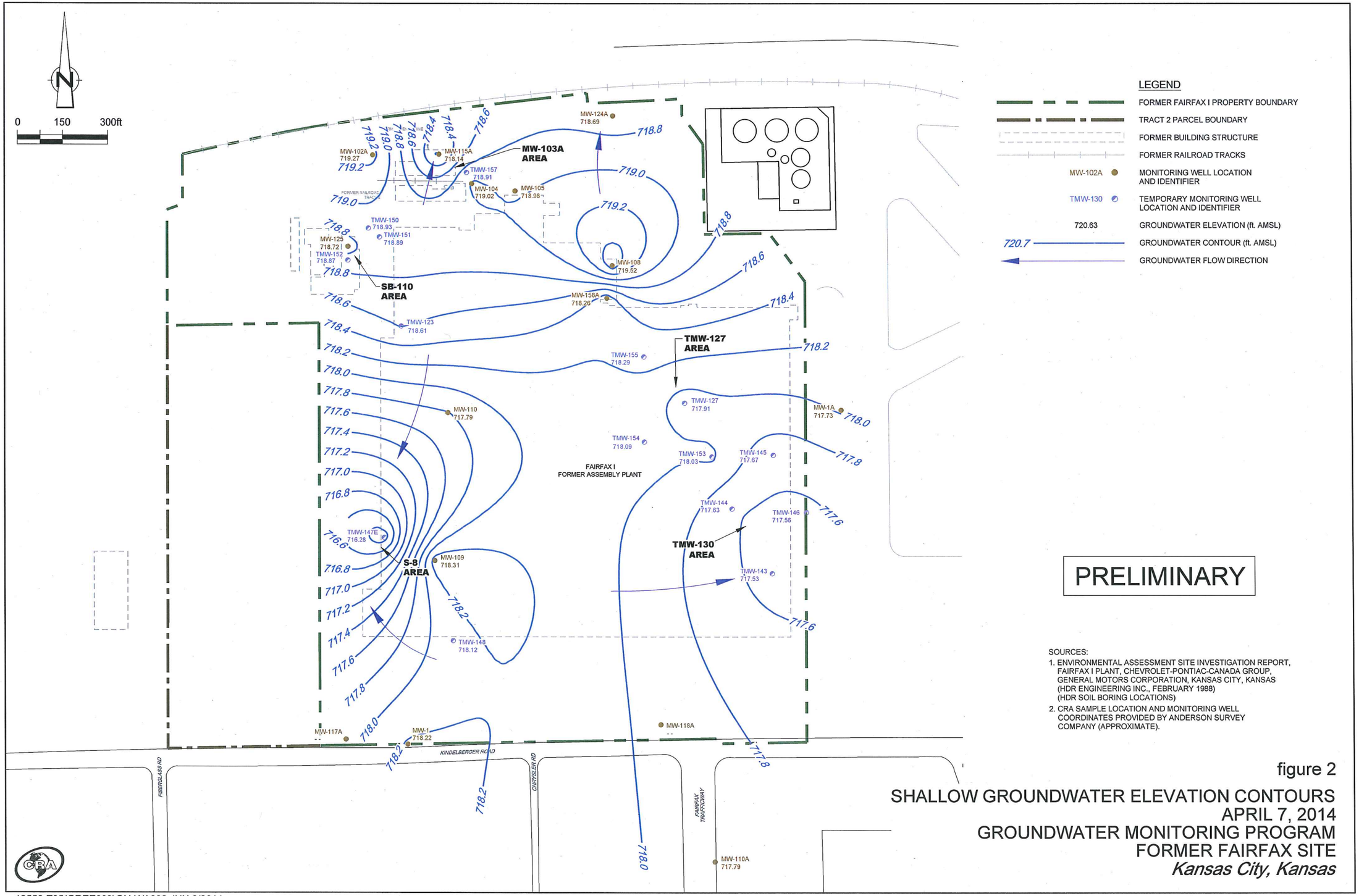
1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JANUARY 7, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE002)GN-WA002 FEB 20/2014



PRELIMINARY

SOURCES:

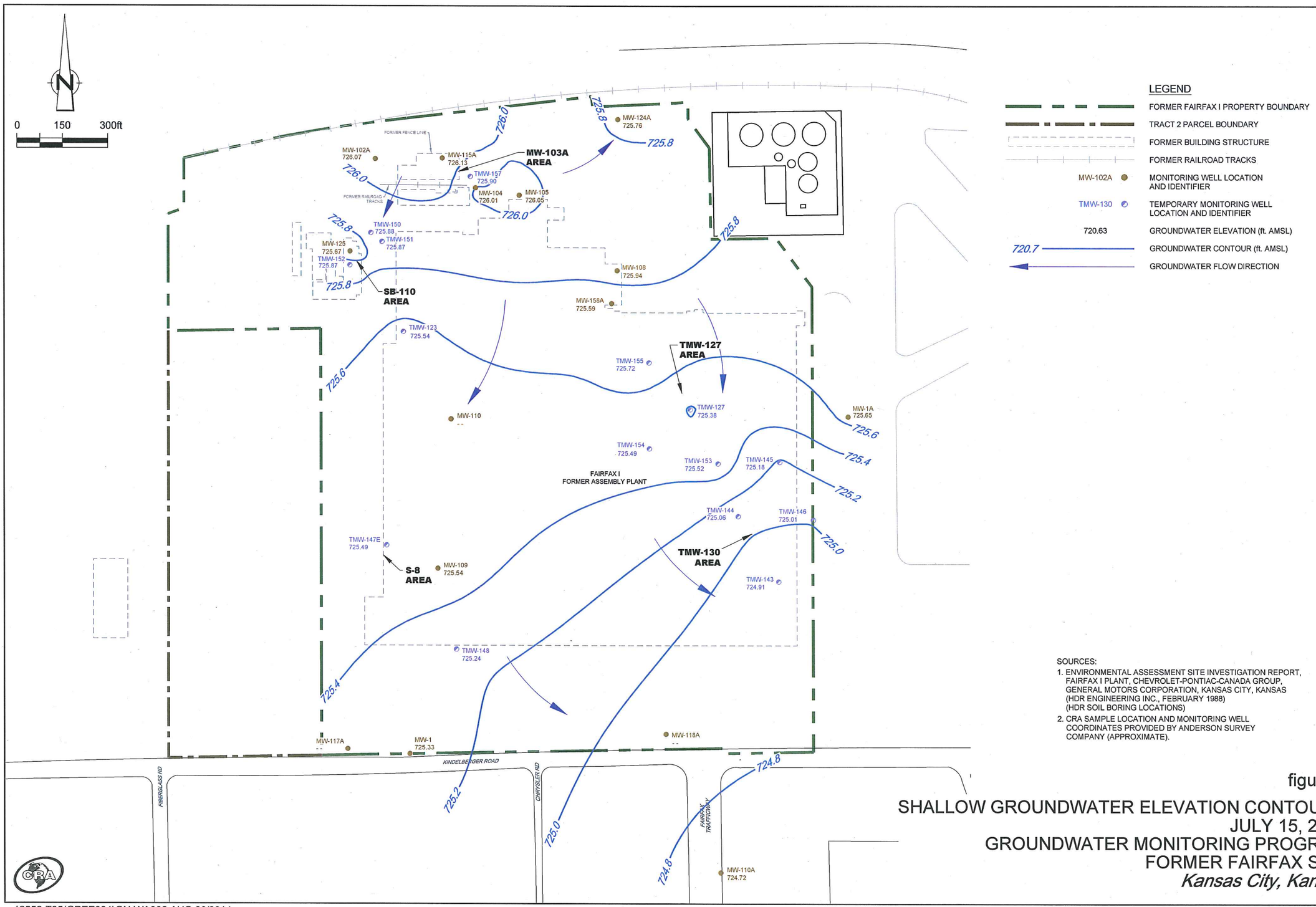
1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS APRIL 7, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE003)GN-WA002 JUN 9/2014



SOURCES:

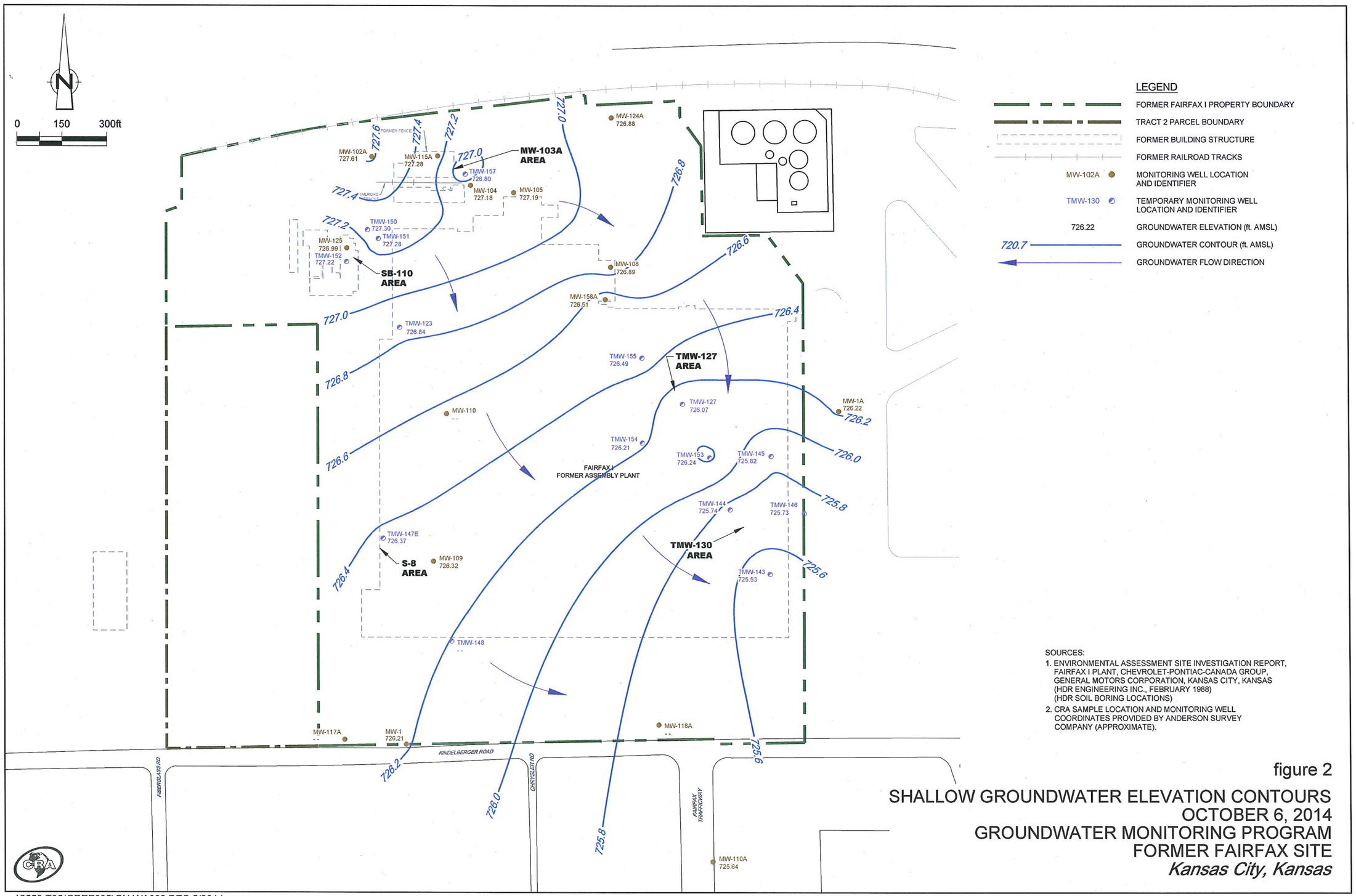
1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JULY 15, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE004)GN-WA002 AUG 26/2014



SOURCES:

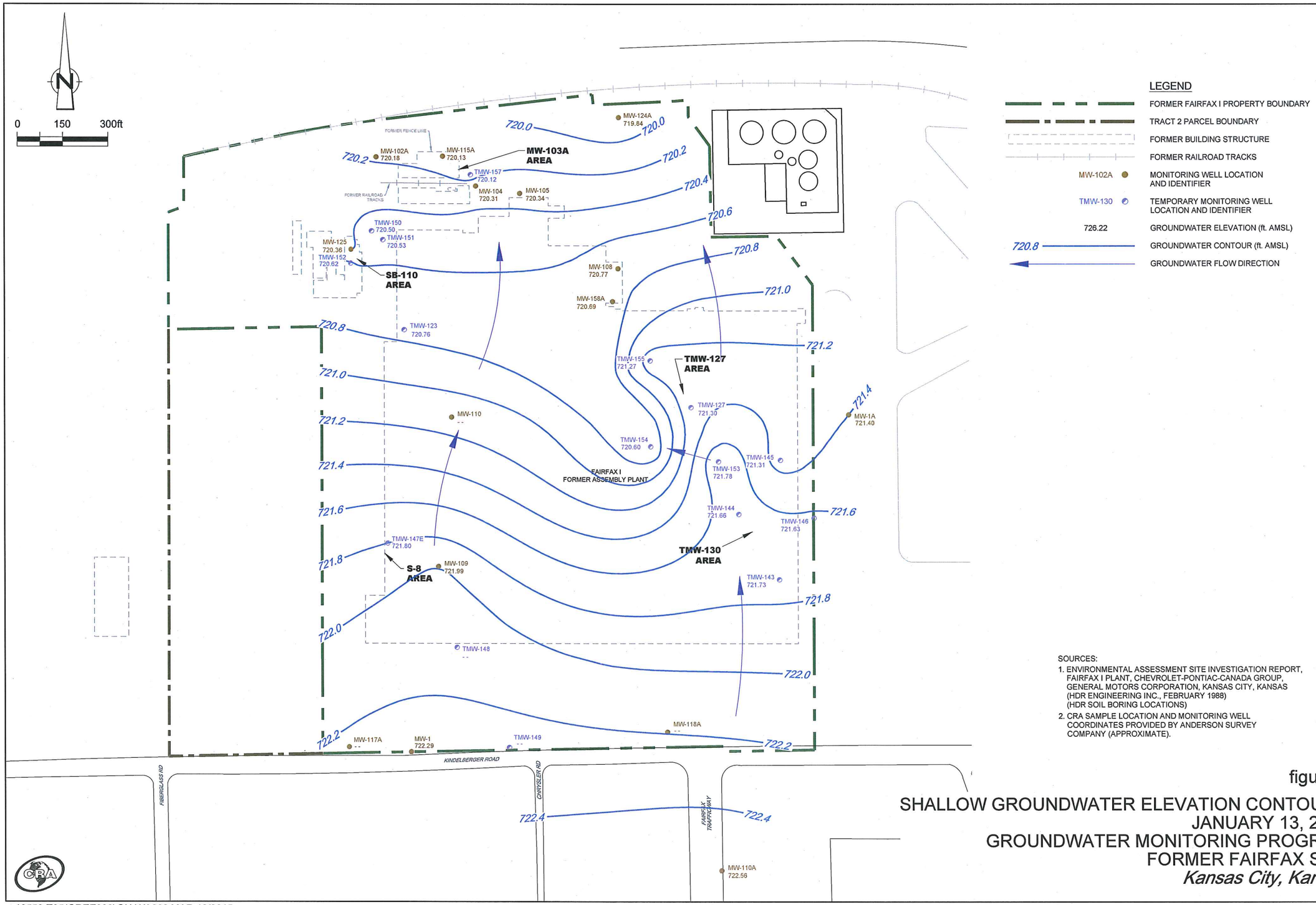
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2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS OCTOBER 6, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE005)GN-WA002 DEC 5/2014



SOURCES:

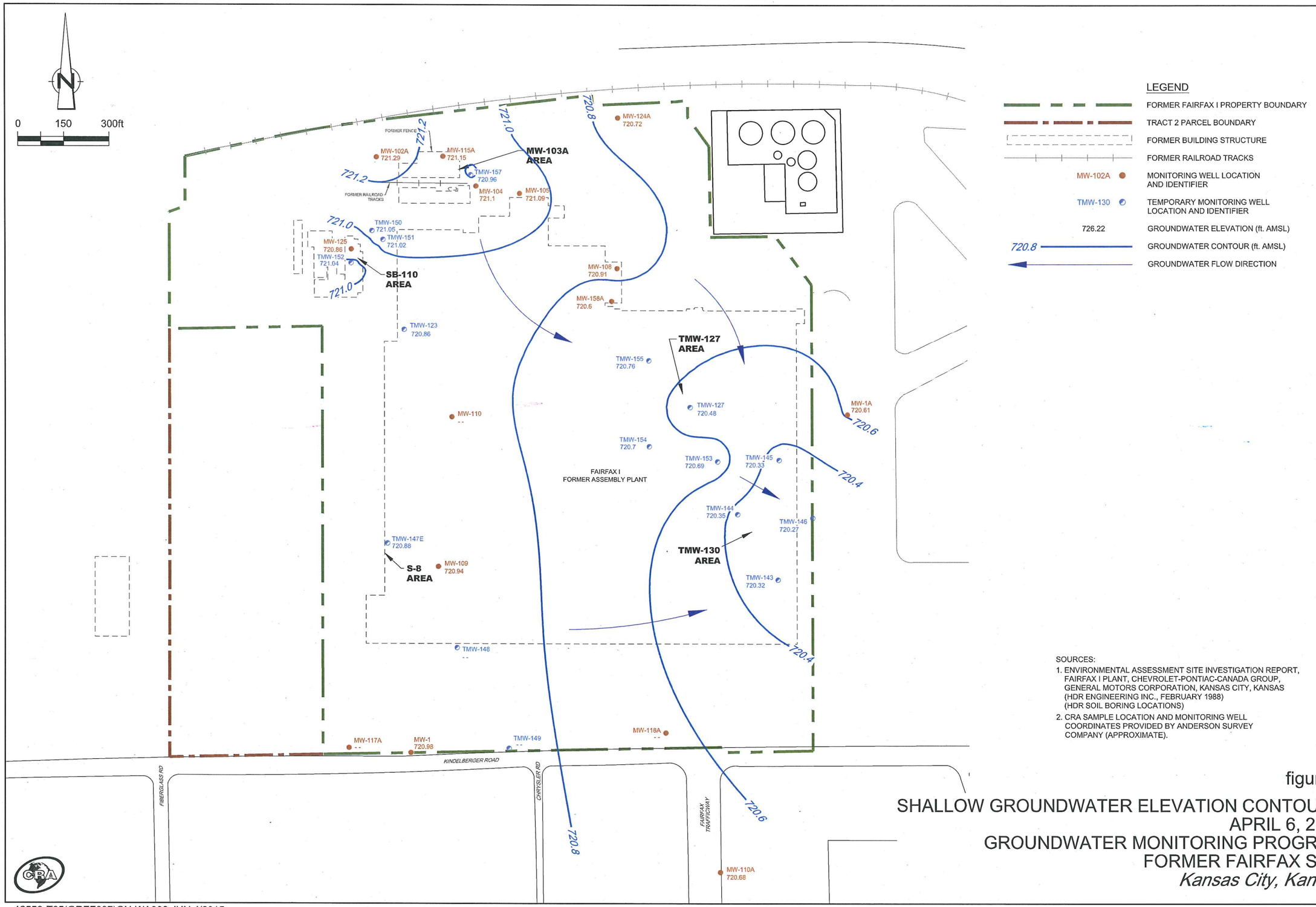
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2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JANUARY 13, 2015 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE006)GN-WA002 MAR 12/2015



SOURCES:

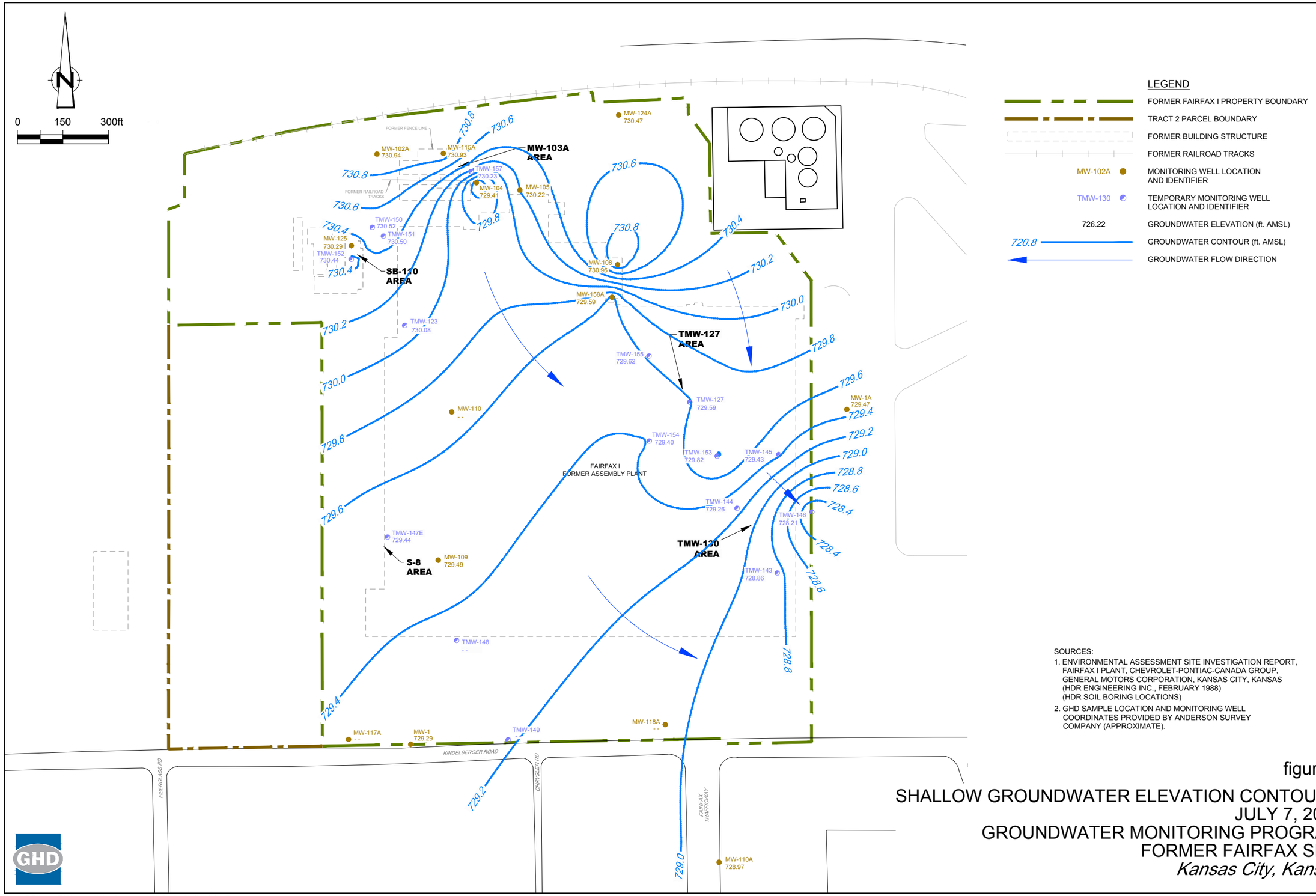
1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS APRIL 6, 2015 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE007)GN-WA002 JUN 4/2015



SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. GHD SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JULY 7, 2015 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(OHAL001)GN-WA002 AUG 26/2015

Appendix B
Institutional Control Documents

Bureau of Environmental Remediation
Curtis State Office Building
1000 SW Jackson St, Suite 410
Topeka, KS 66612-1367

Kansas
Department of Health & Environment

Phone: 785-296-1673
Fax: 785-296-7030
www.kdheks.gov

Robert Moser, MD, Secretary

Sam Brownback, Governor

April 8, 2013

CERTIFIED MAIL
Return Receipt Requested

Robert W. Hare
Cleanup Manager
2930 Encorse Road
Ypsilanti, Michigan 48198

RE: Environmental Use Control and Long-Term Care Agreements for the General Motors Former Fairfax Plant 1, Wyandotte County, Kansas
KDHE Project No. C4-105-00021 EUCA No. 12-EUC-0019

Dear Mr. Hare:

The Kansas Department of Health and Environment has reviewed and approved the Environmental Use Control application and proposed environmental use controls for the referenced Site at 120 and 220 Kindelberger Road, Kansas City, Kansas. The application package was submitted by Revitalizing Auto Communities Environmental Response Trust (RACER) as landowner of the subject property.

Enclosed you will find the Environmental Use Control Agreement (EUCA) and Long-Term Care Agreement (LTCA) developed by KDHE. The EUCA represents the specific terms and conditions of the environmental use controls to be placed upon the property as requested in the application and deemed necessary by KDHE. Based upon the application and information from KDHE files, the property has been classified as a Category 3 property, which requires a LTCA to reimburse KDHE for oversight of inspections and tracking associated with the EUCA. RACER is to provide the reimbursement of $50,000 as stated in the LTCA.

Please have the authorized representative for RACER review and sign the EUCA and LTCA, with notarization of their signature if the terms and conditions are found to be acceptable. The original EUCA, LTCA and Exhibits must then be recorded in the office of the Register of Deeds for Wyandotte County, Kansas. Finally, a complete copy of the agreements bearing the stamp of the Register of Deeds and requisite funding must be returned to KDHE/BER within ninety (90) days of certified receipt of this letter.

Thank you for your cooperation. Please contact me by telephone at 785-291-3807 or by e-mail at SAller@kdheks.gov if you have questions concerning this letter.

Sincerely,

Stuart Aller

Stuart Aller, Environmental Scientist
Voluntary Cleanup Unit
Remedial Section

Enclosure

c: Deanna Ross>Stuart Aller>File>GM Fairfax 1 Plant Site>C4-105-00021-(12-EUC-0019)-2
Pamela Green, KDHE

DOCUMENT NUMBER: 12-EUC-0019	PROJECT NUMBER: C4-105-00021	PROPERTY CATEGORY: 3

ENVIRONMENTAL USE CONTROL AGREEMENT

The **Revitalizing Auto Communities Environmental Response (RACER) Trust**, having a mailing address of 2930 Ecorse Road, Ypsilanti, Michigan 48198, hereinafter referred to as the "Owner", is the owner of real property known as the General Motors Former Fairfax 1 Plant Site, having Tax ID Numbers 298401 and 298402, in the north half of Section 27, Township 10 South, Range 25 East, in the County of Wyandotte, Kansas, as shown on the map attached hereto and incorporated herein as Exhibit A, hereinafter referred to as the "Property", and more particularly described by the following legal description:

> **All of Lots 2 and 3, Fairfax 1, a subdivision in Kansas City, Wyandotte County, Kansas, according to the recorded plat thereof.**

And which shall likewise include any and all parcels contained therein.

WHEREAS the Owner has requested, by application to the Kansas Department of Health and Environment, hereinafter referred to as "KDHE", to restrict, prohibit and/or limit certain uses of the Property in accordance with Kansas Statutes Annotated (K.S.A.) 2012 Supp. 65-1,221 *et seq*.

KDHE has approved the Owner's application to restrict, prohibit, and/or limit certain uses of the Property since residual contamination, which exceeds department standards for unrestricted residential use, remains on the Property.

The conditions at the Property as of the date of KDHE's approval of the application are as follows:

> **The Property was utilized by the United States Department of Defense as a manufacturing plant for B-25 bombers during World War II and then by General Motors Corporation to build automobiles until 1987. All buildings at the facility were razed in 1989. Environmental investigations conducted at the Property identified soil and groundwater with chlorinated solvent and petroleum impacts, including light non-aqueous phase liquids, at levels exceeding corresponding KDHE cleanup criteria. Consent Agreement and Final Order Case No. 11-E-109 BER was executed in November 2011 between RACER Trust and KDHE to implement the selected remedy.**

KDHE has determined, based on conditions at the Property, the application and other information pertaining to the Property, that environmental use controls are appropriate to ensure future protection of public health and the environment, subject to the conditions herein. Therefore, in accordance with K.S.A. 2012 Supp. 65-1,226 and the rules and regulations promulgated thereunder, the Property is hereby designated by KDHE as a Category 3 property.

The Owner acknowledges that this Agreement runs with the land and is binding on all successors in interest in the Property pursuant to K.S.A. 2012 Supp. 65-1,227(b); and is enforceable by KDHE pursuant to K.S.A. 2012 Supp. 65-1,229, unless and/or until such requirements are mutually terminated in writing by KDHE and Owner or Owner's successor in interest. For purposes of the obligations set forth in this document, "Owner" shall be deemed to include the applying Owner and any and all successors in interest.

This Agreement shall be recorded, by the Owner, with the Wyandotte County Register of Deeds for the purposes of providing notice of the environmental use controls, protecting public health and the environment, and to prevent interference with the operation, performance, and/or maintenance of any remedial actions on the Property.

RESTRICTIONS, PROHIBITIONS AND LIMITATIONS:

Due to the environmental conditions described above, it is the desire and intention of the Owner to restrict, prohibit, and/or limit the following uses of the Property:

A. The Property shall not be used for residential purposes of any type including, but not limited to, a residence or dwelling, including a house, apartment, mobile home, nursing home, or condominium; or public use area, including a school, educational center, day care center, playground or similar structure, unrestricted outdoor recreational area, or park.

B. The Owner shall not allow water wells to be drilled, constructed, or used on the Property for domestic purposes, lawn and gardening, or other means, which use involves or may involve human consumption and/or other possible human contact uses. This restriction does not prohibit drilling, construction or use of water wells for the purpose of containing product or contamination, or for contaminated ground water recovery, monitoring, or other remediation activities as approved in writing by KDHE.

C. The Owner shall not file or petition to initiate re-zoning of the Property without fifteen (15) calendar days prior notification to KDHE.

D. The Owner shall not allow soils at the Property to be excavated or otherwise disturbed in any manner unless conducted in accordance with the current KDHE-approved *Soil Waste Management Plan*, incorporated herein by reference and available upon request from KDHE. KDHE shall be provided with notification ten (10) working days prior to any excavation activities.

E. The Owner shall inform all contractors, lessees, easement holders, and/or other workers performing any excavation activities on the Property, prior to such activities, of the potential hazards associated with the direct contact and/or transport of any potentially contaminated and/or hazardous soil or other material from the Property. Lessees, easement holders,

contractors and/or workers shall also be informed by the Owner of any potential hazards associated with releases from contaminated media located on the Property.

F. The Owner shall preserve, protect and replace, as necessary, all permanent survey markers, benchmarks and environmental monitoring stations and systems that may be installed on the Property.

LOCAL ORDINANCES AND ZONING:

The Owner and KDHE acknowledge that the following local ordinances and zoning requirements in place at the time of recording this Agreement shall be used in addition to the restrictions, prohibitions and limitations set forth in this Agreement.

The Property is zoned M-3 Heavy Industrial by the Unified Government of Wyandotte County and Kansas City, Kansas.

ACCESS:

The Owner hereby agrees and conveys to KDHE, its agents, contractors, and employees, access to the Property for the term of this Agreement to enter or come upon the Property to inspect the Property and perform any required action (i.e., monitoring, sampling, etc.) KDHE deems necessary for any one or more of the following purposes:

1. Ensuring that use, occupancy, and activities of and at the Property are consistent with this Agreement;

2. Inspecting protective structures and any other remedial systems to ensure their designed operation, performance and structural integrity;

3. Documenting environmental conditions of and at the Property;

4. Ensuring implementation and enforcement of the requirements, restrictions, prohibitions, and other limitations described in this Agreement; and/or

5. Performing any additional investigations or remediation deemed necessary by KDHE to protect public health and the environment.

DURATION:

The Owner hereby agrees that this Agreement extends in perpetuity unless and/or until removal following approval by KDHE pursuant to K.S.A. 2012 Supp. 65-1,227.

MONITORING AND INSPECTION REQUIREMENTS:

Groundwater monitoring at the Property, currently overseen by KDHE's Bureau of Environmental Remediation under the auspices of the State Cooperative Program, is conducted under Consent Agreement and Final Order Case No. 11-E-109 BER executed on November 21, 2011 between RACER Trust and KDHE.

The Property shall be inspected in accordance with the Long-Term Care Agreement entered into by RACER Trust and KDHE (2013), which is attached hereto and incorporated herein by reference.

Should the Long-Term Care Agreement entered into by RACER Trust and KDHE (2013) be terminated or the RACER Trust cease to exist, KDHE shall conduct an inspection of the Site and the selected remedy on an annual basis for the term of this Agreement. KDHE shall prepare a written report including information on the condition and current uses of the Site, inspection findings, photo documentation and any other information required to verify if the terms of this Agreement are being fulfilled. KDHE may consider modifications of the frequency of inspection and reporting if warranted by technical data.

MAINTENANCE REQUIREMENTS:

The Owner hereby agrees to implement routine actions, to maintain, as well as, repair any conditions to the selected remedy that could negatively impact the integrity of the selected remedy and correct deficiencies as outlined by KDHE to prevent exposure to human health and the environment when either of the following occurs: 1) the Long-Term Care Agreement entered into by RACER Trust and KDHE (2013) is terminated; or 2) the RACER Trust ceases to exist. Such repairs may be necessary to correct effects from events which may allow for potential exposure to contaminated soils and/or otherwise compromise the effectiveness of the selected remedy.

FUNDING:

This Agreement is funded through a Long-Term Care Agreement entered into by RACER Trust and KDHE (2013), which is attached hereto and incorporated herein by reference, to compensate KDHE for costs incurred to perform inspections and tracking of the terms and requirements of this Agreement.

OTHER TERMS AND CONDITIONS:

The Owner hereby agrees to provide KDHE written notification no less than fifteen (15) calendar days prior to any sale, lease, conveyance or other transfer of the Property. The notice shall include the name and business address (if applicable) of the transferee and the expected date of transfer.

The Owner shall cause any lease, grant, or other transfer of any interest in the Property to include a provision expressly requiring the lessee or transferee to comply with the terms of this Agreement. The failure to include such a provision shall not affect the validity or applicability to the Property of this Agreement.

Within fifteen (15) calendar days of real property conveyance, the Owner hereby agrees to provide KDHE a copy of the recorded deed with legal description and corresponding survey map for which this Agreement applies.

The Owner hereby agrees to provide KDHE written notification no less than fifteen (15) calendar days prior to any land use changes at the Property.

The Owner acknowledges that the requirements in this Agreement may not be extinguished, limited or impaired through adverse possession, abandonment, waiver, lack of enforcement, or other common law principles, pursuant to K.S.A. 2012 Supp. 65-1,227(e).

This Agreement may be modified by mutual written agreement by the Owner and KDHE. Within thirty (30) calendar days of executing an amendment, modification, or termination of this Agreement, the Owner shall record such amendment, modification, or termination with the Wyandotte County Register of Deeds, and within thirty (30) calendar days thereafter, the Owner shall provide a copy of the recorded amendment, modification, or termination to KDHE that bears the seal and/or notarized signature of the Register of Deeds.

ENFORCEABILITY:

If the terms of this Agreement are not being implemented by the Owner or contamination at the Property presents a hazard to public health or the environment, KDHE may take such action as authorized by K.S.A. 2012 Supp. 65-1,229, including:

A. Issue an order directing the Owner to correct any deficiencies and fully implement the terms of this Agreement.

B. Issue an order retracting this Agreement and any remedial action at the Property and requiring the Owner to implement a remedial action at the Property to attain a cleanup standard that will allow for unrestricted use of the Property.

C. Commence an action enjoining acts or practices set forth in this Agreement or requesting that the attorney general or appropriate district or county attorney commence such an action.

DOCUMENT NUMBER: 12-EUC-0019	PROJECT NUMBER: C4-105-00021	PROPERTY CATEGORY: 3

EFFECTIVE DATE OF AGREEMENT:

The Owner shall provide to KDHE a copy of this Agreement bearing the seal or notarization of the Register of Deeds in **Wyandotte County** within ninety (90) days from **certified receipt** of this fully executed Agreement from KDHE.

The Owner shall provide KDHE with funding as determined by KDHE in accordance with K.S.A. 2012 Supp. 65-1,226 within ninety (90) days from **certified receipt** of this fully executed Agreement from KDHE.

Proper recording of all necessary documents and submission of required funding shall be conditions precedent to the effectiveness of this Agreement.

IN WITNESS WHEREOF, KDHE and the Owner have entered into and executed this Environmental Use Control Agreement through their duly authorized representatives as of this 5 day of April, 2013.

Kansas Department of Health and Environment

By: Robert Moser
Robert Moser, MD, Secretary

ACKNOWLEDGMENT:

STATE OF KANSAS)
)ss:
COUNTY OF SHAWNEE)

BE IT REMEMBERED, on this 5 day of April, 2013, before me, the undersigned, a Notary Public in and for the State aforesaid, came Robert Moser, MD, Secretary and authorized representative of KDHE, who is personally known to be such person who executed the above document on behalf of KDHE, and such person duly acknowledged the execution of the same to be his/her act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at my office in Shawnee County, Kansas, the day and year last written above.

Melissa L. Rosdahl
Notary Public in and for said State

NOTARY PUBLIC - State of Kansas
MELISSA L. ROSDAHL
My Appt Expires 04-25-16

Trust: **RACER Trust**

By: _____ Date: _____

Print Name: _____

Title: _____

ACKNOWLEDGMENT:

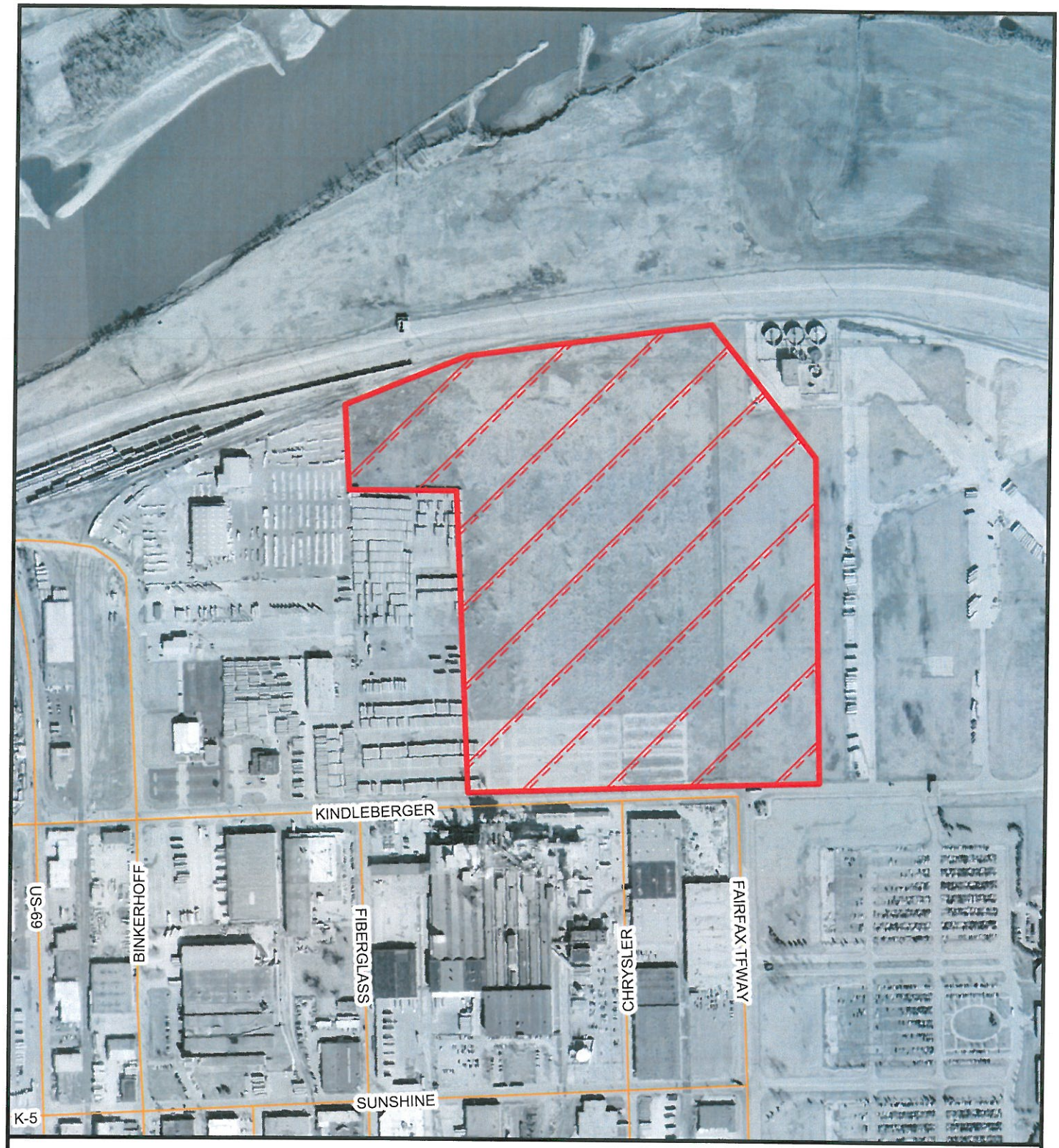
STATE OF _____)
)ss:
COUNTY OF _____)

BE IT REMEMBERED, on this _____ day of _____, 2013, before me, the undersigned, a Notary Public in and for the County and State aforesaid, came Robert W. Hare, authorized representative of the RACER Trust, who is personally known to be such person who executed the above document on behalf of said Trust, and such person duly acknowledged the execution of the same to be his/her act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at my office in _____ County, _____, the day and year last written above.

_____
Notary Public in and for said County and State

My Term Expires: _____



0 250 500 1,000 Feet

N

LEGEND

Local Roads

EUC Area (approximate)

Exhibit A

General Motors
Former Fairfax 1 Plant
Kansas City, Kansas
12-EUC-0019

Kansas
Department of Health and Environment

Map Created by SA: December 18, 2012

Tract In NW/4 and NE/4 of Sec. 27, T10S, R25E

LONG-TERM CARE AGREEMENT
BETWEEN
REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST
AND
THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

In the Matter of the General Motors Former Fairfax Plant 1 Site located in Kansas City, Kansas as related to Environmental Use Control Agreement Document Number 12-EUC-0019:

JURISDICTION

1. This Long-Term Care Agreement (herein referred to as "Agreement") is entered into by Revitalizing Auto Communities Environmental Response Trust (herein referred to as "Respondent") and the Kansas Department of Health and Environment (herein referred to as "KDHE") pursuant to Kansas Statutes Annotated (K.S.A.) 65-159, 65-164, 65-1,221 *et seq.*, 65-3401 *et seq.*, 65-3430 *et seq.*, and the rules and regulations promulgated thereunder.

2. The terms of this Agreement and the rights and obligations of the parties thereto shall be construed and enforced by the laws of the State of Kansas. Jurisdiction and venue of any action to enforce this Agreement shall be brought in the District Court of Shawnee County, Kansas, unless otherwise provided in this Agreement.

STATEMENT OF PURPOSE

3. In entering into this Agreement, the mutual objective of KDHE and Respondent is to establish a mechanism for long-term care of the General Motors Former Fairfax Plant 1 Site (hereinafter referred to as "Site") located in Kansas City, Kansas. Both KDHE and the Respondent want to insure that the public health and the environment at or near the Site are protected from any release or threat of release of solid waste, hazardous waste, or hazardous substances.

4. The Respondent agrees to undertake all actions required by the terms and conditions of this Agreement. In any action by KDHE to enforce the terms of this Agreement, the Respondent agrees not to contest the authority or jurisdiction of the Secretary of Health and Environment to issue this Agreement.

5. This Agreement shall apply to and be binding upon KDHE and the Respondent, their agents, successors, and assigns. The signatories to this Agreement certify that they are authorized to execute and legally bind the parties they represent to this Agreement. No change in the ownership or corporate status of the Respondent shall alter its responsibilities under this Agreement.

6. Notwithstanding any other provision of this Agreement, Respondent may transfer the obligations hereunder with the written approval of KDHE.

7. The Respondent shall provide a copy of this Agreement to all contractors, sub-contractors, laboratories, and consultants which are retained to conduct any work performed under this Agreement within fourteen (14) days after the effective date of this Agreement or on the date of retaining their services. Notwithstanding the terms of any contract, Respondent remains responsible for compliance with this Agreement and for ensuring that its successors, assigns, contractors and agents comply with this Agreement.

8. By signing this Agreement, the Respondent does not admit any liability with respect to this Site. Nothing herein shall be construed as any admission by Respondent of any issue of law or fact recited herein.

FINDINGS OF FACT

9. The Site is located in the North half of Section 27, Township 10 South, Range 25 East, Wyandotte County, Kansas, and is more fully described as set forth in Exhibit 1, which is incorporated herein by reference.

10. The Site was utilized by the U.S. Department of Defense as a manufacturing plant for B-25 bombers during World War II and then by General Motors Corp. to build automobiles until 1987. All buildings at the facility were razed in 1989. Environmental investigations conducted at the Site identified soil and groundwater with chlorinated solvent and petroleum impacts, including light non-aqueous phase liquids, at levels exceeding corresponding KDHE cleanup criteria. Consent Agreement and Final Order Case No. 11-E-109 BER was executed in November 2011 between Revitalizing Auto Communities Environmental Response Trust and KDHE to implement the selected remedy.

CONCLUSIONS OF LAW

11. Respondent is a "person" within the meaning of K.S.A. 65-1,222(d), K.S.A. 65-170a, K.S.A. 65-3411, K.S.A. 65-3430 *et seq.*

12. The area specified in Exhibit 1 and identified as the General Motors Former Fairfax Plant 1 Site is a "Site" within the meaning of K.S.A. 65-1,221 *et seq.* and K.S.A 65-3452a *et seq.*

13. Under the facts as shown above, KDHE has concluded and the Secretary has confirmed that there is a need for continued monitoring and long-term care at the Site.

AGREEMENT

14. Respondent agrees to undertake annual inspections and maintenance requirements as defined in Environmental Use Control Agreement Document Number 12-EUC-0019 for long-term care of the Site and correct deficiencies as outlined by KDHE to insure that the public health and the environment at or near the Site are protected from any release or threat of release of solid waste, hazardous waste, or hazardous substances.

15. Within thirty-days (30) of signature of this Agreement, Respondent shall submit to KDHE $50,000 to compensate KDHE for direct and indirect costs incurred to perform inspections and tracking of the terms and requirements of this Agreement. Payment shall be made payable to the Secretary of Health and Environment and should be addressed to:

Kansas Department of Health and Environment
Curtis State Office Building
1000 S.W. Jackson, Suite 410
Topeka, Kansas 66612-1367
Attn: EUC Program

OTHER APPLICABLE LAW

16. All actions required to be taken pursuant to this Agreement shall be undertaken in accordance with the substantive requirements of all applicable local, state and federal laws and regulations.

TERMINATION

17. The provisions of this Agreement shall terminate upon Respondent's receipt of written notice from KDHE that Respondent has demonstrated that the terms of this Agreement were satisfactorily completed. Respondent or its successors or assigns may petition KDHE for termination of this Agreement based on a demonstration by Respondent or its successors or assigns that the terms of the Agreement have been satisfactorily completed.

18. The Respondent shall provide a copy of the written notice of termination to the property owner.

19. This Agreement shall constitute a final Order of the Secretary of KDHE.

IN WITNESS WHEREOF, the parties have affixed their signatures below:

RESPONDENT:

_____ Date:_____

Robert W. Hare
Cleanup Manager
Revitalizing Auto Communities Environmental Response Trust

ACKNOWLEDGMENT:

STATE OF_____)
) ss:
COUNTY OF_____)

BE IT REMEMBERED, that on this _____ day of _____, 2013, before me the undersigned, a Notary Public for the above County and State, came Robert W. Hare, Cleanup Manager and authorized representative of Revitalizing Auto Communities Environmental Response Trust, who is personally known to be the person who executed the above document on behalf of said trust, and such person duly acknowledged the execution of the same to be his act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal on the day and year last written above.

_____
Notary Public in and for said County and State

My Term Expires: _____

KDHE:

Robert Moser, MD, Secretary
Kansas Department of Health and Environment

Date: April 5, 2013

ACKNOWLEDGMENT:

STATE OF KANSAS)
) ss:
COUNTY OF SHAWNEE)

BE IT REMEMBERED, that on this 5 day of April, 2013, before me the undersigned, a Notary Public for the above County and State, came Robert Moser, MD, Secretary and authorized representative of KDHE, who is personally known to be the person who executed the above document on behalf of KDHE, and such person duly acknowledged the execution of the same to be his act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal on the day and year written above.

Melissa L. Rosdahl
Notary Public in and for said County and State

NOTARY PUBLIC - State of Kansas
MELISSA L. ROSDAHL
My Appt Expires 04-25-16

My Term Expires: 04-25-16

CERTIFICATE OF MAILING

I hereby certify that on this _____ day of _____, 2013, a true and correct copy of the above and foregoing Agreement was deposited in the United States Mail, postage prepaid, and addressed to:

Robert W. Hare
Revitalizing Auto Communities Environmental Response Trust
2930 Ecorse Road
Ypsilanti, Michigan 48198

KDHE Staff Person



0 250 500 1,000 Feet

N

LEGEND

Local Roads

EUC Area (approximate)

EXHIBIT 1

General Motors
Former Fairfax 1 Plant
Kansas City, Kansas
12-EUC-0019

Kansas
Department of Health and Environment

Map Created by SA: December 18, 2012

Tract In NW/4 and NE/4 of Sec. 27, T10S, R25E

Appendix C
Groundwater Treatability Study Report

CONESTOGA-ROVERS & ASSOCIATES

2055 Niagara Falls Blvd., Suite #3
Niagara Falls, New York 14304
Telephone: (716) 297-6150 Fax: (716) 297-2265
www.CRAworld.com

MEMORANDUM

Sent via email

TO: Julian Hayward REF. NO.: 012559

FROM: Alan Weston/Sophia Dore/Christa Nunn/cs/adh/7 DATE: August 20, 2013

RE: **In Situ Chemical Oxidation and In Situ Enhanced Biodegradation Treatability Study, Former RACER Fairfax I Site, Kansas City, Kansas**

1.0 INTRODUCTION

Chlorinated volatile organic compounds (CVOC) are present in groundwater in the area of concern (AOC) around temporary monitoring well TMW-127 at the Former Revitalizing Auto Communities Environmental Response (RACER) Fairfax I Site in Kansas City, Kansas (Site).

The Site is located in the floodplain of the Missouri River. Underlying Site geology typically consists of an upper layer of silty clay ranging in thickness from approximately 7 to 15 feet. This silty clay is underlain by fine to medium sands to depths of 25 to 40 feet, which grade into medium to coarse sands with some gravel and clay interbeds to depths of 60 to 80 feet. This interbedded layer is underlain by medium to coarse sands and gravels to the top of the bedrock, which is approximately 102 to 117 feet below ground surface (bgs). Groundwater flows beneath the Site area within a fining upward sequence of alluvial sands and gravels. The groundwater flow direction is seasonal and is dependent on precipitation events and the stage of the Missouri River. In general, the groundwater flow direction is to the north and east, toward the Missouri River in the fall and to the south and west, away from the Missouri River, in the spring. Significant vertical hydraulic gradients do not exist between deep, intermediate, and shallow groundwater zones, as water levels are similar in deep, intermediate, and shallow monitoring wells. Groundwater elevation is dependent on precipitation events and on the stage of the Missouri River, which is controlled by the United States Army Corps of Engineers. Depth to groundwater generally ranges from 15 to 25 feet bgs but greater variation has occurred.

CVOC were detected above Tier 2 standards in groundwater samples collected in 2011/2012. The CVOC detected include cis-1,2-dichloroethylene (cis-1,2-DCE), and vinyl chloride (VC) at TMW-127; cis-1,2-DCE and VC at MW-156; and cis-1,2-DCE, trichloroethylene (TCE), and VC at TMW-155. The depth to groundwater is approximately 20 feet bgs as recorded at TMW-127 and other wells in the area in May 2012.

Conestoga-Rovers & Associates' (CRA) Innovative Technology Group (ITG) performed a treatability study to test in situ chemical oxidation (ISCO) and in situ enhanced biodegradation (ISEB) for the AOC TMW-127 area. The treatability study work plan dated December 4, 2012 was approved by Kansas Department of Health and Environment (KDHE) on December 13, 2012. This memo contains the results of the treatability study.

REGISTERED COMPANY FOR ISO 9001 ENGINEERING DESIGN

2.0 TREATMENT TECHNOLOGIES

In Situ Chemical Oxidation

ISCO is an effective method for treating localized high concentrations of a wide range of organic compounds, including petroleum hydrocarbons and other volatile organic compounds (VOC). In an oxidation reaction, the oxidizing agent breaks the carbon bonds in the compounds and converts them into nonhazardous compounds, primarily carbon dioxide and water. Commonly used oxidizing reagents include potassium permanganate ($KMnO_4$), Fenton's Reagent (hydrogen peroxide in a solution of ferrous salts), catalyzed sodium persulfate, and ozone.

$KMnO_4$ and Fenton's Reagent and catalyzed sodium persulfate are effective when delivered in an aqueous solution and react with a wide range of organic compounds. They are inexpensive and readily available in large quantities. ISCO is Site-specific, and successful treatment is typically a function of the effectiveness of the delivery system (being able to deliver sufficient amounts of oxidant to the impacted soil and groundwater and making sufficient "contact") and subsequent transport of the oxidant within the soil and groundwater. The treatment performance is dependent to a great extent on the soil chemistry. A critical factor in the evaluation of ISCO treatment is determining the dosages of oxidant that are required to effectively oxidize the hydrocarbon compounds present (referred to as stoichiometric demand) as well as the competing reactions. The competing reactions are typically caused by the presence of natural organic materials such as humates and fulvates, as well as reduced metal species. The consumption of oxidants by these non-target compounds is defined as natural oxidant demand (NOD). In order to determine the optimum dosage, treatability studies are required. Active ISCO requires accurate delineation of the source of hydrocarbons. Large quantities of oxidizing chemicals require regulated handling and may pose health and safety concerns. Chemical oxidation may cause mobilization of metals, possible formation of toxic by-products, heat, gas, and biological perturbation.

$KMnO_4$ does not exhibit a high solubility and requires a large delivery volume. It is also not effective for the treatment of petroleum hydrocarbons. Fenton's Reagent is effective for the treatment of petroleum hydrocarbons. However, the Fenton's Reagent reaction is exothermic, and the heat generated can cause volatilization of the hydrocarbon compounds. It also requires a pH of 5-pH units and ferrous sulfate catalyst. Base catalyzed sodium persulfate can be injected at concentrations up to 30 percent. It can oxidize a wide range of organic compounds including benzene, toluene, ethylbenzene, and xylene (BTEX) and will continue to oxidize organic material for up to a month.

In situ Enhanced Biodegradation

In situ biodegradation (aerobic or anaerobic) is a treatment process whereby the compounds of concern are metabolized into nonhazardous compounds by naturally occurring microorganisms. The microorganisms utilize the hydrocarbons as a source of carbon and energy. Site conditions can be manipulated to enhance in situ biodegradation processes and speed up degradation rates of site hydrocarbons. In this process, several techniques can be applied to enhance biodegradation of the hydrocarbons, such as:

i) Injection of air, oxygen, oxygen release compound (ORC), or magnesium, calcium, or hydrogen peroxide to enhance biodegradation of the hydrocarbons under aerobic conditions.
ii) Injection of an organic substrate such as soy-lactate or hydrogen release compound (HRC) to stimulate enhanced biodegradation under anaerobic conditions. Injection of nitrate and/or sulfate to enhance the biodegradation of hydrocarbons under anaerobic conditions by denitrification/sulfate reduction.

iii) Nutrient supplementation with suitable sources of nitrogen and phosphorus to enhance biodegradation of contaminants by indigenous microbial population.
iv) Bioaugmentation by injection of microbial cultures to improve the effectiveness of the microbial population in degrading the compounds of concern.

Anaerobic biodegradation can be enhanced by the injection an electron acceptor, such as molasses or emulsified vegetable oil (EVO), nutrients, and a microbial inoculum into the soil. The electron acceptor is used to provide the microorganisms with a suitable source of carbon for anaerobic biodegradation. The inorganic nutrients are used to provide the microorganisms with the necessary elements for growth and microbial activity. The injection of EVO, into an aquifer has been found to stimulate the anaerobic biodegradation of a wide variety of compounds. The EVO works in two ways: it acts as a carbon source for various heterotrophic bacteria in the soil, which consume any available oxygen, and create the anaerobic conditions necessary for degradation. As it is degraded, it releases hydrogen, which is the donor substance for the degradation. EVO products are commercially available and are easy to handle, have low viscosity, and do not clog aquifers. An injection of EVO will typically last in excess of 2 years.

3.0 LABORATORY STUDY

3.1 TREATABILITY STUDY OBJECTIVES

The primary objectives of the laboratory study were to gather the data necessary to:

i) Determine effectiveness of chemical oxidation for treatment of CVOC in Site soil and groundwater
ii) Assess the total oxidant demand (TOD) of the soil (in the saturated zone where groundwater treatment will potentially be applied)
iii) Assess the potential for the chemical oxidants to solubilize metals into groundwater
iv) Determine the most effective oxidant and dose for chemical oxidation
v) Assess the potential of enhanced biodegradation for treatment of CVOC by anaerobic biodegradation
vi) Determine most effective amendments for enhancement of anaerobic biodegradation

3.2 TREATABILITY STUDY TASKS AND RESULTS

The following section describes the tasks involved in the study and the work included under each task.

Sample Acquisition

The treatability study was conducted using representative samples of soil collected by Cardno MM&A using direct-push drilling methods and groundwater collected by CRA from the AOC TMW-127 area of the Site. The soil sample was collected from the borehole for MW-156C at a depth of 30 to 40 feet bgs. The groundwater sample was collected from TMW-127. These samples were received at the CRA treatability study laboratory in Niagara Falls, New York on March 14, 2013.

Task 1: Initial Characterization

The soil and groundwater samples were analyzed for:

i) pH	USEPA Method 9040C
ii) VOC	USEPA Methods SW846 8260B/5035
iii) Ammonia-nitrogen	USEPA Method 350.2
iv) Orthophosphate-phosphorus	USEPA Method 365.3
v) Total aerobic and anaerobic microbial counts	Standard Method (SM) 17 9215B

The groundwater sample contained 1.59 micrograms per liter (µg/L) of trichloroethene (TCE), 63.7 µg/L of cis-1,2-DCE, 2.55 µg/L of trans-1,2-dichloroethene (trans-1,2-DCE), and 52.4 µg/L of VC. The pH of the groundwater sample was at 7.18 standard units (S.U.). Ammonia-nitrogen was not detected above its analytical detection limit and orthophosphate was present at 1.91 milligrams per liter (mg/L). Total aerobic microbial counts showed 1.76×10^4 colony forming units per milliliter (CFU/mL), and the anaerobic microbial counts showed 4.20×10^3 CFU/mL. These counts indicated that a healthy bacterial population was present in the groundwater. These data are shown in Table 1.

The soil sample contained 55.3 micrograms per kilogram (µg/kg) of TCE and 27.0 µg/kg of cis-1,2-DCE. The initial pH was at 7.42 S.U., ammonia nitrogen was not detected above its analytical detection limit, and orthophosphate was present at 18.8 mg/kg. Total aerobic microbial counts showed 9.36×10^6 colony forming units per gram (CFU/g) and the anaerobic microbial counts showed 6.60×10^5 CFU/g, which again indicated the presence of healthy microbial populations. These data are shown in Table 2.

All analyses were performed at CRA's Niagara Falls laboratory. The analytical results provided a characterization of baseline conditions for the treatability study. The initial concentrations of VOC in the groundwater were lower than expected; therefore, the sample was spiked with cis-1,2-DCE to make the concentrations more representative of field conditions based on Site groundwater monitoring results.

Task 2: Chemical Oxidation Microcosm Tests

In order to determine the potential of chemical oxidation for treatment of VOC in Site soil and groundwater, a series of batch microcosm tests were conducted. These tests were designed to assess the effectiveness of chemical oxidation for treatment of soil and groundwater and to determine the optimum concentration range of the oxidant to be used for the full-scale application.

In order to determine the amount of sodium hydroxide (NaOH) required to catalyze the sodium persulfate for the soil and groundwater microcosm tests, the soil and groundwater were titrated to a pH of 10.5 using NaOH. The groundwater sample required 0.375 g of NaOH per L of water. The soil sample required 0.25 g of NaOH per kg of soil.

The groundwater used for the microcosm tests was spiked with cis-1,2-DCE to a concentration of 300 µg/L to replicate Site conditions. The groundwater microcosm tests consisted of placing 115 milliliters (mL) of groundwater in 125-mL serum bottles and mixing with 10 mL of sodium permanganate or sodium persulfate solutions. The sodium persulfate solutions contained sodium persulfate at concentrations of 1 percent, 5 percent, and 10 percent weight per weight (w/w). The bottles received NaOH as a catalyst. NaOH was added to adjust the groundwater pH to above 10.5 and then 2 moles of NaOH was added for

every mole of sodium persulfate added. The sodium permanganate solutions contained sodium permanganate at 0.5 percent, 1 percent, and 2 percent. No catalyst is required for this oxidant. Control tests were prepared similarly but without the use of an oxidizing agent solution. The bottles were sealed immediately to prevent the loss of chemicals by volatilization and incubated in the dark at 20°C for 2 weeks.

The soil microcosm tests consisted of placing 100 g of soil in 4-ounce (oz.) glass jars and mixing with 25 mL of sodium permanganate and sodium persulfate solutions. The sodium persulfate solutions contained sodium persulfate at concentrations of 5 percent, 10 percent, and 15 percent w/w. The tests received NaOH as a catalyst. NaOH was added to adjust the soil pH to pH 10.5, and then 2 moles of NaOH was added for every mole of sodium persulfate added. The sodium permanganate solutions contained sodium permanganate at 1 percent, 2 percent, and 3 percent. No catalyst is required for this oxidant. Control tests were prepared similarly but without the use of an oxidizing agent solution. The jars were sealed immediately to prevent losses of chemicals by volatilization and incubated in the dark at 20°C for 2 weeks.

At the end of the incubation period, the microcosms were sampled and analyzed for residual CVOC. The treatment of the groundwater sample with NaOH catalyzed sodium persulfate at a dose of 8 g/L resulted in 79 percent removal of cis-1,2-DCE and 90 percent removal of VC. Treatment with sodium permanganate at a dose of 0.4 g/L resulted in the removal of all CVOC to below their analytical detection limits. These data are shown in Tables 3 and 4.

Initial CVOC concentrations were low in the soil sample and upon analysis, all microcosms, including the control microcosms, did not have detectable CVOC levels; therefore, further analyses of these microcosms were not performed.

Task 3: Total Oxidant Demand

The TOD of the soil samples was determined by placing 50 g of soil in 8-oz. jars and adding 100 mL of 2 percent sodium permanganate or 10 percent catalyzed sodium persulfate solutions as described above. The initial oxidant concentrations in the jars were measured and recorded. After 7 days, the jars were sampled again, and the residual oxidant concentrations were measured and recorded.

The TOD of the soil sample for NaOH catalyzed sodium persulfate was 24.6 g/kg. The TOD of the soil sample for sodium permanganate was 4.59 g/kg. These data are shown in Table 5.

Task 4: Metals Leaching Test

In order to assess the potential release of metals as a result of the chemical oxidation treatment, metals leaching tests were conducted. These tests were conducted on the soil composite sample in 8-oz. glass reactor jars. Fifty grams of soil were placed in a reactor, followed by 100 mL of a 1-percent (w/w) solution of sodium permanganate or sodium persulfate catalyzed by NaOH as described above. The control tests were prepared similarly but using distilled water instead of the oxidizing agent. The reactors were incubated at room temperature. After 2 weeks, the test vials were centrifuged and the supernatant liquid filtered using a 1.5-µm filter. The supernatant sample was analyzed for dissolved metals.

Treatment of the soil with NaOH catalyzed sodium persulfate resulted in the solubilization of small amounts of arsenic and vanadium. Treatment of the soil with sodium permanganate resulted in the solubilization of small amounts of arsenic, chromium, cobalt, lead, nickel, selenium, silver, and thallium. These results are shown in Table 6. These results represent a worst case scenario because the oxidant

concentrations in the tests were significantly higher than would be encountered in the field. Also CRA's experience with metals solubilization during chemical oxidation has been that the solubilization of metals from soil is temporary and that metals do not migrate out of the treatment area. Once the highly oxidizing conditions in the treatment area have been exhausted, the solubilized metals reprecipitate immediately.

It is expected that any metals solubilized by the proposed ISCO injection will attenuate within a year of the final ISCO injection and that metals will not be transported out of the injection area.

Task 5: Enhanced Anaerobic Biodegradation Microcosm Tests

Microcosms were set up to assess the potential for enhanced biodegradation using soil and groundwater collected from the Site. Twenty grams of soil were placed in serum bottles along with 100 mL of groundwater.

The following treatments were performed:

1. Soil and groundwater only (biotic control)
2. Soil, groundwater, EVO, nutrients, and yeast extract
3. Soil, groundwater, EVO, nutrients, yeast extract, and a microbial inoculum
4. Soil, groundwater, EVO, nutrients, yeast extract, a microbial inoculum, and sodium azide (abiotic control)

After 0, 6, 10, and 14 weeks, duplicate microcosms for each treatment performed were sacrificed and analyzed for residual VOCs.

After 6 weeks, the removals of CVOC observed in the treated microcosms were similar to those observed in the azide treated controls indicating that significant biodegradation had not taken place in any of the microcosms. These results are shown in Tables 7 and 8.

After 10 weeks, the microcosms showing the greatest removal of cis-1,2-DCE were the untreated (soil and groundwater only) microcosms. Ninety-seven percent removal of cis-1,2-DCE was observed in these microcosms along with a significant increase in the VC concentration. Between 35 and 37 percent removal of cis-1,2-DCE was observed in the microcosms that received EVO, nutrients, and yeast extract with and without a microbial inoculum. These results are shown in Tables 9 and 10.

After 14 weeks, the trend observed after 10 weeks continued with 98 percent removal of the cis-1,2-DCE observed in the untreated microcosms compared to 23-31 percent removal of cis-1,2-DCE in the microcosms that received EVO, nutrients, and yeast extract with and without a microbial inoculum. Concentrations of VC in the untreated microcosms were significantly lower than they had been at 10 weeks indicating that complete dechlorination to ethene had occurred. An analysis of gasses in the microcosm headspace showed that oxygen was not detected in any of the microcosms indicating that anaerobic conditions were present even without the addition of EVO. Methane was present at approximately 15 percent in the untreated microcosms but at 37 and 47 percent in the microcosms that received EVO, nutrients, and yeast extract and EVO, nutrients, and yeast extract with a microbial inoculum. These results are shown in Tables 11 and 12.

These data suggest that sufficiently reducing conditions for reductive dechlorination were formed without the addition of EVO and that when EVO was added conditions quickly became methanogenic.

Methanogenic conditions are more reducing than is optimum for reductive dechlorination. Therefore, large amounts of methane are formed, and biodegradation of CVOC does not occur.

3.3 SUMMARY OF TREATABILITY STUDY RESULTS

ISCO Microcosm Tests:

- NaOH catalyzed sodium persulfate and sodium permanganate were effective oxidants for treatment for CVOC in groundwater
- Treatment of the groundwater sample with NaOH catalyzed sodium persulfate at a dose of 8 g/L resulted in 79 percent removal of cis-1,2-DCE, and 90 percent removal of VC
- Treatment of the groundwater sample with sodium permanganate at a dose of 0.4 g/L resulted in the removal of all CVOC to below their analytical detection limits
- Initial CVOC concentrations were low in the soil sample and were below their detection limits in the control sample; therefore, further analysis was not performed
- The TOD of the soil sample for NaOH catalyzed sodium persulfate was 24.6 g/kg
- The TOD of the soil sample for sodium permanganate was 4.59 g/kg
- Treatment of soil with NaOH catalyzed sodium persulfate resulted in the solubilization of small amounts of arsenic and vanadium
- Treatment of the soil with sodium permanganate resulted in the solubilization of small amounts of arsenic, chromium, cobalt, lead, nickel, selenium, silver, and thallium
- The metals are not expected to migrate from the treatment area and will reprecipitate in the treatment area within a few months of treatment

ISEB Microcosm Tests:

- Enhanced biodegradation was an effective treatment for CVOC in soil and groundwater
- After 14 weeks, the greatest CVOC removal was observed in the un-amended microcosms where cis- and trans-1,2-DCE were reduced to non-detect levels and VC concentrations, while still elevated, had shown a decrease, indicating that complete dechlorination was occurring
- High concentrations of methane were observed in the microcosms that received EVO, nutrients, and yeast extract, with and without a microbial inoculum
- The data suggest that sufficiently reducing conditions for reductive dechlorination are present without the addition of EVO and that when EVO is added, conditions become methanogenic, and reductive dechlorination does not occur

4.0 CONCLUSIONS AND RECOMMENDATIONS

The results of this study showed that both ISCO and ISEB would be effective for treatment of the CVOC in soil and groundwater at the Site in the area of TMW-127.

If ISCO is used, either NaOH catalyzed sodium persulfate or sodium permanganate could be used; however, sodium permanganate is recommended. The TOD of the soil sample for $NaMnO_4$ was 4.6 g/kg. It was assumed that the entire TOD of the soil would need to be met in order for successful treatment to occur. Therefore, the recommended dose of $NaMnO_4$ for treatment is 5 g/per kg of soil. The reagent cost for treatment with $NaMnO_4$ is estimated to be $81 per cubic yard of saturated (soil/groundwater) matrix. The required dose of the $NaMnO_4$ can be delivered in a single injection event.

For ISEB the addition of EVO (with nutrients and yeast extract) would not be required since the results of the treatability study showed successful dechlorination in the unamended microcosms. The use of natural attenuation processes confirmed by groundwater monitoring at the Site should be sufficient to ensure biodegradation of the low levels of CVOC in the soil and groundwater. A review of natural attenuation data followed by monitored natural attenuation (MNA) is recommended.

It is expected that the costs for MNA would be lower than for ISCO; however, MNA would take longer to reach Tier 2 standards. These factors should be considered as part of the remedial alternatives assessment for the Site.

TABLE 1

INITIAL GROUNDWATER CHARACTERIZATION
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*Groundwater*
Volatile Organic Compounds		
cis-1,2-Dichloroethene	µg/L	63.7
trans-1,2-Dichloroethene	µg/L	2.55
Trichloroethene	µg/L	1.59 J
Vinyl Chloride	µg/L	52.4
General Chemistry		
pH	S.U.	7.18
Ammonia Nitrogen	mg/L	ND (0.25)
o-Phosphate	mg/L	1.91
Total Aerobic Microbial Counts	CFU/mL	1.76E+04
Total Anaerobic Microbial Counts	CFU/mL	4.20E+03

Notes:

J	Estimated value.
CFU	Colony forming units.
ND (x)	Not detected at reporting limit.

TABLE 2

INITIAL SOIL CHARACTERIZATION
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*Soil*
Volatile Organic Compounds		
cis-1,2-Dichloroethene	µg/kg	27.0 J
Trichloroethene	µg/kg	55.3
General Chemistry		
pH	S.U.	7.42
Ammonia Nitrogen	mg/L	ND (0.25)
o-Phosphate	mg/L	18.8
Total Aerobic Microbial Counts	CFU/g	9.36E+06
Total Anaerobic Microbial Counts	CFU/g	6.60E+05

Notes:

J	Estimated value.
CFU	Colony forming units.
ND(x)	Not detected at reporting limit.

TABLE 3

TREATMENT OF GROUNDWATER USING SODIUM HYDROXIDE CATALYZED SODIUM PERSULFATE
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*Control*	*1% S_2O_8*	*5% S_2O_8*	*10% S_2O_8*
Loading Rate	g/L	0.00	0.8	4.0	8.0
cis-1,2-Dichloroethene	µg/L	209 / 214	196 / 190	110 / 90.0	44.9 / 45.1
trans-1,2-Dichloroethene	µg/L	2.41 / 2.54	2.24 / 2.08	1.32 J / 1.04 J	ND (2) / ND (2)
Trichloroethene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	58.2 / 59.2	38.4 / 20.6	15.9 / 10.6	6.52 / 5.73
% Removal of cis-1,2-Dichloroethene	%		8.75	52.7	78.7
% Removal of trans-1,2-Dichloroethene	%		12.7	52.3	>59
% Removal of Vinyl Chloride	%		49.7	77.4	89.6

Notes:
J Estimated value.
ND (x) Not detected at reporting limit.

TABLE 4

TREATMENT OF GROUNDWATER USING POTASSIUM PERMANGANATE
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*Control*	*0.5% $NaMnO_4$*	*1% $NaMnO_4$*	*2% $NaMnO_4$*
Loading Rate	g/L	0.00	0.4	0.8	1.6
cis-1,2-Dichloroethene	µg/L	209 / 214	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
trans-1,2-Dichloroethene	µg/L	2.41 / 2.54	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Trichloroethene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	58.2 / 59.2	ND (5) / ND (5)	ND (5) / ND (5)	ND (5) / ND (5)
% Removal of cis-1,2-Dichloroethene	%		>99	>99	>99
% Removal of trans-1,2-Dichloroethene	%		>59	>59	>59
% Removal of Vinyl Chloride	%		>95	>95	>95

Notes:
ND (x) Not detected at reporting limit

TABLE 5

ANALYSIS OF SOIL TOTAL OXIDANT DEMAND
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	S_2O_8	$NaMnO_4$
Permanganate concentration at T=0	(%)	-	2.09
Permanganate concentration at T=1 week	(%)	-	2.09
Permanganate concentration at T=2 weeks	(%)	-	1.82
Permanganate concentration at T=3 weeks	(%)	-	1.76
Permanganate concentration at T=4 weeks	(%)	-	1.85
Amount of permanganate consumed by NOD per kg of soil after 4 weeks	(g/kg)	-	4.59
Sodium Persulfate concentration at T=0	g/L	113	-
Sodium Persulfate concentration at T=1 week	g/L	99.1	-
Amount of sodium persulfate consumed by NOD per kg of soil after 1 week	(g/kg)	24.6	-

TABLE 6

METALS LEACHING ANALYSIS
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*Control*	S_2O_8	$NaMnO_4$
Aluminum	µg/L	49.2	80.1	45.5
Antimony	µg/L	9.03 J	ND (50)	ND (50)
Arsenic	µg/L	8.41 J	59.2	76.7
Barium	µg/L	51.1	46.7	0.968 J
Beryllium	µg/L	ND (5.0)	ND (5.0)	ND (5.0)
Cadmium	µg/L	ND (10)	ND (10)	ND (10)
Calcium	µg/L	30300	32100	27000
Chromium	µg/L	ND (10)	9.03 J	122
Cobalt	µg/L	ND (4.0)	0.920 J	58.6
Copper	µg/L	178	27.4	80.6
Iron	µg/L	4.44 J	1300	13.4
Lead	µg/L	ND (50)	17.3 J	219
Magnesium	µg/L	4710	142	4980
Manganese	µg/L	ND (10)	11.7	2630000
Molybdenum	µg/L	5.02 J	6.33 J	0.0687 J
Nickel	µg/L	ND (10)	ND (10)	210.4
Potassium	µg/L	2590	6450	31900
Selenium	µg/L	11. 1J	17.1 J	796
Silver	µg/L	0.247 J	0.625 J	202
Sodium	µg/L	6410	2450000	1480000
Thallium	µg/L	7.86 J	15.4 J	2870
Vanadium	µg/L	0.727 J	43.9	ND (4.0)
Zinc	µg/L	ND (20)	ND (20)	2.69 J

Notes:
J Estimated value.
ND (x) Not detected at reporting limit.

TABLE 7

ANAEROBIC BIOSTUDY GROUNDWATER T=6-WEEK ANALYSIS
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*T=0*	*Soil and GW Only*	*Soil, GW, EVO, Nutrients, and Yeast Extract*	*Soil, GW, EVO, Nutrients, Yeast Extract, and Microbial Inoculum*	*Soil, GW, EVO, Nutrients, Yeast Extract, Microbial Inoculum, and Azide*
cis-1,2-Dichloroethene	µg/L	279 / 300	225 / 265	249 / 262	258 / 248	250 / 251
trans-1,2-Dichloroethene	µg/L	1.69 J / 1.82 J	1.74 J / 1.67 J	1.19 J / 1.53 J	1.31 J / 1.43 J	1.49 J / 1.44 J
Trichloroethene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	25.6 / 25.3	4.08 J / 8.11	10.3 / 7.08	8.67 / 7.62	7.45 / 7.61
% Removal of cis-1,2-Dichloroethene			11.4	10.4	11.6	12.5
% Removal of trans-1,2-Dichloroethene			2.8	22.5	21.9	16.5
% Removal of Vinyl Chloride			76.1	65.9	68.0	70.4

Notes:
J Estimated value.
ND (x) Not detected at reporting limit.

TABLE 8

ANAEROBIC BIOSTUDY SOIL T=6-WEEK ANALYSIS
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*T=0*	*Soil and GW Only*	*Soil, GW, EVO, Nutrients, and Yeast Extract*	*Soil, GW, EVO, Nutrients, Yeast Extract, and Microbial Inoculum*	*Soil, GW, EVO, Nutrients, Yeast Extract, Microbial Inoculum, and Azide*
cis-1,2-Dichloroethene	µg/kg	40.3 J / 38.3 J	128 / 32.5 J	54.5 / 47.6 J	43.1 J / 49.9 J	44.0 J / 46.3 J
Trichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)

Notes:

J J is an estimated value.

ND (x) ND (x) = not detected at reporting limit.

TABLE 9

ANAEROBIC BIOSTUDY GROUNDWATER T=10-WEEK ANALYSIS
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*T=0*	*Soil and GW Only*	*Soil, GW, EVO, Nutrients, and Yeast Extract*	*Soil, GW, EVO, Nutrients, Yeast Extract, and Microbial Inoculum*	*Soil, GW, EVO, Nutrients, Yeast Extract, Microbial Inoculum, and Azide*
cis-1,2-Dichloroethene	µg/L	279 / 300	5.61 / 2.48	185 / 177	186 / 188	188 / 176
trans-1,2-Dichloroethene	µg/L	1.69 J / 1.82 J	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Trichloroethene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	25.6 / 25.3	64.4 / 84.5	6.77 / 5.27	6.03 / 7.08	8.78 / 6.77
% Removal of cis-1,2-Dichloroethene			96.6	36.9	34.7	35.8
% Removal of trans-1,2-Dichloroethene			<43	<43	<43	<43
% Removal of Vinyl Chloride			<1	76.3	74.2	69.4

Notes:
J Estimated value.
ND (x) Not detected at reporting limit.

TABLE 10

ANAEROBIC BIOSTUDY SOIL T=10-WEEK ANALYSIS
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*T=0*	*Soil and GW Only*	*Soil, GW, EVO, Nutrients, and Yeast Extract*	*Soil, GW, EVO, Nutrients, Yeast Extract, and Microbial Inoculum*	*Soil, GW, EVO, Nutrients, Yeast Extract, Microbial Inoculum, and Azide*
cis-1,2-Dichloroethene	µg/kg	40.3 J / 38.3 J	ND (50) / ND (50)	32.1 J / 31.8 J	27.9 J / 40.2 J	50.1 / 31.5 J
Trichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)

Notes:
J Estimated value.
ND (x) Not detected at reporting limit.

TABLE 11

ANAEROBIC BIOSTUDY GROUNDWATER T=14-WEEK ANALYSIS
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*T=0*	*Soil and GW Only*	*Soil, GW, EVO, Nutrients, and Yeast Extract*	*Soil, GW, EVO, Nutrients, Yeast Extract, and Microbial Inoculum*	*Soil, GW, EVO, Nutrients, Yeast Extract, Microbial Inoculum, and Azide*
cis-1,2-Dichloroethene	µg/L	279 / 300	ND (2) / ND (2)	221 / 226	197 / 206	226 / 224
trans-1,2-Dichloroethene	µg/L	1.69 J / 1.82 J	ND (2) / ND (2)	1.60 J / 1.16 J	1.69 J / 1.30 J	1.50 J / 1.54 J
Trichloroethene	µg/L	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)	ND (2) / ND (2)
Vinyl Chloride	µg/L	25.6 / 25.3	34.4 / 29.3	5.52 / 5.60	15.7 / 16.1	6.13 / 5.99
Headspace Analysis						
Oxygen	%		ND	ND	ND	ND
Nitrogen	%		46.8	34.3	28.7	52.9
Carbon Dioxide	%		5.3	9.5	8.7	1.87
Methane	%		15.2	37.0	47.0	0.08
% Removal of cis-1,2-Dichloroethene			97.6	23.3	30.6	21.9
% Removal of trans-1,2-Dichloroethene			43.0	21.4	14.8	13.4
% Removal of Vinyl Chloride			<1	78.2	37.5	76.2

Notes:
J Estimated value.
ND (x) Not detected at reporting limit.

TABLE 12

ANAEROBIC BIOSTUDY SOIL T=14-WEEK ANALYSIS
ISCO AND ISEB TREATABILITY STUDY
FORMER RACER FAIRFAX I PLANT
KANSAS CITY, KANSAS

Parameters	*Units*	*T=0*	*Soil and GW Only*	*Soil, GW, EVO, Nutrients, and Yeast Extract*	*Soil, GW, EVO, Nutrients, Yeast Extract, and Microbial Inoculum*	*Soil, GW, EVO, Nutrients, Yeast Extract, Microbial Inoculum, and Azide*
cis-1,2-Dichloroethene	µg/kg	40.3 J / 38.3 J	ND (50) / ND (50)	25.1 J / 23.4 J	22.3 J / 28.1 J	35.8 J / 35.2 J
Trichloroethene	µg/kg	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)	ND (50) / ND (50)

Notes:
J Estimated value.
ND (x) Not detected at reporting limit.

Appendix D
MNA Evaluation Report

Technical **Memorandum**

To:	Robert Hare	Ref. No.:	012559
From:	Julian Hayward/cb/14	Date:	November 3, 2015
CC:	Travis Kogl		
Re:	**MNA Evaluation - Former Fairfax Site**		

1. Introduction and Purpose

This memorandum was prepared to present the results of the Monitored Natural Attenuation (MNA) evaluation at the Former Fairfax Site in Kansas City, Kansas (Site). This memorandum was prepared by GHD (formerly Conestoga-Rovers & Associates or CRA) on behalf of the Racer Trust.

This MNA evaluation was completed after data collection for the two year program, in accordance with the "Groundwater Monitoring Plan" (Monitoring Plan) (CRA, 2013). A preliminary interim evaluation was presented after the first year of monitoring (CRA, 2014).

The memorandum is organized in sections as follows:

1.0 Introduction and Purpose

2.0 Background on Natural Attenuation Processes

3.0 MNA Evaluation Approach

4.0 MNA Data Set

5.0 MNA Evaluation

6.0 Conclusions

7.0 Recommendations

8.0 References

2. Background on Natural Attenuation Processes

Natural attenuation is the term used to refer to all of the naturally occurring processes that control the fate of contaminants in soil and groundwater, and the recognition that these processes can act to naturally contain and remediate such contamination. Natural attenuation processes are those that effectively reduce contaminant mass and contaminant concentrations in soil and groundwater.

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Natural attenuation processes are classified as destructive and non-destructive. Destructive natural attenuation processes result in a reduction in contaminant mass. Destructive natural attenuation processes consist of biological degradation (where naturally occurring microorganisms indigenous to the subsurface breakdown, or degrade, contaminant compounds into less toxic or nontoxic compounds), and chemical degradation (where contaminants chemically break down, or degrade into less toxic or nontoxic compounds). Non-destructive natural attenuation processes result in a reduction in contaminant concentrations. These attenuation processes consist of advection (contaminant spreading due to groundwater flow), dispersion (contaminant spreading due to the tortuous flow of groundwater in porous or fractured media), sorption (contaminant sorption from groundwater onto soil particles), diffusion (contaminant spreading due to chemical concentration gradients including diffusion from groundwater into rock or clay matrix), dilution (mixing with uncontaminated groundwater or surface water), and volatilization (contaminant volatilization to soil gas and/or the atmosphere).

For chlorinated volatile organic compounds (VOCs), such as those detected at the Site, the most important natural attenuation process is biodegradation. Through a series of degradation pathways, microorganisms present in the subsurface can ultimately degrade chlorinated VOCs to nontoxic end products such as carbon dioxide, ethane, ethene, and water. The evaluation of natural attenuation processes occurring at a site must include an assessment of the potential production and accumulation of intermediate degradation products. The MNA evaluation approach is described in Section 3.0.

3. MNA Evaluation Approach

This evaluation was conducted consistent with the procedures outlined in the Monitoring Plan, which are based on the published Technical Protocol documents published by KDHE and U.S. EPA (Protocols). These Protocols state that support for remediation by natural attenuation must be scientifically demonstrated using a "weight-of-evidence" approach that natural attenuation of Site-related contaminants is occurring at rates sufficient to be protective of human health and the environment. The weight-of-evidence approach includes lines of evidence for demonstrating the existence of natural attenuation:

1. Decreasing contaminant concentrations downgradient from the source of contamination and within individual well locations
2. Presence of degradation by-products or metabolic by-products at individual locations
3. Geochemical conditions that support the occurrence of biodegradation

4. MNA Data Set

Figure 1 presents the groundwater monitoring network at the Site. GHD has collected groundwater samples for the analysis of VOCs, general chemistry and redox parameters within each of the depth zones (i.e., shallow, intermediate, and deep) in the identified impacted areas at the Site. The database includes analytical results for samples collected between 1986 and 2015, presented in Table 1. The table is organized so that wells are grouped by area of concern (AOC). Redox indicator parameters and general chemistry data collected as part of the MNA sampling program in accordance with the Monitoring Plan are presented in Table 2.

A Geoprobe® survey of the soil and groundwater impact within the TMW-127 area was conducted in 2013 by Cardno MM&A (Cardno) in 2013. The results from the Cardno investigation (see Attachment A) were presented in their 2013 report (Cardno, 2013) and were reviewed for this evaluation.

VOC Distribution in Groundwater

Site groundwater conditions were monitored in accordance with the Groundwater Monitoring Plan (CRA, August 2013). This program includes eight quarterly sampling events, which commenced in October 2013 and was completed with the final sampling event in July 2015. The program includes collection of groundwater samples from various monitoring wells, including those associated with individual AOCs at the Site. The VOC data for the quarterly monitoring program are presented on Figures 2, 3 and 4 for the shallow, intermediate and deep zones, respectively. Each figure shows the results for VOCs that were detected in at least one sample at concentrations greater than KDHE Tier 2 standards.

Based on the results of the quarterly monitoring program (see Table 1) through July 2015, VOCs were detected in on-Site monitoring well samples at concentrations above Tier 2 standards for groundwater at the following locations:

- Shallow groundwater (see Figure 2): TMW-147E, TMW-151, TMW-152, TMW-157, MW-105, MW-158A, TMW-155, TMW-127, and TMW-146
- Intermediate groundwater (see Figure 3): MW-158B, MW-156, MW-144B, MW-146B, MW-118B, and MW-111
- Deep groundwater (see Figure 4): MW-146C, MW-156C

At some of the locations listed above, individual VOCs were not consistently detected at concentrations above Tier 2 standards. The general areas of consistent VOC detections above Tier 2 standards are indicated on Figures 2 and 3 for shallow and intermediate groundwater respectively. As shown on Figure 2, a localized area of VOC impact in shallow groundwater around TMW-147E is indicated, and a larger area extending from MW-158A to TMW-127. The latter area overlaps the area of VOC impact in the intermediate groundwater shown on Figure 3, which appears to extend from the vicinity of MW-158B to MW-156, continuing to MW-146B, along a southeasterly axis.

As shown on Figure 2, the VOCs most frequently detected at concentrations above Tier 2 standards in shallow groundwater include cis-1,2-dichloroethene (cis-1,2-DCE); tetrachloroethene (PCE); trichloroethene (TCE); and vinyl chloride, varying according to well location. For the intermediate groundwater, as shown on Figure 3, the VOCs most frequently detected at concentrations above Tier 2 standards include cis-1,2-DCE and vinyl chloride. For the deep groundwater, as shown on Figure 4, vinyl chloride is the only VOC detected at concentrations above Tier 2 standards, but not consistently. Overall, the VOC results indicate the presence of TCE and PCE, and various degradation products, primarily within shallow and intermediate groundwater zones in portions of the Site.

5. MNA Evaluation

Concentrations Trends Along the Groundwater Flowpath

The groundwater elevation data and contours for each quarterly monitoring event are included in Attachment B. Based on review of the historical groundwater elevation contour figures, Site groundwater flow is seasonally variable and there is some uncertainty with respect to the average groundwater flow direction. In general the interpreted groundwater flow direction is to the southeast during non-winter conditions. The following discussion of concentrations along the groundwater flowpath will focus on the TMW-127 area because this area has the highest density of recent sampling locations at the Site.

The pattern of VOC concentrations in the groundwater in the TMW-127 area, interpreted from Figures 2 and 3 and from the Cardno Geoprobe® results, indicates that impacted groundwater extends from near MW-158A and TMW-155 along a rough southeast axis toward TMW-127 and the TMW-130 area (TMW-144 and TMW-146 well nests). This suggests that, at least in the area of highest groundwater impact, the average groundwater flow direction is to the southeast.

The primary detected VOCs in the TMW-127 area monitoring wells include TCE, cis-1,2-DCE and vinyl chloride. The concentration of TCE decreases rapidly along the shallow groundwater flowpath from TMW-155 through TMW-127 and toward TMW-144, TMW-145 and TMW-146. TCE was not detected in the associated intermediate groundwater wells: MW-156, MW-144B and MW-146B. Concentrations of cis-1,2-DCE and vinyl chloride also decrease in shallow groundwater along this assumed groundwater flowpath. In contrast to the TCE results, both cis-1,2-DCE and vinyl chloride are detected in the intermediate wells (MW-156, MW-144B and MW-146B), with the lowest concentrations generally found at the southeasterly location, MW-146B. With regard to other VOCs in the TMW-127 area monitoring wells, trans-1,2-DCE was detected exhibiting a distribution similar to cis-1,2-DCE and vinyl chloride but with generally below KDHE Tier 2 criteria. PCE was generally not detected.

Concentrations of VOCs above KDHE Tier 2 criteria have been detected at the Site boundary (e.g., vinyl chloride at MW-118B and MW-146B) in the intermediate zone; and south of the Site (PCE at MW-110A) in the shallow zone.

The data indicate that concentrations of the Site-related VOCs decrease along the assumed groundwater flowpath in the TMW-127 Area, suggesting that natural attenuation is occurring.

Concentration Trends Over Time

Decreasing concentrations of contaminants over time within individual wells is strong evidence that natural attenuation is occurring at a Site. Concentrations of certain chlorinated VOCs as presented in Table 1 were qualitatively evaluated at select locations for this MNA evaluation to determine if there were decreasing trends of VOCs in Site wells. Attachment C includes graphs for select VOCs for monitoring wells in the TMW-127 area including: MW-158A, MW-158B, TMW-155, TMW-127, MW-156, MW-156C, MW-144B, MW-146B, and MW-146C. The graphs are ordered in sequence from northwest to southeast, consistent with the apparent TMW-127 Area plume axis. Each graph shows the analytical results (October 2013 to July 2015) for PCE and TCE; and other chlorinated VOCs associated as degradation products for PCE and TCE, i.e., 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride. In cases where pre-October 2013 data are available, an additional graph is provided. Based on the graphs the following observations are noted:

- At MW-158A (Figure 1) variable concentrations of cis-1,2-DCE (up to approx. 1.5 mg/L) are evident without a clear trend. Other VOCs are detected at lower concentrations and appear to be relatively stable.
- At MW-158B (Figure 2) detected VOC concentrations are all below 0.010 mg/L and appear to be relatively stable.
- At TMW-155 (Figure 3a and 3b) variable concentrations of cis-1,2-DCE (up to approx. 0.9 mg/L) are evident without a clear trend. The concentration of TCE decreased between 2012 and 2013, but has been relatively stable since. Other VOCs are detected at lower concentrations and appear to be relatively stable.
- At TMW-127 (Figure 4a and 4b) variable concentrations of cis-1,2-DCE (up to approx. 0.8 mg/L) are evident without a clear trend. Other VOCs are detected at lower concentrations and appear to be relatively stable, except for slight increase in the concentrations of trans-1,2-DCE during the most recent sampling event.
- At MW-156 (Figure 5a and 5b) variable concentrations of cis-1,2-DCE (up to approx. 0.25 mg/L) and vinyl chloride (up to approx. 0.4 mg/L) are evident but appear to be relatively stable during later sampling events. Other VOCs are detected at lower concentrations and appear to be relatively stable.
- At MW-156C (Figure 6) detected VOC concentrations are all below 0.010 mg/L with some apparent increases for cis-1,2-DCE, trans-1,2-DCE and vinyl chloride in 2015.
- At MW-144B (Figure 7) variable concentrations of cis-1,2-DCE (up to approx. 0.45 mg/L) and vinyl chloride (up to approx. 0.15 mg/L) are evident without a clear trend. Other VOCs are detected at lower concentrations and appear to be relatively stable.
- At MW-146B (Figure 8) variable concentrations of cis-1,2-DCE (up to approx. 0.04 mg/L) and vinyl chloride (up to approx. 0.02 mg/L) are evident without a clear trend. Other VOCs are detected at lower concentrations and appear to be relatively stable.
- At MW-146C (Figure 9) the concentration of cis-1,2-DCE increased to approx. 0.04 mg/L in January 2014, followed by a steady decrease. Other VOCs are detected at lower concentrations and also show a decreasing trend.

In summary the VOC concentrations over time at individual monitoring wells in the TMW-127 Area are generally variable for cis-1,2-DCE, and relatively stable for the other VOCs. Some indication of concentration increases (e.g., MW-156C) and decreases (e.g., MW-146C) are observed.

At other monitoring well locations within the Site, VOCs are generally not detected or detected at concentrations below or occasionally above the Tier 2 standards, with limited exceptions, e.g., TMW-147E (shallow) and MW-111 (intermediate). Graphs for these wells are provided in Attachment C. At TMW-147E in the S-8 Area PCE and TCE are consistently detected at relatively stable concentrations. At this location, cis-1,2-DCE and trans-1,2-DCE are consistently detected, with apparent concentration decreases for cis-1,2-DCE compared to 2012 data (see Figures 10a and 10b). At the nearby intermediate well MW-111 cis-1,2-DCE is detected at variable concentrations but generally lower compared to earlier results back to 2005 (see Figures 11a and 11b). Other VOCs are detected at MW-111 at relatively stable concentrations, however, PCE and TCE are not detected.

Presence of Degradation Products

The presence of significant concentrations of degradation products in the groundwater is good evidence that significant natural attenuation via biodegradation is occurring at a Site. The degradation products for PCE and TCE are DCE, vinyl chloride, ethene and ethane. The reductive degradation pathway is presented on Figure 5. The VOC data in Table 1 and discussed above indicate that the VOCs with the highest concentrations at many locations are cis-1,2-DCE and vinyl chloride.

There are three isomers of DCE: 1,1-DCE, cis-1,2-DCE and trans-1,2-DCE. DCE that is produced from the biodegradation of TCE is predominantly cis-1,2-DCE, whereas DCE produced anthropogenically is a roughly equal mixture of the three DCE isomers. The data in Table 1 indicate that concentrations of cis-1,2-DCE are much higher than those of the other two isomers, indicating that DCE is the product of biodegradation.

The presence of cis-1,2-DCE and vinyl chloride indicate that biodegradation is occurring at the Site.

The general chemistry data presented in Table 2 shows that ethene, which is the ultimate breakdown product of PCE/TCE, was detected at MW-144B/C, MW-146 (2013 only), and MW-156. This is good evidence that complete degradation of chlorinated VOCs is occurring in at least some portions of the Site.

Geochemical Conditions

For natural biodegradation of PCE and TCE to occur, groundwater conditions must be in the iron-reducing to sulfate-reducing range. Cis-1,2-DCE and vinyl chloride can be microbially-reduced under sulfate-reducing to methanogenic conditions, or can be microbially-oxidized under oxidizing conditions. Table 2 presents the general chemistry data and Table 3 presents the field-measured redox parameters (dissolved oxygen and oxidation-reduction potential) collected during the quarterly sampling program (October 2013 to July 2015).

The data in Tables 2 and 3 indicate that Site conditions are generally somewhat reducing: the majority of the samples had concentrations of dissolved oxygen below 1 mg/L and negative oxygen reduction potential (ORP) values, dissolved nitrate concentrations are generally below 1 mg/L and dissolved manganese values are in the mg/L range. These data all indicate that a reducing environment exists over much of the Site. The dissolved oxygen data are somewhat erratic and do not correlate well with the ORP data, meaning that interference with the measurement of dissolved oxygen data may be occurring. An optical probe may improve the reliability of the dissolved oxygen data for future sampling events.

Ferrous iron data were collected in the field as presented in Table 3. The concentrations of ferrous iron are in the low mg/L range, indicating that iron-reducing conditions may exist over portions of the Site. The laboratory-measured ferrous iron concentrations (Table 3) indicate that ferrous iron concentrations are lower, but the field-measured values are considered somewhat more representative of aquifer conditions.

Sulfide concentrations are below detection limits while sulfate concentrations are elevated. The lack of sulfide with high sulfate concentrations indicates that sulfate-reducing conditions are not widespread, if they exist at the Site at all. Therefore, conditions could be in the nitrate to iron-reducing range. Iron-reducing conditions are sufficient for the reductive dechlorination of TCE and PCE, but robust reductive dechlorination of DCE and vinyl chloride is not likely under this redox condition. This means that the reduction of DCE and vinyl chloride observed must be restricted to fairly small areas, or may be occurring to a limited extent along the flowpath. Methane was detected in several wells, but under reducing conditions, methane oxidation is slow and methane can persist in groundwater a significant distance away from the area where it was

generated. Therefore, the presence of methane in the groundwater does not necessarily indicate methanogenic conditions are widespread at the Site.

An important part of an MNA evaluation includes the comparison of geochemical conditions within the source area to those in an unimpacted area to determine the effect of the plume on the microbial population. A shift toward more reducing conditions within the plume relative to "natural" conditions means that there is an increase in biological activity within the plume, which indicates that biodegradation of the plume constituents is likely occurring. The redox conditions in the unimpacted wells (MW-1, MW-102A and MW-102B) as presented in Table 3, are variable; ranging from oxidizing (DO over 1 mg/L and ORP over 100 mV) to reducing (DO under 0.5 mg/L and ORP of approximately -200 mV). The conditions are variable over time and between wells and indicate that unimpacted conditions are not uniform. Therefore comparisons of source area conditions with background conditions were not conducted.

6. Conclusions

Some natural attenuation of the plume via reductive biodegradation is occurring at the Site. This conclusion is based on the following observations:

- VOC concentrations appear to decrease along the assumed groundwater flowpath in the TMW-127 Area. The VOC data for individual monitoring wells generally indicate variable concentrations over time for cis-1,2-DCE, and lower but more stable concentrations for other VOCs.
- The daughter products of PCE and TCE have been detected at the Site including ethene, meaning that the complete reductive dechlorination of PCE/TCE is occurring to some degree at the Site.
- Conditions are reducing, and are likely in the nitrate-reducing to iron-reducing range, which is sufficient for the reductive degradation of PCE and TCE. The presence of elevated sulfate and absence of sulfide indicate that conditions are not in the sulfate-reducing range, meaning that while microbially-mediated reduction of PCE and TCE can proceed, reduction of DCE and vinyl chloride will not be robust in the majority of the plume area.

While the evidence indicates that natural attenuation processes are acting to reduce the concentrations of site-related COCs, COCs were detected in samples from wells at the Site boundary (TMW-146) and just beyond the Site boundary (MW-1A/B/C), indicating that the potential for off-Site COC migration exists.

7. Recommendations

Long-term monitoring should be conducted to provide information regarding groundwater conditions and potential VOC migration. This information can also be used to conduct statistical analyses to evaluate concentration trends over time and VOC plume stability.

8. References

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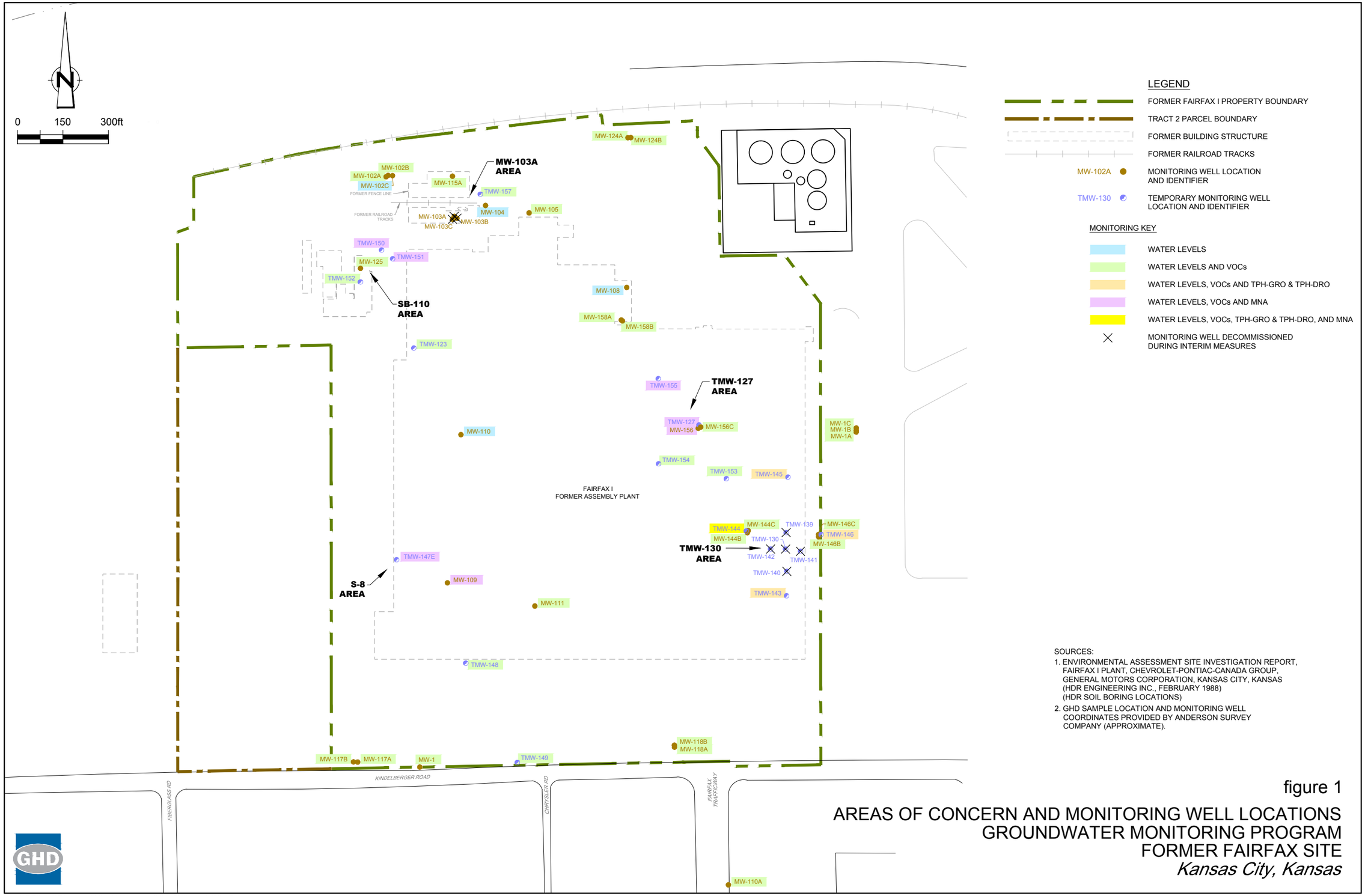
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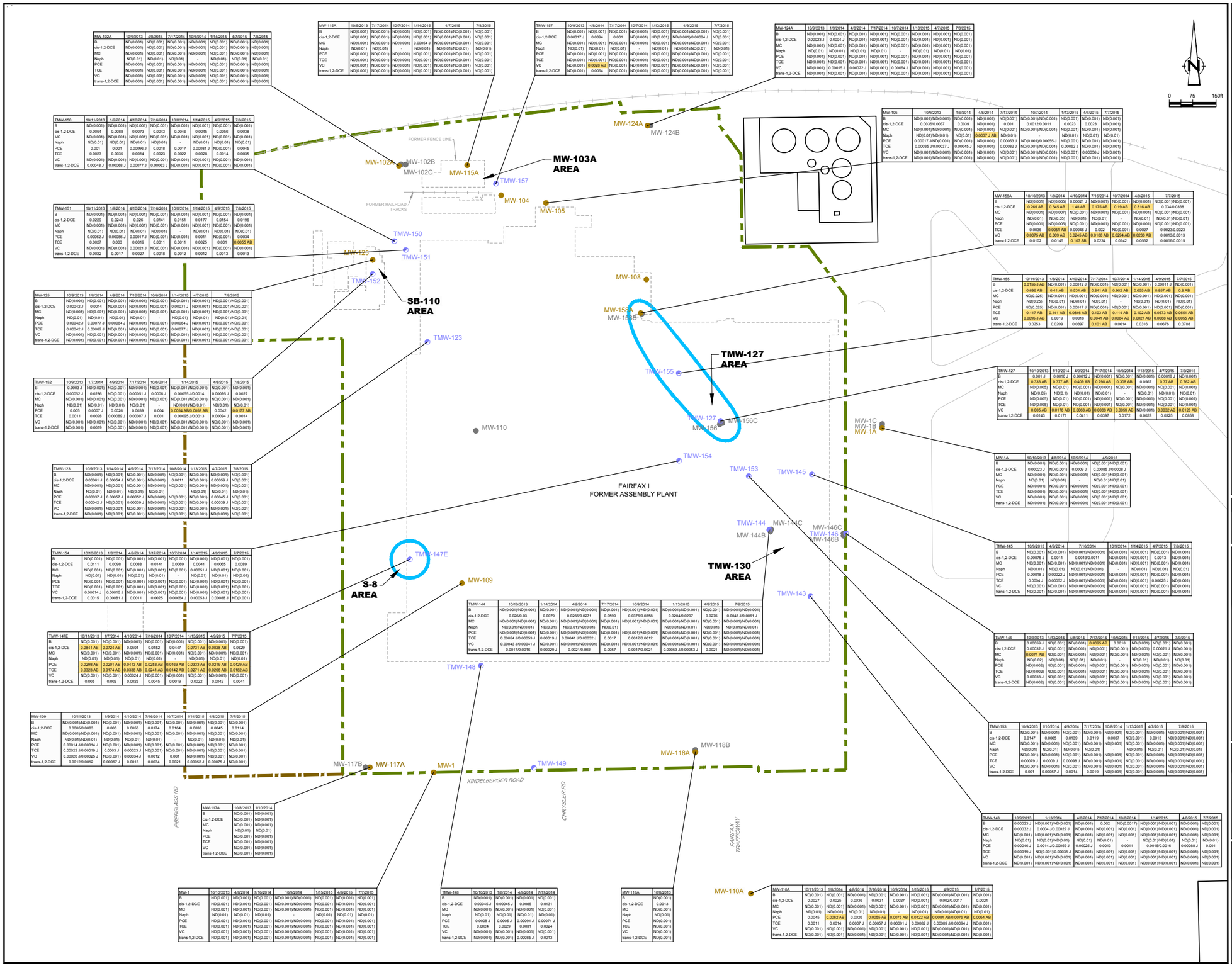
1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. GHD SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 1

AREAS OF CONCERN AND MONITORING WELL LOCATIONS GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(MEMO014)GN-WA001 OCT 14/2015



MW-102A	10/9/2013	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)

MW-115A	10/9/2013	7/17/2014	10/7/2014	1/14/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)

TMW-157	10/9/2013	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00017 J	0.0394	0.001	ND(0.001)	ND(0.001)	ND(0.001)0.00084 J	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
VC	ND(0.001)	0.0028 AB	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	0.0064	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)

MW-124A	10/9/2013	1/8/2014	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00023 J	0.0004 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	0.00015 J	0.00022 J	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-150	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0054	0.0088	0.0073	0.0043	0.0046	0.0045	0.0056	0.0038
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.001	0.001	0.00096 J	0.0018	0.0017	0.00081 J	ND(0.001)	0.0045
TCE	0.0023	0.0035	0.0014	0.0023	0.0022	0.0028	0.0014	0.0035
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.00048 J	0.00068 J	0.00077 J	0.00063 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-105	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/7/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00360 J0.0037	0.0039	ND(0.001)	0.001	0.0012J0.0011	0.0023	0.0023	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	0.0037 J AB	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00017 J	ND(0.001)	ND(0.001)	0.00053 J	ND(0.001)0.00055 J	ND(0.001)	ND(0.001)	ND(0.001)
TCE	0.00035 J	ND(0.001)	ND(0.001)	0.00082 J	ND(0.001)ND(0.001)	0.00062 J	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	0.00056 J	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-151	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/8/2014	1/14/2015	4/9/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0229	0.0243	0.026	0.0141	0.0151	0.0177	0.0154	0.0196
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00062 J	0.00086 J	0.00017 J	ND(0.001)	ND(0.001)	0.0011	ND(0.001)	0.0034
TCE	0.0027	0.003	0.0019	0.0011	0.0026	0.001	0.0055 AB	0.0055 AB
VC	ND(0.001)	ND(0.001)	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.0022	0.0017	0.0027	0.0018	0.0012	0.0012	0.0013	0.0013

TMW-158A	10/10/2013	1/8/2014	4/10/2014	7/16/2014	10/7/2014	4/8/2015	7/7/2015
B	ND(0.001)	ND(0.005)	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
cis-1,2-DCE	0.269 AB	0.545 AB	1.48 AB	0.175 AB	0.19 AB	0.816 AB	0.0345 0338
MC	ND(0.001)	ND(0.007)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
Naph	ND(0.01)	ND(0.05)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)ND(0.01)
PCE	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
TCE	0.0036	0.0051 AB	0.00046 J	0.002	ND(0.001)	0.0027	0.0023J0.0023
VC	0.0075 AB	0.009 AB	0.0245 AB	0.0188 AB	0.0294 AB	0.0236 AB	0.0013J0.0013
trans-1,2-DCE	0.0102	0.0145	0.107 AB	0.0234	0.0142	0.0552	0.0016J0.0015

MW-125	10/9/2013	1/8/2014	4/9/2014	7/16/2014	10/6/2014	1/14/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
cis-1,2-DCE	0.00042 J	0.0014	ND(0.001)	ND(0.001)	ND(0.001)	0.00071 J	ND(0.001)	ND(0.001)ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)ND(0.01)
PCE	0.00042 J	0.00077 J	0.00084 J	ND(0.001)	ND(0.001)	0.00064 J	ND(0.001)	ND(0.001)ND(0.001)
TCE	0.00042 J	0.00082 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00077 J	ND(0.001)	ND(0.001)ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)

TMW-155	10/11/2013	1/8/2014	4/10/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/7/2015
B	0.0155 J AB	ND(0.001)	0.00012 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00011 J	ND(0.001)
cis-1,2-DCE	0.696 AB	0.41 AB	0.534 AB	0.841 AB	0.902 AB	0.655 AB	0.857 AB	0.8 AB
MC	ND(0.025)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.25)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.025)	ND(0.001)	0.00017 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	0.117 AB	0.141 AB	0.0846 AB	0.103 AB	0.114 AB	0.102 AB	0.0573 AB	0.0551 AB
VC	0.0095 J AB	0.0019	0.0018	0.0041 AB	0.0084 AB	0.0027 AB	0.0068 AB	0.0055 AB
trans-1,2-DCE	0.0253	0.0209	0.0397	0.101 AB	0.0614	0.0316	0.0676	0.0788

TMW-152	10/9/2013	1/7/2014	4/9/2014	7/17/2014	10/6/2014	1/14/2015	4/8/2015	7/8/2015
B	0.0003 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00052 J	0.0286	ND(0.001)	0.00051 J	0.00062 J	0.00053J0.00074 J	ND(0.001)	0.0022
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.0015	0.0028	0.00089 J	0.00087 J	0.001	0.00095 J0.0013	0.00094 J	0.0014
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	0.0019	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)							

TMW-127	10/10/2013	1/10/2014	4/9/2014	7/17/2014	10/9/2014	1/13/2015	4/7/2015	7/9/2015
B	0.001 J	0.0016 J	0.00012 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00018 J	ND(0.001)
cis-1,2-DCE	0.333 AB	0.377 AB	0.409 AB	0.298 AB	0.308 AB	0.0567	0.37 AB	0.762 AB
MC	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.05)	ND(0.1)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.005)	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.005 AB	0.0176 AB	0.0063 J	0.0088 AB	0.0059 AB	ND(0.001)	0.0032 AB	0.0128 AB
trans-1,2-DCE	0.0143	0.0171	0.0411	0.0397	0.0172	0.0028	0.0325	0.0858

MW-1A	10/10/2013	4/8/2014	10/9/2014	4/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
cis-1,2-DCE	0.00023 J	ND(0.001)	0.0009 J	0.00085 J0.0008 J
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)

TMW-123	10/9/2013	1/14/2014	4/9/2014	7/17/2014	10/8/2014	1/13/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00061 J	0.00054 J	ND(0.001)	0.0011	ND(0.001)	ND(0.001)	0.00059 J	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00037 J	0.00057 J	0.00052 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00045 J	ND(0.001)
TCE	0.00042 J	ND(0.001)	0.00039 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00039 J	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-146	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/8/2014	1/13/2015	4/7/2015	7/9/2015
B	0.00059 J	ND(0.001)	ND(0.001)	0.0095 AB	0.0018	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00032 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00021 J	ND(0.001)
MC	0.0071 AB	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.02)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.00033 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-144	10/10/2013	1/14/2014	4/9/2014	7/17/2014	10/9/2014	1/13/2015	4/8/2015	7/8/2015
B	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
cis-1,2-DCE	0.026/0.03	0.0079	0.0266/0.0271	0.0599	0.03760.0358	0.0204/0.0207	0.0276	0.0048 J/0.0061 J
MC	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
Naph	ND(0.01)ND(0.01)	ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)	ND(0.01)ND(0.01)
PCE	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
TCE	0.00054 J/0.00053 J	0.00019 J	0.00041 J/0.00032 J	0.0017	0.0012/0.0012	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
VC	0.00043 J/0.00041 J	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
trans-1,2-DCE	0.0017/0.0016	0.00029 J	0.0021/0.002	0.0057	0.0017/0.0021	0.00053 J/0.00053 J	0.0021	ND(0.001)ND(0.001)

TMW-147E	10/11/2013	1/7/2014	4/10/2014	7/16/2014	10/7/2014	1/13/2015	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0841 AB	0.0724 AB	0.0504	0.0452	0.0447	0.0731 AB	0.0828 AB	0.0629
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.0298 AB	0.0201 AB	0.0413 AB	0.0253 AB	0.0169 AB	0.0333 AB	0.0219 AB	0.0429 AB
TCE	0.0323 AB	0.0174 AB	0.0338 AB	0.0241 AB	0.0142 AB	0.0271 AB	0.0206 AB	0.0182 AB
VC	ND(0.001)	ND(0.001)	0.00024 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.005	0.002	0.0023	0.0045	0.0019	0.0022	0.0042	0.0041

TMW-153	10/9/2013	1/10/2014	4/9/2014	7/17/2014	10/8/2014	1/13/2015	4/7/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
cis-1,2-DCE	0.0147	0.0065	0.0139	0.0119	0.0037	ND(0.001)	0.0015	ND(0.001)ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
TCE	0.00079 J	0.0009 J	0.00098 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)
trans-1,2-DCE	0.001	0.00057 J	0.0014	0.0019	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)

MW-109	10/11/2013	1/9/2014	4/10/2014	7/16/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015
B	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00850/0.0083	0.006	0.0053	0.0174	0.0164	0.0038	0.0045	0.0114
MC	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.00014 J/0.00014 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	0.00023 J/0.00019 J	0.0003 J	0.00023 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.00026 J/0.00025 J	ND(0.001)	0.00034 J	0.0012	0.001	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.00120/0.0012	0.00067 J	0.0013	0.0034	0.0021	0.00052 J	0.00075 J	ND(0.001)

TMW-143	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/8/2014	1/14/2015	4/8/2015	7/7/2015
B	0.00023 J	ND(0.001)ND(0.001)	ND(0.001)	0.002	ND(0.0017)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00032 J	0.0004 J/0.00022 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	0.0014 J/0.00059 J	0.00025 J	0.0013	0.0011	0.0015/0.0016	0.00088 J	0.001
TCE	0.00019 J	ND(0.001)/0.00031 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)

MW-117A	10/8/2013	1/10/2014
B	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)

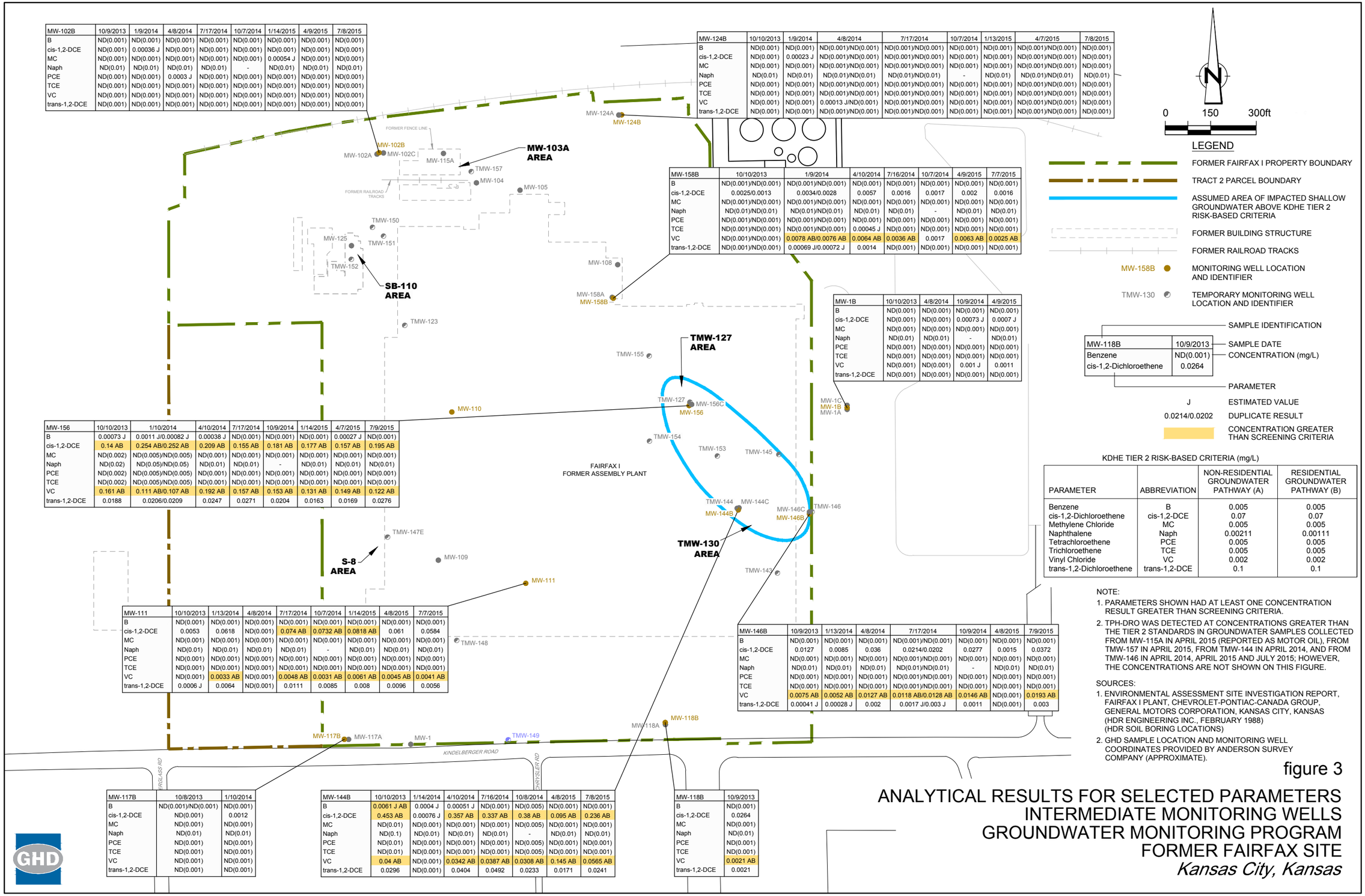
MW-1	10/10/2013	4/8/2014	7/16/2014	10/9/2014	1/15/2015	4/8/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TMW-148	10/10/2013	1/8/2014	4/9/2014	7/17/2014
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00045 J	0.00045 J	0.0088	0.0131
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
PCE	0.0008 J	0.0005 J	0.00091 J	0.00071 J
TCE	0.0024	0.0029	0.0031	0.0024
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	0.00085 J	0.0013

MW-118A	10/8/2013
B	ND(0.001)
cis-1,2-DCE	0.0013
MC	ND(0.001)
Naph	ND(0.01)
PCE	ND(0.001)
TCE	ND(0.001)
VC	ND(0.001)
trans-1,2-DCE	ND(0.001)

MW-110A	10/11/2013	1/8/2014	4/8/2014	7/16/2014	10/9/2014	1/15/2015	4/9/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0027	0.0025	0.0036	0.0031	0.0027	ND(0.001)	0.0020/0.0017	0.0024
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)ND(0.01)	ND(0.01)
PCE	0.0045	0.0062 AB	0.0026	0.0055 AB	0.0075 AB	0.0122 AB	0.0084 AB/0.0076 AB	0.0054 AB
TCE	0.0011	0.0014	0.0007 J	0.00057 J	0.00091 J	0.00082 J	0.00089 J/0.00094 J	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)ND(0.001)	ND(0.001)

NO	Revision	Date	Initial



MW-102B	10/9/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/9/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	0.00036 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00054 J	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	0.0003 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-124B	10/10/2013	1/9/2014	4/8/2014	7/17/2014	10/7/2014	1/13/2015	4/7/2015	7/8/2015
B	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	0.00023 J	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)/ND(0.01)	-	ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	0.00013 J/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)

MW-158B	10/10/2013	1/9/2014	4/10/2014	7/16/2014	10/7/2014	4/9/2015	7/7/2015
B	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0025/0.0013	0.0034/0.0028	0.0057	0.0016	0.0017	0.002	0.0016
MC	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)/ND(0.01)	ND(0.01)/ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)/ND(0.001)	ND(0.001)/ND(0.001)	0.00045 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)/ND(0.001)	0.0078 AB/0.0076 AB	0.0064 AB	0.0036 AB	0.0017	0.0063 AB	0.0025 AB
trans-1,2-DCE	ND(0.001)/ND(0.001)	0.00069 J/0.00072 J	0.0014	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-1B	10/10/2013	4/8/2014	10/9/2014	4/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	0.00073 J	0.0007 J
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	0.001 J	0.0011
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-156	10/10/2013	1/10/2014	4/10/2014	7/17/2014	10/9/2014	1/14/2015	4/7/2015	7/9/2015
B	0.00073 J	0.0011 J/0.00082 J	0.00038 J	ND(0.001)	ND(0.001)	ND(0.001)	0.00027 J	ND(0.001)
cis-1,2-DCE	0.14 AB	0.254 AB/0.252 AB	0.209 AB	0.155 AB	0.181 AB	0.177 AB	0.157 AB	0.195 AB
MC	ND(0.002)	ND(0.005)/ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.02)	ND(0.05)/ND(0.05)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.002)	ND(0.005)/ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.002)	ND(0.005)/ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.161 AB	0.111 AB/0.107 AB	0.192 AB	0.157 AB	0.153 AB	0.131 AB	0.149 AB	0.122 AB
trans-1,2-DCE	0.0188	0.0206/0.0209	0.0247	0.0271	0.0204	0.0163	0.0169	0.0276

MW-111	10/10/2013	1/13/2014	4/8/2014	7/17/2014	10/7/2014	1/14/2015	4/8/2015	7/7/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0053	0.0618	ND(0.001)	0.074 AB	0.0732 AB	0.0818 AB	0.061	0.0584
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	0.0033 AB	ND(0.001)	0.0048 AB	0.0031 AB	0.0061 AB	0.0045 AB	0.0041 AB
trans-1,2-DCE	0.0006 J	0.0064	ND(0.001)	0.0111	0.0085	0.008	0.0096	0.0056

MW-146B	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/9/2014	4/8/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0127	0.0085	0.036	0.0214/0.0202	0.0277	0.0015	0.0372
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)/ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)/ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.0075 AB	0.0052 AB	0.0127 AB	0.0118 AB/0.0128 AB	0.0146 AB	ND(0.001)	0.0193 AB
trans-1,2-DCE	0.00041 J	0.00028 J	0.002	0.0017 J/0.003 J	0.0011	ND(0.001)	0.003

MW-117B	10/8/2013	1/10/2014
B	ND(0.001)/ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	0.0012
MC	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)

MW-144B	10/10/2013	1/14/2014	4/10/2014	7/16/2014	10/8/2014	4/8/2015	7/8/2015
B	0.0061 J AB	0.0004 J	0.00051 J	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.453 AB	0.00076 J	0.357 AB	0.337 AB	0.38 AB	0.095 AB	0.236 AB
MC	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
Naph	ND(0.1)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
TCE	ND(0.01)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
VC	0.04 AB	ND(0.001)	0.0342 AB	0.0387 AB	0.0308 AB	0.145 AB	0.0565 AB
trans-1,2-DCE	0.0296	ND(0.001)	0.0404	0.0492	0.0233	0.0171	0.0241

MW-118B	10/9/2013
B	ND(0.001)
cis-1,2-DCE	0.0264
MC	ND(0.001)
Naph	ND(0.01)
PCE	ND(0.001)
TCE	ND(0.001)
VC	0.0021 AB
trans-1,2-DCE	0.0021

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- ASSUMED AREA OF IMPACTED SHALLOW GROUNDWATER ABOVE KDHE TIER 2 RISK-BASED CRITERIA
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- MW-158B — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-130 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER

MW-118B	10/9/2013	← SAMPLE IDENTIFICATION
Benzene	ND(0.001)	← SAMPLE DATE
cis-1,2-Dichloroethene	0.0264	← CONCENTRATION (mg/L)
↑ PARAMETER		

J — ESTIMATED VALUE

0.0214/0.0202 — DUPLICATE RESULT

CONCENTRATION GREATER THAN SCREENING CRITERIA

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
Benzene	B	0.005	0.005
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Methylene Chloride	MC	0.005	0.005
Naphthalene	Naph	0.00211	0.00111
Tetrachloroethene	PCE	0.005	0.005
Trichloroethene	TCE	0.005	0.005
Vinyl Chloride	VC	0.002	0.002
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1

NOTE:

1. PARAMETERS SHOWN HAD AT LEAST ONE CONCENTRATION RESULT GREATER THAN SCREENING CRITERIA.
2. TPH-DRO WAS DETECTED AT CONCENTRATIONS GREATER THAN THE TIER 2 STANDARDS IN GROUNDWATER SAMPLES COLLECTED FROM MW-115A IN APRIL 2015 (REPORTED AS MOTOR OIL), FROM TMW-157 IN APRIL 2015, FROM TMW-144 IN APRIL 2014, AND FROM TMW-146 IN APRIL 2014, APRIL 2015 AND JULY 2015; HOWEVER, THE CONCENTRATIONS ARE NOT SHOWN ON THIS FIGURE.

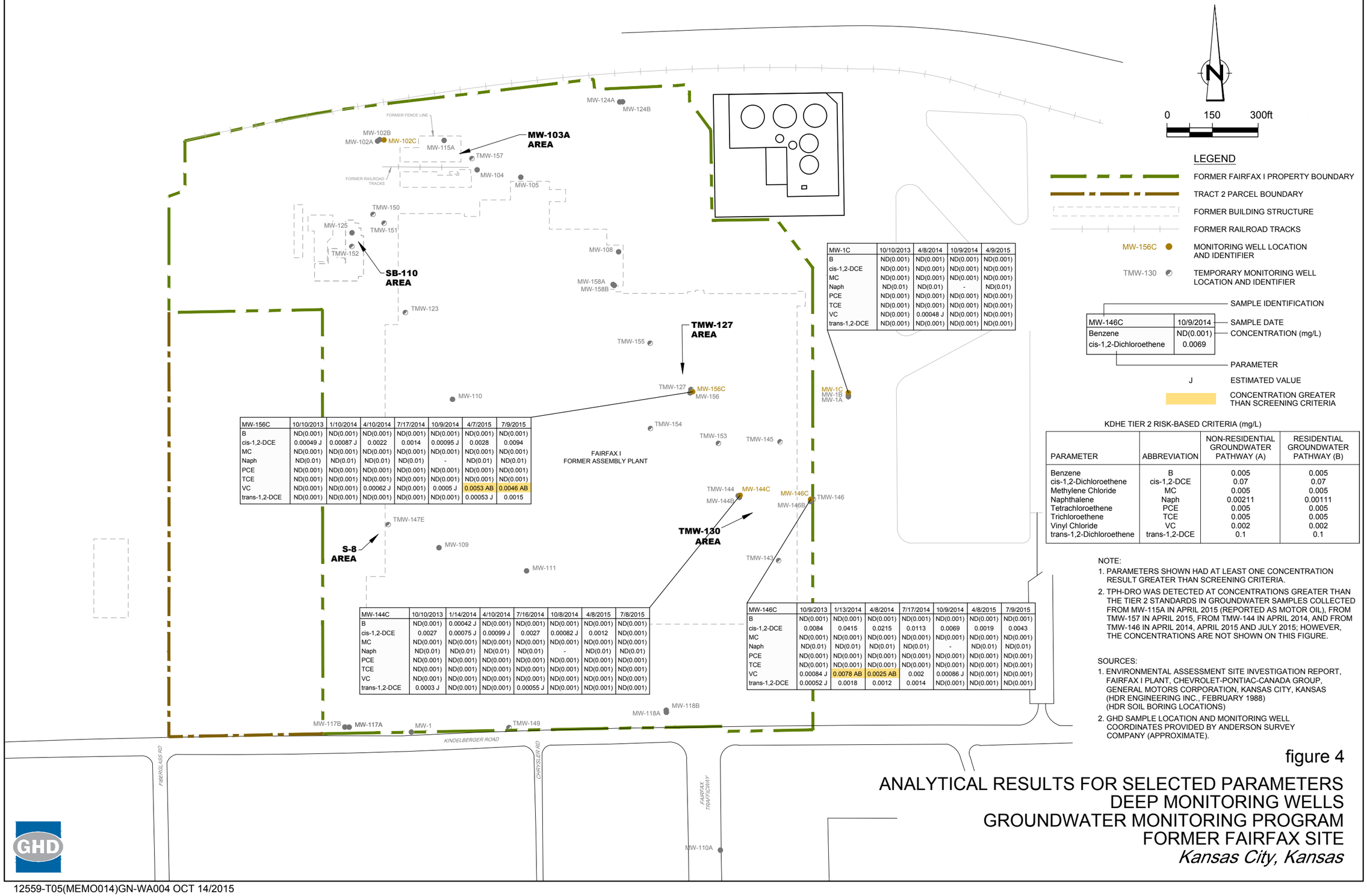
SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. GHD SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 3

ANALYTICAL RESULTS FOR SELECTED PARAMETERS INTERMEDIATE MONITORING WELLS GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas



MW-1C	10/10/2013	4/8/2014	10/9/2014	4/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	-	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	0.00048 J	ND(0.001)	ND(0.001)
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

MW-156C	10/10/2013	1/10/2014	4/10/2014	7/17/2014	10/9/2014	4/7/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.00049 J	0.00087 J	0.0022	0.0014	0.00095 J	0.0028	0.0094
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	0.00062 J	ND(0.001)	0.0005 J	0.0053 AB	0.0046 AB
trans-1,2-DCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00053 J	0.0015

MW-144C	10/10/2013	1/14/2014	4/10/2014	7/16/2014	10/8/2014	4/8/2015	7/8/2015
B	ND(0.001)	0.00042 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0027	0.00075 J	0.00099 J	0.0027	0.00082 J	0.0012	ND(0.001)
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.0003 J	ND(0.001)	ND(0.001)	0.00055 J	ND(0.001)	ND(0.001)	ND(0.001)

MW-146C	10/9/2013	1/13/2014	4/8/2014	7/17/2014	10/9/2014	4/8/2015	7/9/2015
B	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-DCE	0.0084	0.0415	0.0215	0.0113	0.0069	0.0019	0.0043
MC	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Naph	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	-	ND(0.01)	ND(0.01)
PCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
TCE	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
VC	0.00084 J	0.0078 AB	0.0025 AB	0.002	0.00086 J	ND(0.001)	ND(0.001)
trans-1,2-DCE	0.00052 J	0.0018	0.0012	0.0014	ND(0.001)	ND(0.001)	ND(0.001)

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- MW-156C — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-130 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER

MW-146C	10/9/2014	← SAMPLE IDENTIFICATION
Benzene	ND(0.001)	← SAMPLE DATE
cis-1,2-Dichloroethene	0.0069	← CONCENTRATION (mg/L)

← PARAMETER

J — ESTIMATED VALUE

CONCENTRATION GREATER THAN SCREENING CRITERIA

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
Benzene	B	0.005	0.005
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Methylene Chloride	MC	0.005	0.005
Naphthalene	Naph	0.00211	0.00111
Tetrachloroethene	PCE	0.005	0.005
Trichloroethene	TCE	0.005	0.005
Vinyl Chloride	VC	0.002	0.002
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1

NOTE:

1. PARAMETERS SHOWN HAD AT LEAST ONE CONCENTRATION RESULT GREATER THAN SCREENING CRITERIA.
2. TPH-DRO WAS DETECTED AT CONCENTRATIONS GREATER THAN THE TIER 2 STANDARDS IN GROUNDWATER SAMPLES COLLECTED FROM MW-115A IN APRIL 2015 (REPORTED AS MOTOR OIL), FROM TMW-157 IN APRIL 2015, FROM TMW-144 IN APRIL 2014, AND FROM TMW-146 IN APRIL 2014, APRIL 2015 AND JULY 2015; HOWEVER, THE CONCENTRATIONS ARE NOT SHOWN ON THIS FIGURE.

SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. GHD SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

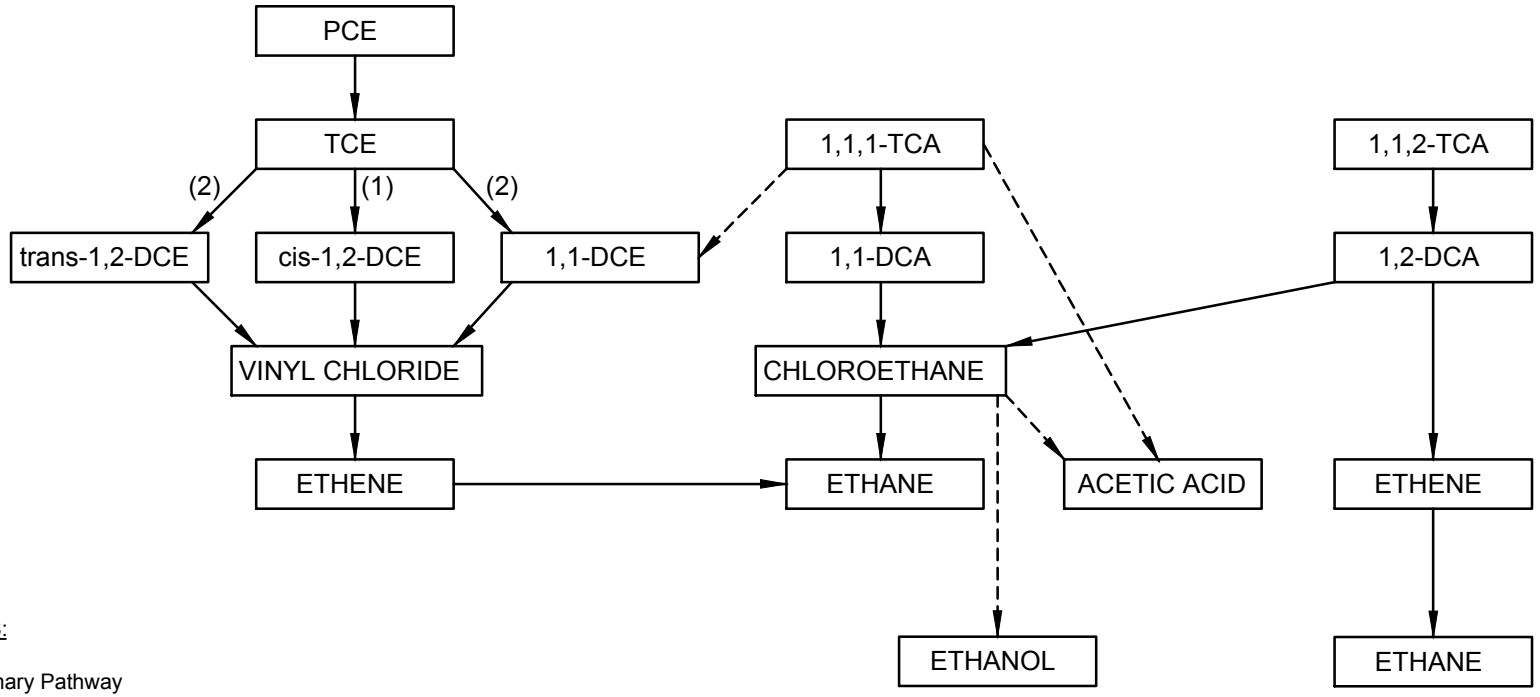
figure 4

ANALYTICAL RESULTS FOR SELECTED PARAMETERS DEEP MONITORING WELLS GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

GHD

12559-T05(MEMO014)GN-WA004 OCT 14/2015



NOTES:

(1) Primary Pathway
(2) Secondary Pathway

The tendency for degradation along a given pathway is dependent on various factors, such as oxidation-reduction conditions, microbiological conditions, or nutrient availability.

Vinyl chloride, 1,2-DCA and Chloroethane may undergo aerobic mineralization to CO_2.

TCE, DCE, Vinyl choride and 1,1-DCA may undergo aerobic cometabolism to CO_2.

LEGEND

BIOTIC PATHWAYS

ABIOTIC PATHWAYS

Source(s):
Weidemeier, T.H., H.S. Rifai, C.J. Newell and J.T. Wilson, 1999.
Natural Attenuation of Fuels and Chlorinated Solvents in the Subsurface, John Wiley & Sons, Inc., U.S.A.

U.S.EPA, September 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, EPA/600/R-98/128.

figure 5

OVERVIEW OF DEGRADATION PATHWAYS FOR CHLORINATED ALIPHATIC HYDROCARBONS FORMER FAIRFAX SITE

Kansas City, Kansas

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-2A**	**MW-3A**	**MW-3A**	**MW-3A**	**MW-3B**	**MW-3B**	**MW-3C**	**MW-3C**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**
Sample ID:		**MW-2A**	**Well 3A**	**Well 3A**	**GW-100398-JM-029**	**Well 3B**	**Well 3B**	**Well 3C**	**GW-100398-JM-031**	**MW-4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**Well 4A**	**MW-4A**
Sample Date:		**4/5/1985**	**9/27/1985**	**12/18/1986**	**10/4/1998**	**9/27/1985**	**12/18/1986**	**12/18/1986**	**10/4/1998**	**6/20/1985**	**6/20/1985**	**2/6/1986**	**8/9/1986**	**12/18/1986**	**1/26/1987**	**2/27/1987**	**3/25/1987**	**6/30/1987**	**10/29/1987**	**12/30/1987**	**8/12/1988**	**9/16/1988**	**12/30/1988**
Parameters	**Units**																					
Volatile Organic Compounds																						
1,1,1-Trichloroethane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	ND(0.0007)
1,1,2,2-Tetrachloroethane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	ND(0.0006)	--	--	--	--	--	--	--	0.00101	--	ND(0.0006)
1,1,2-Trichloroethane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0006)
1,1-Dichloroethane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	ND(0.0005)	--	--	--	--	--	--	--	0.0159	--	0.0129
1,1-Dichloroethene	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0006)
1,2,4-Trichlorobenzene	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	mg/L	ND(0.01)	--	ND(0.0006)	ND(0.001)	--	ND(0.0006)	ND(0.0006)	ND(0.001)	ND(0.01)	--	ND(0.0006)	0.11	--	--	--	--	--	--	0.25	0.0139	--	0.0242
1,2-Dichloroethene (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	0.0061	0.0046	0.0059	0.0057	--	--	--	0.0549	--	--
1,2-Dichloropropane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0004)
1,3-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	--	--	--	ND(0.005)	--	--	--	ND(0.005)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	mg/L	ND(0.01)	--	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	--	--	--	ND(0.005)	--	--	--	ND(0.005)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	--	--	--	ND(0.005)	--	--	--	ND(0.005)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	mg/L	--	--	--	ND(0.005)	--	--	--	ND(0.005)	--	ND(0.1)	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--
Acrolein	mg/L	ND(0.1)	--	--	--	--	--	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	ND(0.1)	--	--	--	--	--	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.01)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.01)	--	ND(0.0004)	8.5	4.28	1.8	8.94	5.82	0.778	0.429	6.6	1.12	0.534	1.26
bis(Chloromethyl)ether	mg/L	ND(0.01)	--	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0005)
Bromoform	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0015)
Bromomethane (Methyl bromide)	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0012)
Carbon disulfide	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0007)
Chlorobenzene	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0004)
Chlorobromomethane	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0037)
Chloroform (Trichloromethane)	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	ND(0.0005)	--	--	--	--	--	--	--	0.00182	--	ND(0.0005)
Chloromethane (Methyl chloride)	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.005)
cis-1,2-Dichloroethene	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0009)
Dibromochloromethane	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0007)
Dichlorodifluoromethane (CFC-12)	mg/L	ND(0.01)	--	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.01)	--	ND(0.0007)	ND(0.001)	--	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.01)	--	--	0.56	0.0015	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	0.47	ND(0.0007)	0.094	0.272
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	ND(0.01)	--	--	ND(0.002)	--	--	--	ND(0.002)	ND(0.01)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0009)	ND(0.0009)	ND(0.0009)	0.0027	--	--	--	0.00321	--	ND(0.0009)
m-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0004)	ND(0.0004)	0.145	0.433	--	--	--	0.00211	4.84	0.687
Naphthalene	mg/L	--	--	--	--	--	--	--	--	--	ND(0.01)	--	0.068	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0004)	ND(0.0004)	0.312	0.48	--	--	--	0.0406	4.03	0.609
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	--	ND(0.001)	0.000118	--	--	--	--	--	--	--	--	--	--
p-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0004)	ND(0.0004)	0.312	0.48	--	--	--	0.0406	2.63	0.555
Styrene	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	mg/L	ND(0.01)	--	ND(0.0011)	ND(0.001)	--	ND(0.0011)	ND(0.0011)	ND(0.001)	ND(0.01)	--	--	ND(0.0011)	0.0039	ND(0.0011)	ND(0.0011)	ND(0.0011)	--	--	0.25	--	--	ND(0.0011)
Toluene	mg/L	ND(0.01)	ND(0.0004)	0.0014	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.01)	ND(0.0004)	ND(0.0004)	--	0.0123	0.0069	0.634	1.39	0.028	0.35	2.1	0.379	0.955	0.702
trans-1,2-Dichloroethene	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	0.0046	0.0252	0.0338	0.0236	--	--	0.25	--	--	0.0352
trans-1,3-Dichloropropene	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0008)
Trichloroethene	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	--	--	ND(0.0006)	ND(0.0006)	0.0041	0.0017	ND(0.0006)	--	--	0.25	0.00142	--	0.00163
Trichlorofluoromethane (CFC-11)	mg/L	ND(0.01)	--	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	ND(0.01)	--	--	ND(0.001)	--	--	--	ND(0.001)	ND(0.01)	ND(0.0008)	ND(0.0008)	ND(0.0008)	--	--	--	--	--	--	--	0.223	--	0.000967
Xylenes (total)	mg/L	--	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	2.4	--	--	--	--	0.013	0.062	--	--	--	--

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4A**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**	**MW-4B**
Sample ID:		**Well 4A**	**Well 4A**	**Well 4A**	**GW-100398-JH-014**	**GW-100398-JH-016**	**WG-12559-103008-TK-003**	**MW-4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**	**Well 4B**
Sample Date:		**3/27/1989**	**10/2/1989**	**1/5/1990**	**10/3/1998**	**10/3/1998**	**10/30/2008**	**6/20/1985**	**6/20/1985**	**3/20/1986**	**8/9/1986**	**12/18/1986**	**1/26/1987**	**2/27/1987**	**3/25/1987**	**12/30/1987**	**12/30/1988**	**12/30/1988**	**3/27/1989**	**6/27/1989**	**10/2/1989**
						Duplicate															
Parameters	**Units**																				
Volatile Organic Compounds																					
1,1,1-Trichloroethane	mg/L	--	--	ND(0.0007)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0007)	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/L	--	--	ND(0.0006)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	ND(0.0006)	--	--	--	--	--	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	--
1,1,2-Trichloroethane	mg/L	--	--	ND(0.0006)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0006)	--	--	--	--
1,1-Dichloroethane	mg/L	--	--	0.014	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	0.00294	--	--	0.0022	--
1,1-Dichloroethene	mg/L	--	--	ND(0.0006)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	0.001	--	--	--	--	--	ND(0.0006)	0.00294	--	--	--
1,2,4-Trichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	mg/L	--	--	0.0074	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	0.000871	--	--	ND(0.0006)	--
1,2-Dichloroethene (total)	mg/L	--	--	0.032	--	--	--	--	--	--	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	--	0.000871	--	0.00844	--
1,2-Dichloropropane	mg/L	--	--	ND(0.0004)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0004)	--	--	--	--
1,3-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	--	--	--	ND(0.005)	ND(0.005)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	--	--	--	ND(0.005)	ND(0.005)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	--	--	--	ND(0.005)	ND(0.005)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	mg/L	--	--	--	ND(0.005)	ND(0.005)	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	mg/L	--	--	--	--	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	5.67	3.47	0.9	0.091	0.09	2.5	ND(0.01)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.00562	0.00562	0.008	0.00481	ND(0.0004)
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	--	--	ND(0.0005)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0005)	--	--	--	--
Bromoform	mg/L	--	--	ND(0.0015)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0015)	--	--	--	--
Bromomethane (Methyl bromide)	mg/L	--	--	ND(0.0012)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0012)	--	--	--	--
Carbon disulfide	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	mg/L	--	--	ND(0.0007)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0007)	--	--	--	--
Chlorobenzene	mg/L	--	--	ND(0.0004)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0004)	--	--	--	--
Chlorobromomethane	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	mg/L	--	--	ND(0.0037)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0037)	--	--	--	--
Chloroform (Trichloromethane)	mg/L	--	--	0.0058	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	ND(0.0005)	--	--	--	--	--	ND(0.0005)	ND(0.0005)	--	ND(0.0005)	--
Chloromethane (Methyl chloride)	mg/L	--	--	ND(0.005)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.005)	--	--	--	--
cis-1,2-Dichloroethene	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.0009)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0009)	--	--	--	--
Dibromochloromethane	mg/L	--	--	ND(0.0007)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0007)	--	--	--	--
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	0.862	0.443	0.22	0.069	0.067	0.16	ND(0.01)	--	--	--	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	ND(0.33)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	--	--	0.014	ND(0.002)	ND(0.002)	--	ND(0.01)	ND(0.005)	--	ND(0.005)	ND(0.0009)	ND(0.0009)	ND(0.0009)	ND(0.0009)	--	ND(0.0009)	ND(0.0009)	--	0.00143	--
m-Xylene	mg/L	--	--	0.058	--	--	--	--	--	--	--	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	--
Naphthalene	mg/L	--	--	--	--	--	--	--	ND(0.01)	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	0.064	--	--	--	--	--	--	--	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	--
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	0.000003	--	--	--	--	--	--	--	--	--	--
p-Xylene	mg/L	--	--	0.064	--	--	--	--	--	--	--	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	--
Styrene	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	mg/L	--	--	ND(0.0011)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	--	ND(0.0011)	--
Toluene	mg/L	5.88	1.34	0.53	0.007	0.007	0.053 J	0.018	0.013	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.0019	ND(0.0004)	ND(0.0004)	0.00888	0.00888	ND(0.0004)	0.00429	ND(0.0004)
trans-1,2-Dichloroethene	mg/L	--	--	--	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	0.015	ND(0.0005)	0.0087	0.0076	ND(0.0005)	ND(0.0005)	0.0113	0.0113	--	--	--
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.0008)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0008)	--	--	--	--
Trichloroethene	mg/L	--	--	ND(0.0006)	ND(0.001)	ND(0.001)	--	ND(0.01)	--	--	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	--
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	--	--	0.021	ND(0.001)	ND(0.001)	--	ND(0.01)	ND(0.0008)	--	ND(0.0008)	--	--	--	--	--	0.00311	0.00311	--	0.00356	--
Xylenes (total)	mg/L	2.62	0.984	--	0.3	0.29	0.12 J	--	--	--	--	--	--	--	--	--	--	--	ND(0.0012)	--	ND(0.0012)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-4B**	**MW-4B**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-4C**	**MW-5A**
Sample ID:		**Well 4B**	**WG-12559-103008-TK-002**	**MW-4C**	**Well 4C**	**Well 4C**	**Well 4C**	**Well 4C**	**Well 4C**	**Well 4C**	**Well 4C**	**Well 4C**	**MW-4C**	**Well 4C**	**Well 4C**	**Well 4C**	**Well 4C**	**Well 4C**	**GW-100398-JH-012**	**WG-12559-103008-TK-001**	**Well 5A**
Sample Date:		**1/5/1990**	**10/30/2008**	**6/20/1985**	**6/20/1985**	**3/20/1986**	**8/9/1986**	**12/18/1986**	**1/26/1987**	**2/27/1987**	**3/25/1987**	**12/30/1987**	**12/30/1988**	**12/30/1988**	**3/27/1989**	**6/27/1989**	**10/2/1989**	**1/5/1990**	**10/3/1998**	**10/30/2008**	**12/18/1986**
Parameters	**Units**																				
Volatile Organic Compounds																					
1,1,1-Trichloroethane	mg/L	ND(0.0007)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0007)	--	--	--	--	--	ND(0.001)	--	--
1,1,2,2-Tetrachloroethane	mg/L	ND(0.0006)	--	ND(0.01)	--	--	ND(0.0006)	--	--	--	--	--	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--	--
1,1,2-Trichloroethane	mg/L	ND(0.0006)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0006)	--	--	--	--	--	ND(0.001)	--	--
1,1-Dichloroethane	mg/L	0.00092	--	ND(0.01)	--	--	ND(0.0005)	--	--	--	--	--	ND(0.0005)	--	--	ND(0.0005)	--	ND(0.0005)	ND(0.001)	--	--
1,1-Dichloroethene	mg/L	ND(0.0006)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0006)	ND(0.0006)	--	--	--	--	ND(0.001)	--	--
1,2,4-Trichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
1,2-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
1,2-Dichloroethane	mg/L	0.0006	--	ND(0.01)	--	--	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	--	--	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--	--
1,2-Dichloroethene (total)	mg/L	0.0053	--	--	--	--	ND(0.0005)	--	--	--	--	--	--	ND(0.0005)	--	ND(0.0005)	--	0.00056	--	--	ND(0.0005)
1,2-Dichloropropane	mg/L	ND(0.0004)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0004)	--	--	--	--	--	ND(0.001)	--	--
1,3-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
1,4-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.005)	--	--
2-Chloroethyl vinyl ether	mg/L	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.005)	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.005)	--	--
Acetone	mg/L	--	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.005)	--	--
Acrolein	mg/L	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	ND(0.1)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.0004)	0.00098 J	ND(0.01)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.00201	0.00201	ND(0.0004)	0.00153	ND(0.0004)	0.001	ND(0.001)	ND(0.001)	ND(0.0004)
bis(Chloromethyl)ether	mg/L	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	ND(0.0005)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0005)	--	--	--	--	--	ND(0.001)	--	--
Bromoform	mg/L	ND(0.0015)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0015)	--	--	--	--	--	ND(0.001)	--	--
Bromomethane (Methyl bromide)	mg/L	ND(0.0012)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0012)	--	--	--	--	--	ND(0.001)	--	--
Carbon disulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
Carbon tetrachloride	mg/L	ND(0.0007)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0007)	--	--	--	--	--	ND(0.001)	--	--
Chlorobenzene	mg/L	ND(0.0004)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0004)	--	--	--	--	--	ND(0.001)	--	--
Chlorobromomethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
Chloroethane	mg/L	ND(0.0037)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0037)	--	--	--	--	--	ND(0.001)	--	--
Chloroform (Trichloromethane)	mg/L	ND(0.0005)	--	ND(0.01)	--	--	ND(0.0005)	--	--	--	--	--	ND(0.0005)	ND(0.0005)	--	ND(0.0005)	--	ND(0.0005)	ND(0.001)	--	--
Chloromethane (Methyl chloride)	mg/L	ND(0.005)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.005)	--	--	--	--	--	ND(0.001)	--	--
cis-1,2-Dichloroethene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
cis-1,3-Dichloropropene	mg/L	ND(0.0009)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0009)	--	--	--	--	--	ND(0.001)	--	--
Dibromochloromethane	mg/L	ND(0.0007)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0007)	--	--	--	--	--	ND(0.001)	--	--
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.0007)	ND(0.001)	ND(0.01)	--	--	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.001)	ND(0.0007)
Methyl tert butyl ether (MTBE)	mg/L	--	ND(0.005)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.005)	--
Methylene chloride	mg/L	ND(0.005)	--	ND(0.01)	ND(0.005)	--	ND(0.005)	ND(0.0009)	ND(0.0009)	0.0014	--	--	ND(0.0009)	ND(0.005)	--	ND(0.0009)	--	0.0021	ND(0.002)	--	--
m-Xylene	mg/L	ND(0.0004)	--	--	--	--	--	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	--	ND(0.0004)	--	--	--
Naphthalene	mg/L	--	--	--	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	ND(0.0004)	--	--	--	--	--	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	--	ND(0.0004)	--	--	--
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	mg/L	ND(0.0004)	--	--	--	--	--	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	--	ND(0.0004)	--	--	--
Styrene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--
Tetrachloroethene	mg/L	ND(0.0011)	--	ND(0.01)	--	--	--	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	ND(0.0011)	--	ND(0.0011)	--	ND(0.0011)	ND(0.001)	--	ND(0.0011)
Toluene	mg/L	ND(0.0004)	ND(0.001)	0.013	0.013	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.000418	0.000418	ND(0.0004)	0.000644	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.0004)
trans-1,2-Dichloroethene	mg/L	--	--	ND(0.01)	--	--	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0021	ND(0.0005)	ND(0.0005)	ND(0.0005)	--	--	--	--	ND(0.001)	--	--
trans-1,3-Dichloropropene	mg/L	ND(0.0008)	--	ND(0.01)	--	--	--	--	--	--	--	--	ND(0.0008)	--	--	--	--	--	ND(0.001)	--	--
Trichloroethene	mg/L	ND(0.0006)	--	ND(0.01)	--	--	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--	--
Trichlorofluoromethane (CFC-11)	mg/L	--	--	ND(0.01)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	0.0013	--	ND(0.01)	ND(0.0008)	--	ND(0.0008)	--	--	--	--	--	ND(0.0008)	ND(0.0008)	--	ND(0.0008)	--	ND(0.0008)	ND(0.001)	--	--
Xylenes (total)	mg/L	--	ND(0.002)	--	--	--	--	--	--	--	--	--	--	--	ND(0.0012)	--	ND(0.0012)	--	ND(0.001)	ND(0.002)	--

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-5A**	**MW-5B**	**MW-5C**	**MW-5C**	**MW-6A**	**MW-6A**	**MW-6A**	**MW-6A**	**MW-6B**	**MW-6B**	**MW-6B**	**MW-6B**	**MW-6C**	**MW-6C**	**MW-6C**	**MW-100B**	**MW-100B**	**MW-119A**	**MW-119A**
Sample ID:		**GW-100398-JM-021**	**Well 5B**	**Well 5C**	**GW-100398-JM-019**	**Well 6A**	**Well 6A**	**Well 6A**	**GW-100598-JH-034**	**Well 6B**	**Well 6B**	**Well 6B**	**Well 6B**	**Well 6C**	**Well 6C**	**GW-100598-JH-032**	**Well 100B**	**Well 100B**	**GW-011806-JH-010**	**GW-011806-JH-011**
Sample Date:		**10/3/1998**	**12/18/1986**	**12/18/1986**	**10/3/1998**	**5/21/1986**	**12/18/1986**	**12/30/1987**	**10/5/1998**	**5/21/1986**	**12/18/1986**	**7/20/1989**	**9/19/1989**	**5/21/1986**	**12/18/1986**	**10/5/1998**	**7/21/1989**	**9/19/1989**	**1/18/2006**	**1/18/2006 Duplicate**
Parameters	**Units**																			
Volatile Organic Compounds																				
1,1,1-Trichloroethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	ND(0.0006)	--	--	--	ND(0.001)	ND(0.0006)	--	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	ND(0.0005)	--	--	--	ND(0.001)	ND(0.0005)	--	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,2,4-Trichlorobenzene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	--	--
1,2-Dichlorobenzene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	--	--
1,2-Dichloroethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	0.01	ND(0.001)	--	--	ND(0.0006)	--	--	--	ND(0.001)	ND(0.0006)	--	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	ND(0.0005)	ND(0.0005)	--	--	--	--	--	--	--	0.068	--	--	--	--	ND(0.0005)	--	--	--
1,2-Dichloropropane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	--	--
1,4-Dichlorobenzene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	ND(0.005)	--	--	ND(0.005)	--	--	--	ND(0.005)	--	--	--	--	--	--	ND(0.005)	--	--	ND(0.01)	ND(0.01)
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	ND(0.005)	--	--	ND(0.005)	--	--	--	ND(0.005)	--	--	--	--	--	--	ND(0.005)	--	--	ND(0.01)	ND(0.01)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	ND(0.005)	--	--	ND(0.005)	--	--	--	ND(0.005)	--	--	--	--	--	--	ND(0.005)	--	--	ND(0.01)	ND(0.01)
Acetone	mg/L	ND(0.005)	--	--	ND(0.005)	--	--	--	ND(0.005)	--	--	ND(0.1)	--	--	--	ND(0.005)	ND(0.1)	--	ND(0.01)	ND(0.01)
Acrolein	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.001)	0.0084	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Bromoform	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	ND(0.01)	--	--	--	ND(0.001)	ND(0.01)	--	0.0003 J	0.00035 J
Carbon tetrachloride	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	--	--
Chloroethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	ND(0.0005)	--	--	--	ND(0.001)	ND(0.0005)	--	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	0.002	--	--	--	--	--	--	0.001	--	--	ND(0.0005)	ND(0.0005)
cis-1,3-Dichloropropene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.001)	--	ND(0.0007)	ND(0.0007)	ND(0.001)	--	ND(0.0007)	ND(0.0007)	ND(0.0007)	--	ND(0.0007)	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	ND(0.002)	--	--	ND(0.002)	--	--	--	ND(0.002)	--	--	ND(0.005)	--	--	--	ND(0.002)	ND(0.005)	--	ND(0.001)	ND(0.001)
m-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/L	--	--	--	--	--	--	--	--	--	--	ND(0.01)	--	--	--	--	ND(0.01)	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--
p-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	ND(0.001)	ND(0.0011)	ND(0.0011)	ND(0.001)	--	ND(0.0011)	ND(0.0011)	ND(0.001)	--	ND(0.0011)	ND(0.0011)	--	--	ND(0.0011)	ND(0.001)	ND(0.0011)	--	ND(0.001)	ND(0.001)
Toluene	mg/L	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.001)	--	ND(0.0004)	ND(0.0004)	ND(0.001)	--	ND(0.0004)	ND(0.0004)	ND(0.0004)	--	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	ND(0.0005)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.0005)	ND(0.0005)
trans-1,3-Dichloropropene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	ND(0.001)
Trichloroethene	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	ND(0.0006)	--	--	--	ND(0.001)	ND(0.0006)	--	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	ND(0.0008)	--	--	--	ND(0.001)	ND(0.0008)	--	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	ND(0.001)	--	--	ND(0.001)	--	--	--	ND(0.001)	--	--	ND(0.0012)	ND(0.0012)	--	--	ND(0.001)	ND(0.0012)	ND(0.0012)	ND(0.001)	ND(0.001)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-119A**	**MW-119A**	**MW-119A**	**MW-119A**	**MW-119A**	**MW-119B**	**MW-119B**	**MW-119B**	**MW-119B**	**MW-119B**	**MW-119B**	**MW-120C**	**MW-120C**	**MW-120C**
Sample ID:		**GW-062706-JH-015**	**GW-091307-NT-030**	**GW-120607-JH-026**	**GW-031108-JH-013**	**GW-062608-JH-036**	**GW-011806-JH-009**	**GW-062706-JH-016**	**GW-091307-NT-031**	**GW-120607-JH-025**	**GW-031108-JH-014**	**GW-062608-JH-035**	**Well 12C/120C**	**Well 12C/120C**	**Well 12C/120C**
Sample Date:		**6/27/2006**	**9/13/2007**	**12/6/2007**	**3/11/2008**	**6/26/2008**	**1/18/2006**	**6/27/2006**	**9/13/2007**	**12/6/2007**	**3/11/2008**	**6/26/2008**	**6/30/1987**	**10/29/1987**	**3/21/1989**
Parameters	**Units**														
Volatile Organic Compounds															
1,1,1-Trichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
1,1,2,2-Tetrachloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
1,1,2-Trichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
1,1-Dichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
1,1-Dichloroethene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
1,2,4-Trichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
1,2-Dichloroethene (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
1,3-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--	--
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--	--
Acetone	mg/L	ND(0.01)	ND(0.023)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--	--
Acrolein	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)	0.014
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Bromoform	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Bromomethane (Methyl bromide)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Carbon disulfide	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Carbon tetrachloride	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Chlorobenzene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Chlorobromomethane	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Chloroform (Trichloromethane)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Chloromethane (Methyl chloride)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
cis-1,2-Dichloroethene	mg/L	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	--	--	--
cis-1,3-Dichloropropene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Dibromochloromethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.0007)	ND(0.0007)	ND(0.0007)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
m-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Tetrachloroethene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	--	--	--
Toluene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)
trans-1,2-Dichloroethene	mg/L	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	--	--	--
trans-1,3-Dichloropropene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Trichloroethene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--
Xylenes (total)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.0012)	ND(0.0012)	ND(0.0012)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-120C**	**MW-120C**	**MW-120C**	**MW-120C**	**MW-120C**	**MW-120C**	**MW-120C**	**MW-121A**	**MW-121A**	**MW-121A**	**MW-121A**	**MW-121A**	**MW-121B**	**MW-121B**	**MW-121B**
Sample ID:		**Well 12C/120C**	**Well 12C/120C**	**Well 12C/120C**	**Well 12C/120C**	**Well 12C/120C**	**Well 12C/120C**	**GW-100498-JH-022**	**GW-011806-JH-013**	**GW-062606-JH-002**	**GW-091407-NT-035**	**GW-120407-JH-008**	**GW-031208-JH-027**	**GW-011806-JH-012**	**GW-062606-JH-001**	**GW-091407-NT-036**
Sample Date:		**6/21/1989**	**6/27/1989**	**9/16/1989**	**9/18/1989**	**12/19/1989**	**12/27/1989**	**10/4/1998**	**1/18/2006**	**6/26/2006**	**9/14/2007**	**12/4/2007**	**3/12/2008**	**1/18/2006**	**6/26/2006**	**9/14/2007**
Parameters	**Units**															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trichlorobenzene	mg/L	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/L	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
1,2-Dichloroethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/L	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	--	--	--	--	--	--	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	--	--	--	--	--	--	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	--	--	--	--	--	--	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acetone	mg/L	--	--	--	--	--	--	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Acrolein	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.0004)	0.021	ND(0.0004)	ND(0.0004)	0.017	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon tetrachloride	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--	--
Chloroethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
cis-1,3-Dichloropropene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.0007)	0.006	ND(0.0007)	ND(0.0007)	0.009	ND(0.0007)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	--	--	--	--	--	--	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
m-Xylene	mg/L	--	--	ND(0.0004)	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	ND(0.0004)	--	--	--	--	--	--	--	--	--	--	--	--
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	mg/L	--	--	ND(0.0004)	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	mg/L	ND(0.0004)	0.058	ND(0.0004)	ND(0.0004)	0.043	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
trans-1,3-Dichloropropene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichloroethene	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	ND(0.0012)	0.01	--	ND(0.0012)	0.041	ND(0.0012)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-121B**	**MW-121B**	**MW-121B**	**MW-130A**	**MW-130A**	**MW-130A**	**MW-130A**	**MW-130A**	**MW-130A**	**MW-130A**	**MW-130A**	**MW-130C**	**MW-130C**	**MW-130C**	**MW-130C**	**MW-130C**	**MW-150A**
Sample ID:		**GW-120407-JH-009**	**GW-031208-JH-028**	**GW-062608-JH-038**	**Well 130A**	**Well 130A**	**Well 130A**	**Well 130A**	**Well 130A**	**Well 130A**	**GW-100398-JH-008**	**GW-100398-JH-010**	**Well 130C**	**Well 130C**	**Well 130C**	**Well 130C**	**GW-100398-JH-006**	**GW-100398-JM-035**
Sample Date:		**12/4/2007**	**3/12/2008**	**6/26/2008**	**6/30/1987**	**12/27/1987**	**3/21/1989**	**6/21/1989**	**9/18/1989**	**12/27/1989**	**10/3/1998**	**10/3/1998 Duplicate**	**6/30/1987**	**3/21/1989**	**6/21/1989**	**9/18/1989**	**12/27/1989**	**10/3/1998**	**10/4/1998**
Parameters	**Units**																		
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,1,2-Trichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,1-Dichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,1-Dichloroethene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,2,4-Trichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,2-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,2-Dichloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	--	--	--	--	--	--	ND(0.005)	ND(0.005)	--	--	--	--	--	ND(0.005)	ND(0.005)
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	--	--	--	--	--	--	ND(0.005)	ND(0.005)	--	--	--	--	--	ND(0.005)	ND(0.005)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	--	--	--	--	--	--	ND(0.005)	ND(0.005)	--	--	--	--	--	ND(0.005)	ND(0.005)
Acetone	mg/L	ND(0.01)	ND(0.01)	ND(0.01)UJ	--	--	--	--	--	--	ND(0.005)	ND(0.005)	--	--	--	--	--	ND(0.005)	ND(0.005)
Acrolein	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	1.012	--	ND(0.0004)	6.33	1.85	2.6	0.038	0.036	0.005	7.06	0.006	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Bromoform	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Carbon disulfide	mg/L	ND(0.001)	0.0015	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Carbon tetrachloride	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Chlorobenzene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Chlorobromomethane	mg/L	--	--	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Chloroethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Chloroform (Trichloromethane)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
cis-1,2-Dichloroethene	mg/L	ND(0.0005)	ND(0.0005)	ND(0.0005)UJ	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
cis-1,3-Dichloropropene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)UJ	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Dibromochloromethane	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)UJ	0.225	--	ND(0.0007)	3.22	0.248	1.1	0.046	0.042	ND(0.0007)	1.53	0.008	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	ND(0.001)	ND(0.001)	ND(0.001)UJ	--	--	--	--	--	--	ND(0.002)	ND(0.002)	--	--	--	--	--	ND(0.002)	ND(0.002)
m-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Tetrachloroethene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)UJ	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Toluene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	1.588	--	0.005	8.37	2.86	1.2	0.017	0.016	0.008	15	0.02	0.008	ND(0.0004)	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	ND(0.0005)	ND(0.0005)	ND(0.0005)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
trans-1,3-Dichloropropene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Trichloroethene	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	--	--	--	--	--	--	ND(0.001)	ND(0.001)	--	--	--	--	--	ND(0.001)	ND(0.001)
Xylenes (total)	mg/L	ND(0.001)	ND(0.001)	ND(0.001)UJ	0.393	4.6	ND(0.0012)	98.8	1.66	--	0.11	0.1	ND(0.0012)	7.91	0.022	0.77	ND(0.0012)	ND(0.001)	ND(0.001)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-160A**	**MW-200A**	**MW-200A**
Sample ID:		**Well 16C/160A**	**Well 16C/160A**	**Well 16C/160A**	**Well 16C/160A**	**Well 16C/160A**	**Well 16C/160A**	**Well 16C/160A**	**GW-100398-JM-015**	**GW-122104-DS-007**	**GW-091407-NT-037**	**GW-120407-JH-010**	**GW-031008-JH-003**	**GW-062608-JH-037**	**Well 200A**	**Well 200A**
Sample Date:		**6/29/1987**	**10/29/1987**	**6/23/1988**	**9/16/1988**	**12/13/1988**	**6/19/1989**	**9/12/1989**	**10/3/1998**	**12/21/2004**	**9/14/2007**	**12/4/2007**	**3/10/2008**	**6/26/2008**	**7/24/1989**	**10/3/1989**
Parameters	**Units**															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
1,1,2,2-Tetrachloroethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0006)	--
1,1,2-Trichloroethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
1,1-Dichloroethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0005)	--
1,1-Dichloroethene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
1,2,4-Trichlorobenzene	mg/L	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--
1,2-Dichloroethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0006)	--
1,2-Dichloroethene (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.0005)	--
1,2-Dichloropropane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
1,3-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/L	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	--	--	--	--	--	--	--	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	--	--	--	--	--	--	--	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	--	--	--	--	--	--	--	0.008	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	--	--
Acetone	mg/L	--	--	--	--	--	--	--	ND(0.005)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.1)	--
Acrolein	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.012	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Bromoform	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Bromomethane (Methyl bromide)	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Carbon disulfide	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)	--
Carbon tetrachloride	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Chlorobenzene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Chlorobromomethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	--	--	--	--	--	--	--
Chloroethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Chloroform (Trichloromethane)	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0005)	--
Chloromethane (Methyl chloride)	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
cis-1,2-Dichloroethene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	--	--
cis-1,3-Dichloropropene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Dibromochloromethane	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.0007)	ND(0.0007)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	--	--	--	--	--	--	--	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	--
m-Xylene	mg/L	--	--	--	ND(0.0004)	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.01)	--
o-Xylene	mg/L	--	--	--	0.033	--	--	--	--	--	--	--	--	--	--	--
Phenolics (total)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.001)	--
p-Xylene	mg/L	--	--	--	0.006	--	--	--	--	--	--	--	--	--	--	--
Styrene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Tetrachloroethene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.0011)	--
Toluene	mg/L	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.02	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.041	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)
trans-1,2-Dichloroethene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	--	--
trans-1,3-Dichloropropene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	--	--
Trichloroethene	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0006)	--
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	--	--	--	--	--	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.0008)	--
Xylenes (total)	mg/L	ND(0.0012)	ND(0.0012)	ND(0.0012)	--	ND(0.0012)	ND(0.0012)	ND(0.0012)	0.018	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)UJ	ND(0.0012)	ND(0.0012)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-200A**	**MW-200B**	**MW-200B**	**MW-200C**	**MW-200C**	**MW-200C**	**MW-210A**	**MW-210A**	**MW-210A**	**MW-220A**	**MW-220A**	**MW-220A**	**MW-230A**	**MW-230A**	**MW-230A**	**MW-230B**	**MW-230B**	**MW-230C**	**MW-230C**	**MW-230C**
Sample ID:		**GW-100398-JH-020**	**Well 200B**	**Well 200B**	**Well 200C**	**Well 200C**	**GW-100398-JH-018**	**Well 210A**	**Well 210A**	**Well 210A**	**Well 220A**	**Well 220A**	**GW-100498-JH-026**	**Well 230A**	**Well 230A**	**GW-100398-JH-004**	**Well 230B**	**Well 230B**	**Well 230C**	**Well 230C**	**GW-100398-JH-002**
Sample Date:		**10/3/1998**	**7/24/1989**	**10/3/1989**	**7/24/1989**	**10/3/1989**	**10/3/1998**	**7/25/1989**	**10/4/1989**	**1/4/1990**	**7/26/1989**	**10/4/1989**	**10/4/1998**	**7/26/1989**	**10/4/1989**	**10/3/1998**	**7/26/1989**	**10/4/1989**	**7/26/1989**	**10/4/1989**	**10/3/1998**
Parameters	**Units**																				
Volatile Organic Compounds																					
1,1,1-Trichloroethane	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,1,2,2-Tetrachloroethane	mg/L	ND(0.001)	ND(0.0006)	--	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	--	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	ND(0.0006)	--	ND(0.001)
1,1,2-Trichloroethane	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,1-Dichloroethane	mg/L	ND(0.001)	ND(0.0005)	--	ND(0.0005)	--	ND(0.001)	ND(0.0005)	--	--	ND(0.0005)	--	ND(0.001)	ND(0.0005)	--	ND(0.001)	ND(0.0005)	--	ND(0.0005)	--	ND(0.001)
1,1-Dichloroethene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,2,4-Trichlorobenzene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,2-Dichlorobenzene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,2-Dichloroethane	mg/L	ND(0.001)	ND(0.0006)	--	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	--	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	ND(0.0006)	--	ND(0.001)
1,2-Dichloroethene (total)	mg/L	--	ND(0.0005)	--	ND(0.0005)	--	--	0.007	--	--	ND(0.0005)	--	--	ND(0.0005)	--	--	ND(0.0005)	--	ND(0.0005)	--	--
1,2-Dichloropropane	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,3-Dichlorobenzene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
1,4-Dichlorobenzene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	ND(0.005)	--	--	--	--	ND(0.005)	--	--	--	--	--	ND(0.005)	--	--	ND(0.005)	--	--	--	--	ND(0.005)
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	ND(0.005)	--	--	--	--	ND(0.005)	--	--	--	--	--	ND(0.005)	--	--	ND(0.005)	--	--	--	--	ND(0.005)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	ND(0.005)	--	--	--	--	ND(0.005)	--	--	--	--	--	ND(0.005)	--	--	ND(0.005)	--	--	--	--	ND(0.005)
Acetone	mg/L	ND(0.005)	ND(0.1)	--	ND(0.1)	--	ND(0.005)	ND(0.1)	--	--	ND(0.1)	--	ND(0.005)	ND(0.1)	--	ND(0.005)	ND(0.1)	--	ND(0.1)	--	ND(0.005)
Acrolein	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Bromoform	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Bromomethane (Methyl bromide)	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Carbon disulfide	mg/L	ND(0.001)	ND(0.01)	--	ND(0.01)	--	ND(0.001)	ND(0.01)	--	--	ND(0.01)	--	ND(0.001)	ND(0.01)	--	ND(0.001)	ND(0.01)	--	ND(0.01)	--	ND(0.001)
Carbon tetrachloride	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Chlorobenzene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Chlorobromomethane	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Chloroethane	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Chloroform (Trichloromethane)	mg/L	ND(0.001)	ND(0.0005)	--	ND(0.0005)	--	ND(0.001)	ND(0.0005)	--	--	ND(0.0005)	--	ND(0.001)	ND(0.0005)	--	ND(0.001)	ND(0.0005)	--	ND(0.0005)	--	ND(0.001)
Chloromethane (Methyl chloride)	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
cis-1,2-Dichloroethene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
cis-1,3-Dichloropropene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Dibromochloromethane	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	mg/L	ND(0.002)	ND(0.005)	--	ND(0.005)	--	ND(0.002)	ND(0.005)	--	--	ND(0.005)	--	ND(0.002)	ND(0.005)	--	ND(0.002)	ND(0.005)	--	ND(0.005)	--	ND(0.002)
m-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/L	--	ND(0.01)	--	ND(0.01)	--	--	ND(0.01)	--	--	ND(0.01)	--	--	ND(0.01)	--	--	ND(0.01)	--	ND(0.01)	--	--
o-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenolics (total)	mg/L	--	ND(0.001)	--	ND(0.001)	--	--	ND(0.001)	--	--	ND(0.001)	--	--	ND(0.001)	--	--	ND(0.001)	--	ND(0.001)	--	--
p-Xylene	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Tetrachloroethene	mg/L	ND(0.001)	ND(0.0011)	--	ND(0.0011)	--	ND(0.001)	ND(0.0011)	--	--	ND(0.0011)	--	ND(0.001)	ND(0.0011)	--	ND(0.001)	ND(0.0011)	--	ND(0.0011)	--	ND(0.001)
Toluene	mg/L	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
trans-1,3-Dichloropropene	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--	ND(0.001)
Trichloroethene	mg/L	ND(0.001)	ND(0.0006)	--	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	--	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	ND(0.001)	ND(0.0006)	--	ND(0.0006)	--	ND(0.001)
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	ND(0.001)	ND(0.0008)	--	ND(0.0008)	--	ND(0.001)	ND(0.0008)	--	--	ND(0.0008)	--	ND(0.001)	ND(0.0008)	--	ND(0.001)	ND(0.0008)	--	ND(0.0008)	--	ND(0.001)
Xylenes (total)	mg/L	ND(0.001)	ND(0.0012)	ND(0.0012)	ND(0.0012)	ND(0.0012)	0.003	ND(0.0012)	ND(0.0012)	ND(0.0012)	ND(0.0012)	ND(0.0012)	ND(0.001)	ND(0.0012)	ND(0.0012)	ND(0.001)	ND(0.0012)	ND(0.0012)	ND(0.0012)	ND(0.0012)	ND(0.001)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 1

Groundwater Analytical Data - Voc Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:		Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II	Fairfax II
Sample Location:		**MW-240A**	**MW-240A**	**MW-240A**	**MW-240A**	**MW-240A**	**MW-240B**	**MW-240B**	**MW-240B**	**MW-240C**	**MW-240C**	**MW-240C**	**MW-240C**	**MW-240C**
Sample ID:		**Well 240A**	**Well 240A**	**Well 240A**	**GW-100498-JH-030**	**WG-12559-103008-TK-005**	**Well 240B**	**Well 240B**	**Well 240B**	**Well 240C**	**Well 240C**	**Well 240C**	**GW-100498-JH-028**	**WG-12559-103008-TK-004**
Sample Date:		**7/27/1989**	**10/5/1989**	**1/9/1990**	**10/4/1998**	**10/30/2008**	**7/27/1989**	**10/5/1989**	**1/9/1990**	**7/27/1989**	**10/5/1989**	**1/9/1990**	**10/4/1998**	**10/30/2008**
Parameters	**Units**													
Volatile Organic Compounds														
1,1,1-Trichloroethane	mg/L	--	--	ND(0.0007)	ND(0.001)	--	--	--	ND(0.0007)	--	--	ND(0.0007)	ND(0.001)	--
1,1,2,2-Tetrachloroethane	mg/L	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--	ND(0.0006)	--	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--
1,1,2-Trichloroethane	mg/L	--	--	ND(0.0006)	ND(0.001)	--	--	--	ND(0.0006)	--	--	ND(0.0006)	ND(0.001)	--
1,1-Dichloroethane	mg/L	ND(0.0005)	--	ND(0.0005)	ND(0.001)	--	ND(0.0005)	--	ND(0.0005)	ND(0.0005)	--	ND(0.0005)	ND(0.001)	--
1,1-Dichloroethene	mg/L	--	--	ND(0.0006)	ND(0.001)	--	--	--	ND(0.0006)	--	--	ND(0.0006)	ND(0.001)	--
1,2,4-Trichlorobenzene	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
1,2-Dibromoethane (Ethylene dibromide)	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
1,2-Dichlorobenzene	mg/L	--	--	--	0.001	--	--	--	--	--	--	--	ND(0.001)	--
1,2-Dichloroethane	mg/L	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--	ND(0.0006)	--	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--
1,2-Dichloroethene (total)	mg/L	0.017	--	0.013	--	--	ND(0.0005)	--	ND(0.0005)	ND(0.0005)	--	ND(0.0005)	--	--
1,2-Dichloropropane	mg/L	--	--	ND(0.0004)	ND(0.001)	--	--	--	ND(0.0004)	--	--	ND(0.0004)	ND(0.001)	--
1,3-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
1,4-Dichlorobenzene	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	--	--	--	ND(0.005)	--	--	--	--	--	--	--	ND(0.005)	--
2-Chloroethyl vinyl ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	mg/L	--	--	--	ND(0.005)	--	--	--	--	--	--	--	ND(0.005)	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	--	--	--	ND(0.005)	--	--	--	--	--	--	--	ND(0.005)	--
Acetone	mg/L	ND(0.1)	--	--	ND(0.005)	--	ND(0.1)	--	--	ND(0.1)	--	--	ND(0.005)	--
Acrolein	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	mg/L	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)
bis(Chloromethyl)ether	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/L	--	--	ND(0.0005)	ND(0.001)	--	--	--	ND(0.0005)	--	--	ND(0.0005)	ND(0.001)	--
Bromoform	mg/L	--	--	ND(0.0015)	ND(0.001)	--	--	--	ND(0.0015)	ND(0.0015)	--	--	ND(0.001)	--
Bromomethane (Methyl bromide)	mg/L	--	--	ND(0.0012)	ND(0.001)	--	--	--	ND(0.0012)	--	--	ND(0.0012)	ND(0.001)	--
Carbon disulfide	mg/L	ND(0.01)	--	--	ND(0.001)	--	ND(0.01)	--	--	ND(0.01)	--	--	ND(0.001)	--
Carbon tetrachloride	mg/L	--	--	ND(0.0007)	ND(0.001)	--	--	--	ND(0.0007)	ND(0.0007)	--	--	ND(0.001)	--
Chlorobenzene	mg/L	--	--	0.0067	ND(0.001)	--	--	--	ND(0.0004)	--	--	ND(0.0004)	ND(0.001)	--
Chlorobromomethane	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
Chloroethane	mg/L	--	--	ND(0.0037)	ND(0.001)	--	--	--	ND(0.0037)	--	--	ND(0.0037)	ND(0.001)	--
Chloroform (Trichloromethane)	mg/L	ND(0.0005)	--	ND(0.0005)	ND(0.001)	--	ND(0.0005)	--	ND(0.0005)	ND(0.0005)	--	0.00084	ND(0.001)	--
Chloromethane (Methyl chloride)	mg/L	--	--	ND(0.005)	ND(0.001)	--	--	--	ND(0.005)	--	--	ND(0.005)	ND(0.001)	--
cis-1,2-Dichloroethene	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.0009)	ND(0.001)	--	--	--	ND(0.0009)	--	--	ND(0.0009)	ND(0.001)	--
Dibromochloromethane	mg/L	--	--	ND(0.0007)	ND(0.001)	--	--	--	ND(0.0007)	--	--	ND(0.0007)	ND(0.001)	--
Dichlorodifluoromethane (CFC-12)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	mg/L	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.001)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.0007)	ND(0.001)	ND(0.001)
Methyl tert butyl ether (MTBE)	mg/L	--	--	--	--	ND(0.005)	--	--	--	--	--	--	--	0.00029 J
Methylene chloride	mg/L	ND(0.005)	--	ND(0.005)	ND(0.002)	--	ND(0.005)	--	ND(0.005)	ND(0.005)	--	ND(0.005)	ND(0.002)	--
m-Xylene	mg/L	--	--	ND(0.0004)	--	--	--	--	ND(0.0004)	--	--	ND(0.0004)	--	--
Naphthalene	mg/L	ND(0.01)	--	--	--	--	ND(0.01)	--	--	ND(0.01)	--	--	--	--
o-Xylene	mg/L	--	--	ND(0.0004)	--	--	--	--	ND(0.0004)	--	--	ND(0.0004)	--	--
Phenolics (total)	mg/L	ND(0.001)	--	--	--	--	ND(0.001)	--	--	ND(0.001)	--	--	--	--
p-Xylene	mg/L	--	--	ND(0.0004)	--	--	--	--	ND(0.0004)	--	--	ND(0.0004)	--	--
Styrene	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
Tetrachloroethene	mg/L	ND(0.0011)	--	ND(0.0011)	ND(0.001)	--	ND(0.0011)	--	ND(0.0011)	ND(0.0011)	--	ND(0.0011)	ND(0.001)	--
Toluene	mg/L	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.001)	ND(0.001)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	ND(0.0004)	0.0004	ND(0.001)	ND(0.001)
trans-1,2-Dichloroethene	mg/L	--	--	--	ND(0.001)	--	--	--	--	--	--	--	ND(0.001)	--
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.0008)	ND(0.001)	--	--	--	ND(0.0008)	--	--	ND(0.0008)	ND(0.001)	--
Trichloroethene	mg/L	ND(0.0006)	--	0.00068	ND(0.001)	--	ND(0.0006)	--	ND(0.0006)	ND(0.0006)	--	ND(0.0006)	ND(0.001)	--
Trichlorofluoromethane (CFC-11)	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	mg/L	ND(0.0008)	--	ND(0.0008)	ND(0.001)	--	ND(0.0008)	--	0.0013	ND(0.0008)	--	ND(0.0008)	ND(0.001)	--
Xylenes (total)	mg/L	ND(0.0012)	ND(0.0012)	--	ND(0.001)	ND(0.002)	ND(0.0012)	ND(0.0012)	--	ND(0.0012)	ND(0.0012)	--	ND(0.001)	ND(0.002)

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.

Table 2

Quarterly Groundwater Analytical Data - Natural Attenuation Parameters
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:	Sample Location:	Sample ID:	Sample Date:		Natural Attenuation Parameters (mg/L)											
					DOC	Nitrate	Nitrite	Mn 2+	Ferrous iron	Sulfide	Sulfate	Alkalinity, total (as CaCO3)	Chloride	Ethane	Ethene	Methane
off-site	MW-1A	WG-100914-NL-031	10/9/2014		6.2	ND(0.10)	ND(0.10)	--	0.13 J	ND(0.050)	44.4	610	3.7	ND(0.0062)	ND(0.0062)	0.0585
off-site	MW-1A	WG-040915-NL-034	4/9/2015		2.7	ND(0.10)	ND(0.10)	--	0.23 J	ND(0.050)	66.5	675	5.8	ND(0.0062)	ND(0.0062)	0.004 J
off-site	MW-1A	WG-040915-NL-036	4/9/2015	Dup.	2.7	ND(0.10)	ND(0.10)	--	0.024 J	ND(0.050)	65.6	676	4.0	ND(0.0062)	ND(0.0062)	ND(0.0066)
off-site	MW-1B	WG-100914-NL-029	10/9/2014		5.1	ND(0.10)	ND(0.10)	--	0.17 J	ND(0.050)	47.2	496	32.8	ND(0.0062)	ND(0.0062)	0.0384
off-site	MW-1B	WG-040915-NL-038	4/9/2015		2.8	ND(0.10)	ND(0.10)	--	0.63 J	ND(0.050)	52.1	505	34.3	ND(0.0062)	ND(0.0062)	0.0248
S-8	MW-109	WG-101113-BS-021	10/11/2013		4.1	0.13	ND(0.10)	3.11	R	ND(0.050)	135	626	2.3	ND(0.0062)	ND(0.0062)	0.0043 J
S-8	MW-109	WG-041014-JR-035	4/10/2014		5.6	ND(0.10)	ND(0.10)	--	--	ND(0.050)	100	590	2.0	ND(0.0062)	ND(0.0062)	0.0107
S-8	MW-109	WG-100714-NL-009	10/7/2014		6.3	ND(0.10)	ND(0.10)	--	0.17 J	ND(0.050)	262	737	3.1	ND(0.0062)	ND(0.0062)	0.0052 J
S-8	MW-109	WG-040815-NL-024	4/8/2015		2.7	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	0.075	195	724	3.2	ND(0.0062)	ND(0.0062)	0.0094
S-8	TMW-147E	WG-101113-BS-020	10/11/2013		3.8	ND(0.10)	ND(0.10)	0.223	R	ND(0.050)	313	601	2.7	ND(0.0062)	0.00081 J	ND(0.0066)
S-8	TMW-147E	WG-041014-JR-036	4/10/2014		6.1	ND(0.10)	ND(0.10)	--	--	ND(0.050)	278	577	2.7	ND(0.0062)	ND(0.0062)	0.041
S-8	TMW-147E	WG-100714-NL-004	10/7/2014		3.3	ND(0.10)	ND(0.10)	--	0.74 J	ND(0.050)UJ	167	586	2.6	ND(0.0062)	ND(0.0062)	0.0065 J
S-8	TMW-147E	WG-040915-NL-032	4/9/2015		3.6	ND(0.10)	ND(0.10)	--	0.83 J	ND(0.050)	221	683	2.8	ND(0.0062)	ND(0.0062)	0.0053 J
SB-110	TMW-150	WG-101113-BS-018	10/11/2013		7.6	ND(0.10)	ND(0.10)	0.784	R	ND(0.050)	69.5	586	4.3	ND(0.0062)	ND(0.0062)	0.0225
SB-110	TMW-150	WG-041014-AH-031	4/10/2014		7.3	ND(0.10)	ND(0.10)	--	--	ND(0.050)	83.2	627	4.9	ND(0.0062)	ND(0.0062)	0.142
SB-110	TMW-150	WG-100814-NL-020	10/8/2014		8.1	ND(0.10)	ND(0.10)	--	0.028 J	ND(0.050)	90.6	610	4.6	ND(0.0062)	ND(0.0062)	ND(0.0085)
SB-110	TMW-150	WG-040915-NL-030	4/9/2015		3.8	0.028 J	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	43.7	675	5.2	ND(0.0062)	ND(0.0062)	0.464
SB-110	TMW-151	WG-101113-BS-019	10/11/2013		8.2	ND(0.10)	ND(0.10)	0.963	R	ND(0.050)	95.2	585	5.2	ND(0.0062)	ND(0.0062)	0.217
SB-110	TMW-151	WG-041014-AH-033	4/10/2014		7.0	ND(0.10)	ND(0.10)	--	--	ND(0.050)	87.7	622	6.3	ND(0.0062)	ND(0.0062)	0.149
SB-110	TMW-151	WG-100814-NL-022	10/8/2014		3.9	ND(0.10)	ND(0.10)	--	0.076 J	ND(0.050)	50.3	601	5.4	ND(0.0062)	ND(0.0062)	0.175
SB-110	TMW-151	WG-040915-JR-035	4/9/2015		3.9	ND(0.10)	ND(0.10)	--	0.26 J	ND(0.050)	41.8	692	4.8	ND(0.0062)	ND(0.0062)	0.133
TMW-127	MW-144B	WG-101013-BS-012	10/10/2013		4.0	ND(0.10)	ND(0.10)	1.66	R	ND(0.050)	66.4	740	7.8	0.0025 J	0.0064	1.74
TMW-127	MW-144B	WG-041014-AH-029	4/10/2014		4.7	ND(0.10)	ND(0.10)	--	--	ND(0.050)	48.4	686	11.9	ND(0.0062)	ND(0.0062)	0.654
TMW-127	MW-144B	WG-100814-NL-021	10/8/2014		3.7	ND(0.10)	ND(0.10)	--	0.59 J	ND(0.050)	61.2	678	15.5	ND(0.0062)	ND(0.0062)	0.111
TMW-127	MW-144B	WG-040815-NL-022	4/8/2015		3.6	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	0.070	44.0	668	16.6	ND(0.0062)	0.0168	0.504
TMW-127	MW-144C	WG-101013-BS-013	10/10/2013		2.6	ND(0.10)	ND(0.10)	0.433	R	ND(0.050)	86.5	444	28.5	ND(0.0062)	0.0051 J	0.0314
TMW-127	MW-144C	WG-041014-AH-027	4/10/2014		4.2 J	ND(0.10)	ND(0.10)	--	--	ND(0.050)	82.4	445	34.0	ND(0.0062)	ND(0.0062)	0.0237
TMW-127	MW-144C	WG-100814-NL-019	10/8/2014		5.0	ND(0.10)	ND(0.10)	--	0.14 J	0.055	93.7	426	40.6	ND(0.0062)	ND(0.0062)	ND(0.0266)
TMW-127	MW-144C	WG-040815-NL-020	4/8/2015		1.9	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	79.9	427	39.3	ND(0.0062)	0.0112	0.0476
TMW-127	MW-146B	WG-100913-BS-005	10/9/2013		7.8	ND(0.10)	ND(0.10)	1.87	R	ND(0.050)	23.0	645	15.0	0.0012 J	0.001 J	0.286
TMW-127	MW-146B	WG-040914-JR-008	4/9/2014		6.8	ND(0.10)	ND(0.10)	--	--	ND(0.050)	45.9	646	13.5	ND(0.0062)	ND(0.0062)	0.326
TMW-127	MW-146B	WG-100914-NL-035	10/9/2014		3.2	ND(0.10)	ND(0.10)	--	0.17 J	ND(0.050)	45.5	613	15.7	ND(0.0062)	ND(0.0062)	0.713
TMW-127	MW-146B	WG-040815-NL-016	4/8/2015		3.0	0.68	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	69.7	435	20.4	ND(0.0062)	ND(0.0062)	0.0039 J
TMW-127	MW-146C	WG-100913-BS-004	10/9/2013		6.6	ND(0.10)	ND(0.10)	0.62	R	ND(0.050)	71.1	487	25.8	ND(0.0062)	0.0014 J	0.0596
TMW-127	MW-146C	WG-040914-JR-010	4/9/2014		4.5	ND(0.10)	ND(0.10)	--	--	ND(0.050)	86.9	508	27.3	ND(0.0062)	ND(0.0062)	0.043
TMW-127	MW-146C	WG-100914-NL-039	10/9/2014		4.6	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	68.1	433	39.3	ND(0.0062)	ND(0.0062)	0.0048 J
TMW-127	MW-146C	WG-040815-NL-014	4/8/2015		2.7	0.084 J	0.091 J	--	ND(0.20)UJ	ND(0.050)	130	203	30.1	ND(0.0062)	ND(0.0062)	0.0055 J
TMW-127	MW-156	WG-101013-BS-016	10/10/2013		4.2	ND(0.10)	ND(0.10)	2.23	R	ND(0.050)	29.2	754	15.3	0.0019 J	0.0143	4.68
TMW-127	MW-156	WG-041014-JR-030	4/10/2014		7.0	ND(0.10)	ND(0.10)	--	--	ND(0.050)	16.9	659	18.5	ND(0.0062)	0.0034 J	0.506
TMW-127	MW-156	WG-100914-NL-030	10/9/2014		3.5	ND(0.10)	ND(0.10)	--	2.0 J	ND(0.050)	27.5	751	14.2	ND(0.0062)	0.0132	4.64
TMW-127	MW-156	WG-040715-NL-006	4/7/2015		4.8	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	22.8	733	15.7	ND(0.0062)	0.008	2.47
TMW-127	MW-156C	WG-101013-BS-014	10/10/2013		5.2	ND(0.10)	ND(0.10)	0.33	R	ND(0.050)	61.0	435	37.1	ND(0.0062)	ND(0.0062)	0.0122

Table 2

Quarterly Groundwater Analytical Data - Natural Attenuation Parameters
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:	Sample Location:	Sample ID:	Sample Date:		Natural Attenuation Parameters (mg/L)											
					DOC	Nitrate	Nitrite	Mn 2+	Ferrous iron	Sulfide	Sulfate	Alkalinity, total (as CaCO3)	Chloride	Ethane	Ethene	Methane
TMW-127	MW-156C	WG-041014-JR-032	4/10/2014		5.0	ND(0.10)	ND(0.10)	--	--	0.38	81.2	385	36.0	ND(0.0062)	ND(0.0062)	0.0499
TMW-127	MW-156C	WG-100914-NL-032	10/9/2014		ND(2.3)	ND(0.10)	ND(0.10)	--	0.12 J	ND(0.050)	78.9	422	40.9	ND(0.0062)	ND(0.0062)	0.0517
TMW-127	MW-156C	WG-040715-NL-004	4/7/2015		4.3	0.17	0.058 J	--	ND(0.20)UJ	ND(0.050)	118	247	36.2	ND(0.0062)	0.0059 J	0.0324
TMW-127	MW-158A	WG-101013-NL-013	10/10/2013		7.5	ND(0.10)	ND(0.10)	1.85	R	ND(0.050)	85.9	789	5.8	0.00085 J	ND(0.0062)	0.3
TMW-127	MW-158A	WG-041014-JR-034	4/10/2014		6.5	ND(0.10)	ND(0.10)	--	--	ND(0.050)	81.4	783	8.8	ND(0.0062)	ND(0.0062)	0.886
TMW-127	MW-158A	WG-100714-NL-016	10/7/2014		6.3	ND(0.10)	ND(0.10)	--	0.22 J	ND(0.050)	16.8	649	12.0	ND(0.0062)	ND(0.0062)	0.372
TMW-127	MW-158A	WG-040915-JR-027	4/9/2015		3.3	ND(0.10)	ND(0.10)	--	1.3 J	ND(0.050)	70.3	739	9.1	ND(0.0062)	ND(0.0062)	0.593
TMW-127	MW-158B	WG-101013-NL-014	10/10/2013		4.7 J	3.3	ND(0.10)	0.0147	R	ND(0.050)	124	128	24.1	ND(0.0062)	ND(0.0062)	ND(0.0066)
TMW-127	MW-158B	WG-101013-NL-015	10/10/2013	Dup.	2.8 J	3.3	ND(0.10)	0.00866	R	ND(0.050)	124	127	24.2	ND(0.0062)	ND(0.0062)	ND(0.0066)
TMW-127	MW-158B	WG-041014-JR-038	4/10/2014		7.2	ND(0.10)	ND(0.10)	--	--	ND(0.050)	ND(1.0)	686	18.7	ND(0.0062)	ND(0.0062)	1.57
TMW-127	MW-158B	WG-100714-NL-018	10/7/2014		6.5	ND(0.10)	ND(0.10)	--	0.21 J	ND(0.050)	36.4	527	26.5	ND(0.0062)	ND(0.0062)	0.0757
TMW-127	MW-158B	WG-040915-NL-028	4/9/2015		3.9	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	0.95 J	672	19.2	ND(0.0062)	ND(0.0062)	1.45
TMW-127	TMW-127	WG-101013-BS-015	10/10/2013		7.2 J	ND(0.10)	ND(0.10)	1.52	1.2 J	ND(0.050)	231	689	4.9	ND(0.0062)	ND(0.0062)	0.319
TMW-127	TMW-127	WG-040914-JR-028	4/9/2014		5.8	ND(0.10)	ND(0.10)	--	--	ND(0.050)	106	704	5.9	ND(0.0062)	ND(0.0062)	0.443
TMW-127	TMW-127	WG-100814-NL-028	10/9/2014		6.0	0.081 J	ND(0.10)	--	0.58 J	ND(0.050)	499	649	4.3	ND(0.0062)	ND(0.0062)	0.255
TMW-127	TMW-127	WG-040715-NL-002	4/7/2015		--	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	94.8	697	10.2	ND(0.0062)	ND(0.0062)	0.389
TMW-127	TMW-127	WG-040815-NL-002	4/8/2015		4.6	--	--	--	--	--	--	--	--	--	--	--
TMW-127	TMW-155	WG-101113-NL-017	10/11/2013		7.5	0.0083 J	ND(0.10)	0.525	R	ND(0.050)	89.9	786	3.7	ND(0.0062)	ND(0.0062)	0.132
TMW-127	TMW-155	WG-041014-JR-037	4/10/2014		6.3	0.056 J	ND(0.10)	--	--	ND(0.050)	73.6	738	2.9	ND(0.0062)	ND(0.0062)	ND(0.0066)
TMW-127	TMW-155	WG-100714-JR-015	10/7/2014		6.7	ND(0.10)	ND(0.10)	--	0.052 J	ND(0.050)	79.2	670	22.0	ND(0.0062)	ND(0.0062)	0.0147
TMW-127	TMW-155	WG-040915-NL-026	4/9/2015		3.1	ND(0.10)	ND(0.10)	--	ND(0.20)UJ	ND(0.050)	107	740	10.1	ND(0.0062)	ND(0.0062)	0.251
TMW-130	TMW-144	WG-101013-BS-010	10/10/2013		6.3	ND(0.10)	ND(0.10)	2.12	R	ND(0.050)	82.0	762	1.8	ND(0.0062)	ND(0.0062)	0.0891 J
TMW-130	TMW-144	WG-101013-BS-011	10/10/2013	Dup.	4.6	ND(0.10)	ND(0.10)	2.11	R	ND(0.050)	83.6	757	1.8	ND(0.0062)	ND(0.0062)	0.0093 J
TMW-130	TMW-144	WG-040914-AH-023	4/9/2014		5.5	ND(0.10)	ND(0.10)	--	--	ND(0.050)	64.8	808	1.9	ND(0.0062)	ND(0.0062)	0.063
TMW-130	TMW-144	WG-040914-AH-025	4/9/2014	Dup.	5.2	ND(0.10)	ND(0.10)	--	--	ND(0.050)	62.7	800	1.9	ND(0.0062)	ND(0.0062)	0.0834
TMW-130	TMW-144	WG-100914-NL-025	10/9/2014		3.4	ND(0.10)	ND(0.10)	--	0.032 J	ND(0.050)	78.1	668	3.6	ND(0.0062)	ND(0.0062)	0.0093
TMW-130	TMW-144	WG-100914-NL-023	10/9/2014	Dup.	3.5	ND(0.10)	ND(0.10)	--	0.040 J	ND(0.050)	77.3	674	3.6	ND(0.0062)	ND(0.0062)	0.0072
TMW-130	TMW-144	WG-040815-JR-023	4/8/2015		3.9	ND(0.10)	ND(0.10)	--	0.088 J	ND(0.050)	82.1	656	2.9	ND(0.0062)	ND(0.0062)	0.0185 J

Notes:

ND Not detected at the associated reporting limit.
U Not detected at the associated reporting limit.
J Estimated concentration.
UJ Not detected; associated reporting limit is estimated.
R Rejected.
DOC Dissolved organic carbon (DOC) (dissolved)
Mn 2+ Manganese 2+

Table 3

Quarterly Groundwater Field Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:	Sample Location:	Sample ID:	Sample Date:		Field Parameters						
					Conductivity	DO	Ferrous iron	ORP	pH	Sample Temperature	Turbidity
					mS/cm	mg/L	mg/L	millivolts	s.u.	Deg C	NTU
off-site	MW-1A	WG-101013-NL-017	10/10/2013		4.422	0.5	0.28	3.1	6.67	22.77	27.3
off-site	MW-1A	WG-100914-NL-031	10/9/2014		0.916	0.23	1.09	-33.7	6.73	15.23	Clear
off-site	MW-1A	WG-040915-NL-034	4/9/2015		0.95	0.13	--	-33.6	6.71	15.02	10
off-site	MW-1B	WG-101013-NL-018	10/10/2013		1.449	3.02	--	21.1	7.67	18.82	10.3
off-site	MW-1B	WG-100914-NL-029	10/9/2014		0.826	0.25	1.59	-79.3	7.04	15.05	Clear
off-site	MW-1B	WG-040915-NL-038	4/9/2015		0.773	0.99	--	-93.1	7.19	14.47	1.31
off-site	MW-1C	WG-101013-NL-019	10/10/2013		0.766	1.11	--	1.2	8.32	19.84	10.9
off-site	MW-1C	WG-100914-NL-027	10/9/2014		0.799	0.21	--	-91.6	7.1	15.11	Clear
off-site	MW-1C	WG-040915-NL-040	4/9/2015		0.445	0.6	--	-85.3	8.46	15.2	3.24
off-site	MW-110A	WG-101113-NL-023	10/11/2013		2.706	1.06	--	45.6	6.75	18.48	4.43
off-site	MW-110A	WG-010814-NL-003	1/8/2014		1.296	0.74	--	-42.6	6.79	14.25	6.47
off-site	MW-110A	WG-071614-AH-001	7/16/2014		1.244	1.1	--	87.6	6.07	17.58	Clear
off-site	MW-110A	WG-100914-NL-040	10/9/2014		1.266	0.42	--	79	6.73	18.26	Clear
off-site	MW-110A	WG-011515-NL-027	1/15/2015		1.063	2.05	--	139.5		16.19	6.41
off-site	MW-110A	WG-040915-JR-039	4/9/2015		1.298	1.27	--	23.6	6.69	16.87	1.03
off-site	MW-110A	WG-070715-JR-004	7/7/2015		1.296	0.76	--	-24.4	6.82	18.14	0.82
S-8	MW-109	WG-101113-BS-021	10/11/2013		1.22	0.46	0.78	10	6.8	15.8	15.9
S-8	MW-109	WG-101113-BS-022	10/11/2013	*Dup.*	1.22	0.46	--	10	6.8	15.8	15.9
S-8	MW-109	WG-010914-NL-017	1/9/2014		0.957	0.16	--	-34.8	6.7	15.19	5.33
S-8	MW-109	WG-071614-AH-003	7/16/2014		1.283	0.22	--	12.1	6.06	15.39	Clear
S-8	MW-109	WG-100714-NL-009	10/7/2014		1.284	0.17	1.61	30.4	6.58	15.69	Clear
S-8	MW-109	WG-011415-NL-014	1/14/2015		1.313	0.19	--	83.6	6.48	13.83	1.99
S-8	MW-109	WG-040815-NL-024	4/8/2015		1.268	0.21	--	-48.1	6.43	15.7	5.4
S-8	MW-109	WG-070715-JR-008	7/7/2015		1.274	0.74	--	-214.4	6.66	15.51	8.44
S-8	TMW-147E	WG-101113-BS-020	10/11/2013		1.33	0.4	0.78	35	6.62	16.32	15.3
S-8	TMW-147E	WG-010714-NL-001	1/7/2014		1.116	0.7	--	-24.3	6.46	10.8	3.88
S-8	TMW-147E	WG-071614-AH-005	7/16/2014		1.062	0.31	--	14.7	6.21	17.09	Clear
S-8	TMW-147E	WG-100714-NL-004	10/7/2014		1.037	0.44	0.38	-119	6.78	16.6	Clear
S-8	TMW-147E	WG-011315-NL-012	1/13/2015		1.226	0.13	--	39.4	6.35	12.39	1.74
S-8	TMW-147E	WG-040915-NL-032	4/9/2015		1.147	0.17	--	-13.2	6.48	15.45	9.31
S-8	TMW-147E	WG-070715-JR-010	7/7/2015		1.663	0.46	--	-197.1	6.65	15.81	0.63
S-8	TMW-148	WG-101013-NL-020	10/10/2013		1.282	3.86	--	61.4	6.82	20.68	9.9
S-8	TMW-148	WG-010814-NL-006	1/8/2014		0.619	4.36	--	14.6	6.71	12.02	11.5
S-8	TMW-148	WG-071714-JR-031	7/17/2014		0.832	1.09	--	15.3	6.95	15.94	Clear
SB-110	MW-125	WG-100913-NL-005	10/9/2013		2.978	0.55	--	-111.1	6.74	18.65	13.9
SB-110	MW-125	WG-010814-NL-007	1/8/2014		1.14	0.15	--	-71.8	6.72	14.66	7.36

Table 3

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				mS/cm	mg/L	mg/L	millivolts	s.u.	Deg C	NTU
SB-110	MW-125	WG-071614-AH-013	7/16/2014	1.034	0.42	--	-45.6	6.16	15.5	Clear
SB-110	MW-125	WG-100614-NL-001	10/6/2014	1.105	0.46	--	-212.7	6.71	16.66	Clear
SB-110	MW-125	WG-011415-NL-020	1/14/2015	1.344	0.13	--	2.5	6.62	13.26	0.86
SB-110	MW-125	WG-040715-JR-015	4/7/2015	1.029	0.97	--	-130.4	6.83	15.65	1.96
SB-110	MW-125	WG-070815-JR-022	7/8/2015	1.126	1.05	--	-197.6	6.8	14.65	0.22
SB-110	TMW-150	WG-101113-BS-018	10/11/2013	1.03	0.74	0.36	27	6.89	14.88	6.8
SB-110	TMW-150	WG-010914-NL-008	1/9/2014	0.987	2.5	--	-24.4	6.83	16.32	9.43
SB-110	TMW-150	WG-071614-AH-011	7/16/2014	0.952	0.73	--	6.6	6.24	15.84	Clear
SB-110	TMW-150	WG-100814-NL-020	10/8/2014	0.934	0.37	1.65	-58.9	6.9	14.9	Clear
SB-110	TMW-150	WG-011415-NL-022	1/14/2015	1.184	0.44	--	81.6	6.69	13.4	0.71
SB-110	TMW-150	WG-040915-NL-030	4/9/2015	0.972	0.28	--	-44.9	6.7	16.41	9.81
SB-110	TMW-150	WG-070815-JR-020	7/8/2015	1.087	0.38	--	-119.8	6.79	14.8	0.88
SB-110	TMW-151	WG-101113-BS-019	10/11/2013	1.04	0.58	1.32	-2	6.84	16.7	19.1
SB-110	TMW-151	WG-071614-AH-009	7/16/2014	0.888	0.32	--	9.6	5.95	14.96	Clear
SB-110	TMW-151	WG-100814-NL-022	10/8/2014	0.915	0.19	1.02	-102.3	6.63	17.58	Clear
SB-110	TMW-151	WG-011415-NL-024	1/14/2015	1.217	0.18	--	93.1	6.65	13.38	2.11
SB-110	TMW-151	WG-040915-JR-035	4/9/2015	0.883	0.52	--	-57.3	6.68	16.7	6.03
SB-110	TMW-151	WG-070815-JR-018	7/8/2015	1.043	2.06	--	-198.4	6.6	14.26	4.16
SB-110	TMW-152	WG-100913-NL-004	10/9/2013	2.742	0.88	--	-85.9	6.63	17.61	8.6
SB-110	TMW-152	WG-010714-NL-002	1/7/2014	0.905	0.69	--	-28.6	6.67	10.6	7.32
SB-110	TMW-152	WG-071714-AH-014	7/17/2014	1.065	2.1	--	20.6	5.82	14.53	Clear
SB-110	TMW-152	WG-100614-NL-002	10/6/2014	1.035	0.59	--	-127.9	6.44	16.85	Clear
SB-110	TMW-152	WG-011415-NL-016	1/14/2015	1.364	0.24	--	62.8	6.57	13.32	6.61
SB-110	TMW-152	WG-040815-JR-019	4/8/2015	1.04	0.66	--	-101.5	6.65	13.64	4.76
SB-110	TMW-152	WG-070815-NL-021	7/8/2015	1.511	0.81	--	100.4	6.07	15.31	10.1
TMW-127	MW-144B	WG-101013-BS-012	10/10/2013	0.886	0.38	3.3	-78	7.13	15.3	0.9
TMW-127	MW-144B	WG-011414-NL-033	1/14/2014	1.121	0.18	--	-129.4	6.93	15	9.76
TMW-127	MW-144B	WG-071614-NL-006	7/16/2014	0.951	0.61	--	-189	7.07	17.02	Clear
TMW-127	MW-144B	WG-100814-NL-021	10/8/2014	1.067	0.2	2.46	-83.9	6.95	16.56	Clear
TMW-127	MW-144B	WG-040815-NL-022	4/8/2015	1.05	0.37	--	-150.4	7.32	16.76	6.13
TMW-127	MW-144B	WG-070815-JR-030	7/8/2015	1.025	1.51	--	-224.1	7.05	15.56	1.78
TMW-127	MW-144C	WG-101013-BS-013	10/10/2013	0.886	0.38	2.78 Dup 0.08	-78	7.13	15.3	0.9
TMW-127	MW-144C	WG-011414-NL-032	1/14/2014	0.911	0.12	--	-140.4	7.2	16.03	4.44
TMW-127	MW-144C	WG-071614-NL-008	7/16/2014	0.69	1.14	--	-180	7.23	18.72	Clear
TMW-127	MW-144C	WG-100814-NL-019	10/8/2014	0.8	0.14	0.29	-57.6	7.11	19.84	Clear
TMW-127	MW-144C	WG-040815-NL-020	4/8/2015	0.788	1.08	--	-60.4	7.24	15.79	5.73
TMW-127	MW-144C	WG-070815-JR-028	7/8/2015	0.851	1.97	--	-243.4	7.25	15.93	0.18

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					mS/cm	mg/L	mg/L	millivolts	s.u.	Deg C	NTU
TMW-127	MW-146B	WG-100913-BS-005	10/9/2013		0.932	0	3.3	-146	6.8	16.8	93.4
TMW-127	MW-146B	WG-011314-NL-028	1/13/2014		1.009	0.18	--	-139.1	7.05	15.27	8.04
TMW-127	MW-146B	WG-071714-NL-030	7/17/2014		0.864	0.33	--	-194	7.25	16.6	Clear
TMW-127	MW-146B	WG-100914-NL-035	10/9/2014		0.947	0.14	1.2	-74.3	6.97	15.01	Clear
TMW-127	MW-146B	WG-040815-NL-016	4/8/2015		0.752	1.27	--	44.5	6.86	14.65	5.46
TMW-127	MW-146B	WG-070915-NL-027	7/9/2015		1.161	0.62	--	-51.5	6.33	17.05	6.1
TMW-127	MW-146C	WG-100913-BS-004	10/9/2013		0.583	0	2.73	-67	7.03	18.99	49.1
TMW-127	MW-146C	WG-011314-NL-027	1/13/2014		0.944	0.2	--	-153.9	7.16	15.08	8.94
TMW-127	MW-146C	WG-071714-NL-027	7/17/2014		0.733	0.68	--	-188	7.31	16.09	Clear
TMW-127	MW-146C	WG-100914-NL-039	10/9/2014		0.798	0.15	1.57	-50.7	7.07	15.18	Clear
TMW-127	MW-146C	WG-040815-NL-014	4/8/2015		0.565	3.69	--	61.4	6.95	14.77	9.79
TMW-127	MW-146C	WG-070915-JR-032	7/9/2015		0.842	1.21	--	-129.8	7.23	16.35	0.28
TMW-127	MW-156	WG-101013-BS-016	10/10/2013		1.26	0.3	3.3	-152	7.04	14.49	77.4
TMW-127	MW-156	WG-011014-NL-019	1/10/2014		1.141	0.09	--	-155.1	7	14.36	8.39
TMW-127	MW-156	WG-071714-NL-018	7/17/2014		1.07	0.18	--	-178	7.08	18.38	Clear
TMW-127	MW-156	WG-100914-NL-030	10/9/2014		1.085	0.29	3.3	-144.4	6.5	14.95	Clear
TMW-127	MW-156	WG-011415-NL-011	1/14/2015		0.959	0.28	--	45.8	6.71	12.46	6.17
TMW-127	MW-156	WG-040715-NL-006	4/7/2015		1.17	0.11	--	-169.1	7.32	18.23	6
TMW-127	MW-156	WG-070915-JR-036	7/9/2015		1.137	0.68	--	-119.6	7.06	16.28	3.36
TMW-127	MW-156C	WG-101013-BS-014	10/10/2013		0.952	0.52	3.3 Dup 0.03	-149	7.27	15.04	1.3
TMW-127	MW-156C	WG-011014-NL-021	1/10/2014		0.828	0.12	--	-140.9	7.27	14.53	3.99
TMW-127	MW-156C	WG-071714-NL-021	7/17/2014		0.721	0.3	--	-195	7.33	17.51	Clear
TMW-127	MW-156C	WG-100914-NL-032	10/9/2014		0.659	0.39	2.2	-80.9	6.85	14.68	Clear
TMW-127	MW-156C	WG-040715-NL-004	4/7/2015		0.634	0.16	--	-41.7	7.51	15.61	7.51
TMW-127	MW-156C	WG-070915-NL-029	7/9/2015		0.96	0.7	--	-53.2	6.32	17.33	4.49
TMW-127	MW-158A	WG-100913-NL-013	10/10/2013		2.159	0.92	--	-72.7	6.6	15.34	9.5
TMW-127	MW-158A	WG-010914-NL-013	1/9/2014		1.232	0.12	--	-79.6	6.68	14.51	8.69
TMW-127	MW-158A	WG-071614-NL-004	7/16/2014		0.857	0.99	--	-129	6.67	21.48	Clear
TMW-127	MW-158A	WG-100714-NL-016	10/7/2014		1.017	0.19	1.88	-169.3	6.52	17.88	Clear
TMW-127	MW-158A	WG-040915-JR-027	4/9/2015		1.045	0.96	--	-99.8	6.73	15.16	8.32
TMW-127	MW-158A	WG-070715-NL-009	7/7/2015		1.436	1.59	--	101.4	5.96	15.91	6.21
TMW-127	MW-158B	WG-101013-NL-014	10/10/2013		0.923	1.96	--	-12	7.23	16.32	6.06
TMW-127	MW-158B	WG-101013-NL-015	10/10/2013	*Dup.*	0.923	1.96	--	-12	7.23	16.32	6.06
TMW-127	MW-158B	WG-010914-NL-014	1/9/2014		1.064	0.27	--	-113.3	7.18	14.27	9.94
TMW-127	MW-158B	WG-071614-NL-002	7/16/2014		0.809	0.21	--	-192	6.87	17.13	Clear
TMW-127	MW-158B	WG-100714-NL-018	10/7/2014		0.85	0.24	2.55	-189.3	6.65	19.5	Clear
TMW-127	MW-158B	WG-040915-NL-028	4/9/2015		0.976	4.21	--	-161.5	7.21	16.18	5.19
TMW-127	MW-158B	WG-070715-NL-007	7/7/2015		1.062	0.5	--	-6.3	6.41	16.3	4.35

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					mS/cm	mg/L	mg/L	millivolts	s.u.	Deg C	NTU
TMW-127	TMW-127	WG-101013-BS-015	10/10/2013		1.44	0.41	3.3 Dup 0.03	-73	6.79	16.71	17.1
TMW-127	TMW-127	WG-011014-NL-018	1/10/2014		1.157	0.26	--	-98.43	6.73	15.11	5.16
TMW-127	TMW-127	WG-071714-NL-015	7/17/2014		1.46	0.2	--	-116	6.74	18.94	Clear
TMW-127	TMW-127	WG-100914-NL-028	10/9/2014		1.417	0.33	2.73	-77.6	5.51	15.91	Clear
TMW-127	TMW-127	WG-011315-NL-009	1/13/2015		0.775	0.41	--	88.1	6.51	10.15	6.19
TMW-127	TMW-127	WG-040715-NL-002	4/7/2015		1.094	0.25	--	-76.5	6.82	15.25	6.04
TMW-127	TMW-127	WG-070915-JR-033	7/9/2015		1.193	0.31	--	-133.5	6.91	18.23	9.11
TMW-127	TMW-153	WG-100913-BS-007	10/9/2013		0.903	0.52	--	79	7.21	17.56	127
TMW-127	TMW-153	WG-011014-NL-022	1/10/2014		0.813	1.3	--	-41.9	6.79	14.78	4.71
TMW-127	TMW-153	WG-071714-NL-024	7/17/2014		0.768	0.86	--	41	6.89	17.19	Clear
TMW-127	TMW-153	WG-100814-NL-026	10/8/2014		0.735	0.1	--	-52.7	6.28	15.51	Clear
TMW-127	TMW-153	WG-011315-NL-007	1/13/2015		0.541	1.94	--	92.8	6.68	10.65	5.4
TMW-127	TMW-153	WG-040715-NL-008	4/7/2015		0.808	4.08	--	-48.2	6.94	22.5	8.16
TMW-127	TMW-153	WG-070915-NL-031	7/9/2015		0.239	0.28	--	-45.5	6.12	20.92	5.75
TMW-127	TMW-154	WG-101013-NL-016	10/10/2013		2.234	0.32	--	-103.4	6.62	18.65	3.5
TMW-127	TMW-154	WG-010814-NL-004	1/8/2014		1.126	0.8	--	-97.3	6.65	10.36	7.25
TMW-127	TMW-154	WG-071714-JR-022	7/17/2014		1.097	0.53	--	-77.7	7.78	15.31	Clear
TMW-127	TMW-154	WG-100714-JR-013	10/7/2014		1.426	0.19	--	-23.4	6.54	17.71	Clear
TMW-127	TMW-154	WG-011415-NL-015	1/14/2015		1.037	0.37	--	37.7	6.74	13.45	9.54
TMW-127	TMW-154	WG-040915-JR-025	4/9/2015		1.222	1.05	--	-120.3	6.58	15.39	6.63
TMW-127	TMW-154	WG-070715-NL-003	7/7/2015		1.514	1.31	--	66.6	5.68	16.76	5.43
TMW-127	TMW-155	WG-101113-NL-017	10/11/2013		1.28	4.1	--	45	6.79	14.87	4.1
TMW-127	TMW-155	WG-010814-NL-005	1/8/2014		0.596	0.65	--	-13	6.64	11.29	5.61
TMW-127	TMW-155	WG-071714-JR-025	7/17/2014		1.002	1.06	--	16.4	6.95	14.23	Clear
TMW-127	TMW-155	WG-100714-JR-015	10/7/2014		0.963	0.42	--	76.5	6.5	14.54	Clear
TMW-127	TMW-155	WG-011415-NL-017	1/14/2015		0.955	0.7	--	72.4	6.73	13.33	6.34
TMW-127	TMW-155	WG-040915-NL-026	4/9/2015		1.153	0.26	--	-1.8	6.44	16.3	7.11
TMW-127	TMW-155	WG-070715-NL-005	7/7/2015		1.26	0.79	--	124	5.9	16.91	4.76
TMW-130	TMW-143	WG-100913-BS-003	10/9/2013		0.85	0.1	--	-27	6.78	16.33	43.3
TMW-130	TMW-143	WG-011314-NL-029	1/13/2014		0.904	0.13	--	-40	6.61	15.4	8.74
TMW-130	TMW-143	WG-071714-JR-019	7/17/2014		0.865	0.92	--	23.9	7.02	15.21	Clear
TMW-130	TMW-143	WG-100814-NL-017	10/8/2014		0.915	0.23	0.33	81.1	6.52	15.06	Clear
TMW-130	TMW-143	WG-011415-NL-021	1/14/2015		0.758	0.29	--	58.9	7.17	12.08	7.17
TMW-130	TMW-143	WG-040815-NL-018	4/8/2015		0.867	0.23	--	5.2	6.72	14.79	4.22
TMW-130	TMW-143	WG-070715-NL-001	7/7/2015		0.907	3.88	--	173.1	5.41	17.23	8.73
TMW-130	TMW-144	WG-101013-BS-010	10/10/2013		1.3	0.4	1.77	-10	6.69	17.29	3
TMW-130	TMW-144	WG-101013-BS-011	10/10/2013	*Dup.*	1.3	0.4	--	-10	6.69	17.29	3

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Kansas City, Kansas

AOC:	Sample Location:	Sample ID:	Sample Date:		Field Parameters						
					Conductivity	DO	Ferrous iron	ORP	pH	Sample Temperature	Turbidity
					mS/cm	mg/L	mg/L	millivolts	s.u.	Deg C	NTU
TMW-130	TMW-144	WG-011414-NL-031	1/14/2014		1.128	0.21	--	-25	6.68	15.36	7.43
TMW-130	TMW-144	WG-071714-JR-016	7/17/2014		1.078	0.86	--	18.9	7.34	15.89	Clear
TMW-130	TMW-144	WG-100814-NL-023	10/8/2014		0.995	0.24	0.8	55.4	6.44	15.72	Clear
TMW-130	TMW-144	WG-011315-NL-001	1/13/2015		1.001	0.84	--	133.1	6.05	12.75	3.55
TMW-130	TMW-144	WG-040815-JR-023	4/8/2015		0.949	0.47	--	-27.7	6.66	14.81	3.11
TMW-130	TMW-144	WG-070815-NL-023	7/8/2015		0.925	0.79	--	76.6	6.17	15.87	8.43
TMW-130	TMW-145	WG-100913-BS-008	10/9/2013		0.88	1.6	--	49	6.85	16.91	49
TMW-130	TMW-145	WG-071614-NL-010	7/16/2014		0.783	0.23	--	-24	6.88	18.2	Clear
TMW-130	TMW-145	WG-100914-NL-034	10/9/2014		0.888	0.87	--	-81.9	6.62	15.3	Clear
TMW-130	TMW-145	WG-011415-NL-013	1/14/2015		0.777	0.85	--	70	6.53	13.06	7.21
TMW-130	TMW-145	WG-040715-NL-010	4/7/2015		1.11	0.12	--	34.2	6.78	20.27	8.94
TMW-130	TMW-145	WG-070915-JR-037	7/9/2015		0.812	1.06	--	-86.6	6.79	16.87	0.88
TMW-130	TMW-146	WG-100913-BS-006	10/9/2013		1.31	1.36	--	-85	6.5	18.69	82.6
TMW-130	TMW-146	WG-011314-NL-026	1/13/2014		1.086	0.15	--	-104.8	6.64	15.91	7.99
TMW-130	TMW-146	WG-071714-AH-036	7/17/2014		0.972	0.3	--	-169	6.96	16.43	Clear
TMW-130	TMW-146	WG-100914-NL-033	10/9/2014		1.073	0.19	--	-33.1	6.46	14.94	Clear
TMW-130	TMW-146	WG-011315-NL-005	1/13/2015		0.858	0.58	--	35.1	6.66	11.28	3.45
TMW-130	TMW-146	WG-040715-NL-012	4/7/2015		1.031	0.15	--	-118.3	6.86	17.31	9.87
TMW-130	TMW-146	WG-070915-JR-034	7/9/2015		1.092	0.59	--	-114.4	6.57	15.98	0.79
MW-103A	MW-102A	WG-100913-NL-006	10/9/2013		2.702	0.57	--	-14.7	6.61	18.36	15.7
MW-103A	MW-102A	WG-071714-JR-037	7/17/2014		1.059	0.45	--	13.7	7.02	15.41	Clear
MW-103A	MW-102A	WG-100614-NL-003	10/6/2014		1.08	0.27	--	-76.4	6.45	16.56	Clear
MW-103A	MW-102A	WG-011415-NL-026	1/14/2015		1.228	0.67	--	110.4	6.49	11.91	1.71
MW-103A	MW-102A	WG-040715-JR-013	4/7/2015		1.048	0.98	--	-36.1	6.63	17.02	6.67
MW-103A	MW-102A	WG-070815-NL-017	7/8/2015		1.65	1.67	--	125.9	6.19	15.74	7.23
MW-103A	MW-102B	WG-100913-NL-007	10/9/2013		1.929	0.88	--	-6.2	7.55	19.9	6.95
MW-103A	MW-102B	WG-010914-NL-009	1/9/2014		1.012	0.21	--	-111.1	7.29	14.5	5.43
MW-103A	MW-102B	WG-071714-JR-034	7/17/2014		0.915	0.65	--	-20.3	7.79	15.91	Clear
MW-103A	MW-102B	WG-100714-NL-006	10/7/2014		0.941	0.21	--	-200.3	6.81	17.25	Clear
MW-103A	MW-102B	WG-011415-NL-028	1/14/2015		1.144	0.13	--	-83.3	7.27	13.41	0.26
MW-103A	MW-102B	WG-040915-JR-029	4/9/2015		0.919	0.51	--	-179.3	7.42	15.63	0.43
MW-103A	MW-102B	WG-070815-NL-015	7/8/2015		1.085	1	--	114.2	6.58	16.15	9.71
MW-103A	MW-105	WG-100913-NL-011	10/9/2013		3.022	0.42	--	-84.4	6.65	16.52	4.09
MW-103A	MW-105	WG-100913-NL-010	10/9/2013	*Dup.*	3.022	0.42	--	-84.4	6.65	16.52	4.09
MW-103A	MW-105	WG-010914-NL-010	1/9/2014		1.309	0.14	--	-100.6	6.72	15.43	8.47
MW-103A	MW-105	WG-071714-AH-032	7/17/2014		1.109	0.1	--	-24.3	6.32	14.81	Clear
MW-103A	MW-105	WG-100714-NL-012	10/7/2014		1.145	0.31	--	-107	6.28	17.79	Clear

Table 3

Quarterly Groundwater Field Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:	Sample Location:	Sample ID:	Sample Date:	Field Parameters						
				Conductivity	DO	Ferrous iron	ORP	pH	Sample Temperature	Turbidity
				mS/cm	mg/L	mg/L	millivolts	s.u.	Deg C	NTU
MW-103A	MW-105	WG-011315-NL-006	1/13/2015	1.43	0.1	--	13.9	6.67	14.38	2.93
MW-103A	MW-105	WG-040715-JR-011	4/7/2015	1.199	0.98	--	-119.8	6.85	15.79	4.23
MW-103A	MW-105	WG-070715-JR-012	7/7/2015	1.112	0.86	--	-186	6.72	14.85	0.55
MW-103A	MW-115A	WG-100913-NL-008	10/9/2013	4.568	0.39	--	-104.4	6.63	19.3	13.6
MW-103A	MW-115A	WG-071714-AH-026	7/17/2014	1.491	0.09	--	-13.2	6.45	15.99	Clear
MW-103A	MW-115A	WG-100714-NL-008	10/7/2014	1.504	0.17	--	-132.2	6.17	17.61	Clear
MW-103A	MW-115A	WG-011415-NL-030	1/14/2015	2.009	0.28	--	-5.8	6.57	12.89	0.81
MW-103A	MW-115A	WG-040715-JR-007	4/7/2015	1.758	0.92	--	-77.4	6.72	16.02	1.19
MW-103A	MW-115A	WG-070815-NL-019	7/8/2015	1.683	0.48	--	67.5	6.39	16.71	6.27
MW-103A	TMW-157	WG-100913-NL-009	10/9/2013	3.504	0.33	--	-150.6	6.74	19.01	9.91
MW-103A	TMW-157	WG-071714-AH-029	7/17/2014	1.471	0.04	--	-106.2	6.6	21.81	Clear
MW-103A	TMW-157	WG-100714-NL-010	10/7/2014	1.489	0.51	--	-184.8	6.48	18.7	Clear
MW-103A	TMW-157	WG-011315-NL-008	1/13/2015	1.767	0.7	--	-59.6	6.66	13.65	2.03
MW-103A	TMW-157	WG-040915-JR-031	4/9/2015	1.389	1.03	--	-153.9	6.87	16.01	1.96
MW-103A	TMW-157	WG-070715-NL-013	7/7/2015	1.755	0.23	--	-51.4	6.17	15.41	7.41
N/A	MW-1	WG-101013-BS-009	10/10/2013	1.03	1.35	--	160	7.55	17.83	35.3
N/A	MW-1	WG-071614-AH-007	7/16/2014	0.905	4.06	--	28.7	6.48	18.87	Clear
N/A	MW-1	WG-100914-NL-036	10/9/2014	1.026	0.56	--	-82.9	6.83	17.51	Clear
N/A	MW-1	WG-011515-NL-025	1/15/2015	0.679	1.38	--	159.8	6.58	14.11	7.53
N/A	MW-1	WG-040915-JR-041	4/9/2015	0.866	0.64	--	31.9	6.73	15.53	0.84
N/A	MW-1	WG-070715-JR-002	7/7/2015	0.952	1.44	--	3.9	6.77	17.01	0.61
N/A	MW-111	WG-101013-NL-021	10/10/2013	1.418	1.42	--	69.3	7.1	16.52	7.1
N/A	MW-111	WG-011314-NL-025	1/13/2014	1.089	0.15	--	-134.3	6.94	15.62	6.61
N/A	MW-111	WG-071714-JR-028	7/17/2014	1.075	0.44	--	-96	7.77	20.61	Clear
N/A	MW-111	WG-100714-JR-011	10/7/2014	1.015	0.19	2.57	-51.4	6.77	19.75	Clear
N/A	MW-111	WG-011415-NL-019	1/14/2015	1.004	0.32	--	38.4	6.79	13.03	8.19
N/A	MW-111	WG-040815-JR-021	4/8/2015	1.043	0.51	--	-147.1	6.86	14.36	1.96
N/A	MW-111	WG-070715-JR-006	7/7/2015	1.102	0.2	--	-155.3	6.82	16.2	0.33
N/A	MW-117A	WG-100813-NL-001	10/8/2013	2.571	2.07	--	7.2	6.69	24.72	19.6
N/A	MW-117A	WG-011014-NL-023	1/10/2014	1.001	0.33	--	-16.1	6.71	18.92	9.9
N/A	MW-117B	WG-100813-NL-002	10/8/2013	0.28	1.07	--	10	6.81	19.76	7.26
N/A	MW-117B	WG-011014-NL-024	1/10/2014	1.149	0.11	--	-128.3	6.86	17.31	8.71
N/A	MW-118A	WG-100813-BS-001	10/8/2013	0.806	4.4	--	163	6.43	24.63	87.1
N/A	MW-118B	WG-100913-BS-002	10/9/2013	0.89	1.19	--	-181	7.14	16.64	1.9
N/A	MW-124A	WG-100913-NL-012	10/9/2013	3.027	1.63	--	-122.6	6.66	16.34	--
N/A	MW-124A	WG-010914-NL-011	1/9/2014	1.436	0.18	--	-145.2	6.79	15.55	8.62
N/A	MW-124A	WG-071714-AH-017	7/17/2014	1.043	0.24	--	-38.6	6.39	16.39	Clear

Table 3

Quarterly Groundwater Field Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

AOC:	Sample Location:	Sample ID:	Sample Date:	Field Parameters						
				Conductivity	DO	Ferrous iron	ORP	pH	Sample Temperature	Turbidity
				mS/cm	mg/L	mg/L	millivolts	s.u.	Deg C	NTU
N/A	MW-124A	WG-100714-NL-005	10/7/2014	0.943	0.57	2.96	-70.9	6.77	15.94	Clear
N/A	MW-124A	WG-011315-NL-002	1/13/2015	1.539	0.19	--	-29.5	6.58	14.61	1.01
N/A	MW-124A	WG-040715-JR-001	4/7/2015	1.397	0.94	--	-148.1	6.74	15.19	5.13
N/A	MW-124A	WG-070815-JR-016	7/8/2015	0.952	0.35	--	-176.9	6.61	15.48	0.11
N/A	MW-124B	WG-101013-NL-022	10/10/2013	1.635	0.23	--	34.9	7.55	17.09	2.36
N/A	MW-124B	WG-010914-NL-012	1/9/2014	1.092	0.19	--	-157.8	7.04	14.96	9.93
N/A	MW-124B	WG-071714-AH-020	7/17/2014	1.062	0.05	--	-97.7	6.87	16.3	Clear
N/A	MW-124B	WG-100714-JR-007	10/7/2014	1.027	0.21	2.06	-86.6	7.04	16.31	Clear
N/A	MW-124B	WG-011315-NL-004	1/13/2015	1.248	0.1	--	-79.1	7.11	14.53	0.97
N/A	MW-124B	WG-040715-JR-003	4/7/2015	1.053	0.81	--	-168.1	7.07	15.63	3.28
N/A	MW-124B	WG-070815-JR-014	7/8/2015	1.066	0.45	--	-220.6	6.91	15.57	0.37
N/A	TMW-123	WG-100913-NL-003	10/9/2013	3.02	1.61	--	-98.6	6.63	16.84	16.4
N/A	TMW-123	WG-011414-NL-034	1/14/2014	1.21	0.11	--	-80.4	6.63	14.18	8.44
N/A	TMW-123	WG-071714-AH-035	7/17/2014	1.167	0.11	--	-13	6.24	14.84	Clear
N/A	TMW-123	WG-100814-NL-024	10/8/2014	1.15	0.19	--	-151	6.44	15.42	Clear
N/A	TMW-123	WG-011315-NL-010	1/13/2015	1.417	0.11	--	42.6	6.59	13.12	0.91
N/A	TMW-123	WG-040715-JR-017	4/7/2015	1.117	0.99	--	-103.6	6.75	15.23	2.28
N/A	TMW-123	WG-070815-JR-026	7/8/2015	1.198	1.26	--	-170.3	6.64	14.39	0.21

Notes:

DO - Dissolved oxygen
ORP - Oxidation reduction potential

Attachment A

Data Summary Report
Former GM Fairfax Plant I Site
100 Kindleberger Road
Kansas City, Kansas

June 21, 2013

KDHE Project Code: C4-105-00021

Cardno MM&A Project Number: KDHE102

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Appendix B Field Notification Form
Appendix C Boring Logs
Appendix D Laboratory Analytical Data Reports
Appendix E Well Construction Diagrams
Appendix F Well Development Forms
Appendix G Photographs of Well Locations
Appendix H Field Equipment Calibration

1 Introduction

Cardno MM&A is pleased to present the Kansas Department of Health and Environment (KDHE) with the results of the supplemental investigation performed at the Former GM Fairfax Plant I Site ("Site") at 100 Kindelberger Avenue in Kansas City, Kansas (**Figure 1**).

Cardno MM&A was contracted by KDHE to perform supplemental investigation activities to delineate vinyl chloride and other degradation products of tetrachloroethene (PCE) in soil and groundwater as prescribed in the KDHE Request for Proposal, dated December 13, 2012, and in the *Work Plan for Supplemental Investigation at TMW-127 and S-8 Areas of Concern*, by Conestoga-Rover & Associates ("CRA Work Plan") dated December 2012. The supplemental investigation focused on two areas of concern (AOCs) identified by CRA as temporary monitoring well (TMW)-127 and former soil boring S-8. The objectives of the supplemental investigation included:

- Delineate vinyl chloride and other PCE degradation products in groundwater around TMW-127;
- Collect a saturated soil sample near TMW-127 for a treatability study; and
- Collect soil samples around former S-8 boring location to verify historical data indicating PCE impacts to soil.

Cardno MM&A's role in the supplemental investigation was to execute the field activities outline above, under the direction of KDHE, and to provide a data summary report.

2 Background

The Site is located in an industrial area of Kansas City, Wyandotte County, Kansas with various manufacturing facilities to the west and south, and the Missouri River to the north. Beginning in 1940, facilities on the Site were constructed for the assembly of aircraft and later for automobiles. All structures at the Site were demolished in 1987.

Approximately 16 acres of the western portion of the property was sold to a third party and received a No Further Action letter from KDHE in 2007 through the Voluntary Cleanup and Property Redevelopment Program (VCPRP). The remaining property, consisting of approximately 91 acres, entered the VCPRP, but the Site was transferred to the KDHE State Cooperative Program in 2011 after the bankruptcy filing of GM. Investigation and remediation of the Site continues pursuant to the Consent Agreement and Final Order (CAFO) Case No. 11-E-109 BER dated November 21, 2011.

On January 10, 2013, KDHE approved the proposal submitted by Cardno MM&A to perform field activities at the Site as prescribed in the KDHE Request for Proposal, dated December 13, 2012, and in CRA's Work Plan.

3 Field Activities Summary

The field activities consisted of two primary tasks. The first task required utilizing direct push technology (DPT) to collect soil and groundwater samples to investigate the extent of the groundwater contamination near TMW-127. Following the delineation work around TMW-127, the next task was to install and develop monitoring wells. Secondary tasks included collecting soil samples near the former boring S-8, and collecting a saturated soil sample near TMW-127 for a treatability study.

Cardno MM&A personnel coordinated with KDHE, the contract laboratory, the DPT subcontractors, and the driller to complete the field activities.

3.1 DPT Investigation

Before initiating the DPT subsurface work at the Site, utilities were cleared by Cardno MM&A personnel on January 18, 2013. Utility clearance information is included in **Appendix A**. The DPT investigation was conducted between January 23 and February 13, 2013 with periodic interruptions due to winter weather.

3.1.1 TMW-127 Investigation

After notifying KDHE of the planned start date for field activities (**Appendix B**), Cardno MM&A and the DPT subcontractor (Detech, Inc. of Lawrence, Kansas) began work on January 23, 2013. Twenty-three borings were advanced at nine of the 10 locations proposed in Figure 3 of the CRA Work Plan. The borings proposed at Location 1 were not completed due to refusal on concrete at the initial location and several offsets. To prevent confusion with previous borings completed at the Site, all DPT boring locations were designated "GP13-" followed by the location number depicted in Figure 3 of the CRA Work Plan. See **Figure 2** of this Data Summary Report for the final locations.

To vertically delineate the extent of contaminants in groundwater, multiple groundwater samples were collected at many of the DPT boring locations. Samples were collected at depths of 85 feet below ground surface (bgs), 55 feet bgs and five feet below the depth of the water table as specified in the CRA Work Plan. Each sample was collected in a separate boring. Although KDHE expected to depth to water at approximately 15 to 18 feet bgs, the actual depth was approximately 27 feet bgs. The shallow samples were therefore collected at depths of 32 to 35 feet bgs.

Groundwater samples were submitted to Pace Analytical Laboratories, Inc. (Pace) of Lenexa, Kansas for analysis of the site-specific Target Compound List (TCL) of Volatile Organic Compounds (VOCs) using method 8260. A turnaround time of 24 hours was requested for each set of groundwater samples. The TCL-VOC list is presented in **Table 1**. Results of the groundwater sampling are summarized in **Table 2.**

At each DPT location, soils were continuously sampled for logging to a depth of 16 feet bgs. Logging consisted of soil descriptions, including soil type, color, odor, and other field observations. Soils were also field screened using a photoionization detector (PID). Soils exhibiting the highest PID reading were collected using method 5035 sampling procedures and Terracore® kits. The samples were submitted to Pace for analysis of TCL VOCs by method 5035/8260 using a standard turnaround time. A summary of the laboratory analytical results for soils is presented in **Table 3**. Boring logs are presented in **Appendix C**.

Based on the analytical results of the initial groundwater samples, additional DPT locations were requested by KDHE. Another 23 borings at nine additional DPT locations (GP13-11 through GP13-19) were completed. Locations are included in **Figure 2,** and groundwater results are summarized in **Table 2**. Laboratory reports and chains-of-custody are included in **Appendix D**.

Due to unavailability of the initial DPT subcontractor the week of February 12, 2013, and second subcontractor (Below Ground Surface of Lawrence, Kansas – "BGS") completed the borings at locations S-8 and GP13-15 through GP13-19.

3.1.2 Treatability Sample by DPT

The CRA Work Plan also specified the collection of a soil sample from the 20-foot to 40-foot depth interval next to TMW-127 so as to fill a 5-gallon watertight container. The sample was to be collected using DPT equipment; however, due to probe refusal and heaving sands present at 20 feet bgs, the DPT contractor was unable to complete this task. After discussing the matter with KDHE, Cardno MM&A personnel coordinated with the drilling contractor to collect this sample instead. Details are presented in section 3.2.

3.1.3 S-8 Soil Sampling

To verify the analytical results of the previous boring S-8, one boring was advanced at that location. Soil samples were collected at depths of 10 feet and 15 feet bgs as specified in the CRA Work Plan. Additional samples were collected at depths of 6 feet and 13.5 feet bgs based on high PID readings. Samples were collected using the same procedures described above and submitted to Pace for analysis of TCL VOCs by method 5035/8260 using a standard turnaround time. Results are included in **Table 3**. Laboratory reports and chains-of-custody are included in **Appendix D**.

3.1.4 Boring Abandonment & GPS Location

All DPT borings were abandoned as specified in the CRA Work Plan.

Global positioning system (GPS) data was obtained for each DPT location using a Garmin eTrex Vista H device. The data is summarized in **Table 4**.

3.1.5 Quality Assurance/Quality Control (QA/QC)

For QA/QC purposes, four blind duplicate groundwater samples were submitted to Pace for analysis of TCL-VOCs. One matrix spike (GW-012813-YH-022) and matrix spike duplicate (GW-102813-YH-023) were mistakenly submitted as blind samples. After discussion with Pace, enough remaining volume was available for the laboratory to use for the completion of matrix spike and matrix spike duplicate analysis. Thus, the analytical results were reported as duplicate samples. A second matrix spike and matrix spike duplicate set was submitted later in the investigation. In addition, one laboratory-supplied trip blank accompanied the bottle shipment from and to the laboratory and was submitted with the cooler containing samples for TCL-VOC analysis. Results of the groundwater QA/QC samples are included in **Table 2**.

Two blind duplicate soil samples and one matrix spike and matrix spike duplicate set of soil samples were submitted to Pace for analysis of TCL-VOCs. Results are summarized in **Table 3**.

3.2 Monitoring Well Installation and Development

On February 18, 2013, Cardno MM&A and the drilling subcontractor (GeoCore, Inc. of Salina, Kansas) began drilling and well installation activities. On February 20, 2013, the drilling contractor demobilized due to pending hazardous weather conditions. Persistent snow and rain prevented drill rig accessibility for approximately three months. On May 13, 2013, the drilling contractor remobilized to the Site and all wells were completed on May 17, 2013. Well development activities were completed in May and early June 2013 between heavy rain events.

3.2.1 Treatability Sample by Continuous Tube Sampler

Well installation began at TMW-156C, which is near TMW-127. The drilling contractor (GeoCore, Inc. from Salina, Kansas) advanced 4 ½ -inch inside diameter hollow stem augers (HSA) to a depth of 30 feet bgs in saturated sand at TMW-156. The driller then used a 3-inch continuous tube sampler to collect saturated soil to a depth of 40 feet bgs. The soil was placed in a clean 5-gallon container and shipped by overnight carrier to the CRA's selected laboratory.

3.2.2 Well Installation

Cardno MM&A oversaw installation of shallow ("A" designation), intermediate ("B" designation) and deep ("C" designation) temporary monitoring wells at the Site. In February 2013, monitoring well drilling and installation began at TMW-156C. The remaining monitoring wells requested by KDHE (TMW-144B, TMW-144C, TMW-146B, TMW-146C, TMW-158A and TMW-158B) were installed in May 2013. All wells were constructed in compliance with K.A.R. 28-30 and the CRA Work Plan. Well construction diagrams are presented in **Appendix E**.

3.2.3 Well Development

All seven monitoring wells were developed by surging for at least 10 minutes with a bailer or surge block, and by removing a minimum of five well volumes of groundwater in addition to the amount of water added to the boring during drilling. Temperature, pH, and conductivity were stabilized, as indicated by consistent measurements over three consecutive time intervals. Turbidity was also monitored and recorded throughout development activities. Copies of well development forms are included in **Appendix F**. Well development was completed June 3, 2013. Photos of the well locations are in **Appendix G**.

3.3 Decontamination Procedures

All non-disposable sampling and development equipment not dedicated to a given location was thoroughly decontaminated between successive uses to prevent cross contamination. All sampling and well development equipment was decontaminated by hand-washing the equipment with an Alconox® detergent and water solution followed by a clean water rinse. The equipment was then rinsed a second time with distilled water.

3.4 Investigation-Derived Waste

All soil cuttings were in a lined roll-off container staged onsite. Groundwater and decontamination fluids were contained in a 500-gallon polyethylene tank and two 55-gallon drums staged onsite. The investigation-derived waste is currently being managed by KDHE and/or its project partners.

3.5 Summary of Deviations from Work Plan

Several deviations to the CRA Work Plan occurred, as listed below:

- DPT boring GP-01 could not be completed due to refusal at approximately 4 feet bgs, even after attempting offset borings at up to 20 feet away.
- Several DPT borings also encountered refusal at approximately 4 feet, but in each instance, the contractor was able to advance an offset boring within 5 to 10 feet at each location.
- Because of the dry regional conditions prior to January 2013, the water table was significantly below the 15 to 18 feet bgs predicted in the CRA Work Plan. As a result, DPT borings were advanced to depths of 32 to 35 feet bgs to collect “shallow” groundwater samples. In addition, the shallow well (TMW-158A) was installed to a depth of 30 feet with a 20-foot screen to accommodate the widely-varying water table.
- Due to the presence of dense, heaving sand, the DPT subcontractor was unable to collect the treatability sample. The sample was collected instead by the drilling subcontractor. Again, because of the low water table, the treatability sample was collected from the 30- to 40-foot depth rather than the 20- to 40-foot depth as outlined in the CRA Work Plan.

Other field documentation not mentioned in the above paragraphs (field notes, equipment calibration record, sample key) is included in **Appendix H**.

4 Summary of Results

This section presents a brief summary of groundwater and soil results in comparison to their respective Tier 2 Risk-Based Standards for Kansas (RSK) for residential land use, where available,

4.1 Groundwater Sampling Results

Groundwater sampling results are presented in **Table 2** in comparison to the respective Tier 2 RSK, where available, for the groundwater ingestion pathway for a residential scenario. The results are presented in chronological order of sampling. Vinyl chloride and cis-1,2-dichloroethene (DCE) were detected above their

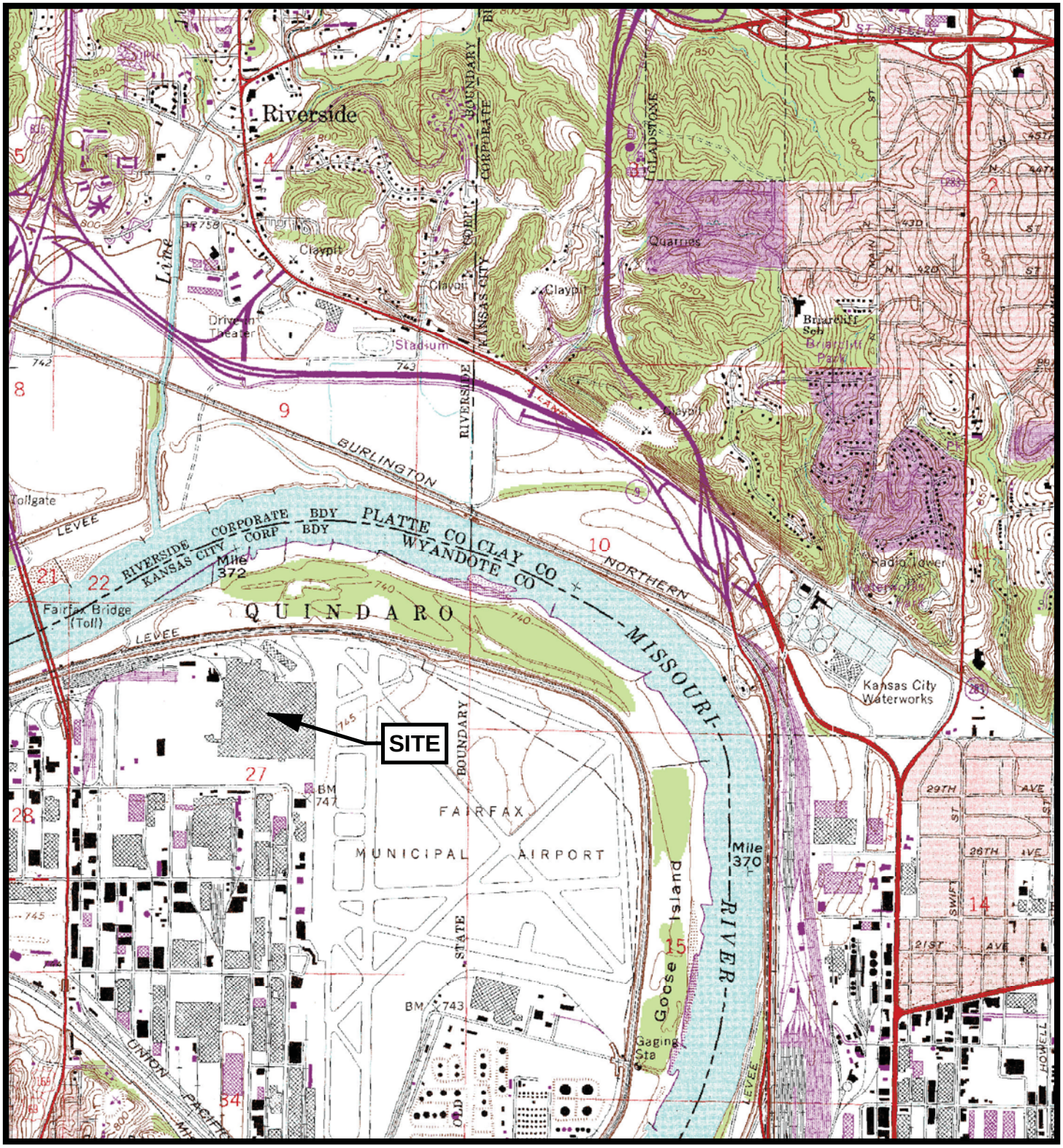
Tier 2 RSK of 2 and 70 micrograms per liter (ug/L), respectively, primarily in shallow and intermediate groundwater samples. However, results for vinyl chloride also exceeded the Tier 2 RSK in a few deep groundwater samples (locations GP13-7, GP13-8, GP13-9, GP13-14, and GP13-16). The range of detections for vinyl chloride and cis-1,2-DCE that exceeded the Tier 2 RSKs are summarized below for shallow, intermediate, and deep samples (see **Table 2** for details).

- Shallow groundwater samples – Vinyl chloride exceedances ranged from 2.4 to 49 ug/L; cis-1,2-DCE exceedances ranged from 247 to 1330 ug/L.
- Intermediate groundwater samples – Vinyl chloride exceedances ranged from 4.1 to 195 ug/L; cis-1,2-DCE exceedances ranged from 78.9 to 831 ug/L.
- Deep groundwater samples – Vinyl chloride exceedances ranged from 2.3 to 6.4 ug/L; none of the detections of cis-1,2-DCE were above the Tier 2 RSK of 70 ug/L.

4.2 Soil Sampling Results

Soil analytical results are summarized in **Table 3** in comparison to the Tier 2 RSK for residential land use. PCE was the only TCL-VOC detected in soil samples above its Tier 2 RSK of 121 micrograms per kilogram (ug/kg). Shallow soil samples (13.5 and 15 feet bgs) from the soil boring S-8 location were the only soil samples with PCE present above the Tier 2 RSK, with detections of 312 and 126 ug/kg, respectively.

Figures



USGS 7.5' NORTH KANSAS CITY, MO-KS QUADRANGLE - 1964

FIGURE 1

Cardno MM&A

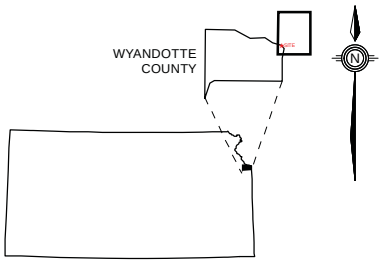
KANSAS DEPT. OF HEALTH AND ENVIRONMENT

FORMER GM FAIRFAX PLANT I SITE

KANSAS CITY, KANSAS

2,000 ' 0 2,000 '

1:24,000



KANSAS QUADRANGLE LOCATION

SOURCE:
- United States Geological Survey 7.5' Quadrangle - North Kansas City, MO-KS 1964 Photorevised 1970 and 1975

PROJECT NO.: KDHE102
DATE: 5/28/2013
OFFICE LOCATION: Kansas City

SITE LOCATION MAP



MAP SOURCES: Aerial imagery provided under license of ESRI ArcGIS World Imagery map service, flight date February 19, 2012. Soil borings and temporary monitoring wells obtained from field GPS measurements. Approximate site boundary digitized from Figure 1.2 titled "Site Plan and AOC Locations" prepared by CRA and dated June 22, 2012.

NOTE: Features shown are not an authoritative location nor are they presented to a stated accuracy.

Cardno MM&A
Shaping the Future

DESIGNED:	EMC
DRAWN:	EMC
CHECKED:	YH
DATE:	6/17/2013
SCALE:	1 " = 350 '
FILE NO.:	KDHE102 Fig 2 - Boring_Well Location Map.mxd
PROJECT NO.:	KDHE102
OFFICE LOC.:	KANSAS CITY

NO.	DATE	REVISION

350' 0 350'

1 " = 350 '

KANSAS DEPT. OF
HEALTH AND ENVIRONMENT
FORMER GM FAIRFAX PLANT I SITE
KANSAS CITY, KANSAS

BORING/WELL LOCATION MAP

FIGURE #
2

T:\GIS Data\Projects\KDHE102 - Former GM Fairfax Plant I\MXD\KDHE102 Fig 2 - Boring_Well Location Map.mxd

Tables

Table 1

Target Compound List - Volatile Organic Compounds

Former GM Fairfax Plant I Site

Kansas City, Kansas

- Acetone
- Benzene
- Cis-1,2-Dichloroethene
- Cymene (p-Isopropyltoluene)
- 1,1-Dichloroethane
- 1.1-Dichloroethene
- 1,2-Dichloroethene (total)
- Methyl tert butyl ether
- Methylene Chloride
- Tetrachloroethene
- Toluene
- Trans-1,2-Dichloroethene
- Trichloroethene
- Vinyl chloride
- Xylenes (total)

Table 2.
Groundwater Analytical Results
Former GM Fairfax Plant I Site
Kansas City, Kansas

Sample ID	Lab ID	Location	Depth	Date	Acetone	Benzene	1,1-Dichloroethane	1,2-Dichloroethene (Total)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Cymene	Methylene chloride	Methyl-tert-butyl ether	Tetrachloroethene	Toluene	Trichloroethene	Vinyl chloride	Xylene (Total)
Tier 2 RBST, Residential Scenario[1]					11,500	5	25	-[2]	7	70	100	NS	5	133	5	1,000	5	2	10,000
GW-012513-YH-001	60137589001	GP13-2	85	01/25/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-012513-YH-002	60137589002	GP13-2	55	01/25/2013	<10.0	<1.0	<1.0	<1.0	<1.0	**0.25 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-012513-YH-003	60137589003	GP13-2	35	01/25/2013	<10.0	<1.0	<1.0	**2.5**	<1.0	**2.1**	**0.38 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.4**	<3.0
GW-012513-YH-004	60137589004	GP13-3	85	01/25/2013	<10.0	<1.0	<1.0	**0.42 J**	<1.0	**0.42 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.18 J**	<3.0
GW-012513-YH-005	60137589005	GP13-3	55	01/25/2013	<10.0	**0.10 J**	<1.0	**4.8**	<1.0	**4.8**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.18 J**	<1.0	**4.1**	<3.0
GW-012513-YH-006	60137589006	GP13-3	35	01/25/2013	<10.0	**0.25 J**	**0.84 J**	**1,030**	**0.37 J**	**1,000**	**34.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**40.3**	<3.0
GW-012513-YH-007[3]	60137589007	Trip Blank		01/25/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-012813-YH-011	60137646001	GP13-4	85	01/28/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-012813-YH-013	60137646002	GP13-4	55	01/28/2013	<10.0	<1.0	<1.0	**418**	<1.0	**376**	**18.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**89.0**	<3.0
GW-012813-YH-014[4]	60137646003	GP13-4	55	01/28/2013	<10.0	<1.0	<1.0	**385**	<1.0	**394**	**17.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**81.0**	<3.0
GW-012813-YH-016	60137646004	GP13-5	85	01/28/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-012813-YH-017	60137646005	GP13-5	55	01/28/2013	<10.0	<1.0	<1.0	**94.9**	<1.0	**86.8**	**8.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**37.3**	<3.0
GW-012813-YH-018	60137646006	GP13-5	35	01/28/2013	<10.0	**1.4**	<1.0	**304**	<1.0	**277**	**16.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**18.0**	<3.0
GW-012813-YH-12[3]	60137646007	Trip Blank		01/28/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-013013-YH-020	60137787001	GP13-6	85	01/30/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-013013-YH-021	60137787002	GP13-6	55	01/30/2013	<10.0	<1.0	<1.0	**30.1**	<1.0	**27.2**	**3.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**23.3**	<3.0
GW-013013-YH-022[5]	60137787003	GP13-6	55	01/30/2013	<10.0	<1.0	<1.0	**28.9**	<1.0	**26.2**	**2.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**22.2**	<3.0
GW-013013-YH-023[6]	60137787004	GP13-6	55	01/30/2013	<10.0	<1.0	<1.0	**30.2**	<1.0	**27.1**	**3.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**23.8**	<3.0
GW-013013-YH-024[3]	60137787005	Trip Blank		01/30/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-020113-YH-026	60137964001	GP13-10	85	02/01/2013	<10.0	<1.0	<1.0	**5.1**	<1.0	**4.7**	**0.38 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.94 J**	<3.0
GW-020113-YH-027	60137964002	GP13-10	55	02/01/2013	<10.0	**0.35 J**	**0.31 J**	**157**	<1.0	**146**	**11.5**	<1.0	<1.0	**0.17 J**	<1.0	**0.17 J**	<1.0	**195**	<3.0
GW-020113-YH-028	60137964003	GP13-10	32	02/01/2013	<10.0	**0.22 J**	<1.0	**252**	**0.22 J**	**247**	**6.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.8**	<3.0
GW-020113-YH-029	60137964004	GP13-9	32	02/01/2013	<10.0	<1.0	<1.0	**5.6**	<1.0	**5.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-020113-YH-030	60137964005	GP13-9	55	02/01/2013	<10.0	**0.11 J**	<1.0	**22.1**	<1.0	**21.6**	**0.46 J**	<1.0	<1.0	**0.31 J**	<1.0	<1.0	<1.0	**6.8**	<3.0
GW-020113-YH-032[3]	60137964006	Trip Blank		02/01/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-020113-YH-033	60137964007	GP13-9	85	02/01/2013	<10.0	**0.14 J**	<1.0	**17.1**	<1.0	**16.5**	**0.53 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**6.5**	<3.0
GW-020413-YH-037	60138034001	GP13-8	85	02/04/2013	5.5 J	**0.11 J**	<1.0	**12.3**	<1.0	**11.6**	**0.62 J**	<1.0	<1.0	<1.0	<1.0	**0.16 J**	<1.0	**2.4**	<3.0
GW-020413-YH-040[3]	60138034002	Trip Blank		02/04/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-020413-YH-041	60138034003	GP13-7	55	02/04/2013	1.9 J	**0.37 J**	**0.65 J**	**453**	**0.23 J**	**429**	**25.4**	<1.0	<1.0	**0.17 J**	<1.0	<1.0	**0.16 J**	**92.3**	<3.0
GW-020413-YH-042	60138034004	GP13-7	85	02/04/2013	<10.0	<1.0	<1.0	**22.5**	<1.0	**21.1**	**1.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.2**	<3.0
GW020513-YH-043	60138101001	GP13-11	85	02/05/2013	<10.0	<1.0	<1.0	<1.0	<1.0	**0.16 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW020513-YH-044	60138101002	GP13-11	51	02/05/2013	<10.0	<1.0	<1.0	**0.32 J**	<1.0	**0.32 J**	<1.0	<1.0	<1.0	**0.44 J**	<1.0	<1.0	<1.0	**0.84 J**	<3.0
GW020513-YH-045	60138101003	GP13-11	32	02/05/2013	<10.0	<1.0	<1.0	**1.2**	<1.0	**1.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.13 J**	<1.0	<3.0

Table 2.
Groundwater Analytical Results
Former GM Fairfax Plant I Site
Kansas City, Kansas

Sample ID	Lab ID	Location	Depth	Date	Acetone	Benzene	1,1-Dichloroethane	1,2-Dichloroethene (Total)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Cymene	Methylene chloride	Methyl-tert-butyl ether	Tetrachloroethene	Toluene	Trichloroethene	Vinyl chloride	Xylene (Total)
Tier 2 RBST, Residential Scenario[1]					11,500	5	25	-[2]	7	70	100	NS	5	133	5	1,000	5	2	10,000
GW020513-YH-048	60138101004	GP13-12	55	02/05/2013	<10.0	**0.14 J**	<1.0	**7.5**	<1.0	**6.3**	**1.1**	<1.0	<1.0	<1.0	<1.0	**0.23 J**	<1.0	**21.4**	<3.0
GW020513-YH-049	60138101005	GP13-12	85	02/05/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW020513-YH-050[7]	60138101006	GP13-12	32	02/05/2013	<10.0	**0.26 J**	**0.90 J**	**1,370**	**0.36 J**	**1,330**	**45.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**49.0**	<3.0
GW020513-YH-051	60138101007	GP13-12	32	02/05/2013	<10.0	**0.24 J**	**0.88 J**	**1,270**	**0.36 J**	**1,230**	**41.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**46.2**	<3.0
GW020513-YH-053[3]	60138101008	Trip Blank		02/05/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.34 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-020613-YH-054	60138174001	GP13-13	85	02/06/2013	<10.0	<1.0	<1.0	**0.45 J**	<1.0	**0.45 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.24 J**	<3.0
GW-020613-YH-055	60138174002	GP13-13	55	02/06/2013	<10.0	**0.29 J**	<1.0	**80.6**	<1.0	**78.9**	**1.7**	<1.0	<1.0	**0.32 J**	<1.0	**0.16 J**	<1.0	**75.5**	<3.0
GW-020613-YH-056	60138174003	GP13-14	85	02/06/2013	<10.0	<1.0	<1.0	**8.8**	<1.0	**8.6**	**0.24 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**5.1**	<3.0
GW-020613-YH-057	60138174004	GP13-14	55	02/06/2013	<10.0	<1.0	<1.0	**0.98 J**	<1.0	**0.98 J**	<1.0	<1.0	<1.0	**0.51 J**	<1.0	<1.0	<1.0	**0.66 J**	<3.0
GW-020613-YH-058	60138174005	GP13-14	32	02/06/2013	<10.0	<1.0	<1.0	**3.7**	<1.0	**3.7**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-020613-YH-059[3]	60138174006	Trip Blank		02/06/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-021213-YH-066	60138591005	GP13-16	85	02/12/2013	<10.0	<1.0	<1.0	**44.2**	<1.0	**41.1**	**3.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.4**	<3.0
GW-021213-YH-067[8]	60138591004	GP13-16	85	02/12/2013	<10.0	<1.0	<1.0	**42.7**	<1.0	**40.0**	**2.7**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.3**	<3.0
GW-021213-YH-068	60138591002	GP13-16	55	02/12/2013	<10.0	**0.63 J**	**0.93 J**	**871**	**0.38 J**	**831**	**44.3**	<1.0	<1.0	<1.0	<1.0	**0.15 J**	**0.13 J**	**64.2**	<3.0
GW-021213-YH-069	60138591001	GP13-16	32	02/12/2013	<10.0	<1.0	<1.0	**52.4**	<1.0	**50.3**	**2.1**	<1.0	<1.0	<1.0	<1.0	<1.0	**5.2**	**1.2**	<3.0
GW-021213-YH-070	60138591003	GP13-13	32	02/12/2013	<10.0	**0.12 J**	<1.0	<1.0	<1.0	**0.25 J**	<1.0	<1.0	<1.0	**0.28 J**	**0.19 J**	<1.0	**0.85 J**	<1.0	<3.0
GW-021213-YH-071	60138591006	GP13-19	55	02/12/2013	<10.0	<1.0	<1.0	**1.2**	<1.0	**1.2**	<1.0	<1.0	<1.0	**1.0**	<1.0	<1.0	<1.0	**0.71 J**	<3.0
GW-021213-YH-074	60138591007	GP13-19	32	02/12/2013	<10.0	<1.0	<1.0	**0.97 J**	<1.0	**0.97 J**	<1.0	<1.0	<1.0	<1.0	**3.9**	<1.0	**0.74 J**	<1.0	<3.0
GW-021213-YH-076[3]	60138591008	Trip Blank		02/12/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.40 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-021313-YH-077	60138658001	GP13-18	55	02/13/2013	<10.0	<1.0	<1.0	**0.56 J**	<1.0	**0.56 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.5**	<3.0
GW-021313-YH-078	60138658002	GP13-18	32	02/13/2013	<10.0	<1.0	<1.0	**44.4**	<1.0	**42.1**	**2.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**8.0**	<3.0
GW-021313-YH-079	60138658003	GP13-17	55	02/13/2013	<10.0	**0.11 J**	<1.0	**0.44 J**	<1.0	**0.44 J**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.20 J**	<1.0	<1.0	<3.0
GW-021313-YH-080	60138658004	GP13-17	32	02/13/2013	<10.0	<1.0	<1.0	**21.8**	<1.0	**20.0**	**1.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.56 J**	<3.0
GW-021313-YH-081	60138658005	GP13-15	85	02/13/2013	<10.0	<1.0	<1.0	<1.0	<1.0	**0.27 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
GW-021313-YH-082	60138658006	GP13-15	55	02/13/2013	**9.4 J**	**0.24 J**	<1.0	**2.7**	<1.0	**2.7**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.38 J**	<1.0	<1.0	<3.0
GW-021313-YH-083[3]	60138658007	Trip Blank		02/13/2013	<10.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0

NOTES:
1. Cleanup levels for the Groundwater Pathway from the Tier 2 Risk-Based Summary Table, Residential Scenario
2. No Tier 2 cleanup levels are available for 1,2-Dichloroethene (Total).
3. Trip blank.
4. Duplicate of sample GW-012813-YH-013.
5. Duplicate/ matrix spike of GW-013013-YH-021.
6. Duplicate/ matrix spike duplicate of GW-013013-YH-021.
7. Duplicate of GW-020513-YH-050.
8. Duplicate of GW-021313-YH-066.

Concentrations in micrograms per Liter (ug/L)
J = Value is estimated above method detection limit but below practical quantitation limit.
<5.5 = Analytical result is less than practical quantitation limit.
3.2 = Value is above practical quantitation limit.
350 = Value is above Tier 2 RBST for the Groundwater Pathway, Residential Scenario.
Depth in feet.

Cardno MM&A

Table 3.
Soil Analytical Results
Former GM Fairfax Plant I Site
Kansas City, Kansas

Sample ID	Lab ID	Location	Depth	Date	Units	Percent Moisture	Acetone	Benzene	1,1-Dichloroethane	1,2-Dichloroethene (Total)	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Cymene	Methylene chloride	Methyl-tert-butyl ether	Tetrachloroethene	Toluene	Trichloroethene	Vinyl chloride	Xylene (Total)
Tier 2 RBST, Residential Scenario[1]					ug/kg	*NA*	51,600	168	269	-[2]	85.9	855	1,220	NS	42.9	848	121	51,200	84.2	20.5	809,000
S-012513-YH-008	60137590001	GP13-3	15	01/25/2013	ug/kg	*5.4*	<18.0	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5
S-012513-YH-009[3]	60137590002	Soil blank		01/25/2013	ug/L	-	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
S-012813-YH-010	60137657001	GP13-4	8.5	01/28/2013	ug/kg	*20.9*	<25.1	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3	**3.6 J**	<6.3	<6.3	<6.3	<6.3	<6.3	<6.3
S-012813-YH-015	60137657002	GP13-5	3	01/28/2013	ug/kg	*9.1*	<25.8	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	**9.9**	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4
S-012813-YH-019[3]	60137657003	Soil blank		01/28/2013	ug/L	-	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
S-020113-YH-025	60137965001	GP13-10	8.5	02/01/2013	ug/kg	*14.0*	<20.3	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1
S-020113-YH-031[3]	60137965002	Soil blank		02/01/2013	ug/L	-	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
S-020413-YH-034	60138033001	GP13-9	8	02/04/2013	ug/kg	*16.1*	<26.2	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5
S-020413-YH-035	60138033002	GP13-8	14	02/04/2013	ug/kg	*16.7*	<20.8	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	**2.9 J**	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2
S-020413-YH-036[4]	60138033003	GP13-8	14	02/04/2013	ug/kg	*16.9*	<22.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	**3.2 J**	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7
S-020413-YH-038	60138033004	GP13-7	1.5	02/04/2013	ug/kg	*13.4*	<22.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7
S-020413-YH-039[3]	60138033005	Soil blank		02/04/2013	ug/kg	-	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
S-020513-YH-046	60138102001	GP13-12	1.5	02/05/2013	ug/kg	*14.0*	<23.3	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	**10.8**	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8
S-020513-YH-052[3]	60138102003	Soil blank		02/05/2013	ug/L	-	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
S-021213-YH-060	60138592001	S-8	6	02/12/2013	ug/kg	*10.9*	<21.5	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	**105**	<5.4	<5.4	<5.4	<5.4
S-021213-YH-061[5]	60138592002	S-8	6	02/12/2013	ug/L	*12.8*	<20.5	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	**111**	<5.1	<5.1	<5.1	<5.1
S-021213-YH-062	60138592003	S-8	13.5	02/12/2013	ug/kg	*25.7*	<24.2	<6.0	<6.0	**3.5 J**	<6.0	**3.5 J**	<6.0	<6.0	<6.0	<6.0	**312**	<6.0	**42.2**	<6.0	<6.0
S-021213-YH-063	60138592004	S-8	15	02/12/2013	ug/kg	*16.5*	<22.5	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	**126**	<5.6	**7.6**	<5.6	<5.6
S-021213-YH-064	60138592005	S-8	10	02/12/2013	ug/kg	*16.4*	<22.1	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	**65.5**	<5.5	<5.5	<5.5	<5.5
S-021213-YH-075[3]	60138592006	Soil blank		02/12/2013	ug/L	-	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:
1. Cleanup levels for the Soil-to-Groundwater pathway from the Tier 2 Risk-Based Summary Table, Residential Scenario
2. No Tier 2 cleanup levels are available for 1,2-Dichloroethene (Total).
3. Soil blank.
4. Duplicate of S-020413-YH-035.
5. Duplicate of S-021213-YH-060.

ug/kg = micrograms per kilogram
NA = Not Applicable.
J = Value is estimated above method detection limit but below practical quantitation limit.
<5.5 = Analytical result is less than practical quantitation limit.
3.2 = Value is above practical quantitation limit.
350 = Value is above Tier 2 RBST for the Soil-to-Groundwater Pathway, Residential Scenario.

Table 4.
Global Positioning System Locations
Former GM Fairfax Plant I Site
Kansas City, Kansas

Boring/ Well Location	Latitude (degrees)	Longitude (degrees)
GP13- 1	N 39.15417	W 94.61180
GP13- 2	N 39.15374	W 94.61177
GP13- 3	N 39.15416	W 94.61122
GP13- 4	N 39.15381	W 94.61115
GP13- 5	N 39.15348	W 94.61113
GP13- 6	N 39.15306	W 94.61115
GP13- 7	N 39.15292	W 94.61040
GP13- 8	N 39.15341	W 94.61072
GP13- 9	N 39.15325	W 94.61018
GP13- 10	N 39.1538	W 94.61070
GP13- 11	N 39.15461	W 94.61119
GP13- 12	N 39.15423	W 94.61147
GP13- 13	N 39.15417	W 94.61066
GP13- 14	N 39.15372	W 94.61016
GP13- 15	N 39.15258	W 94.61120
GP13- 16	N 39.15247	W 94.61028
GP13- 17	N 39.15403	W 94.61211
GP13- 18	N 39.15466	W 94.61183
GP13- 19	N 39.15452	W 94.61029
TMW- 144A	N 39.15244	W 94.61017
TMW- 144B	N 39.15243	W 94.61015
TMW- 144C	N 39.15244	W 64.61014
TMW- 146A	N 39.15242	W 94.60926
TMW- 146B	N 39.15237	W 94.60932
TMW- 146C	N 39.15239	W 94.60934
TMW- 156C	N 39.15339	W 94.61069
TMW- 158A	N 39.15437	W 94.61159
TMW- 158B	N 39.15437	W 94.61158

Attachment B

Table 1

Groundwater Elevation Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Top of Casing Elevation (ft AMSL)[1]	January 2006		June 2006		September 2007		December 2007		March 2008		June 2008	
				Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]
MW-1	N/A	SHALLOW	746.43	NM	- -	27.39	719.04	24.13	722.30	25.98	720.45	27.01	719.42	18.80	727.63
MW-102A	MW-103A	SHALLOW	748.82	DRY	- -	28.91	719.91	26.45	722.37	29.86	718.96	27.61	721.21	18.11	730.71
MW-102B	MW-103A	INTERMEDIATE	749.15	NM	- -	29.21	719.94	26.60	722.55	30.24	718.91	28.02	721.13	18.43	730.72
MW-102C	MW-103A	DEEP	749.20	32.18	717.02	29.21	719.99	26.80	722.40	30.24	718.96	28.02	721.18	18.43	730.77
MW-103A	MW-103A	Decommissioned During IM	747.71	31.82	715.89	27.97	719.74	25.21	722.50	28.65	719.06	26.78	720.93	17.24	730.47
MW-103B	MW-103A	Decommissioned During IM	746.30	29.22	717.08	26.50	719.80	23.78	722.52	27.15	719.15	25.33	720.97	15.81	730.49
MW-103C	MW-103A	Decommissioned During IM	745.90	28.89	717.01	26.09	719.81	23.38	722.52	26.75	719.15	24.95	720.95	15.41	730.49
MW-104	MW-103A	SHALLOW	746.51	29.52	716.99	26.74	719.77	24.03	722.48	27.45	719.06	25.56	720.95	15.98	730.53
MW-105	MW-103A	SHALLOW	746.70	29.74	716.96	26.96	719.74	24.41	722.29	27.66	719.04	25.80	720.90	16.18	730.52
MW-108	TMW-127	SHALLOW	747.17	30.22	716.95	27.65	719.52	24.91	722.26	27.74	719.43	26.63	720.54	17.11	730.06
MW-109	S-8	SHALLOW	746.11	28.97	717.14	26.44	719.67	23.85	722.26	25.88	720.23	26.36	719.75	17.73	728.38
MW-110	TMW-127	INTERMEDIATE	745.79	28.68	717.11	27.52	718.27	23.43	722.36	25.83	719.96	25.62	720.17	16.64	729.15
MW-110A	OFF-SITE	SHALLOW	743.89	NM	- -	25.61	718.28	22.25	721.64	23.36	720.53	25.07	718.82	17.86	726.03
MW-111	N/A	INTERMEDIATE	745.96	NM	- -	NM	- -	23.86	722.10	25.65	720.31	26.31	719.65	17.98	727.98
MW-115A	MW-103A	SHALLOW	748.07	DRY	- -	28.20	719.87	25.56	722.51	28.82	719.25	27.01	721.06	17.39	730.68
MW-117A	N/A	SHALLOW	743.72	26.89	716.83	24.90	718.82	21.66	722.06	23.68	720.04	24.56	719.16	16.18	727.54
MW-117B	N/A	INTERMEDIATE	743.75	26.90	716.85	24.92	718.83	21.73	722.02	23.73	720.02	24.47	719.28	16.16	727.59
MW-118A	N/A	SHALLOW	747.02	30.34	716.68	29.11	717.91	25.86	721.16	26.81	720.21	28.28	718.74	20.21	726.81
MW-118B	N/A	INTERMEDIATE	746.86	30.18	716.68	28.94	717.92	25.70	721.16	26.65	720.21	28.11	718.75	20.61	726.25
MW-124A	N/A	SHALLOW	747.22	NM	- -	NM	- -	25.13	722.09	28.56	718.66	26.42	720.80	16.81	730.41
MW-124B	N/A	INTERMEDIATE	747.15	NM	- -	NM	- -	25.06	722.09	28.48	718.67	26.48	720.67	16.75	730.40
MW-125	SB-110	SHALLOW	745.34	NI	- -	NI	- -	22.54	722.80[3]	26.34	719.00	24.81	720.53	15.39	729.95
MW-144B	TMW-127	INTERMEDIATE	745.70	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-144C	TMW-127	DEEP	745.83	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-146B	TMW-127	INTERMEDIATE	745.44	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-146C	TMW-127	DEEP	745.73	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-156	TMW-127	INTERMEDIATE	746.88	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-156C	TMW-127	DEEP	746.46	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-158A	TMW-127	SHALLOW	746.06	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-158B	TMW-127	INTERMEDIATE	745.88	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-1A	OFF-SITE	SHALLOW	745.93	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-1B	OFF-SITE	INTERMEDIATE	745.40	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
MW-1C	OFF-SITE	DEEP	746.13	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-123	N/A	SHALLOW	745.16	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-127	TMW-127	SHALLOW	746.02	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-139	TMW-130	Decommissioned During IM	745.63	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-143	TMW-130	SHALLOW	745.28	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-144	TMW-130	SHALLOW	745.08	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-145	TMW-130	SHALLOW	745.36	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-146	TMW-130	SHALLOW	744.93	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-147E	S-8	SHALLOW	744.11	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-148	S-8	SHALLOW	745.85	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-149	S-8	SHALLOW	745.96	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-150	SB-110	SHALLOW	746.26	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-151	SB-110	SHALLOW	744.79	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-152	SB-110	SHALLOW	744.02	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-153	TMW-127	SHALLOW	745.82	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-154	TMW-127	SHALLOW	745.41	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-155	TMW-127	SHALLOW	746.27	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -
TMW-157	MW-103A	SHALLOW	747.37	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -	NI	- -

Table 1

Groundwater Elevation Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Top of Casing Elevation (ft AMSL)[1]	December 2011		May 2012		July 11, 2013		October 8, 2013		January 7, 2014		April 7, 2014	
				Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]
MW-1	N/A	SHALLOW	746.43	19.43	727.00	22.46	723.97	NM	- -	25.36	721.07	27.56	718.87	28.21	718.22
MW-102A	MW-103A	SHALLOW	748.82	23.05	725.77	24.63	724.19	NM	- -	27.63	721.19	31.8	717.02	29.55	719.27
MW-102B	MW-103A	INTERMEDIATE	749.15	NM	- -	24.92	724.23	NM	- -	27.91	721.24	32.07	717.08	29.88	719.27
MW-102C	MW-103A	DEEP	749.20	23.90	725.30	24.92	724.28	NM	- -	27.92	721.28	32.06	717.14	29.85	719.35
MW-103A	MW-103A	Decommissioned During IM	747.71	21.82	725.89	NM	- -	24.94	722.77	NM	- -	NM	- -	NM	- -
MW-103B	MW-103A	Decommissioned During IM	746.30	20.81	725.49	22.16	724.14	NM	- -	NM	- -	NM	- -	NM	- -
MW-103C	MW-103A	Decommissioned During IM	745.90	20.40	725.50	21.74	724.16	NM	- -	NM	- -	NM	- -	NM	- -
MW-104	MW-103A	SHALLOW	746.51	19.69	726.82	22.42	724.09	NM	- -	25.50	721.01	29.62	716.89	27.49	719.02
MW-105	MW-103A	SHALLOW	746.70	20.86	725.84	22.66	724.04	NM	- -	25.73	720.97	29.42	717.28	27.72	718.98
MW-108	TMW-127	SHALLOW	747.17	21.11	726.06	23.25	723.92	NM	- -	26.33	720.84	29.58	717.59	27.65	719.52
MW-109	S-8	SHALLOW	746.11	19.37	726.74	22.17	723.94	NM	- -	25.10	721.01	27.58	718.53	27.8	718.31
MW-110	TMW-127	INTERMEDIATE	745.79	19.30	726.49	21.77	724.02	NM	- -	24.80	720.99	27.60	718.19	27.23	718.56
MW-110A	OFF-SITE	SHALLOW	743.89	16.78	727.11	NM	- -	NM	- -	22.99	720.90	24.96	718.93	26.1	717.79
MW-111	N/A	INTERMEDIATE	745.96	19.34	726.62	22.04	723.92	NM	- -	24.95	721.01	27.35	718.61	27.73	718.23
MW-115A	MW-103A	SHALLOW	748.07	22.63	725.44	24.00	724.07	NM	- -	27.98	720.09	DRY	--	29.93	718.14
MW-117A	N/A	SHALLOW	743.72	17.04	726.68	20.08	723.64	NM	- -	23.01	720.71	25.4	718.32	NM	- -
MW-117B	N/A	INTERMEDIATE	743.75	17.42	726.33	20.09	723.66	NM	- -	23.03	720.72	25.45	718.30	NM	- -
MW-118A	N/A	SHALLOW	747.02	20.41	726.61	23.50	723.52	NM	- -	26.45	720.57	NM	--	NM	- -
MW-118B	N/A	INTERMEDIATE	746.86	20.60	726.26	23.43	723.43	NM	- -	26.32	720.54	NM	--	NM	- -
MW-124A	N/A	SHALLOW	747.22	21.85	725.37	23.50	723.72	NM	- -	26.57	720.65	30.40	716.82	28.53	718.6899
MW-124B	N/A	INTERMEDIATE	747.15	22.22	724.93	23.43	723.72	NM	- -	26.50	720.65	30.34	716.81	28.43	718.72
MW-125	SB-110	SHALLOW	745.34	19.58	725.76	21.51	723.83	NM	- -	24.56	720.78	28.15	717.19	26.62	718.72
MW-144B	TMW-127	INTERMEDIATE	745.70	NI	- -	NI	- -	NM	- -	25.00	720.70	27.67	718.03	28.81	716.89
MW-144C	TMW-127	DEEP	745.83	NI	- -	NI	- -	NM	- -	25.12	720.71	27.84	717.99	27.9	717.93
MW-146B	TMW-127	INTERMEDIATE	745.44	NI	- -	NI	- -	NM	- -	24.80	720.64	27.42	718.02	27.63	717.81
MW-146C	TMW-127	DEEP	745.73	NI	- -	NI	- -	NM	- -	25.08	720.65	27.74	717.99	27.88	717.85
MW-156	TMW-127	INTERMEDIATE	746.88	NI	- -	23.22	723.66	NM	- -	26.25	720.63	29.03	717.85	28.87	718.01
MW-156C	TMW-127	DEEP	746.46	NI	- -	NI	- -	NM	- -	25.73	720.73	29.03	717.43	28.34	718.12
MW-158A	TMW-127	SHALLOW	746.06	NI	- -	NI	- -	NM	- -	25.51	720.55	28.58	717.48	27.8	718.26
MW-158B	TMW-127	INTERMEDIATE	745.88	NI	- -	NI	- -	NM	- -	25.31	720.57	28.4	717.48	27.61	718.27
MW-1A	OFF-SITE	SHALLOW	745.93	NI	- -	NI	- -	NM	- -	25.24	720.69	28.2	717.73	27.91	718.02
MW-1B	OFF-SITE	INTERMEDIATE	745.40	NI	- -	NI	- -	NM	- -	24.69	720.71	28.74	716.66	27.37	718.03
MW-1C	OFF-SITE	DEEP	746.13	NI	- -	NI	- -	NM	- -	25.38	720.75	28.35	717.78	28.03	718.1
TMW-123	N/A	SHALLOW	745.16	19.45	725.71	23.11	722.05	NM	- -	24.41	720.75	27.62	717.54	26.55	718.61
TMW-127	TMW-127	SHALLOW	746.02	19.85	726.17	22.47	723.55	NM	- -	25.50	720.52	28.25	717.77	28.11	717.91
TMW-139	TMW-130	Decommissioned During IM	745.63	19.33	726.30	22.25	723.38	NM	- -	NM	- -	NM	- -	NM	- -
TMW-143	TMW-130	SHALLOW	745.28	18.86	726.42	21.91	723.37	NM	- -	24.84	720.44	27.01	718.27	27.75	717.53
TMW-144	TMW-130	SHALLOW	745.08	18.79	726.29	21.67	723.41	NM	- -	24.67	720.41	26.93	718.15	27.45	717.63
TMW-145	TMW-130	SHALLOW	745.36	19.18	726.18	21.95	723.41	NM	- -	24.97	720.39	27.38	717.98	27.69	717.67
TMW-146	TMW-130	SHALLOW	744.93	18.62	726.31	21.55	723.38	NM	- -	24.52	720.41	26.8	718.13	27.37	717.56
TMW-147E	S-8	SHALLOW	744.11	NI	- -	20.27	723.84	NM	- -	23.23	720.88	25.73	718.38	27.83	716.28
TMW-148	S-8	SHALLOW	745.85	NI	- -	22.02	723.83	NM	- -	24.93	720.92	27.25	718.60	27.73	718.12
TMW-149	S-8	SHALLOW	745.96	NI	- -	22.16	723.80	NM	- -	NM	- -	NM	- -	NM	- -
TMW-150	SB-110	SHALLOW	746.26	NI	- -	22.25	724.01	NM	- -	25.29	720.97	28.89	717.37	27.33	718.93
TMW-151	SB-110	SHALLOW	744.79	NI	- -	20.82	723.97	NM	- -	23.25	721.54	27.38	717.41	25.9	718.89
TMW-152	SB-110	SHALLOW	744.02	NI	- -	20.03	723.99	NM	- -	23.08	720.94	26.55	717.47	25.15	718.87
TMW-153	TMW-127	SHALLOW	745.82	NI	- -	22.17	723.65	NM	- -	25.18	720.64	27.6	718.22	27.79	718.03
TMW-154	TMW-127	SHALLOW	745.41	NI	- -	21.66	723.75	NM	- -	24.64	720.77	27.15	718.26	27.32	718.09
TMW-155	TMW-127	SHALLOW	746.27	NI	- -	22.50	723.77	NM	- -	25.53	720.74	28.34	717.93	27.98	718.29
TMW-157	MW-103A	SHALLOW	747.37	NI	- -	23.42	723.95	NM	- -	26.48	720.89	29.92	717.45	28.46	718.91

Table 1

Groundwater Elevation Data
Groundwater Monitoring Plan
Fairfax Site
Kansas City, Kansas

Monitoring Well	Area of Concern	Designation	Top of Casing Elevation (ft AMSL)[1]	July 15, 2014		October 6, 2014		January 13, 2015		April 6, 2015		July 7, 2015	
				Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]	Depth to Water (ft BTOC)[2]	Water Elevation (ft AMSL)[1]
MW-1	N/A	SHALLOW	746.43	21.1	725.33	20.22	726.21	24.14	722.29	25.45	720.98	17.14	729.29
MW-102A	MW-103A	SHALLOW	748.82	22.75	726.07	21.21	727.61	28.64	720.18	27.53	721.29	17.88	730.94
MW-102B	MW-103A	INTERMEDIATE	749.15	23.1	726.05	21.88	727.27	29.01	720.14	27.9	721.25	18.22	730.9301
MW-102C	MW-103A	DEEP	749.20	23.09	726.11	21.84	727.36	29.00	720.20	27.89	721.31	18.19	731.01
MW-103A	MW-103A	Decommissioned During IM	747.71	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
MW-103B	MW-103A	Decommissioned During IM	746.30	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
MW-103C	MW-103A	Decommissioned During IM	745.90	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
MW-104	MW-103A	SHALLOW	746.51	20.5	726.01	19.33	727.18	26.20	720.31	25.41	721.10	17.1	729.41
MW-105	MW-103A	SHALLOW	746.70	20.65	726.05	19.51	727.19	26.36	720.34	25.61	721.09	16.48	730.22
MW-108	TMW-127	SHALLOW	747.17	21.23	725.94	20.28	726.89	26.40	720.77	26.26	720.91	16.21	730.96
MW-109	S-8	SHALLOW	746.11	20.57	725.54	19.79	726.32	24.12	721.99	25.17	720.94	16.62	729.49
MW-110	TMW-127	INTERMEDIATE	745.79	20.1	725.69	19.00	726.79	24.28	721.51	24.87	720.92	16.61	729.18
MW-110A	OFF-SITE	SHALLOW	743.89	19.17	724.72	18.25	725.64	21.33	722.56	23.21	720.68	14.92	728.97
MW-111	N/A	INTERMEDIATE	745.96	20.51	725.45	19.74	726.22	24.96	721.00	25.05	720.91	16.52	729.44
MW-115A	MW-103A	SHALLOW	748.07	21.94	726.13	20.79	727.28	27.94	720.13	26.92	721.15	17.14	730.93
MW-117A	N/A	SHALLOW	743.72	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-117B	N/A	INTERMEDIATE	743.75	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-118A	N/A	SHALLOW	747.02	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-118B	N/A	INTERMEDIATE	746.86	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
MW-124A	N/A	SHALLOW	747.22	21.46	725.7599	20.34	726.88	27.38	719.84	26.5	720.72	16.75	730.47
MW-124B	N/A	INTERMEDIATE	747.15	21.4	725.75	20.29	726.86	27.31	719.84	26.42	720.73	16.69	730.46
MW-125	SB-110	SHALLOW	745.34	19.67	725.67	18.35	726.99	24.98	720.36	24.48	720.86	15.05	730.29
MW-144B	TMW-127	INTERMEDIATE	745.70	20.4	725.3	19.71	725.99	23.86	721.84	25.11	720.59	16.23	729.47
MW-144C	TMW-127	DEEP	745.83	20.5	725.33	19.84	725.99	24.02	721.81	25.2	720.63	16.32	729.51
MW-146B	TMW-127	INTERMEDIATE	745.44	20.15	725.29	19.49	725.95	23.58	721.86	24.93	720.51	15.98	729.46
MW-146C	TMW-127	DEEP	745.73	20.42	725.31	19.78	725.95	23.92	721.81	25.2	720.53	16.32	729.41
MW-156	TMW-127	INTERMEDIATE	746.88	20.89	725.99	20.71	726.17	25.50	721.38	26.33	720.55	17.22	729.66
MW-156C	TMW-127	DEEP	746.46	21.45	725.01	20.19	726.27	25.00	721.46	25.78	720.68	16.72	729.7401
MW-158A	TMW-127	SHALLOW	746.06	20.47	725.59	19.55	726.51	25.37	720.69	25.46	720.60	16.47	729.59
MW-158B	TMW-127	INTERMEDIATE	745.88	20.3	725.58	19.38	726.50	25.19	720.69	25.27	720.61	16.28	729.6
MW-1A	OFF-SITE	SHALLOW	745.93	20.28	725.65	19.71	726.22	24.53	721.40	25.32	720.61	16.46	729.47
MW-1B	OFF-SITE	INTERMEDIATE	745.40	19.74	725.66	19.18	726.22	24.03	721.37	24.81	720.59	15.96	729.44
MW-1C	OFF-SITE	DEEP	746.13	20.45	725.68	19.90	726.23	24.71	721.42	25.48	720.65	16.64	729.49
TMW-123	N/A	SHALLOW	745.16	19.62	725.54	18.32	726.84	24.40	720.76	24.3	720.86	15.08	730.08
TMW-127	TMW-127	SHALLOW	746.02	20.64	725.38	19.95	726.07	24.72	721.30	25.54	720.48	16.43	729.59
TMW-139	TMW-130	Decommissioned During IM	745.63	NM	- -	NM	- -	NM	- -	NM	- -	NM	- -
TMW-143	TMW-130	SHALLOW	745.28	20.37	724.91	19.75	725.53	23.55	721.73	24.96	720.32	16.42	728.86
TMW-144	TMW-130	SHALLOW	745.08	20.02	725.06	19.34	725.74	23.42	721.66	24.73	720.35	15.82	729.26
TMW-145	TMW-130	SHALLOW	745.36	20.18	725.18	19.54	725.82	24.05	721.31	25.03	720.33	15.93	729.43
TMW-146	TMW-130	SHALLOW	744.93	19.92	725.01	19.20	725.73	23.30	721.63	24.66	720.27	16.72	728.21
TMW-147E	S-8	SHALLOW	744.11	18.62	725.49	17.74	726.37	22.31	721.80	23.23	720.88	14.67	729.44
TMW-148	S-8	SHALLOW	745.85	20.61	725.24	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
TMW-149	S-8	SHALLOW	745.96	NM	- -	NM	- -	NM	- -	NM	Well Defects	NM	Well Defects
TMW-150	SB-110	SHALLOW	746.26	20.38	725.88	18.96	727.30	25.76	720.50	25.21	721.05	15.74	730.52
TMW-151	SB-110	SHALLOW	744.79	18.92	725.87	17.51	727.28	24.26	720.53	23.77	721.02	14.29	730.5
TMW-152	SB-110	SHALLOW	744.02	18.15	725.87	16.80	727.22	23.40	720.62	22.98	721.04	13.58	730.44
TMW-153	TMW-127	SHALLOW	745.82	20.3	725.52	19.58	726.24	24.04	721.78	25.13	720.69	16	729.82
TMW-154	TMW-127	SHALLOW	745.41	19.92	725.49	19.20	726.21	24.81	720.60	24.71	720.70	16.01	729.4
TMW-155	TMW-127	SHALLOW	746.27	20.55	725.72	19.78	726.49	25.00	721.27	25.51	720.76	16.65	729.62
TMW-157	MW-103A	SHALLOW	747.37	21.47	725.9	20.57	726.80	27.25	720.12	26.41	720.96	17.14	730.23

Notes:

Site Reference Datum = NVGD 29 (USGS) Datum - 0.88 feet (as per Anderson Survey Company September 11, 2013 email correspondence). Missouri River Level from Record of daily Gage Height Observations for USGS 06893000 Missouri River. USGS 06893000 Gage reading level 0 = 706.4 feet NGVD 29; River level correction to USGS 06893000 Missouri River at Kansas City for Fairfax Site taken as + 4.2 feet.
1 - ft AMSL - feet above mean sea level.
2 - ft BTOC - feet below top of casing

0 150 300ft

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- MW-102A — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-130 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- 720.63 — GROUNDWATER ELEVATION (ft. AMSL)
- 720.7 — GROUNDWATER CONTOUR (ft. AMSL)

MW-124A 720.65
MW-102A 721.19
MW-115A 720.09
TMW-157 720.89
MW-104 721.01
MW-105 720.97
MW-103A AREA
TMW-150 720.97
TMW-151 721.54
MW-125 720.78
TMW-152 720.94
SB-110 AREA
MW-108 720.84
MW-158A 720.55
TMW-123 720.75
TMW-155 720.74
TMW-127 AREA
TMW-127 720.52
MW-1A 720.69
TMW-154 720.77
TMW-153 720.64
TMW-145 720.39
FAIRFAX I FORMER ASSEMBLY PLANT
TMW-144 720.41
TMW-146 720.41
TMW-147E 720.88
S-8 AREA
MW-109 721.01
TMW-130 AREA
TMW-143 720.44
TMW-148 720.92
MW-117A 720.71
MW-1 721.07
MW-116A 720.57
MW-110A 720.9
KINDELBERGER ROAD
FIBERGLASS RD
CHRYSLER RD
FAIRFAX TRAFFICWAY
RAILROAD TRACKS

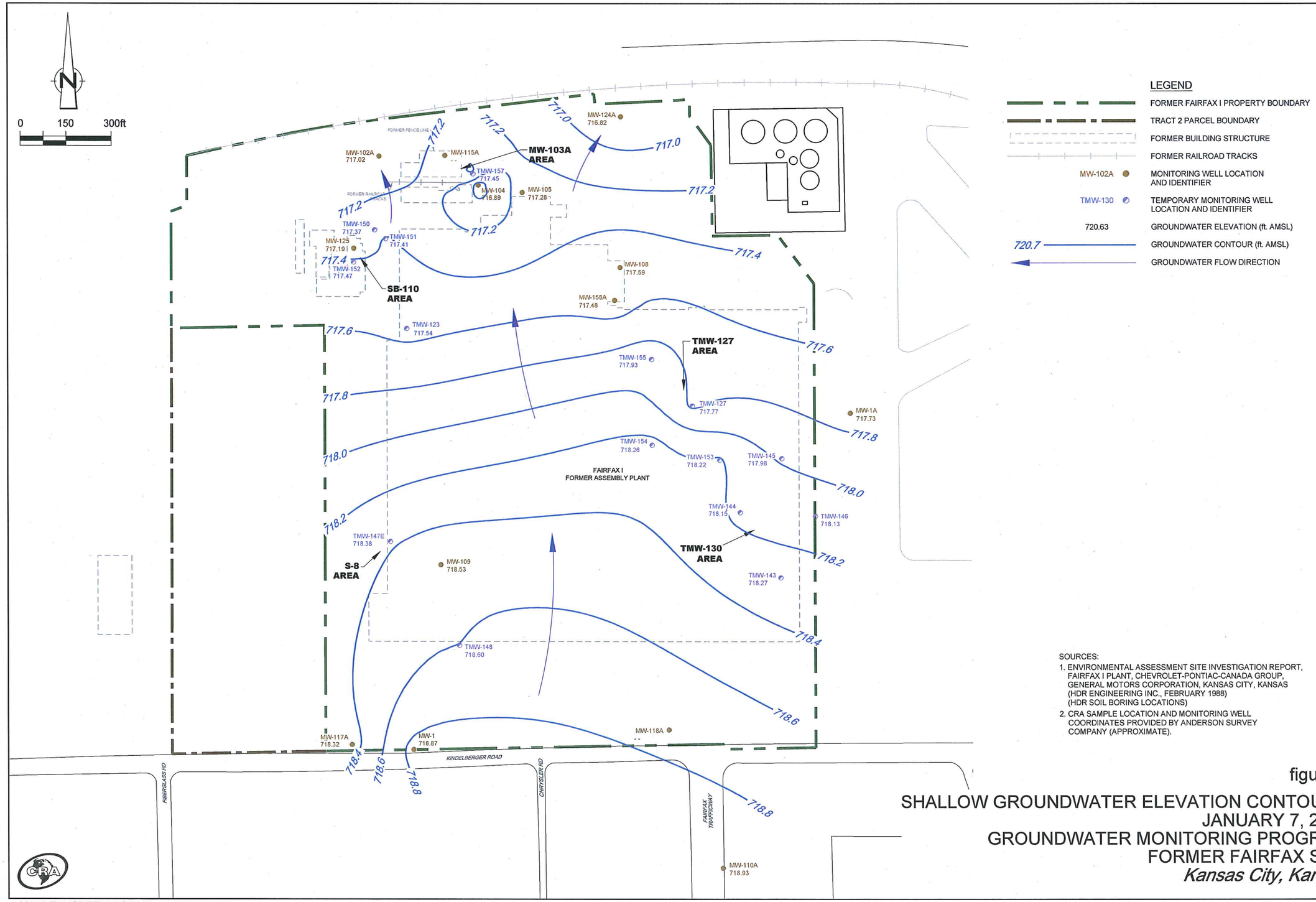
721.0 720.8 720.6 720.4 721.2 720.8 720.8 720.8 720.6 720.4 720.8 721.0 720.8 720.6 720.8

CRA

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS
OCTOBER 8, 2013
GROUNDWATER MONITORING PROGRAM
FORMER FAIRFAX SITE
Kansas City, Kansas

12559-T03(GREE001)GN-WA002 DEC 31/2013



SOURCES:

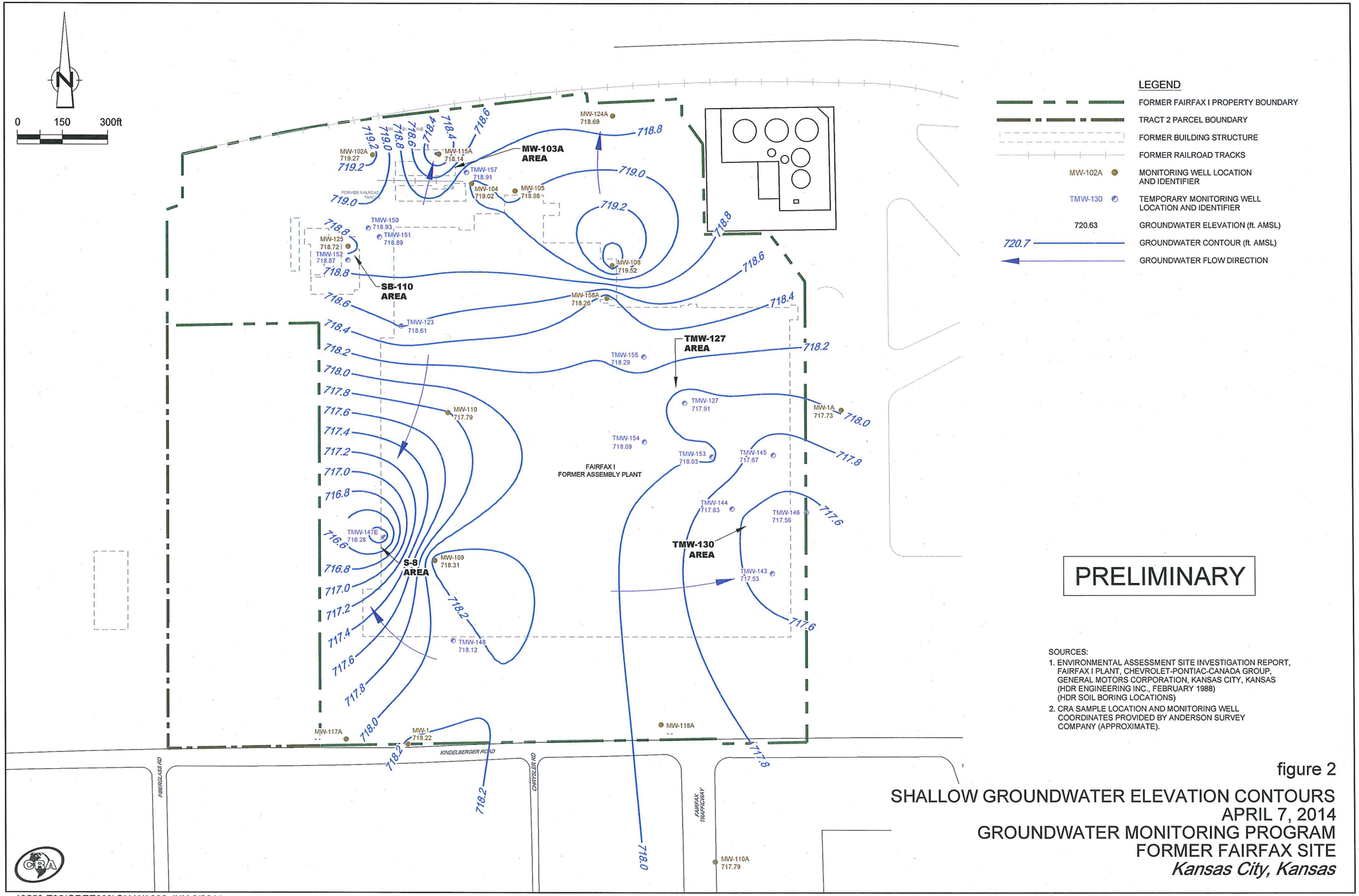
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2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JANUARY 7, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE002)GN-WA002 FEB 20/2014



PRELIMINARY

SOURCES:

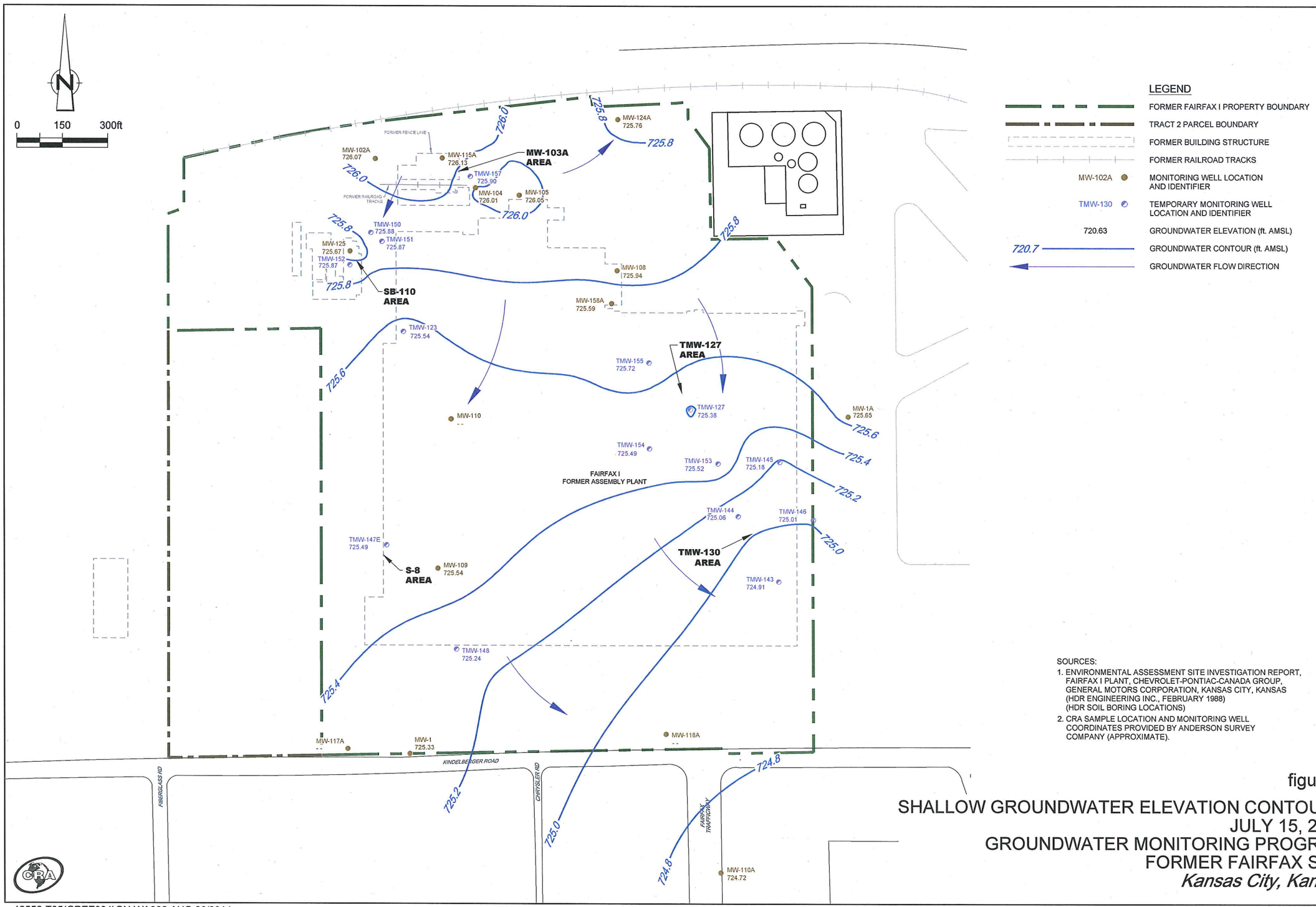
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2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS APRIL 7, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE003)GN-WA002 JUN 9/2014



SOURCES:

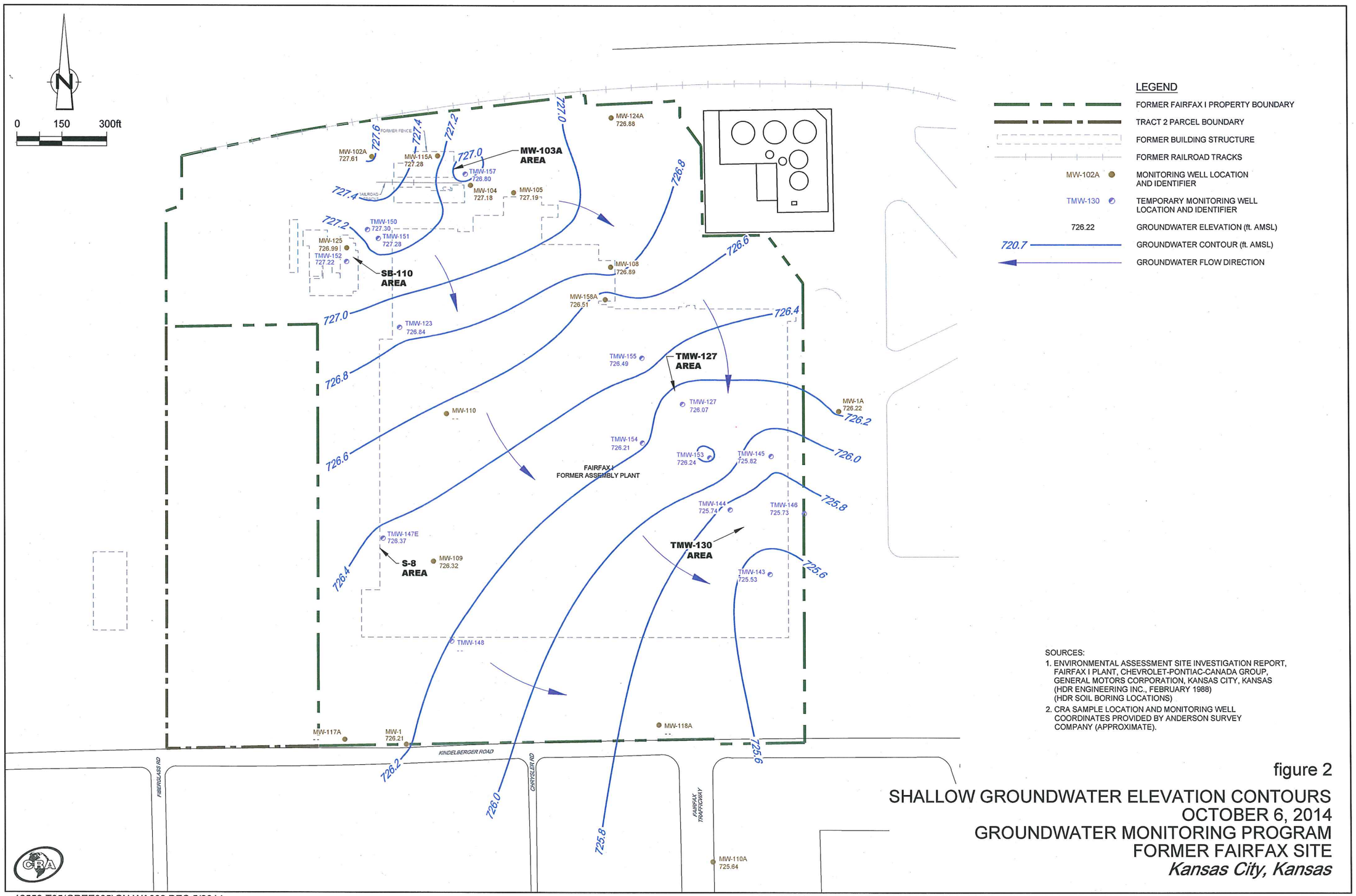
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2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JULY 15, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE004)GN-WA002 AUG 26/2014



SOURCES:

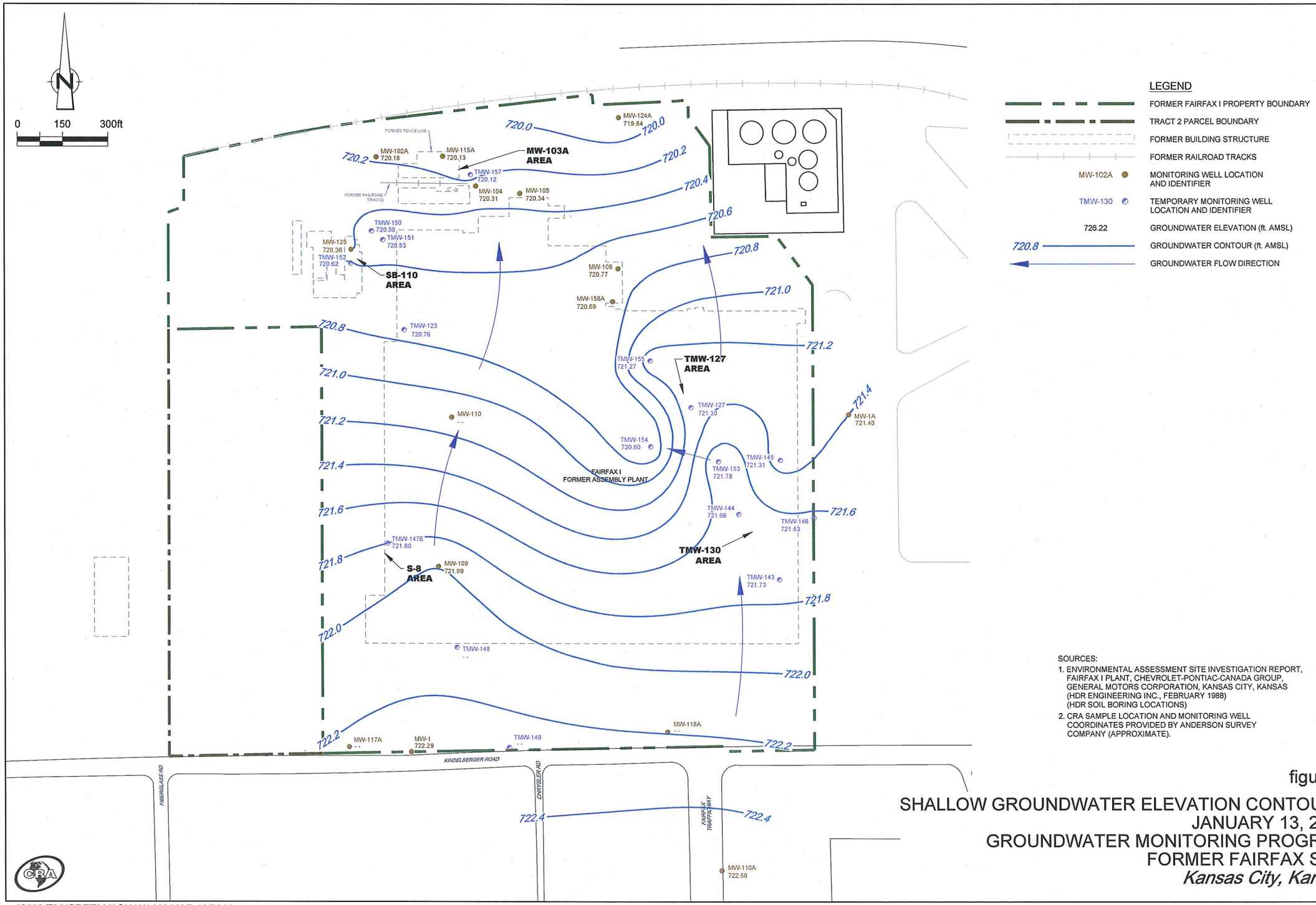
1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS OCTOBER 6, 2014 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE005)GN-WA002 DEC 5/2014



SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JANUARY 13, 2015 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE006)GN-WA002 MAR 12/2015

N

0 150 300ft

LEGEND

- FORMER FAIRFAX I PROPERTY BOUNDARY
- TRACT 2 PARCEL BOUNDARY
- FORMER BUILDING STRUCTURE
- FORMER RAILROAD TRACKS
- MW-102A — MONITORING WELL LOCATION AND IDENTIFIER
- TMW-130 — TEMPORARY MONITORING WELL LOCATION AND IDENTIFIER
- 726.22 — GROUNDWATER ELEVATION (ft. AMSL)
- 720.8 — GROUNDWATER CONTOUR (ft. AMSL)
- GROUNDWATER FLOW DIRECTION

MW-103A AREA
SB-110 AREA
TMW-127 AREA
TMW-130 AREA
S-8 AREA
FAIRFAX I FORMER ASSEMBLY PLANT

MW-124A 720.72
MW-102A 721.29
MW-115A 721.15
TMW-157 720.96
MW-104 721.1
MW-105 721.09
TMW-150 721.05
TMW-151 721.02
MW-125 720.86
TMW-152 721.04
MW-108 720.91
MW-158A 720.6
TMW-123 720.86
TMW-155 720.76
MW-110
TMW-127 720.48
MW-1A 720.61
TMW-154 720.7
TMW-153 720.69
TMW-145 720.33
TMW-144 720.35
TMW-146 720.27
TMW-147E 720.88
MW-109 720.94
TMW-143 720.32
TMW-148
MW-117A
MW-1 720.98
TMW-149
MW-118A
MW-110A 720.68

721.0 721.2 720.8 720.6 720.4

FORMER FENCE
FORMER RAILROAD TRACKS
KINDELBERGER ROAD
FIBERGLASS RD
CHRYSLER RD
FAIRFAX TRAFFICWAY

SOURCES:

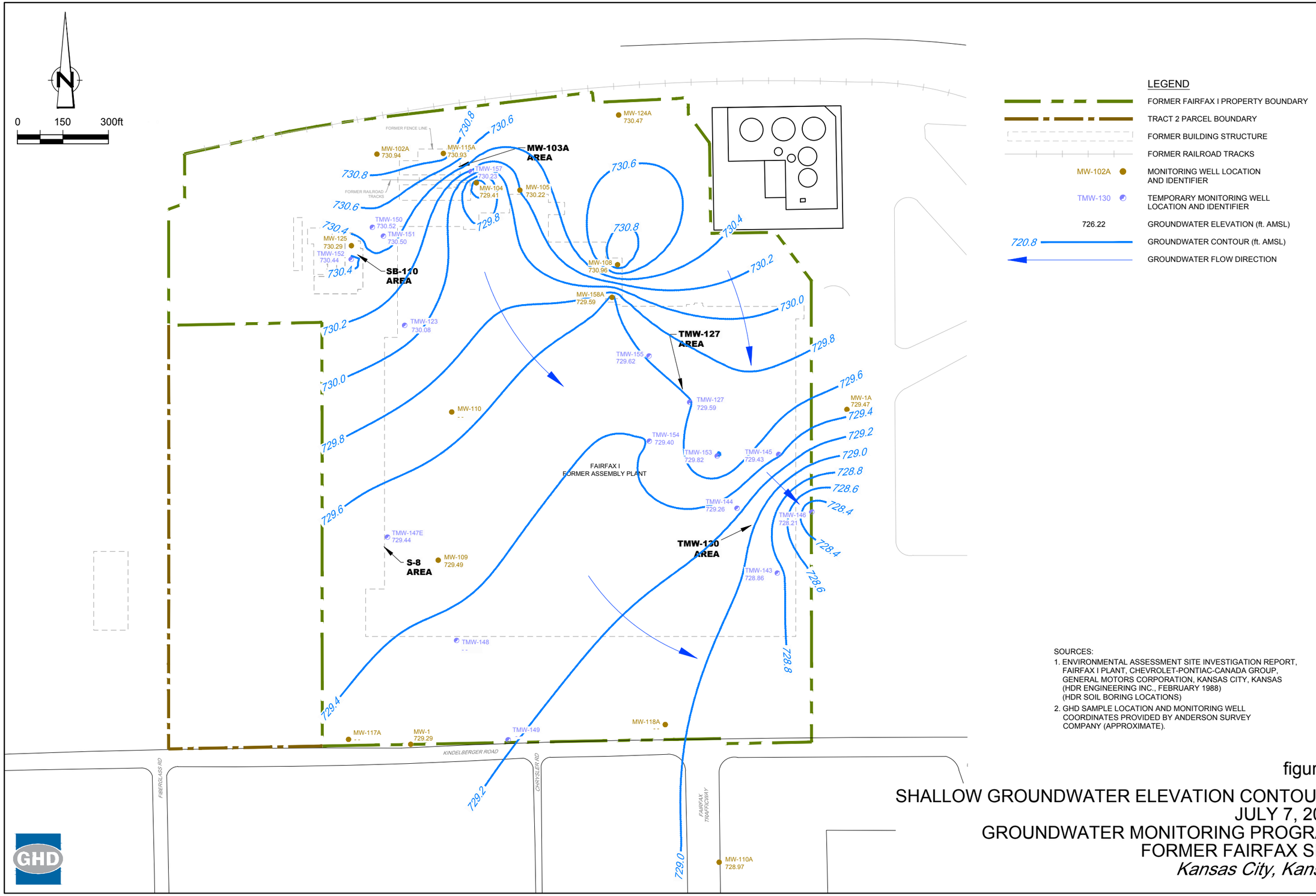
1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. CRA SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS APRIL 6, 2015 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(GREE007)GN-WA002 JUN 4/2015



SOURCES:

1. ENVIRONMENTAL ASSESSMENT SITE INVESTIGATION REPORT, FAIRFAX I PLANT, CHEVROLET-PONTIAC-CANADA GROUP, GENERAL MOTORS CORPORATION, KANSAS CITY, KANSAS (HDR ENGINEERING INC., FEBRUARY 1988) (HDR SOIL BORING LOCATIONS)
2. GHD SAMPLE LOCATION AND MONITORING WELL COORDINATES PROVIDED BY ANDERSON SURVEY COMPANY (APPROXIMATE).

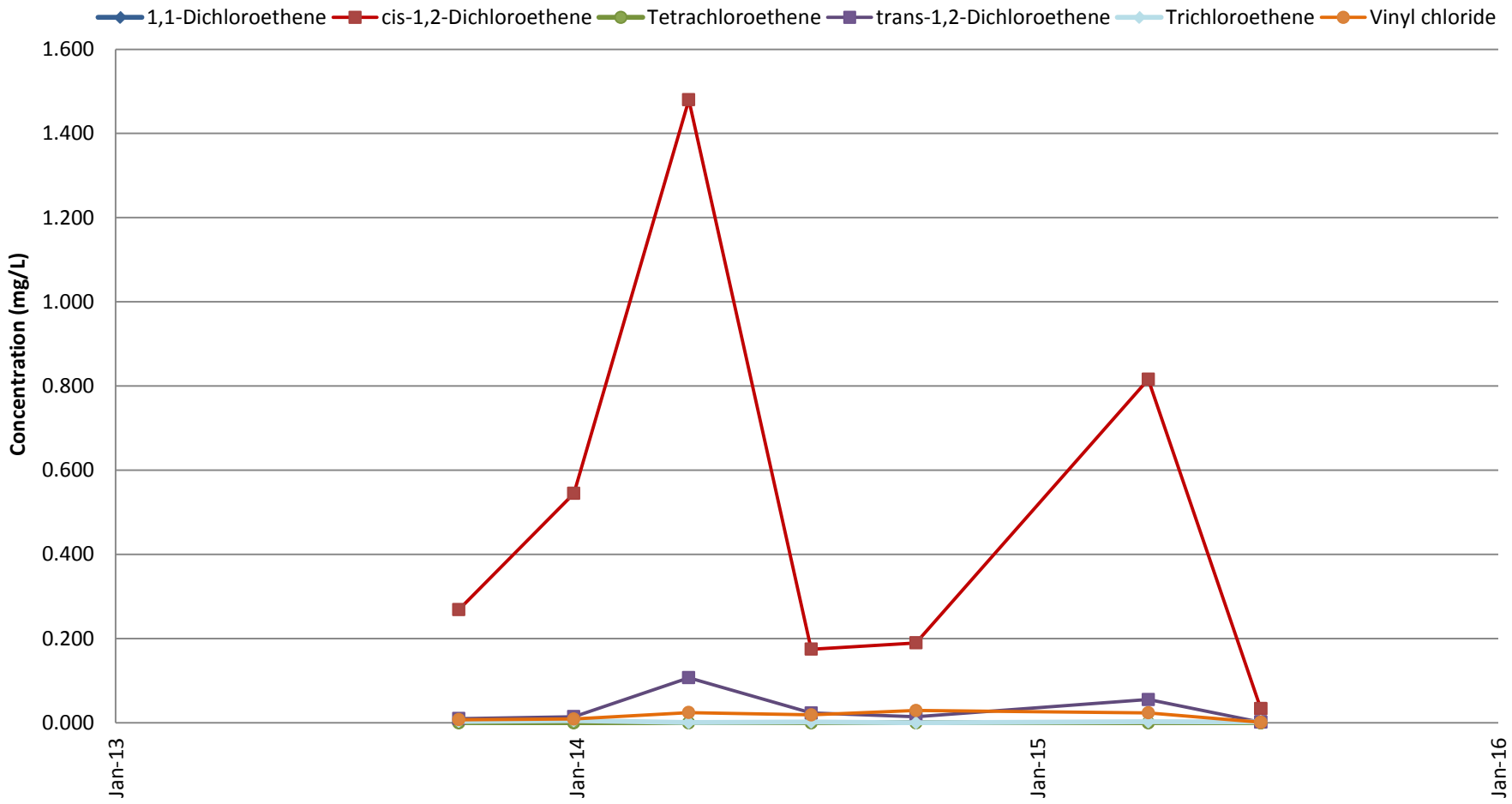
figure 2

SHALLOW GROUNDWATER ELEVATION CONTOURS JULY 7, 2015 GROUNDWATER MONITORING PROGRAM FORMER FAIRFAX SITE

Kansas City, Kansas

12559-T05(OHAL001)GN-WA002 AUG 26/2015

Attachment C



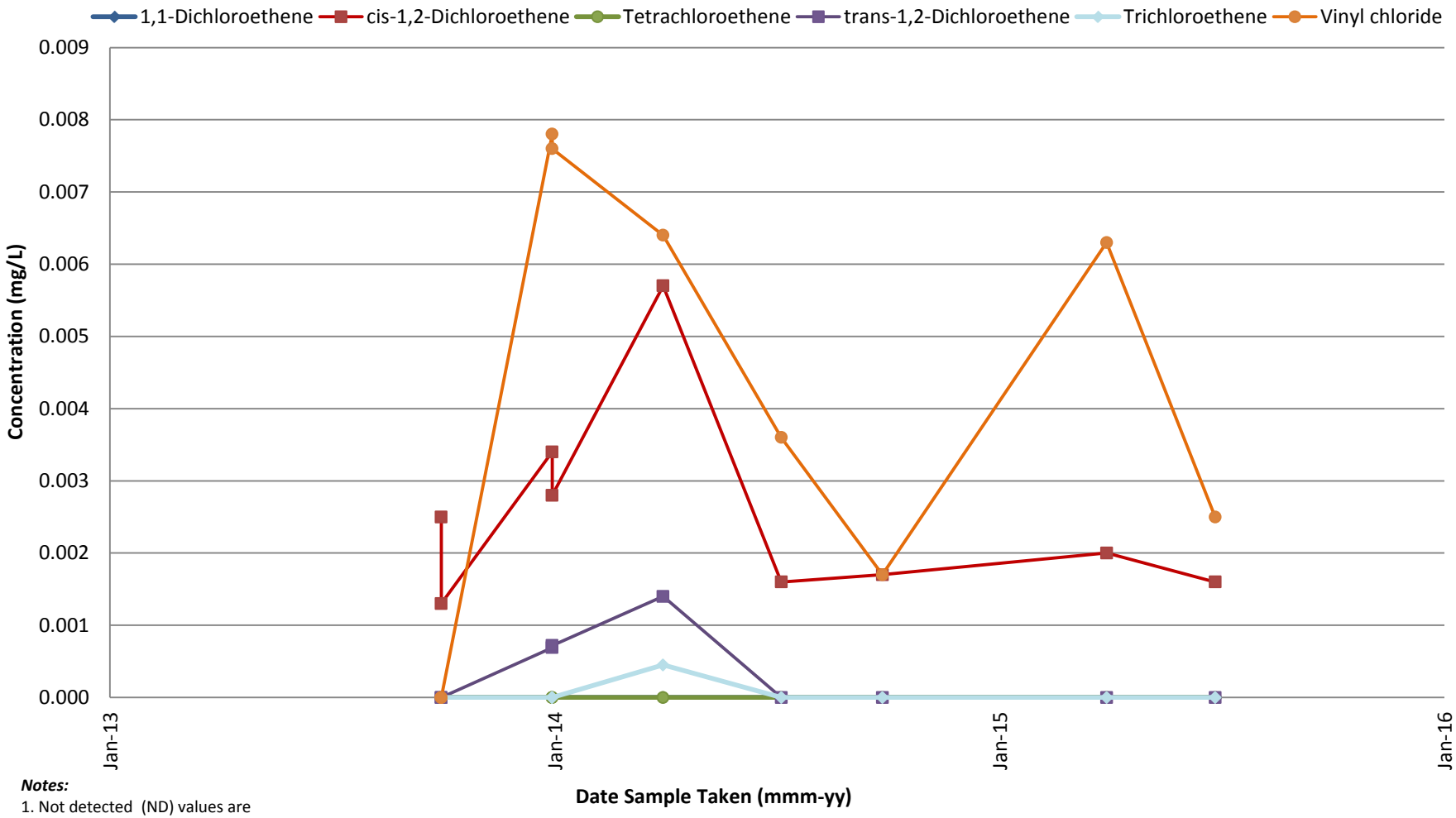
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: PCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-1
VOC Sample Data from MW-158A
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



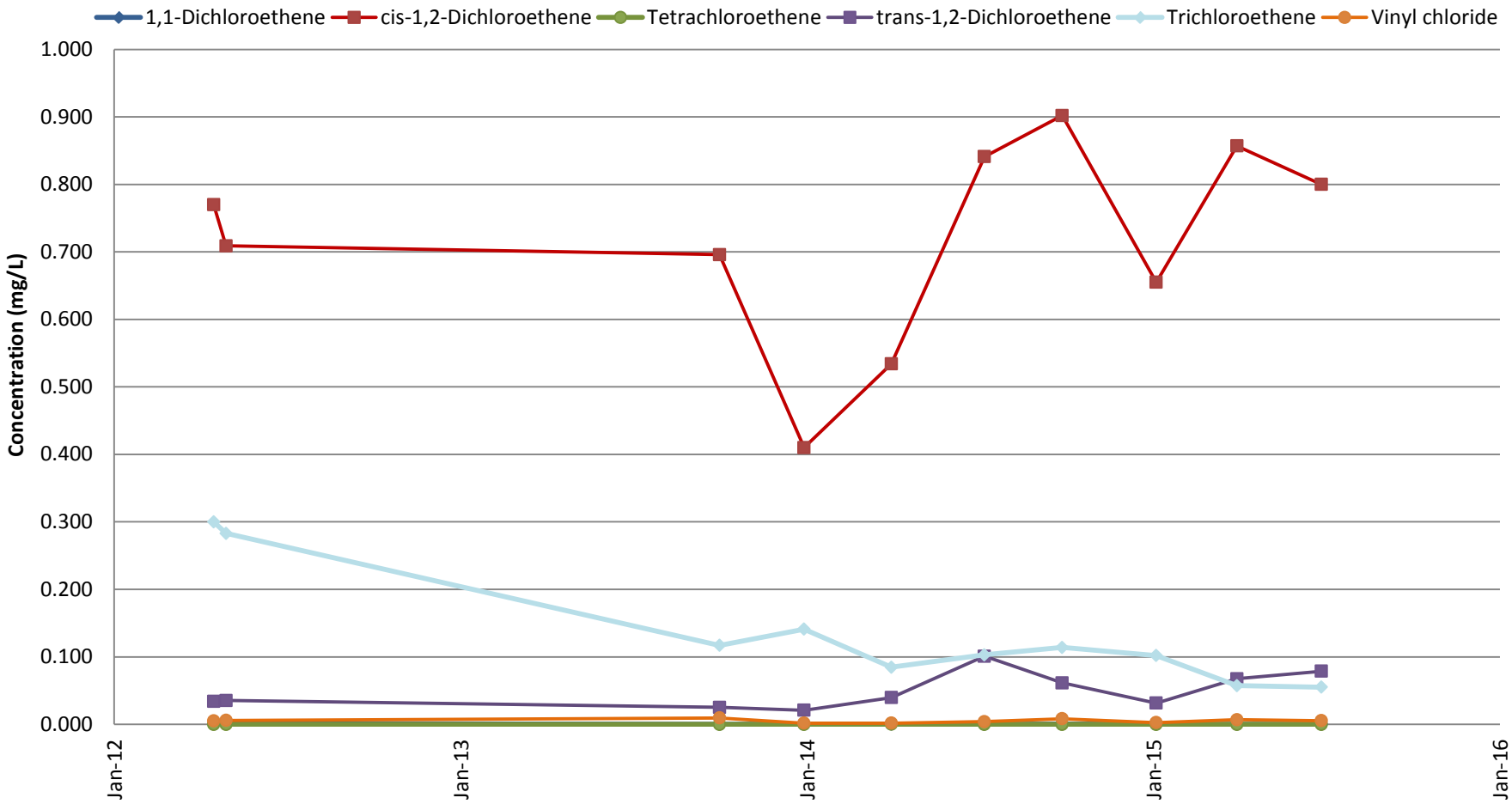
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE and PCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-2
VOC Sample Data from MW-158B
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas

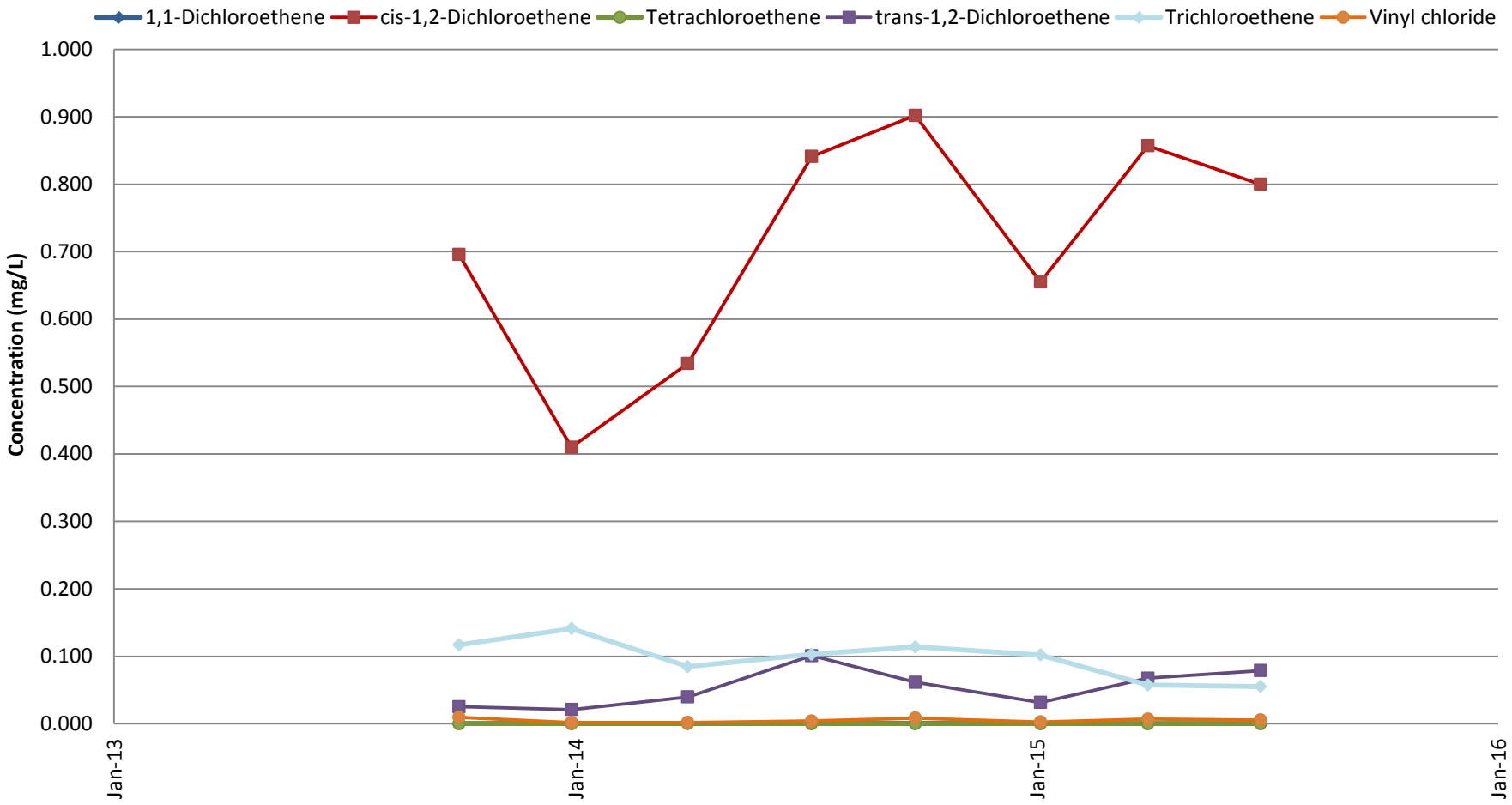


Notes:
1. Not detected (ND) values are plotted as 0.

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-3a
VOC Sample Data from TMW-155
2012, 2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas

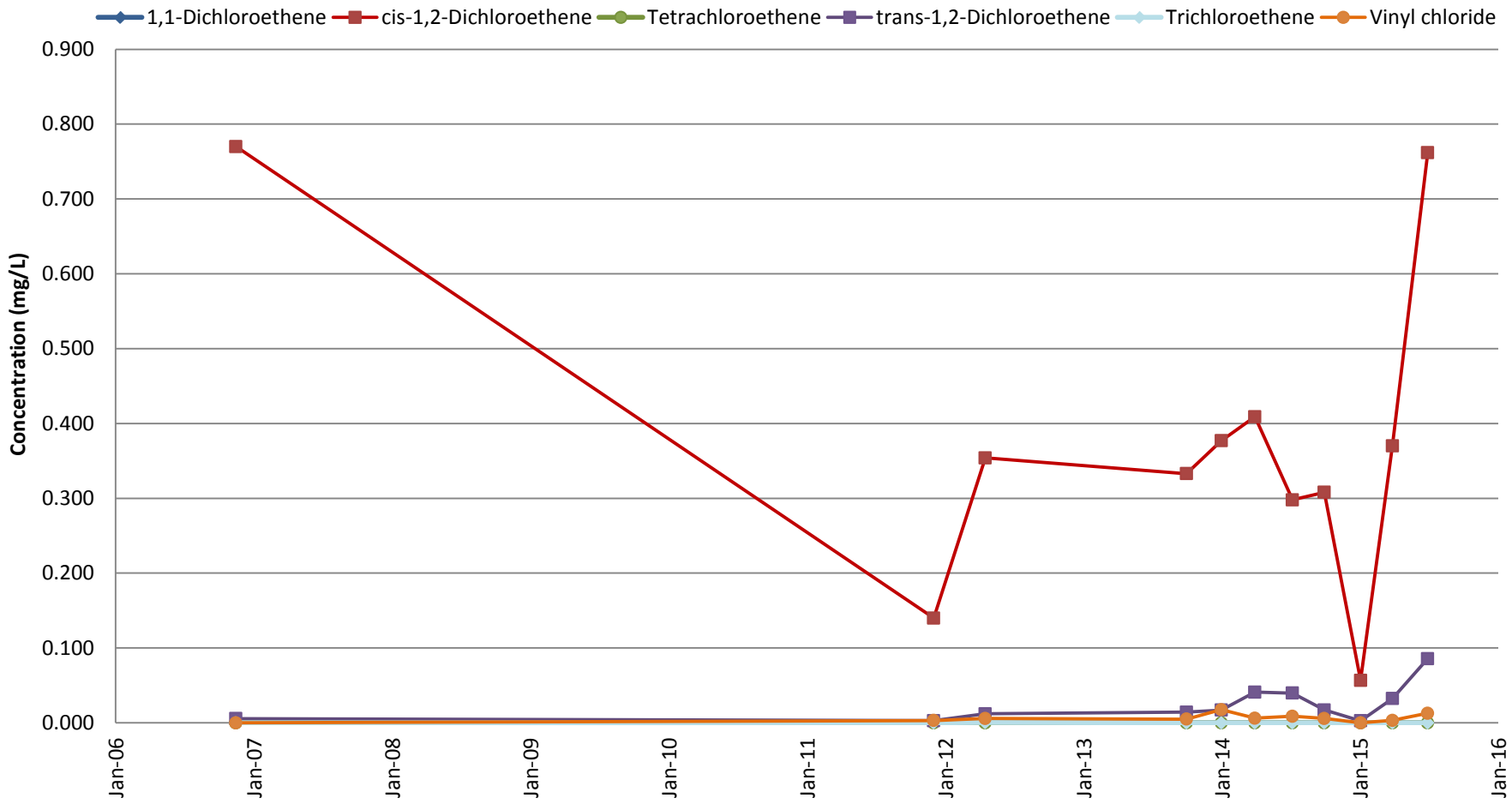


Notes:
1. Not detected (ND) values are plotted as 0.

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-3b
VOC Sample Data from TMW-155
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



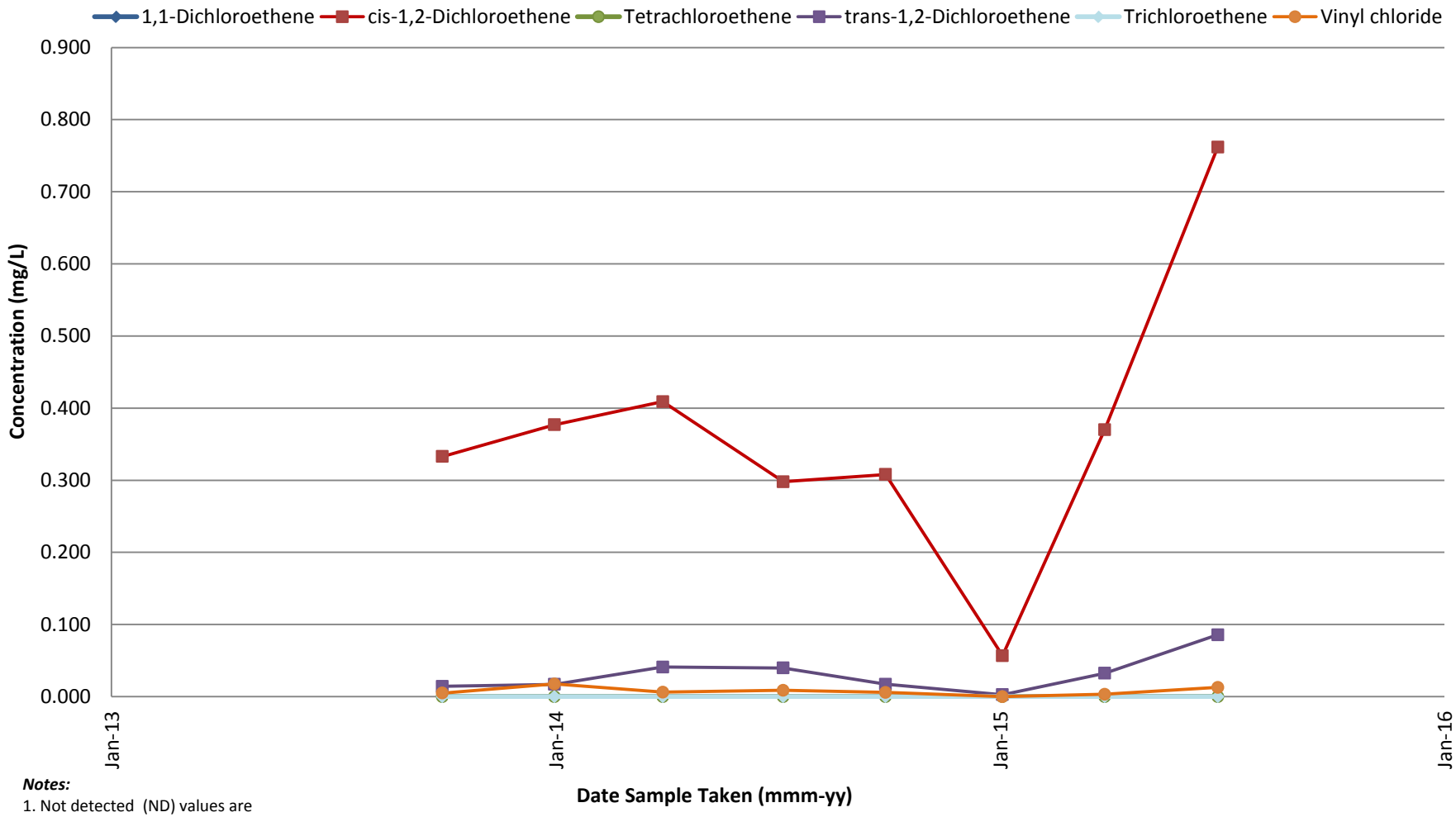
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: PCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-4a
VOC Sample Data from TMW-127
2006, 2011, 2012, 2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



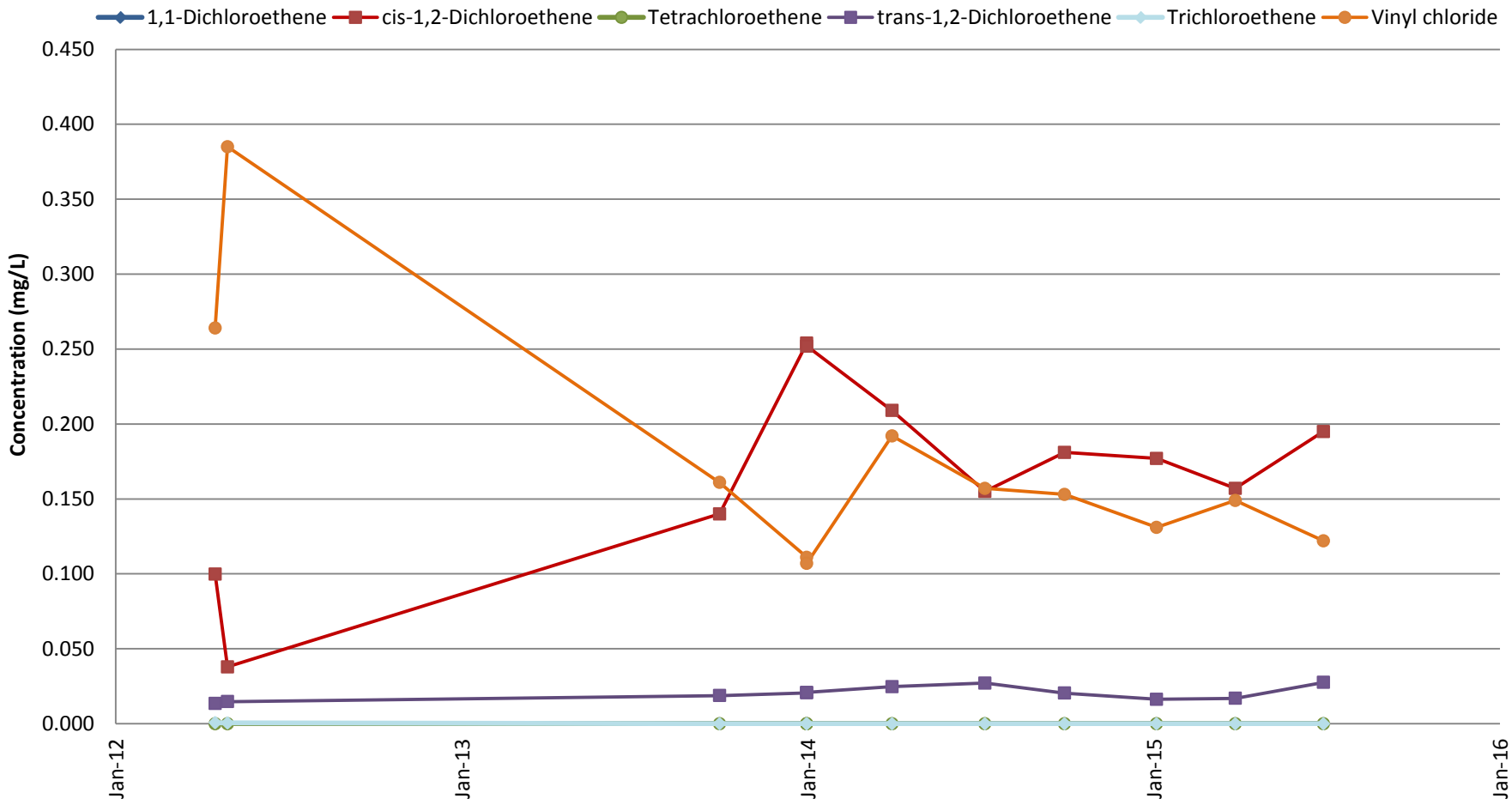
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE, PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-4b
VOC Sample Data from TMW-127
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



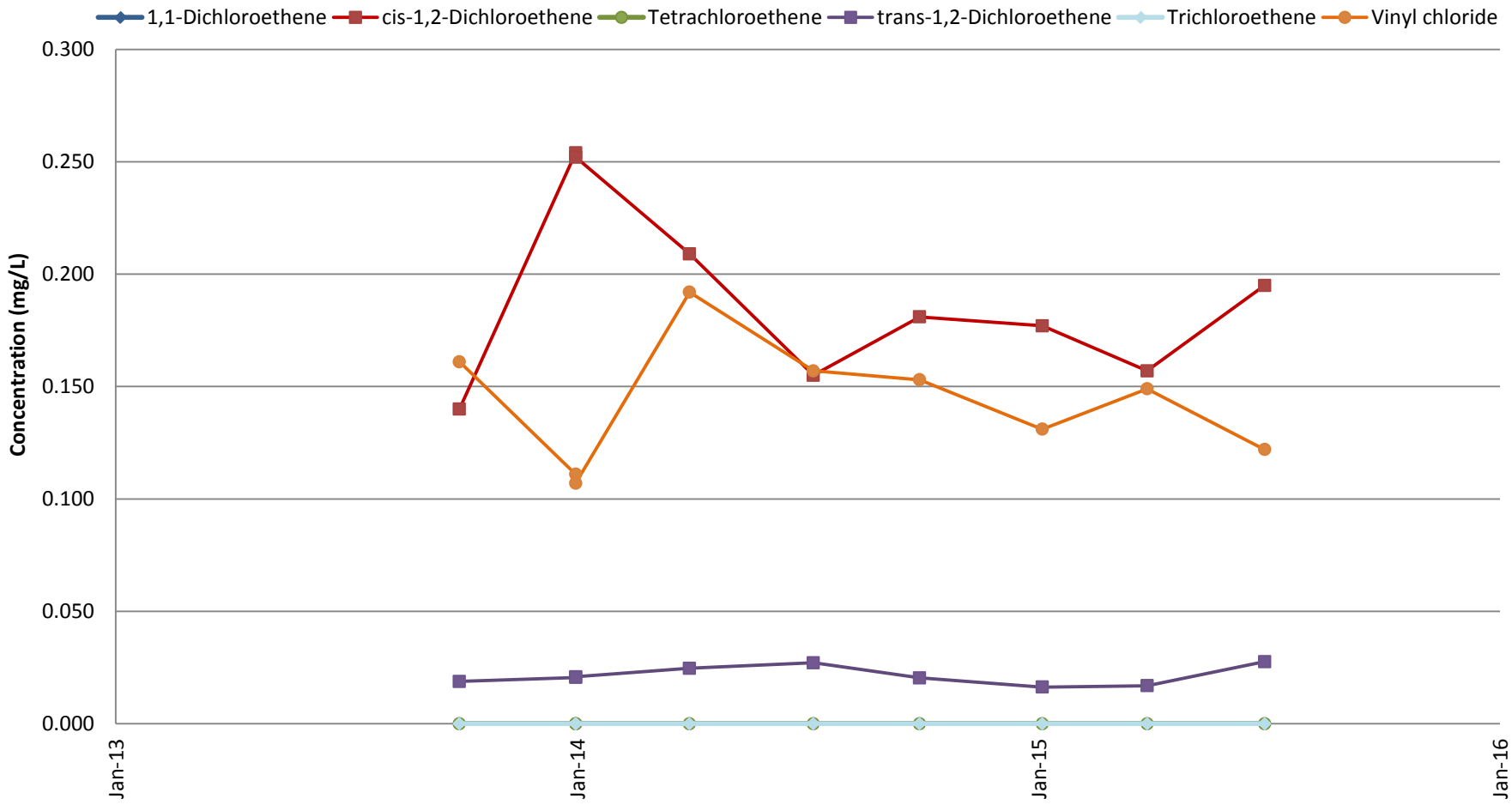
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE and PCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-5a
VOC Sample Data from MW-156
2012, 2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



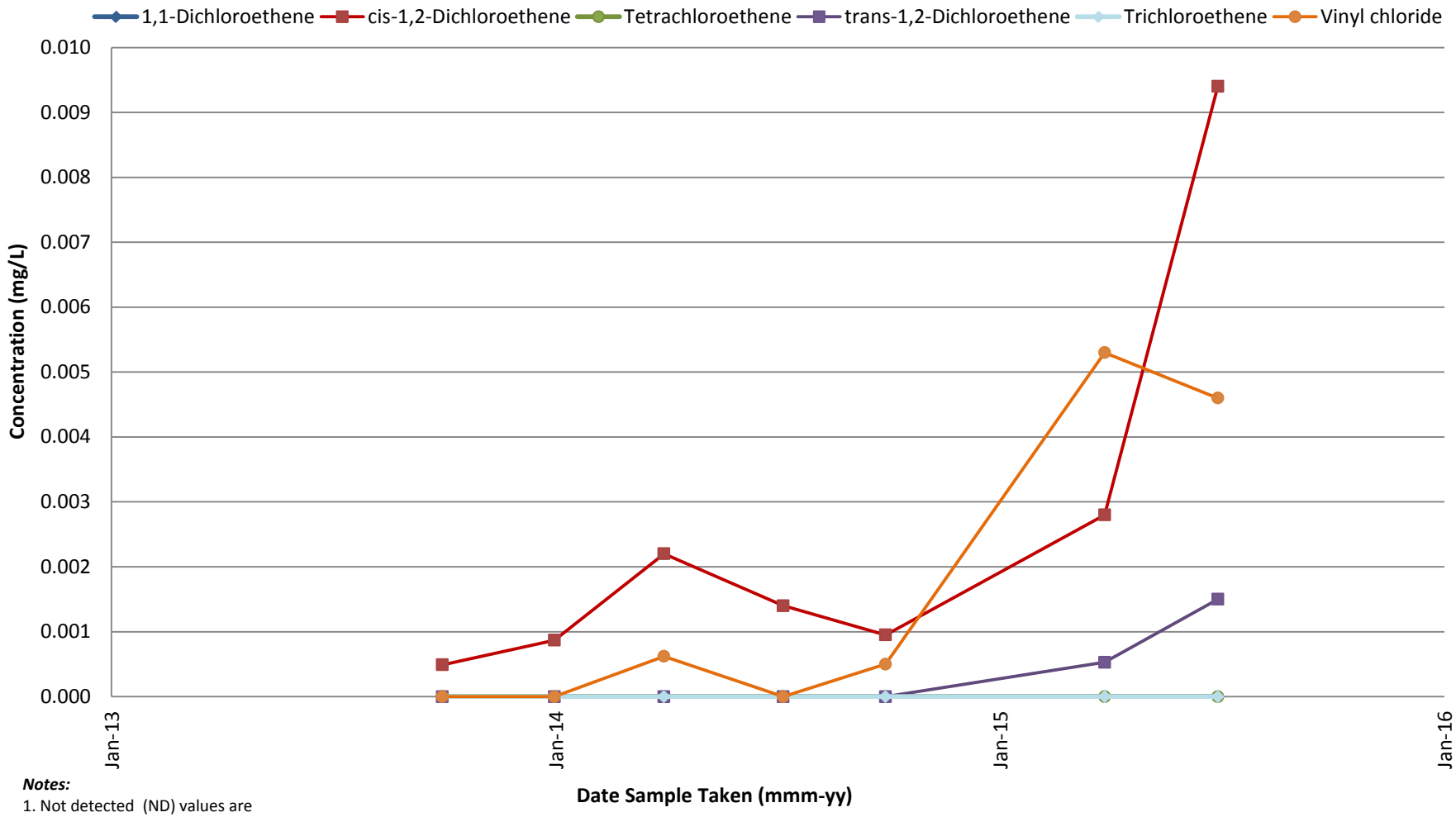
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE, PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-5b
VOC Sample Data from MW-156
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



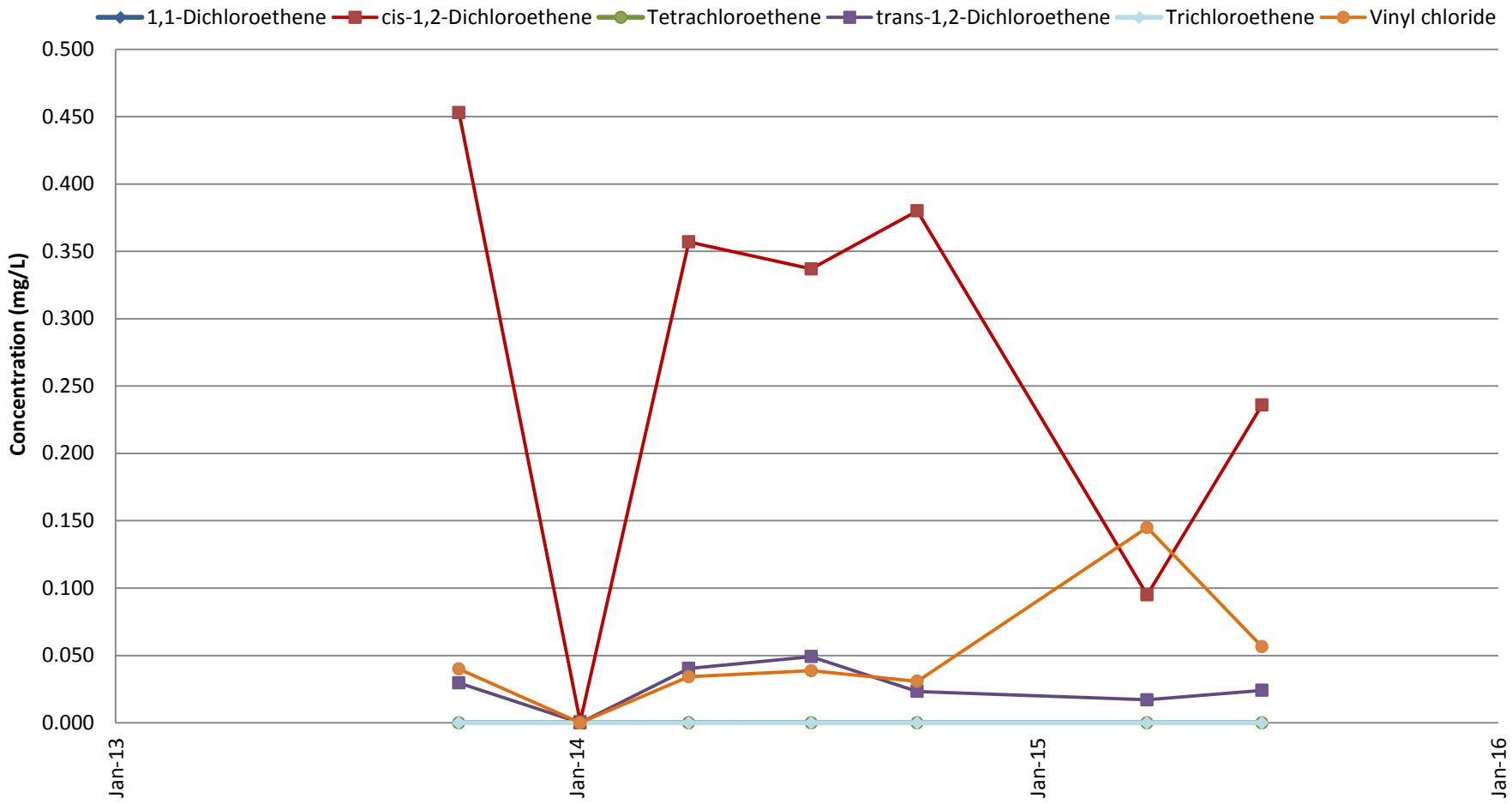
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE, PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-6
VOC Sample Data from MW-156C
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



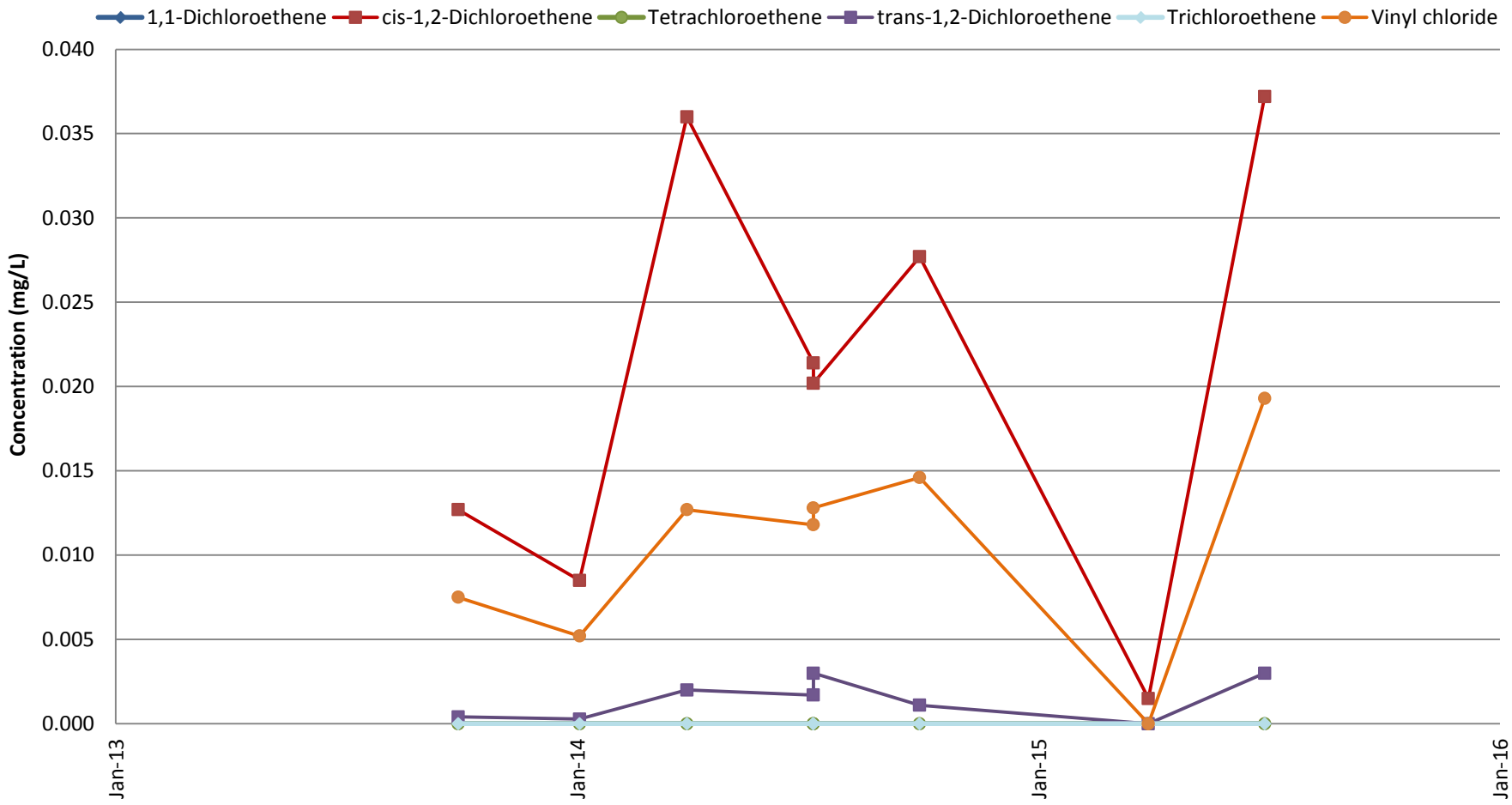
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-7
VOC Sample Data from MW-144B
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



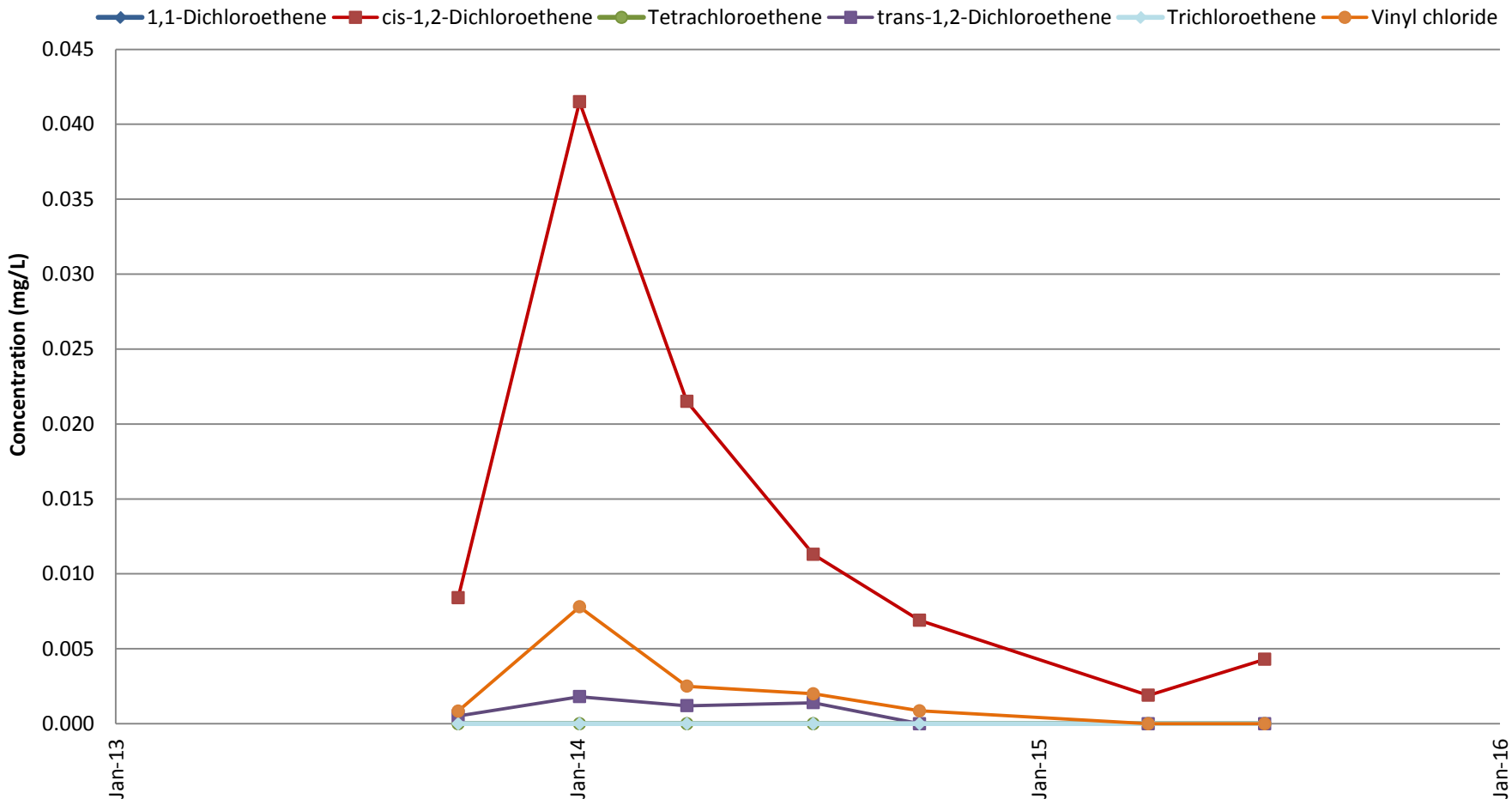
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE, PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-8
VOC Sample Data from MW-146B
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas



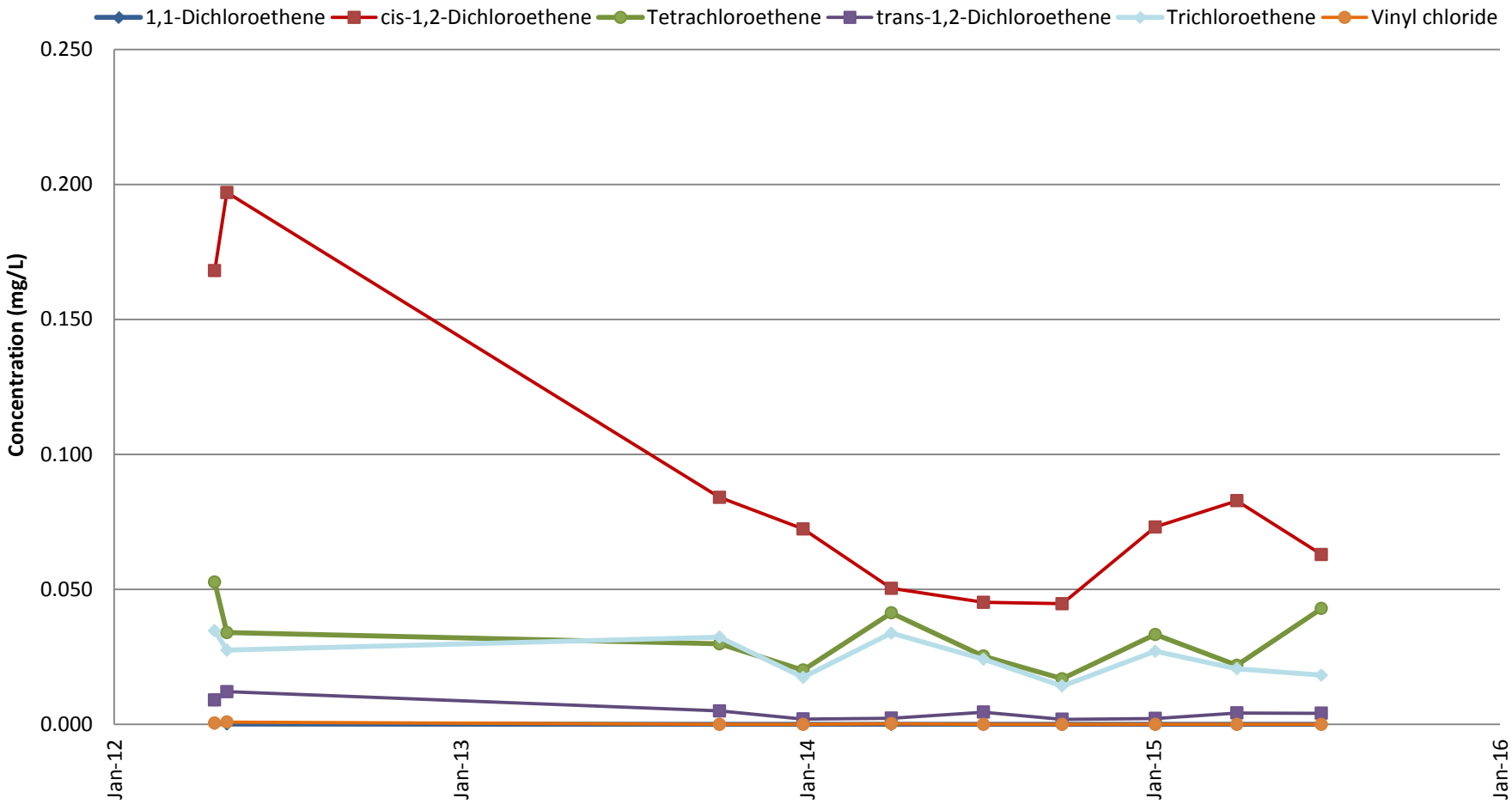
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE, PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-9
VOC Sample Data from MW-146C
2013, 2014 and 2015
Area of Concern: TMW-127
FORMER FAIRFAX SITE
Kansas City, Kansas

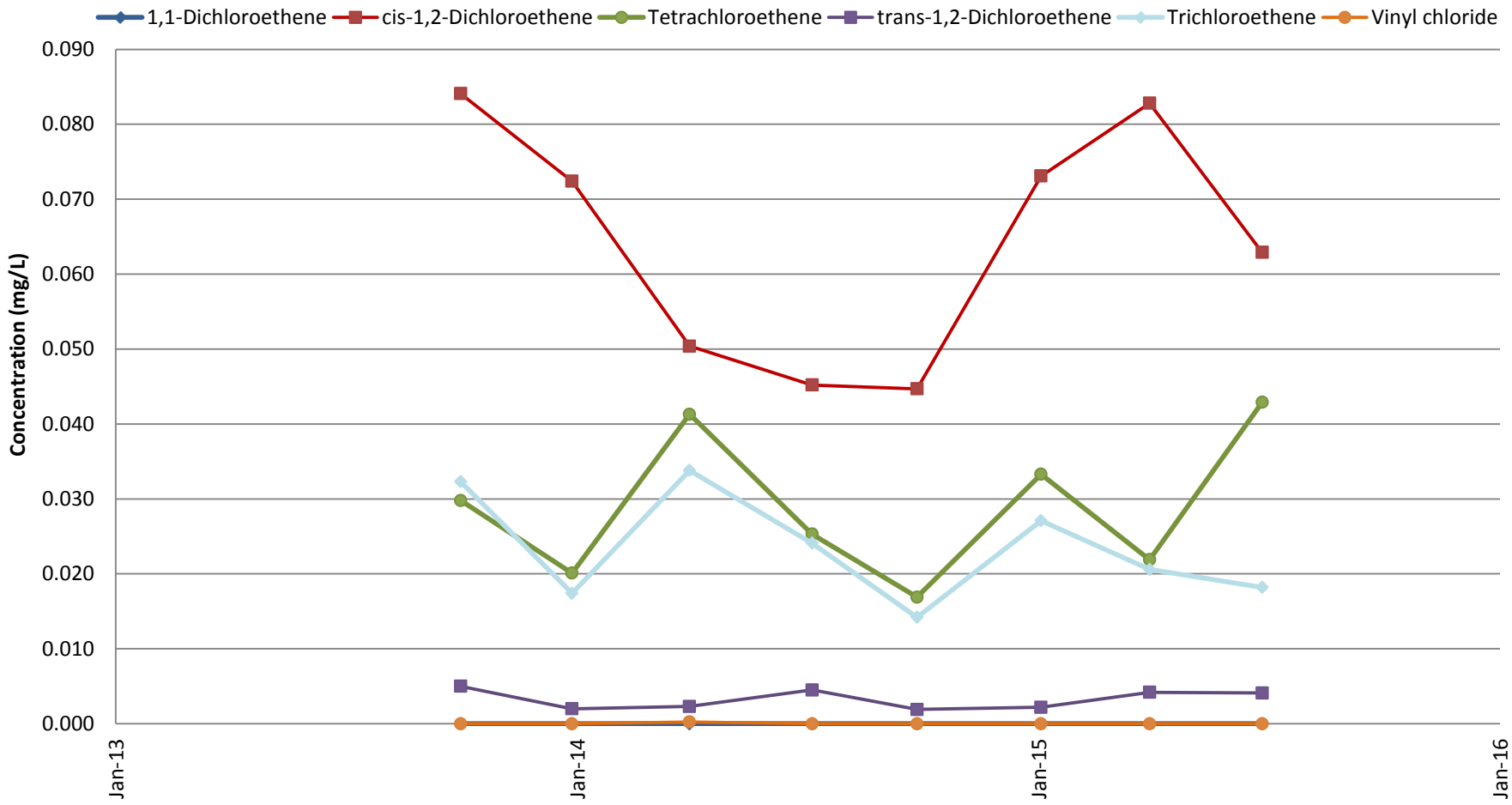


Notes:
1. Not detected (ND) values are plotted as 0.

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-10a
VOC Sample Data from TMW-147E
2012, 2013, 2014 and 2015
Area of Concern: S-8
FORMER FAIRFAX SITE
Kansas City, Kansas



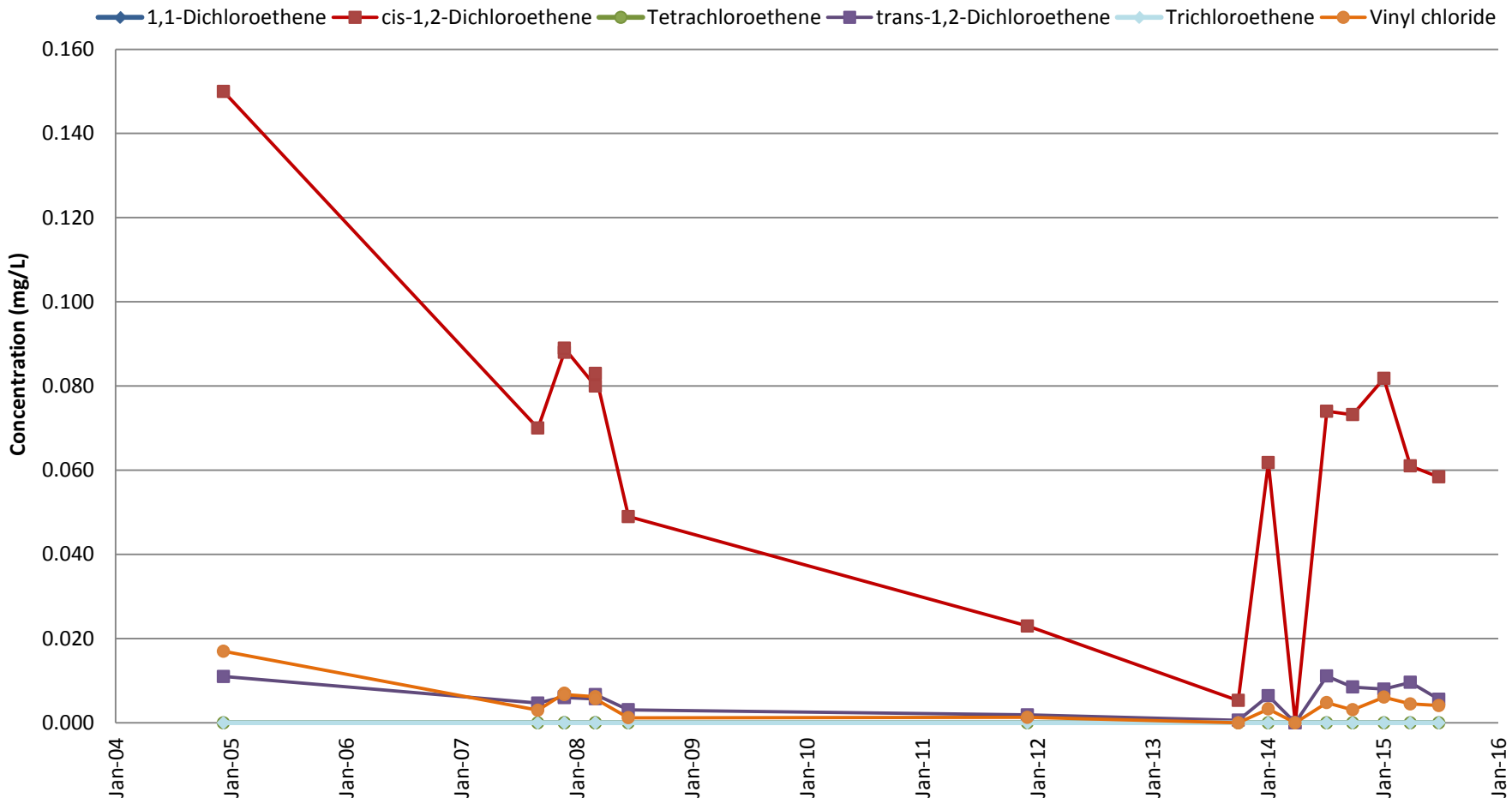
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-10b
VOC Sample Data from TMW-147E
2013, 2014 and 2015
Area of Concern: S-8
FORMER FAIRFAX SITE
Kansas City, Kansas



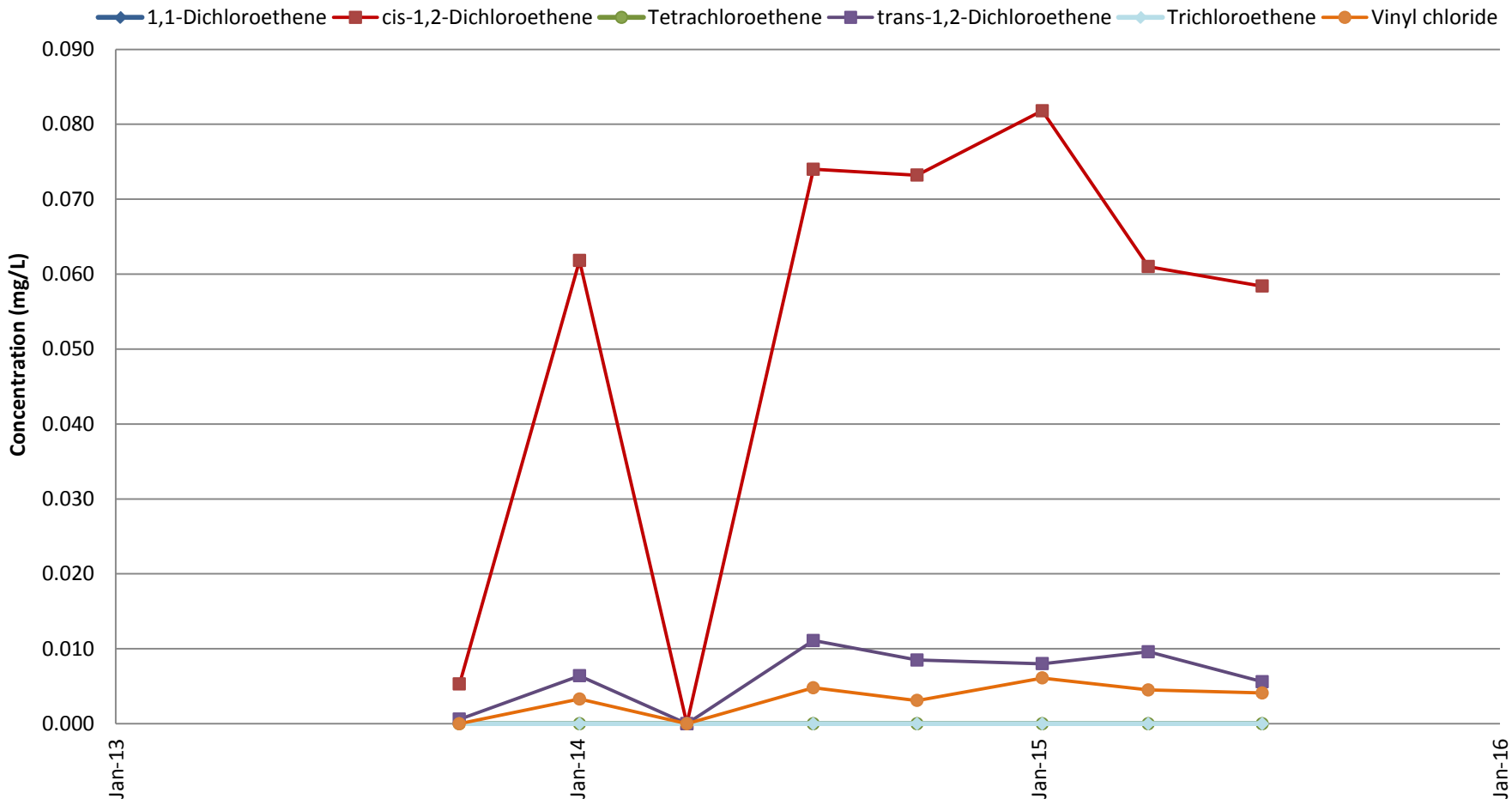
Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE, PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-11a
VOC Sample Data from MW-111
2004, 2007, 2008, 2011, 2013, 2014 and 2015
Area of Concern: N/A
FORMER FAIRFAX SITE
Kansas City, Kansas



Notes:

1. Not detected (ND) values are plotted as 0.
2. VOCs that were ND for all sampling events are: 1,1-DCE, PCE and TCE

KDHE TIER 2 RISK-BASED CRITERIA (mg/L)

PARAMETER	ABBREVIATION	NON-RESIDENTIAL GROUNDWATER PATHWAY (A)	RESIDENTIAL GROUNDWATER PATHWAY (B)
1,1-Dichloroethene	1,1-DCE	0.007	0.007
cis-1,2-Dichloroethene	cis-1,2-DCE	0.07	0.07
Tetrachloroethene	PCE	0.005	0.005
trans-1,2-Dichloroethene	trans-1,2-DCE	0.1	0.1
Trichloroethene	TCE	0.005	0.005
Vinyl chloride	VC	0.002	0.002

Figure C-11b
VOC Sample Data from MW-111
2013, 2014 and 2015
Area of Concern: N/A
FORMER FAIRFAX SITE
Kansas City, Kansas

Appendix E
Groundwater Plume Stability Report

Memorandum

To:	Bob Hare	Ref. No.:	012559
From:	Dan Puddephatt/Steve Harris/kf/15	Date:	November 20, 2015
cc:	Travis Kogl, Julian Hayward		

Re: Groundwater Plume Stability Analysis
Former RACER Fairfax I Site
Kansas City, Kansas

1. Introduction

On behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, GHD prepared this Memorandum to present the plume stability analysis conducted for the TMW-127 Area (TMW-127 Area) of the Former Fairfax I Site in Kansas City, Kansas (Site). Figure 1 shows the Site location and Site map based on ortho-imagery obtained from the United States Department of Agriculture (USDA) Farm Service Agency (USDA/FSA)[1] and Figure 2 shows the Site Plan. The chlorinated volatile organic compounds (CVOCs) trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene (tDCE), and vinyl chloride (VC) have been identified at the Site due to historical automotive and aircraft assembly operations. These CVOCs are addressed by the plume stability analysis.

The U.S. Environmental Protection Agency (U.S. EPA), in their *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater* (U.S. EPA, 1998)[2], present lines of evidence for assessing the practicability of monitored natural attenuation (MNA) as a remediation alternative. A key line of evidence involves evaluating historical groundwater concentration data to determine if there is sufficient evidence that concentrations decrease over time. The plume stability analysis presented herein evaluates this line of evidence as it relates to the effectiveness of MNA at the TMW-127 Area. The plume stability analysis is conducted on the basis of TCE-equivalent total concentrations, or the TCE molar mass-weighted sum of the CVOC molar concentrations.

This Memorandum is organized as follows:

- Section 2: Presents background information regarding the Site hydrogeologic conditions and the nature and extent of the CVOCs present in groundwater.

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1 USDA/FSA, 2014. USDA-FSA-APFO NAIP MrSID Mosaic. Obtained September 18, 2015.

2 USEPA, 1998. Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater. EPA/600/R-98/128.

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- Section 3: Presents the methods applied to conduct the plume stability analysis.
- Section 4: Presents the plume stability analysis results.
- Section 5: Presents the summary and conclusions based on the plume stability analysis.

2. Background Information

Summary of General Background Information

The Site is located at 100 Kindleberger Road in Kansas City, Kansas in an industrial area known as the Fairfax District. The U.S. Government and subsequently General Motors Corporation have conducted industrial activities at the Site since 1940. The Site has undergone numerous environmental investigations since the late 1980s.

The Site is located adjacent to the Missouri River, as depicted on Figure 1, with the river located north, east, and southeast of the Site. To the west and south of the Site are industrial facilities, including chemical companies and refining and pipeline facilities. The active General Motors Fairfax II Plant is located to the southeast of the Site, between the Site and the Missouri River. The original Site property, depicted as a yellow hatched area on Figure 1, covered over 107 acres.

Historical aerospace and automotive assembly operations at the Site have resulted in impacts to soil and groundwater by CVOCs; petroleum hydrocarbons; methyl isobutyl ketone (MIBK); benzene, toluene, ethylbenzene, and xylenes (BTEX). Much of the impact associated with petroleum hydrocarbons, MIBK, and BTEX have been removed through a soil excavation program. As a result, the groundwater plume stability analysis pertains exclusively to the CVOC impacts in the TMW-127 Area of the Site.

The Site is situated in the floodplain of the Missouri River, which is bounded to the south and west by elevated limestone bluffs. Figure 3 presents the ground surface topography for the Fairfax District based on data obtained from the USDA Natural Resources Conservation Service (USDA/NRCS, 2015)[3]. The ground surface of the floodplain is generally flat with an average elevation of approximately 743.9 feet (ft) above mean sea level (AMSL). A levee is evident on Figure 3 as a green band surrounding the Fairfax District to the north and east, rising to an elevation of approximately 765 ft AMSL (i.e., approximately 21 ft above average ground surface).

Summary of Geologic Conditions

The generalized geologic conditions observed at the Site consist of an upper layer of silty clay ranging in thickness from approximately 7 to 15 ft. This silty clay unit is underlain by fine to medium sands to depths of 25 to 40 ft below ground surface (bgs), which grade into medium to coarse sands with some gravel and clay interbeds to depths of 60 to 80 ft bgs. This interbed layer is underlain by medium to coarse sands and gravels, which comprise alluvial deposits and are underlain by shale bedrock at approximately 102 to 107 ft bgs. The present Missouri River channel follows a deeper valley cut into the bedrock by the ancestral Missouri River.

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[3] USDA/NRCS, 2015. National Geospatial Center of Excellence, National Elevation Data 3 meter or better. Obtained October, 21.

Summary of Hydrogeologic Conditions

The summary of hydrogeologic conditions is based on a review of three sets of monitoring wells throughout the Site vicinity. The three sets of monitoring wells include the following:

- One set of 290 regional monitoring wells: Data for these wells were obtained from the Kansas Geological Survey (KGS) Water Well Database (KGS, 2015)[4].
- One set of 20 monitoring wells in and around the TMW-127 Area at the Site used in the plume stability analysis.
- One set of 34 monitoring wells at and in close proximity to the Site that were not used in the plume stability analysis.

Figure 1 shows the monitoring well locations. The locations of the 209 regional monitoring wells, TMW-127 Area monitoring wells and other wells used in the plume stability analysis (referred to herein as plume stability analysis or PSA monitoring wells[5]), and remaining Site monitoring wells not used in the plume stability analysis are depicted in yellow, pink, and white, respectively, on Figure 1. Figure 1 also includes regional well key codes for identifying these wells on plots within this memorandum. The key codes are cross-referenced with the KGS Water Well Database well IDs in Table 1. The Site plan shown on Figure 2 includes the PSA monitoring wells and remaining Site monitoring wells not used in the plume stability analysis. The well construction details for the PSA monitoring wells and the remaining Site monitoring wells not used in the plume stability analysis are listed in Table 2.

Groundwater flows beneath the Site area within a fining upward sequence of alluvial sands and gravels. Depth to groundwater generally ranges from 15 to 25 ft bgs. Figure 4 presents a series of boxplots showing historic groundwater elevations for select PSA monitoring wells. The boxplots show the minimum, 25th percentile, median, 75th percentile, and maximum groundwater elevations measured at each of the monitoring well locations. Yellow symbols overlay the boxplots to represent the actual groundwater elevations measured at each of the select PSA monitoring wells for each monitoring event. Figure 4 also includes illustrations of the well screen and ground surface elevations shown in Table 2. There is little difference in median groundwater elevation between wells screened at different depths in the alluvial aquifer, indicating that vertical hydraulic gradients are minimal and groundwater flow in the alluvial aquifer is predominantly horizontal.

The boxplots on Figure 4 are organized from left to right in decreasing median groundwater elevation. There is little variability in the median groundwater elevations among the wells shown on the figure. The difference between the maximum median groundwater elevation (i.e., 722.54 ft AMSL at TMW-144) and the minimum median groundwater elevation (i.e., 720.65 ft AMSL at MW-158A) is 1.89 ft. The horizontal hydraulic gradient based on the median groundwater elevations is less than 0.001 feet per foot (ft/ft) directed towards the

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4 KGS, 2015. Water Well Completion Records (WWC5) Database. Obtained September, 17.

5 The PSA monitoring wells include the TMW-127 Area monitoring wells TMW-155, TMW-127, MW-156, MW-156C, TMW-154, TMW-153, TMW-145, in addition to monitoring wells from the vicinity of TMW-130 immediately to the southeast (i.e., TMW-144, TMW-144C, TMW-144B, TMW-146C, TMW-146, MW-146B, and TMW-143), a cluster of wells to the east (i.e., MW-1A, MW-1B, MW-1C), monitoring wells to the northwest (i.e., MW-158A, MW-158B, including MW-108), and MW-110. CVOC concentrations at MW-108 and MW-110 have been below laboratory detection levels for the duration of the study period, between October 2013 and July 2015. These wells were included in the analysis to provide controls on the interpolated plume extents.

northwest[6]. Although there is little variability in the median groundwater elevation among the monitoring wells shown on the figure, there is substantial variability at the individual well locations. For example, groundwater elevations vary between 10.7 feet (i.e., at TMW-146) and 14 feet (i.e., at MW-108).

Figure 5 presents groundwater elevation contours at the regional scale based on median groundwater elevations at the Site and regional monitoring wells. Figure 5 illustrates that groundwater flows predominantly from the upland area in the southwest towards the Missouri River Floodplain. The groundwater table within the flood plain is relatively flat and is in hydraulic connection with the Missouri River. Figure 6 presents median groundwater elevation contours in the Site area. Figure 6 also includes the median groundwater elevations measured at PSA monitoring wells. Like the regional groundwater elevations, the groundwater elevations in the Site area and among the PSA monitoring wells are also relatively flat. Variability in Missouri River stage elevation, discussed in the following paragraph, causes variability in groundwater flow directions at the Site. Groundwater flow directions periodically reverse from being outward from the Site towards the Missouri River under low stage conditions to being inward towards the Site from the Missouri River under high stage conditions. This flow reversal is responsible for the closed loop median groundwater elevation contours depicted on Figures 5 and 6 in the Site area.

GHD obtained Missouri River discharge and stage elevation data for January 2006 to October 7, 2015 from a USGS river gauge monitoring station (USGS 06893000) located approximately 5 miles downstream from the Site. The inset in the upper right corner of Figure 7 shows the location of USGS 06893000. The upper panel of Figure 7 presents the Missouri River discharge data as blue symbols. Since 2006, the Missouri River has discharged water at a median rate of approximately 51,750 cubic feet per second (ft^3/s) (i.e., 33 billion gallons per day). Discharge from the Missouri River increases following spring freshet events (i.e., snow melt from upriver locations), and then gradually returns to lower rates in the fall and winter. The lower panel of Figure 7 presents the Missouri River stage elevations as grey symbols. A yellow-filled band referencing the range in the measured groundwater elevations at the PSA wells underlays the stage elevation symbols. The river stage elevations periodically are much higher than the measured groundwater elevations following spring freshet events causing surface water to recharge the alluvial aquifer. In the Site area, this causes groundwater flow directions to reverse from predominantly towards the northwest to being towards the southeast. The Missouri River stage drops below measured groundwater elevations during the fall and winter months, and groundwater flow returns to a predominantly northwest direction as groundwater discharges to the Missouri River.

Figure 8[7] presents groundwater CVOC concentrations collected from select[8] PSA monitoring wells since October 2013 and Table 3 provides the full list of historical groundwater CVOC concentrations. Of the PSA monitoring wells sampled since 2013, only TMW-155 and TMW158A have TCE concentrations at levels above the Kansas Department of Health and Environment (KDHE) Tier 2 Risk-Based Standard Protective of

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6 The orientation of the groundwater plume is a strong indicator of the predominant long-term groundwater flow direction. The northwest-southeast plume orientations presented on Figures 9 through 16 indicate a northwest-southeast trending groundwater flow direction.

7 The monitoring wells on Figure 8 are presented in decreasing order of median groundwater elevation for consistency with Figure 4.

8 MW-108 is not presented on Figure 8 because groundwater CVOC concentrations have historically been below the laboratory method detection levels and MW-110 is not presented because groundwater CVOC concentrations have not been sampled after 2013.

the Groundwater Pathway (Tier 2 RBS) (KDHE, 2010)[9] concentration for TCE of 5 µg/L. The CVOCs are products of TCE degradation at the remaining wells.

The upper row of Figure 8 presents the calculated TCE-equivalent CVOC concentrations for each PSA monitoring well based on measured concentrations of TCE and daughter products (i.e., cDCE, tDCE, and VC). TCE-equivalent CVOC concentrations were calculated using the following steps:

- Each CVOC concentration was converted to a molar concentration through dividing the concentration by the respective CVOC molar mass.
- The molar concentrations were summed and then multiplied by the TCE molar mass [i.e., 131,389,000 micrograms per mole (µg/mole)] to provide TCE-equivalent CVOC concentrations.

Based on a visual inspection of Figure 8 there are 7 PSA monitoring wells that appear to exhibit decreasing TCE-equivalent CVOC concentration trends. These include TMW-144, TMW-146, TMW-153, MW-144B, MW-146C, TMW-154, and MW-158A. There are 2 PSA monitoring wells that appear to exhibit increasing TCE-equivalent CVOC concentration trends. These include TMW-127 and MW-156C. Trends at the remaining wells are difficult to ascertain from single-well concentration profiles alone.

The following sections document the stability analysis of the groundwater CVOC plumes in the TMW-127 Area.

3. TCE-Equivalent Plume Stability

The stability of the TCE-equivalent plume[10] was evaluated following methods proposed as part of the U.S. EPA Resource Conservation and Recovery Act (RCRA) Region 4 Showcase Pilot (U.S. EPA, 2012)[11], which used methods developed by Ricker (2008)[12]. The approach that Ricker proposed involves investigating long-term trends of the following plume features:

- Planar plume areas
- Area-averaged plume concentrations
- Plume mass
- Locations of the centers of plume mass

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9 KDHE, 2010. Risk-Based Standards for Kansas, RSK Manual-5th Version, Bureau of Environmental Remediation, October.

10 The outer bounds of the plume are specified by the Tier 2 RBS for VC of 2 µg/L. The VC RBS is the lowest of the CVOC RBS values.

11 U.S. EPA, 2012. RCRA Corrective Action Showcase Pilot, Region 4, An Efficient Method for Demonstrating Plume Stability, Velsicol Chemical Corporation Facility, Memphis, Tennessee, April 4.

12 Ricker, J.A., 2008. A Practical Method To Evaluate Groundwater Contaminant Plume Stability. Ground Water Monitoring & Remediation, 28(4). Pp 85 – 94.

The TCE-equivalent plume trends were evaluated based on groundwater concentrations measured at Site monitoring wells between October 2013 and July 2015[13]. GHD selected these monitoring events because the wells sampled remained relatively consistent during this period, and prior to October 2013 there were fewer monitoring wells sampled for groundwater CVOCs. Using a consistent set of sample locations means that changes to interpreted plume area, average concentration, plume mass, and location of the plume center of mass are based on concentration changes and not changes in the spatial distribution of the wells sampled. Periodically, some monitoring wells were not sampled. For example, in January 2014, July 2014, January 2015, and July 2015, monitoring wells MW-1A, MW-1B, and MW-1C were not sampled for CVOCs. Monitoring wells MW-158A, MW-158B, MW-144B, MW-144C, MW-146B, MW-146C, and MW-156C also were not sampled in January 2015. These wells were incorporated into the plume stability analysis for these dates using a linear interpolation based on $\log_{10}$-tranformed concentrations immediately before and after each date where sampling did not occur.

The following sections describe the approach used to evaluate the long-term plume trends.

3.1 Analysis Approach

Planar Plume Areas

The planar plume areas were estimated using the Positive Planar Area methodology implemented in Surfer 12. The units of the planar plume areas are in units of square feet (ft^2) and were subsequently converted to units of acres. Development of the interpolated concentration distributions involved the following steps:

- The validated analytical results for detected parameters were used in the assessment, including unqualified values and qualified values (e.g., estimated values below the laboratory reporting limits (RLs)). Where duplicate values were sampled, the maximum of the two values was evaluated.
- At the locations of some nested monitoring wells, where there is a substantial difference in TCE-equivalent concentration among the nested wells, the well with the maximum concentration was used in the assessment. On the other hand, where groundwater concentrations are quite similar among the nested wells, such as at the TMW-127 and MW-156 well nest, both sets of concentrations were considered in the analysis.
- Non-detect results were assigned either to a concentration of 0.01 µg/L (i.e., a factor of 100 below the lowest of the RLs of 1 µg/L) (if the monitoring well was relatively close to the groundwater CVOC plume), or a very low concentration of 1×10^{-7} µg/L (if the monitoring well was relatively distant from the groundwater CVOC plume). Assigning these concentrations was done to honor the non-detect results and not cause unrealistic distortion in the interpolated TCE-equivalent CVOC plume.

[13] Monitoring events occurring at different times throughout a month were combined such that TCE-equivalent CVOC concentrations were determined on a monthly basis. Where TCE-equivalent CVOC concentrations were measured more than once at a single well, the higher concentrations were used for plume stability analysis.

- The logs-concentration values were interpolated using the Universal Kriging methodology (using a quadratic drift to normalize the log concentration data) implemented in Surfer 12 (Golden Software, 2015)[14]. The kriging applied an exponential variogram with the following features:
  - Variogram range value of 300 ft.
  - Variogram scale value (also commonly referred to as the sill) of $[\log_{10}(5{,}516\ \mu g/L)]^{2.}$
- A boundary condition was applied to the plume interpolations by assigning low CVOC concentrations (i.e., 0.1 µg/L) at locations distant from the CVOC plume.
- The interpolated TCE-equivalent concentrations were transformed to units of µg/L by applying the anti-log to the interpolated TCE-equivalent CVOC concentration distribution.
- The interpolated groundwater concentrations were assigned to a grid having uniform 5 ft by 5 ft spacing.

Figures 9 through 16 present the interpolated concentration distributions.

Area-Averaged Groundwater Plume Concentrations

The area-averaged plume concentrations represent the average TCE-equivalent CVOC concentrations distributed throughout the alluvial aquifer. Trends in groundwater concentrations from individual wells can vary over time such that some wells may exhibit increasing concentrations, some wells may exhibit decreasing concentrations, and some wells may exhibit stable concentrations, which is evident in the concentration profiles shown on Figure 8. As a result, overall spatial trends in concentrations can be difficult to identify on an individual well basis. Area-averaged plume concentrations provide a means to investigate concentration trends spatially and discern overall trends in the plume configuration. The area-averaged plume concentrations were estimated using the following equation:

$$\overline{C} = \frac{V_C}{A_C} \qquad \text{Equation 1}$$

Where:

$\overline{C}$ = the area-averaged TCE-equivalent concentration (µg/L)

V_C = the total concentration within the plume area as approximated using the Positive Volume [Cut] methodology in Surfer 12. Calculating the total concentration involves determining the integrals of concentrations across the x direction in the 5 × 5 ft grid. The results of these integrations themselves then are integrated along the y direction of the 5 × 5 ft grid. The result is a value with units of µg/L × ft².

A_C = the plan-view area of the groundwater plume (ft²)

[14] Golden Software, 2015. Surfer Version 12.8.1009 (64-bit) Surface Mapping System, Golden Software, Incorporated, July 15.

Groundwater Plume Mass

The trends in plume mass were estimated based on the area-averaged TCE-equivalent concentrations and the groundwater plume area for each sampling event. The plume mass for each sampling event was determined using:

$$M = \overline{C} \times A_C \times d \times \eta \times \frac{1{,}000\,L/m^3 \times 0.028\,m^3/ft^3}{1 \times 10^9\,\mu g/kilogram\,(kg)} \qquad \text{Equation 2}$$

Where:

M	=	The TCE-equivalent mass of CVOCs in the plume (kg)
d	=	The plume thickness (ft)
η	=	The porosity of the alluvial aquifer (dimensionless).

The plume thickness was estimated based on the difference between the TMW-144 top of screen elevation (where TCE-equivalent concentrations in July 2015 were 10.4 µg/L) and the MW-144C bottom of screen elevation (where TCE-equivalent concentrations in July 2015 were below the RL of 1 µg/L for individual VOCs). Using this approach, a plume thickness of 68.8 ft was estimated and assumed to be uniform throughout the plume. A porosity value of 29 percent was selected for the alluvial aquifer based on the saturated water content of Shelby tube samples collected from 16.2 to 16.6 ft bgs, as reported in Conestoga-Rovers & Associates (CRA) (2013)[15]. As for the plume depth, the porosity was assumed constant throughout the alluvial aquifer. Ricker (2008) also assumed constant plume depth and aquifer porosity on the basis that applying constants in the plume mass calculations has no bearing on the plume stability analysis since the intent is to observe relative changes from year to year. The purpose of estimating plume mass is to provide a meaningful indicator of plume characteristics over time, and not to provide precise estimates of TCE-equivalent CVOC mass.

Locations of the Centers of Groundwater Plume Mass

Historical changes to the groundwater plume centers of mass, when plotted over time, can indicate potential plume migration in relation to the hydraulic gradient across the Site. The X- and Y-coordinates for each of the groundwater monitoring events are based on concentrations in each 5 ft × 5 ft grid cell. The concentration-weighted X- and Y-coordinates were calculated using the following equations:

$$X_{\text{Groundwater Plume Center}} = \frac{\sum_{i=1}^{n_{\text{grid cells}}} X_i \times C_i}{\sum_{i=1}^{n_{\text{grid cells}}} C_i} \qquad \text{Equation 3}$$

[15] CRA, 2015. Interim Measures Work Plan for MW-103A and TMW-130 Areas, Former Fairfax I Site, Kansas City, Kansas. June.

and

$$Y_{\text{Groundwater Plume Center}} = \frac{\sum_{i=1}^{n_{\text{grid cells}}} Y_i \times C_i}{\sum_{i=1}^{n_{\text{grid cells}}} C_i} \qquad \text{Equation 4}$$

$X_{\text{Groundwater Plume Center}}$	=	The center of groundwater TCE-equivalent CVOC plume mass in the X-coordinate (ft)
$Y_{\text{Groundwater Plume Center}}$	=	The center of groundwater TCE-equivalent CVOC plume mass in the Y-coordinate (ft)
X_i	=	The X-coordinate (ft) of each of the grid cells, i
Y_i	=	The Y-coordinate (ft) of each of the grid cells, i
C_i	=	The interpolated groundwater TCE-equivalent CVOC concentration (µg/L) at the center of each of the grid cells, i
$n_{\text{grid cells}}$	=	The number of grid cells

4. Plume Stability Analysis Results

The top, middle, and bottom panels of Figure 17 present the changes to groundwater plume planar areas, average-area concentrations, and mass, respectively. Figure 17 includes green-shaded areas representing the 99 percent confidence intervals for the estimated rates of change. Between October 2013 and 2015, the planar TCE-equivalent CVOC plume area in the TMW-127 Area exhibits a decreasing trend. The planar plume area was approximately 9.1 acres in 2013. The area decreased to 7 acres in 2015. This change; however, is not statistically significant at the 99 percent confidence level based on criteria described by Draper and Smith (1998)[16,17].

The average groundwater TCE-equivalent CVOC plume concentration is relatively stable, exhibiting little change over the monitoring period between October 2013 and July 2015. The average plume concentration over the duration of the monitoring period is approximately 66 µg/L. The estimates for average plume concentration vary from 64.3 µg/L in January 2014 to 79 µg/L in April 2014. The groundwater plume mass appears to exhibit a decreasing trend over time. This is attributable to the average groundwater plume concentration remaining stable while diminishing in planar plume area, particularly in January and July 2015. The apparent change in groundwater plume mass is not statistically significant at the 99 percent confidence level and at this time should be considered stable.

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16 A rate of change for the groundwater plume areas, the average groundwater plume concentrations, or the groundwater plume masses is deemed statistically different from the null hypothesis of there being no change over time if a regression-based trend line with a slope of 0 cannot be fit between the 99 percent confidence intervals.

17 Draper, N.R. and H. Smith, 1998. Applied Regression Analysis, John Wiley & Sons, Inc, New York.

GHD calculated the TCE-equivalent CVOC plume center of mass over time as described in Section 3.1. Figure 18 presents the centers of groundwater plume mass over time. Dates of the monitoring events are annotated on the Figure 18 inset and average groundwater plume concentrations are illustrated using a color scale that depicts the lower range of average groundwater concentrations with blue coloring and the higher range of average groundwater concentrations with red coloring. The center of groundwater plume mass oscillates back and forth in a northwest-southeast trending pattern, likely influenced by the periodic reversal of groundwater flow directions throughout the year. This groundwater flow reversal should aid in keeping the groundwater plume stable.

It should be noted that this interpretation, that the plume is stable, may be limited due to the sufficiency of the data record since changes to average groundwater concentrations are demonstrated over multiple years. Long-term trends based on continued groundwater quality monitoring data may provide further insight into the stability of the groundwater TCE-equivalent CVOC plume. After a period of 3 to 5 years, sufficient additional monitoring data should be available to provide a further evaluation of the stability analysis results.

5. Summary and Conclusions

- Historical aerospace and automotive assembly operations at the Former Fairfax I Site have resulted in TCE, cDCE, tDCE, and VC impacts to groundwater beneath the TMW-127 Area.
- Groundwater at the Site periodically flows from the TMW-127 Area towards the Missouri River located northwest of the TMW-127 area. At other times of the year high water levels in the Missouri River cause groundwater flow to change direction so that flow occurs towards the southeast across the Site.
- Based on single-well groundwater concentration profiles, residual concentrations of groundwater TCE-equivalent CVOC concentrations exhibit some decreasing trends in some of the monitoring wells and some increasing trends in some others.
- It is difficult to ascertain general conclusions about groundwater plume stability based on single-well groundwater concentrations alone.
- GHD conducted a groundwater TCE-equivalent CVOC plume stability analysis using methods introduced by Ricker in 2008 and showcased as a RCRA Corrective Action Showcase Pilot by the EPA in 2012.
- Based on the results of the plume stability analysis, which evaluated groundwater concentrations sampled over a limited data set between October 2013 and July 2015, at the 99 percent confidence level the groundwater plume area, average concentration, and mass appear to be stable. There do appear to be early signs of a decreasing trend of groundwater plume area and plume mass but these trends are not statistically significant.
- The location of the groundwater TCE-equivalent CVOC plume center of mass oscillates back and forth to the northwest and southeast. The center of mass moves as changing water levels in the Missouri River induce a change in the hydraulic gradient across the Site. The changing groundwater flow direction should aid in keeping the groundwater plume stable.
- Preliminary conclusions based on the limited (October 2013 to July 2015) data set may be supplemented with additional monitoring data collected over the next 3 to 5 year in order to make longer-term evaluations of groundwater plume stability.

Table 1

Regional Monitoring Well Construction Details
Former Fairfax I Site
Kansas City, Kansas

Key Code	Well ID	X Coordinate State-Plane (Feet)	Y Coordinate State-Plane (Feet)	NED Ground Surface Elevation (Feet AMSL)[1]	Completion Date	Median Depth to Groundwater (Feet BGS)	Median Groundwater Elevation (Feet AMSL)[2]
Regional Monitoring Wells From KGS Well Database							
RW-60	454638	2276403	308463	753.2	2/24/2011	18.80	734.40
RW-61	410399	2273973	308595	744.6	9/27/2007	20.89	723.72
RW-62	410401	2274637	308619	740.5	9/27/2007	13.80	726.75
RW-63	410397	2275300	308643	743.5	9/27/2007	24.33	719.19
RW-64	373805	2275795	308662	744.8	8/7/1985	24.00	720.84
RW-65	454639	2276538	308665	753.3	1/6/2011	26.30	726.97
RW-66	91589	2275957	308670	744.3	12/1/1989	24.08	720.21
RW-67	454637	2276671	308888	752.5	1/6/2011	25.60	726.89
RW-68	410381	2275126	308965	742.7	9/27/2007	24.31	718.42
RW-69	429004	2273619	309062	742.3	7/1/2009	15.33	726.95
RW-70	454764	2276806	309072	753.7	1/6/2011	26.20	727.48
RW-71	410360	2270476	309130	855.6	9/27/2007	25.97	829.67
RW-72	429005	2273525	309149	743.8	7/1/2009	18.35	725.50
RW-73	481539	2273426	309157	743.5	7/9/2014	21.40	722.08
RW-74	429002	2273666	309177	742.1	6/30/2009	16.25	725.87
RW-75	386596	2273294	309228	744.0	11/20/1997	13.00	730.99
RW-76	344080	2274388	309230	742.2	9/30/2003	21.17	720.99
RW-77	454765	2276914	309243	752.9	1/6/2011	27.20	725.75
RW-78	429003	2273657	309249	741.3	6/30/2009	17.76	723.58
RW-79	410395	2274620	309275	741.5	9/26/2007	20.68	720.86
RW-80	364252	2275283	309298	742.4	8/15/1984	14.15	728.29
RW-81	410361	2275777	309317	745.4	9/27/2007	25.43	719.93
RW-82	91590	2275940	309324	744.7	12/1/1989	24.00	720.66
RW-83	454761	2276993	309396	752.2	1/6/2011	26.30	725.92
RW-84	373784	2275773	309481	744.9	8/7/1985	24.00	720.88
RW-85	454762	2277074	309501	752.7	1/6/2011	25.50	727.20
RW-86	481538	2273837	309536	743.2	7/8/2014	24.06	719.14
RW-87	454763	2277156	309600	753.6	1/6/2011	27.10	726.51
RW-88	395977	2274230	309624	743.7	10/17/2006	19.90	723.80
RW-89	481541	2274229	309661	743.7	7/8/2014	19.60	724.10
RW-90	455356	2277239	309664	761.9	4/2/2012	19.05	742.82
RW-91	410386	2276258	309667	741.8	9/26/2007	24.11	717.72
RW-92	410355	2276910	309697	744.1	9/26/2007	26.25	717.82
RW-93	454758	2277235	309751	753.1	1/6/2011	27.00	726.15
RW-94	344071	2272615	309863	744.2	9/18/2003	20.00	724.24

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RW-95	454759	2277316	309871	752.3	1/6/2011	24.90	727.44
RW-96	344074	2273278	309885	744.2	9/25/2003	20.94	723.24
RW-97	303891	2273940	309908	743.6	9/11/1998	13.87	729.71
RW-98	414313	2274603	309930	742.0	5/28/2008	18.00	724.00
RW-99	410393	2275266	309953	741.9	9/26/2007	24.11	717.79
RW-100	454760	2277369	309958	752.4	1/6/2011	24.90	727.46
RW-101	454756	2277451	310058	752.7	1/27/2011	24.60	728.11
RW-102	344076	2274723	310117	742.8	10/1/2003	20.40	722.39
RW-103	373693	2275427	310122	741.1	8/7/1985	24.00	717.07
RW-104	454757	2277505	310141	752.9	2/24/2011	18.70	734.18
RW-105	410388	2276246	310158	745.1	9/26/2007	20.15	724.90
RW-106	344079	2273899	310158	741.7	9/23/2003	22.01	719.68
RW-107	395984	2273811	310225	743.0	10/17/2006	10.00	732.99
RW-108	454754	2277557	310226	752.9	1/7/2011	25.10	727.83
RW-109	481470	2274007	310308	745.2	7/14/2014	22.40	722.84
RW-110	454755	2277639	310328	753.8	1/7/2011	24.40	729.40
RW-111	482418	2274053	310340	745.7	12/9/2014	20.00	725.67
RW-112	482171	2274738	310366	744.0	12/8/2014	20.00	723.96
RW-113	454750	2277665	310402	752.8	1/7/2011	25.50	727.30
RW-114	482167	2273744	310481	743.2	11/4/2014	20.00	723.24
RW-115	454751	2277747	310489	753.7	1/7/2011	28.30	725.43
RW-116	481472	2274737	310518	744.6	7/14/2014	20.00	724.63
RW-117	369198	2272600	310520	742.8	4/1/2005	21.33	721.46
RW-118	91572	2273262	310542	743.9	1/10/1990	21.00	722.92
RW-119	482164	2274731	310548	744.4	12/8/2014	20.00	724.38
RW-120	454752	2277801	310563	753.9	1/7/2011	27.30	726.62
RW-121	412682	2273924	310564	745.8	2/27/2008	23.96	721.84
RW-122	482173	2273883	310583	745.7	11/3/2014	20.00	725.72
RW-123	472657	2274917	310597	742.5	11/8/2013	18.90	723.58
RW-124	482165	2273863	310601	745.7	11/4/2014	20.00	725.67
RW-125	482156	2273877	310602	745.5	11/4/2014	20.00	725.53
RW-126	114573	2275906	310634	741.7	5/7/1997	9.88	731.87
RW-127	454753	2277854	310639	755.1	2/21/2011	21.20	733.89
RW-128	412683	2276560	310664	744.4	1/23/2008	25.88	718.52
RW-129	91588	2277214	310695	742.5	6/29/1980	6.30	736.25
RW-130	481466	2273907	310706	745.4	7/14/2014	19.90	725.49
RW-131	454748	2277880	310709	753.0	2/21/2011	23.00	729.97

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RW-132	364242	2277868	310725	751.5	10/5/1984	16.05	735.50
RW-133	483813	2273867	310753	745.9	11/18/2014	16.46	729.40
RW-134	481473	2273734	310772	743.7	7/14/2014	19.35	724.31
RW-135	410391	2275738	310790	739.5	9/24/2007	24.88	714.65
RW-136	454745	2277962	310796	756.4	2/21/2011	23.80	732.64
RW-137	454746	2277988	310877	753.3	2/21/2011	20.20	733.13
RW-138	91564	2273585	310881	743.6	3/13/1976	16.25	727.31
RW-139	454747	2278040	310977	753.4	2/21/2011	18.40	734.98
RW-140	483814	2274097	311017	745.9	11/19/2014	19.83	726.09
RW-141	483816	2274095	311019	746.0	11/19/2014	19.48	726.47
RW-142	454742	2278094	311067	755.7	2/21/2011	18.50	737.24
RW-143	304798	2271922	311157	745.3	3/12/1999	30.00	715.31
RW-144	454743	2278119	311173	753.9	2/21/2011	18.70	735.17
RW-145	91575	2273246	311199	744.5	10/8/1993	11.08	733.44
RW-146	456039	2273907	311220	743.6	4/17/2012	18.08	725.52
RW-147	462204	2273858	311223	742.3	11/14/2012	20.36	721.93
RW-148	114572	2275231	311263	743.1	5/7/1997	13.94	729.14
RW-149	114569	2275889	311289	744.6	5/8/1997	11.29	733.29
RW-150	454744	2278142	311312	753.5	2/21/2011	25.20	728.31
RW-151	114571	2276544	311319	744.9	5/8/1997	12.22	732.64
RW-152	373660	2277199	311350	745.5	8/7/1985	24.00	721.51
RW-153	410383	2277854	311380	744.4	9/26/2007	22.10	722.35
RW-154	454741	2278163	311493	753.4	2/21/2011	24.00	729.38
RW-155	333326	2276864	311662	744.6	7/10/2002	22.50	722.14
RW-156	454740	2278184	311694	755.9	3/7/2011	28.50	727.36
RW-157	333323	2279485	311785	719.2	7/16/2002	23.00	696.20
RW-158	91421	2271245	311794	744.3	1/24/1984	18.00	726.25
RW-159	91528	2271907	311815	744.1	9/20/1975	35.00	709.12
RW-160	111832	2272568	311835	742.6	12/5/1996	13.64	728.98
RW-161	103077	2275214	311918	743.4	9/14/1995	13.41	730.02
RW-162	410389	2275872	311944	742.7	9/24/2007	24.19	718.50
RW-163	382730	2276192	312287	745.1	10/15/2005	24.13	720.96
RW-164	111834	2271891	312473	744.1	12/5/1996	16.00	728.09
RW-165	111833	2272552	312493	743.6	12/5/1996	16.00	727.55
RW-166	91570	2275196	312573	743.5	8/15/1987	15.14	728.36
RW-167	91581	2277169	312661	743.1	12/3/1985	18.00	725.10
RW-168	314973	2269895	313068	744.5	5/22/2000	18.89	725.60

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RW-169	398033	2270553	313092	743.7	12/5/2006	22.50	721.18
RW-170	118225	2271214	313112	742.8	9/16/1997	15.57	727.23
RW-171	91462	2271875	313132	745.7	4/2/1981	17.00	728.71
RW-172	478728	2272536	313152	744.2	4/8/2014	16.35	727.83
RW-173	91463	2273197	313172	744.4	8/7/1981	24.00	720.37
RW-174	373869	2275838	313257	742.8	4/8/1985	19.65	723.12
RW-175	91448	2276495	313288	741.4	5/28/1985	16.20	725.16
RW-176	357868	2269558	313383	742.5	12/8/2004	25.58	716.89
RW-177	437583	2272128	313482	743.1	8/8/2010	10.81	732.33
RW-178	454694	2278367	313606	763.0	1/25/2011	37.00	726.00
RW-179	437584	2272066	313625	743.5	8/8/2010	11.10	732.41
RW-180	430648	2269876	313726	747.9	12/4/2009	21.78	726.12
RW-181	111417	2270534	313751	747.6	12/4/1996	14.82	732.77
RW-182	305548	2271195	313771	743.5	5/18/1999	14.04	729.43
RW-183	91475	2271857	313792	743.0	6/19/1985	15.90	727.11
RW-184	454692	2278360	313810	758.2	1/25/2011	33.40	724.82
RW-185	374416	2270364	313910	745.4	9/13/2005	27.55	717.81
RW-186	373884	2275822	313920	744.0	2/15/1985	16.30	727.72
RW-187	91432	2276477	313950	740.6	5/15/1985	16.30	724.27
RW-188	454693	2278352	314010	755.8	1/25/2011	32.80	723.04
RW-189	391819	2271517	314111	744.0	5/15/2006	23.66	720.38
RW-190	454691	2278374	314175	763.3	1/25/2011	32.70	730.57
RW-191	91500	2266583	314243	747.3	3/12/1976	21.50	725.80
RW-192	91516	2267238	314271	745.9	7/16/1992	10.50	735.40
RW-193	454601	2278338	314371	756.7	2/7/2011	33.70	723.01
RW-194	397225	2270515	314409	745.3	12/6/2006	26.16	719.13
RW-195	405999	2264275	314478	777.5	4/27/2007	5.26	772.25
RW-196	405997	2265592	314530	755.2	4/23/2007	2.52	752.70
RW-197	91460	2274486	314535	742.1	7/24/1978	10.35	731.74
RW-198	454690	2278332	314557	757.5	2/7/2011	33.40	724.13
RW-199	91433	2275805	314582	744.7	6/19/1985	16.20	728.50
RW-200	474607	2266665	314627	747.0	3/11/2014	26.05	720.91
RW-201	91440	2277113	314641	741.4	6/12/1985	16.20	725.23
RW-202	454597	2278323	314768	758.7	2/7/2011	33.10	725.57
RW-203	428073	2264598	314820	756.8	6/16/2008	3.50	753.32
RW-204	474608	2266628	314844	746.6	3/11/2014	26.51	720.12
RW-205	91502	2265256	314846	754.2	10/2/1984	20.60	733.57

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RW-206	91501	2265911	314874	751.0	10/2/1984	16.75	734.21
RW-207	415165	2266565	314902	746.2	3/4/2008	13.50	732.73
RW-208	312243	2268529	314986	744.4	5/3/2000	25.00	719.42
RW-209	432333	2266362	315020	746.4	11/3/2009	14.00	732.40
RW-210	454282	2278313	315041	760.0	2/7/2011	33.20	726.84
RW-211	91505	2269838	315043	745.6	1/11/1990	13.00	732.61
RW-212	91456	2270497	315068	746.8	1/19/1994	21.75	725.03
RW-213	474606	2267046	315078	747.2	3/10/2014	26.97	720.23
RW-214	418058	2271159	315089	744.2	9/5/2008	23.00	721.23
RW-215	432313	2266343	315110	746.5	11/3/2009	17.00	729.46
RW-216	91461	2273145	315154	745.7	7/28/1978	20.50	725.17
RW-217	91464	2273807	315176	743.1	1/19/1984	8.00	735.13
RW-218	471169	2269670	315200	747.3	9/30/2013	23.50	723.80
RW-219	474609	2266757	315214	746.4	3/11/2014	26.41	719.99
RW-220	91474	2275131	315219	743.6	7/24/1985	22.00	721.64
RW-221	91444	2275789	315244	744.8	7/14/1985	17.30	727.50
RW-222	486648	2267538	315273	752.7	3/31/2015	25.00	727.66
RW-223	454590	2278305	315277	761.3	2/7/2011	33.90	727.39
RW-224	91452	2277094	315302	742.1	10/6/1986	23.00	719.08
RW-225	91451	2277747	315331	742.9	10/10/1986	23.00	719.91
RW-226	432315	2266521	315401	747.2	11/3/2009	10.00	737.16
RW-227	474605	2266749	315431	746.7	3/10/2014	26.06	720.60
RW-228	485775	2271568	315442	745.4	1/22/2015	22.65	722.71
RW-229	432316	2266535	315442	747.2	11/3/2009	11.00	736.22
RW-230	454279	2278297	315470	764.2	2/7/2011	31.10	733.15
RW-231	432332	2266548	315524	747.1	11/3/2009	14.00	733.12
RW-232	454280	2278264	315604	755.4	2/7/2011	28.30	727.12
RW-233	91511	2267857	315617	747.0	11/18/1993	18.46	728.51
RW-234	415164	2268511	315645	746.3	11/29/2007	25.00	721.35
RW-235	454281	2278261	315669	756.2	2/7/2011	28.90	727.25
RW-236	360736	2270478	315726	746.5	11/16/2004	24.10	722.36
RW-237	454247	2278258	315735	757.8	2/7/2011	27.50	730.33
RW-238	395990	2271803	315770	744.3	10/30/2006	28.90	715.40
RW-239	395989	2272465	315792	744.5	10/30/2006	29.15	715.35
RW-240	454248	2278257	315797	760.2	2/11/2011	33.60	726.55
RW-241	432314	2266379	315821	748.3	11/3/2009	14.00	734.31
RW-242	454718	2265854	315825	755.2	3/15/2011	32.20	722.97

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RW-243	454717	2266080	315859	749.3	3/15/2011	30.30	719.02
RW-244	454249	2278225	315861	756.4	2/11/2011	33.20	723.15
RW-245	373868	2275115	315881	743.2	3/29/1985	15.80	727.39
RW-246	454716	2266334	315901	748.5	3/15/2011	23.50	724.96
RW-247	373867	2275772	315907	743.1	4/2/1985	18.00	725.10
RW-248	454250	2278224	315930	759.3	2/11/2011	37.00	722.32
RW-249	91453	2276424	315935	740.0	12/13/1986	21.25	718.71
RW-250	454715	2266559	315950	745.8	3/15/2011	21.80	724.01
RW-251	454251	2278221	315984	763.3	2/11/2011	34.10	729.16
RW-252	454714	2266784	316006	746.7	3/14/2011	22.90	723.76
RW-253	454242	2278190	316053	760.3	2/11/2011	36.50	723.84
RW-254	454713	2266981	316056	747.0	3/14/2011	23.10	723.93
RW-255	485771	2271464	316083	745.9	1/22/2015	22.90	723.00
RW-256	454712	2267206	316108	746.4	3/14/2011	22.40	724.02
RW-257	485770	2271378	316116	745.7	1/23/2015	22.76	722.96
RW-258	454243	2278159	316118	758.4	2/14/2011	34.00	724.42
RW-259	485772	2271217	316158	745.0	1/23/2015	22.25	722.70
RW-260	454711	2267374	316158	756.4	3/11/2011	18.90	737.52
RW-261	385921	2265223	316164	722.1	5/25/2006	-3.00	725.10
RW-262	454244	2278128	316182	757.6	2/14/2011	36.30	721.29
RW-263	454710	2267486	316184	739.5	3/11/2011	26.80	712.72
RW-264	454708	2267599	316232	750.7	3/11/2011	32.40	718.32
RW-265	454245	2278098	316246	757.7	2/14/2011	34.10	723.58
RW-266	485776	2271458	316261	745.6	1/23/2015	22.55	723.07
RW-267	454709	2267512	316261	760.6	3/11/2011	31.30	729.26
RW-268	485774	2271318	316264	745.2	1/23/2015	22.47	722.75
RW-269	454707	2267711	316266	748.6	3/11/2011	24.60	723.96
RW-270	454706	2267908	316310	748.3	3/11/2011	25.80	722.51
RW-271	454246	2278067	316321	760.2	2/14/2011	33.40	726.81
RW-272	454705	2267850	316340	757.8	3/11/2011	26.00	731.81
RW-273	454704	2268217	316379	747.2	3/11/2011	23.00	724.19
RW-274	485773	2271291	316383	744.1	1/22/2015	26.80	717.26
RW-275	454236	2278036	316390	763.1	2/14/2011	35.40	727.74
RW-276	454703	2268386	316419	747.0	3/10/2011	25.80	721.20
RW-277	395988	2271785	316430	744.9	10/31/2006	29.75	715.15
RW-278	454237	2277977	316442	757.8	2/14/2011	36.90	720.88
RW-279	395987	2272448	316453	745.1	10/30/2006	29.22	715.88

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RW-280	454702	2268527	316460	747.6	3/10/2011	24.70	722.88
RW-281	395979	2273111	316475	744.8	11/1/2006	28.18	716.62
RW-282	454701	2268695	316495	747.7	3/10/2011	28.50	719.17
RW-283	454238	2277947	316496	759.8	2/14/2011	32.70	727.06
RW-284	395976	2273773	316498	744.4	11/3/2006	23.00	721.37
RW-285	454700	2268864	316535	747.8	3/10/2011	27.00	720.75
RW-286	454239	2277888	316548	756.8	2/15/2011	34.20	722.64
RW-287	454699	2269062	316571	747.6	3/10/2011	23.20	724.40
RW-288	91449	2276406	316597	739.0	9/13/1985	14.80	724.15
RW-289	454240	2277829	316605	756.4	2/15/2011	34.60	721.79
RW-290	454698	2269258	316633	747.4	3/3/2011	22.90	724.53
RW-291	454241	2277771	316646	755.3	2/15/2011	34.00	721.34
RW-292	454229	2277741	316695	756.7	2/15/2011	34.30	722.37
RW-293	454697	2269539	316702	747.4	3/3/2011	22.10	725.26
RW-294	454230	2277682	316734	755.7	2/15/2011	36.60	719.06
RW-295	454696	2269679	316761	747.0	2/17/2011	22.10	724.89
RW-296	454231	2277652	316772	756.8	2/15/2011	32.60	724.21
RW-297	454232	2277594	316804	755.7	2/15/2011	32.50	723.23
RW-298	454233	2277537	316827	754.9	2/15/2011	35.00	719.87
RW-299	454234	2277479	316853	754.4	2/24/2011	24.70	729.74
RW-300	454277	2277365	316886	749.8	2/16/2011	22.10	727.68
RW-301	454235	2277449	316911	757.7	2/16/2011	32.80	724.87
RW-302	454695	2269985	316926	748.4	3/4/2011	26.00	722.41
RW-303	454278	2277305	316953	755.1	2/16/2011	25.60	729.55
RW-304	454252	2277248	316979	755.2	2/16/2011	30.60	724.65
RW-305	454253	2277162	317002	755.8	2/16/2011	33.50	722.33
RW-306	454254	2277104	317018	755.5	2/16/2011	33.30	722.18
RW-307	454255	2277019	317033	754.6	2/16/2011	30.40	724.19
RW-308	454739	2270321	317041	747.5	3/4/2011	23.10	724.39
RW-309	454256	2276961	317053	755.2	2/16/2011	33.60	721.59
RW-310	454257	2276904	317061	755.0	2/16/2011	31.00	723.96
RW-311	91493	2271104	317066	746.2	9/9/1991	20.00	726.21
RW-312	454258	2276847	317078	755.1	2/17/2011	32.20	722.89
RW-313	395986	2271767	317089	745.9	10/31/2006	23.31	722.61
RW-314	454259	2276761	317097	755.2	2/17/2011	29.40	725.80
RW-315	395982	2272430	317113	745.1	11/2/2006	28.72	716.38
RW-316	454260	2276703	317113	755.4	2/17/2011	31.50	723.91

Table 1

Regional Monitoring Well Construction Details
Former Fairfax I Site
Kansas City, Kansas

Key Code	Well ID	X Coordinate State-Plane (Feet)	Y Coordinate State-Plane (Feet)	NED Ground Surface Elevation (Feet AMSL)[1]	Completion Date	Median Depth to Groundwater (Feet BGS)	Median Groundwater Elevation (Feet AMSL)[2]
RW-317	454263	2276505	317119	751.4	2/17/2011	15.60	735.76
RW-318	454262	2276590	317122	754.8	2/17/2011	27.00	727.76
RW-319	454261	2276646	317128	755.6	2/17/2011	29.70	725.93
RW-320	454264	2276446	317154	750.4	2/17/2011	18.30	732.15
RW-321	454265	2276390	317162	748.6	2/17/2011	27.70	720.88
RW-322	454738	2270685	317178	747.9	3/3/2011	24.60	723.30
RW-323	454266	2276304	317192	752.2	2/17/2011	29.00	723.18
RW-324	454267	2276246	317197	752.9	2/17/2011	29.30	723.62
RW-325	454268	2276188	317221	754.2	2/18/2011	28.10	726.11
RW-326	454269	2276132	317233	754.2	2/18/2011	28.60	725.58
RW-327	454270	2276074	317263	755.3	2/18/2011	26.40	728.94
RW-328	454271	2275988	317278	754.9	2/18/2011	26.60	728.34
RW-329	454736	2271135	317287	747.5	3/3/2011	22.60	724.91
RW-330	454272	2275816	317327	757.1	2/18/2011	27.70	729.43
RW-331	454273	2275730	317345	756.3	2/18/2011	27.40	728.85
RW-332	454274	2275644	317361	755.6	2/18/2011	22.80	732.84
RW-333	454276	2275473	317383	747.5	3/7/2011	26.40	721.14
RW-334	454275	2275586	317384	755.5	3/7/2011	22.00	733.48
RW-335	454727	2275386	317409	752.7	3/7/2011	26.80	725.92
RW-336	454730	2275329	317425	754.1	3/9/2011	28.60	725.54
RW-337	454731	2275243	317437	753.7	3/9/2011	27.70	725.97
RW-338	454733	2275158	317462	754.1	3/9/2011	26.80	727.32
RW-339	454720	2274900	317533	754.7	3/9/2011	29.60	725.06
RW-340	454722	2274555	317629	755.9	3/9/2011	30.60	725.34
RW-341	454725	2274242	317665	755.2	3/9/2011	27.50	727.67
RW-342	395981	2271749	317749	748.2	10/31/2006	27.27	720.94
RW-343	395975	2273076	317797	752.6	11/2/2006	29.31	723.25
RW-344	395970	2273740	317820	759.3	11/10/2006	28.70	730.56
RW-345	91438	2275722	317893	739.0	7/14/1985	17.30	721.71
RW-346	91422	2271731	318407	728.9	9/30/1981	20.00	708.93
RW-347	91423	2272395	318431	750.0	9/4/1981	18.00	732.00
RW-348	91419	2273059	318455	747.0	9/29/1981	20.00	726.95
RW-349	91420	2273705	319134	721.0	9/28/1981	20.00	701.00

Notes:

(1) Date obtained from USDA/NRCS, 2015. National Geospatial Center of Excellence, National Elevation Data 3 Meter or Better.
(2) Referenced to NED Ground Surface Elevation.

Table 2

Monitoring Well Construction Details
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	X Coordinate State-Plane (Feet)	Y Coordinate State-Plane (Feet)	Reference Elevation: Top of Casing (ft AMSL)[1]	Reference Elevation: Ground Surface (ft AMSL)	Completion Date	Well Material[2]	Screened Interval: Depth: Top (ft bgs)[3]	Screened Interval: Depth: Bottom (ft bgs)	Screened Interval: Top (ft AMSL)	Screened Interval: Bottom (ft AMSL)
Plume Stability Analysis Monitoring Wells										
MW-108	2273011	317112	747.17	744.0	1/6/88	PVC	--	28.5	--	715.5
MW-110	2272484	316616	745.79	743.8	4/90	--	--	61.2	--	682.6
MW-144B	2273430	316310	745.70	743.1	5/14/13	PVC	49.2	59.2	693.9	683.9
MW-144C	2273433	316318	745.83	743.0	5/14/13	PVC	78.6	88.6	664.5	654.5
MW-146B	2273667	316303	745.44	743.1	5/15/13	PVC	49.7	59.7	693.4	683.4
MW-146C	2273667	316310	745.73	743.1	5/15/13	PVC	79.9	89.9	663.2	653.2
MW-156	2273258	316659	746.88	743.7	4/11/12	PVC	49.0	59.0	694.7	684.7
MW-156C	2273268	316659	746.46	743.8	2/19/13	PVC	80.5	90.5	663.4	653.4
MW-158A	2272997	317007	746.06	743.4	5/16/13	PVC	9.7	29.7	733.7	713.7
MW-158B	2273001	316999	745.88	743.3	5/16/13	PVC	49.6	59.6	693.7	683.7
MW-1A	2273774	316662	745.93	743.7	3/27/85	PVC	15.0	35.0	728.7	708.7
MW-1B	2273774	316667	745.40	743.6	3/27/85	PVC	65.0	85.0	678.6	658.6
MW-1C	2273773	316675	746.13	743.6	4/1/85	PVC	87.0	107.0	656.6	636.6
TMW-127	2273263	316670	746.02	743.5	11/3/06	PVC	25.0	35.0	718.5	708.5
TMW-144	2273426	316326	745.08	742.8	10/30/07	PVC	19.5	29.5	723.3	713.3
TMW-145	2273561	316509	745.36	743.0	10/30/07	PVC	19.5	29.5	723.5	713.5
TMW-146	2273678	316323	744.93	742.8	10/30/07	PVC	19.0	29.0	723.8	713.8
TMW-153	2273361	316496	745.82	743.1	4/12/12	PVC	17.0	27.0	726.1	716.1
TMW-154	2273134	316538	745.41	743.4	4/12/12	PVC	17.0	27.0	726.4	716.4
TMW-155	2273124	316816	746.27	743.9	4/12/12	PVC	17.0	27.0	726.9	716.9
Fairfax I Area Monitoring Wells Not Used in Plume Stability Analysis										
MW-109	2272454	316131	746.11	743.5	6/89	--	--	30.0	--	713.5
TMW-147E	360523	4334913	744.11	741.6	4/13/12	PVC	17.0	27.0	724.6	714.6
TMW-148	360589	4334809	745.85	743.6	4/16/12	PVC	17.0	27.0	726.6	716.6
TMW-149	360638	4334709	745.96	743.9	4/16/12	PVC	17.0	27.0	726.9	716.9
MW-125	2272141	317149	745.34	742.3	10/31/07	PVC	25.0	35.0	717.3	707.3
TMW-150	360515	4335221	746.26	742.7	4/13/12	PVC	17.0	27.0	725.7	715.7
TMW-151	360526	4335212	744.79	742.9	4/13/12	PVC	17.0	27.0	725.9	715.9
TMW-152	360494	4335189	744.02	742.0	4/16/12	PVC	17.0	27.0	725.0	715.0
MW-102A	2272216	317451	748.82	746.1	1/9/88	PVC	--	29.3	--	716.9
MW-102B	2272222	317455	749.15	746.1	1/13/88	PVC	--	61.2	--	684.9
MW-102C	2272237	317455	749.20	746.2	1/12/88	PVC	--	94.0	--	652.2
MW-103A	2272442	317328	747.71	745.1	1/88	SS	--	29.6	--	715.5
MW-103B	2272451	317322	746.30	745.1	1/88	SS	--	61.4	--	683.8
MW-103C	2272436	317318	745.90	745.1	1/88	SS	--	102.1	--	643.0
MW-104	2272543	317366	746.51	744.8	1/10/88	PVC	--	28.4	--	716.4
MW-105	2272686	317346	746.70	744.1	1/8/88	PVC	--	30.2	--	713.9

Table 2

Monitoring Well Construction Details
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	X Coordinate State-Plane (Feet)	Y Coordinate State-Plane (Feet)	Reference Elevation: Top of Casing (ft AMSL)[1]	Reference Elevation: Ground Surface (ft AMSL)	Completion Date	Well Material[2]	Screened Interval: Depth: Top (ft bgs)[3]	Screened Interval: Depth: Bottom (ft bgs)	Screened Interval: Top (ft AMSL)	Screened Interval: Bottom (ft AMSL)
MW-115A	2272432	317459	748.07	745.7	5/12/99	PVC	11.7	26.7	734.0	719.0
TMW-157	360615	4335274	747.37	744.9	4/12/12	PVC	17.0	27.0	727.9	717.9
TMW-130	--	--	744.86	742.8	11/3/06	PVC	25.0	35.0	717.8	707.8
TMW-139	360910	4334931	745.63	743.0	10/15/07	PVC	20.0	30.0	723.0	713.0
TMW-140	360910	4334892	745.13	742.6	10/15/07	PVC	20.0	30.0	722.6	712.6
TMW-141	360924	4334912	745.39	742.3	10/16/07	PVC	20.0	30.0	722.3	712.3
TMW-142	360894	4334915	744.93	742.8	10/16/07	PVC	20.0	30.0	722.8	712.8
TMW-143	360909	4334868	745.28	742.7	10/30/07	PVC	19.0	29.0	723.7	713.7
MW-1	2272381	315528	746.43	744.2	9/2/87	PVC	--	30.0	--	714.2
MW-111	2272742	316064	745.96	744.1	4/90	--	--	59.8	--	684.3
MW-117A	2272178	315538	743.72	744.0	12/13/05	PVC	20.0	30.0	724.0	714.0
MW-117B	2272164	315538	743.75	744.0	12/15/05	PVC	49.0	59.0	695.0	685.0
MW-118A	2273210	315616	747.02	744.0	12/12/05	PVC	20.0	30.0	724.0	714.0
MW-118B	2273210	315623	746.86	744.0	12/13/05	PVC	48.5	58.5	695.5	685.5
MW-124A	2273001	317601	747.22	744.8	11/10/06	PVC	25.0	35.0	719.8	709.8
MW-124B	2273011	317602	747.15	744.6	11/10/06	PVC	50.0	60.0	694.6	684.6
TMW-123	360545	4335123	745.16	742.9	11/2/06	PVC	25.0	35.0	717.9	707.9
MW-110A	2273414	315154	743.89	743.5	--	--	--	36.1	--	707.4

Notes:

Site Reference Datum = NVGD 29 (USGS) Datum - 0.88 feet (as per Anderson Survey Company September 11, 2013 email correspondence). Missouri River Level from Record of daily Gage Height Observations for USGS 06893000 Missouri River. USGS 06893000 Gage reading level 0 = 706.4 feet NGVD 29;
River level correction to USGS 06893000 Missouri River at Kansas City for Fairfax Site taken as + 4.2 feet

[1] ft AMSL - feet above mean sea level

[2] PVC - polyvinyl chloride; SS - stainless steel

[3] ft bgs - feet below ground surface

-- information not available

Table 3

Historical PSA Monitoring Well Groundwater VOC Concentrations
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	Sample Date	Trichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	Vinyl chloride (µg/L)	TCE-Equivalent VOC Concentration (µg/L)
MW-1A	March 28, 1985	ND(10)	--	ND(10)	ND(10)	
MW-1A	March 28, 1985	--	--	--	--	
MW-1A	December 17, 1986	--	--	--	--	
MW-1A	October 3, 1998	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1A	December 21, 2004	ND(1)	0.87 J	ND(1)	ND(1)	1.2
MW-1A	September 13, 2007	ND(1)	0.4 J	ND(0.5)	ND(1)	0.5
MW-1A	December 6, 2007	ND(1)	0.36 J	ND(0.5)	ND(1)	0.5
MW-1A	March 13, 2008	ND(1)	0.45 J	ND(0.5)	ND(1)	0.6
MW-1A	June 26, 2008	ND(1)	0.34 J	ND(0.5)	ND(1)	0.5
MW-1A	June 26, 2008	ND(1)	0.43 J	ND(0.5)	ND(1)	0.6
MW-1A	December 13, 2011	ND(1)	0.18 J	ND(1)	ND(1)	0.2
MW-1A	October 10, 2013	ND(1)	0.23 J	ND(1)	ND(1)	0.3
MW-1A	April 8, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1A	October 9, 2014	ND(1)	0.9 J	ND(1)	ND(1)	1.2
MW-1A	April 9, 2015	ND(1)	0.85 J	ND(1)	ND(1)	1.1
MW-1A	April 9, 2015	ND(1)	0.8 J	ND(1)	ND(1)	1.1
MW-1B	December 17, 1986	--	--	--	--	
MW-1B	September 13, 2007	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1B	December 6, 2007	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1B	December 6, 2007	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1B	March 13, 2008	ND(1)	0.26 J	ND(0.5)	ND(1)	0.4
MW-1B	March 13, 2008	ND(1)	0.28 J	ND(0.5)	ND(1)	0.4
MW-1B	June 26, 2008	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1B	June 26, 2008	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1B	December 14, 2011	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1B	October 10, 2013	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1B	April 8, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1B	October 9, 2014	ND(1)	0.73 J	ND(1)	1 J	3.1
MW-1B	April 9, 2015	ND(1)	0.7 J	ND(1)	1.1	3.3
MW-1C	December 17, 1986	--	--	--	--	
MW-1C	October 3, 1998	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1C	September 13, 2007	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1C	December 5, 2007	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1C	March 13, 2008	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1C	June 26, 2008	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-1C	December 15, 2011	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1C	October 10, 2013	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1C	April 8, 2014	ND(1)	ND(1)	ND(1)	0.48 J	1
MW-1C	October 9, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
MW-1C	April 9, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
MW-108	October 1, 1988	ND(5)	--	--	ND(10)	
MW-108	June 1, 1989	--	--	--	--	
MW-108	July 1, 1989	--	--	--	--	
MW-108	May 1, 1990	--	--	--	--	
MW-108	June 23, 1994	--	--	--	--	
MW-108	October 3, 1998	ND(1)	ND(1)	ND(1)	ND(1)	
MW-108	June 27, 2006	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-108	September 11, 2007	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-108	December 5, 2007	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-108	March 11, 2008	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-108	June 25, 2008	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
MW-108	December 12, 2011	ND(1)	ND(1)	ND(1)	ND(1)	
MW-110	May 1, 1990	--	--	--	--	
MW-110	May 1, 1991	--	--	--	--	
MW-110	November 1, 1991	--	--	--	--	
MW-110	May 1, 1992	--	--	--	--	
MW-110	November 1, 1992	--	--	--	--	
MW-110	June 1, 1993	--	--	--	--	
MW-110	November 1, 1993	--	--	--	--	
MW-110	June 23, 1994	--	--	--	--	
MW-110	October 3, 1998	ND(1)	2	ND(1)	ND(1)	2.7
MW-110	December 21, 2004	ND(1)	0.74 J	ND(1)	ND(1)	1
MW-110	December 21, 2004	ND(1)	0.67 J	ND(1)	ND(1)	0.9

Table 3

Historical PSA Monitoring Well Groundwater VOC Concentrations
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	Sample Date	Trichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	Vinyl chloride (µg/L)	TCE-Equivalent VOC Concentration (µg/L)
MW-110	January 18, 2006	ND(1)	0.66	ND(0.5)	ND(1)	0.9
MW-110	September 13, 2007	ND(1)	0.29 J	ND(0.5)	ND(1)	0.4
MW-110	December 6, 2007	ND(1)	0.33 J	ND(0.5)	ND(1)	0.4
MW-110	December 6, 2007	ND(1)	0.35 J	ND(0.5)	ND(1)	0.5
MW-110	March 13, 2008	ND(1)	0.4 J	ND(0.5)	ND(1)	0.5
MW-110	June 25, 2008	ND(1)	0.24 J	ND(0.5)	ND(1)	0.3
MW-110	December 12, 2011	ND(1)	ND(1)	ND(1)	ND(1)	
MW-144B	October 10, 2013	ND(10)	453	29.6	40	736.0
MW-144B	January 14, 2014	ND(1)	0.76 J	ND(1)	ND(1)	1
MW-144B	April 10, 2014	ND(1)	357	40.4	34.2	608.7
MW-144B	July 16, 2014	ND(1)	337	49.2	38.7	603.0
MW-144B	October 8, 2014	ND(5)	380	23.3	30.8	609.6
MW-144B	April 8, 2015	ND(1)	95	17.1	145	455.4
MW-144B	July 8, 2015	ND(1)	236	24.1	56.5	469.9
MW-144C	October 10, 2013	ND(1)	2.7	0.3 J	ND(1)	4.1
MW-144C	January 14, 2014	ND(1)	0.75 J	ND(1)	ND(1)	1
MW-144C	April 10, 2014	ND(1)	0.99 J	ND(1)	ND(1)	1.3
MW-144C	July 16, 2014	ND(1)	2.7	0.55 J	ND(1)	4.4
MW-144C	October 8, 2014	ND(1)	0.82 J	ND(1)	ND(1)	1.1
MW-144C	April 8, 2015	ND(1)	1.2	ND(1)	ND(1)	1.6
MW-144C	July 8, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
MW-146B	October 9, 2013	ND(1)	12.7	0.41 J	7.5	33.4
MW-146B	January 13, 2014	ND(1)	8.5	0.28 J	5.2	22.8
MW-146B	April 8, 2014	ND(1)	36	2	12.7	78.0
MW-146B	July 17, 2014	ND(1)	21.4	1.7 J	11.8	56.0
MW-146B	July 17, 2014	ND(1)	20.2	3 J	12.8	58.2
MW-146B	October 9, 2014	ND(1)	27.7	1.1	14.6	69.5
MW-146B	April 8, 2015	ND(1)	1.5	ND(1)	ND(1)	2
MW-146B	July 9, 2015	ND(1)	37.2	3	19.3	94.8
MW-146C	October 9, 2013	ND(1)	8.4	0.52 J	0.84 J	13.8
MW-146C	January 13, 2014	ND(1)	41.5	1.8	7.8	74.9
MW-146C	April 8, 2014	ND(1)	21.5	1.2	2.5	36
MW-146C	July 17, 2014	ND(1)	11.3	1.4	2	21.4
MW-146C	October 9, 2014	ND(1)	6.9	ND(1)	0.86 J	11.1
MW-146C	April 8, 2015	ND(1)	1.9	ND(1)	ND(1)	2.6
MW-146C	July 9, 2015	ND(1)	4.3	ND(1)	ND(1)	5.8
MW-156	April 26, 2012	0.62 J	99.9	13.5	264	707.3
MW-156	May 9, 2012	0.54 J	37.9	14.7	385	878.7
MW-156	October 10, 2013	ND(2)	140	18.8	161	552.1
MW-156	January 10, 2014	ND(5)	254	20.6	111	603.8
MW-156	January 10, 2014	ND(5)	252	20.9	107	593.1
MW-156	April 10, 2014	ND(1)	209	24.7	192	718.3
MW-156	July 17, 2014	ND(1)	155	27.1	157	575.2
MW-156	October 9, 2014	ND(1)	181	20.4	153	592.9
MW-156	January 14, 2015	ND(1)	177	16.3	131	535.8
MW-156	April 7, 2015	ND(1)	157	16.9	149	547.3
MW-156	July 9, 2015	ND(1)	195	27.6	122	556.6
MW-156C	October 10, 2013	ND(1)	0.49 J	ND(1)	ND(1)	0.7
MW-156C	January 10, 2014	ND(1)	0.87 J	ND(1)	ND(1)	1.2
MW-156C	April 10, 2014	ND(1)	2.2	ND(1)	0.62 J	4.3
MW-156C	July 17, 2014	ND(1)	1.4	ND(1)	ND(1)	1.9
MW-156C	October 9, 2014	ND(1)	0.95 J	ND(1)	0.5 J	2.3
MW-156C	April 7, 2015	ND(1)	2.8	0.53 J	5.3	15.6
MW-156C	July 9, 2015	ND(1)	9.4	1.5	4.6	24.4
MW-158A	October 10, 2013	3.6	269	10.2	7.5	396.6
MW-158A	January 9, 2014	5.1	545	14.5	9	780.1
MW-158A	April 10, 2014	0.46 J	1480	107	24.5	2,196.5
MW-158A	July 16, 2014	2	175	23.4	18.8	309.5
MW-158A	October 7, 2014	ND(1)	190	14.2	29.4	337.6
MW-158A	April 9, 2015	2.7	816	55.2	23.6	1,229.5
MW-158A	July 7, 2015	2.3	34	1.6	1.3	53.1
MW-158A	July 7, 2015	2.3	33.8	1.5	1.3	52.7
MW-158B	October 10, 2013	ND(1)	2.5	ND(1)	ND(1)	3.4

Table 3

Historical PSA Monitoring Well Groundwater VOC Concentrations
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	Sample Date	Trichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	Vinyl chloride (µg/L)	TCE-Equivalent VOC Concentration (µg/L)
MW-158B	October 10, 2013	ND(1)	1.3	ND(1)	ND(1)	1.8
MW-158B	January 9, 2014	ND(1)	3.4	0.69 J	7.8	21.9
MW-158B	January 9, 2014	ND(1)	2.8	0.72 J	7.6	20.7
MW-158B	April 10, 2014	0.45 J	5.7	1.4	6.4	23.5
MW-158B	July 16, 2014	ND(1)	1.6	ND(1)	3.6	9.7
MW-158B	October 7, 2014	ND(1)	1.7	ND(1)	1.7	5.9
MW-158B	April 9, 2015	ND(1)	2	ND(1)	6.3	16
MW-158B	July 7, 2015	ND(1)	1.6	ND(1)	2.5	7.4
TMW-127	November 27, 2006	ND(1)	770	5.7	ND(1)	1,048.3
TMW-127	December 13, 2011	ND(6.7)	140	2.9 J	3.1 J	199.6
TMW-127	April 27, 2012	0.29 J	354	12	5.9	507.3
TMW-127	October 10, 2013	ND(5)	333	14.3	5	479.8
TMW-127	January 10, 2014	ND(10)	377	17.1	17.6	569.5
TMW-127	April 9, 2014	ND(1)	409	41.1	6.3	621.5
TMW-127	July 17, 2014	ND(1)	298	39.7	8.8	474.8
TMW-127	October 9, 2014	ND(1)	308	17.2	5.9	451.8
TMW-127	January 13, 2015	ND(1)	56.7	2.8	ND(1)	80.4
TMW-127	April 7, 2015	ND(1)	370	32.5	3.2	550.6
TMW-127	July 9, 2015	ND(1)	762	85.8	12.8	1,172.5
TMW-153	April 26, 2012	1.6	26.3	1.2	0.23 J	39.2
TMW-153	May 9, 2012	1.3	19.7	0.97 J	0.37 J	30.0
TMW-153	October 9, 2013	0.79 J	14.7	1	ND(1)	22.0
TMW-153	January 10, 2014	0.9 J	6.5	0.57 J	ND(1)	10.5
TMW-153	April 9, 2014	0.98 J	13.9	1.4	ND(1)	21.7
TMW-153	July 17, 2014	ND(1)	11.9	1.9	ND(1)	18.6
TMW-153	October 8, 2014	ND(1)	3.7	ND(1)	ND(1)	5
TMW-153	January 13, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-153	April 7, 2015	ND(1)	1.5	ND(1)	ND(1)	2
TMW-153	July 9, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-153	July 9, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-154	April 26, 2012	ND(1)	5.7	0.78 J	ND(1)	8.8
TMW-154	May 9, 2012	ND(1)	6.1	0.89 J	ND(1)	9.4
TMW-154	October 10, 2013	ND(1)	11.1	1.5	0.14 J	17.3
TMW-154	January 8, 2014	ND(1)	9.8	0.81 J	0.15 J	14.7
TMW-154	April 9, 2014	ND(1)	8.8	1.1	ND(1)	13.4
TMW-154	July 17, 2014	ND(1)	14.1	2.5	ND(1)	22.4
TMW-154	October 7, 2014	ND(1)	6.9	0.64 J	ND(1)	10.2
TMW-154	January 14, 2015	ND(1)	4.1	0.53 J	ND(1)	6.3
TMW-154	April 9, 2015	ND(1)	6.5	0.88 J	ND(1)	10
TMW-154	July 7, 2015	ND(1)	8.9	ND(1)	ND(1)	12.0
TMW-155	April 26, 2012	300	770	33.9	5.3	1,396.6
TMW-155	May 9, 2012	283	709	35.4	5.9	1,300.5
TMW-155	October 11, 2013	117	696	25.3	9.5 J	1,111.3
TMW-155	January 8, 2014	141	410	20.9	1.9	727
TMW-155	April 10, 2014	84.6	534	39.7	1.8	863.4
TMW-155	July 17, 2014	103	841	101	4.1	1,384.3
TMW-155	October 7, 2014	114	902	61.4	8.4	1,433.2
TMW-155	January 14, 2015	102	655	31.6	2.7	1,035.2
TMW-155	April 9, 2015	57.3	857	67.6	6.8	1,320.9
TMW-155	July 7, 2015	55.1	800	78.8	5.5	1,254.1
TMW-144	September 30, 2009	5.1	24	1.3	ND(1) U J	39.3
TMW-144	December 14, 2011	0.5 J	7.1	0.31 J	ND(1)	10.5
TMW-144	October 10, 2013	0.54 J	26	1.7	0.43 J	39
TMW-144	October 10, 2013	0.53 J	30	1.6	0.41 J	44.1
TMW-144	January 14, 2014	0.19 J	7.9	0.29 J	ND(1)	11.3
TMW-144	April 9, 2014	0.41 J	26.6	2.1	ND(1)	39.2
TMW-144	April 9, 2014	0.32 J	27.1	2	ND(1)	39.6
TMW-144	July 17, 2014	1.7	59.9	5.7	ND(1)	90.3
TMW-144	October 9, 2014	1.2	37.6	1.7	ND(1)	54.3
TMW-144	October 9, 2014	1.2	35.8	2.1	ND(1)	52.4
TMW-144	January 13, 2015	ND(1)	20.4	0.53 J	ND(1)	28.3
TMW-144	January 13, 2015	ND(1)	20.7	0.53 J	ND(1)	28.7
TMW-144	April 8, 2015	ND(1)	27.6	2.1	ND(1)	40.1

Table 3

Historical PSA Monitoring Well Groundwater VOC Concentrations
Former Fairfax I Site
Kansas City, Kansas

Monitoring Well	Sample Date	Trichloroethene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,2-Dichloroethene (µg/L)	Vinyl chloride (µg/L)	TCE-Equivalent VOC Concentration (µg/L)
TMW-144	July 8, 2015	ND(1)	4.8 J	ND(1)	ND(1)	6.5
TMW-144	July 8, 2015	ND(1)	6.1 J	ND(1)	ND(1)	8.2
TMW-145	September 30, 2009	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
TMW-145	December 13, 2011	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-145	October 9, 2013	0.4 J	0.75 J	ND(1)	ND(1)	1.4
TMW-145	April 9, 2014	0.52 J	1.1	ND(1)	ND(1)	2
TMW-145	July 16, 2014	ND(1)	1.3	ND(1)	ND(1)	1.8
TMW-145	July 16, 2014	ND(1)	1.1	ND(1)	ND(1)	1.5
TMW-145	October 9, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-145	January 14, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-145	April 7, 2015	0.25 J	1.3	ND(1)	ND(1)	2
TMW-145	July 9, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-146	September 30, 2009	ND(1)	ND(0.5)	ND(0.5)	ND(1)	
TMW-146	December 14, 2011	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-146	October 9, 2013	ND(2)	0.32 J	ND(2)	0.33 J	1.1
TMW-146	January 13, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-146	April 8, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-146	July 17, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-146	October 9, 2014	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-146	January 13, 2015	ND(1)	ND(1)	ND(1)	ND(1)	
TMW-146	April 7, 2015	ND(1)	0.21 J	ND(1)	ND(1)	0.3
TMW-146	July 9, 2015	ND(1)	ND(1)	ND(1)	ND(1)	

Note

ND	Not detected at the associated laboratory method detection level.
U	Not detected at the laboratory method detection level.
J	Estimated concentration.
UJ	Not detected; associated laboratory method detection level is estimated.



N

0 550 1,100ft

LEGEND

- PSA MONITORING WELLS
- SITE AREA MONITORING WELLS NOT INVOLVED IN PLUME STABILITY ANALYSIS
- REGIONAL MONITORING WELLS FROM KANSAS GEOLOGICAL SURVEY WATER WELL DATABASE WITH MEASURED DEPTHS TO GROUNDWATER
- RW-61 REGIONAL WELL KEY CODE USED IN THIS MEMORANDUM
- FORMER FAIRFAX I PROPERTY BOUNDARY

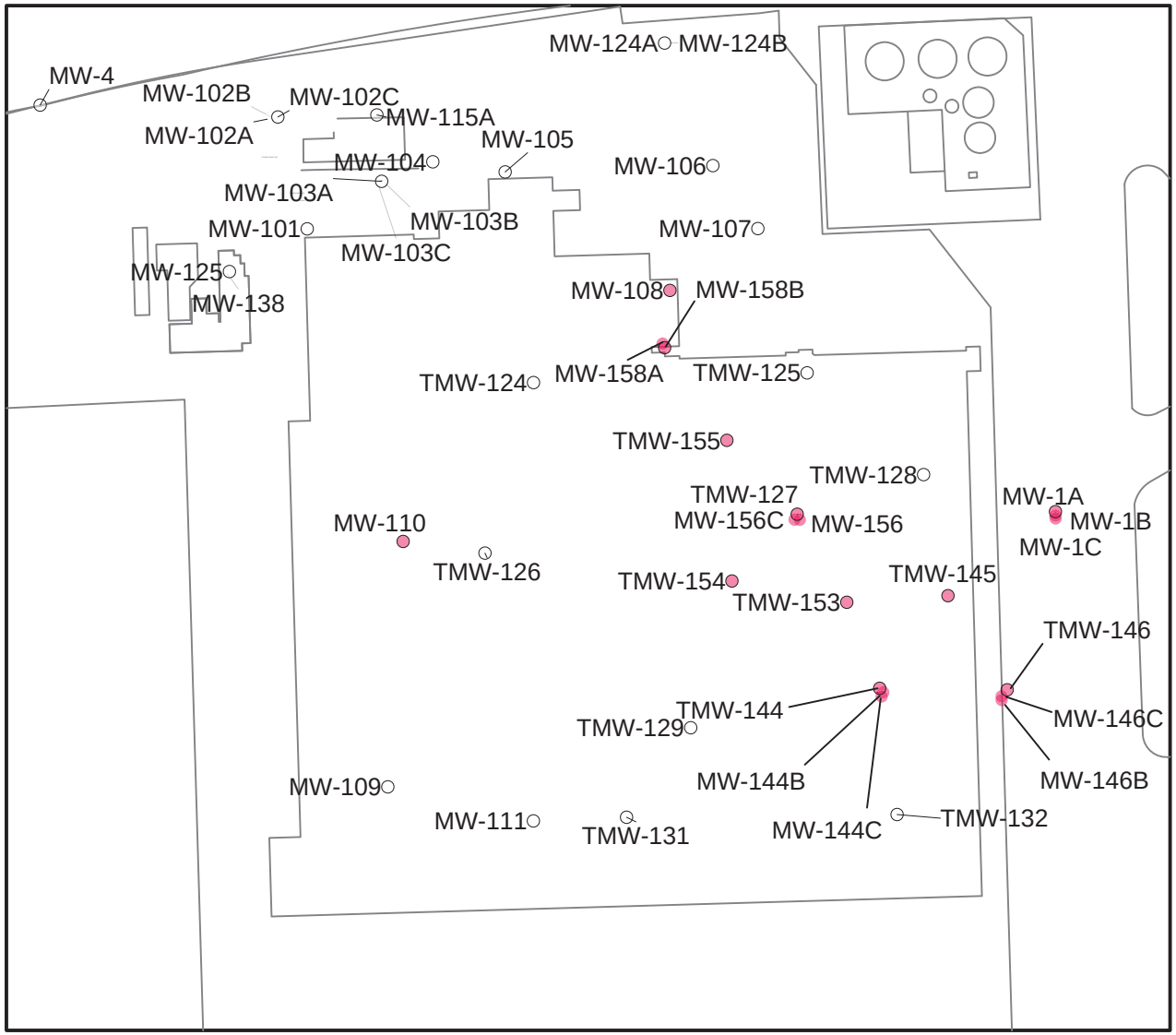
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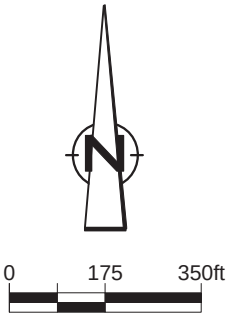
REGIONAL WELL KEY CODE IS CROSS-REFERENCED WITH WELL ID IN TABLE 1 OF THIS MEMORANDUM

SOURCE: ORTHOIMAGERY - USDA/FSA, 2014. USDA-FSA-APFO NAIP MrSID MOSAIC
REGIONAL WELL LOCATIONS - KGS, 2015. WATER WELL DATABASE

figure 1

SITE LOCATION
FORMER FAIRFAX I SITE
Kansas City, Kansas





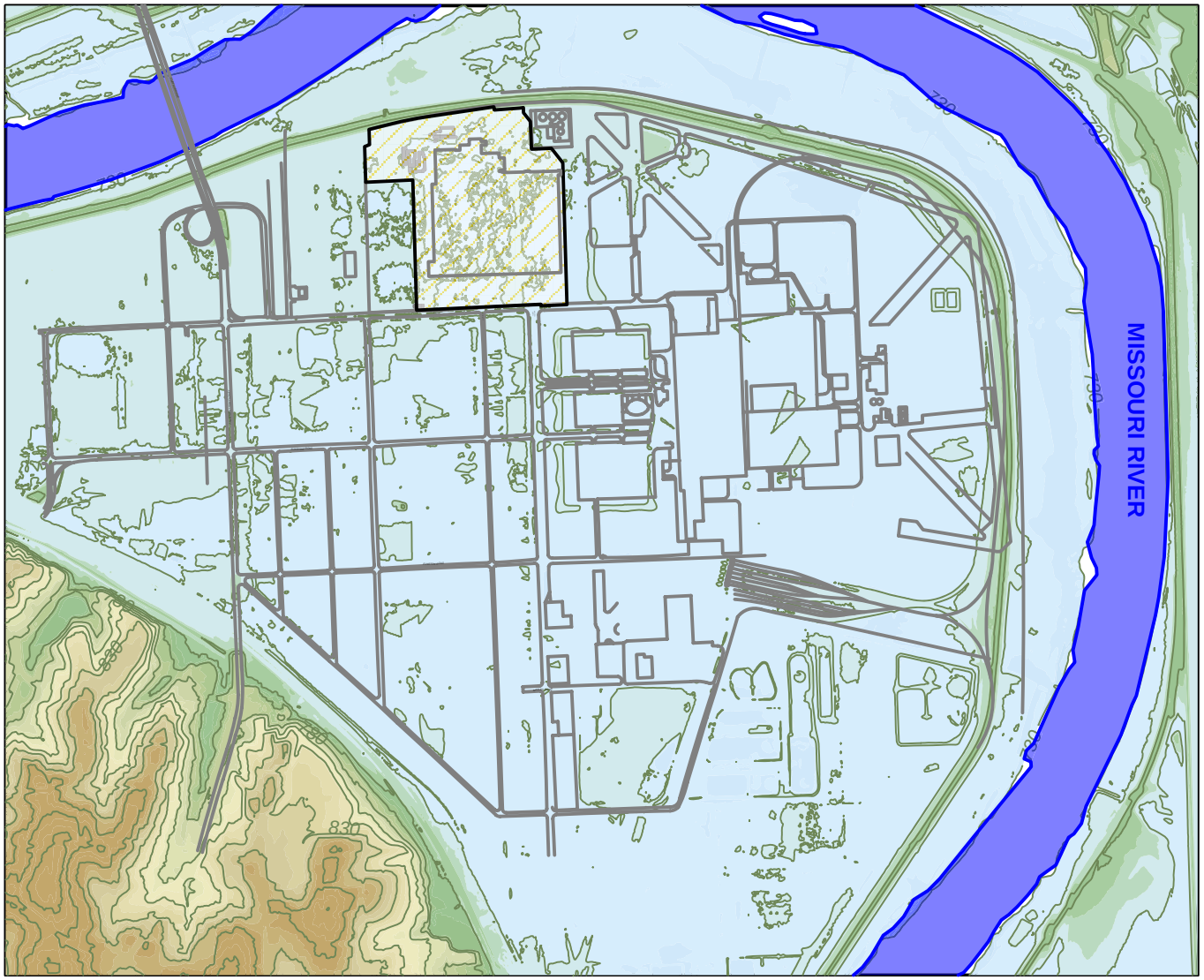
LEGEND

●	PSA MONITORING WELLS
○	SITE AREA MONITORING WELLS NOT INVOLVED IN PSA
MW-146B	MONITORING WELL ID

figure 2

SITE PLAN
FORMER FAIRFAX I SITE
Kansas City, Kansas

12559-T05(MEMO015)GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\SITE PLAN.srf) NOV 6/2015



SOURCE: USDA/NRCS, 2015. NATIONAL GEOSPATIAL CENTER OF EXCELLENCE, NATIONAL ELEVATION DATA 3 METER OR BETTER

GROUND SURFACE ELEVATION (FT AMSL)

730 750 770 790 810 830 850 870 890 910

N

0 900 1,800ft

LEGEND

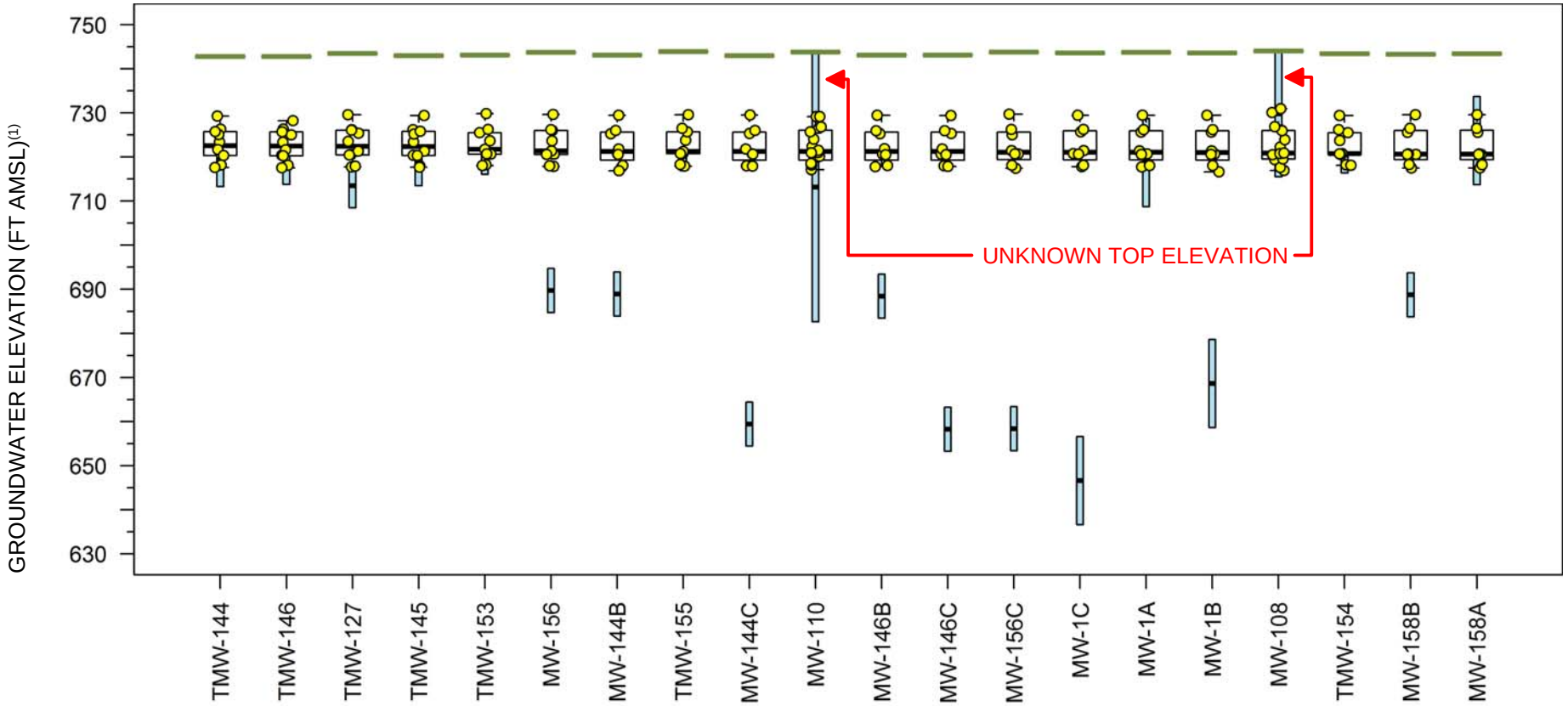
—740— GROUND SURFACE ELEVATION CONTOUR (FT AMSL)

FORMER FAIRFAX I PROPERTY BOUNDARY

figure 3

REGIONAL TOPOGRAPHY
FORMER FAIRFAX I SITE
Kansas City, Kansas

012559-T15.10(MEMO015)GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\Ground Surface.srf) NOV 4/2015



LEGEND

GROUNDWATER ELEVATIONS

- UPPER RANGE OF GROUNDWATER ELEVATION MEASUREMENTS (FT AMSL)
- 75TH PERCENTILE OF GROUNDWATER ELEVATION MEASUREMENTS (FT AMSL)
- MEDIAN OF GROUNDWATER ELEVATION MEASUREMENTS (FT AMSL)
- 25TH PERCENTILE OF GROUNDWATER ELEVATION MEASUREMENTS (FT AMSL)
- LOWER RANGE OF GROUNDWATER ELEVATION MEASUREMENTS (FT AMSL)
- GROUNDWATER ELEVATION MEASUREMENT (FT AMSL)

WELL SCREEN INTERVALS

- TOP ELEVATION OF WELL SCREEN (FT AMSL)
- MIDSCREEN ELEVATION (FT AMSL)
- BOTTOM ELEVATION OF WELL SCREEN (FT AMSL)

GROUND SURFACE

- GROUND SURFACE ELEVATION (FT AMSL)

NOTE:

(1) SITE REFERENCE DATUM IS NVGD 29 - 0.88 FT (AS PER ANDERSON SURVEY COMPANY SEPTEMBER 11, 2013 EMAIL CORRESPONDENCE)

figure 4

HISTORICAL GROUNDWATER ELEVATIONS AND SCREEN INTERVAL LOCATIONS FORMER FAIRFAX I SITE

Kansas City, Kansas

012559-T05(MEMO015) GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\Historical GWE.grf) NOV 4/2015

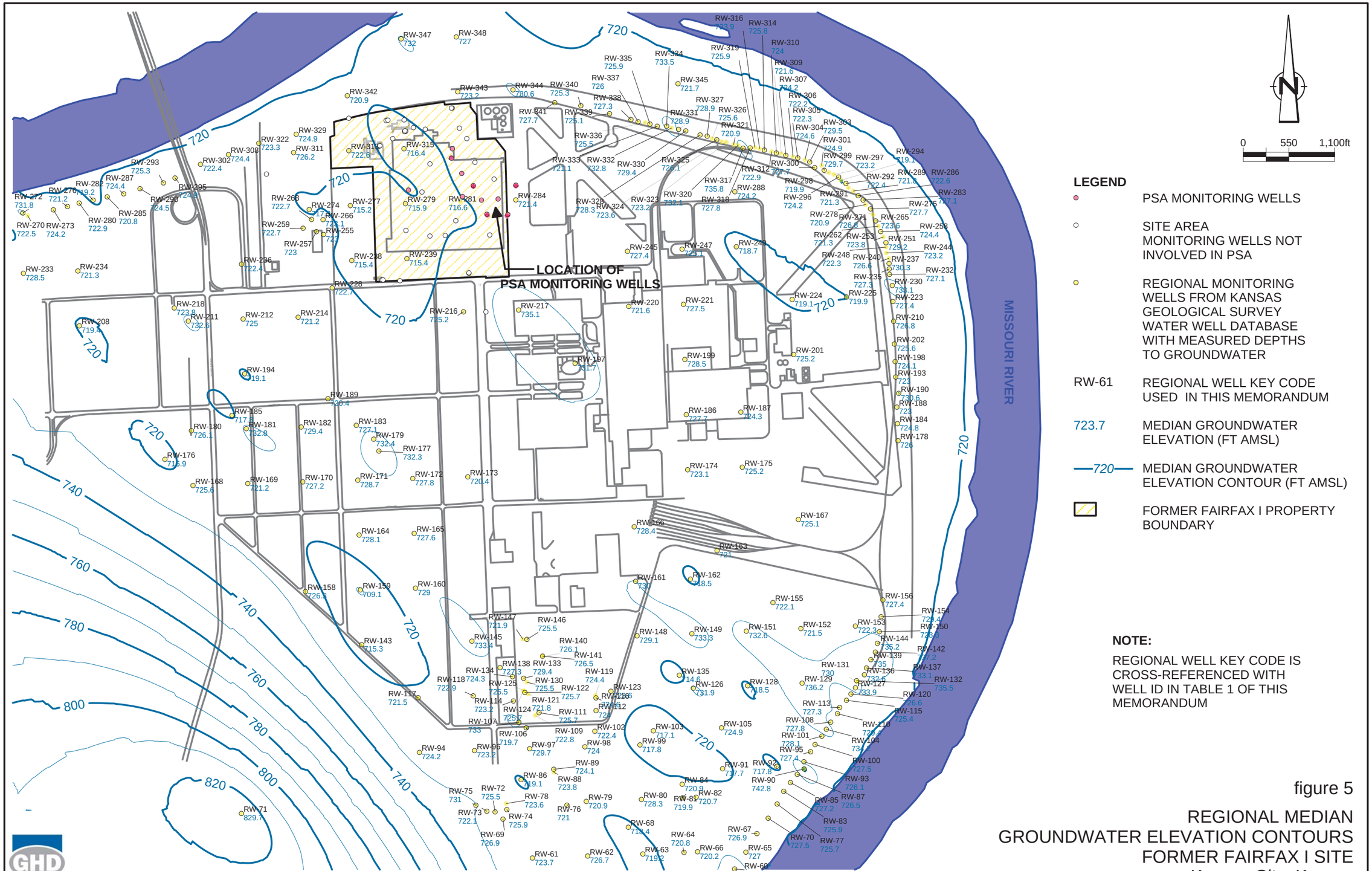
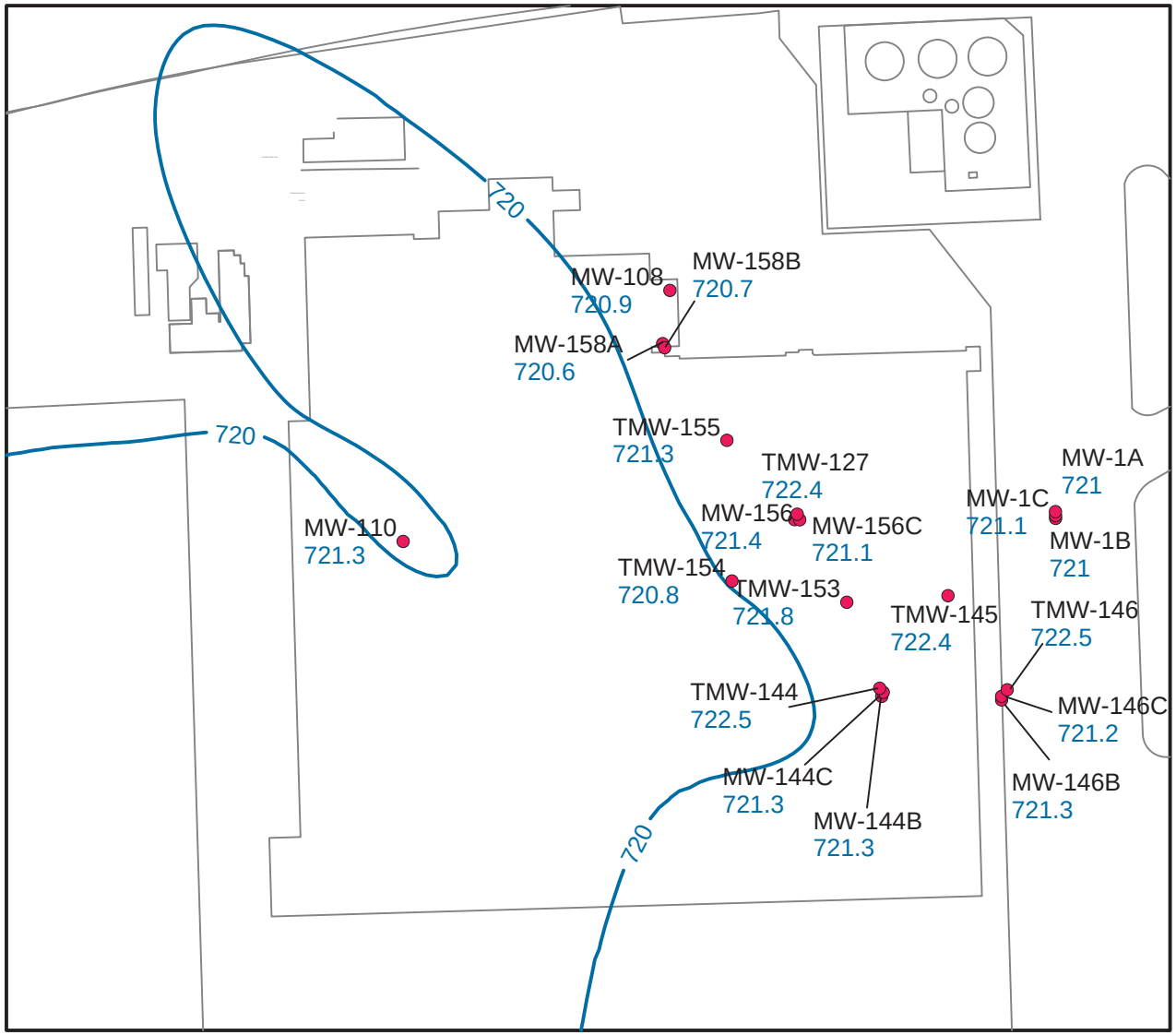
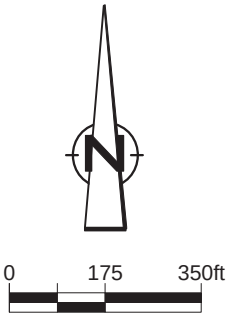


figure 5

REGIONAL MEDIAN
GROUNDWATER ELEVATION CONTOURS
FORMER FAIRFAX I SITE
Kansas City, Kansas

012559-T05(MEMO015)GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\REGIONAL MEDIAN GWE.srf) NOV 6/2015





LEGEND

—720— MEDIAN GROUNDWATER ELEVATION CONTOUR (FT AMSL)

MONITORING WELL LOCATION

TMW-154 720.8 MONITORING WELL ID MEDIAN GROUNDWATER ELEVATION (FT AMSL)

figure 6

PSA MONITORING WELL MEDIAN GROUNDWATER ELEVATIONS FORMER FAIRFAX I SITE

Kansas City, Kansas

GHD

12559-T05(MEMO015)GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\MEDIAN GWE.srf) NOV 6/2015

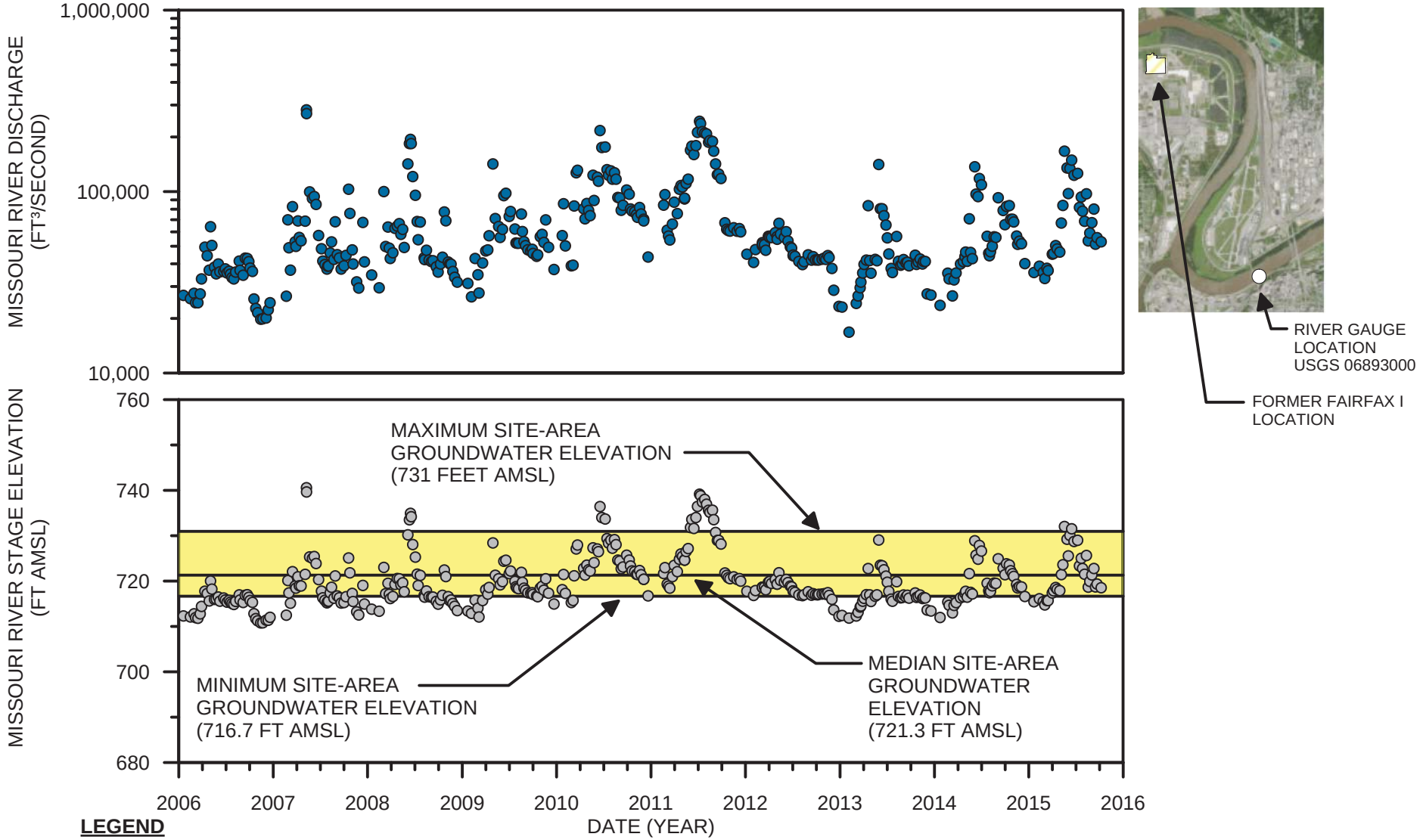
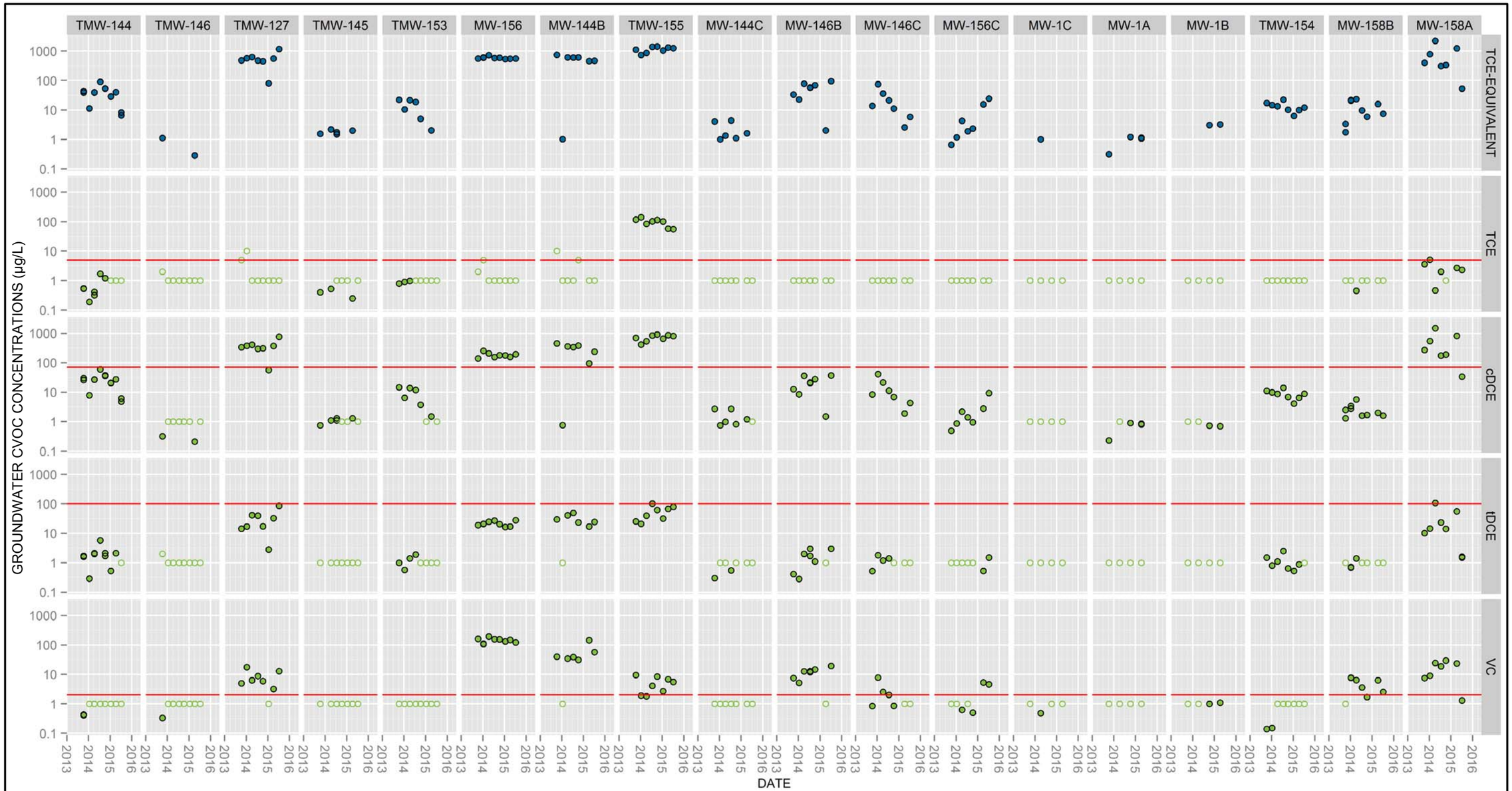


figure 7

MISSOURI RIVER DISCHARGE AND STAGE ELEVATION
FORMER FAIRFAX I SITE
Kansas City, Kansas

012559-T05(MEMO015) GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\MISSOURI RIVER DISCHARGE.grf) NOV 6/2015



LEGEND

- MEASURED GROUNDWATER CVOC CONCENTRATION (µg/L)
- CALCULATED GROUNDWATER CVOC CONCENTRATION (µg/L)
- GROUNDWATER CVOC CONCENTRATION BELOW LABORATORY REPORTING LIMIT [SYMBOL ASSIGNED AT LABORATORY REPORTING LIMIT (µg/L)]
- KDHE TIER 2 RBS: 5 µg/L FOR TCE, 70 µg/L FOR cDCE, 100 µg/L FOR tDCE, AND 2 µg/L FOR VC

NOTE:

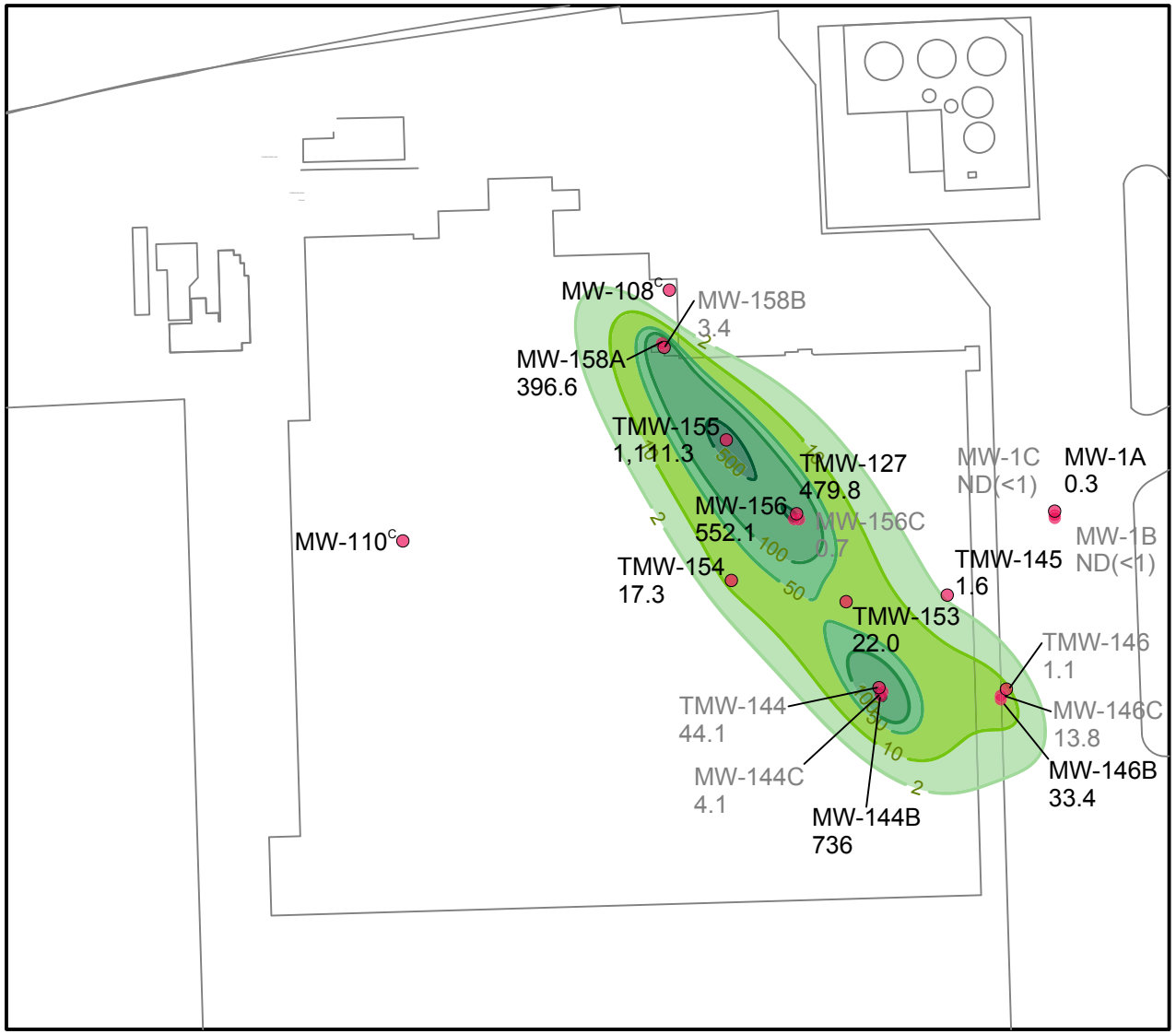
MW-108 IS NOT PRESENTED BECAUSE GROUNDWATER CVOC CONCENTRATIONS HAVE HISTORICALLY BEEN BELOW THE LABORATORY REPORTING LIMIT

MW-110 IS NOT PRESENTED BECAUSE GROUNDWATER CVOC CONCENTRATIONS HAVE NOT BEEN SAMPLED AFTER 2013

figure 8

HISTORIC PSA MONITORING WELL GROUNDWATER CVOC CONCENTRATIONS
FORMER FAIRFAX I SITE
Kansas City, Kansas

012559-T05(MEMO015)GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\CvT.grf) NOV 6/2015





LEGEND

2 — TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)

MONITORING WELL LOCATION

TMW-154 17.3 — MONITORING WELL ID, TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)

MW-158B 3.4 — MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 10 50 100 500

NOTES

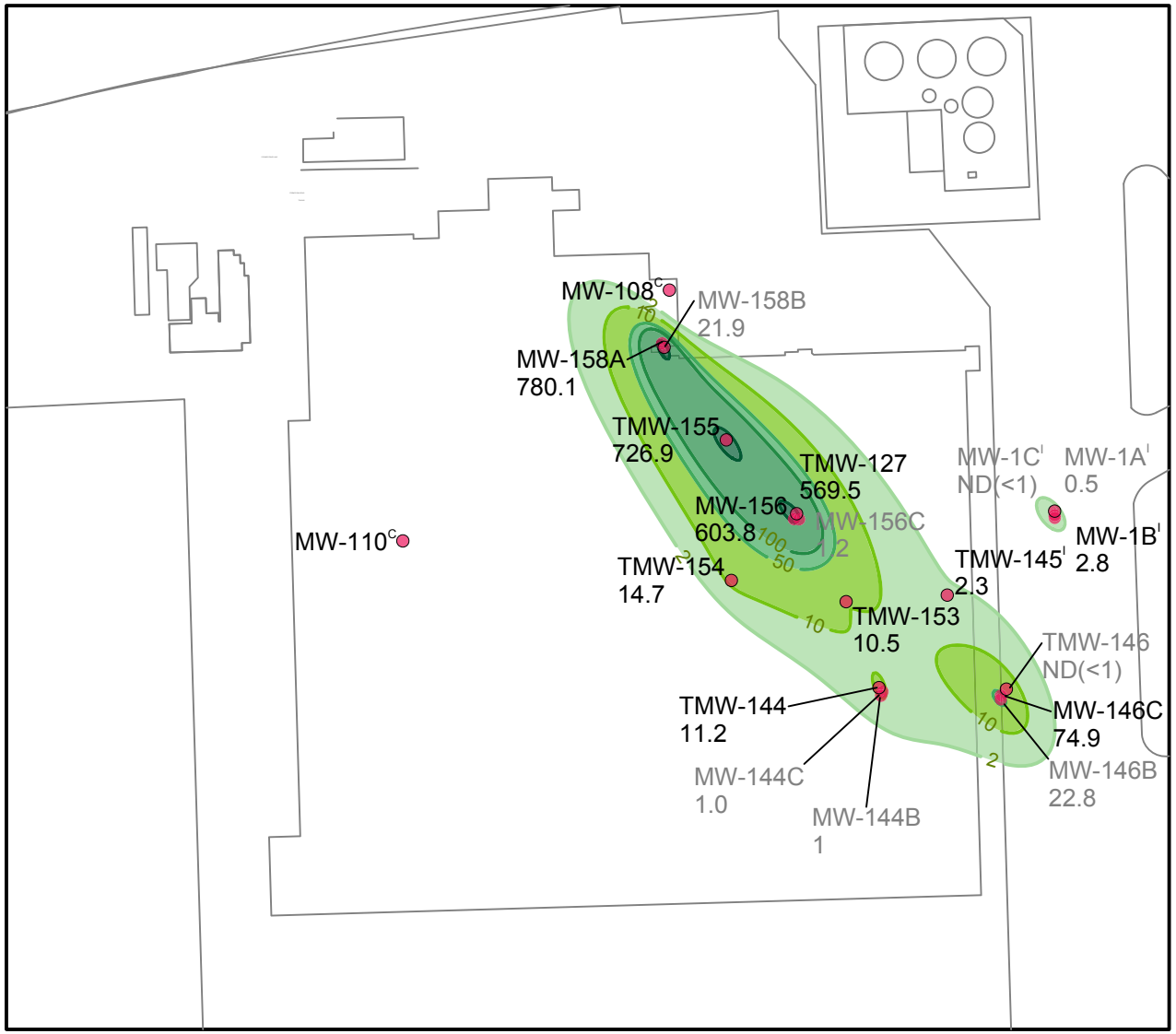
I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

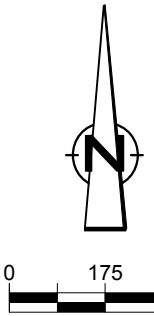
C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 9

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (OCTOBER 2013)
FORMER FAIRFAX I SITE
Kansas City, Kansas





LEGEND

2 — TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)

MONITORING WELL LOCATION

TMW-154 14.7 — MONITORING WELL ID, TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)

MW-158B 21.9 — MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 | 10 | 50 | 100 | 500

NOTES

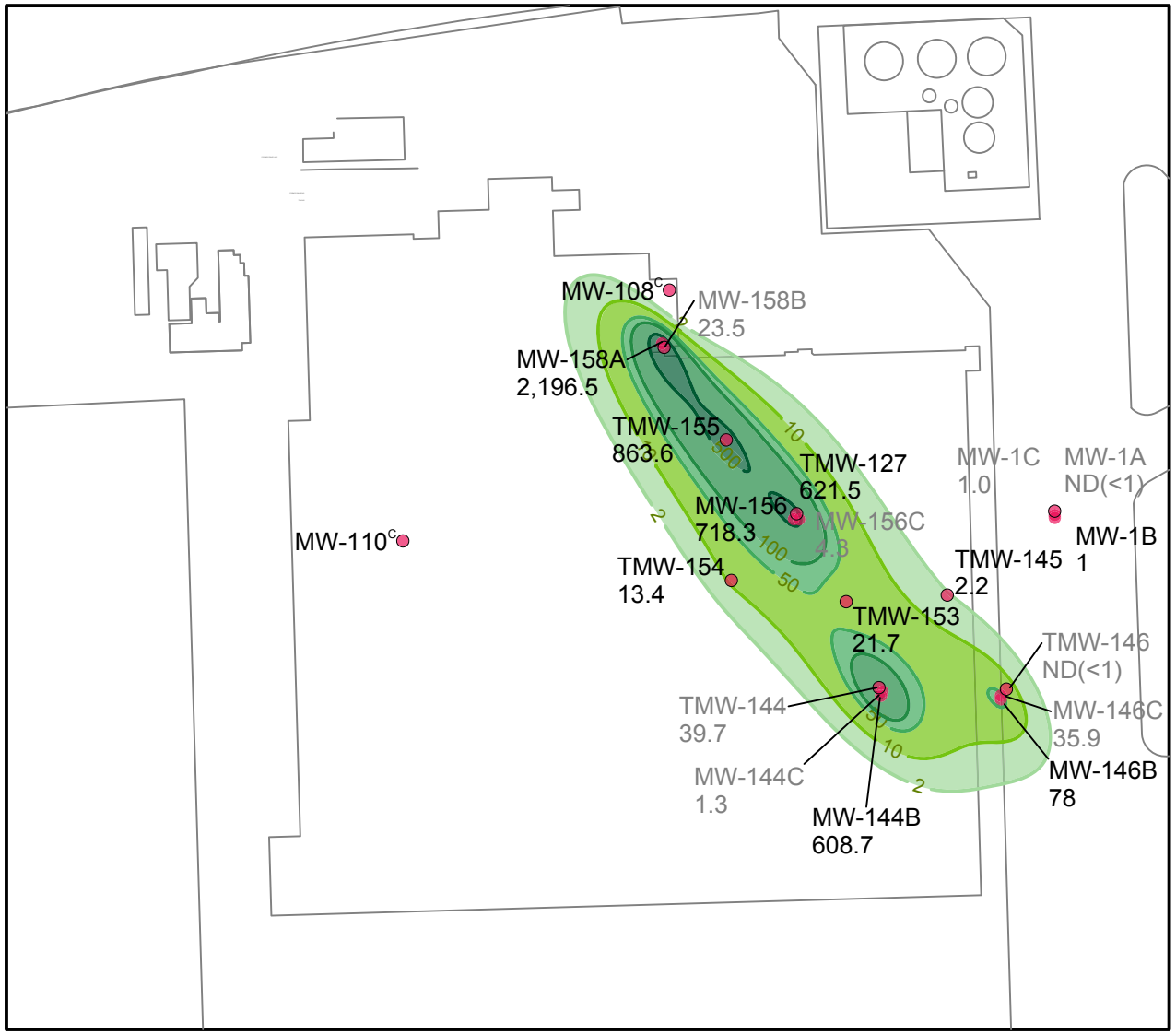
I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 10

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (JANUARY 2014)
FORMER FAIRFAX I SITE
Kansas City, Kansas





0 175 350ft

LEGEND

2 — TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)

MONITORING WELL LOCATION

TMW-154 13.4 — MONITORING WELL ID, TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)

MW-158B 23.5 — MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 10 50 100 500

NOTES

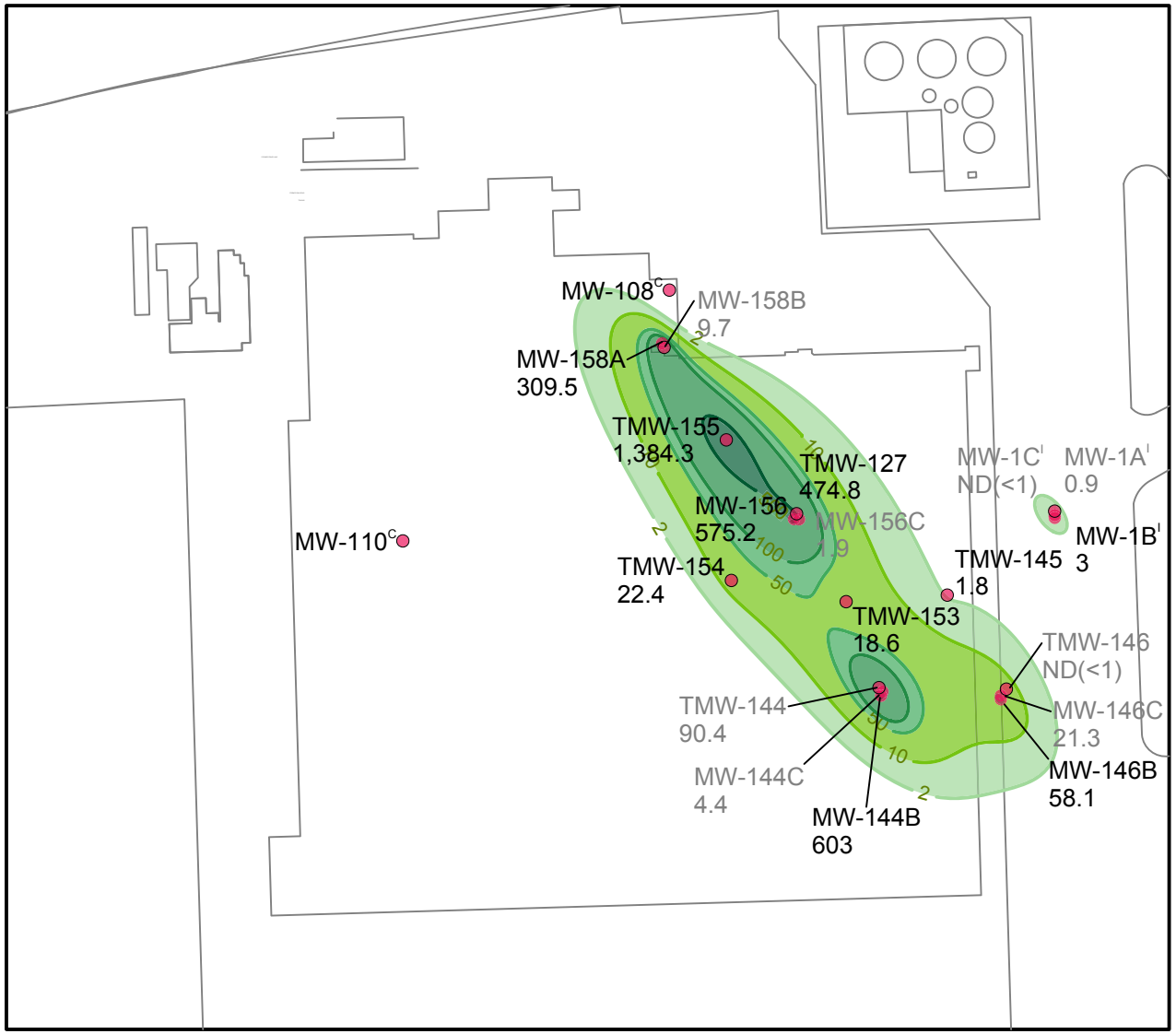
I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 11

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (APRIL 2014)
FORMER FAIRFAX I SITE
Kansas City, Kansas





0 175 350ft

LEGEND

2 — TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)

● MONITORING WELL LOCATION

TMW-154 22.4 — MONITORING WELL ID, TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)

MW-158B 9.7 — MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 10 50 100 500

NOTES

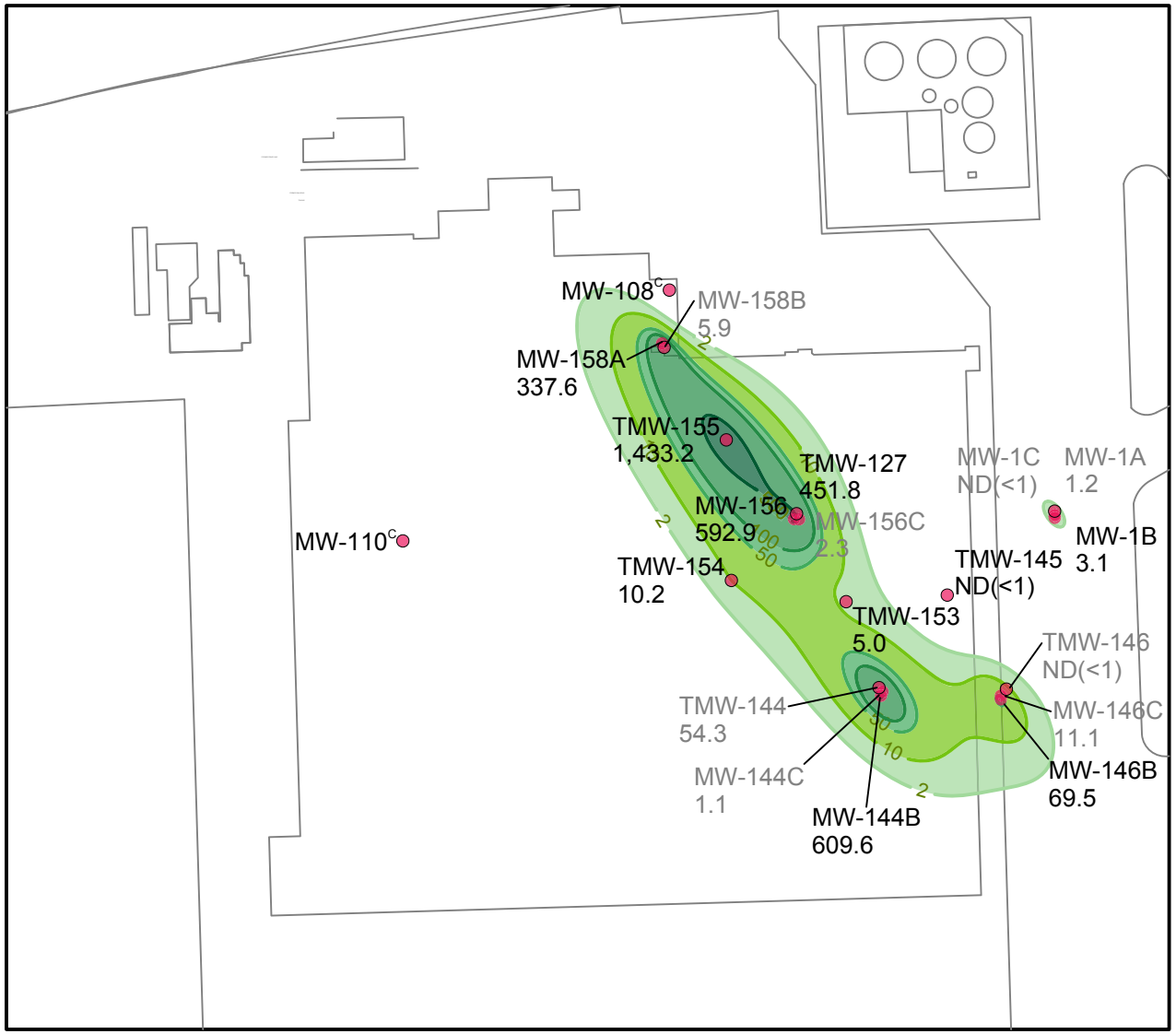
I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

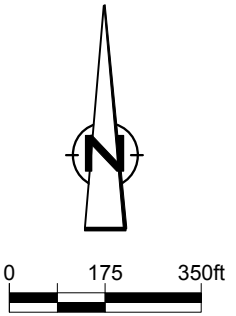
C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 12

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (JULY 2014)
FORMER FAIRFAX I SITE
Kansas City, Kansas





LEGEND

2	TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)
●	MONITORING WELL LOCATION
TMW-154 10.2	MONITORING WELL ID TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)
MW-158B 5.9	MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 10 50 100 500

NOTES

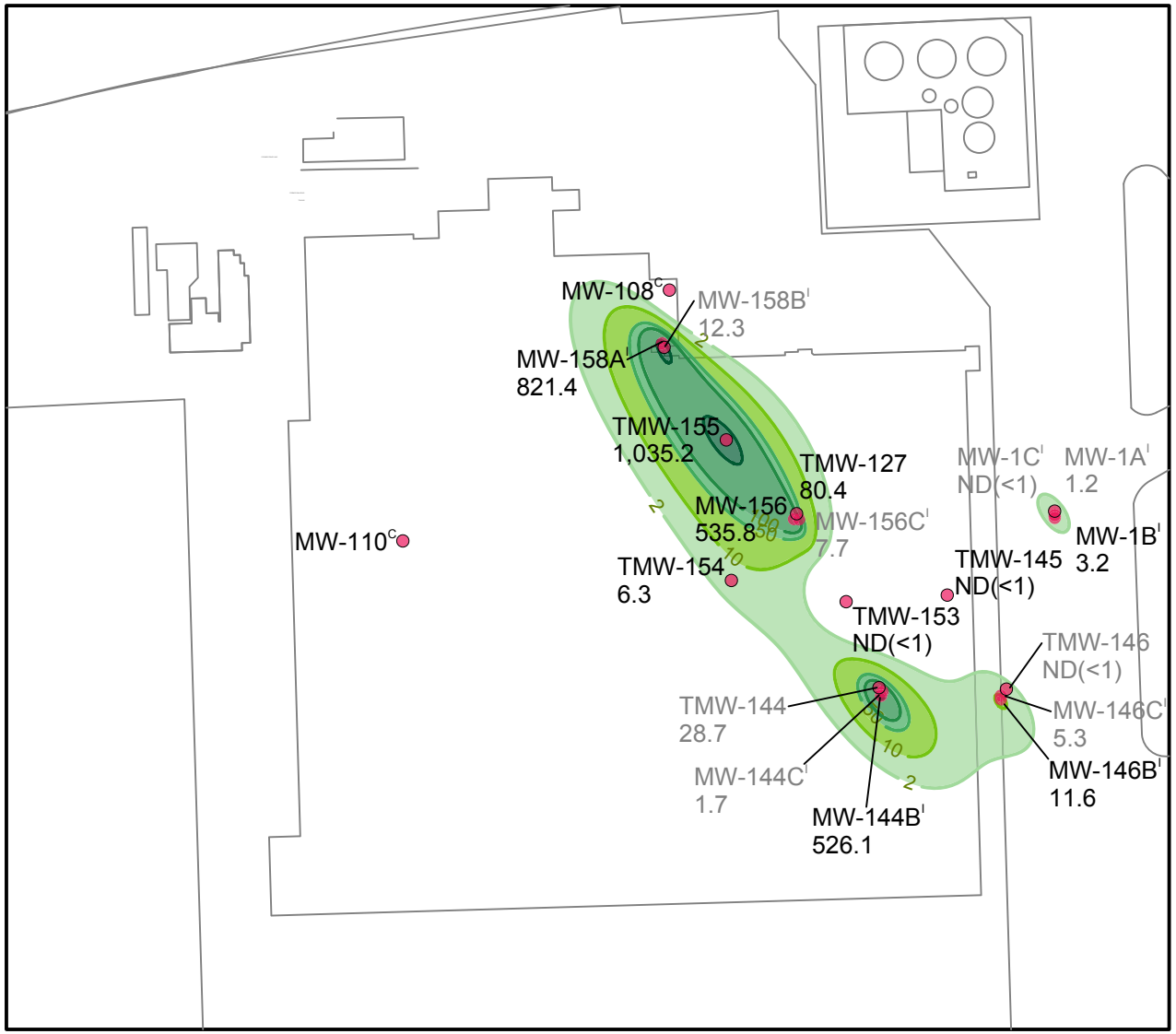
I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 13

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (OCTOBER 2014)
FORMER FAIRFAX I SITE
Kansas City, Kansas



LEGEND

2	TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)
●	MONITORING WELL LOCATION
TMW-154 6.3	MONITORING WELL ID TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)
MW-158BI 12.3	MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 10 50 100 500

NOTES

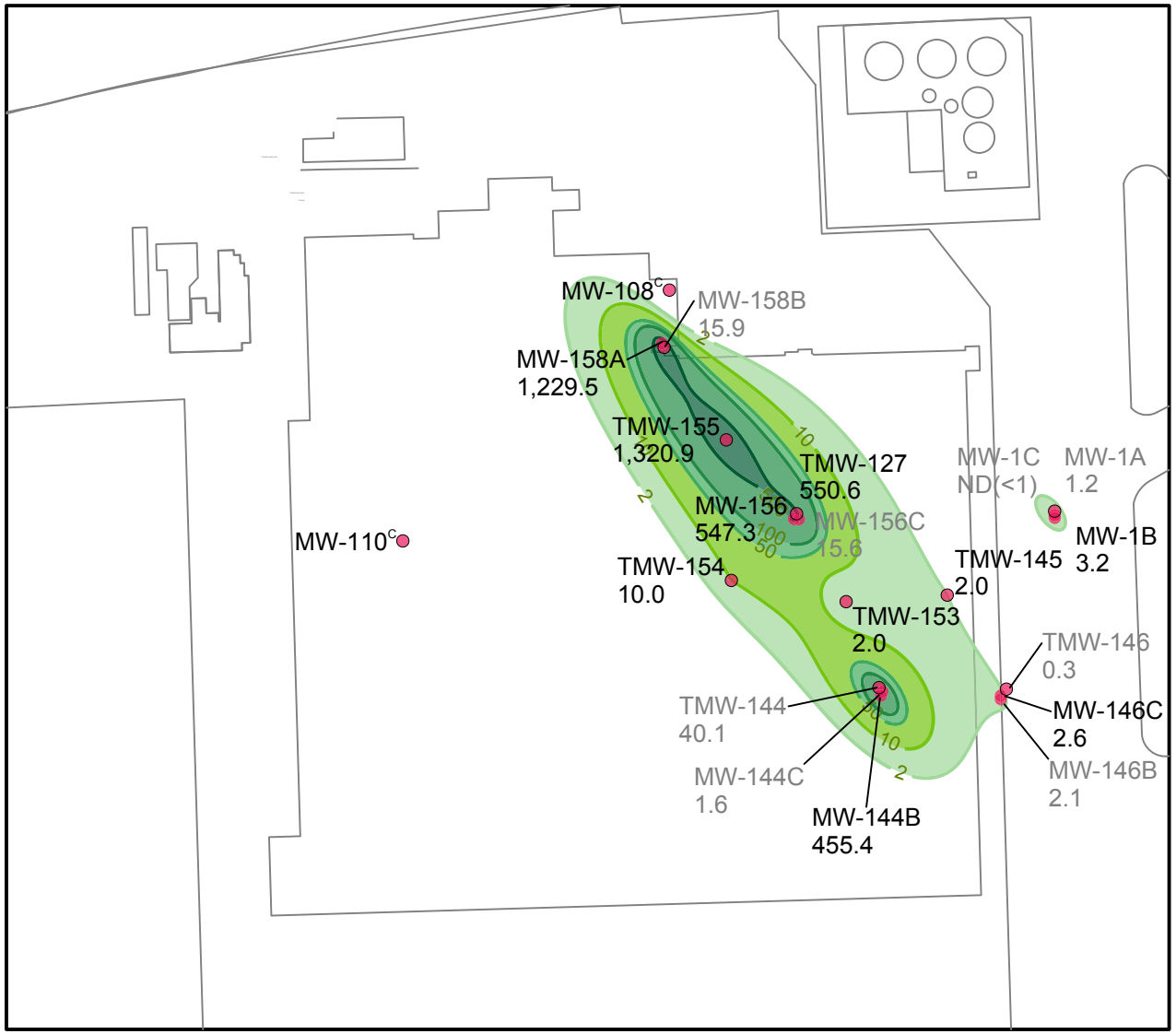
I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 14

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (JANUARY 2015)
FORMER FAIRFAX I SITE
Kansas City, Kansas





0 175 350ft

LEGEND

2 — TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)

● MONITORING WELL LOCATION

TMW-154 10.0 — MONITORING WELL ID TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)

MW-158B 15.9 — MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 10 50 100 500

NOTES

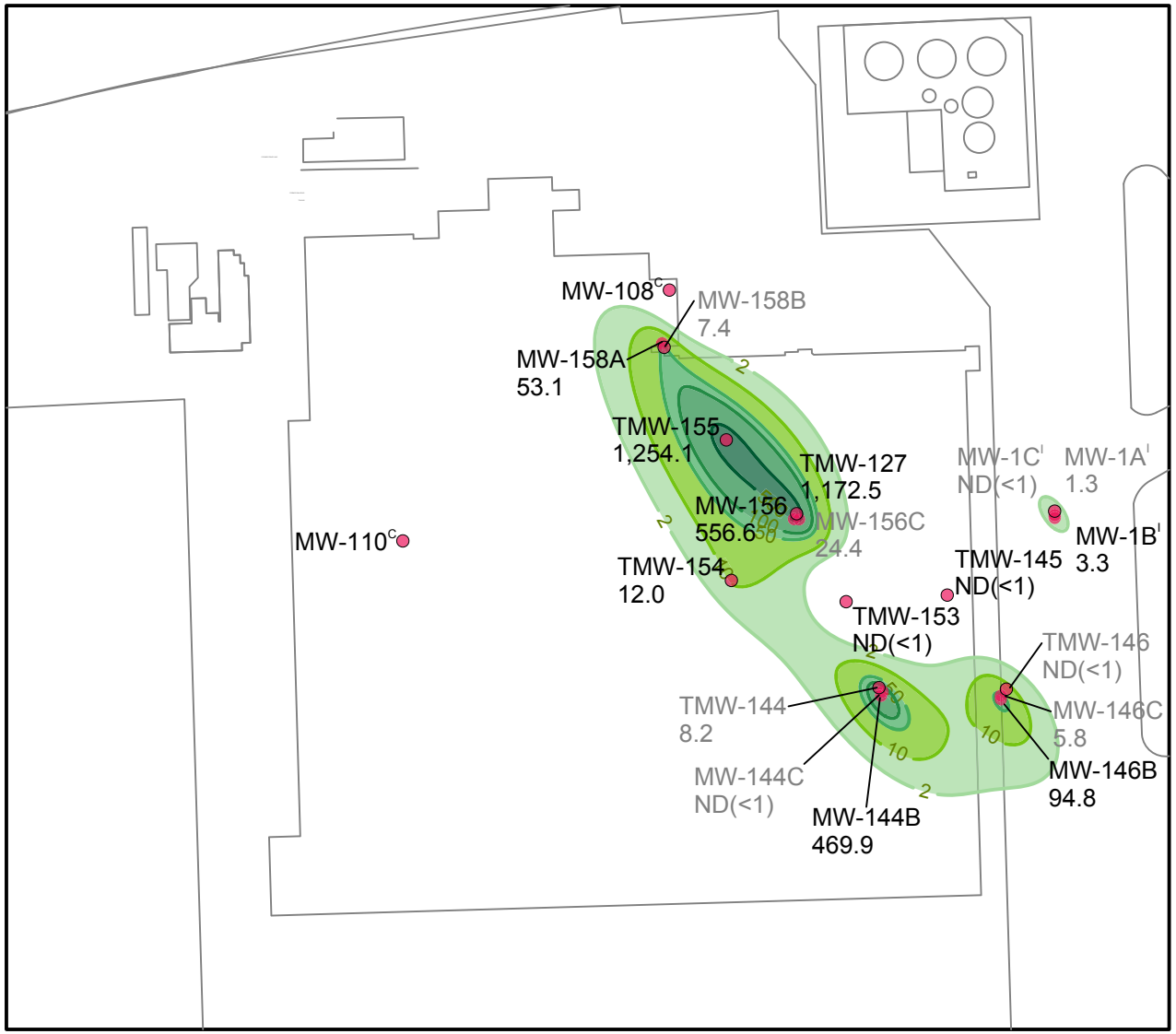
I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

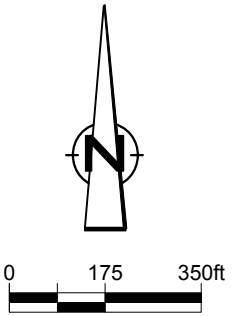
C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 15

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (APRIL 2015)
FORMER FAIRFAX I SITE
Kansas City, Kansas





LEGEND

2	TCE-EQUIVALENT GROUNDWATER CONCENTRATION CONTOUR (µg TCE/L)
●	MONITORING WELL LOCATION
TMW-154 12.0	MONITORING WELL ID TCE-EQUIVALENT GROUNDWATER CONCENTRATION (µg TCE/L)
MW-158B 7.4	MONITORING WELL NOT USED IN COUNTOURING DUE TO PROXIMITY TO HIGHER CONCENTRATIONS

TCE-EQUIVALENT GROUNDWATER CONCENTRATION PLUME EXTENT (µg TCE/L)

2 10 50 100 500

NOTES

I WELL LOCATIONS WHERE GROUNDWATER QUALITY WAS NOT MEASURED WERE ASSIGNED INTERPOLATED CONCENTRATION VALUES BASED ON THE IMMEDIATELY PRECEDING AND PROCEEDING TWO MONITORING EVENTS

C PRESUMED NON-DETECT VALUES USED AS CONTROL POINTS IN KRIGING PROCESS

ND GROUNDWATER CONCENTRATIONS BELOW LABORATORY REPORTING LIMIT

figure 16

TCE-EQUIVALENT GROUNDWATER CONCENTRATIONS (JULY 2015)
FORMER FAIRFAX I SITE
Kansas City, Kansas

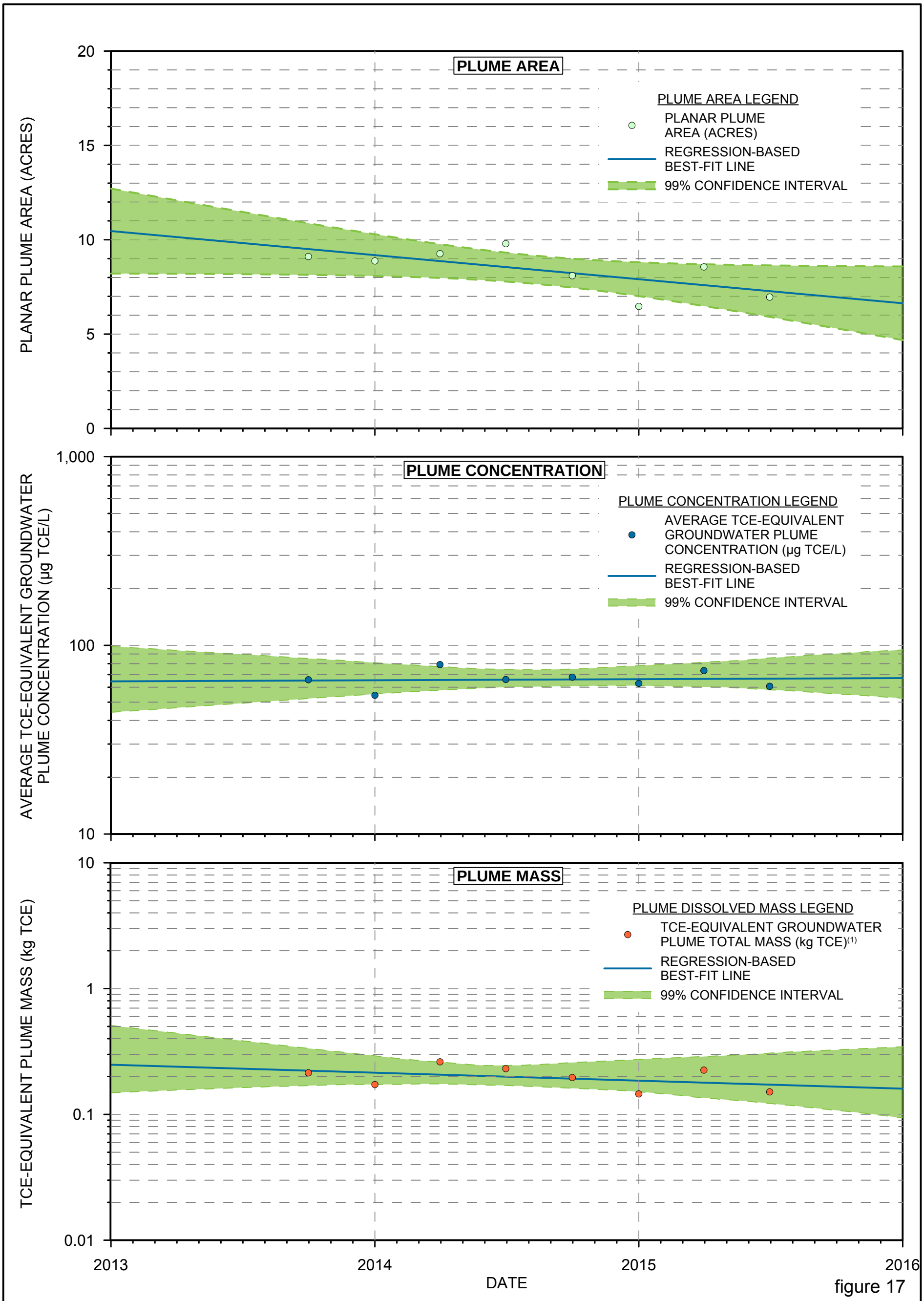


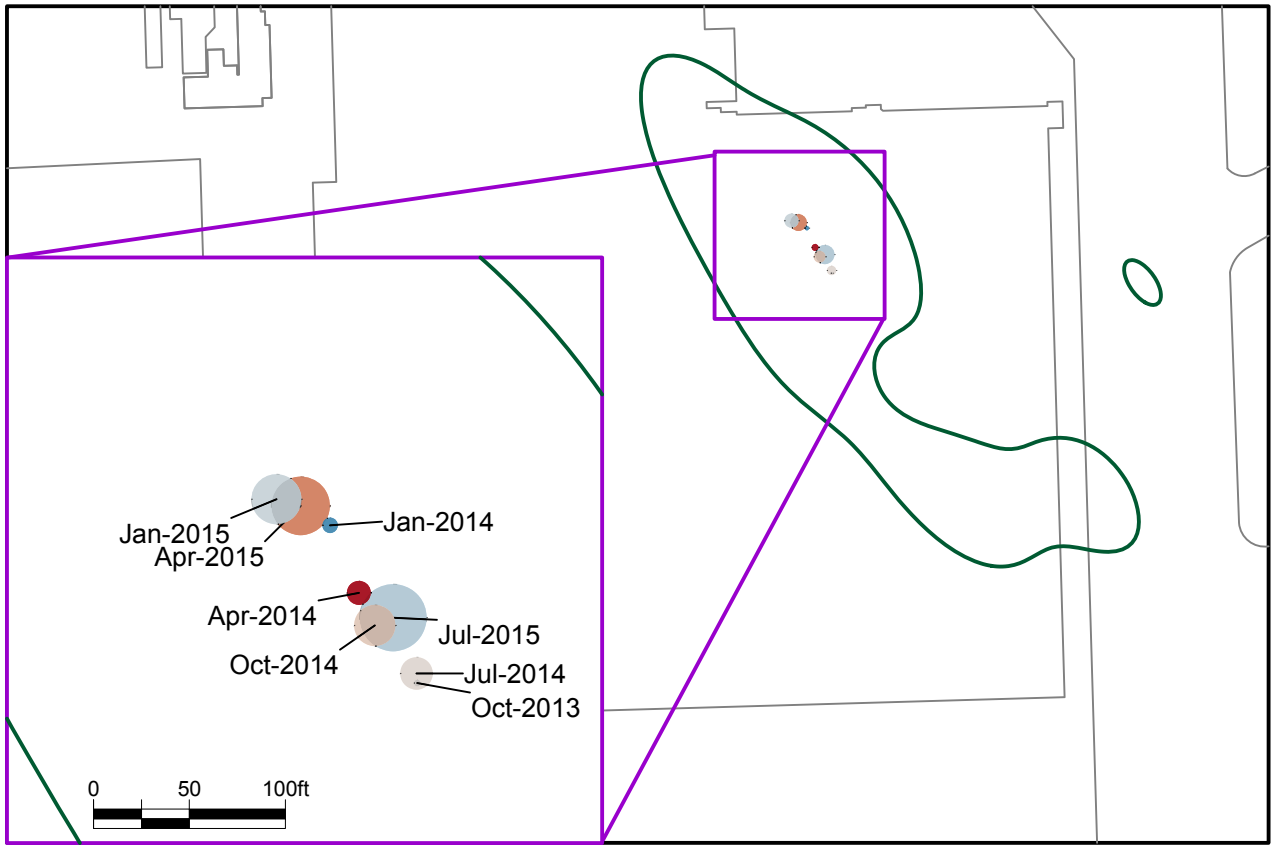
figure 17

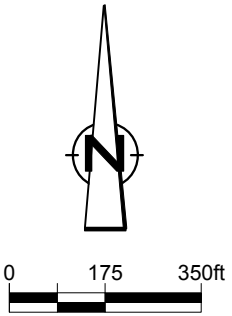
NOTE

(1) BASED ON AN ASSUMED AQUIFER THICKNESS OF 69 FEET AND MEASURED POROSITY OF 0.29

TCE-EQUIVALENT GROUNDWATER PLUME STABILITY ANALYSIS
FORMER FAIRFAX I SITE
Kansas City, Kansas

12559-T05(MEMO015) GN-WA-HYD (N:\HEG\012559\MEMO\FIGURES\TCE Equivalent Plume Stability.grf) NOV 4/2015





LEGEND

TCE-EQUIVALENT GROUNDWATER PLUME EXTENT (µg TCE/L) (JULY, 2015)

Oct-2014 DATE OF GROUNDWATER QUALITY MONITORING EVENT

TCE-EQUIVALENT AVERAGE GROUNDWATER PLUME CONCENTRATION (µg TCE/L)

50 55 60 65 70 75 80

DATE OF MONITORING EVENT

OLDEST MOST RECENT

figure 18

TCE-EQUIVALENT GROUNDWATER PLUME CENTER OF PLUME MASS FORMER FAIRFAX I SITE

Kansas City, Kansas

Appendix F
Cost Estimate Tables

Table F-1

S-8 Area Soil - Alternative 2
Former Fairfax I Site
Kansas City, Kansas
Engineering Controls (Concrete Cap) with ICS

Capital Costs

Cost Item	Quantity	Unit		Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS		$5,000	$5,000
Concrete Cap Installation	1	LS		$10,000	$10,000
Implementation of ICs	1	LS		$10,000	$10,000
				(Subtotal)	**$25,000**
		Construction management	10%		$2,500
		Administrative/Legal	5%		$1,250
		Contingency	10%		$2,500
				Total Capital Costs	**$31,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$5,000	$5,000
			(Subtotal)	**$5,000**
			Close-out Costs	**$5,000**
			Alternative 2 Total Cost	**$36,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls

Table F-2

S-8 Area Soil Alternative 3
Former Fairfax I Site
Kansas City, Kansas
Soil Vapor Extraction (SVE)

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS	$5,000	$5,000
Vacuum wells	1	each	$1,000	$1,000
Gas probes	4	each	$500	$2,000
Vacuum equipment	1	LS	$10,000	$10,000
Vapor phase carbon units (1,000 pounds each)	1	each	$5,000	$5,000
Transportation and Disposal	10	TONS	$85	$850
Implementation of ICs	1	LS	$10,000	$10,000
			(Subtotal)	**$34,000**
Mobilization/ Demobilization/ Well Abandonment	10%			$3,400
Design	10%			$3,400
Construction management	10%			$3,400
Administrative/Legal	5%			$1,700
Contingency	10%			$3,400
			Total Capital Costs	**$49,000**

Operation, Maintenance, and Monitoring Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Operator (provided by subcontractor)	12	month	$2,400	$28,800
Field technician	120	hour	$85	$10,200
Utilities	1	LS	$5,000	$5,000
Carbon exchange	2	each	$3,000	$6,000
Operation and Maintenance	1	LS	$2,000	$2,000
Project Management	1	LS	$10,000	$10,000
Gas probes	4	each	$100	$400
Carbon system	12	each	$100	$1,200
Exhaust	12	each	$100	$1,200
Annual reporting and IC Implementation	1	annual	$15,000	$15,000
			Annual Cost (Subtotal)	**$80,000**
			10% Contingency	$8,000
			Annual Cost + Contingency	$88,000
			Years of monitoring	2.00
			Operation, Maintenance and Monitoring Costs	**$176,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
Equipment Removal	1	LS	$5,000	$5,000
Site Restoration	1	LS	$5,000	$5,000
			(Subtotal)	**$25,000**
			Close-out Costs	**$25,000**
			Alternative 3 Total Cost	**$250,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls

Table F-3

S-8 Area Soil - Alternative 4
Former Fairfax I Site
Kansas City, Kansas
Soil Excavation and Disposal

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS	$5,000	$5,000
Excavation and Disposal	350	TONS	$85	$30,000
Dewatering	1	LS	$10,000	$10,000
Confirmatory Sampling	10	Per Sample	$400	$4,000
Backfill	350	TONS	$40	$14,000
Area Restoration	1	LS	$10,000	$10,000
Monitoring Well Reinstallation	1	LS	$5,000	$5,000
			(Subtotal)	**$78,000**
Mobilization/ Demobilization/ Well Abandonment	10%			$7,800
Construction management	10%			$7,800
Administrative/Legal	5%			$3,900
Contingency	10%			$7,800
			Total Capital Costs	**$105,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
			(Subtotal)	**$15,000**
			Close-out Costs	**$15,000**
			Alternative 4 Total Cost	**$120,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
sq ft - square feet

Table F-4

SB-110 Area Soil - Alternative 2
Former Fairfax I Site
Kansas City, Kansas
Engineering Controls (Concrete Cap) with ICS

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS	$5,000	$5,000
Concrete Cap Installation	1	LS	$20,000	$20,000
Implementation of ICs	1	LS	$10,000	$10,000
			(Subtotal)	**$35,000**
		Construction management 10%		$3,500
		Administrative/Legal 5%		$1,750
		Contingency 10%		$3,500
			Total Capital Costs	**$44,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$5,000	$5,000
			(Subtotal)	**$5,000**
			Close-out Costs	**$5,000**
			Alternative 2 Total Cost	**$49,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls

Table F-5

SB-110 Area Soil Alternative 3
Former Fairfax I Site
Kansas City, Kansas
Soil Vapor Extraction (SVE)

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS	$5,000	$5,000
Site Preparation	1	LS	$5,000	$5,000
Vacuum wells	5	each	$1,000	$5,000
Gas probes	10	each	$500	$5,000
Vacuum equipment	1	LS	$10,000	$10,000
Vapor phase carbon units (1,000 pounds each)	2	each	$5,000	$10,000
Transportation and Disposal	20	TONS	$85	$1,700
Implementation of ICs	1	LS	$10,000	$10,000
			(Subtotal)	**$52,000**
Mobilization/ Demobilization/ Well Abandonment	10%			$5,200
Design	10%			$5,200
Construction management	10%			$5,200
Administrative/Legal	5%			$2,600
Contingency	10%			$5,200
			Total Capital Costs	**$75,000**

Operation, Maintenance, and Monitoring Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Operator (provided by subcontractor)	12	month	$2,400	$28,800
Field technician	120	hour	$85	$10,200
Utilities	1	LS	$5,000	$5,000
Carbon exchange	8	each	$3,000	$24,000
Operation and Maintenance	1	LS	$2,000	$2,000
Project Management	1	LS	$10,000	$10,000
Gas probes	10	each	$100	$1,000
Carbon system	12	each	$100	$1,200
Exhaust	12	each	$100	$1,200
Annual reporting and ICs Implementation	1	annual	$15,000	$15,000
			Annual Cost (Subtotal)	**$98,000**
			10% Contingency	$9,800
			Annual Cost + Contingency	$107,800
			Years of monitoring	2.00
			Maintenance and Monitoring Costs	**$216,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
Equipment Removal	1	LS	$5,000	$5,000
Site Restoration	1	LS	$5,000	$5,000
			(Subtotal)	**$25,000**
			Close-out Costs	**$25,000**
			Alternative 3 Total Cost	**$316,000**

Assumptions:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%

Notes:

LS - lump sum
ICs - Institutional Controls

Table F-6

SB-110 Area Soil - Alternative 4
Former Fairfax I Site
Kansas City, Kansas
Soil Excavation and Disposal

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS	$5,000	$5,000
Site Prep for Equipment Laydown	1	LS	$5,000	$5,000
Excavation and disposal	2,300	TONS	$85	$196,000
Dewatering	1	LS	$20,000	$20,000
Confirmatory Sampling	15	Per Sample	$400	$6,000
Backfill	2,300	TONS	$40	$92,000
Area Restoration	1	LS	$15,000	$15,000
			(Subtotal)	**$339,000**
		Construction management 10%		$33,900
		Administrative/Legal 5%		$16,950
		Contingency 10%		$33,900
			Total Capital Costs	**$424,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
			(Subtotal)	**$15,000**
			Close-out Costs	**$15,000**
			Alternative 4 Total Cost	**$439,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
sq ft - square feet

Table F-7

MW-103A Area Soil - Alternative 2
Former Fairfax I Site
Kansas City, Kansas
Engineering Controls (Concrete Cap) with ICS

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS	$5,000	$5,000
Concrete Cap Installation	1	LS	$50,000	$50,000
Implementation of ICs	1	LS	$10,000	$10,000
			(Subtotal)	**$65,000**
		Construction management 10%		$6,500
		Administrative/Legal 5%		$3,250
		Contingency 10%		$6,500
			Total Capital Costs	**$81,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$5,000	$5,000
			(Subtotal)	**$5,000**
			Close-out Costs	**$5,000**
			Alternative 2 Total Cost	**$86,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls

Table F-8

TMW-130 Area Soil - Alternative 2
Former Fairfax I Site
Kansas City, Kansas
Engineering Controls (Concrete Cap) with ICS

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation soil sampling (if required)	1	LS	$5,000	$5,000
Concrete Cap Installation	1	LS	$200,000	$200,000
Implementation of ICs	1	LS	$10,000	$10,000
			(Subtotal)	**$215,000**
		Construction management 10%		$21,500
		Administrative/Legal 5%		$10,750
		Contingency 10%		$21,500
			Total Capital Costs	**$269,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$5,000	$5,000
			(Subtotal)	**$5,000**
			Close-out Costs	**$5,000**
			Alternative 2 Total Cost	**$274,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls

Table F-9

Site-Wide Groundwater - Alternative 2
Former Fairfax I Site
Kansas City, Kansas
Institutional Controls and Long-Term Monitoring

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Monitoring well replacement (if required)	1	LS	$20,000	$20,000
Implementation of ICs (using existing ICs)	1	LS	$0	$0
			(Subtotal)	**$20,000**
		Mobilization/ Demobilization 10%		$2,000
		Design 10%		$2,000
		Administrative/Legal 5%		$1,000
		Contingency 10%		$2,000
			Total Capital Costs	**$27,000**

Operation, Maintenance, and Monitoring Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Semi-annual GW Monitoring (35 wells)	2	Per event	$10,000	$20,000
Laboratory analysis	2	Per event	$6,000	$12,000
Annual reporting and ICs Implementation	1	annual	$15,000	$15,000
			Annual Cost (Subtotal)	**$47,000**
			10% Contingency	$4,700
			Annual Cost + Contingency	$51,700
			10-Year Present Worth Factor at 5.0% discount factor	7.72
			Net Present Worth of 10 Years of Operation, Maintenance and Monitoring Costs	**$399,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
			(Subtotal)	**$15,000**
			10-Year Present Worth Factor at 5.0% discount factor	0.61
			Net Present Worth After 10 Years of Close-out Costs	**$9,000**
			Alternative 2 Total Cost	**$435,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls

Table F-10

Site-Wide Groundwater - Alternative 3
Former Fairfax I Site
Kansas City, Kansas
In-Situ Enhanced Biodegradation

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation groundwater sampling	1	LS	$200,000	$200,000
Direct Push Points				
S-8 shallow (30 points at 30 ft bgs)	900	LF	$60	$54,000
TMW-127 shallow (150 points at 30 feet bgs)	4500	LF	$60	$270,000
TMW-127 intermediate (350 points at 60 ft bgs)	21000	LF	$60	$1,260,000
Amendment (emulsified vegetable oil and nutrients) per cubic yard of impacted saturated (soil/groundwater) matrix - Event 1				
S-8 shallow (11310 ft2, 10 feet deep)	4189	CY	$6.70	$28,066
TMW-127 shallow (59008 ft2, 10 feet deep)	21855	CY	$6.70	$146,427
TMW-127 intermediate (141045 ft2, 20 feet deep)	104478	CY	$6.70	$700,001
Reagent Injection Labor and expenses	1988	hour	$75	$149,063
Injection Equipment	1	LS	$50000	$50,000
Amendment (emulsified vegetable oil and nutrients) per cubic yard of impacted saturated (soil/groundwater) matrix - Event 2				
S-8 shallow (11310 ft2, 10 feet deep)	4189	CY	$6.70	$28,066
TMW-127 shallow (59008 ft2, 10 feet deep)	21855	CY	$6.70	$146,427
TMW-127 intermediate (141045 ft2, 20 feet deep)	104478	CY	$6.70	$700,001
Reagent Injection Labor and expenses	1988	hour	$75	$149,063
Injection Equipment	1	LS	$50000	$50,000
Well abandonment	530	each	$200	$106,000
			(**Subtotal)**	**$4,037,000**
		Mobilization/ Demobilization 1%		$40,370
		Design 1%		$40,370
		Construction management 1%		$40,370
		Administrative/Legal 1%		$40,370
		Contingency 5%		$201,850
			Total Capital Costs	**$4,400,000**

Operation, Maintenance, and Monitoring Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Semi-annual GW Monitoring (35 wells)	2	Per event	$10,000	$20,000
Laboratory analysis	2	Per event	$6,000	$12,000
Annual reporting and ICs Implementation	1	annual	$15,000	$15,000
			Annual Cost (Subtotal)	**$47,000**
			10% Contingency	$4,700
			Annual Cost + Contingency	$51,700
			10-Year Present Worth Factor at 5.0% discount factor	7.72
			Net Present Worth of 10 Years of Operation, Maintenance and Monitoring Costs	**$399,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
			(**Subtotal)**	$15,000
			10-Year Present Worth Factor at 5.0% discount factor	0.61
			Net Present Worth After 10 Years of Close-out Costs	**$9,000**
			Alternative 4 Total Cost	**$4,808,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls
ft bgs - feet below ground surface

Table F-11

Site-Wide Groundwater - Alternative 4
Former Fairfax I Site
Kansas City, Kansas
In-Situ Chemical Oxidation

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Delineation groundwater sampling	1	LS	$200,000	$200,000
Direct Push Points				
S-8 shallow (30 points at 30 ft bgs)	900	LF	$40	$36,000
TMW-127 shallow (150 points at 30 feet bgs)	4500	LF	$40	$180,000
TMW-127 intermediate (350 points at 60 ft bgs)	21000	LF	$40	$840,000
Reagent (sodium permanganate) per cubic yard of impacted saturated (soil/groundwater) matrix				
S-8 shallow (11310 ft2, 10 feet deep)	4189	CY	$81.00	$339,300
TMW-127 shallow (59008 ft2, 10 feet deep)	21855	CY	$81.00	$1,770,240
TMW-127 intermediate (141045 ft2, 20 feet deep)	104478	CY	$81.00	$8,462,700
Reagent Injection Labor and expenses	1988	hour	$75	$149,063
Injection Equipment	1	LS	$50000	$50,000
			(**Subtotal)**	**$12,027,000**
		Mobilization/ Demobilization 1%		$120,270
		Design 1%		$120,270
		Construction management 1%		$120,270
		Administrative/Legal 1%		$120,270
		Contingency 5%		$601,350
			Total capital Costs	**$13,109,000**

Operation, Maintenance, and Monitoring Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Semi-annual GW Monitoring (35 wells)	2	Per event	$10,000	$20,000
Laboratory analysis	2	Per event	$6,000	$12,000
Annual reporting and ICs Implementation	1	annual	$15,000	$15,000
			Annual Cost (Subtotal)	**$47,000**
			10% Contingency	$4,700
			Annual Cost + Contingency	$51,700
			10-Year Present Worth Factor at 5.0% discount factor	7.72
			Net Present Worth of 10 Years of Operation, Maintenance and Monitoring Costs	**$399,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
			(**Subtotal)**	$15,000
			10-Year Present Worth Factor at 5.0% discount factor	0.61
			Net Present Worth After 10 Years of Close-out Costs	**$9,000**
			Alternative 4 Total Cost	**$13,517,000**

Notes:

All dollar amounts in Subtotals and Totals to nearest thousand dollars
All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls
ft bgs - feet below ground surface

Table F-12

Site-Wide Groundwater - Alternative 5
Former Fairfax I Site
Kansas City, Kansas
Extraction and Treatment

Capital Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Pre-design studies	1	LS	$100,000	$100,000
Site Preparation	1	LS	$10,000	$10,000
New GW Extraction Wells (3 shallow)	150	feet	$200	$30,000
New GW Extraction Wells (2 intermediate)	150	feet	$200	$30,000
Submersible Pumps	5	LS	$5,000	$25,000
Site Electrical	1	LS	$100,000	$100,000
Well Electrical Connections	5	LS	$7,500	$37,500
Groundwater Treatment System and enclosure	1	LS	$750,000	$750,000
Equipment Installation	1	LS	$100,000	$100,000
Forcemain and discharge piping	1	LS	$100,000	$100,000
Transportation and Disposal	100	TONS	$85	$8,500
Permits	1	LS	$25,000	$25,000
			(**Subtotal)**	**$1,316,000**
		Mobilization/ Demobilization 10%		$131,600
		Design 10%		$131,600
		Construction management 10%		$131,600
		Administrative/Legal 5%		$65,800
		Contingency 10%		$131,600
			Total Capital Costs	**$1,908,000**

Operation, Maintenance, and Monitoring Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
GW Treatment System Operator (part time)	1	LS	$104,000	$104,000
Maintenance and consumables	1	LS	$100,000	$100,000
Electrical, well and pump O&M	1	LS	$100,000	$100,000
Influent and effluent monitoring	1	LS	$50,000	$50,000
Annual reporting	1	annual	$15,000	$15,000
			Annual Cost (Subtotal)	**$369,000**
			10% Contingency	$36,900
			Annual Cost + Contingency	$405,900
			10-Year Present Worth Factor at 5.0% discount factor	7.72
			Net Present Worth of 10 Years of Operation, Maintenance and Monitoring Costs	**$3,134,000**

Closeout Costs

Cost Item	Quantity	Unit	Cost/Unit	Item Cost
Closeout Report	1	LS	$15,000	$15,000
System Decommisioning	1	LS	$100,000	$100,000
			(Subtotal)	**$115,000**
			10-Year Present Worth Factor at 5.0% discount factor	0.61
			Net Present Worth After 10 Years of Close-out Costs	**$70,000**
			Alternative 4 Total Cost	**$5,112,000**

Notes:

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All values are in 2012 Dollars
Net present worth discount rate is 5.0%
LS - lump sum
ICs - Institutional Controls

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