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Revised Second Quarter 2016 Groundwater Monitoring Report NuStar Andover Quail Crossing Andover, Kansas

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Prepared for:
NuStar Pipeline Operating Partnership L.P.

October 27, 2016
1641-10

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GROUNDWATER MONITORING REPORT

Second Quarter 2016

NuStar Pipeline Operating Partnership L.P.

Quail Crossing Neighborhood

Andover, Kansas

Site Name and Location:	Quail Crossing Neighborhood Site	
	West Mountain and North Colt Court	
	Andover, Kansas	
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1.0 Introduction and Site Background

This groundwater monitoring report was prepared by Apex Companies, LLC (Apex) on behalf of NuStar Pipeline Operating Partnership L.P. (NuStar) as part of the continuing response to a gasoline release from a NuStar refined-petroleum pipeline. The activities outlined herein were performed in accordance with the Consent Agreement and Final Order (CAFO) dated May 10, 2013 and in coordination with the Kansas Department of Health and Environment (KDHE) and the Quail Crossing Neighborhood Association. This report summarizes the activities conducted from April 1, 2016 through June 30, 2016.

1.1 Background

The pipeline release was discovered in June 2012 after separate-phase hydrocarbons (SPH) were detected in an irrigation well at 2006 N Colt Court, in the Quail Crossing Neighborhood (the Neighborhood) of Andover, Kansas (the Site; Figure 1). As shown on Figure 2, the NuStar pipeline release location was approximately

80 feet north of the affected irrigation well. Upon the discovery of SPH in the irrigation well, NuStar immediately mobilized to the Site and implemented initial response and abatement activities, including repairs to the pipeline, soil excavation, deactivation of the irrigation well at 2006 N Colt Court, and removal of SPH from the well.

1.2 Pipeline and Site History

Land use at the Site and surrounding areas is residential. As shown on Figure 2, a stormwater retention pond is located near the Site, approximately 250 feet south of the NuStar pipeline. The pipeline is constructed of 8-inch-diameter carbon steel and is used to transport liquefied petroleum products. The pipeline was installed to an approximate depth of 3 feet below ground surface (bgs) in agricultural land in 1959, and the pipeline remained in agricultural and/or undeveloped land until the late 1990s when the development of the Quail Crossing Neighborhood began. As part of the Neighborhood development, the pipeline depth was increased to approximately 6 feet bgs by re-excavating and backfilling with native material. A 100-foot-wide pipeline easement was created along the pipeline pathway for safety purposes during Neighborhood development. The pipeline easement limits development activities near the pipeline. The pipeline location and associated easement boundaries are shown on Figure 2.

1.3 Activity Summary

Following the initial response activities, NuStar has performed interim remedial actions and investigations. These have included:

- A Comprehensive Investigation (CI) to determine the nature and extent of separate- and dissolved-phase hydrocarbons at the Site (Apex, 2014a);
- Implementation of a comprehensive groundwater monitoring and SPH removal program to evaluate separate- and dissolved-phase hydrocarbon trends;
- A soil vapor extraction (SVE) pilot test to evaluate this technology for addressing petroleum hydrocarbons in the vadose zone soil;
- Additional soil characterization following the CI to better assess lateral and vertical extent of impacted soil in support of soil excavation planning;
- A groundwater treatment pilot test to evaluate the use of an oxygen releasing compound (ORC) to address dissolved-phase petroleum hydrocarbons in groundwater; and
- A soil excavation to remove petroleum-impacted soil.

The following paragraphs describe each of these activities.

As part of the CI, soil and groundwater data were collected from 24 soil borings, 16 monitoring wells, and select irrigation wells. Information obtained during the CI indicated that residual gasoline constituents are present in soil and groundwater in the vicinity of the pipeline release location.

An SPH removal program was initiated in June 2013 to address SPH in the subsurface, and a quarterly groundwater monitoring program was initiated in August 2013. The current KDHE-approved quarterly groundwater monitoring program consists of gauging water levels in wells MW-1 through MW-19 and SVE-1 through SVE-4, collection, and analysis of groundwater samples from wells MW-1 through MW-19 and SVE-2 through SVE-4, and collection and analysis of groundwater monitoring samples from selected irrigation wells. The groundwater monitoring programs for monitoring/pilot test wells and irrigation wells are presented in Tables 1 and 2, respectively.

The SPH program initially consisted of weekly SPH removal and gauging events. A vacuum truck was used to extract groundwater and SPH, if present, from the irrigation well at 2006 N Colt Court during the period June 2013 through January 7, 2015. A modified SPH removal program was approved by KDHE on January 9, 2015 and implemented on January 14, 2015. The modified SPH removal program is described in Section 2.2.

To evaluate the feasibility of SVE technology for mitigating subsurface petroleum hydrocarbons, NuStar performed an SVE pilot test in December 2013 in accordance with the KDHE-approved *Soil Vapor Extraction Pilot Test Work Plan* (Apex, 2013). An evaluation of the SVE pilot test results indicated SVE to be a likely candidate for effective remedial technology on Site. Accordingly, NuStar presented the results of the pilot test and a conceptual SVE system design at a Neighborhood meeting on February 17, 2014. Following the meeting, NuStar submitted the *Soil Vapor Extraction Evaluation and Proposed Soil Investigation Report* in March 2014 (Apex, 2014b). NuStar modified the conceptual design of the SVE system to reflect Neighborhood feedback. Despite proposed modifications to the conceptual SVE design, neighborhood representatives cited a number of reasons for not accepting SVE as a viable mitigation option, including concerns about noise, emissions, and aesthetics.

NuStar implemented a soil investigation in the vicinity of the pipeline release in April 2014 to further define the extent of gasoline in soil and evaluate the potential for implementing other remedial alternatives that may be acceptable to the Neighborhood. Analytical data from that soil investigation were presented in the *Soil Investigation Report and Proposed Soil Excavation Work Plan* (Apex, 2014c), which was approved by KDHE on August 8, 2014. The work plan portion of the report described proposed excavation methods along with a general excavation design for removing vadose-zone soil affected by petroleum constituents. KDHE approved the work plan and requested a detailed excavation construction plan to documents specific methods and materials for the planned excavation. In addition to the standard permit requirement for this type of project, the City of Andover required preparation of detailed survey documents and engineering designs as a condition of permitting the planned excavation. Once the City of Andover regulatory process was completed and the design plan approved, the *Soil Excavation Work Plan* was submitted to and approved by KDHE in

August 2015 (Apex, 2015c). The *Soil Excavation Work Plan* was implemented during the fourth quarter 2015; the soil excavation area is shown on Figure 2. On January 7, 2016, the *Soil Excavation Results Report* (Apex, 2016a), which provides a detailed description of the excavation activities was submitted to KDHE; that report was approved by KDHE on March 14, 2016.

To evaluate a remedial technology that may be appropriate for treating groundwater at the Site, the *Revised Groundwater Pilot Test Work Plan* (Apex, 2015a) was developed and submitted in January 2015. After evaluating several groundwater technologies, the Work Plan proposed a pilot test to evaluate enhanced aerobic bioremediation using ORC via injection to the subsurface. KDHE approved the Work Plan on January 26, 2015; ORC injections were performed and pilot test monitoring wells installed during the period of March 10 through 20, 2015. Bi-monthly groundwater monitoring of wells associated with the pilot test was performed during the period March 2015 through February 2016. The methods and interim results of the groundwater pilot test (through June 2015) were reported in the *Revised Interim Groundwater Pilot Test Implementation Report* (Apex, 2015b) which was approved by KDHE on August 26, 2015. The results of the pilot test (through February 2016) as reported in the *Revised Groundwater Pilot Test Report and Expanded Pilot Test Work Plan* (Work Plan; Apex, 2016b) indicated that introduction of ORC is an effective method of enhancing aerobic bioremediation. Accordingly, a larger-scale pilot test was proposed in the Work Plan, which was approved by KDHE on May 31, 2016. The expanded pilot test will be implemented in the third quarter.

Since the release was discovered, NuStar has coordinated with property owners within the investigation area to deactivate irrigation wells (ten as of the date of this report), reconfigure the associated irrigation systems to receive municipal water, and reimburse affected property owners for municipal water fees. Irrigation wells were selected for deactivation based on their location within the investigation area, groundwater quality, the potential that pumping on the wells could influence groundwater conditions, and/or well owner concerns. Irrigation wells that have been deactivated are listed in Table 2 and locations are shown on Figure 2. The irrigation wells have not been permanently decommissioned; therefore, the well owners will have the option of reactivating the wells at a later date. In addition, seven Neighborhood irrigation wells were not deactivated because the homeowners wished to maintain use of the well (2007 N Mountain Court and 2009 N Mountain Court) or the wells are located outside the investigation area (1009 W Mountain, 1211 W Quail Crossing Court, 1910 W Quail Crossing Court, HOA-1, and HOA-2). One irrigation well was reactivated on October 1, 2015 (2028 N Ruger Circle) at the request of the homeowner.

2.0 Second Quarter 2016 Groundwater Monitoring

Second quarter 2016 groundwater and SPH monitoring activities consisted of: groundwater gauging; measurement of stormwater pond stage; SPH gauging of the irrigation well at 2006 N Colt Court in April; groundwater gauging; measurement of stormwater pond stage; and sampling of 16 monitoring wells (MW-1 through MW-16), five pilot test wells (MW-17 through MW-19 and SVE-2 through SVE-4), and 17 irrigation wells for chemical analyses in June (the second quarter groundwater monitoring event). The groundwater

monitoring program for monitoring/pilot test wells and irrigation wells are listed in Table 1 and Table 2, respectively.

2.1 Groundwater and Stormwater Pond Elevations

On April 26 and June 20, 2016, depth to water was measured at each monitoring well location and at the irrigation well at 2006 N Colt Court; and the stormwater pond elevation was measured. Groundwater levels were measured to the nearest 0.01 foot using an electronic water interface probe. Stormwater pond elevations were measured using a staff gauge permanently installed in the pond. Groundwater elevation and stormwater pond surface elevation data are listed in Table 3. The groundwater elevations measured on June 20, 2016 are shown on Figure 3. Copies of field data sheets are included in Appendix A. Historical groundwater and stormwater retention pond elevations for the period August 2013 through June 2016 are tabulated in Appendix B.

During the second quarter 2016 monitoring event performed in June 2016, groundwater levels at the Site ranged between approximately 15 and 38 feet bgs (equivalent to 1,313 and 1,334 feet above mean sea level [MSL]). Groundwater levels increased an average of 0.70 foot relative to the first quarter 2016 groundwater monitoring event conducted in March 2016.

The elevation of the stormwater pond surface was 1344.75 feet MSL in April 2016 and 1344.50 feet MSL in June 2016; for comparison, the stormwater pond surface elevation during the first quarter groundwater monitoring event in March 2016 was the 1344.50 feet MSL.

As shown on Figure 3, the groundwater elevations recorded during the second quarter 2016 event exhibited a pattern similar to previous monitoring events at the Site. That is, groundwater elevations were highest in the vicinity of the stormwater retention pond and decreased with distance from the pond. The observed pattern is likely the result of localized groundwater recharge from the stormwater retention pond. The localized recharge results in radial flow of groundwater away from the pond. However, with increasing distance from the pond, groundwater exhibits a more easterly flow component and flatter gradient, consistent with regional patterns (O'Connor et al., 1982). The groundwater elevation at monitoring wells MW-2 and MW-3 were inconsistent with groundwater elevations at surrounding wells; accordingly, the elevations at those wells were not used for contouring. The exclusion of the groundwater elevation measurements at wells MW-2 and MW-3 does not change the interpretation of groundwater flow direction and the radial flow of groundwater away from the pond. Future groundwater elevation measurements at well MW-2 and MW-3 will be used to confirm groundwater gradients. In addition, three new monitoring wells were proposed in the *Groundwater Pilot Test Report and Expanded Pilot Test Work Plan* (Apex, 2016b). Water levels in the new monitoring wells will be used to further assess groundwater gradients at the Site beginning in the third quarter 2016.

2.2 SPH Occurrence

Consistent with the KDHE-approved *Proposed SPH Removal Modification Plan*, an SPH skimmer was installed in the irrigation well at 2006 N Colt Court on February 9, 2015. Gauging and SPH skimmer operations and maintenance (O&M) events were performed monthly from February 2015 through April 2016. Consistent with the proposed monitoring program modifications presented in the *Fourth Quarter 2015 Groundwater Monitoring Report* (Apex, 2016c) and subsequent KDHE approval, SPH skimmer operations and maintenance (O&M) will be performed quarterly beginning in the third quarter.

The irrigation well at 2006 N Colt Court was gauged for the presence of SPH and to measure depth to water on April 26 and June 20, 2016. SPH were not detected during these gauging events. Accordingly, SPH removal activities were not necessary during the second quarter 2016 monitoring period, and a groundwater sample was collected from the irrigation well during the June 2016 monitoring event. Groundwater elevation data listed in Table 4 show that SPH have not been present during the period June 2015 through June 2016. The historical data listed in Appendix B show that SPH were last observed in the passive skimmer in March 2015 and have not been observed in the well since that time.

SPH have not been observed in any monitoring and pilot test wells at the Site, including well MW-1, which is located 30 feet from the irrigation well. With the exception of the irrigation well at 2006 N Colt Court, SPH have not been observed in any irrigation wells at the Site.

2.3 Second Quarter 2016 Groundwater Monitoring Event Scope

The second quarter 2016 groundwater monitoring event conducted during the week of June 20, 2016 included the following activities:

- Gauged wells MW-1 through MW-19 and SVE-1 through SVE-4.
- Collected groundwater samples from wells MW-1 through MW-19, SVE-2, and SVE-4.
- Collected groundwater samples from irrigation wells at 17 properties, as shown on Table 2.

Groundwater samples were collected from monitoring and pilot test wells MW-1 through MW-19 using low-flow sampling techniques; a bladder pump was used to collect samples from wells MW-1 through MW-5 and MW-8 through MW-19, and a peristatic pump was used to collect samples from wells MW-6 and MW-7. KDHE staff collected split samples from monitoring wells MW-1, MW-5, and MW-17. Prior to sampling, each monitoring well was purged using a low-flow pump while water quality parameters (pH, temperature, specific conductance, dissolved oxygen, and oxidation-reduction potential [ORP]) were recorded (Table 5). Groundwater samples were collected from irrigation wells using disposable bailers. The groundwater samples from SVE-2 and SVE-4 were also collected using disposable bailers because insufficient water was present in those well to collect a sample using low flow techniques; well SVE-3 did not have sufficient water volume

to collect a sample. The groundwater analytical data for monitoring and pilot test wells are presented in Section 2.5 and analytical data for irrigation wells are presented in Section 2.6.

2.3.1 Second Quarter Resampling Events

Water samples collected from 12 irrigation wells (2001 N Colt Court, 2002 N Colt Court, 2004 N Colt Court, 2005 N Colt Court, 2007 N Colt Court, 2019 N Ruger Circle, 2020 N Ruger Circle, 2032 N Ruger Circle, 2007 N Mountain Court, 2009 N Mountain Court, 1211 W Quail Crossing Court, and 1009 W Mountain) and one monitoring well (MW-14) during the week of June 20 were delayed due to a FedEx shipping error; those samples were received by ESC out of hold time. On July 21, 2016, the above-listed irrigation wells were resampled; however, the monitoring well (MW-14) was inadvertently omitted from the July sampling event.

On August 12, 2016, an additional groundwater sample was collected from monitoring well MW-9; this well was resampled due to apparent anomalous June 2016 laboratory results. The results of the June 2016 and August 2016 sampling events are presented herein.

2.4 Groundwater Analytical Program

Monitoring and pilot test well groundwater samples collected by Apex staff were submitted to ESC Laboratory Sciences (ESC), a Kansas-accredited analytical laboratory, for the following analyses: low-range hydrocarbons (LRH; carbon range ≥C5 – <C9) by U.S. Environmental Protection Agency (EPA) Method 8015; middle-range hydrocarbons (MRH; carbon range ≥C9 – <C19) by EPA Method 8015M; and volatile organic compounds (VOCs) by EPA Method 8260B. The LRH and MRH analyses are consistent with KDHE Policy # BER-041 *Total Petroleum Hydrocarbons (TPH) and Light Non-Aqueous Phase Liquid (LNAPL) Characterization, Remediation and Management (September 2015).* KDHE staff submitted split groundwater samples collected from wells MW-1, MW-5, and MW-17 to Pace Analytical Services, a Kansas-accredited analytical laboratory, for the following analyses: LRH by EPA Method 8260; MRH by EPA Method 8015M; and VOCs by EPA Method 5030B/8260.

2.5 Monitoring and Pilot Test Well Analytical Program and Results

Table 6 presents dissolved-phase petroleum hydrocarbon constituent data for groundwater samples collected from monitoring and pilot test wells between January 2014 and August 2016. Figures 4 and 5 present analytical data for the second quarter 2016 monitoring events. Copies of the laboratory reports and a quality assurance/quality control (QA/QC) results summary are included in Appendix C. The monitoring well groundwater data are discussed below.

Groundwater monitoring conducted since 2013 supports that the extent of dissolved phase hydrocarbons exceeding KDHE Tier 2 RBSVs is stable. The approximate extent of groundwater with concentrations of dissolved-phase LRH, MRH, benzene, and naphthalene are shown on Figures 6 through 9, respectively.

Petroleum constituents were not detected or were detected at concentrations lower than KDHE Tier 2 RBSVs in 12 of the 20 monitoring and pilot test wells sampled (MW-2, MW-4, MW-6 through MW-8, MW-10 through MW-13, MW-15, MW-16, and SVE-2). As discussed in Section 2.3.1, monitoring well MW-14 was inadvertently omitted from the second quarter sampling events. As shown on Table 6, dissolved-phase constituents have not been detected in samples collected from that well since October 2014; and quarterly groundwater sampling of well MW-14 is ongoing.

On August 12, 2016, monitoring well MW-9 was resampled due to anomalous detections of dissolved-phase petroleum constituents in the June 2016 sample. Petroleum constituents were not detected in the August 2016 sample; this result is consistent with historical analytical results from this well. Quarterly groundwater sampling of well MW-9 is ongoing and the data from future monitoring events will continue to be evaluated.

Data Quality Evaluation – Monitoring and Pilot Test Well Results.

Field duplicate samples were collected from wells MW-3 and MW-12. The comparison between the field duplicate sample and primary sample data is expressed by the relative percent difference (RPD). Constituents were within acceptable RPD limits for both wells. The higher reported concentration is presented on Figures 4 through 9.

Split samples from wells MW-1, MW-5, and MW-17 were submitted to Pace Analytical Laboratories by KDHE. A general data quality evaluation for the lab report is presented below.

- Two MRH analyses were performed on each sample submitted by KDHE: (1) surrogates associated with the first round of MRH analysis were outside acceptable recovery limits; and (2) recovery of surrogates in the second round of MRH analyses were within acceptable recovery limits; however, the analyses were performed outside the recommended hold time. Accordingly, the Pace lab report indicates two MRH values; the higher value is presented herein, and where appropriate, the MRH values are flagged with an 'H' to indicate that the analyses were performed outside of hold time.
- The following split sample data are flagged with an uppercase 'J' to identify that the result is an estimated concentration above the adjusted method detection limit and below the adjusted reporting limit: naphthalene for the sample collected from well MW-1; and 1,3,5-trimethylbenzene, n-propylbenzene, and cyclohexane for the sample collected from well MW-5.

To evaluate laboratory precision for VOCs, LRH, and MRH, the results of the KDHE split samples from wells MW-1, MW-5, and MW-17 were compared to the corresponding primary samples collected by Apex. The comparison between KDHE split sample and primary sample data is expressed by the RPD. In general, the results for KDHE split samples were consistent with the Apex primary samples. Constituents were within acceptable RPD limits, with the following exceptions: LRH and MRH in MW-1 and MW-17; and 1,3,5-trimethylbenzene, naphthalene, and toluene in well MW-17. Accordingly, those data are flagged with a lower case 'j' to identify the results as estimated concentrations.

2.6 Irrigation Well Analytical Program and Results

As shown in Table 2, groundwater samples were collected from irrigation wells at 17 properties. As noted in Section 2.3.1, water samples collected from 12 irrigation wells during the week of June 20 were delayed due to a FedEx shipping error; those wells were resampled on July 21, 2016. Irrigation well analytical data for the second quarter 2016 monitoring event are listed in Table 7 and shown on Figures 4 and 5. Copies of the laboratory reports are included in Appendix C. The irrigation well groundwater data are discussed below:

- During the second quarter 2016 groundwater monitoring event, dissolved-phase hydrocarbon constituents were not detected or contained concentrations of dissolved-phase petroleum constituents below the corresponding KDHE Tier 2 RBSVs in 15 of 17 irrigation wells.
- One constituent (naphthalene) was detected in the sample collected from the well at HOA-1. However, naphthalene was found in the associated laboratory blank, was not detected in the field duplicate sample collected from that location, and has never been detected at that location. The naphthalene value for HOA-1 in Table 7 is flagged with a 'B' to indicate naphthalene was found in the associated laboratory blank; and Figures 5 and 9 indicate that naphthalene was not detected in well HOA-1.
- The groundwater samples collected from two irrigation wells (2005 N Colt Court and 2006 N Colt Court) contained concentrations of dissolved-phase petroleum constituents that exceed the corresponding KDHE Tier 2 RBSVs.
    - The concentrations of LRH, MRH, benzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, and naphthalene in the irrigation well at 2005 N Colt Court exceeded the corresponding KDHE Tier 2 RBSVs. Concentrations of dissolved-phase constituents in the sample were within the historical range of concentrations observed from that well. As shown in Table 2, this irrigation well was deactivated in 2013, and the associated irrigation system was reconfigured to receive municipal water.
    - Measurable SPH were generally present in this well (2006 N Colt Court) during the period June 2012 through February 2015; however, SPH have not been observed in this well since February 2015. Groundwater samples are collected during quarterly groundwater monitoring events from this well if SPH are absent; therefore, a groundwater sample was collected from this well in June 2016. As shown in Table 7, the sample collected in June 2016 contained dissolved-phase concentrations of LRH, MRH, benzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, toluene, and naphthalene above the corresponding KDHE Tier 2 RBSVs. Concentrations of dissolved-phase constituents in the sample were within the range observed from that well. As shown in Table 2, this irrigation well was deactivated in 2012 and the irrigation system was reconfigured to receive municipal water.

3.0 Status Report

Work Completed – Second Quarter 2016:

The following activities were performed during the second quarter 2016:

- The groundwater monitoring program as shown in Table 1 was implemented during the second quarter 2016 comprehensive groundwater monitoring and during follow-up sampling events in July and August 2016.

Work Planned – Third Quarter 2016:

- Performance of the third quarter 2016 comprehensive groundwater monitoring, groundwater pilot test sampling, and SPH monitoring/recovery events will be conducted in September.
- Implementation of the expanded pilot test work plan, as presented in the *Revised Groundwater Pilot Test Report and Expanded Pilot Test Work Plan* (Apex, 2016b), will be initiated in the third quarter 2016.

4.0 References

Apex Companies, LLC (Apex), 2013. *Soil Vapor Extraction Pilot Test Work Plan. Quail Crossing Neighborhood, Andover, Kansas.* November 15, 2013.

Apex, 2014a. *Comprehensive Investigation Report. Quail Crossing Neighborhood, Andover, Kansas.* April 30, 2014.

Apex, 2014b. *Soil Vapor Extraction Evaluation and Proposed Soil Investigation Report. Quail Crossing Neighborhood, Andover, Kansas.* March 28, 2014.

Apex, 2014c. *Soil Investigation Report and Proposed Soil Excavation Work Plan. Quail Crossing Neighborhood, Andover, Kansas.* July 17, 2014.

Apex, 2015a. *Revised Groundwater Pilot Test Work Plan. Quail Crossing Neighborhood, Andover, Kansas.* January 16, 2015.

Apex, 2015b. *Revised Interim Groundwater Pilot Test Report. Quail Crossing Neighborhood, Andover, Kansas.* October 22, 2015.

Apex, 2015c. *Soil Excavation Work Plan. Quail Crossing Neighborhood, Andover, Kansas.* August 19, 2015.

Apex, 2016a. *Soil Excavation Results Report. Quail Crossing Neighborhood, Andover, Kansas.* March 2, 2016.

Apex, 2016b. *Groundwater Pilot Test Report and Expanded Pilot Test Work Plan. Quail Crossing Neighborhood, Andover, Kansas.* April 15, 2016.

Apex, 2016c. *Revised Fourth Quarter 2015 Groundwater Monitoring Report. Quail Crossing Neighborhood, Andover, Kansas.* April 28, 2016.

O'Connor, Howard G., Chaffee, Pamela, and Link, Martha, 1982. *Geohydrology of Southwestern Butler County, Kansas: A Preliminary Report.* Kansas Geological Survey Open File Report 82-2. May 1982.

Table 1
Groundwater Monitoring Program – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Gauging	LRH and MRH	VOCs
MW-1	Q	Q	Q
MW-2	Q	Q	Q
MW-3	Q	Q	Q
MW-4	Q	Q	Q
MW-5	Q	Q	Q
MW-6	Q	Q	Q
MW-7	Q	Q	Q
MW-8	Q	Q	Q
MW-9	Q	Q	Q
MW-10	Q	Q	Q
MW-11	Q	Q	Q
MW-12	Q	Q	Q
MW-13	Q	Q	Q
MW-14	Q	Q	Q
MW-15	Q	Q	Q
MW-16	Q	Q	Q
MW-17	Q	Q	Q
MW-18	Q	Q	Q
MW-19	Q	Q	Q
SVE-1	Q	--	--
SVE-2	Q	Q	Q
SVE-3	Q	Q	Q
SVE-4	Q	Q	Q

Notes:

1. LRH = Low-range hydrocarbons by U.S. Environmental Protection Agency (EPA) Method 8015.
2. MRH = Mid-range hydrocarbons by EPA Method 8015M.
3. VOCs = Volatile organic compounds; benzene, toluene, ethylbenzene, xylenes [BTEX], 1,2-dicholoethane, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, n-butylbenzene, and n-propylbenzene by U.S. Environmental Protection Agency Method 8260B.
4. Q = Performed quarterly.
5. Monitoring wells will not be sampled if SPH are present.

Table 2
Groundwater Monitoring Program – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	LRH and MRH	VOCs	Well Status
2001 N Colt Ct	Q	Q	Currently in Use
2002 N Colt Ct	Q	Q	Deactivated
2004 N Colt Ct	Q	Q	Deactivated
2005 N Colt Ct	Q	Q	Deactivated
2006 N Colt Ct	Q	Q	Deactivated
HOA-1	Q	Q	Currently in Use
2007 N Colt Ct	Q	Q	Deactivated
2019 N Ruger Cir	Q	Q	Deactivated
2020 N Ruger Cir	Q	Q	Deactivated
2028 N Ruger Cir	Q	Q	Currently in Use
2032 N Ruger Cir	Q	Q	Deactivated
2021 N Ruger Ct	Q	Q	Deactivated
2025 N Ruger Ct	Q	Q	Currently in Use
1009 W Mountain	Q	Q	Currently in Use
2007 N Mountain Ct	Q	Q	Currently in Use
2009 N Mountain Ct	Q	Q	Currently in Use
1211 W Quail Crossing Ct	Q	Q	Currently in Use

Notes:

1. LRH = Low-range hydrocarbons by U.S. Environmental Protection Agency (EPA) Method 8015.
2. MRH = Mid-range hydrocarbons by EPA Method 8015M.
3. VOCs = Volatile organic compounds; benzene, toluene, ethylbenzene, xylenes [BTEX], 1,2-dicholoethane, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, n-butylbenzene, and n-propylbenzene by U.S. Environmental Protection Agency Method 8260B.
4. Q = Performed quarterly.
5. Well locations are shown on Figure 2.
6. Irrigation wells will not be sampled if SPH are present.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-1	6/15/2015	4.0	1352.13	35.0	20-35	31.31	--	--	1320.82
	7/22/2015					31.29	--	--	1320.84
	8/20/2015					31.35	--	--	1320.78
	9/14/2015					31.35	--	--	1320.78
	10/20/2015					31.32	--	--	1320.81
	11/24/2015					31.35	--	--	1320.78
	12/14/2015					31.21	--	--	1320.92
	1/13/2016					31.19	--	--	1320.94
	2/16/2016					31.34	--	--	1320.79
	3/21/2016					31.34	--	--	1320.79
	4/26/2016					31.31	--	--	1320.82
	6/20/2016					31.06	--	--	1321.07
MW-2	6/15/2015	2.0	1353.17	44.0	29-44	34.83	--	--	1318.34
	7/22/2015					35.13	--	--	1318.04
	8/20/2015					36.21	--	--	1316.96
	9/14/2015					35.87	--	--	1317.30
	10/20/2015					36.23	--	--	1316.94
	11/24/2015					35.81	--	--	1317.36
	12/14/2015					34.08	--	--	1319.09
	1/13/2016					32.73	--	--	1320.44
	2/16/2016					32.69	--	--	1320.48
	3/21/2016					33.89	--	--	1319.28
	4/26/2016					34.76	--	--	1318.41
	6/20/2016					33.46	--	--	1319.71
MW-3	6/15/2015	2.0	1350.47	60.0	40-60	38.21	--	--	1312.26
	7/22/2015					39.69	--	--	1310.78
	8/20/2015					44.40	--	--	1306.07
	9/14/2015					43.33	--	--	1307.14
	10/20/2015					45.10	--	--	1305.37
	11/24/2015					39.69	--	--	1310.78
	12/14/2015					35.42	--	--	1315.05
	1/13/2016					32.61	--	--	1317.86
	2/16/2016					23.13	--	--	1327.34
	3/21/2016					34.17	--	--	1316.30
	4/26/2016					37.96	--	--	1312.51
	6/20/2016					37.74	--	--	1312.73

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-4	6/15/2015	2.0	1350.73	41.0	26-41	29.02	--	--	1321.71
	7/22/2015					29.55	--	--	1321.18
	8/20/2015					29.65	--	--	1321.08
	9/14/2015					29.60	--	--	1321.13
	10/20/2015					30.31	--	--	1320.42
	11/24/2015					30.37	--	--	1320.36
	12/14/2015					29.69	--	--	1321.04
	1/13/2016					29.95	--	--	1320.78
	2/16/2016					30.16	--	--	1320.57
	3/21/2016					30.29	--	--	1320.44
	4/26/2016					30.41	--	--	1320.32
	6/20/2016					29.15	--	--	1321.58
MW-5	6/15/2015	2.0	1352.77	30.0	15-30	19.60	--	--	1333.17
	7/22/2015					19.82	--	--	1332.95
	8/20/2015					19.97	--	--	1332.80
	9/14/2015					20.06	--	--	1332.71
	10/20/2015					20.24	--	--	1332.53
	11/24/2015					20.40	--	--	1332.37
	12/14/2015					19.82	--	--	1332.95
	1/13/2016					19.95	--	--	1332.82
	2/16/2016					20.49	--	--	1332.28
	3/21/2016					21.05	--	--	1331.72
	4/26/2016					20.87	--	--	1331.90
	6/20/2016					19.73	--	--	1333.04
MW-6	6/15/2015	2.0	1349.76	41.0	26-41	20.45	--	--	1329.31
	7/22/2015					20.66	--	--	1329.10
	8/20/2015					20.73	--	--	1329.03
	9/14/2015					20.48	--	--	1329.28
	10/20/2015					21.11	--	--	1328.65
	11/24/2015					22.17	--	--	1327.59
	12/14/2015					20.57	--	--	1329.19
	1/13/2016					20.51	--	--	1329.25
	2/16/2016					21.49	--	--	1328.27
	3/21/2016					22.22	--	--	1327.54
	4/26/2016					22.93	--	--	1326.83
	6/20/2016					20.74	--	--	1329.02

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-7	6/15/2015	2.0	1348.98	24.0	9-24	14.91	--	--	1334.07
	7/22/2015					15.61	--	--	1333.37
	8/20/2015					15.70	--	--	1333.28
	9/14/2015					15.55	--	--	1333.43
	10/20/2015					16.07	--	--	1332.91
	11/24/2015					16.29	--	--	1332.69
	12/14/2015					15.56	--	--	1333.42
	1/13/2016					15.75	--	--	1333.23
	2/16/2016					16.51	--	--	1332.47
	3/21/2016					16.65	--	--	1332.33
	4/26/2016					16.18	--	--	1332.80
	6/20/2016					15.42	--	--	1333.56
MW-8	6/15/2015	2.0	1353.38	30.0	15-30	19.93	--	--	1333.45
	7/22/2015					20.20	--	--	1333.18
	8/20/2015					20.64	--	--	1332.74
	9/14/2015					20.68	--	--	1332.70
	10/20/2015					21.08	--	--	1332.30
	11/24/2015					21.61	--	--	1331.77
	12/14/2015					20.41	--	--	1332.97
	1/13/2016					20.53	--	--	1332.85
	2/16/2016					21.26	--	--	1332.12
	3/21/2016					22.04	--	--	1331.34
	4/26/2016					22.03	--	--	1331.35
	6/20/2016					20.24	--	--	1333.14
MW-9	6/10/2015	2.0	1349.48	34.0	19-34	NM	--	--	NM
	6/15/2015					29.83	--	--	1319.65
	7/22/2015					28.87	--	--	1320.61
	8/20/2015					28.41	--	--	1321.07
	9/14/2015					30.24	--	--	1319.24
	10/20/2015					31.07	--	--	1318.41
	11/24/2015					30.87	--	--	1318.61
	12/14/2015					29.22	--	--	1320.26
	1/13/2016					28.32	--	--	1321.16
	2/16/2016					28.32	--	--	1321.16
	3/21/2016					29.66	--	--	1319.82
	4/26/2016					30.73	--	--	1318.75
	6/20/2016					28.45	--	--	1321.03
	8/12/2016					30.50			1318.98

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-10	6/15/2015	2.0	1348.79	34.0	19-34	28.30	--	--	1320.49
	7/22/2015					29.56	--	--	1319.23
	8/20/2015					30.49	--	--	1318.30
	9/14/2015					28.40	--	--	1320.39
	10/20/2015					28.39	--	--	1320.40
	11/24/2015					28.40	--	--	1320.39
	12/14/2015					28.36	--	--	1320.43
	1/13/2016					27.04	--	--	1321.75
	2/16/2016					26.97	--	--	1321.82
	3/21/2016					28.43	--	--	1320.36
	4/26/2016					28.37	--	--	1320.42
	6/20/2016					28.16	--	--	1320.63
MW-11	6/15/2015	2.0	1351.34	42.0	22-42	28.31	--	--	1323.03
	7/22/2015					28.66	--	--	1322.68
	8/20/2015					28.73	--	--	1322.61
	9/14/2015					28.82	--	--	1322.52
	10/20/2015					28.62	--	--	1322.72
	11/24/2015					28.76	--	--	1322.58
	12/14/2015					28.64	--	--	1322.70
	1/13/2016					28.51	--	--	1322.83
	2/16/2016					28.97	--	--	1322.37
	3/21/2016					28.87	--	--	1322.47
	4/26/2016					28.81	--	--	1322.53
	6/20/2016					28.49	--	--	1322.85
MW-12	6/15/2015	2.0	1349.74	43.0	23-43	30.86	--	--	1318.88
	7/22/2015					30.98	--	--	1318.76
	8/20/2015					31.08	--	--	1318.66
	9/14/2015					31.09	--	--	1318.65
	10/20/2015					31.09	--	--	1318.65
	11/24/2015					31.09	--	--	1318.65
	12/14/2015					30.51	--	--	1319.23
	1/13/2016					28.00	--	--	1321.74
	2/16/2016					27.92	--	--	1321.82
	3/21/2016					30.36	--	--	1319.38
	4/26/2016					31.07	--	--	1318.67
	6/20/2016					29.42	--	--	1320.32

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-13	6/15/2015	2.0	1354.58	45.0	25-45	31.94	--	--	1322.64
	7/22/2015					31.77	--	--	1322.81
	8/20/2015					31.56	--	--	1323.02
	9/14/2015					31.41	--	--	1323.17
	10/20/2015					31.83	--	--	1322.75
	11/24/2015					32.18	--	--	1322.40
	12/14/2015					31.98	--	--	1322.60
	1/13/2016					31.41	--	--	1323.17
	2/16/2016					31.49	--	--	1323.09
	3/21/2016					31.92	--	--	1322.66
	4/26/2016					32.50	--	--	1322.08
	6/20/2016					31.02	--	--	1323.56
MW-14	6/15/2015	2.0	1354.99	45.0	25-45	31.70	--	--	1323.29
	7/22/2015					31.62	--	--	1323.37
	8/20/2015					31.55	--	--	1323.44
	9/14/2015					31.38	--	--	1323.61
	10/20/2015					31.92	--	--	1323.07
	11/24/2015					32.20	--	--	1322.79
	12/14/2015					31.74	--	--	1323.25
	1/13/2016					31.53	--	--	1323.46
	2/16/2016					31.78	--	--	1323.21
	3/21/2016					32.20	--	--	1322.79
	4/26/2016					32.49	--	--	1322.50
	6/20/2016					30.94	--	--	1324.05
MW-15	6/15/2015	2.0	1351.79	45.0	25-45	32.34	--	--	1319.45
	7/22/2015					32.94	--	--	1318.85
	8/20/2015					33.48	--	--	1318.31
	9/14/2015					33.05	--	--	1318.74
	10/20/2015					33.63	--	--	1318.16
	11/24/2015					33.33	--	--	1318.46
	12/14/2015					31.47	--	--	1320.32
	1/13/2016					31.10	--	--	1320.69
	2/16/2016					29.81	--	--	1321.98
	3/21/2016					31.22	--	--	1320.57
	4/26/2016					32.79	--	--	1319.00
	6/20/2016					30.22	--	--	1321.57

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-16	6/15/2015	2.0	1352.13	45.0	25-45	29.48	--	--	1322.65
	7/22/2015					29.13	--	--	1323.00
	8/20/2015					28.65	--	--	1323.48
	9/14/2015					28.49	--	--	1323.64
	10/20/2015					28.90	--	--	1323.23
	11/24/2015					29.15	--	--	1322.98
	12/14/2015					27.88	--	--	1324.25
	1/13/2016					28.29	--	--	1323.84
	2/16/2016					28.64	--	--	1323.49
	3/21/2016					29.33	--	--	1322.80
	4/26/2016					NM	--	--	NM
	6/20/2016					28.75	--	--	1323.38
MW-17	6/15/2015	2.0	1351.69	42	27-42	31.28	--	--	1320.41
	7/22/2015					NM	--	--	NM
	8/20/2015					31.19	--	--	1320.50
	9/14/2015					30.99	--	--	1320.70
	10/20/2015					32.57	--	--	1319.12
	11/24/2015					32.65	--	--	1319.04
	12/14/2015					32.00	--	--	1319.69
	1/13/2016					31.37	--	--	1320.32
	2/16/2016					31.46	--	--	1320.23
	3/21/2016					32.03	--	--	1319.66
	4/26/2016					32.54	--	--	1319.15
	6/20/2016					30.67	--	--	1321.02
MW-18	6/15/2015	2.0	1351.11			30.64	--	--	1320.47
	7/22/2015					30.84	--	--	1320.27
	8/20/2015					30.81	--	--	1320.30
	9/14/2015					30.53	--	--	1320.58
MW-18	11/24/2015		1351.04			30.99	--	--	1320.05
	12/14/2015					30.96	--	--	1320.08
	1/13/2016					30.56	--	--	1320.48
	2/16/2016					30.72	--	--	1320.32
	3/21/2016					30.82	--	--	1320.22
	4/26/2016					31.18	--	--	1319.86
	6/20/2016					30.42	--	--	1320.62

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-19	6/15/2015	2.0	1351.13	42	27-42	30.60	--	--	1320.53
	7/22/2015					30.58	--	--	1320.55
	8/20/2015					30.65	--	--	1320.48
	9/14/2015					30.59	--	--	1320.54
	11/24/2015					31.00	--	--	1320.13
MW-19	12/14/2015		1351.00			31.06	--	--	1319.94
	1/13/2016					30.47	--	--	1320.53
	2/16/2016					30.69	--	--	1320.31
	3/21/2016					30.79	--	--	1320.21
	4/26/2016					31.49	--	--	1319.51
	6/20/2016					29.16	--	--	1321.84
SVE-1	10/20/2015	2.0	1350.23	30	20-30	NM	--	--	NM
	11/24/2015					27.05	--	--	1323.18
	12/14/2015					26.11	--	--	1324.12
	1/13/2016					26.11	--	--	1324.12
	2/16/2016					26.71	--	--	1323.52
	3/21/2016					26.83	--	--	1323.40
	4/26/2016					27.32	--	--	1322.91
	6/20/2016					24.89	--	--	1325.34
SVE-2	10/20/2015	2.0	1350.21	30	15-30	NM	--	--	NM
	11/24/2015					28.17	--	--	1322.04
	12/14/2015					26.92	--	--	1323.29
	1/13/2016					26.95	--	--	1323.26
	2/16/2016					27.97	--	--	1322.24
	3/21/2016					28.22	--	--	1321.99
	4/26/2016					28.20	--	--	1322.01
	6/23/2016					27.76	--	--	1322.45
SVE-3	10/20/2015	2.0	1351.82	30	20-30	NM	--	--	NM
	11/24/2015					29.36	--	--	1322.46
	12/14/2015					29.22	--	--	1322.60
	1/13/2016					29.25	--	--	1322.57
	2/16/2016					29.31	--	--	1322.51
	3/21/2016					29.35	--	--	1322.47
	4/26/2016					29.73	--	--	1322.09
	6/20/2016					29.13	--	--	1322.69

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data – Monitoring and Pilot Test Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
SVE-4	10/20/2015	2.0	1350.31	30	20-30	NM	--	--	NM
	11/24/2015					28.55	--	--	1321.76
	12/14/2015					29.04	--	--	1321.27
	1/13/2016					29.04	--	--	1321.27
	2/16/2016					29.01	--	--	1321.30
	3/21/2016					29.02	--	--	1321.29
	4/26/2016					29.05	--	--	1321.26
	6/23/2016					28.69	--	--	1321.62
Stormwater Pond (Pond Stage [feet MSL])	6/15/2015	NA	NA	NA	NA	NA	NA	NA	1344.75
	7/22/2015								1344.50
	8/20/2015								1344.75
	9/14/2015								1344.50
	10/22/2015								1344.75
	11/24/2015								1344.50
	12/14/2015								1344.75
	1/13/2016								1344.50
	2/16/2016								1344.50
	3/21/2016								1344.50
	4/26/2016								1344.75
	6/20/2016								1344.50

Notes:

1. feet MSL = Feet above mean sea level (NAVD88).
2. -- = No SPH
3. NM = Not measured.
4. Pond elevation is measured directly from a staff gauge in the pond (in 0.25-foot increments). The top of the staff gauge is 1347.59 feet above mean sea level.
5. NA = Not applicable.
6. Monitoring wells MW-18 and MW-19 were resurveyed on November 24, 2015.

Table 4
Separate-Phase Recovery Data – March 2015 through March 2016
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water; gallons)	SPH Thickness After Removal Event	Fluid Removal Technology
6/10/2015	45.43	--	--	0.0	0.0	0.00	SPH Skimmer
6/15/2015	42.38	--	--	0.0	0.0	0.00	SPH Skimmer
7/22/2015	47.66	--	--	0.0	0.0	0.00	SPH Skimmer
8/20/2015	46.98	--	--	0.0	0.0	0.00	SPH Skimmer
9/14/2015	49.56	--	--	0.0	0.0	0.00	SPH Skimmer
10/20/2015	47.56	--	--	0.0	0.0	0.00	SPH Skimmer
11/24/2015	48.66	--	--	0.0	0.0	0.00	SPH Skimmer
12/14/2015	46.98	--	--	0.0	0.0	0.00	SPH Skimmer
1/13/2016	37.27	--	--	0.0	0.0	0.00	SPH Skimmer
2/16/2016	36.89	--	--	0.0	0.0	0.00	SPH Skimmer
3/21/2016	37.03	--	--	0.0	0.0	0.00	SPH Skimmer
4/26/2016	42.61	--	--	0.0	0.0	0.00	SPH Skimmer
6/20/2016	42.40	--	--	0.0	0.0	0.00	SPH Skimmer
			Total Fluids Recovered	**0.0**	**0**		

Notes:

1. SPH = Separate-phase hydrocarbons.
2. The SPH volume removed using vacuum technology was calculated by measuring the SPH thicknesses in the well before and after each event and estimating the volume of SPH in the corresponding gravel pack interval.
3. -- = No SPH.

Table 5
Groundwater Parameters
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm)	pH	ORP
MW-1	1/30/2014	15.79	0.00	1,060	7.25	-52
	4/9/2014	19.22	5.52	979	6.98	-130
	7/23/2014	19.98	5.35	1,251	7.49	-110
	10/29/2014	15.81	3.21	1,369	6.97	-60
	2/12/2015	11.33	1.43	1,250	6.77	-57
	6/16/2015	16.50	0.95	1,311	7.01	-52
	8/20/2015	17.22	0.88	1,348	6.98	-77
	9/15/2015	17.67	4.39	1,365	6.94	-51
	12/16/2015	13.26	0.19	1,453	6.90	-154
	3/23/2016	16.75	6.60	1,522	7.36	-74
	6/22/2016	17.71	0.26	1,478	6.99	-124
MW-2	1/30/2014	15.50	0.00	843	6.22	99
	4/8/2014	15.29	4.05	752	6.77	7
	7/22/2014	21.74	4.79	852	4.79	55
	10/30/2014	19.07	4.87	813	7.21	130
	2/10/2015	14.90	3.16	816	5.77	129
	6/16/2015	18.89	2.75	805	7.28	40
	9/16/2015	18.92	2.66	715	6.87	129
	12/15/2015	16.45	2.96	797	7.20	73
	3/21/2016	16.82	3.99	808	7.28	127
	6/23/2016	19.69	4.60	752	7.25	-20
MW-3	1/30/2014	11.91	0.00	853	4.05	18
	4/8/2014	17.25	8.41	740	6.96	-11
	7/24/2014	25.79	2.89	971	7.18	-95
	10/30/2014	18.47	0.96	901	7.07	-236
	2/10/2015	16.27	0.93	940	6.68	-85
	6/17/2015	18.87	0.46	947	7.04	-83
	9/15/2015	19.61	0.89	852	6.82	-110
	12/15/2015	15.44	0.20	925	6.98	-119
	3/23/2016	16.53	4.83	807	7.34	-94
	6/21/2016	20.14	0.24	857	7.09	-170
MW-4	1/30/2014	14.01	2.78	1,130	5.46	158
	4/9/2014	14.99	2.54	968	6.95	132
	7/24/2014	20.53	0.57	1,135	7.24	-9
	10/30/2014	16.98	0.54	1,083	7.03	-146
	2/10/2015	16.62	1.07	1,044	6.54	-48
	6/16/2015	19.74	3.82	1,101	7.24	26
	8/20/2015	19.86	3.95	1,136	6.98	43
	9/16/2015	20.16	7.34	1,044	7.28	74
	12/15/2015	16.75	4.60	1,011	7.14	76
	3/22/2016	17.21	3.69	1,722	7.15	50
	6/21/2016	19.69	2.13	1,077	7.16	-40
MW-5	1/30/2014	15.57	0.00	1,300	6.96	57
	4/8/2014	15.99	1.09	1,190	6.92	189
	7/23/2014	20.70	2.28	1,458	7.17	64
	10/29/2014	19.39	0.49	1,453	6.98	127
	2/10/2015	15.98	1.38	1,444	6.47	93
	6/16/2015	17.90	1.49	1,429	6.96	149
	8/20/2015	18.95	1.51	1,464	7.23	0
	9/16/2015	19.17	1.63	1,310	6.94	107
	12/15/2015	15.34	1.88	1,420	7.00	107
	3/22/2016	17.64	0.82	1,378	7.11	35
	6/22/2016	17.61	0.98	1,229	7.06	-61

Please refer to notes at end of table.

Table 5
Groundwater Parameters
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm)	pH	ORP
MW-6	1/30/2014	15.54	0.63	986	7.11	146
	4/9/2014	16.58	9.16	797	7.00	201
	7/24/2014	19.56	5.64	1,303	7.27	17
	10/29/2014	18.08	4.29	1,137	7.09	160
	2/11/2015	13.07	4.06	893	6.91	100
	6/17/2015	17.60	3.88	1,280	7.15	15
	9/15/2015	18.01	1.29	431	7.13	-34
	10/22/2015	16.60	5.71	1,171	7.22	333
	12/16/2015	14.00	1.71	336	7.26	148
	3/22/2016	15.90	4.00	863	7.31	117
	6/20/2016	19.35	3.60	935	7.23	-14
MW-7	1/30/2014	16.13	0.00	667	7.21	-37
	4/9/2014	15.78	9.43	566	7.08	23
	7/24/2014	18.24	0.66	740	7.38	-11
	10/29/2014	17.47	0.22	754	7.25	-33
	2/11/2015	15.25	0.80	662	6.93	18
	6/17/2015	17.16	0.60	868	7.27	-31
	9/15/2015	18.00	0.37	671	7.12	-32
	10/22/2015	16.99	0.42	769	7.32	-12
	12/16/2015	15.47	7.16	865	0.70	-163
	3/22/2016	15.67	0.52	752	7.43	127
	6/20/2016	18.28	0.27	802	7.19	81
MW-8	1/30/2014	16.94	1.56	1,120	7.00	109
	4/8/2014	16.42	9.18	976	6.80	170
	7/22/2014	19.71	4.88	1,156	7.27	70
	10/29/2014	20.01	3.92	1,051	7.19	138
	2/10/2015	16.90	2.66	1,178	6.44	100
	6/17/2015	19.26	3.16	1,209	7.18	110
	9/16/2015	19.29	3.47	1,033	6.97	131
	12/15/2015	16.59	3.12	1,138	7.13	91
	3/23/2016	17.60	3.40	1,184	7.23	-2
	6/20/2016	20.00	4.02	1,145	7.23	-11
MW-9	1/30/2014	12.13	0.00	760	4.50	8
	4/8/2014	16.65	4.05	725	7.07	192
	7/24/2014	23.24	3.59	1,080	7.11	48
	10/30/2014	16.72	5.61	977	7.08	98
	2/11/2015	15.06	3.13	884	7.05	91
	6/16/2015	19.40	0.67	1,247	7.16	61
	9/15/2015	20.43	0.98	990	6.83	43
	10/22/2015	17.86	1.40	1,043	7.11	136
	12/15/2015	16.73	4.35	1,259	7.17	54
	3/22/2016	16.00	1.78	1,070	7.15	147
	6/23/2016	19.17	0.67	957	7.07	-58
MW-10	1/30/2014	14.31	0.00	1,340	4.90	-44
	4/8/2014	17.01	0.18	982	6.79	-105
	8/1/2014	21.23	9.61	1,236	7.59	77
	10/29/2014	19.71	1.80	1,302	6.90	88
	2/11/2015	13.84	1.67	984	6.88	99
	6/16/2015	19.13	0.55	1,439	7.28	47
	9/15/2015	21.36	1.48	1,348	6.84	56
	10/22/2015	17.55	0.51	1,262	7.01	154
	12/15/2015	16.80	0.67	1,431	6.81	75
	1/13/2016	16.64	0.36	1,445	6.87	68
	3/23/2016	17.02	0.31	1,234	6.98	45
	6/21/2016	21.68	0.48	1,326	7.06	-78

Please refer to notes at end of table.

Table 5
Groundwater Parameters
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm)	pH	ORP
MW-11	1/30/2014	16.22	6.91	1,320	6.54	185
	4/8/2014	16.61	6.09	1,140	7.05	199
	7/23/2014	20.17	2.45	1,438	7.24	100
	10/30/2014	18.55	4.02	1,404	7.11	91
	2/10/2015	16.66	4.01	1,314	6.61	72
	6/17/2015	18.94	1.78	1,463	7.12	120
	9/16/2015	20.67	3.16	1,339	6.92	93
	12/15/2015	16.71	2.20	1,452	6.95	81
	3/21/2016	17.19	3.98	1,438	7.15	128
	6/21/2016	22.17	1.78	1,397	7.02	-43
MW-12	1/30/2014	14.13	0.00	927	5.44	66
	4/9/2014	19.96	8.58	774	7.01	30
	7/22/2014	24.34	0.85	1,067	7.11	-5
	10/29/2014	18.73	0.63	967	7.13	-67
	2/12/2015	15.09	1.11	906	6.78	45
	6/16/2015	20.24	2.43	1,014	7.15	50
	9/15/2015	20.60	5.65	946	6.90	92
	10/22/2015	17.63	4.28	953	7.26	362
	12/16/2015	16.34	0.70	979	7.07	133
	3/22/2016	16.31	0.72	901	7.26	150
	6/22/2016	18.98	0.58	945	7.11	-76
MW-13	1/30/2014	15.00	6.53	774	7.04	158
	4/8/2014	15.35	7.03	674	6.93	109
	7/22/2014	23.53	8.10	790	7.31	76
	10/29/2014	19.97	6.70	767	7.19	135
	2/10/2015	15.74	4.85	759	6.25	110
	6/17/2015	18.95	5.22	673	7.27	102
	9/16/2015	18.88	6.52	659	7.20	86
	12/15/2015	15.57	6.26	487	7.59	79
	3/21/2016	16.76	8.37	741	7.40	129
	6/23/2016	21.15	6.30	709	7.29	-11
MW-14	1/30/2014	15.31	3.53	724	7.00	183
	4/9/2014	18.75	5.62	608	7.06	181
	7/22/2014	22.63	4.81	683	7.32	66
	10/29/2014	17.09	5.49	703	7.29	101
	2/12/2015	14.50	4.17	687	6.73	94
	6/17/2015	18.90	3.42	698	7.20	97
	9/16/2015	20.70	3.89	587	7.14	82
	12/15/2015	15.63	3.42	649	7.19	85
	3/22/2016	14.72	8.38	676	7.61	151
	6/23/2016	20.10	3.67	669	7.27	-31
MW-15	1/30/2014	12.24	0.00	732	5.65	218
	4/8/2014	15.84	9.96	653	6.93	180
	7/23/2014	18.11	4.78	734	7.31	92
	10/29/2014	20.21	4.49	728	7.16	147
	2/10/2015	16.94	3.79	732	6.56	75
	6/17/2015	18.85	3.58	744	7.08	113
	9/16/2015	19.45	7.93	652	7.40	61
	10/22/2015	17.66	6.26	710	7.49	332
	12/15/2016	15.84	4.04	624	7.19	81
	3/21/2016	17.34	6.20	736	7.39	104
	6/21/2016	19.98	4.02	721	7.15	-17

Please refer to notes at end of table.

Table 5
Groundwater Parameters
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm)	pH	ORP
MW-16	1/30/2014	12.34	2.39	929	5.79	191
	4/8/2014	15.65	8.32	713	6.91	181
	7/23/2014	21.58	4.60	981	7.28	87
	10/29/2014	20.13	4.36	972	7.09	156
	2/10/2015	16.70	3.25	924	6.73	97
	6/17/2015	20.30	3.66	889	7.16	120
	9/16/2015	18.79	5.00	771	7.11	83
	12/15/2015	15.94	4.42	642	7.34	77
	3/21/2016	17.18	7.32	893	7.46	121
	6/21/2016	20.33	4.59	886	7.12	-9
MW-17	3/20/2015	18.15	0.61	1057	6.81	42
	4/20/2015	16.87	0.83	1,012	6.70	-46
	6/16/2015	17.43	0.92	1,047	7.00	-10
	8/20/2015	17.79	0.67	1,067	7.18	-98
	9/15/2015	17.65	0.38	1,121	6.93	-198
	12/15/2015	14.55	0.42	922	6.96	-113
	3/22/2016	16.30	0.35	958	7.03	-94
	6/22/2016	17.80	0.30	939	7.04	-191
MW-18	3/20/2015	17.43	0.68	990	6.89	-13
	4/20/2015	17.38	0.79	880	6.17	62
	6/16/2015	18.90	0.93	899	7.12	-18
	8/20/2015	19.36	0.97	924	6.59	-57
	9/15/2015	20.55	6.54	912	7.46	-80
	12/15/2015	17.06	0.98	879	7.04	8
	3/22/2016	18.21	0.48	899	7.15	-79
	6/21/2016	19.36	--	818	7.70	-25
MW-19	3/20/2015	17.83	1.57	905	7.09	50
	4/20/2015	17.11	1.36	841	6.62	-61
	6/16/2015	18.83	0.49	827	7.25	-82
	8/20/2015	18.76	0.70	813	8.50	-53
	9/15/2015	24.37	3.70	859	7.30	-53
	12/15/2015	17.15	2.05	810	7.14	28
	3/22/2016	17.77	2.45	825	7.26	-2
	6/21/2016	21.20	--	846	7.49	-94
SVE-2	12/16/2015	13.43	0.55	1533	6.86	-8
	3/23/2016	--	--	--	--	--
SVE-3	3/23/2016	--	--	--	--	--
	6/21/2016	--	--	--	--	--
SVE-4	12/16/2015	--	--	--	--	--
	3/23/2016	--	--	--	--	--

Notes:

1. °C = Degrees Celsius.
2. mg/L = Milligrams per liter.
3. ORP = Oxidation-reduction potential.
4. -- = Parameter not measured due to insufficient groundwater or inaccurate measurement due to equipment malfunction.

Table 6
Groundwater Analytical Results – Monitoring and Pilot Test Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-1	1/30/2014	44	--	--	1.0	<0.025	0.30	<0.05	3.1	0.45	1.4	0.045	3.5	0.076	0.29	0.030	0.14	1.6	9.3	5.2
	4/9/2014	20	--	--	0.49	<0.010	0.18	<0.020	1.1	<0.01	0.2	0.011	--	0.023	0.069	0.018	0.016	--	3.1	2.5
	7/23/2014	49	--	--	0.39	<0.001	0.11	0.023	3.1	0.059	0.61	0.011	2.2	<0.010	0.044	<0.010	0.019	1.2	6.4	3.4
	10/29/2014	45	--	--	0.47	<0.010	0.19	<0.020	5.0	0.051	0.50	<0.010	3.4	0.015	0.043	<0.010	<0.010	2.2	12	5.5
	2/12/2015	5.8	--	--	<0.010	<0.010	<0.010	<0.020	0.26	<0.010	0.077	<0.010	0.64	0.016	0.022	<0.010	<0.010	0.36	0.99	0.99
	6/16/2015	140	--	--	0.32	<0.010	0.30	<0.020	5.2	0.12	0.47	0.011	5.3	<0.010	0.11	<0.010	0.012	2.8	11	8.1
	9/15/2015	67	--	--	0.61	<0.001	0.26	0.032	1.3	0.14	0.42	0.0095	--	0.019	0.065	0.017	0.020	--	2.4	4.4
	12/16/2015	38.3 J	--	--	0.51	<0.01	0.16	<0.10	5.7	0.113	1.26	0.0219	--	0.0138	0.0944	<0.01	0.046	--	7.81	4.91
KDHE Split	12/16/2015	21.2 J	--	--	0.73	<0.025	0.22	<0.25	5.6	0.18	1.4	0.025	--	0.016 J	0.11 J	0.015 J	0.066	--	8.2	5.5
	3/23/2016	10.1 j	3.94	8.07	0.498	0.000535 j	0.098 j	0.0062	0.675	0.033	0.139 j	0.00541j	--	0.00975	0.05 j	0.00317 j	0.016 j	--	0.401	2.2
KDHE Split	3/23/2016	16.7 j	2.9	5.7	0.462	<0.025 j	0.168 j	<0.025	0.73	--	0.197 j	0.0085 Jj	--	--	0.068 J j	0.019 J j	0.0251 j	--	0.406	2
	6/22/2016	--	23.3 j	5.94 j	0.869	<0.0050	0.240	0.107 J4	4.02	0.188	1.51	0.0305	--	<0.20	0.157	<0.0050	0.0780	--	10	8.19
KDHE Split	6/22/2016	--	39.7 j	11.0 j	0.980	<0.025	0.260	0.150	4.20	0.31	1.60	0.036	--	0.020J	0.16J	0.0098J	0.0078	--	10.1	8.2
MW-2	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	0.11	--	--	0.0085	<0.001	0.0030	<0.002	0.0034	0.0038	0.018	<0.001	0.010	0.0013	0.0024	<0.001	0.0014	0.0097	0.0095	0.020
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	0.089	--	--	<0.001	<0.001	<0.001	<0.002	0.0013	<0.001	<0.001	<0.001	0.0052	<0.001	<0.001	<0.001	<0.001	0.0026	0.0089	0.0078
	9/16/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	0.0032	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/23/2016	--	<0.10	<0.10	0.000574	<0.0005	<0.0005	<0.0025 J4	<0.0005	<0.001	0.000607	<0.0005	--	<0.001	0.000836	<0.0005	<0.0005	--	0.00103	<0.0015
MW-3	1/28/2014	2.8	--	--	0.038	<0.001	<0.001	0.0069	0.76	0.072	0.07	0.0062	0.0098	0.0061	0.0081	<0.001	0.0079	<0.001	0.0081	0.011
	4/8/2014	3.0	--	--	0.048	<0.005	0.010	<0.01	0.64	<0.005	0.058	0.0061	--	0.0075	0.014	<0.005	0.011	--	0.1	0.053
	7/24/2014	9.8	--	--	0.16	<0.010	0.037	<0.020	1.8	0.081	0.51	<0.010	0.32	<0.010	0.028	<0.010	0.023	0.51	1.6	0.83
	10/30/2014	6.1	--	--	0.12	<0.010	0.025	<0.020	1.1	0.085	0.36	<0.010	0.17	0.019	0.029	<0.010	0.018	0.18	0.15	0.35
	2/10/2015	7.9	--	--	0.19	<0.010	0.047	<0.020	1.4	0.15	0.52	0.014	0.41	0.034	0.054	<0.010	0.032	0.32	0.93	0.73
	6/17/2015	21	--	--	0.46	<0.005	0.11	<0.01	1.6	0.016	0.95	0.030	0.92	0.029	0.10	0.031	0.078	0.57	1.5	1.5
	9/15/2015	11	--	--	0.28	<0.005	0.054	<0.01	1.2	0.19	0.65	0.023	--	0.020	0.039	<0.005	0.057	--	0.045	0.27
Duplicate	9/15/2015	11	--	--	0.089	<0.005	0.079	<0.01	0.98	0.23	0.77	0.032	--	0.031	0.086	0.012	0.070	--	0.048	0.37
	12/16/2015	4.75 J	--	--	0.241	<0.005	0.0317	<0.05	0.85	0.151	0.643	0.026	--	0.0215	0.054	<0.005	0.061	--	<0.025	<0.015
KDHE Split	12/16/2015	6.9 J	--	--	0.30	<0.025	0.039	<0.25	0.95	0.24	0.68	0.026	--	0.026	0.060 J	0.0057 J	0.067	--	0.049	<0.075
	3/23/2016	1.55	1.26	0.51	0.0251 j	<0.0005	0.00144 j	<0.0025	0.257 j	0.0421	0.192	0.00743	--	<0.001	0.0156	0.000787 j	0.0191	--	0.00172 j	<0.0075
KDHE Split	3/23/2016	1.9 J	1.4	0.6	0.0333 j	<0.005	0.0028 J j	<0.05	0.346 j	--	0.227	0.0099	--	--	0.0198 J	0.0016 J j	0.0246	--	0.0026 J j	<0.015
	6/21/2016	--	1.8	0.37	0.0201	<0.0025	<0.0025	<0.0125 J4	0.624	0.0996	0.336	0.0128	--	0.0115 B	0.016	<0.0025	0.0356	--	0.00342	<0.0075
Duplicate	6/21/2016	--	1.4	0.48	0.0229	<0.0005	<0.0005	<0.0025	0.607	0.0928	0.408	0.0159	--	0.00885	0.021	0.001	0.0375	--	0.00304	0.00219

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring and Pilot Test Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-4	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	**2.5**	--	--	**0.054**	<0.001	0.027	0.0043	**0.23**	0.070	0.15	0.0039	--	0.0071	**0.016**	0.0022	0.0084	--	0.2	0.14
	7/24/2014	**0.75**	--	--	**0.047**	<0.001	0.017	<0.002	**0.11**	0.022	0.049	0.0029	0.043	0.0027	**0.0092**	<0.001	0.0070	0.028	0.015	0.070
Duplicate	7/24/2014	**0.79**	--	--	**0.054**	<0.001	0.019	<0.002	**0.11**	0.025	0.057	0.0033	0.050	0.0031	**0.0098**	0.0017	0.0080	0.032	0.017	0.083
	10/30/2014	**4.8**	--	--	**0.20**	<0.001	**0.089**	<0.002	**0.49**	0.097	0.40	0.014	0.20	0.017	**0.062**	0.0078	0.039	0.24	0.33	0.44
	2/10/2015	**1.6**	--	--	**0.12**	<0.001	**0.058**	<0.002	**0.17**	0.052	0.12	0.0042	0.022	0.0092	**0.019**	0.0058	0.0077	0.081	0.042	0.10
	6/16/2015	0.14	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0013	<0.001	0.0046	<0.001	<0.001	<0.001	<0.001	0.003	0.0059	0.0077
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	0.000725	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	<0.10	<0.10	0.00143	<0.0005	<0.0005	<0.0025 J4	0.00257	<0.001	0.000911	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	0.00226	0.00614
MW-5	1/30/2014	**0.61**	--	--	**0.038**	0.0012	0.011	<0.002	**0.05**	0.018	0.034	0.0022	0.041	0.0017	**0.0086**	<0.001	0.0046	0.033	0.009	0.075
	4/8/2014	0.35 J	--	--	0.0051 J	<0.001	0.0013 J	0.0021 J	**0.025 J**	<0.001	0.0018 J	0.0021 J	--	0.0015 J	**0.0085 J**	<0.001	<0.001	--	0.0024 J	0.041 J
Duplicate	4/8/2014	**0.52 J**	--	--	**0.012 J**	<0.001	0.0035 J	0.0033 J	**0.037 J**	<0.001	0.0058 J	0.003 J	--	0.0019 J	**0.013 J**	0.001	0.0014 J	--	0.0061 J	0.06 J
	7/23/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	**0.0014**	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	7/23/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	**0.0013**	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	0.0018	<0.001	<0.001	<0.001	0.0048	<0.001	<0.001	<0.001	<0.001	0.0027	0.010	0.0075
	2/10/2015	0.27	--	--	**0.0092**	<0.001	0.0024	<0.002	**0.040**	0.016	0.0071	0.0020	0.0068	0.0030	**0.0069**	0.0016	0.0021	0.011	0.0092	0.018
	6/16/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/16/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	0.0024	<0.001	<0.001	<0.001	--	<0.001	**0.0021**	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	0.00318 j	<0.0005	0.00154 j	<0.0025	0.00446 j	0.00415	0.0031 j	0.000686	--	<0.001	**0.0029**	<0.0005	0.000897 j	--	0.00181 j	0.00348
Duplicate	3/22/2016	<0.10	<0.10	<0.10	0.00433 j	<0.0005	0.00205 j	<0.0025	**0.00618 j**	0.00399	0.00443 j	0.000945	--	<0.001	**0.00324**	<0.0005	0.00129 j	--	0.00252 j	0.00446
	6/22/2016	--	<0.10	<0.10	0.00229	<0.0005	0.000606	<0.0025 J4	0.00329	<0.001	0.00429	<0.0005	--	<0.001	0.00057	<0.0005	<0.0005	--	0.0158	0.0177
KDHE Split	6/22/2016	--	0.089	<0.061	0.0019	<0.0010	0.00043J	<0.010	0.0020	0.00084J	0.0035	<0.0010	--	<0.0010	<0.010	<0.0010	0.00018J	--	0.010	0.014
MW-6	1/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0031	<0.001	0.0032	<0.001	0.0027	<0.001	<0.001	<0.001	<0.001	0.0031	0.0083	0.0059
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0028	<0.001	<0.001	<0.001	<0.001	0.0014	0.0052	0.0042
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	0.24	--	--	0.0017	<0.001	<0.001	<0.002	0.0022	<0.001	0.0022	<0.001	--	<0.001	**0.0020**	<0.001	<0.001	--	0.0076	0.010
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/20/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005 J4	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring and Pilot Test Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-7	1/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0024	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	0.089	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	0.11	--	--	0.0027	<0.001	<0.001	<0.002	0.0029	<0.001	0.0031	<0.001	--	<0.001	**0.0024**	<0.001	<0.001	--	0.0088	0.014
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/20/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005 J4	<0.0025 J4	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-8	1/30/2014	0.16	--	--	0.0026	<0.001	0.001	<0.002	0.0030	<0.001	0.0049	<0.001	0.013	<0.001	**0.0041**	<0.001	<0.001	0.0056	0.020	0.018
Duplicate	1/30/2014	0.15	--	--	0.0031	<0.001	0.001	<0.002	0.0038	<0.001	0.0056	0.0011	0.014	<0.001	**0.0040**	<0.001	<0.001	0.0064	0.025	0.021
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0014	<0.001	<0.001	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	0.0024	0.0082	0.0065
Duplicate	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0013	<0.001	<0.001	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	0.0021	0.0081	0.0063
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0017	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/23/2016	<0.10	<0.10	<0.10	<0.0005 j	<0.0005	<0.0005	<0.0025	<0.0005 j	<0.001	0.00074	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
KDHE Split	3/23/2016	<0.50	<0.05	<0.06	0.00015 J j	<0.001	<0.001	<0.01	0.00048 Jj	--	0.00094 J	<0.001	--	--	<0.01	<0.001	<0.001	--	<0.001	<0.003
	6/20/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005 J4	<0.0025 J4	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-9	1/28/2014	0.058	--	--	<0.001	<0.001	<0.001	<0.002	0.0046	0.0015	<0.001	<0.001	<0.002	<0.001	**0.0033**	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
Duplicate	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0017	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0026	<0.003
Duplicate	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0023	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0053	<0.003
	9/15/2015	<0.05	--	--	0.0016	<0.001	<0.001	<0.002	0.0019	<0.001	0.0031	<0.001	--	<0.001	**0.0021**	<0.001	<0.001	--	0.0022	0.0043
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
Duplicate	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/23/2016	--	<0.10	**0.251**	**0.0327**	<0.0005	0.00592	<0.0025 J4	**0.00567**	0.00192	0.00138	0.00216	--	<0.001	**0.0124**	0.000823	0.00178	--	0.00282	0.0415
	8/12/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring and Pilot Test Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-10	1/28/2014	**1.1**	--	--	**0.12**	<0.001	0.039	0.0023	**0.026**	0.0081	0.036	0.0049	0.073	0.0036	**0.014**	0.0064	0.015	0.05	0.048	0.12
	4/8/2014	**8.8**	--	--	**0.56**	<0.005	**0.23**	<0.01	**0.12**	<0.005	0.11	0.011	--	0.026	**0.035**	<0.005	<0.005	--	0.3	1.1
	8/1/2014	0.091	--	--	<0.001	<0.001	<0.001	0.0066	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.066	--	--	<0.001	<0.001	<0.001	<0.002	0.0021	<0.001	<0.001	<0.001	0.0058	<0.001	<0.001	<0.001	<0.001	0.0034	0.013	0.0092
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	0.35	--	--	<0.001	<0.001	<0.001	0.0029	0.0024	0.0032	<0.001	<0.001	0.0040	0.0045	<0.001	<0.001	<0.001	0.0021	0.0068	0.0062
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0014	<0.001	--	<0.001	**0.0019**	<0.001	<0.001	--	0.0016	<0.003
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	0.212	--	--	<0.001	<0.001	<0.001	<0.01	**0.00819**	0.0336	<0.001	<0.001	--	0.00514	<0.005	<0.001	<0.001	--	<0.005	0.00577
	1/13/2016	**0.836**	--	--	<0.005	<0.005	<0.005	<0.05	<0.005	0.0505	<0.005	<0.005	--	0.00987	<0.025	<0.005	<0.005	--	<0.0250	<0.015
	3/23/2016	<0.10	<0.10 j	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	0.000703	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
KDHE Split	3/23/2016	<0.50	0.025 J j	<0.06	0.00021 J	0.00023 J	<0.001	<0.01	0.00079 J	--	<0.001	<0.001	--	--	<0.01	<0.001	<0.001	--	<0.001	<0.003
	6/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025 J4	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-11	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	0.25	--	--	**0.016**	<0.001	0.0058	<0.02	**0.012**	0.0078	0.038	0.0011	0.021	0.0014	**0.0059**	<0.001	0.0024	0.023	0.023	0.044
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0010	<0.001	<0.002	<0.001	**0.0034**	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0032	<0.003
Duplicate	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0035	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025 J4	<0.0005	<0.001	<0.005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	0.000518 B	<0.0015
MW-12	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/9/2014	0.081	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.12	--	--	0.0011	<0.001	<0.001	<0.002	**0.0050**	<0.001	0.0017	<0.001	0.010	<0.001	<0.001	<0.001	<0.001	0.0063	0.027	0.016
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0054	<0.001	<0.001	<0.001	<0.001	0.0029	0.0064	0.0083
	6/16/2015	0.061	--	--	<0.001	<0.001	<0.001	<0.002	0.0014	<0.001	0.0013	<0.001	0.0058	<0.001	<0.001	<0.001	<0.001	0.0028	0.011	0.0086
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	**0.0018**	<0.001	<0.001	--	0.0013	<0.003
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
KDHE Split	12/16/2015	<0.50	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.01	<0.001	<0.001	--	<0.001	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/22/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025 J4	<0.0005	<0.001	<0.0005	0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
Duplicate	6/22/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring and Pilot Test Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-13	1/30/2014	0.072	--	--	0.0014	<0.001	<0.001	<0.002	0.0011	<0.001	0.0024	<0.001	0.0063	<0.001	**0.0038**	<0.001	<0.001	0.0026	0.0083	0.0089
	4/8/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.056	--	--	<0.001	<0.001	<0.001	<0.002	0.0028	<0.001	0.0011	<0.001	0.0065	<0.001	<0.001	<0.001	<0.001	0.0040	.015	0.011
	2/10/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0019	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
Duplicate	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/23/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	0.00061	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	0.000706	<0.0015
MW-14	1/30/2014	<0.05	--	--	0.0011	<0.001	<0.001	<0.002	<0.001	<0.001	0.0016	<0.001	0.0043	<0.001	<0.001	<0.001	<0.001	0.0017	0.0059	0.0061
	4/9/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	**0.54**	--	--	0.0029	<0.001	0.0013	<0.002	**0.021**	<0.001	0.0049	<0.001	0.036	<0.001	<0.001	<0.001	<0.001	0.022	0.10	0.058
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/23/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0012	<0.001	<0.001	<0.001	0.0030	<0.001	<0.001	<0.001	<0.001	0.0018	0.0072	0.0048
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0043	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	**0.0018**	<0.001	<0.001	--	0.0018	<0.003
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	0.0013	0.00242

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring and Pilot Test Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-16	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0026	<0.001	<0.001	<0.001	<0.001	0.0014	0.0050	0.0040
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0029	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-17	6/16/2015	**95**	--	--	**0.19**	<0.001	**0.31**	0.044	**2.0**	0.37	**1.5**	0.044	3.4	0.038	**0.14**	0.015	0.10	1.8	**6.8**	5.2
	9/15/2015	**13**	--	--	**0.45**	<0.001	**0.11**	0.0061	**0.71**	0.23	0.59	0.026	--	0.031	**0.068**	<0.001	0.061	--	0.46	1.0
	12/16/2015	**2.24**	--	--	**0.052**	<0.001	0.00125	<0.01	**0.27**	0.08	0.153	0.00807	--	0.0142	**0.0125**	<0.001	0.014	--	0.0619	0.1
	3/22/2016	**3.03**	**2.05**	**1.27**	**0.0431**	<0.0005	0.00223	<0.0025	**0.338**	0.0821	0.0226	0.00467	--	0.00918	**0.00584**	<0.0005	0.002	--	0.0464	0.0699
	6/22/2016	--	**2.13 j**	**1.83 j**	**0.313**	<0.0005	**0.0575 j**	<0.0025	**0.384**	0.101	0.473	0.0178	--	0.0137	**0.0578 j**	0.00235	0.045	--	0.39 j	0.977
KDHE Split	6/22/2016	--	**4.0 j**	**4.6 j**	**0.42**	<0.0025	**0.088 j**	0.2500	**0.44**	0.21	0.54	0.022J	--	0.029	**0.084 j**	0.0082J	0.055	--	0.65 j	1.3
MW-18	6/16/2015	**6.3**	--	--	**0.021**	<0.001	0.021	<0.002	**0.26**	0.036	0.12	0.0041	0.24	0.0035	**0.015**	0.0016	0.0089	0.17	0.59	0.41
	9/15/2015	**3.0**	--	--	**0.069**	<0.001	0.019	<0.002	**0.26**	0.036	0.12	0.0040	--	0.0036	**0.019**	<0.001	0.0089	--	0.090	0.29
Duplicate	9/15/2015	**3.2**	--	--	**0.023**	<0.001	0.017	<0.002	**0.25**	0.037	0.11	0.0043	--	0.0041	**0.022**	0.0018	0.0090	--	0.097	0.28
	12/15/2015	<0.10	--	--	<0.001 J	<0.001	<0.001	<0.01	**0.00929 J**	0.00178 J	0.00446 J	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
Duplicate	12/15/2015	<0.10	--	--	0.00154 J	<0.001	<0.001	<0.01	**0.0177 J**	0.00382 J	0.00771 J	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	**0.923**	**0.563**	**0.15**	**0.0116**	<0.0005	0.00266	<0.0025	**0.107**	0.0214	0.0628	0.00227	--	0.00251	**0.00365**	<0.0005	0.0048	--	0.0107	0.0135
	6/21/2016	--	**0.114**	**1.04**	**0.0222**	<0.0005	0.000562	<0.0025	**0.0444**	0.00047	0.0282	0.00098	--	<0.001	**0.00767**	<0.0005	0.0019	--	0.0154	0.115
MW-19	6/16/2015	**0.99 J**	--	--	**0.024 J**	<0.001	0.0074	<0.002	**0.11**	0.013	0.045	0.0015	0.16	<0.001	**0.0029 J**	<0.001	0.0031	0.068	0.30	0.23
Duplicate	6/16/2015	**2.5 J**	--	--	0.0071 J	<0.001	0.0062	<0.002	**0.11**	0.012	0.046	0.0016	0.13	<0.001	**0.0051 J**	<0.001	0.0027	0.067	0.30	0.19
	9/15/2015	**1.4**	--	--	**0.020**	<0.001	0.0051	0.0044	**0.11**	0.016	0.037	0.0015	--	0.0016	**0.0034**	<0.001	0.0030	--	0.15	0.16
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	**0.00545**	0.00105	0.00169	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	0.00221	<0.001	0.000875	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	**1.24**	**0.153**	**0.117**	<0.0005	0.0308	<0.0025	**0.177**	0.0162	0.179	0.00457	--	0.00187 B	**0.0274**	<0.0005	0.00971	--	0.647	0.988
SVE-2	12/16/2015	<0.10	--	--	0.00651	<0.001	0.00176	<0.01	**0.00637**	0.00132	0.00812	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	0.0192	0.252
	3/23/2016	<0.10	<0.10	0.136	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/23/2016	--	<0.10	<0.10	0.00150	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	0.000885	<0.0005	--	<0.001	0.00162	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring and Pilot Test Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
SVE-4	12/16/2015	**15.5**	--	--	**1.01**	<0.005	**0.951**	<0.05	<0.005	0.0596	0.343	<0.005	--	0.0753	**0.198**	0.144	0.470	--	<0.025	0.466
	3/23/2016	--	--	--	**0.09**	<0.0005	0.00665	<0.0025	**0.262**	<0.01	0.0229	<0.005	--	<0.01	**0.0205**	<0.0005	0.006	--	<0.0005	<0.015
	6/23/2016	--	<0.10	**26.4**	**0.04**	<0.0025	<0.0025	<0.0125	<0.0025	<0.005	0.0173	0.00256	--	<0.005	**0.0202**	<0.0025	0.003	--	<0.0025	<0.0075
KDHE Tier 2 Values		**0.5**	**0.35**	**0.15**	**0.00844**	**0.005**	**0.044**	**4.92**	**0.005**	**7.02**	**0.7**	**0.45**	**NE**	**NE**	**0.00111**	**0.169**	**0.66**	**NE**	**1**	**10**

Notes:

1. GRO = Gasoline-range organics analyzed by U.S. Environmental Protection Agency (EPA) Method 8015D.
2. KDHE analyzed GRO during the March 2016 event by EPA Method 8260.
3. LRH = Low-range hydrocarbons. LRH was first analyzed during the March 2016 event by EPA Method 8015. KDHE anayzed LRH in March 2016 by EPA Method 8260.
4. MRH = Middle-range hydrocarbons. MRH was first analyzed during the March 2016 event by EPA Method 8015M.
5. Volatile organic compounds by EPA Method 8260B (low level VOCs).
6. mg/L (ppm) = Milligrams per liter (parts per million).
7. **Bold** indicates detected concentration above the KDHE screening value.
8. < = Not detected above the method reporting limit (MRL).
9. -- = Not analyzed.
10. J = Estimated value
11. j = Relative percent difference was greater than +/-30%.
12. The sample collected from monitoring well MW-14 on June 23, 2016 was delayed due to a FedEx shipping error; that sample were received by the analytical lab out of hold time and was not analyzed.
13. NE = A KDHE Tier 2 Risk Based Screening Value has not been established.
14. KDHE Split = Sample at time of collection was split with KDHE and analyzed independently.
15. Duplicate = Field Duplicate Sample.

Table 7
Groundwater Analytical Results – Irrigation Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
2001 N Colt Ct	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005 j	<0.0005	<0.0005	<0.0025	<0.0005 j	<0.001 j	<0.0005 j	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015 j
Duplicate	3/22/2016	<0.10	<0.10	<0.10	0.000852 j	<0.0005	<0.0005	<0.0025	0.00188 j	0.00114 j	0.000685 j	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	0.00156 j
	7/22/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2004 N Colt Ct	6/16/2015	0.056	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
duplicate	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2005 N Colt Ct	1/31/2014	**3.7**	--	--	**0.13**	0.0041	0.029	<0.002	**0.15**	0.07	0.17	0.0057	0.26	0.01	**0.017**	0.0034	0.018	0.14	0.33	0.40
	4/10/2014	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/23/2014	0.39	--	--	**0.018**	<0.001	0.0039	<0.002	**0.027**	0.011	0.023	<0.001	0.025	0.0019	**0.0025**	<0.001	0.0022	0.019	0.043	0.044
	10/30/2014	**2.2**	--	--	**0.077**	<0.001	0.0094	<0.002	**0.23**	0.055	0.19	0.0043	0.078	0.0091	**0.017**	0.0013	0.014	0.043	0.21	0.12
	2/12/2015	**1.4**	--	--	**0.039**	<0.001	0.0091	<0.002	**0.059**	0.022	0.041	0.0013	0.053	0.0039	**0.0045**	<0.001	0.0044	0.034	0.11	0.088
	6/16/2015	**2.3**	--	--	**0.012**	<0.001	0.013	<0.002	**0.066**	0.027	0.066	0.0027	0.081	0.0039	**0.0095**	<0.001	0.0069	0.087	0.18	0.17
	9/14/2015	**4.9**	--	--	**0.082**	<0.001	0.020	<0.002	**0.18**	0.053	0.15	0.0038	--	0.010	**0.013**	<0.001	0.012	--	0.68	0.34
Duplicate	9/14/2015	**5.2**	--	--	**0.090**	<0.001	0.022	<0.002	**0.20**	0.051	0.17	0.0044	--	0.0090	**0.013**	<0.001	0.013	--	0.70	0.38
	12/15/2015	**2.75**	--	--	**0.0672**	<0.001	0.0169	<0.01	**0.109**	0.0284	0.127	0.00317	--	0.00434	**0.0136**	<0.001	0.00952	--	0.418	0.28
	3/21/2016	**3.42**	**4.54**	**1.37**	**0.229**	<0.01	**0.0601**	<0.05	**0.164**	0.0721	0.320	<0.01	--	<0.02	**0.0330**	<0.01	0.0302	--	0.845	0.727
	7/21/2016	--	**0.467**	**0.130**	**0.0417**	<0.0025	**0.0112**	<0.0125	**0.0257**	0.0188	0.0512	<0.0025	--	<0.005	**0.00554**	<0.0025	0.00557	--	0.0821	0.101
2002 N Colt Ct	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.0010		<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
HOA-1	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	0.076	--	--	0.0018	<0.001	<0.001	<0.002	**0.011**	0.0019	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0067	<0.001	0.0067
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
Duplicate	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
KDHE Split	12/16/2015	<0.50	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.01	<0.001	<0.001	--	<0.001	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/20/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	**0.00183 B**	<0.0005	<0.0005	--	<0.0005	<0.0015
Duplicate	6/20/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
HOA-2	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
2006 N Colt Ct	4/10/2014	**23**	--	--	**0.75**	<0.005	**0.28**	0.026	**0.98**	0.16	0.36	0.016	--	0.038	**0.076**	<0.005	0.048	--	**2**	2.1
	6/16/2015	**140**	--	--	**1.8**	<0.025	**0.55**	<0.05	**2.1**	0.42	**2.2**	0.073	6.0	0.063	**0.19**	0.046	0.24	3.0	**9.9**	9.0
	9/15/2015	**29**	--	--	**0.82**	<0.005	**0.21**	<0.01	**1.1**	0.26	**1.2**	0.039	--	0.055	**0.12**	<0.005	0.100	--	**1.7**	2.8
	12/16/2015	**39.6**	--	--	**1.12**	<0.025	**0.278**	<0.25	**1.74**	0.151	**1.48**	0.0419	--	0.039	**0.201**	<0.025	0.111	--	**3.39**	4.71
	3/22/2016	**13.3**	**5.43**	**4.01**	**0.564**	<0.0125	**0.124**	<0.0625	**0.628**	0.102	**0.794**	0.0257	--	<0.025	**0.0898**	<0.0125	0.0698	--	0.899	2.00
	6/21/2016	--	**7.64**	**8.08**	**1.34**	<0.0025	**0.354**	0.0315	**0.799**	0.359	**1.44**	0.0552	--	0.0412	**0.167**	0.00989	0.163	--	**2.83**	5.00
2007 N Colt Ct	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	0.40	--	--	**0.025**	<0.001	<0.001	<0.002	**0.052**	0.019	0.027	<0.001	0.023	0.0018	**0.0039**	<0.001	0.0025	0.0025	0.022	0.025
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	0.000835	<0.0005	<0.0005	<0.0025	0.00184	0.00109	0.000643	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	0.00156
	7/21/2016	--	<0.10	<0.10	<0.00050	<0.0005	<0.0005	<0.0025	<0.00050	<0.001	<0.00050	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
duplicate	7/21/2016	--	<0.10	<0.10	<0.00050	<0.0005	<0.0005	<0.0025	<0.00050	<0.001	<0.00050	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2019 N Ruger Cir	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.050	--	--	<0.001	<0.001	<0.001	0.0032	0.0048	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	0.17	--	--	0.0018	<0.001	<0.001	<0.002	**0.069**	0.0051	<0.001	<0.001	--	<0.001	**0.0016**	<0.001	<0.001	0.0048	0.002	0.0055
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	0.12	--	--	<0.001	<0.001	<0.001	<0.002	**0.053**	0.0054	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	**0.0050**	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
Duplicate	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2020 N Ruger Cir	2/20/2014	0.075	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	0.38	--	--	<0.001	<0.001	<0.001	0.16	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	0.059	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
2028 N Ruger Cir	1/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	0.015	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
Duplicate	4/10/2014	0.066	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	0.0037	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Duplicate	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2032 N Ruger Cir	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.03
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.03
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2021 N Ruger Ct	1/29/2014	<0.05	--	--	<0.001	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2025 N Ruger Ct	1/31/2014	<0.050	--	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	4/10/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	6/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
1009 W Mountain	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/22/2016	--	<0.10	<0.20	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2007 N Mountain Ct	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.0010	<0.001	<0.001	0.014	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0012	0.0013	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2009 N Mountain Ct	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/21/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
1211 W Quail Crossing Ct	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
Duplicate	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
Duplicate	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
	7/22/2016	--	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

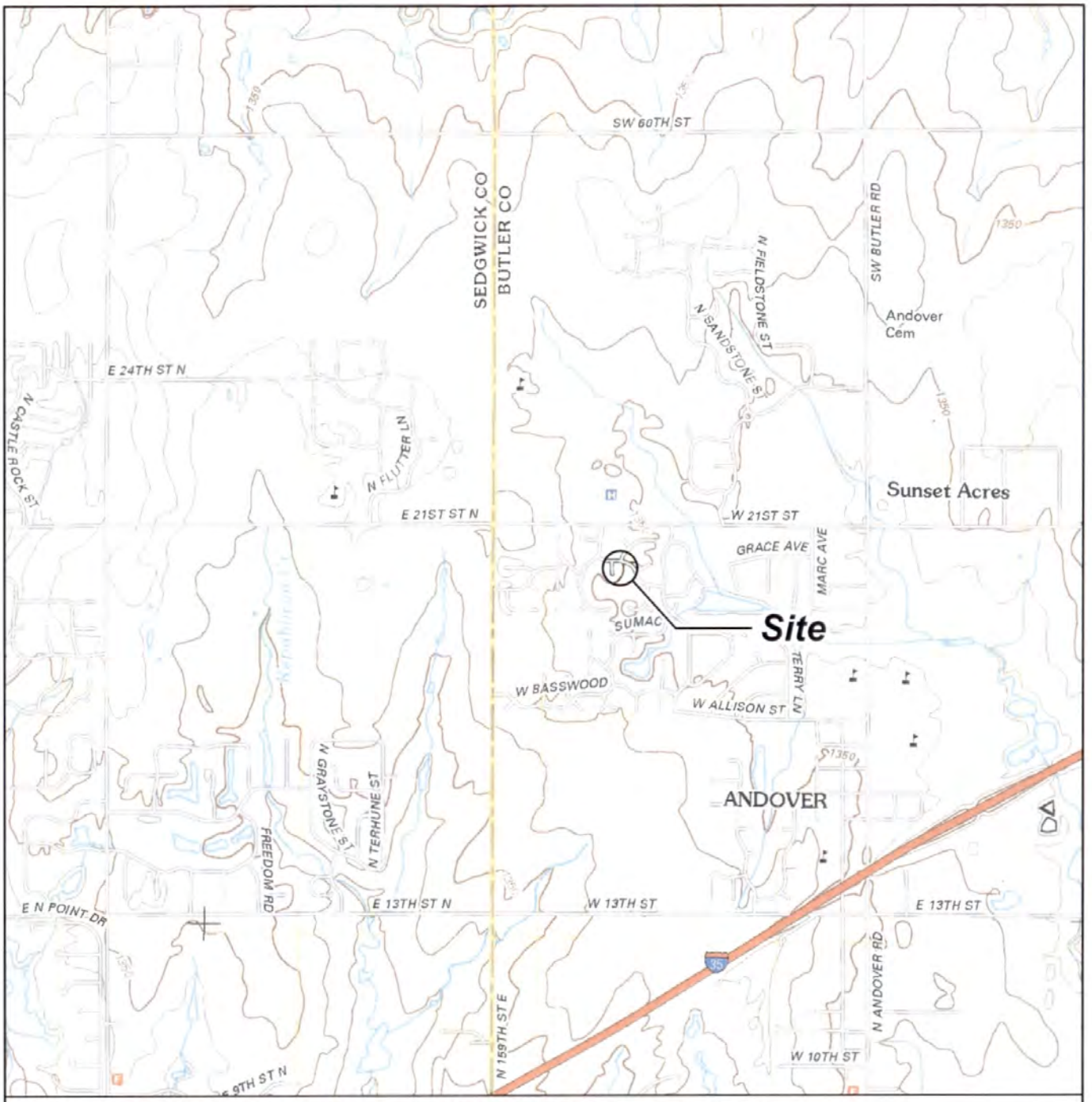
Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells – GRO and VOCs
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
1910 N Quail Crossing	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
KDHE Tier 2 Values		0.5	0.35	0.15	0.00844	0.005	0.044	4.92	0.005	7.02	0.7	0.45	NE	NE	0.00111	0.169	0.66	NE	1	10

Notes:

1. GRO = Gasoline-range organics analyzed by U.S. Environmental Protection Agency (EPA) Method 8015D.
2. KDHE analyzed GRO during the March 2016 event by EPA Method 8260.
3. LRH = Low-range hydrocarbons. LRH was first analyzed during the March 2016 event by EPA Method 8015. KDHE anayzed LRH in March 2016 by EPA Method 8260.
4. MRH = Middle-range hydrocarbons. MRH was first analyzed during the March 2016 event by EPA Method 8015M.
5. Volatile organic compounds by EPA Method 8260B (low level VOCs).
6. mg/L (ppm) = Milligrams per liter (parts per million).
7. **Bold** indicates detected concentration above the KDHE screening value.
8. < = Not detected above the method reporting limit (MRL).
9. -- = Not analyzed.
10. j = Relative percent difference was > +/-30%.
11. The samples collected from 12 irrigation wells (2001 N Colt Court, 2002 N Colt Court, 2004 N Colt Court, 2005 N Colt Court, 2007 N Colt Court, 2019 N Ruger Circle, 2020 N Ruger Circle, 2032 N Ruger Circle, 2007 N Mountain Court, 2009 N Mountain Court, 1211 W Quail Crossing Court, and 1009 W Mountain) during the week of June 20, 2016 were delayed due to a FedEx shipping error; those samples were received by the analytical lab out of hold time and were not analyzed. The wells were resampled on July 22, 2016.
12. NE = A KDHE Tier 2 Risk Based Screening Value has not been established.
13. KDHE Tier 2 Screening Values from the *Risk-Based Standards for Kansas, 5th Edition* ; October 2010.
14. Well locations are shown on Figure 2.
15. NS = No sample collected.
16. KDHE Split = Sample at time of collection was split with KDHE and analyzed independently.
17. Duplicate = Field Duplicate Sample.



Note: Base map prepared from USGS 7.5-minute quadrangles of Andover, KS, dated 2012 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

N

Site Location Map

Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	1641-10	Figure
	October 2016		1

Legend:

- MW-1 — Monitoring Well Location
- Irrigation Well; Deactivated Wells =
- VP-1 — Soil Vapor Monitoring Point
- B-1 — Boring Location
- SVE-1 — Soil Vapor Extraction Pilot Test Well
- Property Line
- Pipeline
- Pipeline Easement Boundary
- HOA — Lot Owned by Quail Crossing Homeowner's Association
- Excavation Area (2012)
- Excavation Area (2015)

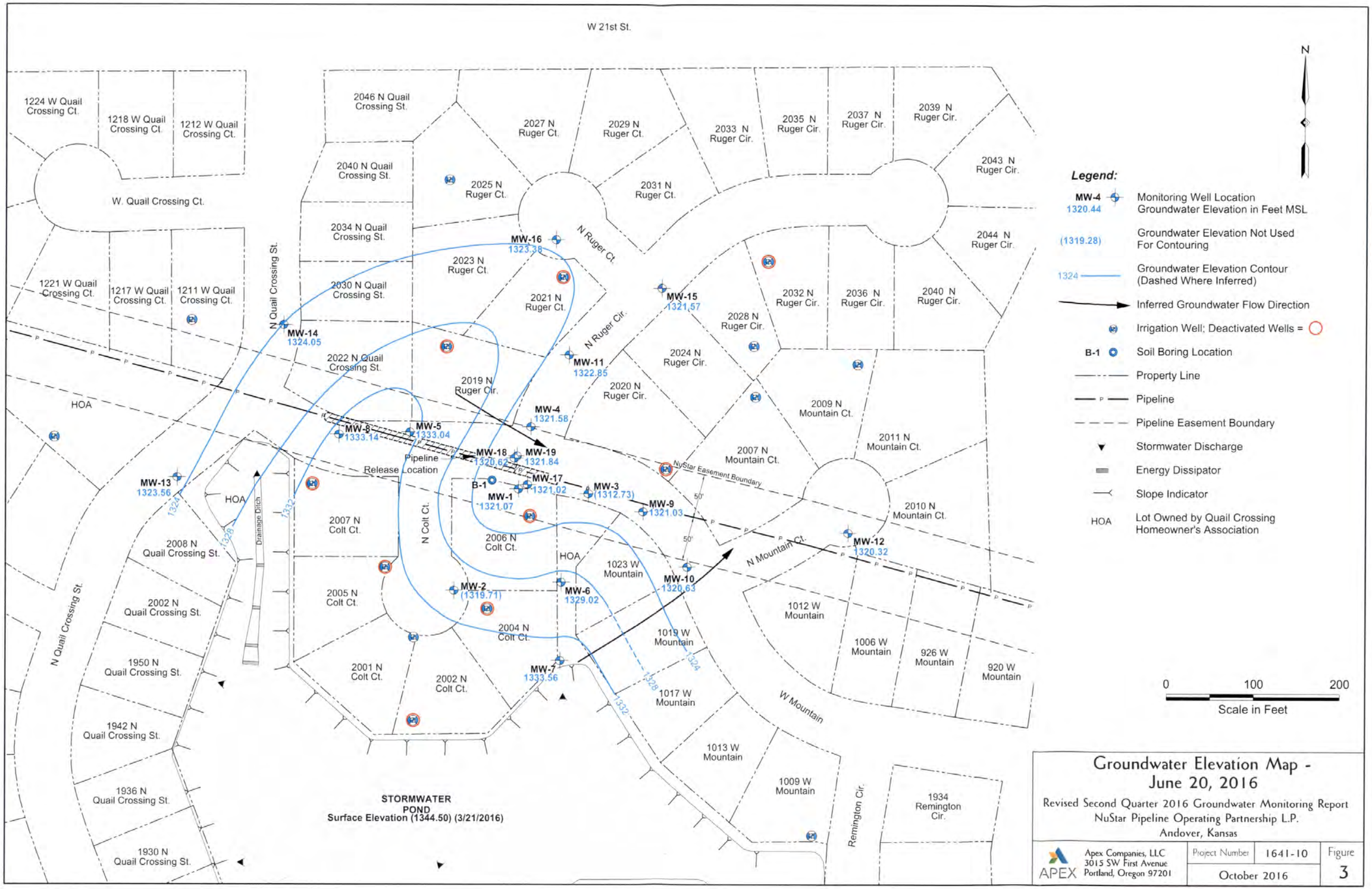
0 100 200

Scale in Feet

Site Plan and Sampling Location Map

Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

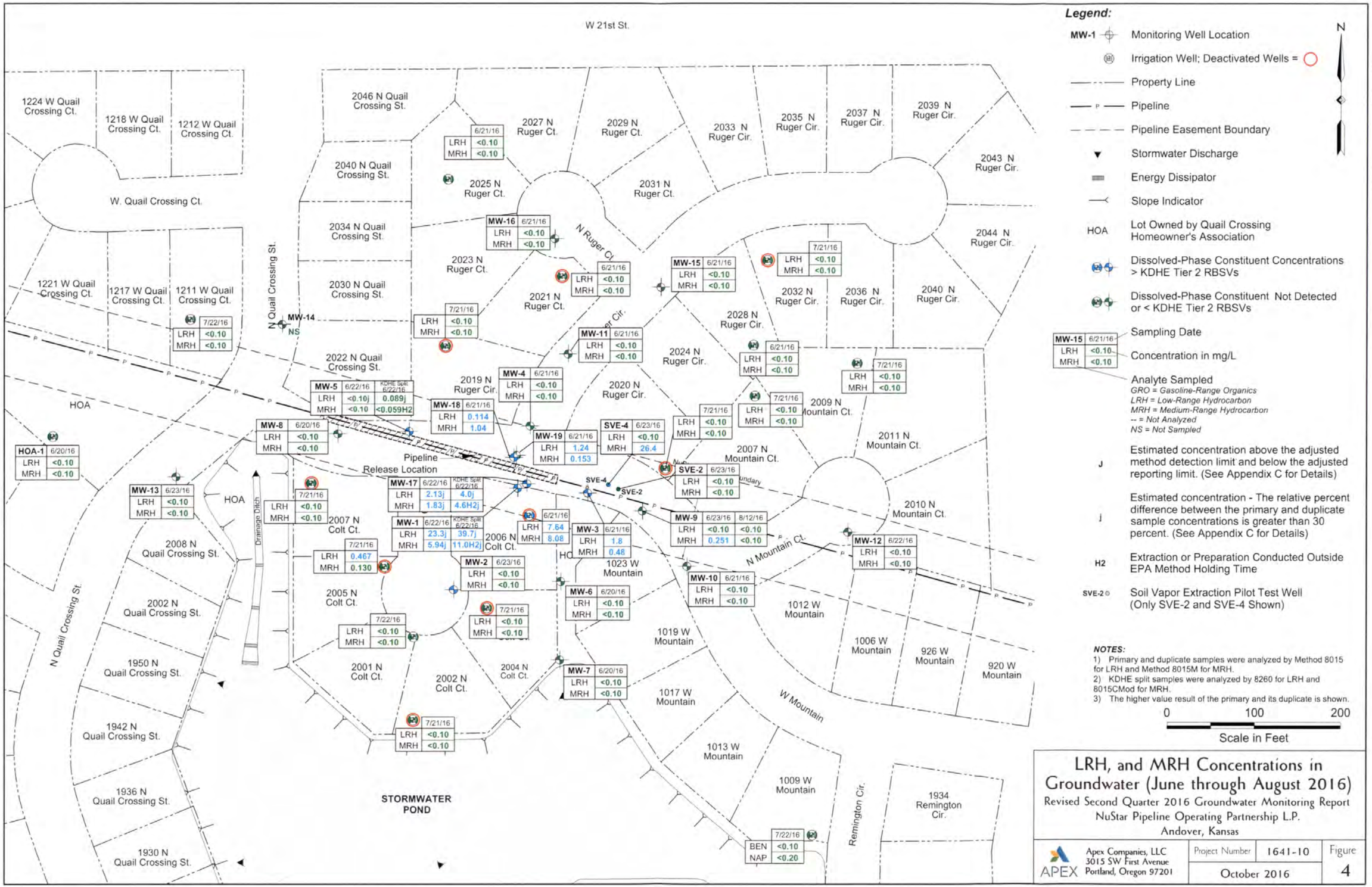
APEX	Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number 1641-10 October 2016	Figure 2



Groundwater Elevation Map - June 20, 2016

Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

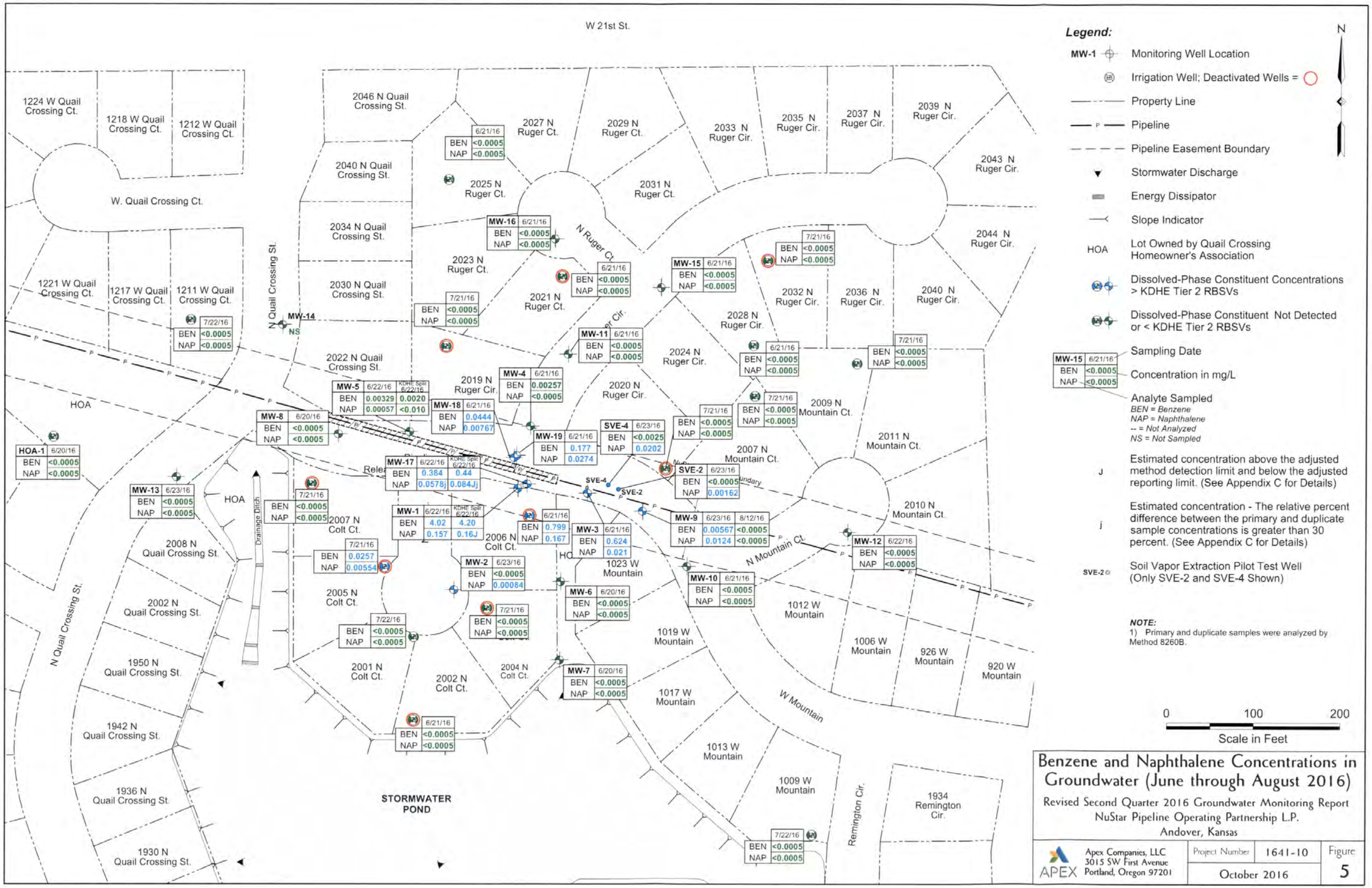
APEX	Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number 1641-10 October 2016	Figure 3



LRH, and MRH Concentrations in Groundwater (June through August 2016)

Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

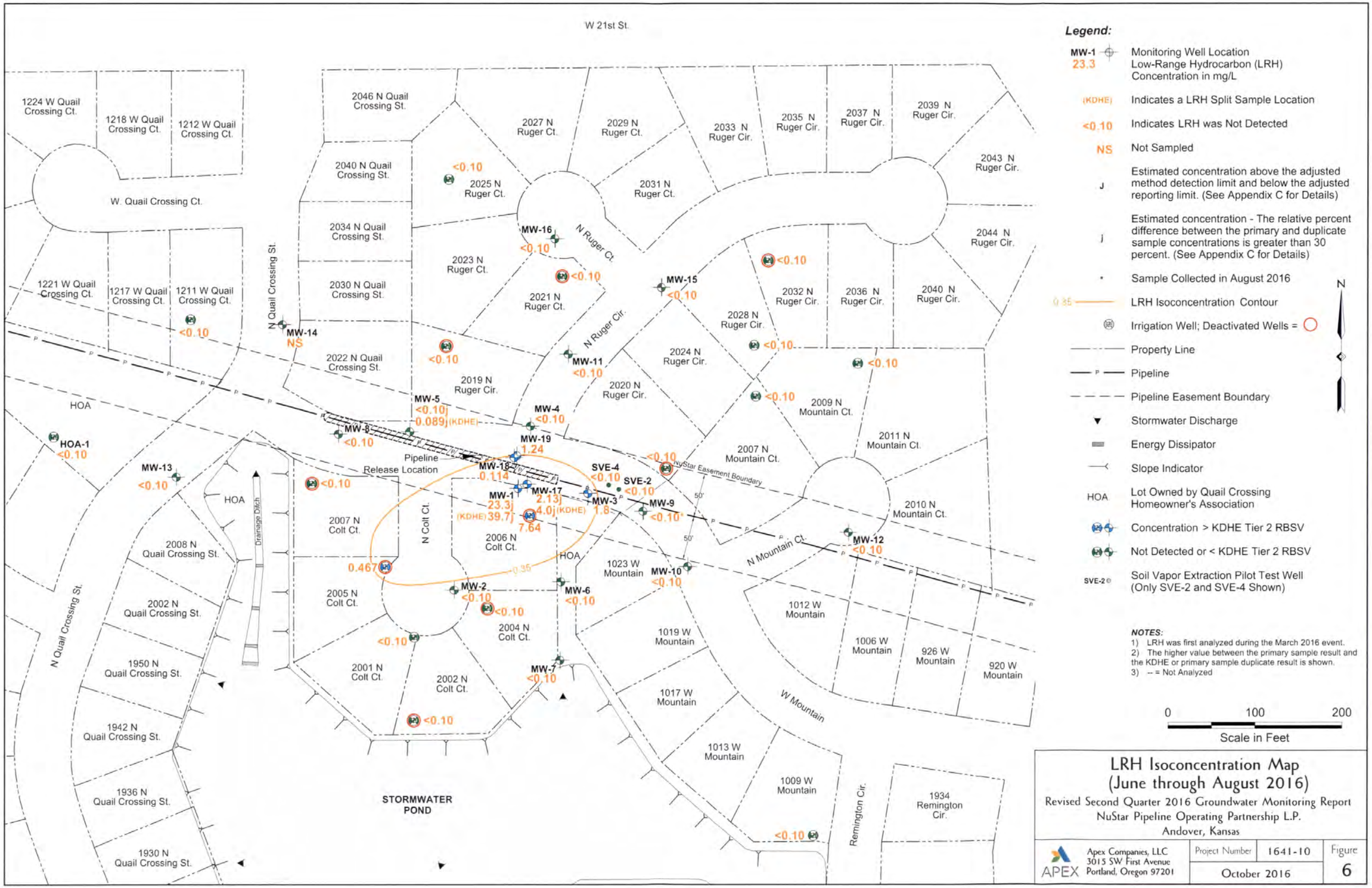
APEX	Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number 1641-10 October 2016	Figure 4

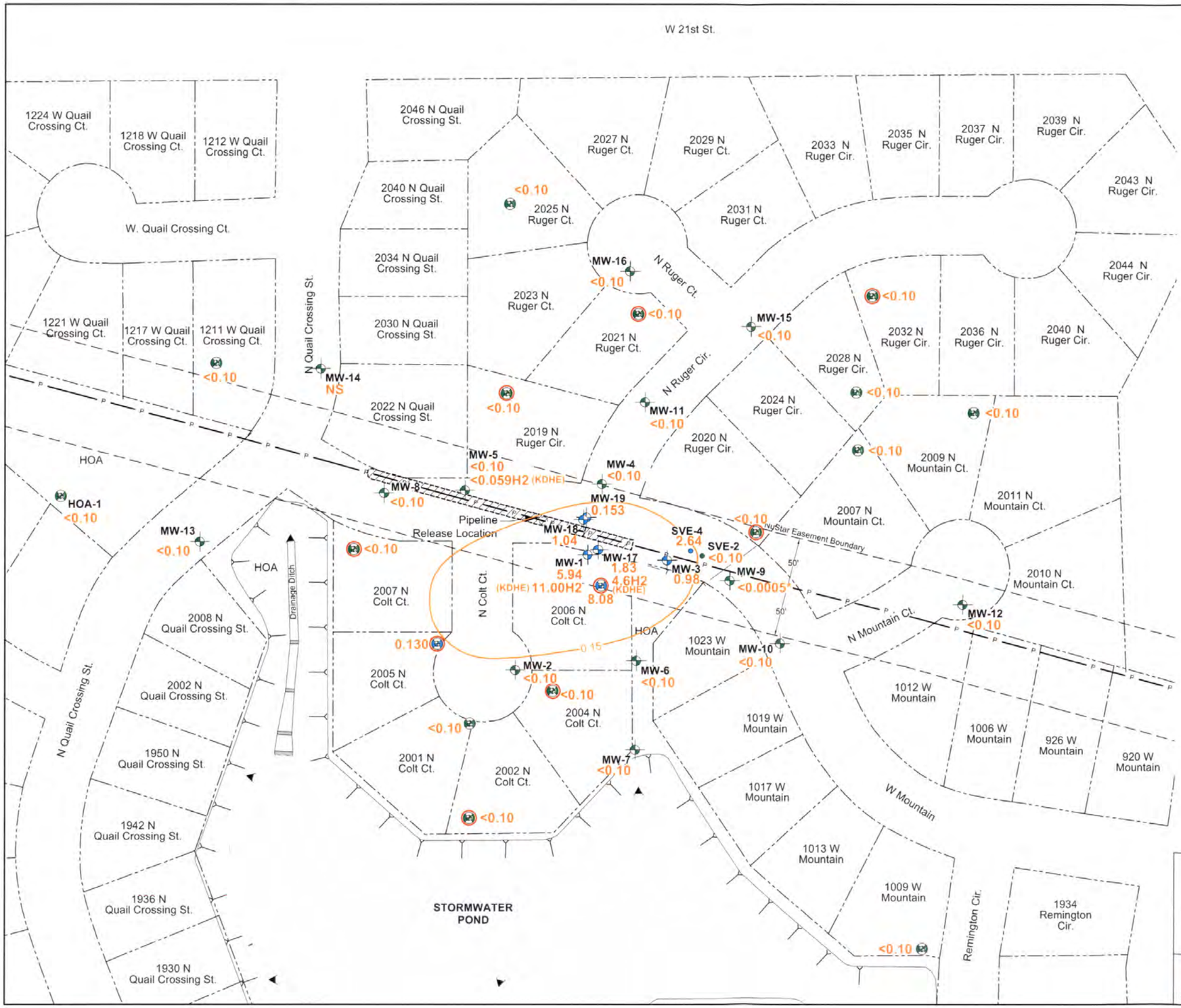


Benzene and Naphthalene Concentrations in Groundwater (June through August 2016)

Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX Apex Companies, LLC, 3015 SW First Avenue, Portland, Oregon 97201	Project Number	1641-10	Figure
	October 2016		5


W 21st St.
1224 W Quail Crossing Ct.
1218 W Quail Crossing Ct.
1212 W Quail Crossing Ct.
W. Quail Crossing Ct.
1221 W Quail Crossing Ct.
1217 W Quail Crossing Ct.
1211 W Quail Crossing Ct.
N Quail Crossing St.
2046 N Quail Crossing St.
2040 N Quail Crossing St.
2034 N Quail Crossing St.
2030 N Quail Crossing St.
2022 N Quail Crossing St.
2027 N Ruger Ct.
2029 N Ruger Ct.
2025 N Ruger Ct.
2031 N Ruger Ct.
2023 N Ruger Ct.
2021 N Ruger Ct.
2019 N Ruger Cir.
2020 N Ruger Cir.
2024 N Ruger Cir.
2028 N Ruger Cir.
2032 N Ruger Cir.
2036 N Ruger Cir.
2040 N Ruger Cir.
2033 N Ruger Cir.
2035 N Ruger Cir.
2037 N Ruger Cir.
2039 N Ruger Cir.
2043 N Ruger Cir.
2044 N Ruger Cir.
N Ruger Ct.
N Ruger Cir.
MW-16
MW-15
MW-14
NS
MW-11
MW-5
MW-4
MW-8
MW-19
MW-18
MW-1
MW-17
MW-3
MW-9
SVE-4
SVE-2
MW-13
HOA-1
HOA
Pipeline
Release Location
NuStar Easement Boundary
50'
2009 N Mountain Ct.
2011 N Mountain Ct.
2007 N Mountain Ct.
2010 N Mountain Ct.
N Mountain Ct.
MW-12
2007 N Colt Ct.
N Colt Ct.
2006 N Colt Ct.
2005 N Colt Ct.
2004 N Colt Ct.
2001 N Colt Ct.
2002 N Colt Ct.
MW-2
MW-6
MW-7
MW-10
1023 W Mountain
1019 W Mountain
1017 W Mountain
1013 W Mountain
1009 W Mountain
1012 W Mountain
1006 W Mountain
926 W Mountain
920 W Mountain
W Mountain
Remington Cir.
1934 Remington Cir.
2008 N Quail Crossing St.
2002 N Quail Crossing St.
1950 N Quail Crossing St.
1942 N Quail Crossing St.
1936 N Quail Crossing St.
1930 N Quail Crossing St.
Drainage Ditch
STORMWATER POND
0.35
Legend:
MW-1 23.3 Monitoring Well Location Low-Range Hydrocarbon (LRH) Concentration in mg/L
(KDHE) Indicates a LRH Split Sample Location
<0.10 Indicates LRH was Not Detected
NS Not Sampled
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. (See Appendix C for Details)
j Estimated concentration - The relative percent difference between the primary and duplicate sample concentrations is greater than 30 percent. (See Appendix C for Details)
Sample Collected in August 2016
0.35 LRH Isoconcentration Contour
Irrigation Well; Deactivated Wells =
Property Line
Pipeline
Pipeline Easement Boundary
Stormwater Discharge
Energy Dissipator
Slope Indicator
HOA Lot Owned by Quail Crossing Homeowner's Association
Concentration > KDHE Tier 2 RBSV
Not Detected or < KDHE Tier 2 RBSV
SVE-2 Soil Vapor Extraction Pilot Test Well (Only SVE-2 and SVE-4 Shown)
NOTES:
1) LRH was first analyzed during the March 2016 event.
2) The higher value between the primary sample result and the KDHE or primary sample duplicate result is shown.
3) -- = Not Analyzed
N
0 100 200
Scale in Feet
LRH Isoconcentration Map
(June through August 2016)
Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas
APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201
Project Number 1641-10
October 2016
Figure 6



Legend:

MW-1 5.94	Monitoring Well Location Medium-Range Hydrocarbon (MRH) Concentration in mg/L
(KDHE)	Indicates a MRH Split Sample Location
<0.10	Indicates MRH was Not Detected
NS	Not Sampled
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. (See Appendix C for Details)
j	Estimated concentration - The relative percent difference between the primary and duplicate sample concentrations is greater than 30 percent. (See Appendix C for Details)
H2	Extraction or Preparation Conducted Outside EPA Method Holding Time
*	Sample Collected in August 2016
0.15	MRH Isoconcentration Contour
	Irrigation Well; Deactivated Wells =
	Property Line
	Pipeline
	Pipeline Easement Boundary
	Stormwater Discharge
	Energy Dissipator
	Slope Indicator
HOA	Lot Owned by Quail Crossing Homeowner's Association
	Concentration > KDHE Tier 2 RBSV
	Not Detected or < KDHE Tier 2 RBSV
SVE-2	Soil Vapor Extraction Pilot Test Well (Only SVE-2 and SVE-4 Shown)

N

NOTES:
1) MRH was first analyzed during the March 2016 event.
2) The higher value between the primary sample result and the KDHE of primary sample duplicate result is shown.
3) -- = Not Analyzed

0 100 200
Scale in Feet

MRH Isoconcentration Map (June through August 2016)

Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

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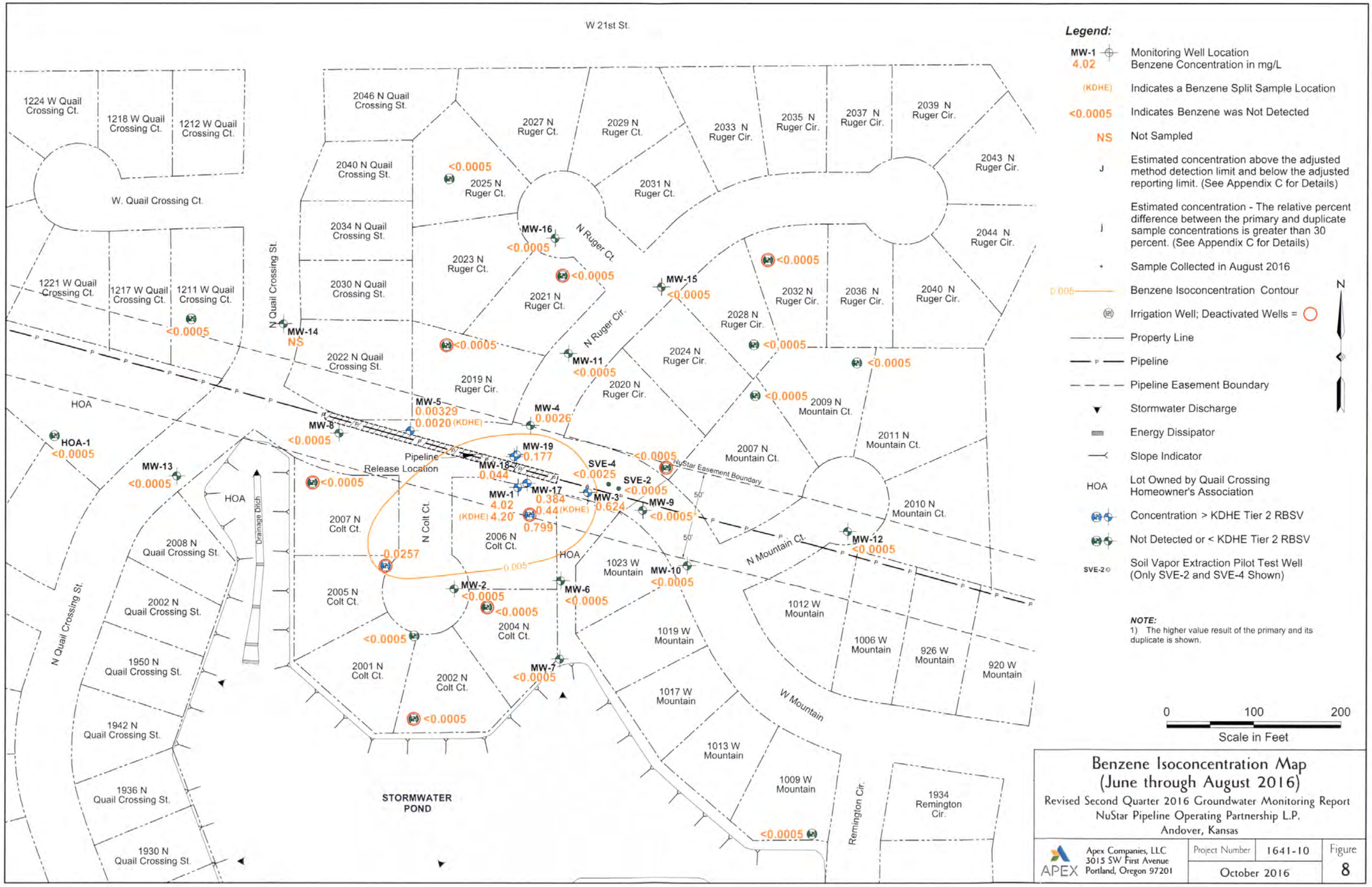
Portland, Oregon 97201

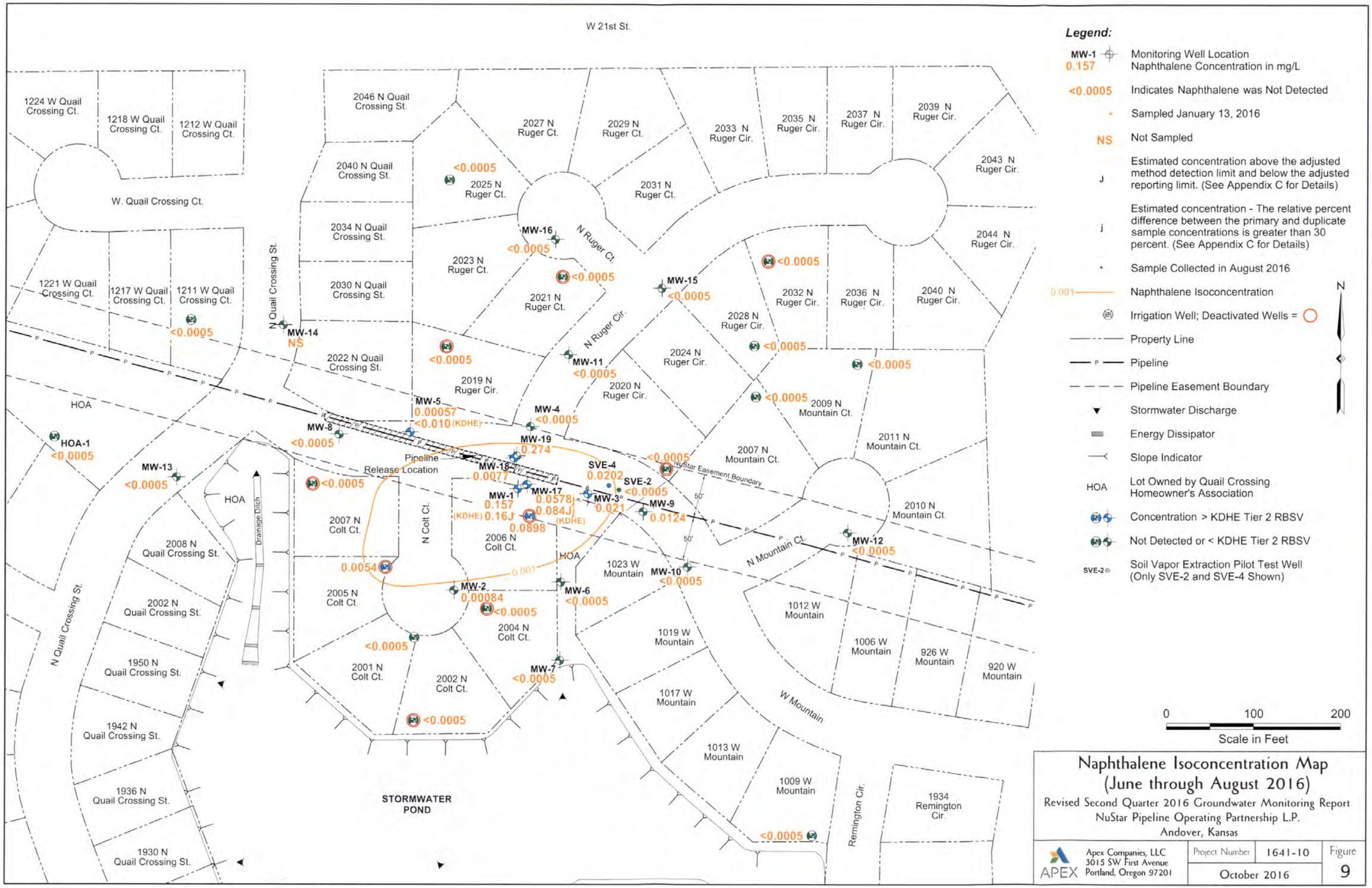
Project Number	1641-10	Figure
October 2016		7



Benzene Isoconcentration Map (June through August 2016)

Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX	Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number 1641-10 October 2016	Figure 8


W 21st St.
1224 W Quail Crossing Ct.
1218 W Quail Crossing Ct.
1212 W Quail Crossing Ct.
W. Quail Crossing Ct.
1221 W Quail Crossing Ct.
1217 W Quail Crossing Ct.
1211 W Quail Crossing Ct.
N Quail Crossing St.
2046 N Quail Crossing St.
2040 N Quail Crossing St.
2034 N Quail Crossing St.
2030 N Quail Crossing St.
2022 N Quail Crossing St.
2027 N Ruger Ct.
2029 N Ruger Ct.
2025 N Ruger Ct.
2031 N Ruger Ct.
2023 N Ruger Ct.
2021 N Ruger Ct.
2019 N Ruger Cir.
2020 N Ruger Cir.
2024 N Ruger Cir.
2028 N Ruger Cir.
2032 N Ruger Cir.
2033 N Ruger Cir.
2035 N Ruger Cir.
2037 N Ruger Cir.
2039 N Ruger Cir.
2043 N Ruger Cir.
2044 N Ruger Cir.
2036 N Ruger Cir.
2040 N Ruger Cir.
N Ruger Ct.
N Ruger Cir.
2009 N Mountain Ct.
2011 N Mountain Ct.
2007 N Mountain Ct.
2010 N Mountain Ct.
N Mountain Ct.
HOA
HOA-1
Drainage Ditch
Pipeline
Release Location
NuStar Easement Boundary
50'
2007 N Colt Ct.
N Colt Ct.
2006 N Colt Ct.
2005 N Colt Ct.
2004 N Colt Ct.
2001 N Colt Ct.
2002 N Colt Ct.
2008 N Quail Crossing St.
2002 N Quail Crossing St.
1950 N Quail Crossing St.
1942 N Quail Crossing St.
1936 N Quail Crossing St.
1930 N Quail Crossing St.
1023 W Mountain
1019 W Mountain
1017 W Mountain
1013 W Mountain
1009 W Mountain
1012 W Mountain
1006 W Mountain
926 W Mountain
920 W Mountain
W Mountain
Remington Cir.
1934 Remington Cir.
STORMWATER POND
MW-1 0.157 (KDHE) 0.16J
MW-2 0.00084
MW-3 0.021
MW-4 <0.0005
MW-5 0.00057 <0.010 (KDHE)
MW-6 <0.0005
MW-7 <0.0005
MW-8 <0.0005
MW-9 0.0124
MW-10 <0.0005
MW-11 <0.0005
MW-12 <0.0005
MW-13 <0.0005
MW-14 NS
MW-15 <0.0005
MW-16 <0.0005
MW-17 0.0578j 0.084j (KDHE) 0.0898
MW-18 0.0077
MW-19 0.274
SVE-2 <0.0005
SVE-4 0.0202
0.0054
0.001
Legend:
MW-1 0.157 Monitoring Well Location Naphthalene Concentration in mg/L
<0.0005 Indicates Naphthalene was Not Detected
Sampled January 13, 2016
NS Not Sampled
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. (See Appendix C for Details)
j Estimated concentration - The relative percent difference between the primary and duplicate sample concentrations is greater than 30 percent. (See Appendix C for Details)
Sample Collected in August 2016
0.001 Naphthalene Isoconcentration
Irrigation Well; Deactivated Wells =
Property Line
Pipeline
Pipeline Easement Boundary
Stormwater Discharge
Energy Dissipator
Slope Indicator
HOA Lot Owned by Quail Crossing Homeowner's Association
Concentration > KDHE Tier 2 RBSV
Not Detected or < KDHE Tier 2 RBSV
SVE-2 Soil Vapor Extraction Pilot Test Well (Only SVE-2 and SVE-4 Shown)
N
0 100 200
Scale in Feet
Naphthalene Isoconcentration Map
(June through August 2016)
Revised Second Quarter 2016 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas
APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201
Project Number 1641-10
October 2016
Figure 9

Appendix A

Field Data Sheets

WELL GAGING DATA SHEET

APEX

		Job Number:	32000164.1-10
Client:	Nustar	Date:	4/26/16
Project:	Andover QC	Sampler:	LB
Weather:	Cloudy, wind	Time In/Out:	—

WATER LEVEL DATA

	Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
	MW-1	NA	NP	31.31	NA	NA	—	
	MW-2			34.76				
	MW-3			37.96				
	MW-4			30.41				
	MW-5			20.87				
	MW-6			22.93				
	MW-7			16.18				
	MW-8			22.03				
	MW-9			30.73				
	MW-10			28.37				
	MW-11			28.81				
	MW-12			31.07				
	MW-13			32.50				
	MW-14			32.49				
	MW-15			32.79				
	MW-16			—				Cop car over well,
	MW-17			32.54				No answer at house
	MW-18			31.18				
	MW-19			31.49				
SVE-1	~~MW-20~~			27.32				
SVE-2	~~MW-21~~			28.20				
SVE-3	~~MW-22~~			29.73				
	SVE-4			29.05				
	POND			1349.75				
	2006 Catch.	—	—	42.61	—	—	—	No product in skimmer

WELL GAGING DATA SHEET

APEX

		Job Number:	32001641-10
Client:	NuStar	Date:	6-20-16
Project:	Andover G.L.	Sampler:	TA/JK
Weather:	Sunny, 80/90's	Time In/Out:	

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
MW-12	11:10	—	29.42				Pond Elevation @ 1344.50'
MW-10		—	28.16				
MW-3		—	37.74				Dup - 2
MW-7		—	15.42				
MW-6		—	20.74				
MW-1		—	31.06				Split w/Kathe
MW-17		—	30.67				
MW-16		—	28.75				
MW-15		—	30.22				
MW-11		—	28.49				
MW-4		—	29.15				
MW-19		—	29.16				
MW-18		—	30.42				
MW-13		—	31.02				
MW-14		—	30.94				
MW-5		—	19.73				Dup - 3
MW-2		—	33.46				
MW-8		—	20.24				
MW-9	12:01	—	28.45				
SVE 3		—	29.13	29.75	No F.P.		Unable to obtain sufficient H2O via bailer - not sampled
Sample Time → SVE 4	09:20	6-23-16	28.69	29.66	No F.P.		Purged dry; sampled recharge; 6 VOAs (3 VOC) (2 GRH) (1 MBTX)
SVE 1			24.89	29.59	No F.P.		
Sample time → SVE 2	09:12	6-23-16	27.76	28.97	No F.P.		Purged dry; sampled recharge; 8 VOAs
2006 N Colt Ct		—	42.40	—	—	—	No Product / .5 gallon H2O in Skimmer

NuStar - Andover Q.C.
Irrigation Well Sample List

114-10
TA/JK/TT

Well	Dup	Date	Time
HOA-1	DUP-1	6-20-16	1530
1211 W. Q.C. Ct.		6-20-16	1555
2007 N Colt Ct		6/20/16	1620
2005 N Colt Ct		6/20/16	1635
2001 N Colt Ct		6/20/16	1650
2002 N Colt Ct		6/20/16	1700
2028 N Ruger Cir		6/21/16	1135
2032 N Ruger Cir		6/21/16	1125
2021 N Ruger Cir		6/21/16	1215
2025 N Ruger Cir		6/21/16	1425
2019 N Ruger Cir		6/21/16	1445
2020 N Ruge Cir		6/21/16	1500
2006 N Colt Ct	DUP-2	6/21/16	1555 ~~DUP-2~~
2004 N Colt Ct.		6-23-16	1138
2007 W Mountain Ct.		6-23-16	1155
2009 W Mountain Ct.		6-23-16	1205
1009 W Mountain		6-23-16	1230

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-1	Job Number:	1641-10
Client:	Nestor	Date:	6-22-16
Project:	Andover QC.	Sampler:	TA/TT
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	4"	Water Height	
Depth to Water:	31.06	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	1' from bottom		Comments
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
0925	.300	.300	31.25	.150	7.65	19.85	1483	3.48	-114.4	-	AC
0928	.450	.750	31.28	.150	7.27	18.60	1482	0.88	-117.4	-	AC
0931	.450	1.200	31.28	.150	7.09	17.99	1479	0.50	-114.7	-	AC
0934	.600	1.800	31.32	.200	7.03	17.64	1476	0.37	-115.1	-	AC
0938	.600	2.400	31.33	.200	7.01	17.71	1476	0.32	-117.9	-	AC
~~0936~~	.600		~~31.34~~	~~.200~~	~~7.00~~	~~17.69~~	1478	0.28	-121.5	-	AC
0940	.600		31.35	.200	6.99	17.71	1478	0.26	-124.2	-	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-1	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	09:45	Final Depth to Water:	31.37	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-2	Job Number:	32006164.1-10
Client:	NuStar	Date:	6-23-16
Project:	Andover O.C.	Sampler:	TAT
Weather:	Sunny, 80's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	33.46	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	36'	Comments
Sampling Method:	Same	Tubing Type:	LDPE	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
0937	.400	.400	34.20	.200	7.90	22.40	756	6.50	-1.7	–	C
0940	.600	1.000	34.35	.200	7.41	19.63	749	4.20	-2.1	–	C
0943	.450	1.450	34.42	.150	7.28	19.61	751	4.18	-16.7	–	C
0946	.450	1.900	34.50	.150	7.25	19.75	752	4.43	-17.2	–	C
0949	.450	2.350	34.56	.150	7.25	19.70	753	4.45	-19.5	–	C
0952	.450	2.800	34.62	.150	7.25	19.69	752	4.60	-19.8	–	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-2	Sampling Flow Rate	.150	Analytical Laboratory:	ESC
Sample Time:	0957	Final Depth to Water:	~~0945~~ 34.67	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	VOCs/ MPH/ MEH	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-3	Job Number:	1641-10
Client:	Nustar	Date:	6/21/16
Project:	Antioch ~~Estuary~~ Q.C	Sampler:	TA/JK
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	37.74	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	~40'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1524	.300	.300	36.31	.100	7.88	32.23	789	3.75	-61.5	—	C
1527	.300	.600	36.31	.100	7.40	23.33	838	.84	-178.4	—	C
1530	.600	1.200	36.36	.200	7.25	20.87	835	.59	-176.8	—	C
1533	.600	1.800	36.37	.200	7.14	20.36	852	.30	-173.2	—	C
1536	.600	2.400	36.37	.200	7.11	20.46	856	.26	-170.6	—	C
1539	.600	3.000	36.37	.200	7.09	20.14	857	.24	-170.3	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-3	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	1545	Final Depth to Water:	36.32	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 Voas	HCl	See COC	yes (no)			Dup-2
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-4	Job Number:	1641-10
Client:	Nustar	Date:	6/21/14
Project:	Andover Q.C.	Sampler:	TA/JK
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	29.15	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	31'	Comments
Sampling Method:	Same	Tubing Type:	LDPE	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1002	.300	.300	29.31	.150	7.83	24.31	1079	3.70	-41.5	—	SC
1005	.450	.750	29.41		7.41	20.78	1083	2.49	-42.2	—	C
1008	.450	1.200	29.45		7.25	19.95	1080	2.37	-39.1	—	C
1011	.450	1.650	29.47		7.19	19.84	1078	2.29	-38.9	—	C
1014	.450	2.100	29.49		7.16	19.69	1077	2.13	-39.8	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-4	Sampling Flow Rate	.150	Analytical Laboratory:	ESC
Sample Time:	1020	Final Depth to Water:	29.51	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOA's	HCl	5x COC	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-5	Job Number:	1641-10
Client:	NuStar	Date:	6-22-16
Project:	Andover Q.C.	Sampler:	TA/TT
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	19.73	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	22'	Comments
Sampling Method:	same	Tubing Type:	LDPE	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1042	.500	.500	19.84	.300	7.59	19.29	1208	2.10	-65.9	—	C
1045	.900	1.400	20.02	.300	7.31	17.86	1199	0.68	-61.3	—	C
1048	.600	2.000	20.04	.200	7.13	18.08	1203	0.75	-64.3	—	C
* 1051	.600	2.600	20.10	.200	7.10	17.83	1232	1.36	—	—	C
1054	.600	3.200	20.02	.200	7.08	18.14	1235	2.02	-54.1	—	C
1059	.600	3.800	20.08	.200	7.08	17.83	1226	1.20	-55.2	—	C
1102	.600	4.400	20.12	.200	7.07	17.64	1233	1.12	-58.4	—	C
1105	.600	5.00	20.08	.200	7.06	17.61	1229	0.98	-61.3	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-5	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	1110	Final Depth to Water:	20.08	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOA	HCl	HRH/MRH/LRH/VOC	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

* DO fixing; removed pump to check seals

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-6	Job Number:	1641-10
Client:	NUStar QC	Date:	6/20/16
Project:	Andover QC.	Sampler:	J Kock / T Alfred
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	20.74	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Peristaltic	Pump Intake Depth:	~~23'~~ 25'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1216	.300	.300	21.30	.150 ~~21.30~~	7.56	20.12	850	6.05	9.6	—	C
1219	.300	.600	21.82	.100	7.41	18.69	620	4.59 ~~[illegible]~~	15.9	—	C
1222	.300	.900	22.19	.100	7.39	19.16	551	5.30	6.5	—	C
1225	.300	1.200	22.55	.100	7.37	18.68	535	5.79	0.7	—	C
1228	.300	1.500	22.77	.100	7.31	19.23	630	6.42	-4.6	—	C
—	Ran out of water → Dropped tubing further down into well										
1237	.300	1.800	23.12	.100	7.28	15.22	936	3.84	-10.5	—	C
1240	.300	2.100	23.31	.100	7.24	19.38	934	3.64	-13.2	—	C
1243	.300	2.400	23.58	.100	7.23	19.35	935	3.60	-14.4	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-6	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1247	Final Depth to Water:	24.01	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	C.O.C.	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-7	Job Number:	164-10
Client:	Hustar QC	Date:	6-20-16
Project:	Andover QC,	Sampler:	J. Keck / T. Alfred
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	15.42	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Peristaltic	Pump Intake Depth:	18'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1144	.300	.300	15.61	.150	7.49	19.16	808	.59	-27.5	—	C
1147	.450	.750	15.70	.150	7.20	18.62	806	.40	-31.8	—	C
1150	.450	1.200	15.77	.150	7.18	18.67	805	.34	-49.7	—	C
1153	.450	1.650	15.81	.150	7.19	18.56	804	.28	-66.1	—	C
1156	.450	2.100	15.86	.150	7.19	18.29	801	.27	74.5	—	C
1159	.450	2.550	15.89	.150	7.19	18.28	802	.27	81.3	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-7	Sampling Flow Rate	.150 L/min	Analytical Laboratory:	ESG
Sample Time:	1203	Final Depth to Water:	15.89	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOA	HCl	See COC	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-8	Job Number:	1641-10
Client:	Nu Star	Date:	6/20/16
Project:	Andover Q.C.	Sampler:	TA/JK
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	20.24	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	~22'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1459	.300	.300	20.43	.150	7.62	21.49	1144	4.36	-32	—	C
1502	.450	.750	20.51	.150	7.39	20.44	1136	4.01	4.2	—	C
1505	.450	1.200	20.53	.150	7.30	20.38	1140	3.98	-4.3	—	C
1508	.450	1.650	20.58	.150	7.26	20.06	1144	4.01	-11.9	—	C
1511	.450	2.100	20.60	.150	7.23	20.00	1145	4.02	-11.4	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-8	Sampling Flow Rate	.150	Analytical Laboratory:	ESC
Sample Time:	1515	Final Depth to Water:	20.60	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	C.O.C.	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-9	Job Number:	1641-10
Client:	NuStar	Date:	6-23-16
Project:	Adour Q.C.	Sampler:	TA/TT
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	28.45	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	31'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
0841	.300	.300	28.90	.200	7.49	19.43	960	5.03	-80.6	—	C
0844	.450	.750	28.98	.150	7.13	19.46	953	0.97	-52.5	—	C
0847	.450	1.200	29.02	.150	7.08	19.30	958	0.79	-53.0	—	C
0850	.450	1.650	29.10	.150	7.07	19.17	957	0.67	-57.9	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-9	Sampling Flow Rate	.150	Analytical Laboratory:	ESC	
Sample Time:	0855	Final Depth to Water:	29.12	Did Well Dewater?	No	
# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	624/VOCs/NRH HRH	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-10	Job Number:	1461-10
Client:	NuStar	Date:	6/21/16
Project:	Andover QC.	Sampler:	TA/JK
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	28.16	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	30'	Comments	
Sampling Method:	Same	Tubing Type:	HDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
			28.45		+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1636	.300	.300		.150	7.41	24.17	1355	2.03	-38.7	—	C
1639	~~.450~~ .300	.600	28.55	.100	7.19	23.26	1345	.66	-48.44	—	C
1642	~~.450~~ .300	.900	28.65	.100	7.11	22.70	1333	.60	-62.55	—	C
1645	.300	1.200	28.72		7.09	22.02	1329	.55	-73.9	—	C
1648	.300	1.500	28.80		7.07	21.90	1325	.49	-76.4	—	C
1651	.300	1.800	28.87		7.06	21.68	1326	.48	-78.2	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-10	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1655	Final Depth to Water:	28.97	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	6010	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-11	Job Number:	1641-10
Client:	NuStar	Date:	6/21/16
Project:	Andover Q.C.	Sampler:	TA/JK
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	28.49	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	31'		Comments
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1357	.300	.300	28.80	.150	7.58	22.55	1410	2.91	-25.6	-	SC
1400	.300	.600	29.05	.100	7.22	21.29	1395	1.94	-3.6	-	SC
1403	.300	.900	29.19	.100	7.08	22.08	1392	1.81	-30.9	-	SC
1406	.300	1.200	29.30		7.04	22.57	1394	1.79	-42.9	-	SC
1409	.300	1.500	29.37		7.03	22.42	1398	1.80	-43.7	-	SC
1412	.300	1.800	29.44		7.02	22.17	1397	1.78	-43.0	-	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-11	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1414	Final Depth to Water:	29.58	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 Voa's	HCl	See COC	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-12	Job Number:	1641-10
Client:	Nustar	Date:	6-22-16
Project:	Andover Q.C.	Sampler:	TA / TT
Weather:	Sunny, 80's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	29.42	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	~~Peri~~ Bladder	Pump Intake Depth:	31.5'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
0833	.300	.300	29.81	.200	7.56	20.05	947	3.10	-57.7	—	SC
0836	.600	.900	29.83	.200	7.25	19.34	945	0.85	-65.7	—	SC
0840	.600	1.500	29.83	.200	7.17	19.08	945	0.65	-74.0	—	SC
0843	.600	2.100	29.84	.200	7.12	18.98	945	0.60	-75.4	—	SC
0846	.600	2.700	29.85	.200	7.11	18.98	945	0.58	-76.4	—	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-12	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	0855	Final Depth to Water:	29.84	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	COC	yes (no)			DUP-3
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-13	Job Number:	1641-10
Client:	NuStar	Date:	6-23-16
Project:	Andover Q.C.	Sampler:	TA/TT
Weather:	Cloudy, 80's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	31.02	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'
Sampling Method:	None	Tubing Type:	LDPE

Comments

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1056	.300	.300	31.20	.150	7.68	24.02	714	7.07	-21.1	-	~~AC~~ SC
1059	.450	.750	31.45	.150	7.45	20.30	710	7.11	3.6	-	~~AC~~ SC
1102	.300	1.050	31.55	.100	7.31	20.85	707	6.30	-3.9	-	SC
1105	.300	1.350	31.60	.100	7.29	21.11	710	6.31	-9.8	-	SC
1108	.300	1.650	31.68	.100	7.29	21.15	709	6.30	-11.4	-	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-13	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1113	Final Depth to Water:	31.68	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	C.O.C.	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-14	Job Number:	1641-10
Client:	NuStar	Date:	6-23-16
Project:	Andover Q.C.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	30.94	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'	Comments
Sampling Method:	same	Tubing Type:	LDPE	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1018	.400	.400	31.22	.200	7.62	20.70	672	4.93	-26.1	–	C
1021	.600	1.000	31.43	.200	7.41	19.78	670	4.18	-18.7	–	C
1024	.450	1.450	31.65	.150	7.33	19.77	667	3.96	-19.5	–	C
1027	~~.450~~ .300	~~1.900~~ 1.750	31.78	~~.150~~ .100	7.29	20.00	666	3.80	-28.5	–	C
1030	.300	2.050	31.90	.100	7.27	20.10	669	3.67	-31.0	–	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-14	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1035	Final Depth to Water:	32.14	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	G.O.C.	yes ~~no~~			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-15	Job Number:	169-10
Client:	Nustar	Date:	6/21/16
Project:	Andover QC	Sampler:	TA/JK
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:	39	Well Diameter:	2"	Water Height	
Depth to Water:	30.22	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'	Comments	
Sampling Method:	Same	Tubing Type:	HDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1047	.450	.450	30.58	.150	7.73	21.98	696	6.89	-32.8	—	C
1050	.450	.900	30.77	.150	7.35	19.93	685	4.12	-16.4	—	C
1053	.450	1.350	30.82	.150	7.20	20.06	695	4.02	-16.9	—	C
1056	.450	1.800	30.87	.150	7.17	19.98	708	4.04	-16.8	—	C
1059	.450	2.250	30.90	.150	7.15	19.98	721	4.02	-16.8	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-15	Sampling Flow Rate	.150	Analytical Laboratory:	ESL	
Sample Time:	1105	Final Depth to Water:	30.90	Did Well Dewater?	No	
# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOA's	HCl	See COC	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-16	Job Number:	1641-60
Client:	Nustar	Date:	1/21/16
Project:	Andover QC	Sampler:	TA/JK
Weather:	Sunny 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	28.75	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	LDPE 32'		Comments
Sampling Method:	Same	Tubing Type:			

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1151	.400	.400	28.90	.200	7.63	24.84	845	7.07	-29.9	—	SC
1154	.600	1.000	29.45	.200	7.37	19.76	870	4.89	2.4	—	SC
1157	.450	1.450	29.71	.150	7.19	20.37	860	4.52	-6.4	—	SC
1200	.300	1.750	29.90	.100	7.15	21.10	869	4.55	-14.0	—	SC
1203	.300	2.050	30.05	|	7.13	20.60	886	4.60	-12.9	—	SC
1206	.300	2.350	30.20	|	7.12	20.47	890	4.51	-10.6	—	SC
1209	.300	2.650	30.33	|	7.12	20.33	886	4.59	-8.5	—	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-16	Sampling Flow Rate	.100	Analytical Laboratory:	ESL
Sample Time:	1220	Final Depth to Water:	30.50	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	C.O.C.	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-17	Job Number:	1641-10
Client:	Nortex	Date:	6-22-16
Project:	Andrews Q.C.	Sampler:	TA/TT
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	30.67	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	32'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1007	.400	.400	30.95	.200	7.43	19.13	931	2.17	-196.5	-	C
1010	.600	1.000	31.11	.200	7.09	17.95	924	0.46	-191.0	-	C
1013	.600	1.600	31.17	.200	7.05	17.83	924	0.31	-191.1	-	C
1016	.600	2.200	31.18	.200	7.04	17.80	939	0.30	-191.1	-	C
~~1019~~	~~.600~~			~~.200~~						-	

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-17	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	1020	Final Depth to Water:	31.10	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOA	HCl	LRH/MRH/HRH/VOCs	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-18	Job Number:	1641-10
Client:	Master	Date:	6-21-16
Project:	Andover Q.C.	Sampler:	TA/JK
Weather:	Sunny, 80's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	30.42	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm) ★	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
834	.400	.400	30.03	.200	7.24	20.62	827	6.44	13.7	-	SC
837	.300	.700	30.76	.100	7.32	19.56	816	7.85	-2.4	—	SC
840	.300	1.000	30.90		7.46	20.08	816	8.60	-11.3	—	SC
843	.300	1.300	31.03		7.54	19.86	817	8.81	-17.8	-	SC
846	.300	1.600	31.19		7.61	19.58	817	8.92	-20.8	-	SC
849	.300	1.900	31.34		7.67	19.42	818	8.83	-22.3	-	SC
852	.300	2.200	31.45		7.70	19.36	818	8.79	-24.7	-	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-18	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	0856	Final Depth to Water:	31.65	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOA	HCl	See COC	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

★ Discard DO data — pump was found to be adding air to water column during MW-19

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-19	Job Number:	1641-10
Client:	Nustar	Date:	6-21-16
Project:	Andover Q.C.	Sampler:	TA/JK
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	29.16	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	LDPE ↑ 32' ↓		Comments
Sampling Method:	Same	Tubing Type:			

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm) ☆	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
911	.300	.300	29.73	.100	7.80	23.05	862	3.49	-147.3	–	SC
914	.300	.600	29.87		7.43	21.61	850	4.42	-127.6	–	SC
917	.300	.900	29.96		7.35	22.49	853	5.02	-115.1	–	SC
920	.300	1.200	29.99		7.36	22.03	854	5.60	-108.3	–	SC
923	.300	1.500	30.10		7.38	21.97	850	6.37	-101.6	–	SC
926	.300	1.800	30.20		7.42	21.81	849	6.78	-97.3	–	SC
929	.300	2.100	30.30		7.45	22.20	847	6.98	-95.5	–	SC
932	.300	2.400	30.39		7.49	21.70	846	7.16	-93.5	–	

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-19	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	0936	Final Depth to Water:	30.57	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
8 VOAs	HCl	See COC	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

☆ Discovered leak in bladder pump that was blowing water into the well during discharge cycle. New components put in pump & checked seal. All future wells should have more accurate DO.

WELL GAGING DATA SHEET

APEX

		Job Number:	1641-10
Client:	Nustar	Date:	7-21-16
Project:	Andour Q.C.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
MW-13	1012	–	30.94				
MW-14	1015	–	30.77				
MW-8	1016	–	19.77				
MW-5	1019	–	19.48				
MW-16	1026	–	28.79				
MW-15	1029	–	31.42				
MW-11	1032	–	28.50				
MW-4	1035	–	28.89				
MW-2	1039	–	33.82				
MW-21	1043	–	19.54				
MW-7	1052	–	15.15				
MW-6	1055	–	20.24				
MW-12	1058	–	29.82				
MW-10	1101	–	28.32				
MW-9	1104	–	28.53				
SVE-4	1110	–	28.59				
MW-22	1114	–	29.51				
MW-19	1117	–	29.60				
MW-18	1120	–	30.14				
SVE-3	1124	–	29.08				
MW-3	1128	–	38.02				
MW-17	1132	–	30.70				
MW-20	1136	–	29.35				
MW-1	1140	–	31.15				
Pond							1344.50

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-1	Job Number:	1641-10
Client:	NuStar	Date:	7-22-16
Project:	Andover Q.C.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	4"	Water Height	
Depth to Water:	31.15	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	1' from bottom	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1155	.450	.450	31.29	.150	7.43	18.26	1379	2.15	-116.7	-	SC
1158	.450	.900	31.35	.150	7.12	17.80	1394	1.28	-99.2	-	SC
1201	.450	1.350	31.37	.150	7.00	17.22	1405	0.59	-79.4	-	AC
1204	.450	1.800	31.39	.150	6.97	17.17	1409	0.39	-76.1	-	AC
1207	.450	2.250	31.41	.150	6.98	17.29	1412	0.31	-66.1	-	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-1	Sampling Flow Rate	.150	Analytical Laboratory:	ESC
Sample Time:	1230	Final Depth to Water:	31.39	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA + KS methods	yes (no)			DUP
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-3	Job Number:	1641-10
Client:	NuStar	Date:	7-22-16
Project:	Andover Q.C.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	38.02	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	40'
Sampling Method:	Same	Tubing Type:	LDPE

Comments

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1025	.300	.300	38.07	.150	7.52	18.43	798	1.90	-30.9	–	C
1028	.600	.900	38.07	.200	7.11	17.90	785	0.79	-45.9	–	C
1031	.600	1.500	38.08	.200	7.08	17.85	783	0.51	-51.9	–	C
1034	.600	2.100	38.08	.200	7.04	17.79	790	~~[illegible]~~ 0.38	-51.2	–	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-3	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	1055	Final Depth to Water:	~~38~~ 38.10	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA+ KS methods	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-4	Job Number:	1641-10
Client:	NuStar	Date:	7-21-16
Project:	Andover Q.C.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	28.89	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	32'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1328	.400	.400	28.99	.150	6.95	23.47	1139	5.40	-6.7	–	C
1331	.450	.850	29.11	.150	6.92	22.71	1113	3.20	19.8	–	C
1334	.450	1.300	29.16	.150	6.89	22.10	1104	2.45	29.5	–	C
1337	.450	1.750	29.21	.150	6.94	21.27	1103	2.33	25.7	–	C
1340	.450	2.200	29.23	.150	6.96	21.40	1105	2.04	22.2	–	C
1343	.450	2.650	29.25	.150	6.98	21.32	1101	1.93	17.9	–	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-4	Sampling Flow Rate	.150	Analytical Laboratory:	ESC
Sample Time:	1349	Final Depth to Water:	29.27	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA + KS methods	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-5	Job Number:	1641-10
Client:	NuStar	Date:	7-22-16
Project:	Andover Q.C.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	19.48	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	22'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1558	.400	.400	19.51	.200	7.64	18.90	1174	1.58	-50.4	-	C
1601	.600	1.000	19.66	.200	7.36	18.20	1199	1.35	-41.2	-	C
1604	.600	1.600	19.75	.200	7.24	17.93	1227	1.17	-31.0	-	C
1607	.600	2.200	19.85	.200	7.17	17.68	1233	1.10	-33.5	-	C
1610	.600	2.800	19.93	.200	7.13	17.51	1230	1.05	-33.0	-	C
1613	.600	3.400	19.97	.200	7.10	17.46	1222	1.03	-32.4	-	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-5	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	1631	Final Depth to Water:	20.01	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA+KS methods	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-17	Job Number:	1641-10
Client:	NuStar	Date:	7-22-16
Project:	Andover Q.C.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	30.70	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	LDPE 33'		Comments
Sampling Method:	Same	Tubing Type:			

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1120	.400	.400	30.81	.200	7.91	18.32	954	1.55	-201.4	–	AC
1123	.600	1.000	30.94	.200	7.29	18.16	948	0.91	-191.7	–	AC
1126	.600	1.600	31.04	.200	7.19	17.97	971	0.60	-180.8	–	AC
1129	.600	2.200	31.08	.200	7.12	17.73	990	0.49	-173.2	–	AC
1132	.600	2.800	31.12	.200	7.10	17.64	998	0.41	-166.5	–	AC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-17	Sampling Flow Rate	.200	Analytical Laboratory:	ESC
Sample Time:	1140	Final Depth to Water:	31.19	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA + KS methods	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-18	Job Number:	1641-10
Client:	Nufoor	Date:	7-22-10
Project:	Andover QC.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	30.14	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'		Comments
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1420	.400	.400	30.16	.200	7.25	18.68	821	1.77	-115.5	—	SC
1423	.600	1.000	30.51	.200	7.33	18.50	825	0.97	-90.2	—	SC
1426	.300	1.300	30.72	.100	7.30	18.39	830	0.93	-81.7	—	SC
1429	.300	1.600	30.89	.100	7.27	18.21	827	0.90	-70.3	—	SC
1432	.300	1.900	31.02	.100	7.26	17.99	823	0.88	-67.1	—	AC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-18	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1449	Final Depth to Water:	31.12	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA+KS methods	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-19	Job Number:	1841-10
Client:	NuStar	Date:	7-22-16
Project:	Andover QC.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	29.60	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'
Sampling Method:	Same	Tubing Type:	LDPE

Comments

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1320	.300	.300	29.93	.150	8.02	20.17	973	0.91	-193.9	–	SC
1333	.300	.600	30.12	.100	7.50	19.80	940	0.72	-169.1	–	SC
1336	.300	.900	30.20	.100	7.27	19.12	947	0.68	-157.0	–	SC
1339	.300	1.200	30.27	.100	7.23	18.79	929	0.65	-150.9	–	SC
1342	.300	1.500	30.37	.100	7.19	18.61	917	0.60	-140.2	–	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-19	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1357	Final Depth to Water:	30.67	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA + KS methods	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-20	Job Number:	1641-10
Client:	NuStar	Date:	7-22-16
Project:	Andover QC.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	29.35	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'
Sampling Method:	Same	Tubing Type:	LDPE

Comments

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1230	.300	.300	29.71	.150	7.67	18.79	1005	5.10	-124.6	—	Cl
1233	.300	.600	29.90	.100	7.42	18.35	1006	4.03	-118.2	—	Cl
1236	.300	.900	30.00	.100	7.15	18.38	1004	3.02	-113.0	—	SC
1239	.300	1.200	30.08	.100	7.13	18.34	1005	2.84	-102.1	—	SC
1242	.300	1.500	30.16	.100	7.10	18.31	1005	2.79	-97.5	—	Cl

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-20	Sampling Flow Rate	.100	Analytical Laboratory:	ESC
Sample Time:	1302	Final Depth to Water:	30.29	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA+KS methods	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-21	Job Number:	1641-10
Client:	Nustar	Date:	7-22-16
Project:	Andover Ok.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	19.59	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	22'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1707	.300	.300	19.72	.150	7.43	20.10	1277	2.16	-86.3	—	Cl
1710	.450	.750	19.84	.150	7.36	19.94	1266	1.88	-50.1	-	Cl
1713	.450	1.200	19.94	.150	7.23	19.82	1298	1.13	-35.8	-	Cl
1716	.450	1.650	20.05	.150	7.14	19.40	1311	1.06	-27.4	-	Cl
1719	.450	2.100	20.15	.150	7.11	19.27	1306	1.02	-32.9	-	Cl
1722	.450	2.550	20.26	.150	7.11	19.15	1303	1.00	-33.5	—	Cl

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-21	Sampling Flow Rate		Analytical Laboratory:	ESC
Sample Time:	1737	Final Depth to Water:	20.35	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
7 VOA	HCl	KS methods	yes (no)			
		(GRH/MRH/HRH/	yes no			
		VOCs)	yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-22	Job Number:	1641-10
Client:	Mustar	Date:	7-22-16
Project:	Andover QC.	Sampler:	TA
Weather:	Sunny, 90's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	29.51	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	33'	Comments	
Sampling Method:	Same	Tubing Type:	LDPE		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1500	.300	.300	29.68	.150	7.91	18.27	1074	2.41	-102.0	-	SC
1503	.450	.750	29.80	.150	7.80	18.42	1065	1.79	-90.1	-	SC
1506	.450	1.200	29.92	↓	7.54	18.39	1057	1.41	-61.5	-	Cl
1509	.450	1.650	30.04	↓	7.39	18.51	1041	0.74	-44.7	-	Cl
1512	.450	2.100	30.12	↓	7.18	18.70	1028	0.63	-32.1	-	Cl
1515	.450	2.550	30.22	↓	7.15	18.63	1020	0.60	-30.0	-	Cl
1518	.450	3.000	30.31	↓	7.14	18.50	1014 ~~0.57~~	0.57 ~~25.3~~	-25.3	-	Cl

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-22	Sampling Flow Rate	.150	Analytical Laboratory:	ESC
Sample Time:	1530	Final Depth to Water:	30.51	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
14		MNA+KS methods	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

ID	Date	Time	Dup
2001 N Colt Ct	7-22-16	1700	
2002 N Colt Ct	7-21-16	1800	
2004 N Colt Ct.	7-21-16	1740	2004 N Colt Ct. DUP-2
2007 N Colt Ct.	7-21-16	~~1750~~ 1715	2007 N Colt Ct. DUP
2005 N Colt Ct.	7-21-16	1730	
1211 W Quail Crossing Ct.	7-22-16	1645	
2019 N Ruger	7-21-16	1615	
2020 N Ruger	7-21-16	1600	
2032 N Ruger	7-21-16	1630	
2007 N Mountain Cir	7-21-16	1700	
2009 N Mountain Cir	7-21-16	1645	
1009 W Mountain	7-22-16	1750	

Irrigation Well Samples

Andover, Q.C. Nustar

APEX Companies - Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; mwhitson@apexcos.com

Project Description: Andover Release Site - Quail Crossing

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # E3CE-0065

Lab Project # ASHCREPOR-NUANDQUAIL

Collected by (print): Ted Afred

Site/Facility ID # ANDOVER QUAIL CROSSING

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: ASHCREPOR
Template: T107890
Prelogin: P561414
TSR: 110 - Brian Ford
PB: 7/12/16
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diss Metals- Fe 6010 250mlHDPE-NoPres	Methane RSK175 40mlAmb HCl	NH3 125mlHDPE-H2SO4	NITRATE*/ALK/CO2/PH 250mlHDPE-NoPres	Sulfate / Ortho Phos 250mlHDPE-NoPres	TPHKSLVI 40mlAmb-HCl	Total Metals- K 6010 250mlHDPE-HNO3	V8260LL 40mlAmb-HCl	V8260LL trip blk 40mlAmb-HCl-Blk	VPHKS 40mlAmb HCl	Rem./Contaminant	Sample # (lab only)
MW-1	Grab	GW	32.5'	7-22-16	1230	14	X	X	X	X	X	X	X	X		X		
MW-3		GW	40'	7-22-16	1055	14	X	X	X	X	X	X	X	X		X		
MW-4 MW-20	Grab	GW	33'	7-22-16	1302	14	X	X	X	X	X	X	X	X		X		
MW-5		GW	22'	7-22-16	1631	14	X	X	X	X	X	X	X	X		X		
MW-17		GW	33'	7-22-16	1140	14	X	X	X	X	X	X	X	X		X		
MW-18		GW	33'	7-22-16	1449	14	X	X	X	X	X	X	X	X		X		
SVE-4		GW	29'	7-22-16	1315	14	X	X	X	X	X	X	X	X		X		
DUP		GW	—	7-22-16	—	14	X	X	X	X	X	X	X	X		X		
TRIP BLANK	—	GW	—	—	—	1									X			
MW-19	Grab	GW	33'	7-22-16	1352	14	X	X	X	X	X	X	X	X		X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:NITRATE HAS 48HR HOLD TIME

SVE-4 11 cont 9 VOAs (CH4/LRW/MRH/HRH/VOCs) ≤1 NH3 ≤1 NO3

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: (lab use only)
	7-22-16	1930			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	COC Seal Intact: ___Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked: NCF:

APEX Companies - Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; mwhitson@apexcos.com

Project Description: Andover Release Site - Quail Crossing

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: E3CE-0065

Lab Project #: ASHCREPOR-NUANDQUAIL

Collected by (print): Ted Ahrd

Site/Facility ID #: ANDOVER QUAIL CROSSING

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: ASHCREPOR
Template: T107890
Prelogin: P561414
TSR: 110 - Brian Ford
PB: 9-1-16

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diss Metals- Fe 6010 250mlHDPE-NoPres	Methane RSK175 40mlAmb HCl	NH3 125mlHDPE-H2SO4	NITRATE*/ALK/CO2/PH 250mlHDPE-NoPres	Sulfate / Ortho Phos 250mlHDPE-NoPres	TPHKSLVI 40mlAmb-HCl	Total Metals- K 6010 250mlHDPE-HNO3	V8260LL 40mlAmb-HCl	V8260LL trip blk 40mlAmb-HCl-Blk	VPHKS 40mlAmb HCl	Rem./Contaminant	Sample # (lab only)
MW-20 22	Grab	GW	33'	7-22-16	1530	14	X	X	X	X	X	X	X	X		X		
MW-21	Grab	GW	22'	7-22-16	1737	14	X	X	X	X	X	X	X	X		X		
FIELD BLANK		GW				14	X	X	X	X	X	X	X	X		X		
		GW				14	X	X	X	X	X	X	X	X		X		
2001 N Lake Court	Grab	GW	—	7-22-16	1700	8						X		X		X		
1211 W Quail Crossing Ct	↓	GW	—	↓	1645	8						X		X		X		
1009 W Mountain	↓	GW	—	↓	1750	8						X		X		X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:NITRATE HAS 48HR HOLD TIME MW-21 VOMS only - LAH, MRH, HRH, VOCs

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: (lab use only)
	7-22-16	1930			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	COC Seal Intact: ____Y ____N ____NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked: NCF:

WELL GAGING DATA SHEET

APEX

		Job Number:	1644-10
Client:	NuStar	Date:	8-12-16
Project:	Andover Q.C.	Sampler:	B. Jones
Weather:	P.C. / 80's	Time In/Out:	

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
MW-9	12:07		30.5				

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-9	Job Number:	1641-10
Client:	Nu Star	Date:	8-12-16
Project:	Andover Q.C.	Sampler:	B. Jones
Weather:	P.C. / 80's	Time In/Out:	

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	
Depth to Water:	30.50	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Bladder	Pump Intake Depth:	32'	Comments
Sampling Method:	Same	Tubing Type:	LDPE	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1333	.300	.300	30.50	.100	6.93	20.50	1.079	1.02	-17.0	—	SC
1336	.300	.600	30.81		7.01	20.42	1.081	0.96	-16.9	—	SC
1339	.300	.900	31.22		7.01	20.37	1.082	0.91	-17.0	—	SC
1342	.300	1.20	31.25		7.01	20.33	1.082	0.83	-16.9	—	SC
1345	.300	1.50	31.35		7.01	20.19	1.083	0.79	-16.9	—	SC
1348	.300	1.80	31.42		7.0	20.23	1.082	0.73	-16.9	—	SC
1351	.300	2.10	—		YSI	Auto	shutdown	??			Re-started
1354	.300	2.40	31.53		7.01	20.01	1.082	0.69	-17.3	—	SC
1357	.300	2.70	31.55		7.02	20.09	1.086	0.59	-17.8	—	SC
1400	.300	3.00	31.57		7.02	20.09	1.088	0.57	-18.0	—	SC
1403	.300	3.30	31.59		7.03	19.93	1.091	0.54	-18.3	—	SC.

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-9	Sampling Flow Rate	0.100	Analytical Laboratory:	ESC
Sample Time:	1425	Final Depth to Water:	31.60	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
9 VOA	VOAs/HCL	See COC	yes (no)			
4 HDPE	250mL	"	yes (no)			
1 HDPE	125mL	"	yes (no)			
			yes no			
			yes no			
			yes no			

COMMENTS

Appendix B

Historical Groundwater Elevations and SPH Removal Data

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	8/8/2013					24.64	--	--	1327.49
	8/13/2013					24.36	--	--	1327.77
	8/21/2013					23.79	--	--	1328.34
	8/28/2013					25.21	--	--	1326.92
	9/5/2013					27.19	--	--	1324.94
	9/11/2013					25.93	--	--	1326.20
	9/17/2013					25.92	--	--	1326.21
	9/23/2013					28.49	--	--	1323.64
	9/30/2013					23.00	--	--	1329.13
	10/10/2013					25.28	--	--	1326.85
	10/17/2013					26.21	--	--	1325.92
	10/23/2013					23.55	--	--	1328.58
	10/31/2013					24.28	--	--	1327.85
	11/6/2013					NM	--	--	NM
	11/13/2013					23.04	--	--	1329.09
	11/20/2013					22.84	--	--	1329.29
	11/26/2013					24.88	--	--	1327.25
	12/3/2013					30.19	--	--	1321.94
	12/11/2013					31.12	--	--	1321.01
	12/19/2013					31.38	--	--	1320.75
	12/27/2013					31.50	--	--	1320.63
	1/3/2014					NM	--	--	NM
	1/10/2014					31.41	--	--	1320.72
MW-1	1/16/2014	4.0	1352.13	35.0	20-35	31.01	--	--	1321.12
	1/21/2014					31.31	--	--	1320.82
	1/27/2014					30.78	--	--	1321.35
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					31.75	--	--	1320.38
	2/26/2014					31.70	--	--	1320.43
	3/4/2014					31.62	--	--	1320.51
	3/13/2014					31.44	--	--	1320.69
	3/18/2014					31.41	--	--	1320.72
	3/27/2014					31.55	--	--	1320.58
	4/3/2014					31.69	--	--	1320.44
	4/7/2014					31.44	--	--	1320.69
	4/17/2014					31.44	--	--	1320.69
	4/22/2014					31.45	--	--	1320.68
	4/29/2014					31.80	--	--	1320.33
	5/8/2014					31.75	--	--	1320.38
	5/13/2014					31.49	--	--	1320.64
	5/20/2014					31.50	--	--	1320.63
	5/29/2014					30.49	--	--	1321.64
	6/3/2014					31.64	--	--	1320.49
	6/10/2014					31.65	--	--	1320.48
	6/18/2014					31.50	--	--	1320.63
	6/24/2014					31.15	--	--	1320.98

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-1 (cont.)	7/1/2014	4.0	1352.13	35.0	20-35	31.66	--	--	1320.47
	7/10/2014					31.79	--	--	1320.34
	7/15/2014					31.82	--	--	1320.31
	7/22/2014					31.31	--	--	1320.82
	7/31/2014					31.65	--	--	1320.48
	8/5/2014					31.78	--	--	1320.35
	8/14/2014					31.73	--	--	1320.40
	8/20/2014					31.68	--	--	1320.45
	8/26/2014					31.79	--	--	1320.34
	9/3/2014					31.79	--	--	1320.34
	9/10/2014					31.71	--	--	1320.42
	9/17/2014					31.72	--	--	1320.41
	9/24/2014					31.75	--	--	1320.38
	10/1/2014					31.65	--	--	1320.48
	10/8/2014					31.89	--	--	1320.24
	10/16/2014					29.99	--	--	1322.14
	10/21/2014					31.35	--	--	1320.78
	10/28/2014					31.39	--	--	1320.74
	11/4/2014					31.72	--	--	1320.41
	11/11/2014					31.71	--	--	1320.42
	11/18/2014					31.71	--	--	1320.42
	11/25/2014					31.44	--	--	1320.69
	12/3/2014					31.67	--	--	1320.46
	12/9/2014					31.48	--	--	1320.65
	12/17/2014					31.77	--	--	1320.36
	12/23/2014					31.81	--	--	1320.32
	12/31/2014					31.44	--	--	1320.69
	1/7/2015					31.75	--	--	1320.38
	1/14/2015					31.44	--	--	1320.69
	1/20/2015					31.45	--	--	1320.68
	1/28/2015					31.42	--	--	1320.71
	2/4/2015					31.44	--	--	1320.69
	2/9/2015					31.62	--	--	1320.51
	3/20/2015					31.38	--	--	1320.75
	4/20/2015					31.39	--	--	1320.74
	5/22/2015					31.20	--	--	1320.93
	6/10/2015					31.23	--	--	1320.90
	6/15/2015					31.31	--	--	1320.82
	7/22/2015					31.29	--	--	1320.84
	8/20/2015					31.35	--	--	1320.78
	9/14/2015					31.35	--	--	1320.78
	10/20/2015					31.32	--	--	1320.81
	11/24/2015					31.35	--	--	1320.78
	12/14/2015					31.21	--	--	1320.92
	1/13/2016					31.19	--	--	1320.94
	2/16/2016					31.34	--	--	1320.79
	3/21/2016					31.34	--	--	1320.79

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-2	8/8/2013	2.0	1353.17	44	29-44	31.93	--	--	1321.24
	8/13/2013					31.27	--	--	1321.90
	8/21/2013					30.85	--	--	1322.32
	8/28/2013					31.45	--	--	1321.72
	9/5/2013					31.45	--	--	1321.72
	9/11/2013					32.18	--	--	1320.99
	9/17/2013					32.10	--	--	1321.07
	9/23/2013					31.66	--	--	1321.51
	9/30/2013					32.55	--	--	1320.62
	10/10/2013					29.11	--	--	1324.06
	10/17/2013					31.91	--	--	1321.26
	10/23/2013					32.47	--	--	1320.70
	10/31/2013					32.19	--	--	1320.98
	11/6/2013					31.46	--	--	1321.71
	11/13/2013					31.96	--	--	1321.21
	11/20/2013					31.19	--	--	1321.98
	11/26/2013					31.38	--	--	1321.79
	12/3/2013					30.94	--	--	1322.23
	12/11/2013					NM	--	--	NM
	12/19/2013					31.45	--	--	1321.72
	12/27/2013					NM	--	--	NM
	1/3/2014					NM	--	--	NM
	1/10/2014					NM	--	--	NM
	1/16/2014					31.21	--	--	1321.96
	1/21/2014					31.49	--	--	1321.68
	1/27/2014					31.90	--	--	1321.27
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					32.06	--	--	1321.11
	2/26/2014					31.96	--	--	1321.21
	3/4/2014					32.41	--	--	1320.76
	3/13/2014					32.09	--	--	1321.08
	3/18/2014					31.86	--	--	1321.31
	3/27/2014					32.09	--	--	1321.08
	4/3/2014					32.16	--	--	1321.01
	4/7/2014					32.53	--	--	1320.64
	4/17/2014					32.73	--	--	1320.44
	4/22/2014					32.99	--	--	1320.18
	4/29/2014					33.08	--	--	1320.09
	5/8/2014					33.06	--	--	1320.11
	5/13/2014					33.90	--	--	1319.27
	5/20/2014					33.77	--	--	1319.40
	5/29/2014					33.15	--	--	1320.02
	6/3/2014					33.64	--	--	1319.53
	6/10/2014					33.00	--	--	1320.17
	6/18/2014					32.56	--	--	1320.61
	6/24/2014					31.89	--	--	1321.28
	7/1/2014					32.31	--	--	1320.86

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-2 (cont.)	7/10/2014	2.0	1353.17	44	29-44	31.60	--	--	1321.57
	7/15/2014					31.86	--	--	1321.31
	7/22/2014					32.41	--	--	1320.76
	7/31/2014					31.91	--	--	1321.26
	8/5/2014					32.25	--	--	1320.92
	8/14/2014					32.88	--	--	1320.29
	8/20/2014					32.54	--	--	1320.63
	8/26/2014					33.00	--	--	1320.17
	9/3/2014					32.96	--	--	1320.21
	9/10/2014					32.70	--	--	1320.47
	9/17/2014					32.58	--	--	1320.59
	9/24/2014					33.38	--	--	1319.79
	10/1/2014					32.78	--	--	1320.39
	10/8/2014					32.81	--	--	1320.36
	10/16/2014					33.04	--	--	1320.13
	10/21/2014					33.07	--	--	1320.10
	10/28/2014					33.06	--	--	1320.11
	11/4/2014					33.48	--	--	1319.69
	11/11/2014					33.07	--	--	1320.10
	11/25/2014					32.88	--	--	1320.29
	12/3/2014					33.39	--	--	1319.78
	12/9/2014					33.25	--	--	1319.92
	12/17/2014					33.24	--	--	1319.93
	12/23/2014					33.10	--	--	1320.07
	12/31/2014					32.87	--	--	1320.30
	1/7/2015					NM	--	--	NM
	1/14/2015					32.90	--	--	1320.27
	1/20/2015					32.93	--	--	1320.24
	1/28/2015					32.89	--	--	1320.28
	2/4/2015					32.92	--	--	1320.25
	2/9/2015					33.15	--	--	1320.02
	3/18/2015					32.87	--	--	1320.30
	4/20/2015					36.43	--	--	1316.74
	5/22/2015					35.23	--	--	1317.94
	6/15/2015					34.83	--	--	1318.34
	7/22/2015					35.13	--	--	1318.04
	8/20/2015					36.21	--	--	1316.96
	9/14/2015					35.87	--	--	1317.30
	10/20/2015					36.23	--	--	1316.94
	11/24/2015					35.81	--	--	1317.36
	12/14/2015					34.08	--	--	1319.09
	1/13/2016					32.73	--	--	1320.44
	2/16/2016					32.69	--	--	1320.48
	3/21/2016					33.89	--	--	1319.28
MW-3	8/8/2013	2.0	1350.47	60	40-60	36.94	--	--	1313.53
	8/13/2013					34.71	--	--	1315.76
	8/21/2013					33.30	--	--	1317.17
	8/28/2013					39.26	--	--	1311.21
	9/5/2013					42.54	--	--	1307.93

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	9/11/2013					45.19	--	--	1305.28
	9/17/2013					43.52	--	--	1306.95
	9/23/2013					43.34	--	--	1307.13
	9/30/2013					43.40	--	--	1307.07
	10/10/2013					43.18	--	--	1307.29
	10/17/2013					41.23	--	--	1309.24
	10/23/2013					41.43	--	--	1309.04
	10/31/2013					41.58	--	--	1308.89
	11/6/2013					41.19	--	--	1309.28
	11/13/2013					35.98	--	--	1314.49
	11/20/2013					35.27	--	--	1315.20
	11/26/2013					34.56	--	--	1315.91
	12/3/2013					33.77	--	--	1316.70
	12/11/2013					34.04	--	--	1316.43
	12/19/2013					33.72	--	--	1316.75
	12/27/2013					33.89	--	--	1316.58
	1/3/2014					NM	--	--	NM
	1/10/2014					33.47	--	--	1317.00
	1/16/2014					33.68	--	--	1316.79
	1/21/2014					33.84	--	--	1316.63
	1/27/2014					34.04	--	--	1316.43
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
MW-3	2/19/2014	2.0	1350.47	60	40-60	34.00	--	--	1316.47
	2/26/2014					34.24	--	--	1316.23
	3/4/2014					34.36	--	--	1316.11
	3/13/2014					34.42	--	--	1316.05
	3/18/2014					34.35	--	--	1316.12
	3/27/2014					34.68	--	--	1315.79
	4/3/2014					35.39	--	--	1315.08
	4/7/2014					36.20	--	--	1314.27
	4/17/2014					37.95	--	--	1312.52
	4/22/2014					39.94	--	--	1310.53
	4/29/2014					41.00	--	--	1309.47
	5/8/2014					45.96	--	--	1304.51
	5/13/2014					47.00	--	--	1303.47
	5/20/2014					49.95	--	--	1300.52
	5/29/2014					47.07	--	--	1303.40
	6/3/2014					47.89	--	--	1302.58
	6/10/2014					44.14	--	--	1306.33
	6/18/2014					42.60	--	--	1307.87
	6/24/2014					41.62	--	--	1308.85
	7/1/2014					39.58	--	--	1310.89
	7/10/2014					40.35	--	--	1310.12
	7/15/2014					42.02	--	--	1308.45
	7/22/2014					42.80	--	--	1307.67
	7/31/2014					43.14	--	--	1307.33

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	8/5/2014					47.55	--	--	1302.92
	8/14/2014					45.85	--	--	1304.62
	8/20/2014					49.15	--	--	1301.32
	8/26/2014					51.32	--	--	1299.15
	9/3/2014					51.10	--	--	1299.37
	9/10/2014					51.71	--	--	1298.76
	9/17/2014					51.84	--	--	1298.63
	9/24/2014					52.93	--	--	1297.54
	10/1/2014					53.93	--	--	1296.54
	10/8/2014					53.91	--	--	1296.56
	10/16/2014					50.41	--	--	1300.06
	10/21/2014					51.06	--	--	1299.41
	10/28/2014					50.29	--	--	1300.18
	11/4/2014					51.00	--	--	1299.47
	11/11/2014					49.17	--	--	1301.30
	11/25/2014					45.30	--	--	1305.17
	12/3/2014					44.10	--	--	1306.37
	12/9/2014					43.67	--	--	1306.80
	12/17/2014					42.83	--	--	1307.64
MW-3 (cont.)	12/23/2014	2.0	1350.47	60	40-60	47.12	--	--	1303.35
	12/31/2014					29.37	--	--	1321.10
	1/7/2015					NM	--	--	NM
	1/14/2015					41.35	--	--	1309.12
	1/20/2015					41.36	--	--	1309.11
	1/28/2015					42.22	--	--	1308.25
	2/4/2015					41.12	--	--	1309.35
	2/9/2015					40.60	--	--	1309.87
	3/18/2015					41.02	--	--	1309.45
	4/20/2015					45.61	--	--	1304.86
	5/22/2015					40.21	--	--	1310.26
	6/15/2015					38.21	--	--	1312.26
	7/22/2015					39.69	--	--	1310.78
	8/20/2015					44.40	--	--	1306.07
	9/14/2015					43.33	--	--	1307.14
	10/20/2015					45.10	--	--	1305.37
	11/24/2015					39.69	--	--	1310.78
	12/14/2015					35.42	--	--	1315.05
	1/13/2016					32.61	--	--	1317.86
	2/16/2016					32.13	--	--	1318.34
	3/21/2016					34.17	--	--	1316.30
	8/8/2013					28.89	--	--	1321.84
	8/13/2013					28.85	--	--	1321.88
	8/21/2013					28.18	--	--	1322.55
	8/28/2013					28.56	--	--	1322.17
MW-4	9/5/2013	2.0	1350.73	41	26-41	29.16	--	--	1321.57
	9/11/2013					29.55	--	--	1321.18
	9/17/2013					30.06	--	--	1320.67
	9/23/2013					30.32	--	--	1320.41
	9/30/2013					30.11	--	--	1320.62

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	10/10/2013					30.45	--	--	1320.28
	10/17/2013					30.43	--	--	1320.30
	10/23/2013					30.36	--	--	1320.37
	10/31/2013					30.14	--	--	1320.59
	11/6/2013					29.78	--	--	1320.95
	11/13/2013					30.21	--	--	1320.52
	11/20/2013					29.81	--	--	1320.92
	11/26/2013					30.34	--	--	1320.39
	12/3/2013					30.64	--	--	1320.09
	12/11/2013					30.19	--	--	1320.54
	12/19/2013					30.47	--	--	1320.26
	12/27/2013					30.43	--	--	1320.30
	1/3/2014					NM	--	--	NM
	1/10/2014					29.44	--	--	1321.29
	1/16/2014					29.38	--	--	1321.35
	1/21/2014					29.53	--	--	1321.20
	1/27/2014					30.36	--	--	1320.37
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					30.61	--	--	1320.12
	2/26/2014					31.56	--	--	1319.17
	3/4/2014					30.54	--	--	1320.19
MW-4 (cont.)	3/13/2014	2.0	1350.73	41	26-41	30.56	--	--	1320.17
	3/18/2014					30.80	--	--	1319.93
	3/27/2014					30.72	--	--	1320.01
	4/3/2014					30.49	--	--	1320.24
	4/7/2014					30.53	--	--	1320.20
	4/17/2014					30.54	--	--	1320.19
	4/22/2014					31.02	--	--	1319.71
	4/29/2014					31.25	--	--	1319.48
	5/8/2014					31.59	--	--	1319.14
	5/13/2014					31.30	--	--	1319.43
	5/20/2014					31.73	--	--	1319.00
	5/29/2014					31.63	--	--	1319.10
	6/3/2014					32.68	--	--	1318.05
	6/10/2014					32.52	--	--	1318.21
	6/18/2014					31.71	--	--	1319.02
	6/24/2014					30.73	--	--	1320.00
	7/1/2014					30.60	--	--	1320.13
	7/10/2014					30.39	--	--	1320.34
	7/15/2014					30.56	--	--	1320.17
	7/22/2014					30.34	--	--	1320.39
	7/31/2014					30.52	--	--	1320.21
	8/5/2014					30.69	--	--	1320.04
	8/14/2014					30.61	--	--	1320.12

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-4 (cont.)	8/20/2014	2.0	1350.73	41	26-41	30.81	--	--	1319.92
	8/26/2014					30.73	--	--	1320.00
	9/3/2014					30.91	--	--	1319.82
	9/10/2014					30.82	--	--	1319.91
	9/17/2014					30.91	--	--	1319.82
	9/24/2014					29.98	--	--	1320.75
	10/1/2014					31.26	--	--	1319.47
	10/8/2014					31.29	--	--	1319.44
	10/16/2014					31.20	--	--	1319.53
	10/21/2014					31.11	--	--	1319.62
	10/28/2014					30.94	--	--	1319.79
	11/4/2014					31.13	--	--	1319.60
	11/11/2014					31.03	--	--	1319.70
	11/25/2014					31.35	--	--	1319.38
	12/3/2014					31.41	--	--	1319.32
	12/9/2014					31.43	--	--	1319.30
	12/17/2014					31.44	--	--	1319.29
	12/23/2014					31.52	--	--	1319.21
	12/31/2014					31.71	--	--	1319.02
	1/7/2015					NM	--	--	NM
	1/14/2015					31.52	--	--	1319.21
	1/20/2015					31.55	--	--	1319.18
	1/28/2015					31.66	--	--	1319.07
	2/4/2015					31.70	--	--	1319.03
	2/9/2015					31.75	--	--	1318.98
	3/18/2015					31.22	--	--	1319.51
	4/20/2015					34.10	--	--	1316.63
	5/22/2015					31.25	--	--	1319.48
	6/10/2015					29.28	--	--	1321.45
	6/15/2015					29.02	--	--	1321.71
	7/22/2015					29.55	--	--	1321.18
	8/20/2015					29.65	--	--	1321.08
	9/14/2015					29.60	--	--	1321.13
	10/20/2015					30.31	--	--	1320.42
	11/24/2015					30.37	--	--	1320.36
	12/14/2015					29.69	--	--	1321.04
	1/13/2016					29.95	--	--	1320.78
	2/16/2016					30.16	--	--	1320.57
	3/21/2016					30.29	--	--	1320.44
MW-5	8/8/2013	2.0	1352.77	30	15-30	19.61	--	--	1333.16
	8/13/2013					19.39	--	--	1333.38
	8/21/2013					19.66	--	--	1333.11
	8/28/2013					20.02	--	--	1332.75
	9/5/2013					20.54	--	--	1332.23
	9/11/2013					20.81	--	--	1331.96
	9/17/2013					21.03	--	--	1331.74
	9/23/2013					21.00	--	--	1331.77
	9/30/2013					21.17	--	--	1331.60

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	10/10/2013					21.45	--	--	1331.32
	10/17/2013					21.18	--	--	1331.59
	10/23/2013					21.20	--	--	1331.57
	10/31/2013					21.19	--	--	1331.58
	11/6/2013					20.91	--	--	1331.86
	11/13/2013					20.79	--	--	1331.98
	11/20/2013					20.18	--	--	1332.59
	11/26/2013					21.29	--	--	1331.48
	12/3/2013					20.84	--	--	1331.93
	12/11/2013					20.96	--	--	1331.81
	12/19/2013					20.54	--	--	1332.23
	12/27/2013					20.82	--	--	1331.95
	1/3/2014					NM	--	--	NM
	1/10/2014					20.19	--	--	1332.58
	1/16/2014					20.90	--	--	1331.87
	1/21/2014					21.04	--	--	1331.73
	1/27/2014					20.84	--	--	1331.93
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					21.23	--	--	1331.54
	2/26/2014					21.02	--	--	1331.75
	3/4/2014					21.05	--	--	1331.72
	3/13/2014					20.98	--	--	1331.79
MW-5 (cont.)	3/18/2014	2.0	1352.77	30	15-30	20.86	--	--	1331.91
	3/27/2014					20.97	--	--	1331.80
	4/3/2014					21.70	--	--	1331.07
	4/7/2014					21.05	--	--	1331.72
	4/17/2014					21.10	--	--	1331.67
	4/22/2014					21.30	--	--	1331.47
	4/29/2014					21.15	--	--	1331.62
	5/8/2014					21.33	--	--	1331.44
	5/13/2014					21.17	--	--	1331.60
	5/20/2014					21.48	--	--	1331.29
	5/29/2014					21.41	--	--	1331.36
	6/3/2014					21.16	--	--	1331.61
	6/10/2014					20.65	--	--	1332.12
	6/18/2014					20.30	--	--	1332.47
	6/24/2014					19.96	--	--	1332.81
	7/1/2014					19.74	--	--	1333.03
	7/10/2014					19.91	--	--	1332.86
	7/15/2014					20.10	--	--	1332.67
	7/22/2014					20.04	--	--	1332.73
	7/31/2014					20.26	--	--	1332.51
	8/5/2014					20.29	--	--	1332.48
	8/14/2014					20.23	--	--	1332.54
	8/20/2014					20.24	--	--	1332.53
	8/26/2014					20.37	--	--	1332.40

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW- 5 (cont.)	9/3/2014	2.0	1352.77	30	15-30	20.44	--	--	1332.33
	9/10/2014					20.43	--	--	1332.34
	9/17/2014					20.54	--	--	1332.23
	9/24/2014					20.66	--	--	1332.11
	10/1/2014					20.59	--	--	1332.18
	10/8/2014					20.58	--	--	1332.19
	10/16/2014					20.39	--	--	1332.38
	10/21/2014					22.90	--	--	1329.87
	10/28/2014					20.14	--	--	1332.63
	11/4/2014					20.33	--	--	1332.44
	11/11/2014					20.39	--	--	1332.38
	11/25/2014					20.44	--	--	1332.33
	12/3/2014					20.59	--	--	1332.18
	12/9/2014					20.78	--	--	1331.99
	12/17/2014					20.68	--	--	1332.09
	12/23/2014					20.60	--	--	1332.17
	12/31/2014					20.61	--	--	1332.16
	1/7/2015					NM	--	--	NM
	1/14/2015					20.56	--	--	1332.21
	1/20/2015					20.55	--	--	1332.22
	1/28/2015					20.58	--	--	1332.19
	2/4/2015					20.69	--	--	1332.08
	2/9/2015					20.58	--	--	1332.19
	3/18/2015					20.80	--	--	1331.97
	4/20/2015					21.01	--	--	1331.76
	5/22/2015					20.25	--	--	1332.52
	6/10/2015					19.44	--	--	1333.33
	6/15/2015					19.60	--	--	1333.17
	7/22/2015					19.82	--	--	1332.95
	8/20/2015					19.97	--	--	1332.80
	9/14/2015					20.06	--	--	1332.71
	10/20/2015					20.24	--	--	1332.53
	11/24/2015					20.4	--	--	1332.37
	12/14/2015					19.82	--	--	1332.95
	1/13/2016					19.95	--	--	1332.82
	2/16/2016					20.49	--	--	1332.28
	3/21/2016					21.05	--	--	1331.72
MW-6	8/8/2013	2.0	1349.76	41	26-41	15.67	--	--	1334.09
	8/13/2013					18.34	--	--	1331.42
	8/21/2013					17.40	--	--	1332.36
	8/28/2013					17.95	--	--	1331.81
	9/5/2013					18.32	--	--	1331.44
	9/11/2013					18.21	--	--	1331.55
	9/17/2013					18.44	--	--	1331.32
	9/23/2013					18.30	--	--	1331.46
	9/30/2013					18.69	--	--	1331.07
	10/10/2013					18.84	--	--	1330.92

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-6 (cont.	10/17/2013	2.0	1349.76	41	26-41	18.76	--	--	1331.00
	10/23/2013					18.69	--	--	1331.07
	10/31/2013					18.57	--	--	1331.19
	11/6/2013					18.01	--	--	1331.75
	11/13/2013					19.42	--	--	1330.34
	11/20/2013					19.02	--	--	1330.74
	11/26/2013					19.84	--	--	1329.92
	12/3/2013					19.63	--	--	1330.13
	12/11/2013					20.45	--	--	1329.31
	12/19/2013					21.21	--	--	1328.55
	12/27/2013					21.67	--	--	1328.09
	1/3/2014					NM	--	--	NM
	1/10/2014					21.51	--	--	1328.25
	1/16/2014					21.48	--	--	1328.28
	1/21/2014					21.84	--	--	1327.92
	1/27/2014					22.26	--	--	1327.50
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					22.00	--	--	1327.76
	2/26/2014					22.32	--	--	1327.44
	3/4/2014					22.06	--	--	1327.70
	3/13/2014					22.30	--	--	1327.46
	3/18/2014					22.14	--	--	1327.62
	3/27/2014					21.89	--	--	1327.87
	4/3/2014					21.92	--	--	1327.84
	4/7/2014					22.37	--	--	1327.39
	4/17/2014					22.33	--	--	1327.43
	4/22/2014					22.41	--	--	1327.35
	4/29/2014					22.16	--	--	1327.60
	5/8/2014					22.02	--	--	1327.74
	5/13/2014					21.95	--	--	1327.81
	5/20/2014					22.46	--	--	1327.30
	5/29/2014					22.32	--	--	1327.44
	6/3/2014					22.09	--	--	1327.67
	6/10/2014					21.00	--	--	1328.76
	6/18/2014					20.54	--	--	1329.22
	6/24/2014					19.89	--	--	1329.87
	7/1/2014					19.46	--	--	1330.30
	7/10/2014					19.82	--	--	1329.94
	7/15/2014					19.86	--	--	1329.90
	7/22/2014					19.88	--	--	1329.88
	7/31/2014					20.00	--	--	1329.76
	8/5/2014					20.28	--	--	1329.48
	8/14/2014					20.42	--	--	1329.34
	8/20/2014					20.56	--	--	1329.20
	8/26/2014					20.72	--	--	1329.04
	9/3/2014					20.98	--	--	1328.78
	9/10/2014					21.02	--	--	1328.74

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	9/17/2014					21.49	--	--	1328.27
	9/24/2014					21.50	--	--	1328.26
	10/1/2014					21.57	--	--	1328.19
	10/8/2014					21.59	--	--	1328.17
	10/16/2014					20.74	--	--	1329.02
	10/21/2014					20.66	--	--	1329.10
	10/28/2014					20.79	--	--	1328.97
	11/4/2014					21.21	--	--	1328.55
	11/11/2014					21.68	--	--	1328.08
	11/25/2014					21.93	--	--	1327.83
	12/3/2014					22.06	--	--	1327.70
	12/9/2014					22.32	--	--	1327.44
	12/17/2014					22.20	--	--	1327.56
	12/23/2014					21.96	--	--	1327.80
	12/31/2014					20.61	--	--	1329.15
	1/7/2015					NM	--	--	NM
MW-6 (cont.	1/14/2015	2.0	1349.76	41	26-41	22.59	--	--	1327.17
	1/20/2015					22.45	--	--	1327.31
	1/28/2015					22.54	--	--	1327.22
	2/4/2015					22.59	--	--	1327.17
	2/9/2015					22.77	--	--	1326.99
	3/18/2015					22.62	--	--	1327.14
	4/20/2015					23.05	--	--	1326.71
	5/22/2015					22.25	--	--	1327.51
	6/15/2015					20.45	--	--	1329.31
	7/22/2015					20.66	--	--	1329.10
	8/20/2015					20.73	--	--	1329.03
	9/14/2015					20.48	--	--	1329.28
	10/20/2015					21.11	--	--	1328.65
	11/24/2015					22.17	--	--	1327.59
	12/14/2015					20.57	--	--	1329.19
	1/13/2016					20.51	--	--	1329.25
	2/16/2016					21.49	--	--	1328.27
	3/21/2016					22.22	--	--	1327.54
	8/8/2013					13.32	--	--	1335.66
	8/13/2013					13.68	--	--	1335.30
	8/21/2013					14.03	--	--	1334.95
	8/28/2013					14.76	--	--	1334.22
	9/5/2013					15.44	--	--	1333.54
	9/11/2013					15.66	--	--	1333.32
	9/17/2013					15.78	--	--	1333.20
MW-7	9/23/2013	2.0	1348.98	24	9-24	15.54	--	--	1333.44
	9/30/2013					15.39	--	--	1333.59
	10/10/2013					15.65	--	--	1333.33
	10/17/2013					15.68	--	--	1333.30
	10/23/2013					15.64	--	--	1333.34
	10/31/2013					15.66	--	--	1333.32
	11/6/2013					15.11	--	--	1333.87
	11/13/2013					15.21	--	--	1333.77

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	11/20/2013					15.62	--	--	1333.36
	11/26/2013					15.89	--	--	1333.09
	12/3/2013					16.03	--	--	1332.95
	12/11/2013					16.45	--	--	1332.53
	12/19/2013					16.41	--	--	1332.57
	12/27/2013					16.59	--	--	1332.39
	1/3/2014					NM	--	--	NM
	1/10/2014					16.47	--	--	1332.51
	1/16/2014					16.45	--	--	1332.53
	1/21/2014					16.66	--	--	1332.32
	1/27/2014					16.68	--	--	1332.30
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					16.61	--	--	1332.37
	2/26/2014					16.64	--	--	1332.34
	3/4/2014					16.65	--	--	1332.33
	3/13/2014					16.73	--	--	1332.25
	3/18/2014					16.68	--	--	1332.30
	3/27/2014					16.56	--	--	1332.42
	4/3/2014					16.64	--	--	1332.34
	4/7/2014					16.60	--	--	1332.38
	4/17/2014					16.66	--	--	1332.32
	4/22/2014					16.70	--	--	1332.28
MW-7 (cont.)	4/29/2014	2.0	1348.98	24	9-24	16.70	--	--	1332.28
	5/8/2014					16.95	--	--	1332.03
	5/13/2014					16.80	--	--	1332.18
	5/20/2014					15.69	--	--	1333.29
	5/29/2014					17.44	--	--	1331.54
	6/3/2014					16.13	--	--	1332.85
	6/10/2014					14.85	--	--	1334.13
	6/18/2014					15.52	--	--	1333.46
	6/24/2014					14.78	--	--	1334.20
	7/1/2014					14.74	--	--	1334.24
	7/10/2014					15.10	--	--	1333.88
	7/15/2014					15.31	--	--	1333.67
	7/22/2014					15.39	--	--	1333.59
	7/31/2014					15.72	--	--	1333.26
	8/5/2014					15.82	--	--	1333.16
	8/14/2014					15.59	--	--	1333.39
	8/20/2014					15.73	--	--	1333.25
	8/26/2014					15.90	--	--	1333.08
	9/3/2014					15.99	--	--	1332.99
	9/10/2014					16.03	--	--	1332.95
	9/17/2014					16.14	--	--	1332.84
	9/24/2014					16.24	--	--	1332.74
	10/1/2014					16.16	--	--	1332.82
	10/8/2014					16.17	--	--	1332.81

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	10/16/2014					15.50	--	--	1333.48
	10/21/2014					15.65	--	--	1333.33
	10/28/2014					15.64	--	--	1333.34
	11/4/2014					16.02	--	--	1332.96
	11/11/2014					16.04	--	--	1332.94
	11/25/2014					16.37	--	--	1332.61
	12/3/2014					16.46	--	--	1332.52
	12/9/2014					16.54	--	--	1332.44
	12/17/2014					16.52	--	--	1332.46
	12/23/2014					16.41	--	--	1332.57
	12/31/2014					16.48	--	--	1332.50
	1/7/2015					NM	--	--	NM
	1/14/2015					16.49	--	--	1332.49
	1/20/2015					16.55	--	--	1332.43
MW-7 (cont.)	1/28/2015	2.0	1348.98	24	9-24	16.56	--	--	1332.42
	2/4/2015					16.56	--	--	1332.42
	2/9/2015					16.58	--	--	1332.40
	3/18/2015					16.63	--	--	1332.35
	4/20/2015					16.10	--	--	1332.88
	5/22/2015					15.23	--	--	1333.75
	6/15/2015					14.91	--	--	1334.07
	7/22/2015					15.61	--	--	1333.37
	8/20/2015					15.70	--	--	1333.28
	9/14/2015					15.55	--	--	1333.43
	10/20/2015					16.07	--	--	1332.91
	11/24/2015					16.29	--	--	1332.69
	12/14/2015					15.56	--	--	1333.42
	1/13/2016					15.75	--	--	1333.23
	2/16/2016					16.51	--	--	1332.47
	3/21/2016					16.65	--	--	1332.33
	8/8/2013					18.62	--	--	1334.76
	8/13/2013					18.13	--	--	1335.25
	8/21/2013					18.32	--	--	1335.06
	8/28/2013					19.21	--	--	1334.17
	9/5/2013					20.00	--	--	1333.38
	9/11/2013					20.35	--	--	1333.03
	9/17/2013					20.54	--	--	1332.84
	9/23/2013					20.59	--	--	1332.79
MW-8	9/30/2013	2.0	1353.38	30	15-30	20.70	--	--	1332.68
	10/10/2013					20.82	--	--	1332.56
	10/17/2013					20.92	--	--	1332.46
	10/23/2013					20.85	--	--	1332.53
	10/31/2013					20.89	--	--	1332.49
	11/6/2013					19.21	--	--	1334.17
	11/13/2013					19.38	--	--	1334.00
	11/20/2013					18.86	--	--	1334.52
	11/26/2013					20.30	--	--	1333.08

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-8 (cont.)	12/3/2013	2.0	1353.38	30	15-30	20.54	--	--	1332.84
	12/11/2013					21.09	--	--	1332.29
	12/19/2013					21.11	--	--	1332.27
	12/27/2013					21.54	--	--	1331.84
	1/3/2014					NM	--	--	NM
	1/10/2014					21.24	--	--	1332.14
	1/16/2014					21.70	--	--	1331.68
	1/21/2014					21.80	--	--	1331.58
	1/27/2014					21.88	--	--	1331.50
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					22.15	--	--	1331.23
	2/26/2014					21.46	--	--	1331.92
	3/4/2014					21.84	--	--	1331.54
	3/13/2014					21.90	--	--	1331.48
	3/18/2014					21.70	--	--	1331.68
	3/27/2014					21.79	--	--	1331.59
	4/3/2014					21.95	--	--	1331.43
	4/7/2014					22.06	--	--	1331.32
	4/17/2014					22.29	--	--	1331.09
	4/22/2014					22.26	--	--	1331.12
	4/29/2014					22.20	--	--	1331.18
	5/8/2014					22.23	--	--	1331.15
	5/13/2014					22.42	--	--	1330.96
	5/20/2014					22.27	--	--	1331.11
	5/29/2014					22.43	--	--	1330.95
	6/3/2014					22.32	--	--	1331.06
	6/10/2014					21.73	--	--	1331.65
	6/18/2014					20.64	--	--	1332.74
	6/24/2014					20.00	--	--	1333.38
	7/1/2014					20.22	--	--	1333.16
	7/10/2014					20.24	--	--	1333.14
	7/15/2014					20.47	--	--	1332.91
	7/22/2014					20.64	--	--	1332.74
	7/31/2014					20.89	--	--	1332.49
	8/5/2014					20.96	--	--	1332.42
	8/14/2014					21.09	--	--	1332.29
	8/20/2014					21.06	--	--	1332.32
	8/26/2014					21.24	--	--	1332.14
	9/3/2014					21.36	--	--	1332.02
	9/10/2014					21.44	--	--	1331.94
	9/17/2014					21.56	--	--	1331.82
	9/24/2014					21.69	--	--	1331.69
	10/1/2014					21.65	--	--	1331.73
	10/8/2014					21.70	--	--	1331.68
	10/16/2014					21.53	--	--	1331.85

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-8 (cont.)	10/21/2014	2.0	1353.38	30	15-30	21.32	--	--	1332.06
	10/28/2014					20.98	--	--	1332.40
	11/4/2014					21.09	--	--	1332.29
	11/11/2014					21.09	--	--	1332.29
	11/25/2014					21.21	--	--	1332.17
	12/3/2014					21.48	--	--	1331.90
	12/9/2014					21.69	--	--	1331.69
	12/17/2014					21.74	--	--	1331.64
	12/23/2014					21.61	--	--	1331.77
	12/31/2014					21.73	--	--	1331.65
	1/7/2015					NM	--	--	NM
	1/14/2015					21.64	--	--	1331.74
	1/20/2015					21.70	--	--	1331.68
	1/28/2015					21.72	--	--	1331.66
	2/4/2015					21.92	--	--	1331.46
	2/9/2015					21.88	--	--	1331.50
	3/18/2015					21.96	--	--	1331.42
	4/20/2015					22.25	--	--	1331.13
	5/22/2015					20.93	--	--	1332.45
	6/15/2015					19.93	--	--	1333.45
	7/22/2015					20.20	--	--	1333.18
	8/20/2015					20.64	--	--	1332.74
	9/14/2015					20.68	--	--	1332.70
	10/20/2015					21.08	--	--	1332.30
	11/24/2015					21.61	--	--	1331.77
	12/14/2015					20.41	--	--	1332.97
	1/13/2016					20.53	--	--	1332.85
	2/16/2016					21.26	--	--	1332.12
	3/21/2016					22.04	--	--	1331.34
MW-9	8/8/2013	2.0	1349.48	34	19-34	28.61	--	--	1320.87
	8/13/2013					27.58	--	--	1321.90
	8/21/2013					27.52	--	--	1321.96
	8/28/2013					27.60	--	--	1321.88
	9/5/2013					28.28	--	--	1321.20
	9/11/2013					30.57	--	--	1318.91
	9/17/2013					30.05	--	--	1319.43
	9/23/2013					30.25	--	--	1319.23
	9/30/2013					30.45	--	--	1319.03
	10/10/2013					30.76	--	--	1318.72
	10/17/2013					30.69	--	--	1318.79
	10/23/2013					30.73	--	--	1318.75
	10/31/2013					30.11	--	--	1319.37
	11/6/2013					30.03	--	--	1319.45
	11/13/2013					29.54	--	--	1319.94
	11/20/2013					28.66	--	--	1320.82
	11/26/2013					28.67	--	--	1320.81
	12/3/2013					28.40	--	--	1321.08

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	12/11/2013					28.55	--	--	1320.93
	12/19/2013					28.55	--	--	1320.93
	12/27/2013					NM	--	--	NM
	1/3/2014					NM	--	--	NM
	1/10/2014					28.65	--	--	1320.83
	1/16/2014					28.75	--	--	1320.73
	1/21/2014					28.91	--	--	1320.57
	1/27/2014					28.93	--	--	1320.55
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					29.09	--	--	1320.39
	2/26/2014					29.16	--	--	1320.32
	3/4/2014					NM	--	--	NM
	3/13/2014					29.31	--	--	1320.17
	3/18/2014					29.17	--	--	1320.31
	3/27/2014					28.59	--	--	1320.89
	4/3/2014					30.00	--	--	1319.48
	4/7/2014					30.25	--	--	1319.23
	4/17/2014					30.81	--	--	1318.67
	4/22/2014					31.06	--	--	1318.42
	4/29/2014					31.50	--	--	1317.98
	5/8/2014					31.81	--	--	1317.67
	5/13/2014					32.96	--	--	1316.52
MW-9 (cont.)	5/20/2014	2.0	1349.48	34	19-34	33.39	--	--	1316.09
	5/29/2014					33.56	--	--	1315.92
	6/3/2014					33.61	--	--	1315.87
	6/10/2014					32.83	--	--	1316.65
	6/18/2014					31.25	--	--	1318.23
	6/24/2014					30.60	--	--	1318.88
	7/1/2014					30.14	--	--	1319.34
	7/10/2014					30.21	--	--	1319.27
	7/15/2014					30.46	--	--	1319.02
	7/22/2014					30.56	--	--	1318.92
	7/31/2014					NM	--	--	NM
	8/5/2014					NM	--	--	NM
	8/14/2014					31.44	--	--	1318.04
	8/20/2014					NM	--	--	NM
	8/26/2014					NM	--	--	NM
	9/3/2014					NM	--	--	NM
	9/10/2014					32.21	--	--	NM
	9/17/2014					NM	--	--	NM
	9/24/2014					32.98	--	--	1316.50
	10/1/2014					32.50	--	--	1316.98
	10/8/2014					32.52	--	--	1316.96
	10/16/2014					32.24	--	--	1317.24
	10/21/2014					NM	--	--	NM
	10/28/2014					31.87	--	--	1317.61

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-9 (cont.)	11/4/2014	2.0	1349.48	34	19-34	32.09	--	--	1317.39
	11/11/2014					31.84	--	--	1317.64
	11/25/2014					32.01	--	--	1317.47
	12/3/2014					32.18	--	--	1317.30
	12/9/2014					31.97	--	--	1317.51
	12/17/2014					32.04	--	--	1317.44
	12/23/2014					31.96	--	--	1317.52
	12/31/2014					31.11	--	--	1318.37
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					NM	--	--	NM
	1/28/2015					31.81	--	--	1317.67
	2/4/2015					31.90	--	--	1317.58
	2/9/2015					31.78	--	--	1317.70
	3/18/2015					31.59	--	--	1317.89
	4/20/2015					33.25	--	--	1316.23
	5/22/2015					31.55	--	--	1317.93
	6/15/2015					29.83	--	--	1319.65
	7/22/2015					28.87	--	--	1320.61
	8/20/2015					28.41	--	--	1321.07
	9/14/2015					30.24	--	--	1319.24
	10/20/2015					31.07	--	--	1318.41
	11/24/2015					30.87	--	--	1318.61
	12/14/2015					29.22	--	--	1320.26
	1/13/2016					28.32	--	--	1321.16
	2/16/2016					28.32	--	--	1321.16
	3/21/2016					29.66	--	--	1319.82
MW-10	8/8/2013	2.0	1348.79	34	19-34	26.72	--	--	1322.07
	8/13/2013					25.39	--	--	1323.40
	8/21/2013					24.94	--	--	1323.85
	8/28/2013					25.94	--	--	1322.85
	9/5/2013					28.21	--	--	1320.58
	9/11/2013					28.42	--	--	1320.37
	9/17/2013					28.49	--	--	1320.30
	9/23/2013					28.46	--	--	1320.33
	9/30/2013					28.32	--	--	1320.47
	10/10/2013					28.30	--	--	1320.49
	10/17/2013					28.45	--	--	1320.34
	10/23/2013					28.33	--	--	1320.46
	10/31/2013					28.40	--	--	1320.39
	11/6/2013					27.87	--	--	1320.92
	11/13/2013					28.25	--	--	1320.54
	11/20/2013					27.53	--	--	1321.26
	11/26/2013					27.30	--	--	1321.49
	12/3/2013					26.81	--	--	1321.98
	12/11/2013					27.14	--	--	1321.65
	12/19/2013					27.10	--	--	1321.69
	12/27/2013					27.42	--	--	1321.37

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-10 (cont.)	1/3/2014	2.0	1348.79	34	19-34	NM	--	--	NM
	1/10/2014					27.35	--	--	1321.44
	1/16/2014					27.51	--	--	1321.28
	1/21/2014					27.77	--	--	1321.02
	1/27/2014					27.47	--	--	1321.32
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					27.53	--	--	1321.26
	2/26/2014					27.58	--	--	1321.21
	3/4/2014					27.66	--	--	1321.13
	3/13/2014					27.78	--	--	1321.01
	3/18/2014					27.65	--	--	1321.14
	3/27/2014					28.12	--	--	1320.67
	4/3/2014					28.36	--	--	1320.43
	4/7/2014					28.43	--	--	1320.36
	4/17/2014					28.41	--	--	1320.38
	4/22/2014					28.48	--	--	1320.31
	4/29/2014					28.50	--	--	1320.29
	5/8/2014					29.01	--	--	1319.78
	5/13/2014					29.08	--	--	1319.71
	5/20/2014					29.21	--	--	1319.58
	5/29/2014					28.95	--	--	1319.84
	6/3/2014					28.46	--	--	1320.33
	6/10/2014					28.25	--	--	1320.54
	6/18/2014					27.25	--	--	1321.54
	6/24/2014					NM	--	--	NM
	7/1/2014					28.44	--	--	1320.35
	7/10/2014					28.28	--	--	1320.51
	7/15/2014					28.32	--	--	1320.47
	7/22/2014					28.28	--	--	1320.51
	7/31/2014					28.50	--	--	1320.29
	8/5/2014					28.47	--	--	1320.32
	8/14/2014					28.41	--	--	1320.38
	8/20/2014					28.40	--	--	1320.39
	8/26/2014					28.44	--	--	1320.35
	9/3/2014					29.46	--	--	1319.33
	9/10/2014					28.44	--	--	1320.35
	9/17/2014					28.46	--	--	1320.33
	9/24/2014					28.47	--	--	1320.32
	10/1/2014					28.45	--	--	1320.34
	10/8/2014					28.44	--	--	1320.35
	10/16/2014					28.39	--	--	1320.40
	10/21/2014					28.45	--	--	1320.34
	10/28/2014					28.42	--	--	1320.37
	11/4/2014					28.46	--	--	1320.33
	11/11/2014					28.52	--	--	1320.27
	11/25/2014					28.65	--	--	1320.14

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-10 (cont.)	12/3/2014	2.0	1348.79	34	19-34	28.69	--	--	1320.10
	12/9/2014					28.65	--	--	1320.14
	12/17/2014					28.61	--	--	1320.18
	12/23/2014					NM	--	--	NM
	12/31/2014					29.36	--	--	1319.43
	1/7/2015					NM	--	--	NM
	1/14/2015					28.45	--	--	1320.34
	1/20/2015					28.42	--	--	1320.37
	1/28/2015					28.44	--	--	1320.35
	2/4/2015					28.49	--	--	1320.30
	2/9/2015					28.54	--	--	1320.25
	3/18/2015					28.42	--	--	1320.37
	4/20/2015					28.53	--	--	1320.26
	5/22/2015					28.27	--	--	1320.52
	6/15/2015					28.30	--	--	1320.49
	7/22/2015					29.56	--	--	1319.23
	8/20/2015					30.49	--	--	1318.30
	9/14/2015					28.40	--	--	1320.39
	10/20/2015					28.39	--	--	1320.40
	11/24/2015					28.40	--	--	1320.39
	12/14/2015					28.36	--	--	1320.43
	1/13/2016					27.04	--	--	1321.75
	2/16/2016					26.97	--	--	1321.82
	3/21/2016					28.43	--	--	1320.36
MW-11	9/30/2013	2.0	1351.34	42	22-42	29.03	--	--	1322.31
	10/10/2013					28.08	--	--	1323.26
	10/17/2013					28.26	--	--	1323.08
	10/23/2013					29.36	--	--	1321.98
	10/31/2013					28.92	--	--	1322.42
	11/6/2013					28.14	--	--	1323.20
	11/13/2013					28.16	--	--	1323.18
	11/20/2013					27.70	--	--	1323.64
	11/26/2013					28.03	--	--	1323.31
	12/3/2013					28.03	--	--	1323.31
	12/11/2013					28.54	--	--	1322.80
	12/19/2013					28.53	--	--	1322.81
	12/27/2013					28.80	--	--	1322.54
	1/3/2014					NM	--	--	NM
	1/10/2014					29.60	--	--	1321.74
	1/16/2014					28.89	--	--	1322.45
	1/21/2014					28.99	--	--	1322.35
	1/27/2014					28.91	--	--	1322.43
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					28.52	--	--	1322.82
	2/26/2014					28.71	--	--	1322.63
	3/4/2014					28.61	--	--	1322.73
	3/13/2014					28.77	--	--	1322.57

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-11 (cont.)	3/18/2014	2.0	1351.34	42	22-42	28.51	--	--	1322.83
	3/27/2014					28.68	--	--	1322.66
	4/3/2014					28.77	--	--	1322.57
	4/7/2014					28.75	--	--	1322.59
	4/17/2014					28.79	--	--	1322.55
	4/22/2014					28.92	--	--	1322.42
	4/29/2014					28.90	--	--	1322.44
	5/8/2014					29.84	--	--	1321.50
	5/13/2014					29.91	--	--	1321.43
	5/20/2014					28.52	--	--	1322.82
	5/29/2014					30.09	--	--	1321.25
	6/3/2014					29.34	--	--	1322.00
	6/10/2014					28.71	--	--	1322.63
	6/18/2014					28.44	--	--	1322.90
	6/24/2014					28.09	--	--	1323.25
	7/1/2014					27.76	--	--	1323.58
	7/10/2014					27.85	--	--	1323.49
	7/15/2014					29.83	--	--	1321.51
	7/22/2014					28.13	--	--	1323.21
	7/31/2014					28.49	--	--	1322.85
	8/5/2014					28.49	--	--	1322.85
	8/14/2014					28.46	--	--	1322.88
	8/20/2014					28.54	--	--	1322.80
	8/26/2014					28.53	--	--	1322.81
	9/3/2014					28.60	--	--	1322.74
	9/10/2014					28.65	--	--	1322.69
	9/17/2014					28.69	--	--	1322.65
	9/24/2014					23.69	--	--	1327.65
	10/1/2014					28.58	--	--	1322.76
	10/8/2014					28.62	--	--	1322.72
	10/16/2014					28.59	--	--	1322.75
	10/21/2014					28.65	--	--	1322.69
	10/28/2014					29.75	--	--	1321.59
	11/4/2014					28.57	--	--	1322.77
	11/11/2014					28.70	--	--	1322.64
	11/25/2014					28.93	--	--	1322.41
	12/3/2014					29.00	--	--	1322.34
	12/9/2014					28.94	--	--	1322.40
	12/17/2014					28.93	--	--	1322.41
	12/23/2014					28.96	--	--	1322.38
	12/31/2014					29.03	--	--	1322.31
	1/7/2015					NM	--	--	NM
	1/14/2015					28.88	--	--	1322.46
	1/20/2015					28.88	--	--	1322.46
	1/28/2015					28.97	--	--	1322.37
	2/4/2015					28.94	--	--	1322.40

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-11 (cont.)	2/9/2015	2.0	1351.34	42	22-42	29.26	--	--	1322.08
	3/19/2015					29.84	--	--	1321.50
	4/20/2015					30.39	--	--	1320.95
	5/22/2015					29.88	--	--	1320.59
	6/15/2015					28.31	--	--	1323.03
	7/22/2015					28.66	--	--	1322.68
	8/20/2015					28.73	--	--	1322.61
	9/14/2015					28.82	--	--	1322.52
	10/20/2015					28.62	--	--	1322.72
	11/24/2015					28.76	--	--	1322.58
	12/14/2015					28.64	--	--	1322.70
	1/13/2016					28.51	--	--	1322.83
	2/16/2016					28.97	--	--	1322.37
	3/21/2016					28.87	--	--	1322.47
MW-12	9/30/2013	2.0	1349.74	43	23-43	30.15	--	--	1319.59
	10/10/2013					30.55	--	--	1319.19
	10/17/2013					30.49	--	--	1319.25
	10/23/2013					30.40	--	--	1319.34
	10/31/2013					30.45	--	--	1319.29
	11/6/2013					29.91	--	--	1319.83
	11/13/2013					29.32	--	--	1320.42
	11/20/2013					28.16	--	--	1321.58
	11/26/2013					27.91	--	--	1321.83
	12/3/2013					27.41	--	--	1322.33
	12/11/2013					27.83	--	--	1321.91
	12/19/2013					27.74	--	--	1322.00
	12/27/2013					NM	--	--	NM
	1/3/2014					NM	--	--	NM
	1/10/2014					28.25	--	--	1321.49
	1/16/2014					28.28	--	--	1321.46
	1/21/2014					28.61	--	--	1321.13
	1/27/2014					28.40	--	--	1321.34
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					28.46	--	--	1321.28
	2/26/2014					28.49	--	--	1321.25
	3/4/2014					NM	--	--	NM
	3/13/2014					28.77	--	--	1320.97
	3/18/2014					28.70	--	--	1321.04
	3/27/2014					29.25	--	--	1320.49
	4/3/2014					29.70	--	--	1320.04
	4/7/2014					29.83	--	--	1319.91
	4/17/2014					30.45	--	--	1319.29
	4/22/2014					30.85	--	--	1318.89
	4/29/2014					31.10	--	--	1318.64
	5/8/2014					31.29	--	--	1318.45
	5/13/2014					31.21	--	--	1318.53
	5/20/2014					31.13	--	--	1318.61
	5/29/2014					31.16	--	--	1318.58

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-12 (cont.)	6/3/2014	2.0	1349.74	43	23-43	31.14	--	--	1318.60
	6/10/2014					31.15	--	--	1318.59
	6/18/2014					31.01	--	--	1318.73
	6/24/2014					30.79	--	--	1318.95
	7/1/2014					30.42	--	--	1319.32
	7/10/2014					30.48	--	--	1319.26
	7/15/2014					30.75	--	--	1318.99
	7/22/2014					30.72	--	--	1319.02
	7/31/2014					31.07	--	--	1318.67
	8/5/2014					31.15	--	--	1318.59
	8/14/2014					31.07	--	--	1318.67
	8/20/2014					31.01	--	--	1318.73
	8/26/2014					31.12	--	--	1318.62
	9/3/2014					31.12	--	--	1318.62
	9/10/2014					31.12	--	--	1318.62
	9/17/2014					31.12	--	--	1318.62
	9/24/2014					31.11	--	--	1318.63
	10/1/2014					31.05	--	--	1318.69
	10/8/2014					31.08	--	--	1318.66
	10/16/2014					31.05	--	--	1318.69
	10/21/2014					31.09	--	--	1318.65
	10/28/2014					31.09	--	--	1318.65
	11/4/2014					31.06	--	--	1318.68
	11/11/2014					31.12	--	--	1318.62
	11/25/2014					31.10	--	--	1318.64
	12/3/2014					31.05	--	--	1318.69
	12/9/2014					31.12	--	--	1318.62
	12/17/2014					31.11	--	--	1318.63
	12/23/2014					31.06	--	--	1318.68
	12/31/2014					31.11	--	--	1318.63
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					31.04	--	--	1318.70
	1/28/2015					31.05	--	--	1318.69
	2/4/2015					31.07	--	--	1318.67
	2/9/2015					31.06	--	--	1318.68
	3/18/2015					30.95	--	--	1318.79
	4/20/2015					31.09	--	--	1318.65
	5/22/2015					30.33	--	--	1319.41
	6/15/2015					30.86	--	--	1318.88
	7/22/2015					30.98	--	--	1318.76
	8/20/2015					31.08	--	--	1318.66
	9/14/2015					31.09	--	--	1318.65
	10/20/2015					31.09	--	--	1318.65
	11/24/2015					31.09	--	--	1318.65
	12/14/2015					30.51	--	--	1319.23
	1/13/2016					28.00	--	--	1321.74
	2/16/2016					27.92	--	--	1321.82
	3/21/2016					30.36	--	--	1319.38

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-13	9/30/2013	2.0	1354.58	45	25-45	31.25	--	--	1323.33
	10/10/2013					31.59	--	--	1322.99
	10/17/2013					31.74	--	--	1322.84
	10/23/2013					31.70	--	--	1322.88
	10/31/2013					31.72	--	--	1322.86
	11/6/2013					31.61	--	--	1322.97
	11/13/2013					31.70	--	--	1322.88
	11/20/2013					30.84	--	--	1323.74
	11/26/2013					31.30	--	--	1323.28
	12/3/2013					31.02	--	--	1323.56
	12/11/2013					31.26	--	--	1323.32
	12/19/2013					31.16	--	--	1323.42
	12/27/2013					31.48	--	--	1323.10
	1/3/2014					NM	--	--	NM
	1/10/2014					31.22	--	--	1323.36
	1/16/2014					32.70	--	--	1321.88
	1/21/2014					31.94	--	--	1322.64
	1/27/2014					31.98	--	--	1322.60
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					31.92	--	--	1322.66
	2/26/2014					32.10	--	--	1322.48
	3/4/2014					32.05	--	--	1322.53
	3/13/2014					32.25	--	--	1322.33
	3/18/2014					32.05	--	--	1322.53
	3/27/2014					32.16	--	--	1322.42
	4/3/2014					32.41	--	--	1322.17
	4/7/2014					32.35	--	--	1322.23
	4/17/2014					32.38	--	--	1322.20
	4/22/2014					32.70	--	--	1321.88
	4/29/2014					32.91	--	--	1321.67
	5/8/2014					33.03	--	--	1321.55
	5/13/2014					32.95	--	--	1321.63
	5/20/2014					33.39	--	--	1321.19
	5/29/2014					33.34	--	--	1321.24
	6/3/2014					33.45	--	--	1321.13
	6/10/2014					33.50	--	--	1321.08
	6/18/2014					33.44	--	--	1321.14
	6/24/2014					33.16	--	--	1321.42
	7/1/2014					32.90	--	--	1321.68
	7/10/2014					32.75	--	--	1321.83
	7/15/2014					32.99	--	--	1321.59
	7/22/2014					32.46	--	--	1322.12
	7/31/2014					32.47	--	--	1322.11
	8/5/2014					32.40	--	--	1322.18
	8/14/2014					32.33	--	--	1322.25
	8/20/2014					32.35	--	--	1322.23
	8/26/2014					31.26	--	--	1323.32

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-13 (cont.)	9/3/2014	2.0	1354.58	45	25-45	32.39	--	--	1322.19
	9/10/2014					32.46	--	--	1322.12
	9/17/2014					32.42	--	--	1322.16
	9/24/2014					32.51	--	--	1322.07
	10/1/2014					32.79	--	--	1321.79
	10/8/2014					32.77	--	--	1321.81
	10/16/2014					33.00	--	--	1321.58
	10/21/2014					32.70	--	--	1321.88
	10/28/2014					32.83	--	--	1321.75
	11/4/2014					32.71	--	--	1321.87
	11/11/2014					32.60	--	--	1321.98
	11/25/2014					32.65	--	--	1321.93
	12/3/2014					32.88	--	--	1321.70
	12/9/2014					32.76	--	--	1321.82
	12/17/2014					32.95	--	--	1321.63
	12/23/2014					32.94	--	--	1321.64
	12/31/2014					32.97	--	--	1321.61
	1/7/2015					NM	--	--	NM
	1/14/2015					33.06	--	--	1321.52
	1/20/2015					32.93	--	--	1321.65
	1/28/2015					32.85	--	--	1321.73
	2/4/2015					33.07	--	--	1321.51
	2/9/2015					32.81	--	--	1321.77
	3/18/2015					33.16	--	--	1321.42
	4/20/2015					33.34	--	--	1321.24
	5/22/2015					32.56	--	--	1322.02
	6/15/2015					31.94	--	--	1322.64
	7/22/2015					31.77	--	--	1322.81
	8/20/2015					31.56	--	--	1323.02
	9/14/2015					31.41	--	--	1323.17
	10/20/2015					31.83	--	--	1322.75
	11/24/2015					32.18	--	--	1322.40
	12/14/2015					31.98	--	--	1322.60
	1/13/2016					31.41	--	--	1323.17
	2/16/2016					31.49	--	--	1323.09
	3/21/2016					31.92	--	--	1322.66
MW-14	9/30/2013	2.0	1354.99	45	25-45	31.59	--	--	1323.40
	10/10/2013					31.53	--	--	1323.46
	10/17/2013					31.71	--	--	1323.28
	10/23/2013					31.74	--	--	1323.25
	10/31/2013					31.76	--	--	1323.23
	11/6/2013					NM	--	--	NM
	11/13/2013					31.48	--	--	1323.51
	11/20/2013					30.51	--	--	1324.48
	11/26/2013					31.47	--	--	1323.52
	12/3/2013					31.42	--	--	1323.57
	12/11/2013					31.73	--	--	1323.26
	12/19/2013					31.74	--	--	1323.25
	12/27/2013					31.95	--	--	1323.04

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-14 (cont.)	1/3/2014	2.0	1354.99	45	25-45	NM	--	--	NM
	1/10/2014					31.47	--	--	1323.52
	1/16/2014					32.23	--	--	1322.76
	1/21/2014					32.35	--	--	1322.64
	1/27/2014					32.40	--	--	1322.59
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					32.58	--	--	1322.41
	2/26/2014					32.71	--	--	1322.28
	3/4/2014					32.75	--	--	1322.24
	3/13/2014					32.83	--	--	1322.16
	3/18/2014					32.70	--	--	1322.29
	3/27/2014					32.79	--	--	1322.20
	4/3/2014					32.95	--	--	1322.04
	4/7/2014					33.11	--	--	1321.88
	4/17/2014					33.56	--	--	1321.43
	4/22/2014					33.82	--	--	1321.17
	4/29/2014					NM	--	--	NM
	5/8/2014					34.85	--	--	1320.14
	5/13/2014					35.20	--	--	1319.79
	5/20/2014					34.95	--	--	1320.04
	5/29/2014					34.50	--	--	1320.49
	6/3/2014					34.55	--	--	1320.44
	6/10/2014					33.69	--	--	1321.30
	6/18/2014					33.20	--	--	1321.79
	6/24/2014					32.07	--	--	1322.92
	7/1/2014					31.96	--	--	1323.03
	7/10/2014					31.84	--	--	1323.15
	7/15/2014					31.85	--	--	1323.14
	7/22/2014					31.88	--	--	1323.11
	7/31/2014					31.94	--	--	1323.05
	8/5/2014					32.01	--	--	1322.98
	8/14/2014					32.04	--	--	1322.95
	8/20/2014					32.01	--	--	1322.98
	8/26/2014					32.15	--	--	1322.84
	9/3/2014					32.19	--	--	1322.80
	9/10/2014					32.30	--	--	1322.69
	9/17/2014					32.38	--	--	1322.61
	9/24/2014					32.52	--	--	1322.47
	10/1/2014					32.49	--	--	1322.50
	10/8/2014					32.51	--	--	1322.48
	10/16/2014					32.40	--	--	1322.59
	10/21/2014					NM	--	--	--
	10/29/2014					32.28	--	--	1322.71
	11/4/2014					32.29	--	--	1322.70
	11/11/2014					32.36	--	--	1322.63
	11/25/2014					32.53	--	--	1322.46

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-14 (cont.)	12/3/2014	2.0	1354.99	45	25-45	32.84	--	--	1322.15
	12/9/2014					33.08	--	--	1321.91
	12/17/2014					33.33	--	--	1321.66
	12/23/2014					33.33	--	--	1321.66
	12/31/2014					33.51	--	--	1321.48
	1/7/2015					NM	--	--	NM
	1/14/2015					33.51	--	--	1321.48
	1/20/2015					33.59	--	--	1321.40
	1/28/2015					33.65	--	--	1321.34
	2/4/2015					33.88	--	--	1321.11
	2/9/2015					34.00	--	--	1320.99
	3/18/2015					33.94	--	--	1321.05
	4/20/2015					34.93	--	--	1320.06
	5/22/2015					33.53	--	--	1321.46
	6/15/2015					31.70	--	--	1323.29
	7/22/2015					31.62	--	--	1323.37
	8/20/2015					31.55	--	--	1323.44
	9/14/2015					31.38	--	--	1323.61
	10/20/2015					31.92	--	--	1323.07
	11/24/2015					32.20	--	--	1322.79
	12/14/2015					31.74	--	--	1323.25
	1/13/2016					31.53	--	--	1323.46
	2/16/2016					31.78	--	--	1323.21
	3/21/2016					32.20	--	--	1322.79
MW-15	9/30/2013	2.0	1351.79	45	25-45	32.64	--	--	1319.15
	10/10/2013					32.75	--	--	1319.04
	10/17/2013					32.93	--	--	1318.86
	10/23/2013					32.84	--	--	1318.95
	10/31/2013					32.77	--	--	1319.02
	11/6/2013					32.23	--	--	1319.56
	11/13/2013					31.72	--	--	1320.07
	11/20/2013					30.80	--	--	1320.99
	11/26/2013					30.96	--	--	1320.83
	12/3/2013					30.63	--	--	1321.16
	12/11/2013					30.93	--	--	1320.86
	12/19/2013					31.75	--	--	1320.04
	12/27/2013					31.05	--	--	1320.74
	1/3/2014					NM	--	--	NM
	1/10/2014					31.10	--	--	1320.69
	1/16/2014					31.30	--	--	1320.49
	1/21/2014					31.61	--	--	1320.18
	1/27/2014					31.61	--	--	1320.18
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					31.82	--	--	1319.97
	2/26/2014					32.03	--	--	1319.76

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-15 (cont.)	3/4/2014	2.0	1351.79	45	25-45	32.10	--	--	1319.69
	3/13/2014					37.20	--	--	1314.59
	3/18/2014					37.00	--	--	1314.79
	3/27/2014					32.29	--	--	1319.50
	4/3/2014					32.60	--	--	1319.19
	4/7/2014					32.89	--	--	1318.90
	4/17/2014					33.69	--	--	1318.10
	4/22/2014					34.24	--	--	1317.55
	4/29/2014					34.95	--	--	1316.84
	5/8/2014					35.85	--	--	1315.94
	5/13/2014					35.89	--	--	1315.90
	5/20/2014					38.63	--	--	1313.16
	5/29/2014					36.85	--	--	1314.94
	6/3/2014					NM	--	--	NM
	6/10/2014					NM	--	--	NM
	6/18/2014					35.10	--	--	1316.69
	6/24/2014					34.65	--	--	1317.14
	7/1/2014					33.78	--	--	1318.01
	7/10/2014					33.35	--	--	1318.44
	7/15/2014					33.40	--	--	1318.39
	7/22/2014					33.29	--	--	1318.50
	7/31/2014					33.89	--	--	1317.90
	8/5/2014					34.04	--	--	1317.75
	8/14/2014					34.19	--	--	1317.60
	8/20/2014					34.28	--	--	1317.51
	8/26/2014					34.44	--	--	1317.35
	9/3/2014					34.65	--	--	1317.14
	9/10/2014					34.79	--	--	1317.00
	9/17/2014					34.98	--	--	1316.81
	9/24/2014					35.29	--	--	1316.50
	10/1/2014					35.51	--	--	1316.28
	10/8/2014					35.53	--	--	1316.26
	10/16/2014					35.61	--	--	1316.18
	10/21/2014					35.41	--	--	1316.38
	10/28/2014					35.16	--	--	1316.63
	11/4/2014					35.07	--	--	1316.72
	11/11/2014					35.02	--	--	1316.77
	11/25/2014					30.11	--	--	1321.68
	12/3/2014					35.37	--	--	1316.42
	12/9/2014					35.42	--	--	1316.37
	12/17/2014					NM	--	--	NM
	12/23/2014					35.13	--	--	1316.66
	12/31/2014					30.59	--	--	1321.20
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-15 (cont.)	1/20/2015	2.0	1351.79	45	25-45	34.93	--	--	1316.86
	1/28/2015					34.98	--	--	1316.81
	2/4/2015					35.12	--	--	1316.67
	2/9/2015					35.02	--	--	1316.77
	3/18/2015					35.04	--	--	1316.75
	4/20/2015					36.50	--	--	1315.29
	5/22/2015					34.53	--	--	1317.26
	6/15/2015					32.34	--	--	1319.45
	7/22/2015					32.94	--	--	-32.94
	8/20/2015					33.48	--	--	-33.48
	9/14/2015					33.05	--	--	-33.05
	10/20/2015					33.63	--	--	-33.63
	11/24/2015					33.33	--	--	-33.33
	12/14/2015					31.47	--	--	-31.47
	1/13/2016					31.10	--	--	-31.10
	2/16/2016					29.81	--	--	-29.81
	3/21/2016					31.22	--	--	-31.22
MW-16	9/30/2013	2.0	1352.13	45	25-45	31.60	--	--	1320.53
	10/10/2013					30.76	--	--	1321.37
	10/17/2013					30.79	--	--	1321.34
	10/23/2013					30.78	--	--	1321.35
	10/31/2013					30.80	--	--	1321.33
	11/6/2013					30.33	--	--	1321.80
	11/13/2013					30.01	--	--	1322.12
	11/20/2013					29.63	--	--	1322.50
	11/26/2013					29.71	--	--	1322.42
	12/3/2013					29.52	--	--	1322.61
	12/11/2013					29.71	--	--	1322.42
	12/19/2013					28.51	--	--	1323.62
	12/27/2013					29.97	--	--	1322.16
	1/3/2014					NM	--	--	NM
	1/10/2014					29.91	--	--	1322.22
	1/16/2014					29.70	--	--	1322.43
	1/21/2014					29.89	--	--	1322.24
	1/27/2014					29.60	--	--	1322.53
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					29.41	--	--	1322.72
	2/26/2014					29.68	--	--	1322.45
	3/4/2014					NM	--	--	NM
	3/13/2014					28.71	--	--	1323.42
	3/18/2014					29.50	--	--	1322.63
	3/27/2014					29.62	--	--	1322.51
	4/3/2014					29.86	--	--	1322.27
	4/7/2014					30.05	--	--	1322.08
	4/17/2014					30.84	--	--	1321.29
	4/22/2014					30.95	--	--	1321.18

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-16 (cont.)	4/29/2014	2.0	1352.13	45	25-45	31.30	--	--	1320.83
	5/8/2014					31.81	--	--	1320.32
	5/13/2014					31.84	--	--	1320.29
	5/20/2014					32.91	--	--	1319.22
	5/29/2014					32.81	--	--	1319.32
	6/3/2014					32.44	--	--	1319.69
	6/10/2014					NM	--	--	NM
	6/18/2014					31.31	--	--	1320.82
	6/24/2014					29.93	--	--	1322.20
	7/1/2014					29.65	--	--	1322.48
	7/10/2014					28.95	--	--	1323.18
	7/15/2014					28.82	--	--	1323.31
	7/22/2014					28.78	--	--	1323.35
	7/31/2014					29.19	--	--	1322.94
	8/5/2014					29.20	--	--	1322.93
	8/14/2014					29.09	--	--	1323.04
	8/20/2014					29.21	--	--	1322.92
	8/26/2014					29.23	--	--	1322.90
	9/3/2014					29.38	--	--	1322.75
	9/10/2014					29.58	--	--	1322.55
	9/17/2014					29.71	--	--	1322.42
	9/24/2014					29.95	--	--	1322.18
	10/1/2014					30.04	--	--	1322.09
	10/8/2014					30.08	--	--	1322.05
	10/16/2014					30.04	--	--	1322.09
	10/21/2014					29.69	--	--	1322.44
	10/28/2014					29.69	--	--	1322.44
	11/4/2014					30.06	--	--	1322.07
	11/11/2014					30.21	--	--	1321.92
	11/25/2014					NM	--	--	--
	12/3/2014					30.18	--	--	1321.95
	12/9/2014					30.30	--	--	1321.83
	12/17/2014					30.47	--	--	1321.66
	12/23/2014					30.38	--	--	1321.75
	12/31/2014					30.56	--	--	1321.57
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					30.71	--	--	1321.42
	1/28/2015					20.13	--	--	1332.00
	2/4/2015					30.76	--	--	1321.37
	2/9/2015					31.09	--	--	1321.04
	3/18/2015					31.80	--	--	1320.33
	4/20/2015					33.03	--	--	1319.10
	5/22/2015					31.56	--	--	1320.57
	6/15/2015					29.48	--	--	1322.65
	7/22/2015					29.13	--	--	1323.00
	8/20/2015					28.65	--	--	1323.48
	9/14/2015					28.49	--	--	1323.64

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-16 (cont.)	10/20/2015	2.0	1352.13	45	25-45	28.90	--	--	1323.23
	11/24/2015					29.15	--	--	1322.98
	12/14/2015					27.88	--	--	1324.25
	1/13/2016					28.29	--	--	1323.84
	2/16/2016					28.64	--	--	1323.49
	3/21/2016					29.33	--	--	1322.80
MW-17	3/18/2015		1351.69			NM	--	--	NM
	4/20/2015					33.91	--	--	1317.78
	5/22/2015					32.55	--	--	1319.14
	6/10/2015					31.15	--	--	1320.54
	6/15/2015					31.28	--	--	1320.41
	7/22/2015					NM	--	--	NM
	8/20/2015					31.19	--	--	1320.50
	9/14/2015					30.99	--	--	1320.70
	10/20/2015					32.57	--	--	1319.12
	11/24/2015					32.65	--	--	1319.04
	12/14/2015					32.00	--	--	1319.69
	1/13/2016					31.37	--	--	1320.32
	2/16/2016					31.46	--	--	1320.23
	3/21/2016					32.03	--	--	1319.66
MW-18	3/18/2015	2.0	1351.11	42	27-42	27.93	--	--	1323.18
	4/20/2015					33.51	--	--	1317.60
	5/22/2015					31.54	--	--	1319.57
	6/10/2015					30.50	--	--	1320.61
	6/15/2015					30.64	--	--	1320.47
	7/22/2015					30.84	--	--	1320.27
	8/20/2015					30.81	--	--	1320.30
	9/14/2015					30.53	--	--	1320.58
MW-18	11/24/2015		1351.04			30.99	--	--	1320.05
	12/14/2015					30.96	--	--	1320.08
	1/13/2016					30.56	--	--	1320.48
	2/16/2016					30.72	--	--	1320.32
	3/21/2016					30.82	--	--	1320.22
MW-19	3/18/2015		1351.13			35.19	--	--	1315.94
	4/20/2015					33.70	--	--	1317.43
	5/22/2015					31.67	--	--	1319.46
	6/10/2015					30.24	--	--	1320.89
	6/15/2015					30.60	--	--	1320.53
	7/22/2015					30.58	--	--	1320.55
	8/20/2015					30.65	--	--	1320.48
	9/14/2015					30.59	--	--	1320.54
MW-19	11/24/2015		1351.00			31.00	--	--	1320.00
	12/14/2015					31.06	--	--	1319.94
	1/13/2016					30.47	--	--	1320.53
	2/16/2016					30.69	--	--	1320.31
	3/21/2016					30.79	--	--	1320.21

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
									Pond Stage (feet MSL)
Stormwater Pond	8/8/2013	NA	NA	NA	NA	NA	--	--	1344.75
	8/13/2013						--	--	1344.75
	8/21/2013						--	--	1344.50
	8/28/2013						--	--	1344.25
	9/5/2013						--	--	1344.25
	9/11/2013						--	--	1344.00
	9/17/2013						--	--	1344.00
	9/23/2013						--	--	1344.50
	10/3/2013						--	--	1344.50
	10/10/2013						--	--	1344.50
	10/17/2013						--	--	1344.00
	10/23/2013						--	--	1344.50
	10/31/2013						--	--	1345.00
	11/6/2013						--	--	1344.75
	11/13/2013						--	--	1344.50
	11/20/2013						--	--	1344.50
	11/26/2013						--	--	1344.25
	12/3/2013						--	--	1344.25
	12/11/2013						--	--	1344.75
	12/19/2013						--	--	1344.25
	12/27/2013						--	--	1344.25
	1/3/2014						--	--	NM
	1/10/2014						--	--	1344.00
	1/16/2014						--	--	1344.00
	1/21/2014						--	--	1344.00
	1/27/2014						--	--	NM
	2/5/2014						--	--	NM
	2/12/2014						--	--	NM
	2/19/2014						--	--	NM
	2/26/2014						--	--	1344.00
	3/4/2014						--	--	NM
	3/13/2014						--	--	1344.00
	3/18/2014						--	--	1344.00
	3/27/2014						--	--	1343.75
	4/3/2014						--	--	1344.00
	4/7/2014						--	--	1343.75
	4/17/2014						--	--	1343.50
	4/22/2014						--	--	1343.50
	4/29/2014						--	--	1345.00
	5/8/2014						--	--	Below gauge
	5/13/2014						--	--	Below gauge
	5/20/2014						--	--	Below gauge
	5/29/2014						--	--	1343.75

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
									Pond Stage (feet MSL)
Stormwater Pond (cont.)	6/3/2014	NA	NA	NA	NA	NA	--	--	1344.50
	6/10/2014						--	--	1344.75
	6/18/2014						--	--	1344.50
	6/24/2014						--	--	1344.50
	7/1/2014						--	--	1344.60
	7/10/2014						--	--	1344.75
	7/15/2014						--	--	1344.50
	7/22/2014						--	--	1344.50
	7/31/2014						--	--	1344.50
	8/5/2014						--	--	1344.25
	8/14/2014						--	--	1344.50
	8/20/2014						--	--	1344.50
	8/26/2014						--	--	1344.25
	9/3/2014						--	--	1344.50
	9/10/2014						--	--	1344.25
	9/17/2014						--	--	1344.00
	9/24/2014						--	--	1344.00
	10/1/2014						--	--	1344.00
	10/8/2014						--	--	1344.25
	10/16/2014						--	--	1344.50
	10/21/2014						--	--	1344.50
	10/28/2014						--	--	1344.50
	11/4/2014						--	--	1344.50
	11/11/2014						--	--	1344.25
	11/25/2014						--	--	1344.00
	12/3/2014						--	--	1344.00
	12/9/2014						--	--	1344.25
	12/17/2014						--	--	1344.25
	12/23/2014						--	--	1344.25
	12/23/2014						--	--	1344.25
	12/31/2014						--	--	1344.25
	1/7/2015						--	--	NM
	1/14/2015						--	--	NM
	1/20/2015						--	--	1344.00
	1/28/2015						--	--	1343.80
	2/4/2015						--	--	1344.15
	2/9/2015						--	--	1344.10
	3/18/2015						--	--	1343.60
	4/20/2015						--	--	1344.75
	5/22/2015						--	--	1344.50
	6/10/2015						--	--	1344.50
	6/15/2015						--	--	1344.75
	7/22/2015						--	--	1344.50
	8/20/2015						--	--	1344.75

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
Stormwater Pond (cont.)	9/14/2015	NA	NA	NA	NA	NA	--	--	1344.50
	10/22/2015						--	--	1344.75
	11/24/2015						--	--	1344.50
	12/14/2015						--	--	1344.75
	1/13/2016						--	--	1344.50
	2/16/2016						--	--	1344.50
	3/21/2016						--	--	1344.50

Notes:

1. feet MSL = Feet above mean sea level (NAVD88).
2. bgs = below ground surface.
3. -- = No SPH
4. DRY = Well was dry.
5. Pond elevation is measured directly from a staff gauge in the pond (in 0.25-foot increments). The top of the staff gauge is 1347.59 feet above mean sea level
6. NA = Not applicable.
7. NM = Not measured.
8. Monitoring wells MW-18 and MW-19 were resurveyed on November 24, 2015.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
Monitoring Wells																				
MW-1	8/9/2013	120	--	--	0.86	<0.05	0.22	<0.1	9.1	0.37	1.9	<0.05	6.3	0.1	0.23	<0.05	0.068	2.8	26	9.1
	10/24/2013	39	--	--	0.69	<0.010	0.19	0.050	7.8	0.26	2.0	0.031	4.9	0.043	0.14	0.011	0.084	2.2	18	7.1
	1/30/2014	44	--	--	1.0	<0.025	0.30	<0.05	3.1	0.45	1.4	0.045	3.5	0.076	0.29	0.030	0.14	1.6	9.3	5.2
	4/9/2014	20	--	--	0.49	<0.010	0.18	<0.020	1.1	<0.01	0.2	0.011	--	0.023	0.069	0.018	0.016	--	3.1	2.5
	7/23/2014	49	--	--	0.39	<0.001	0.11	0.023	3.1	0.059	0.61	0.011	2.2	<0.010	0.044	<0.010	0.019	1.2	6.4	3.4
	10/29/2014	45	--	--	0.47	<0.010	0.19	<0.020	5.0	0.051	0.50	<0.010	3.4	0.015	0.043	<0.010	<0.010	2.2	12	5.5
	2/12/2015	5.8	--	--	<0.010	<0.010	<0.010	<0.020	0.26	<0.010	0.077	<0.010	0.64	0.016	0.022	<0.010	<0.010	0.36	0.99	0.99
	6/16/2015	140	--	--	0.32	<0.010	0.30	<0.020	5.2	0.12	0.47	0.011	5.3	<0.010	0.11	<0.010	0.012	2.8	11	8.1
	9/15/2015	67	--	--	0.61	<0.001	0.26	0.032	1.3	0.14	0.42	0.0095	--	0.019	0.065	0.017	0.020	--	2.4	4.4
	12/16/2015	38.3	--	--	0.51	<0.01	0.16	<0.10	5.7	0.113	1.26	0.0219	--	0.0138	0.0944	<0.01	0.046	--	7.81	4.91
	3/23/2016	10.1 j	3.94	8.07	0.498	0.000535 j	0.098 j	0.0062	0.675	0.033	0.139 j	0.00541j	--	0.00975	0.05 j	0.00317 j	0.016 j	--	0.401	2.2
KDHE Split	3/23/2016	16.7 j	2.9	5.7	0.462	<0.025 j	0.168 j	<0.025	0.73	--	0.197 j	0.0085 Jj	--	--	0.068 J j	0.019 J j	0.0251 j	--	0.406	2
MW-2	8/8/2013	2.3	--	--	<0.005	<0.005	<0.005	0.13	0.12	0.099	<0.005	<0.005	0.017	0.02	<0.005	<0.005	<0.005	<0.005	0.027	0.021
DUP	8/8/2013	2.2	--	--	<0.005	<0.005	<0.005	0.13	0.15	0.11	<0.005	<0.005	0.021	0.021	<0.005	<0.005	<0.005	<0.005	0.031	0.026
	10/23/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	0.11	--	--	0.0085	<0.001	0.0030	<0.002	0.0034	0.0038	0.018	<0.001	0.010	0.0013	0.0024	<0.001	0.0014	0.0097	0.0095	0.020
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	0.089	--	--	<0.001	<0.001	<0.001	<0.002	0.0013	<0.001	<0.001	<0.001	0.0052	<0.001	<0.001	<0.001	<0.001	0.0026	0.0089	0.0078
	9/16/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	0.0032	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-3	8/9/2013	6	--	--	0.054	<0.005	0.010	0.016	1.2	0.070	0.12	<0.005	0.086	0.014	0.011	<0.005	0.0074	0.12	0.4	0.21
	10/24/2013	1.7	--	--	0.075	<0.001	0.012	0.0057	1.1	0.082	0.12	0.0061	0.065	0.011	0.017	0.010	0.010	0.011	0.051	0.077
DUP	10/24/2013	2.0	--	--	0.073	<0.001	0.012	0.0059	1.1	0.077	0.11	0.0058	0.063	0.011	0.018	0.001	0.010	0.011	0.051	0.075
	1/28/2014	2.8	--	--	0.038	<0.001	<0.001	0.0069	0.76	0.072	0.07	0.0062	0.0098	0.0061	0.0081	<0.001	0.0079	<0.001	0.0081	0.011
	4/8/2014	3.0	--	--	0.048	<0.005	0.010	<0.01	0.64	<0.005	0.058	0.0061	--	0.0075	0.014	<0.005	0.011	--	0.1	0.053
	7/24/2014	9.8	--	--	0.16	<0.010	0.037	<0.020	1.8	0.081	0.51	<0.010	0.32	<0.010	0.028	<0.010	0.023	0.51	1.6	0.83
	10/30/2014	6.1	--	--	0.12	<0.010	0.025	<0.020	1.1	0.085	0.36	<0.010	0.17	0.019	0.029	<0.010	0.018	0.18	0.15	0.35
	2/10/2015	7.9	--	--	0.19	<0.010	0.047	<0.020	1.4	0.15	0.52	0.014	0.41	0.034	0.054	<0.010	0.032	0.32	0.93	0.73
	6/17/2015	21	--	--	0.46	<0.005	0.11	<0.01	1.6	0.016	0.95	0.030	0.92	0.029	0.10	0.031	0.078	0.57	1.5	1.5
	9/15/2015	11	--	--	0.28	<0.005	0.054	<0.01	1.2	0.19	0.65	0.023	--	0.020	0.039	<0.005	0.057	--	0.045	0.27
DUP	9/15/2015	11	--	--	0.089	<0.005	0.079	<0.01	0.98	0.23	0.77	0.032	--	0.031	0.086	0.012	0.070	--	0.048	0.37
	12/16/2015	5	--	--	0.241	<0.005	0.0317	<0.05	0.849	0.151	0.643	0.026	--	0.0215	0.054	<0.005	0.061	--	<0.025	<0.015
	3/23/2016	1.55	1.26	0.51	0.0251 j	<0.0005	0.00144 j	<0.0025	0.257 j	0.0421	0.192	0.00743	--	<0.001	0.0156	0.000787 j	0.0191	--	0.00172 j	<0.0075
KDHE Split	3/23/2016	1.9 J	1.4	0.6	0.0333 j	<0.005	0.0028 J j	<0.05	0.346 j	--	0.227	0.0099	--	--	0.0198 J	0.0016 J j	0.0246	--	0.0026 J j	<0.015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-4	8/8/2013	0.48	--	--	0.0013	<0.001	0.0013	<0.002	**0.035**	0.012	0.0075	0.0013	0.027	0.0027	**0.0027**	<0.001	0.0022	0.011	0.056	0.038
	10/23/2013	**1.0**	--	--	**0.0096**	<0.001	0.016	0.0046	**0.083**	0.050	0.017	<0.0010	0.0071	0.0085	**0.0036**	<0.001	0.0013	0.034	0.034	0.041
	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	**2.5**	--	--	**0.054**	<0.001	0.027	0.0043	**0.23**	0.070	0.15	0.0039	--	0.0071	**0.016**	0.0022	0.0084	--	0.2	0.14
	7/24/2014	**0.75**	--	--	**0.047**	<0.001	0.017	<0.002	**0.11**	0.022	0.049	0.0029	0.043	0.0027	**0.0092**	<0.001	0.0070	0.028	0.015	0.070
DUP	7/24/2014	**0.79**	--	--	**0.054**	<0.001	0.019	<0.002	**0.11**	0.025	0.057	0.0033	0.050	0.0031	**0.0098**	0.0017	0.0080	0.032	0.017	0.083
	10/30/2014	**4.8**	--	--	**0.20**	<0.001	**0.089**	<0.002	**0.49**	0.097	0.40	0.014	0.20	0.017	**0.062**	0.0078	0.039	0.24	0.33	0.44
	2/10/2015	**1.6**	--	--	**0.12**	<0.001	**0.058**	<0.002	**0.17**	0.052	0.12	0.0042	0.022	0.0092	**0.019**	0.0058	0.0077	0.081	0.042	0.10
	6/16/2015	0.14	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0013	<0.001	0.0046	<0.001	<0.001	<0.001	<0.001	0.003	0.0059	0.0077
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	0.000725	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-5	8/8/2013	**0.94**	--	--	**0.015**	<0.001	**0.15**	<0.002	**0.038**	0.24	0.002	0.0018	0.11	0.0046	**0.0084**	<0.001	0.0023	0.0068	0.05	0.17
	10/24/2013	**2.1**	--	--	**0.098**	<0.001	0.028	<0.002	**0.081**	0.039	0.063	0.0051	0.20	0.0075	**0.023**	0.0026	0.011	0.12	0.10	0.32
	1/30/2014	**0.61**	--	--	**0.038**	0.0012	0.011	<0.002	**0.05**	0.018	0.034	0.0022	0.041	0.0017	**0.0086**	<0.001	0.0046	0.033	0.009	0.075
	4/8/2014	0.35 J	--	--	0.0051 J	<0.001	0.0013 J	0.0021 J	**0.025 J**	<0.001	0.0018 J	0.0021 J	--	0.0015 J	**0.0085 J**	<0.001	<0.001	--	0.0024 J	0.041 J
DUP	4/8/2014	**0.52 J**	--	--	**0.012 J**	<0.001	0.0035 J	0.0033 J	**0.037 J**	<0.001	0.0058 J	0.003 J	--	0.0019 J	**0.013 J**	0.001	0.0014 J	--	0.0061 J	0.06 J
	7/23/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	**0.0014**	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	7/23/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	**0.0013**	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	0.0018	<0.001	<0.001	<0.001	0.0048	<0.001	<0.001	<0.001	<0.001	0.0027	0.010	0.0075
	2/10/2015	0.27	--	--	**0.0092**	<0.001	0.0024	<0.002	**0.040**	0.016	0.0071	0.0020	0.0068	0.0030	**0.0069**	0.0016	0.0021	0.011	0.0092	0.018
	6/16/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/16/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	0.0024	<0.001	<0.001	<0.001	--	<0.001	**0.0021**	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	0.00318 j	<0.0005	0.00154 j	<0.0025	0.00446 j	0.00415	0.0031 j	0.000686	--	<0.001	**0.0029**	<0.0005	0.000897 j	--	0.00181 j	0.00348
Duplicate	3/22/2016	<0.10	<0.10	<0.10	0.00433 j	<0.0005	0.00205 j	<0.0025	**0.00618 j**	0.00399	0.00443 j	0.000945	--	<0.001	**0.00324**	<0.0005	0.00129 j	--	0.00252 j	0.00446
MW-6	8/9/2013	<0.05	--	--	<0.001	<0.001	<0.001	0.0029	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0026**	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0031	<0.001	0.0032	<0.001	0.0027	<0.001	<0.001	<0.001	<0.001	0.0031	0.0083	0.0059
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0028	<0.001	<0.001	<0.001	<0.001	0.0014	0.0052	0.0042
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	0.24	--	--	0.0017	<0.001	<0.001	<0.002	0.0022	<0.001	0.0022	<0.001	--	<0.001	**0.0020**	<0.001	<0.001	--	0.0076	0.010
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-7	8/9/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0012	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0014	<0.003
	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0024	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	0.089	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	0.11	--	--	0.0027	<0.001	<0.001	<0.002	0.0029	<0.001	0.0031	<0.001	--	<0.001	**0.0024**	<0.001	<0.001	--	0.0088	0.014
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-8	8/8/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	0.16	--	--	0.0026	<0.001	0.001	<0.002	0.0030	<0.001	0.0049	<0.001	0.013	<0.001	**0.0041**	<0.001	<0.001	0.0056	0.020	0.018
DUP	1/30/2014	0.15	--	--	0.0031	<0.001	0.001	<0.002	0.0038	<0.001	0.0056	0.0011	0.014	<0.001	**0.0040**	<0.001	<0.001	0.0064	0.025	0.021
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0014	<0.001	<0.001	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	0.0024	0.0082	0.0065
DUP	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0013	<0.001	<0.001	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	0.0021	0.0081	0.0063
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0017	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/23/2016	<0.10	<0.10	<0.10	<0.0005 j	<0.0005	<0.0005	<0.0025	<0.0005 j	<0.001	0.00074	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
KDHE Split	3/23/2016	<0.50	<0.05	<0.06	0.00015 J j	<0.001	<0.001	<0.01	0.00048 Jj	--	0.00094 J	<0.001	--	--	<0.01	<0.001	<0.001	--	<0.001	<0.003
MW-9	8/9/2013	**36**	--	--	**0.82**	<0.001	**0.23**	0.23	**0.99**	0.21	0.65	0.025	2.8	0.048	**0.17**	0.014	0.068	1.3	**4.4**	4.1
	10/23/2013	0.054	--	--	<0.001	<0.001	<0.001	<0.002	0.0026	0.0011	<0.001	<0.001	<0.002	0.0025	**0.001**	<0.001	<0.001	<0.001	<0.001	<0.003
	11/25/2013	**0.57**	--	--	**0.022**	<0.010	0.013	0.004	**0.058**	0.017	0.0019	<0.001	0.019	0.0028	**0.0084**	<0.001	<0.001	0.018	0.005	0.037
	1/28/2014	0.058	--	--	<0.001	<0.001	<0.001	<0.002	0.0046	0.0015	<0.001	<0.001	<0.002	<0.001	**0.0033**	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
DUP	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0017	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0026	<0.003
DUP	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0023	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0053	<0.003
	9/15/2015	<0.05	--	--	0.0016	<0.001	<0.001	<0.002	0.0019	<0.001	0.0031	<0.001	--	<0.001	**0.0021**	<0.001	<0.001	--	0.0022	0.0043
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
Duplicate	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-10	8/9/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/23/2013	**2.6**	--	--	**0.033**	<0.001	0.029	0.014	**0.051**	0.069	0.0034	<0.001	0.27	0.021	**0.0013**	0.0014	<0.001	0.15	0.14	0.42
	11/25/2013	**3.7**	--	--	**0.22**	<0.001	**0.072**	0.019	**0.016**	0.081	0.027	0.0065	0.26	0.016	**0.023**	<0.001	0.025	0.12	0.048	0.38
	1/28/2014	**1.1**	--	--	**0.12**	<0.001	0.039	0.0023	**0.026**	0.0081	0.036	0.0049	0.073	0.0036	**0.014**	0.0064	0.015	0.05	0.048	0.12
	4/8/2014	**8.8**	--	--	**0.56**	<0.005	**0.23**	<0.01	**0.12**	<0.005	0.11	0.011	--	0.026	**0.035**	<0.005	<0.005	--	0.3	1.1
	8/1/2014	0.091	--	--	<0.001	<0.001	<0.001	0.0066	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.066	--	--	<0.001	<0.001	<0.001	<0.002	0.0021	<0.001	<0.001	<0.001	0.0058	<0.001	<0.001	<0.001	<0.001	0.0034	0.013	0.0092
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	0.35	--	--	<0.001	<0.001	<0.001	0.0029	0.0024	0.0032	<0.001	<0.001	0.0040	0.0045	<0.001	<0.001	<0.001	0.0021	0.0068	0.0062
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0014	<0.001	--	<0.001	**0.0019**	<0.001	<0.001	--	0.0016	<0.003
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	0.212	--	--	<0.001	<0.001	<0.001	<0.01	**0.00819**	0.0336	<0.001	<0.001	--	0.00514	<0.005	<0.001	<0.001	--	<0.005	0.00577
	3/23/2016	<0.10	<0.10 j	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	0.000703	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
KDHE Split	3/23/2016	<0.50	0.025 J j	<0.06	0.00021 J	0.00023 J	<0.001	<0.01	0.00079 J	--	<0.001	<0.001	--	--	<0.01	<0.001	<0.001	--	<0.001	<0.003
MW-11	10/23/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	0.25	--	--	**0.016**	<0.001	0.0058	<0.02	**0.012**	0.0078	0.038	0.0011	0.021	0.0014	**0.0059**	<0.001	0.0024	0.023	0.023	0.044
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0010	<0.001	<0.002	<0.001	**0.0034**	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0032	<0.003
DUP	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0035	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-12	10/23/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/9/2014	0.081	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.12	--	--	0.0011	<0.001	<0.001	<0.002	**0.0050**	<0.001	0.0017	<0.001	0.010	<0.001	<0.001	<0.001	<0.001	0.0063	0.027	0.016
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0054	<0.001	<0.001	<0.001	<0.001	0.0029	0.0064	0.0083
	6/16/2015	0.061	--	--	<0.001	<0.001	<0.001	<0.002	0.0014	<0.001	0.0013	<0.001	0.0058	<0.001	<0.001	<0.001	<0.001	0.0028	0.011	0.0086
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	**0.0018**	<0.001	<0.001	--	0.0013	<0.003
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-13	10/23/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0032	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	0.072	--	--	0.0014	<0.001	<0.001	<0.002	0.0011	<0.001	0.0024	<0.001	0.0063	<0.001	**0.0038**	<0.001	<0.001	0.0026	0.0083	0.0089
	4/8/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.056	--	--	<0.001	<0.001	<0.001	<0.002	0.0028	<0.001	0.0011	<0.001	0.0065	<0.001	<0.001	<0.001	<0.001	0.0040	0.015	0.011
	2/10/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0019	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
DUP	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-14	10/23/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	--	--	0.0011	<0.001	<0.001	<0.002	<0.001	<0.001	0.0016	<0.001	0.0043	<0.001	<0.001	<0.001	<0.001	0.0017	0.0059	0.0061
	4/9/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	**0.54**	--	--	0.0029	<0.001	0.0013	<0.002	**0.021**	<0.001	0.0049	<0.001	0.036	<0.001	<0.001	<0.001	<0.001	0.022	0.10	0.058
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-15	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0012	<0.001	<0.001	<0.001	0.0030	<0.001	<0.001	<0.001	<0.001	0.0018	0.0072	0.0048
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0043	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	**0.0018**	<0.001	<0.001	--	0.0018	<0.003
	10/22/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
MW-16	10/23/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0027	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	1/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0026	<0.001	<0.001	<0.001	<0.001	0.0014	0.0050	0.0040
	2/10/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0029	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
MW-17	6/16/2015	**95**	--	--	**0.19**	<0.001	**0.31**	0.044	**2.0**	0.37	**1.5**	0.044	3.4	0.038	**0.14**	0.015	0.10	1.8	**6.8**	5.2
	9/15/2015	**13**	--	--	**0.45**	<0.001	**0.11**	0.0061	**0.71**	0.23	0.59	0.026	--	0.031	**0.068**	<0.001	0.061	--	0.46	1.0
	12/16/2015	**2.24**	--	--	**0.052**	<0.001	0.00125	<0.01	**0.27**	0.08	0.153	0.00807	--	0.0142	**0.0125**	<0.001	0.014	--	0.0619	0.1
	3/22/2016	**3.03**	**2.05**	**1.27**	**0.0431**	<0.0005	0.00223	<0.0025	**0.338**	0.0821	0.0226	0.00467	--	0.00918	**0.00584**	<0.0005	0.002	--	0.0464	0.0699
MW-18	6/16/2015	**6.3**	--	--	**0.021**	<0.001	0.021	<0.002	**0.26**	0.036	0.12	0.0041	0.24	0.0035	**0.015**	0.0016	0.0089	0.17	0.59	0.41
	9/15/2015	**3.0**	--	--	**0.069**	<0.001	0.019	<0.002	**0.26**	0.036	0.12	0.0040	--	0.0036	**0.019**	<0.001	0.0089	--	0.090	0.29
DUP	9/15/2015	**3.2**	--	--	**0.023**	<0.001	0.017	<0.002	**0.25**	0.037	0.11	0.0043	--	0.0041	**0.022**	0.0018	0.0090	--	0.097	0.28
	12/15/2015	<0.10	--	--	<0.001 J	<0.001	<0.001	<0.01	**0.00929 J**	0.00178 J	0.00446 J	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
DUP	12/15/2015	<0.10	--	--	0.00154 J	<0.001	<0.001	<0.01	**0.0177 J**	0.00382 J	0.00771 J	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	**0.923**	**0.563**	**0.15**	**0.0116**	<0.0005	0.00266	<0.0025	**0.107**	0.0214	0.0628	0.00227	--	0.00251	**0.00365**	<0.0005	0.0048	--	0.0107	0.0135
MW-19	6/16/2015	**0.99 J**	--	--	**0.024 J**	<0.001	0.0074	<0.002	**0.11**	0.013	0.045	0.0015	0.16	<0.001	**0.0029 J**	<0.001	0.0031	0.068	0.30	0.23
DUP	6/16/2015	**2.5 J**	--	--	0.0071 J	<0.001	0.0062	<0.002	**0.11**	0.012	0.046	0.0016	0.13	<0.001	**0.0051 J**	<0.001	0.0027	0.067	0.30	0.19
	9/15/2015	**1.4**	--	--	**0.020**	<0.001	0.0051	0.0044	**0.11**	0.016	0.037	0.0015	--	0.0016	**0.0034**	<0.001	0.0030	--	0.15	0.16
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	**0.00545**	0.00105	0.00169	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	0.00221	<0.001	0.000875	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
Irrigation Wells																				
2001 N Colt Ct	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005 j	<0.0005	<0.0005	<0.0025	<0.0005 j	<0.001 j	<0.0005 j	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015 j
Duplicate	3/22/2016	<0.10	<0.10	<0.10	0.000852 j	<0.0005	<0.0005	<0.0025	0.00188 j	0.00114 j	0.000685 j	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	0.00156 j
2004 N Colt Ct	6/16/2015	0.056	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/21/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
Irrigation Wells																				
2005 N Colt Ct	7/26/2013	**6.6**	--	--	**0.16**	<0.005	**0.045**	0.019	**0.47**	0.09	0.13	<0.005	0.27	0.014	**0.027**	<0.005	0.013	0.17	0.34	0.44
	10/24/2013	**4.2**	--	--	**0.14**	<0.001	0.022	<0.002	**0.31**	0.073	0.19	0.0055	0.27	0.012	**0.023**	0.0039	0.017	0.15	0.35	0.42
	1/31/2014	**3.7**	--	--	**0.13**	0.0041	0.029	<0.002	**0.15**	0.07	0.17	0.0057	0.26	0.01	**0.017**	0.0034	0.018	0.14	0.33	0.40
	4/10/2014	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/23/2014	0.39	--	--	**0.018**	<0.001	0.0039	<0.002	**0.027**	0.011	0.023	<0.001	0.025	0.0019	**0.0025**	<0.001	0.0022	0.019	0.043	0.044
	10/30/2014	**2.2**	--	--	**0.077**	<0.001	0.0094	<0.002	**0.23**	0.055	0.19	0.0043	0.078	0.0091	**0.017**	0.0013	0.014	0.043	0.21	0.12
	2/12/2015	**1.4**	--	--	**0.039**	<0.001	0.0091	<0.002	**0.059**	0.022	0.041	0.0013	0.053	0.0039	**0.0045**	<0.001	0.0044	0.034	0.11	0.088
	6/16/2015	**2.3**	--	--	**0.012**	<0.001	0.013	<0.002	**0.066**	0.027	0.066	0.0027	0.081	0.0039	**0.0095**	<0.001	0.0069	0.087	0.18	0.17
	9/14/2015	**4.9**	--	--	**0.082**	<0.001	0.020	<0.002	**0.18**	0.053	0.15	0.0038	--	0.010	**0.013**	<0.001	0.012	--	0.68	0.34
DUP	9/14/2015	**5.2**	--	--	**0.090**	<0.001	0.022	<0.002	**0.20**	0.051	0.17	0.0044	--	0.0090	**0.013**	<0.001	0.013	--	0.70	0.38
	12/15/2015	**2.75**	--	--	**0.0672**	<0.001	0.0169	<0.01	**0.109**	0.0284	0.127	0.00317	--	0.00434	**0.0136**	<0.001	0.00952	--	0.418	0.28
	3/21/2016	**3.42**	**4.54**	**1.37**	**0.229**	<0.01	**0.0601**	<0.05	**0.164**	0.0721	0.320	<0.01	--	<0.02	**0.0330**	<0.01	0.0302	--	0.845	0.727
2002 N Colt Ct	7/26/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0047	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.0010		<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
HOA-1	8/20/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	0.076	--	--	0.0018	<0.001	<0.001	<0.002	**0.011**	0.0019	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0067	<0.001	0.0067
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
DUP	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
HOA-2	10/31/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
2006 N Colt Ct	6/12/2012	--	--	--	--	<0.005	--	<0.0020	**17**	3.0	**14**	**0.64**	46	1.1	**5.2**	--	--	19	**91**	**65**
	4/10/2014	**23**	--	--	**0.75**	<0.005	**0.28**	0.026	**0.98**	0.16	0.36	0.016	--	0.038	**0.076**	<0.005	0.048	--	**2**	2.1
	6/16/2015	**140**	--	--	**1.8**	<0.025	**0.55**	<0.05	**2.1**	0.42	**2.2**	0.073	6.0	0.063	**0.19**	0.046	0.24	3.0	**9.9**	9.0
	9/15/2015	**29**	--	--	**0.82**	<0.005	**0.21**	<0.01	**1.1**	0.28	**1.2**	0.039	--	0.055	**0.12**	<0.005	0.100	--	**1.7**	2.8
	12/16/2015	**39.6**	--	--	**1.12**	<0.025	**0.278**	<0.25	**1.74**	0.151	**1.48**	0.0419	--	0.039	**0.201**	<0.025	0.111	--	**3.39**	4.71
	3/22/2016	**13.3**	**5.43**	**4.01**	**0.564**	<0.0125	**0.124**	<0.0625	**0.628**	0.102	**0.794**	0.0257	--	<0.025	**0.0898**	<0.0125	0.0698	--	0.899	2.00
2007 N Colt Ct	7/26/2013	**0.71**	--	--	**0.018**	<0.001	0.0061	<0.002	**0.14**	0.018	0.01	0.0014	0.025	0.002	**0.0052**	<0.001	0.002	0.024	0.045	0.048
	10/25/2013	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/29/2014	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/10/2014	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	0.40	--	--	**0.025**	<0.001	<0.001	<0.002	**0.052**	0.019	0.027	<0.001	0.023	0.0018	**0.0039**	<0.001	0.0025	0.0025	0.022	0.025
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	0.000835	<0.0005	<0.0005	<0.0025	0.00184	0.00109	0.000643	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	0.00156
2019 N Ruger Cir	8/9/2013	0.42	--	--	<0.001	<0.001	<0.001	<0.002	**0.085**	0.026	0.0034	0.0013	0.0046	0.0035	**0.0021**	<0.001	0.0016	0.0034	0.017	0.0081
	10/25/2013	0.28	--	--	**0.015**	<0.001	<0.001	<0.002	**0.13**	0.0084	0.0062	<0.0010	<0.0020	0.0030	0.0010	<0.001	<0.001	<0.001	0.0011	<0.003
	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.050	--	--	<0.001	<0.001	<0.001	0.0032	0.0048	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	0.17	--	--	0.0018	<0.001	<0.001	<0.002	**0.069**	0.0051	<0.001	<0.001	--	<0.001	**0.0016**	<0.001	<0.001	0.0048	0.002	0.0055
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	0.12	--	--	<0.001	<0.001	<0.001	<0.002	**0.053**	0.0054	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	**0.0050**	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
Duplicate	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
2020 N Ruger Cir	7/26/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	0.0015	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/20/2014	0.075	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	0.38	--	--	<0.001	<0.001	<0.001	0.16	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	0.059	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/14/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2028 N Ruger Cir	8/20/2013	0.47	--	--	<0.001	<0.001	<0.001	<0.002	**0.011**	0.042	<0.001	<0.001	<0.002	0.0051	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	--	--	<0.001	<0.001	<0.001	0.015	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	0.015	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
DUP	4/10/2014	0.066	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	0.0037	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2032 N Ruger Cir	8/20/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.03
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.03
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
2021 N Ruger Ct	8/28/2013	<0.050	--	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	10/25/2013	<0.050	--	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	1/29/2014	<0.05	--	--	<0.001	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2025 N Ruger Ct	8/28/2013	<0.050	--	--	0.0028	<0.0010	0.0012	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	10/25/2013	<0.050	--	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	1/31/2014	<0.050	--	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	4/10/2014	<0.050	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
1009 W Mountain	8/20/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
2007 N Mountain Ct	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.0010	<0.001	<0.001	0.014	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0012	0.0013	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
2009 N Mountain Ct	8/20/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/16/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/16/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015
1211 W Quail Crossing Ct	8/20/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
DUP	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	6/17/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
DUP	9/15/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	12/15/2015	<0.10	--	--	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.005	<0.001	<0.001	--	<0.005	<0.003
	3/22/2016	<0.10	<0.10	<0.10	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.001	<0.0005	<0.0005	--	<0.001	<0.0005	<0.0005	<0.0005	--	<0.0005	<0.0015

Please refer to notes at end of table.

Table B-2
Historical Groundwater Analytical Results – Monitoring and Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	LRH	MRH	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5-Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																		
1910 N Quail Crossing	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
KDHE Tier 2 Values		**0.5**			**0.00844**	**0.005**	**0.044**	**4.92**	**0.005**	**7.02**	**0.7**	**0.45**	**NE**	**NE**	**0.00111**	**0.169**	**0.66**	**NE**	**1**	**10**

Notes:

1. GRO = Gasoline-range organics analyzed by U.S. Environmental Protection Agency (EPA) Method 8015D.
2. KDHE analyzed GRO during the March 2016 event by EPA Method 8260.
3. LRH = Low-range hydrocarbons. LRH was first analyzed during the March 2016 event by EPA Method 8015. KDHE anayzed LRH in March 2016 by EPA Method 8260.
4. MRH = Middle-range hydrocarbons. MRH was first analyzed during the March 2016 event by EPA Method 8015M.
5. Volatile organic compounds by U.S. Environmental Protection Agency (EPA) Method 8260B.
6. mg/L (ppm) = Milligrams per liter (parts per million).
7. **Bold** indicates detected concentration above the KDHE screening value.
8. < = Not detected above the method reporting limit (MRL).
9. -- = Not analyzed.
10. Duplicate = Field Duplicate Sample
11. NE = A KDHE Tier 2 Risk Based Screening Value has not been established.
12. KDHE Tier 2 Screening Values from the *Risk-Based Standards for Kansas, 5th Edition*, October 2010.
11. NS = No sample collected.
12. J = Estimated value
13. j = Relative percent difference was greater than +/-30%.

Table B-3
Separate- and Dissolved-Phase Recovery Data – 2006 N Colt Court
June 2012 through June 2013
Andover Colt Court Release Site
Andover, Kansas

Well	Date	Approximate SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	Fluid Removal Technology
Irrigation Well - 2006 N Colt Court	6/14/2012	20	220	Mobile vacuum truck/hand bailer
	6/15/2012	20	220	Mobile vacuum truck/hand bailer
	6/28/2012	10	10	Hand bailer
	7/2/2012	10	10	Hand bailer
	7/3/2012	5	5	Hand bailer
	7/5/2012	8	8	Hand bailer
	7/5/2012	5	80	Mobile vacuum truck
	8/15/2012	15	15	Hand bailer
	8/20/2012	5	5	Hand bailer
	11/8/2012	15	15	Hand bailer
	11/15/2012	15	15	Hand bailer
	11/21/2012	15	15	Hand bailer
	11/30/2012	7	7	Hand bailer
	12/7/2012	4	8	Hand bailer
	12/14/2012	2	4	Hand bailer
	12/21/2012	2	4	Hand bailer
	12/28/2012	1.5	4	Hand bailer
	1/4/2013	1	2	Hand bailer
	1/17/2013	1.5	4	Hand bailer
	2/1/2013	2	4	Hand bailer
	2/13/2013	3	5	Hand bailer
	3/15/2013	10	11	Hand bailer
	3/20/2013	5	5	Hand bailer
	4/5/2013	8	9	Hand bailer
	4/12/2013	1	5	Hand bailer
	4/25/2013	4	6	Hand bailer
	5/10/2013	9	11	Hand bailer
	5/17/2013	4	5	Hand bailer
	5/21/2013	1	3	Hand bailer
	6/5/2013	1	3	Hand bailer
Total Fluids Recovered	--	**210**	**716**	--

Notes:

1. SPH = Separate-phase hydrocarbons.
2. The SPH volume removed using vacuum technology was calculated by measuring the SPH thicknesses in the well before and after each event and estimating the volume of SPH in the corresponding gravel pack interval.
3. The volume of SPH removed by hand bailing was measured.
4. NM = Not measured.

Table B-4
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
6/12/2013	42.19	41.38	0.81	8.0	NM	0.00	Mobile vacuum truck and hand bailing
6/21/2013	43.73	43.40	0.33	0.8	NM	0.00	Mobile vacuum truck
6/26/2013	43.59	43.16	0.43	1.1	NM	0.00	Mobile vacuum truck
7/2/2013	49.31	49.01	0.30	0.8	NM	0.00	Mobile vacuum truck
7/12/2013	55.11	54.82	0.29	0.7	NM	0.00	Mobile vacuum truck
7/17/2013	55.10	54.88	0.22	0.5	NM	0.01	Mobile vacuum truck
8/1/2013	46.35	46.15	0.20	0.5	NM	0.01	Mobile vacuum truck
8/8/2013	41.49	–	0.00	0.0	NM	0.00	Mobile vacuum truck
8/13/2013	39.10	–	0.00	0.0	NM	0.00	Mobile vacuum truck
8/20/2013	37.40	–	0.00	0.0	NM	0.00	Mobile vacuum truck
8/28/2013	43.81	–	0.00	0.0	NM	0.0	Mobile vacuum truck
9/5/2013	47.86	–	0.00	0.0	NM	0.0	Mobile vacuum truck
9/11/2013	50.61	–	0.00	0.0	NM	0.0	Mobile vacuum truck
9/17/2013	49.06	–	0.00	0.0	NM	0.0	Mobile vacuum truck
9/23/2013	48.97	–	0.00	0.0	NM	0.0	Mobile vacuum truck
9/30/2013	48.63	–	0.00	0.0	NM	0.0	Mobile vacuum truck
10/10/2013	49.16	49.01	0.15	0.3	NM	0.0	Mobile vacuum truck
10/17/2013	48.40	–	0.00	0.0	NM	0.0	Mobile vacuum truck
10/24/2013	48.71	–	0.00	0.0	NM	0.0	Mobile vacuum truck
10/31/2013	44.86	–	0.00	0.0	NM	0.0	Mobile vacuum truck
11/6/2013	43.66	–	0.00	0.0	NM	0.0	Mobile vacuum truck
11/13/2013	41.82	–	0.00	0.0	NM	0.0	Mobile vacuum truck
11/20/2013	40.60	–	0.00	0.0	NM	0.0	Mobile vacuum truck
11/26/2013	40.30	40.19	0.11	0.3	NM	0.0	Mobile vacuum truck

Please refer to notes at end of table.

Table B-4
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
12/3/2013	39.44	sheen	0.00	0.0	NM	0.0	Mobile vacuum truck
12/11/2013	39.63	sheen	0.00	0.0	NM	0.0	Mobile vacuum truck
12/19/2013	39.23	--	0.00	0.0	NM	0.0	Mobile vacuum truck
12/27/2013	39.38	39.34	0.04	0.1	NM	0.0	Mobile vacuum truck
1/3/2014	NM	NM	NM	--	50.0	NM	Mobile vacuum truck
1/10/2014	39.89	--	0.00	0.0	50.0	0.0	Mobile vacuum truck
1/16/2014	39.83	--	0.00	0.0	50.0	0.0	Mobile vacuum truck
1/21/2014	39.34	--	0.00	0.0	75.0	0.0	Mobile vacuum truck
1/30/2014	38.85	--	0.00	0.0	50.0	0.0	Mobile vacuum truck
2/12/2014	39.44	39.43	0.01	0.0	100.0	0.0	Mobile vacuum truck
2/19/2014	39.37	39.36	0.01	0.0	75.0	0.0	Mobile vacuum truck
2/26/2014	39.64	39.60	0.04	0.1	100.0	0.0	Mobile vacuum truck
3/4/2014	39.76	39.73	0.03	0.1	75.0	0.0	Mobile vacuum truck
3/13/2014	39.89	39.86	0.03	0.1	100.0	0.0	Mobile vacuum truck
3/18/2014	39.65	39.61	0.04	0.1	50.0	0.0	Mobile vacuum truck
3/27/2014	39.73	39.69	0.04	0.1	100.0	0.0	Mobile vacuum truck
4/3/2014	40.46	40.42	0.04	0.1	50.0	0.0	Mobile vacuum truck
4/8/2014	41.14	41.11	0.03	0.1	50.0	0.0	Mobile vacuum truck
4/9/2014	41.47	41.43	0.04	0.1	50.0	0.0	Mobile vacuum truck
4/10/2014	41.82	41.76	0.06	0.2	50.0	0.0	Mobile vacuum truck
4/11/2014	43.25	43.21	0.04	0.1	50.0	0.0	Mobile vacuum truck
4/17/2014	43.17	43.13	0.04	0.1	25.0	0.0	Mobile vacuum truck
4/22/2014	44.95	44.90	0.05	0.1	25.0	0.0	Mobile vacuum truck
4/29/2014	46.43	46.36	0.07	0.2	25.0	0.0	Mobile vacuum truck

Please refer to notes at end of table.

Table B-4
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
5/8/2014	51.28	51.15	0.13	0.3	25.0	0.0	Mobile vacuum truck
5/13/2014	51.83	51.66	0.17	0.4	50.0	0.0	Mobile vacuum truck
5/20/2014	54.12	53.94	0.18	0.4	25.0	0.0	Mobile vacuum truck
5/21/2014	55.28	55.11	0.17	0.4	25.0	0.0	Mobile vacuum truck
5/29/2014	52.24	52.06	0.18	0.4	0.0	0.0	Mobile vacuum truck
5/30/2014	53.32	53.13	0.19	0.5	0.0	0.0	Mobile vacuum truck
6/2/2014	52.65	52.50	0.15	0.4	75.0	0.0	Mobile vacuum truck
6/3/2014	52.63	52.49	0.14	0.4	25.0	0.0	Mobile vacuum truck
6/10/2014	48.48	48.31	0.17	0.4	50.0	0.0	Mobile vacuum truck
6/11/2014	49.10	48.95	0.15	0.4	25.0	0.0	Mobile vacuum truck
6/18/2014	46.34	46.20	0.14	0.4	25.0	0.0	Mobile vacuum truck
6/19/2014	47.60	47.43	0.17	0.4	0.0	0.0	Mobile vacuum truck
6/24/2014	47.80	47.67	0.13	0.3	25.0	0.0	Mobile vacuum truck
6/25/2014	46.94	46.81	0.13	0.3	25.0	0.0	Mobile vacuum truck
7/1/2014	44.64	44.50	0.14	0.3	0.0	0.0	Mobile vacuum truck
7/2/2014	44.78	44.64	0.14	0.4	0.0	0.0	Mobile vacuum truck
7/10/2014	46.12	46.03	0.09	0.2	10.0	0.0	Mobile vacuum truck
7/11/2014	47.02	46.91	0.11	0.3	0.0	0.0	Mobile vacuum truck
7/15/2014	46.41	46.33	0.08	0.1	50.0	0.0	Mobile vacuum truck
7/16/2014	47.55	47.41	0.14	0.3	50.0	0.0	Mobile vacuum truck
7/22/2014	48.32	48.21	0.11	0.3	25.0	0.0	Mobile vacuum truck
7/23/2014	49.38	49.27	0.11	0.3	25.0	0.0	Mobile vacuum truck
7/31/2014	49.18	49.06	0.12	0.3	25.0	0.0	Mobile vacuum truck

Please refer to notes at end of table.

Table B-4
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
8/1/2014	51.04	--	0.00	0.0	25.0	0.0	Mobile vacuum truck
8/5/2014	52.05	51.92	0.13	0.1	25.0	0.1	Mobile vacuum truck
8/6/2014	52.92	52.79	0.13	0.3	25.0	sheen	Mobile vacuum truck
8/14/2015	52.94	52.79	0.15	0.2	25.0	0.1	Mobile vacuum truck
8/15/2014	51.40	51.31	0.09	0.2	25.0	0.0	Mobile vacuum truck
8/20/2014	54.23	54.09	0.14	0.3	25.0	0.0	Mobile vacuum truck
8/21/2014	55.02	54.98	0.04	0.1	0.0	0.0	Mobile vacuum truck
8/26/2014	58.27	58.20	0.07	0.1	25.0	0.0	Mobile vacuum truck
8/27/2014	58.57	58.39	0.18	0.4	25.0	0.0	Mobile vacuum truck
9/3/2014	57.48	57.29	0.19	0.4	25.0	0.0	Mobile vacuum truck
9/4/2014	58.28	58.22	0.06	0.2	25.0	0.0	Mobile vacuum truck
9/10/2014	58.12	57.94	0.18	0.4	0.0	0.0	Mobile vacuum truck
9/11/2014	59.15	58.96	0.19	0.4	0.0	0.0	Mobile vacuum truck
9/16/2014	58.14	57.98	0.16	0.4	0.0	0.0	Mobile vacuum truck
9/17/2014	58.95	58.75	0.20	0.5	25.0	0.0	Mobile vacuum truck
9/24/2014	59.17	58.95	0.22	0.5	0.0	sheen	Mobile vacuum truck
9/25/2014	60.58	60.35	0.23	0.6	0.0	0.0	Mobile vacuum truck
10/1/2014	60.51	60.30	0.21	0.4	25.0	0.1	Mobile vacuum truck
10/2/2014	60.53	60.47	0.06	0.2	25.0	0.0	Mobile vacuum truck
10/8/2014 (a.m.)	60.39	60.18	0.21	0.3	25.0	0.1	Mobile vacuum truck
10/8/2014 (p.m.)	60.24	60.12	0.12	0.2	25.0	0.1	Mobile vacuum truck
10/17/2014	--	--	--	--	25.0	--	Mobile vacuum truck

Please refer to notes at end of table.

Table B-4
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
10/18/2014	56.69	56.56	0.13	0.3	25.0	0.0	Mobile vacuum truck
10/21/2014	56.52	56.35	0.17	0.2	25.0	0.1	Mobile vacuum truck
10/22/2014	56.62	56.43	0.19	0.3	25.0	0.1	Mobile vacuum truck
10/30/2014	56.75	56.43	0.32	0.5	25.0	0.1	Mobile vacuum truck
11/4/2014	56.21	56.09	0.12	0.1	25.0	0.1	Mobile vacuum truck
11/11/2014	54.45	54.35	0.10	0.2	25.0	0.0	Mobile vacuum truck
11/18/2014	53.11	53.00	0.11	0.3	25.0	0.0	Mobile vacuum truck
11/25/2014	50.35	50.23	0.12	0.3	25.0	0.0	Mobile vacuum truck
12/3/2014	49.23	49.12	0.11	0.2	50.0	0.0	Mobile vacuum truck
12/3/2014	49.23	49.12	0.11	0.2	50.0	0.01	Mobile vacuum truck
12/9/2014	48.71	48.61	0.10	0.2	50.0	0.03	Mobile vacuum truck
12/17/2014	47.93	47.88	0.05	0.1	25.0	0.01	Mobile vacuum truck
12/23/2014	47.13	47.06	0.07	0.2	25.0	0.00	Mobile vacuum truck
12/31/2014	47.03	46.98	0.05	0.1	50.0	0.00	Mobile vacuum truck
1/7/2015	46.87	46.78	0.09	0.2	50.0	0.01	Mobile vacuum truck
1/14/2015	46.32	46.29	0.03	0.0	0.0	0.03	None
1/20/2015	46.27	–	0.00	0.0	0.0	0.00	None
1/28/2015	47.34	47.27	0.07	0.0	0.0	0.07	None
2/4/2015	45.92	45.84	0.08	0.0	0.0	0.08	None
2/9/2015	45.59	45.55	0.04	0.1	50.0	0.01	Mobile vacuum truck
3/18/2015	45.55	–	0.00	0.3	0.3	0.00	SPH Skimmer
4/20/2015	44.49	–	0.00	0.0	0.0	0.00	SPH Skimmer

Please refer to notes at end of table.

Table B-4
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
5/22/2015	45.13	–	–	0.0	0.0	0.00	SPH Skimmer
6/10/2015	45.43	–	0.00	0.0	0.0	0.00	SPH Skimmer
6/16/2015	42.38	–	0.00	0.0	0.0	0.00	SPH Skimmer
7/22/2015	47.66	–	–	0.0	0.0	0.00	SPH Skimmer
8/20/2015	46.98	–	–	0.0	0.0	0.00	SPH Skimmer
9/14/2015	49.56	–	–	0.0	0.0	0.00	SPH Skimmer
10/20/2015	47.56	–	–	0.0	0.0	0.00	SPH Skimmer
11/24/2015	48.66	–	–	0.0	0.0	0.00	SPH Skimmer
12/14/2015	46.98	–	–	0.0	0.0	0.00	SPH Skimmer
1/13/2016	37.27	–	–	0.0	0.0	0.00	SPH Skimmer
2/16/2016	36.89	–	–	0.0	0.0	0.00	SPH Skimmer
3/21/2016	37.03	–	–	0.0	0.0	0.00	SPH Skimmer
			Total Fluids Recovered	**32**	**2710**		

Notes:

1. SPH = Separate-phase hydrocarbons.
2. The SPH volume removed using vacuum technology was calculated by measuring the SPH thicknesses in the well before and after each event and estimating the volume of SPH in the corresponding gravel pack interval.
3. NM = Not measured.
4. – = No SPH.

Appendix C

Laboratory Analytical Report and QA/QC Report

Appendix C — Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

1.0 Introduction

This appendix documents the results of a quality assurance (QA) review of the analytical data for groundwater samples that were collected during groundwater monitoring activities that were performed in June, July, and August 2016 at the Quail Crossing neighborhood (the Neighborhood) in Andover, Kansas (Site).

The data reviewed herein include are representative of: (1) groundwater samples collected from monitoring/pilot test wells; and (2) groundwater samples collected from Neighborhood irrigation wells. The groundwater samples collected were analyzed by ESC Lab Sciences of Mount Juliet, Tennessee.

The QA review outlines the applicable quality control criteria utilized during the data review process, as well as any deviations from those criteria. Examination and validation of the laboratory summary reports include:

- Analytical methods;
- Reporting limits;
- Detection limits and estimated concentrations;
- Sample holding times;
- Custody records and sample receipt;
- Spikes, blanks, and surrogates; and
- Duplicates.

The QA review did not include a review of calibration or raw data. Section 2.0 lists the analytical methods used in sample analysis. Section 3.0 defines the QA terms used in this report. Section 4.0 provides the QA results for each sampling event.

2.0 Analytical Methods

2.1 Groundwater Analyses

Chemical analyses performed on groundwater samples consisted of the following:

- Low-range hydrocarbons (LRH) by Method 8015;
- Mid-range hydrocarbons (MRH) by Method 8015M; and
- 1,2,4-Trimethylbenzene, 1,2-dichloroethane, 1,3,5-trimethylbenzene, 2-butanone, cyclohexane, isopropylbenzene methylcyclohexane BTEX (benzene, toluene, ethylbenzene, total xylenes), naphthalene, n-butylbenzene, n-propylbenzene by U.S. Environmental Protection Agency (EPA) Method SW846 8260B.

3.0 Quality Assurance Objectives and Review Procedures

The general QA objectives for this project were to develop and implement procedures for obtaining, evaluating, and confirming the usability of environmental data of a specified quality. To collect such information, analytical data must have an appropriate degree of accuracy and reproducibility, samples collected must be representative of actual field conditions, and samples must be collected and analyzed using unbroken chain-of-custody (COC) procedures.

Reporting limits and analytical results were compared to action levels for each parameter. Precision, accuracy, representativeness, completeness, and comparability parameters used to indicate data quality are defined below.

Reporting Limits. Method reporting limits (MRLs) are set by the laboratory and are based on instrumentation abilities, sample matrix, and suggested MRLs by the EPA or KDHE. In some cases, the MRLs are raised due to high concentrations of analytes in the samples or matrix interferences. MRLs are generally consistent with industry standards and below promulgated regulatory standards when possible.

Detection Limits and Estimated Concentrations. The method detection limit (MDL) is the lowest quantity of a substance that can be distinguished from the absence of that substance within a stated confidence limit. The MDL is estimated from the mean of the blank, the standard deviation of the blank and some confidence factor.

Holding Times. Holding times are the length of time a sample can be stored after collection and prior to analysis without significantly affecting the analytical results. Holding times vary by analyte, sample matrix, and analytical methodology.

Custody Records and Sample Receipt. COC refers to the document or paper trail showing the collection, custody, control, transfer, analysis, and disposition of physical materials. The sample receipt identifies the condition of samples upon arrival at the analytical laboratory.

Method Blanks. A method, or laboratory, blank is a sample prepared in the laboratory along with the field samples and analyzed for the same parameters at the same time. It is used to assess for laboratory introduced contamination.

Laboratory Control Sample. A laboratory control sample (LCS) is analyzed by the laboratory to assess the accuracy of the analytical equipment. The sample is prepared from an analyte-free matrix that is then spiked with known levels of the constituents of interest (i.e., a standard). The concentrations are measured and the results compared to the known spiked levels. This comparison is expressed as percent recovery.

Laboratory Control Sample Duplicate. A laboratory control sample duplicate [LCSD]) is prepared and analyzed along with the LCS. The LCS and LCSD data are compared to assess the precision of the analytical method (i.e., the relative percent difference [RPD]).

Matrix Spike Analyses. Matrix spike (MS) analyses are performed on samples submitted to the laboratory that are of the same matrix as the field sample. The MS sample is spiked with known levels of the constituents of interest and analyzed to assess the potential for matrix interference with recovery or detection of the constituents of interest and the accuracy of the determination. The spiked sample results are compared to the expected result (i.e., sample concentration plus spike amount) and reported as percent recovery.

Lab Duplicate. A laboratory duplicate is a second analysis of a QA/QC sample, which serves as an internal check on laboratory quality as well as potential variability of the sample matrix. The laboratory duplicate is analyzed and compared to the primary sample results to assess the precision of the analytical method. This comparison can be expressed by the RPD between the primary and duplicate samples.

Surrogate Recovery. Surrogates are organic compounds that are similar in chemical composition to the analytes of interest and spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries for environmental samples are used to evaluate matrix interference on a sample-specific basis.

Field Duplicate. A field duplicate is a second field sample collected from a sampling location (e.g.., a well or soil core). Field duplicate samples serve as a check on laboratory quality as well as potential variability of the sample matrix. The field duplicate is analyzed and compared to the primary sample to assess the precision of the analytical method. This comparison can be expressed by the RPD between the original and duplicate samples.

Trip Blanks. A trip blank is a sample prepared in the laboratory that is shipped along with the sample bottles to the field, kept with the soil and groundwater samples during collection, and shipped back to the laboratory with the field samples. The trip blank is analyzed for constituents of interest, along with the primary samples, to assess if detected contaminants may have been the result of contamination of the samples during transport or storage.

Equipment Blank. An equipment blank is a sample collected in the field along with the primary samples and analyzed for the same parameters. Equipment blanks are collected by pouring deionized water over or through decontaminated equipment used to collect the samples, into laboratory supplied containers. The equipment blank is used to assess if field samples may have been affected by inadequate decontamination of field equipment.

4.0 QA/QC Review Results

4.1 Groundwater Lab Report L843460

The data reviewed includes groundwater samples collected from monitoring wells June 20 through 23, 2016. Samples were analyzed for LRH, MRH, and volatile organic compounds (VOCs) using the methods listed in Section 2.1.

Reporting Limits. MRLs were not elevated for samples. No data are flagged.

Detection Limits and Estimated Concentrations. MDLs and concentrations were not reported as estimates.

Holding Times. The samples were analyzed within applicable holding times.

Custody Records and Sample Receipt. The samples were received below the required temperature of 4°C and consistent with the accompanying COC.

Method Blanks. No compounds were detected in the method blanks. No data are flagged.

Laboratory Control Sample. Percent recoveries of the LCS were within control limits.

Laboratory Control Sample Duplicate. Percent recoveries of the LCSD were within control limits. LCS/LCSD RPDs were within control limits for reported constituents.

Matrix Spike Analyses. The RPD for the MS and MS duplicate (MSD) were within control limits.

Lab Duplicate. No lab duplicate was analyzed.

Surrogate Recovery. Surrogate recoveries were within control limits for samples.

Field Duplicate. Field duplicate samples were collected from wells MW-3 and MW-12. Constituents were within acceptable RPD for both samples.

Trip Blank. One trip blank was analyzed; no compounds were detected in the sample. No data are flagged.

Equipment Blank. No reusable equipment was utilized during this sampling event; therefore, an equipment blank was not collected.

Conclusion. In conclusion, the overall QA objectives have been met and the data are of adequate quality for use in this project.

4.2 Groundwater Lab Report L843589

The data reviewed includes groundwater samples collected from irrigation wells on June 20 and 21, 2016. Samples were analyzed for LRH, MRH, and VOCs using the methods listed in Section 2.1.

Reporting Limits. MRLs were not elevated for samples. No data are flagged.

Detection Limits and Estimated Concentrations. MDLs and concentrations were not reported as estimates.

Holding Times. The samples were analyzed within applicable holding times.

Custody Records and Sample Receipt. The samples were received below the required temperature of 4°C and consistent with the accompanying COC.

Method Blanks. No compounds were detected in the method blanks. No data are flagged.

Laboratory Control Sample. Percent recoveries of the LCS were within control limits.

Laboratory Control Sample Duplicate. Percent recoveries of the LCSD were within control limits. LCS/LCSD RPDs were within control limits for reported constituents.

Matrix Spike Analyses. MS/MSD recoveries were within lab control limits.

Lab Duplicate. No lab duplicate was analyzed.

Surrogate Recovery. Surrogate recoveries were within control limits for samples.

Field Duplicates. One field duplicate was collected from the irrigation well at HOA-1.

- One constituent (naphthalene) was detected in the primary sample; however the same analyte was found in the associated blank. Accordingly, the naphthalene value is flagged with a 'B'. Constituents were not detected in the duplicate sample.

Trip Blank. One trip blank was analyzed; no compounds were detected in the trip blank. No data are flagged.

Equipment Blank. No reusable equipment was utilized during this sampling event; therefore, an equipment blank was not collected.

Conclusion. In conclusion, the overall QA objectives have been met and the data are of adequate quality for use in this project.

4.3 Groundwater Lab Report L848748

The data reviewed includes groundwater samples collected from irrigation wells on July 21 and 22, 2016. Samples were analyzed for LRH, MRH, and VOCs using the methods listed in Section 2.1.

Reporting Limits. MRLs were not elevated for samples. No data are flagged.

Detection Limits and Estimated Concentrations. MDLs and concentrations were not reported as estimates.

Holding Times. The samples were analyzed within applicable holding times.

Custody Records and Sample Receipt. The samples were received below the required temperature of 4°C and consistent with the accompanying COC.

Method Blanks. No compounds were detected in the method blanks. No data are flagged.

Laboratory Control Sample. Percent recoveries of the LCS were within control limits.

Laboratory Control Sample Duplicate. Percent recoveries of the LCSD were within control limits. LCS/LCSD RPDs were within control limits for reported constituents.

Matrix Spike Analyses. MS/MSD recoveries were within lab control limits.

Lab Duplicate. No lab duplicate was analyzed.

Surrogate Recovery. Surrogate recoveries were within control limits for samples.

Field Duplicates. Field duplicates were collected from the irrigation well at 2007 N Colt Court and 2004 N Colt Court. Constituents were not detected in the primary and duplicate samples.

Trip Blank. One trip blank was analyzed; no compounds were detected in the trip blank. No data are flagged.

Equipment Blank. No reusable equipment was utilized during this sampling event; therefore, an equipment blank was not collected.

Conclusion. In conclusion, the overall QA objectives have been met and the data are of adequate quality for use in this project.

4.4 Groundwater Lab Report L853352

The data reviewed includes groundwater samples collected from irrigation wells on August 12, 2016. The sample was analyzed for LRH, MRH, and VOCs using the methods listed in Section 2.1.

Reporting Limits. MRLs were not elevated for samples. No data are flagged.

Detection Limits and Estimated Concentrations. MDLs and concentrations were not reported as estimates.

Holding Times. The sample was analyzed within applicable holding times.

Custody Records and Sample Receipt. The sample was received below the required temperature of 4°C and consistent with the accompanying COC.

Method Blanks. No compounds were detected in the method blanks. No data are flagged.

Laboratory Control Sample. Percent recoveries of the LCS were within control limits.

Laboratory Control Sample Duplicate. Percent recoveries of the LCSD were within control limits. LCS/LCSD RPDs were within control limits for reported constituents.

Matrix Spike Analyses. MS/MSD recoveries were within lab control limits.

Lab Duplicate. No lab duplicate was analyzed.

Surrogate Recovery. Surrogate recoveries were within control limits for samples.

Field Duplicates. No field duplicate was analyzed.

Trip Blank. A trip blank was not analyzed; however, no compounds were detected in the primary sample. No data are flagged.

Equipment Blank. No reusable equipment was utilized during this sampling event; therefore, an equipment blank was not collected.

Conclusion. In conclusion, the overall QA objectives have been met and the data are of adequate quality for use in this project.

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

July 13, 2016

Daniel Newman
KDHE
1000 SW Jackson
Suite 410
Topeka, KS 66612

RE: Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Dear Daniel Newman:
Enclosed are the analytical results for sample(s) received by the laboratory on June 23, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Emily Webb for
Heather Wilson
heather.wilson@pacelabs.com
Project Manager

Enclosures

cc: Teresa Hattan, KDHE
SETH METTLING, KDHE

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CERTIFICATIONS

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

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SAMPLE SUMMARY

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60222076001	**MW-1**	Water	06/22/16 09:45	06/23/16 15:55
60222076002	**MW-5**	Water	06/22/16 11:10	06/23/16 15:55
60222076003	**MW-17**	Water	06/22/16 10:20	06/23/16 15:55
60222076004	**TRIP BLANK**	Water	06/22/16 10:20	06/23/16 15:55

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SAMPLE ANALYTE COUNT

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60222076001	**MW-1**	EPA 8015C	AJM	2
		EPA 5030B/8260	PGH	18
		EPA 8260	JDH	5
60222076002	**MW-5**	EPA 8015C	AJM	2
		EPA 5030B/8260	PGH	18
		EPA 8260	JDH	5
60222076003	**MW-17**	EPA 8015C	AJM	2
		EPA 5030B/8260	PGH	18
		EPA 8260	JDH	5
60222076004	**TRIP BLANK**	EPA 5030B/8260	PGH	18

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ANALYTICAL RESULTS

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Sample: MW-1 **Lab ID: 60222076001** Collected: 06/22/16 09:45 Received: 06/23/16 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 MOD KS TPH	Analytical Method: EPA 8015C Preparation Method: EPA 3511							
MRH (C9-C18)	**4.5**	mg/L	0.060	1	07/06/16 00:00	07/07/16 20:21		M1
MRH (C9-C18)	**11.0**	mg/L	0.060	1	07/11/16 00:00	07/12/16 21:14		H2
Surrogates								
1-Chloro-octadecane (S)	78	%	40-140	1	07/11/16 00:00	07/12/16 21:14	3386-33-2	
1-Chloro-octadecane (S)	29	%	40-140	1	07/06/16 00:00	07/07/16 20:21	3386-33-2	1e,S0
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**4.2**	mg/L	0.025	25		06/27/16 23:11	71-43-2	
2-Butanone (MEK)	**0.15J**	mg/L	0.25	25		06/27/16 23:11	78-93-3	
n-Butylbenzene	**0.0098J**	mg/L	0.025	25		06/27/16 23:11	104-51-8	
1,2-Dichloroethane	ND	mg/L	0.025	25		06/27/16 23:11	107-06-2	
Ethylbenzene	**1.6**	mg/L	0.025	25		06/27/16 23:11	100-41-4	
Isopropylbenzene (Cumene)	**0.036**	mg/L	0.025	25		06/27/16 23:11	98-82-8	
Naphthalene	**0.16J**	mg/L	0.25	25		06/27/16 23:11	91-20-3	
n-Propylbenzene	**0.078**	mg/L	0.025	25		06/27/16 23:11	103-65-1	
Toluene	**10.1**	mg/L	0.20	200		06/28/16 17:41	108-88-3	
1,2,4-Trimethylbenzene	**0.98**	mg/L	0.025	25		06/27/16 23:11	95-63-6	
1,3,5-Trimethylbenzene	**0.26**	mg/L	0.025	25		06/27/16 23:11	108-67-8	
Xylene (Total)	**8.2**	mg/L	0.075	25		06/27/16 23:11	1330-20-7	
Cyclohexane	**0.31**	mg/L	0.025	25		06/27/16 23:11	110-82-7	
Methylcyclohexane	**0.020J**	mg/L	0.025	25		06/27/16 23:11	108-87-2	
Surrogates								
4-Bromofluorobenzene (S)	97	%	77-130	25		06/27/16 23:11	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	25		06/27/16 23:11	17060-07-0	
Toluene-d8 (S)	94	%	80-120	25		06/27/16 23:11	2037-26-5	
Preservation pH	**1.0**		0.10	25		06/27/16 23:11		
8260/KS TPH Water	Analytical Method: EPA 8260							
LRH (C5-C8)	**39.7**	mg/L	1.0	20		07/06/16 15:45		
Surrogates								
Toluene-d8 (S)	101	%	80-120	20		07/06/16 15:45	2037-26-5	
4-Bromofluorobenzene (S)	102	%	80-120	20		07/06/16 15:45	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	20		07/06/16 15:45	17060-07-0	
Preservation pH	**1.0**		0.10	20		07/06/16 15:45		

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ANALYTICAL RESULTS

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Sample: MW-5 **Lab ID: 60222076002** Collected: 06/22/16 11:10 Received: 06/23/16 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 MOD KS TPH	Analytical Method: EPA 8015C Preparation Method: EPA 3511							
MRH (C9-C18)	ND	mg/L	0.061	1	07/06/16 00:00	07/07/16 20:44		
MRH (C9-C18)	ND	mg/L	0.059	1	07/11/16 00:00	07/12/16 21:22		H2
Surrogates								
1-Chloro-octadecane (S)	24	%	40-140	1	07/06/16 00:00	07/07/16 20:44	3386-33-2	1e,S0
1-Chloro-octadecane (S)	102	%	40-140	1	07/11/16 00:00	07/12/16 21:22	3386-33-2	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**0.0020**	mg/L	0.0010	1		06/27/16 22:56	71-43-2	
2-Butanone (MEK)	ND	mg/L	0.010	1		06/27/16 22:56	78-93-3	
n-Butylbenzene	ND	mg/L	0.0010	1		06/27/16 22:56	104-51-8	
1,2-Dichloroethane	ND	mg/L	0.0010	1		06/27/16 22:56	107-06-2	
Ethylbenzene	**0.0035**	mg/L	0.0010	1		06/27/16 22:56	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0010	1		06/27/16 22:56	98-82-8	
Naphthalene	ND	mg/L	0.010	1		06/27/16 22:56	91-20-3	
n-Propylbenzene	**0.00018J**	mg/L	0.0010	1		06/27/16 22:56	103-65-1	
Toluene	**0.010**	mg/L	0.0010	1		06/27/16 22:56	108-88-3	
1,2,4-Trimethylbenzene	**0.0019**	mg/L	0.0010	1		06/27/16 22:56	95-63-6	
1,3,5-Trimethylbenzene	**0.00043J**	mg/L	0.0010	1		06/27/16 22:56	108-67-8	
Xylene (Total)	**0.014**	mg/L	0.0030	1		06/27/16 22:56	1330-20-7	
Cyclohexane	**0.00084J**	mg/L	0.0010	1		06/27/16 22:56	110-82-7	
Methylcyclohexane	ND	mg/L	0.0010	1		06/27/16 22:56	108-87-2	
Surrogates								
4-Bromofluorobenzene (S)	99	%	77-130	1		06/27/16 22:56	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127	1		06/27/16 22:56	17060-07-0	
Toluene-d8 (S)	96	%	80-120	1		06/27/16 22:56	2037-26-5	
Preservation pH	**1.0**		0.10	1		06/27/16 22:56		
8260/KS TPH Water	Analytical Method: EPA 8260							
LRH (C5-C8)	**0.089**	mg/L	0.050	1		06/29/16 23:36		
Surrogates								
Toluene-d8 (S)	101	%	80-120	1		06/29/16 23:36	2037-26-5	
4-Bromofluorobenzene (S)	96	%	80-120	1		06/29/16 23:36	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		06/29/16 23:36	17060-07-0	
Preservation pH	**1.0**		0.10	1		06/29/16 23:36		

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ANALYTICAL RESULTS

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Sample: MW-17 **Lab ID: 60222076003** Collected: 06/22/16 10:20 Received: 06/23/16 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 MOD KS TPH	Analytical Method: EPA 8015C Preparation Method: EPA 3511							
MRH (C9-C18)	**0.99**	mg/L	0.060	1	07/06/16 00:00	07/07/16 20:52		
MRH (C9-C18)	**4.6**	mg/L	0.059	1	07/11/16 00:00	07/12/16 21:31		H2
Surrogates								
1-Chloro-octadecane (S)	20	%	40-140	1	07/06/16 00:00	07/07/16 20:52	3386-33-2	1e,S0
1-Chloro-octadecane (S)	98	%	40-140	1	07/11/16 00:00	07/12/16 21:31	3386-33-2	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**0.44**	mg/L	0.025	25		06/27/16 23:25	71-43-2	
2-Butanone (MEK)	ND	mg/L	0.25	25		06/27/16 23:25	78-93-3	
n-Butylbenzene	**0.0082J**	mg/L	0.025	25		06/27/16 23:25	104-51-8	
1,2-Dichloroethane	ND	mg/L	0.025	25		06/27/16 23:25	107-06-2	
Ethylbenzene	**0.54**	mg/L	0.025	25		06/27/16 23:25	100-41-4	
Isopropylbenzene (Cumene)	**0.022J**	mg/L	0.025	25		06/27/16 23:25	98-82-8	
Naphthalene	**0.084J**	mg/L	0.25	25		06/27/16 23:25	91-20-3	
n-Propylbenzene	**0.055**	mg/L	0.025	25		06/27/16 23:25	103-65-1	
Toluene	**0.65**	mg/L	0.025	25		06/27/16 23:25	108-88-3	
1,2,4-Trimethylbenzene	**0.42**	mg/L	0.025	25		06/27/16 23:25	95-63-6	
1,3,5-Trimethylbenzene	**0.088**	mg/L	0.025	25		06/27/16 23:25	108-67-8	
Xylene (Total)	**1.3**	mg/L	0.075	25		06/27/16 23:25	1330-20-7	
Cyclohexane	**0.21**	mg/L	0.025	25		06/27/16 23:25	110-82-7	
Methylcyclohexane	**0.029**	mg/L	0.025	25		06/27/16 23:25	108-87-2	
Surrogates								
4-Bromofluorobenzene (S)	100	%	77-130	25		06/27/16 23:25	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	25		06/27/16 23:25	17060-07-0	
Toluene-d8 (S)	95	%	80-120	25		06/27/16 23:25	2037-26-5	
Preservation pH	**1.0**		0.10	25		06/27/16 23:25		
8260/KS TPH Water	Analytical Method: EPA 8260							
LRH (C5-C8)	**4.0**	mg/L	0.25	5		07/06/16 16:00		
Surrogates								
Toluene-d8 (S)	102	%	80-120	5		07/06/16 16:00	2037-26-5	
4-Bromofluorobenzene (S)	99	%	80-120	5		07/06/16 16:00	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	80-120	5		07/06/16 16:00	17060-07-0	
Preservation pH	**1.0**		0.10	5		07/06/16 16:00		

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ANALYTICAL RESULTS

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Sample: TRIP BLANK **Lab ID: 60222076004** Collected: 06/22/16 10:20 Received: 06/23/16 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	mg/L	0.0010	1		06/28/16 21:48	71-43-2	
2-Butanone (MEK)	ND	mg/L	0.010	1		06/28/16 21:48	78-93-3	
n-Butylbenzene	ND	mg/L	0.0010	1		06/28/16 21:48	104-51-8	
Cyclohexane	ND	mg/L	0.0010	1		06/28/16 21:48	110-82-7	
1,2-Dichloroethane	ND	mg/L	0.0010	1		06/28/16 21:48	107-06-2	
Ethylbenzene	ND	mg/L	0.0010	1		06/28/16 21:48	100-41-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0010	1		06/28/16 21:48	98-82-8	
Methylcyclohexane	ND	mg/L	0.0010	1		06/28/16 21:48	108-87-2	
Naphthalene	ND	mg/L	0.010	1		06/28/16 21:48	91-20-3	
n-Propylbenzene	ND	mg/L	0.0010	1		06/28/16 21:48	103-65-1	
Toluene	ND	mg/L	0.0010	1		06/28/16 21:48	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/L	0.0010	1		06/28/16 21:48	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0010	1		06/28/16 21:48	108-67-8	
Xylene (Total)	ND	mg/L	0.0030	1		06/28/16 21:48	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	101	%	77-130	1		06/28/16 21:48	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127	1		06/28/16 21:48	17060-07-0	
Toluene-d8 (S)	103	%	80-120	1		06/28/16 21:48	2037-26-5	
Preservation pH	**1.0**		0.10	1		06/28/16 21:48		

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QUALITY CONTROL DATA

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

QC Batch: 436248 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60222076001, 60222076002, 60222076003

METHOD BLANK: 1783677 Matrix: Water
Associated Lab Samples: 60222076001, 60222076002, 60222076003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	mg/L	ND	0.0010	06/27/16 20:46	
1,2-Dichloroethane	mg/L	ND	0.0010	06/27/16 20:46	
1,3,5-Trimethylbenzene	mg/L	ND	0.0010	06/27/16 20:46	
2-Butanone (MEK)	mg/L	ND	0.010	06/27/16 20:46	
Benzene	mg/L	ND	0.0010	06/27/16 20:46	
Cyclohexane	mg/L	ND	0.0010	06/27/16 20:46	
Ethylbenzene	mg/L	ND	0.0010	06/27/16 20:46	
Isopropylbenzene (Cumene)	mg/L	ND	0.0010	06/27/16 20:46	
Methylcyclohexane	mg/L	ND	0.0010	06/27/16 20:46	
n-Butylbenzene	mg/L	ND	0.0010	06/27/16 20:46	
n-Propylbenzene	mg/L	ND	0.0010	06/27/16 20:46	
Naphthalene	mg/L	ND	0.010	06/27/16 20:46	
Toluene	mg/L	ND	0.0010	06/27/16 20:46	
Xylene (Total)	mg/L	ND	0.0030	06/27/16 20:46	
1,2-Dichloroethane-d4 (S)	%	100	81-127	06/27/16 20:46	
4-Bromofluorobenzene (S)	%	101	77-130	06/27/16 20:46	
Toluene-d8 (S)	%	95	80-120	06/27/16 20:46	

LABORATORY CONTROL SAMPLE: 1783678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	mg/L	.02	0.018	92	82-114	
1,2-Dichloroethane	mg/L	.02	0.021	107	72-116	
1,3,5-Trimethylbenzene	mg/L	.02	0.018	92	80-120	
2-Butanone (MEK)	mg/L	.1	0.096	96	67-129	
Benzene	mg/L	.02	0.022	109	79-116	
Cyclohexane	mg/L	.02	0.022	108	80-123	
Ethylbenzene	mg/L	.02	0.019	93	80-120	
Isopropylbenzene (Cumene)	mg/L	.02	0.019	97	80-120	
Methylcyclohexane	mg/L	.02	0.021	107	79-124	
n-Butylbenzene	mg/L	.02	0.018	92	80-120	
n-Propylbenzene	mg/L	.02	0.018	90	80-120	
Naphthalene	mg/L	.02	0.018	90	74-125	
Toluene	mg/L	.02	0.019	96	80-120	
Xylene (Total)	mg/L	.06	0.059	98	80-120	
1,2-Dichloroethane-d4 (S)	%			101	81-127	
4-Bromofluorobenzene (S)	%			93	77-130	
Toluene-d8 (S)	%			96	80-120	

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QUALITY CONTROL DATA

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

QC Batch: 436398 | Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 | Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60222076001

METHOD BLANK: 1784291 | Matrix: Water
Associated Lab Samples: 60222076001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene	mg/L	ND	0.0010	06/28/16 12:51	
1,2-Dichloroethane-d4 (S)	%	104	81-127	06/28/16 12:51	
4-Bromofluorobenzene (S)	%	101	77-130	06/28/16 12:51	
Toluene-d8 (S)	%	99	80-120	06/28/16 12:51	

LABORATORY CONTROL SAMPLE: 1784292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	mg/L	.02	0.018	91	80-120	
1,2-Dichloroethane-d4 (S)	%			98	81-127	
4-Bromofluorobenzene (S)	%			102	77-130	
Toluene-d8 (S)	%			101	80-120	

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QUALITY CONTROL DATA

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

QC Batch: 436401
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60222076004

METHOD BLANK: 1784320
Matrix: Water
Associated Lab Samples: 60222076004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	mg/L	ND	0.0010	06/28/16 21:33	
1,2-Dichloroethane	mg/L	ND	0.0010	06/28/16 21:33	
1,3,5-Trimethylbenzene	mg/L	ND	0.0010	06/28/16 21:33	
2-Butanone (MEK)	mg/L	ND	0.010	06/28/16 21:33	
Benzene	mg/L	ND	0.0010	06/28/16 21:33	
Cyclohexane	mg/L	ND	0.0010	06/28/16 21:33	
Ethylbenzene	mg/L	ND	0.0010	06/28/16 21:33	
Isopropylbenzene (Cumene)	mg/L	ND	0.0010	06/28/16 21:33	
Methylcyclohexane	mg/L	ND	0.0010	06/28/16 21:33	
n-Butylbenzene	mg/L	ND	0.0010	06/28/16 21:33	
n-Propylbenzene	mg/L	ND	0.0010	06/28/16 21:33	
Naphthalene	mg/L	ND	0.010	06/28/16 21:33	
Toluene	mg/L	ND	0.0010	06/28/16 21:33	
Xylene (Total)	mg/L	ND	0.0030	06/28/16 21:33	
1,2-Dichloroethane-d4 (S)	%	102	81-127	06/28/16 21:33	
4-Bromofluorobenzene (S)	%	101	77-130	06/28/16 21:33	
Toluene-d8 (S)	%	103	80-120	06/28/16 21:33	

LABORATORY CONTROL SAMPLE: 1784321

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	mg/L	.02	0.019	94	82-114	
1,2-Dichloroethane	mg/L	.02	0.019	97	72-116	
1,3,5-Trimethylbenzene	mg/L	.02	0.019	95	80-120	
2-Butanone (MEK)	mg/L	.1	0.098	98	67-129	
Benzene	mg/L	.02	0.019	96	79-116	
Cyclohexane	mg/L	.02	0.018	92	80-123	
Ethylbenzene	mg/L	.02	0.019	95	80-120	
Isopropylbenzene (Cumene)	mg/L	.02	0.019	97	80-120	
Methylcyclohexane	mg/L	.02	0.019	93	79-124	
n-Butylbenzene	mg/L	.02	0.019	96	80-120	
n-Propylbenzene	mg/L	.02	0.019	94	80-120	
Naphthalene	mg/L	.02	0.020	101	74-125	
Toluene	mg/L	.02	0.018	91	80-120	
Xylene (Total)	mg/L	.06	0.059	98	80-120	
1,2-Dichloroethane-d4 (S)	%			100	81-127	
4-Bromofluorobenzene (S)	%			95	77-130	
Toluene-d8 (S)	%			97	80-120	

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QUALITY CONTROL DATA

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

QC Batch: 436604
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260/KS TPH-WATER
Associated Lab Samples: 60222076002

METHOD BLANK: 1785216
Matrix: Water
Associated Lab Samples: 60222076002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
LRH (C5-C8)	mg/L	ND	0.050	06/29/16 17:05	
1,2-Dichloroethane-d4 (S)	%	97	80-120	06/29/16 17:05	
4-Bromofluorobenzene (S)	%	97	80-120	06/29/16 17:05	
Toluene-d8 (S)	%	101	80-120	06/29/16 17:05	

LABORATORY CONTROL SAMPLE & LCSD: 1785217 1785218

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
LRH (C5-C8)	mg/L	.4	0.38	0.41	94	103	70-130	8	25	
1,2-Dichloroethane-d4 (S)	%				100	99	80-120			
4-Bromofluorobenzene (S)	%				97	96	80-120			
Toluene-d8 (S)	%				101	102	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

QC Batch: 437396 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260/KS TPH-WATER
Associated Lab Samples: 60222076001, 60222076003

METHOD BLANK: 1788992 | Matrix: Water
Associated Lab Samples: 60222076001, 60222076003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
LRH (C5-C8)	mg/L	ND	0.050	07/06/16 15:30	
1,2-Dichloroethane-d4 (S)	%	101	80-120	07/06/16 15:30	
4-Bromofluorobenzene (S)	%	109	80-120	07/06/16 15:30	
Toluene-d8 (S)	%	101	80-120	07/06/16 15:30	

LABORATORY CONTROL SAMPLE & LCSD: 1788993 1788994

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
LRH (C5-C8)	mg/L	.4	0.45	0.46	112	115	70-130	2	25	
1,2-Dichloroethane-d4 (S)	%				99	103	80-120			
4-Bromofluorobenzene (S)	%				99	100	80-120			
Toluene-d8 (S)	%				99	100	80-120			

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QUALITY CONTROL DATA

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

QC Batch: 437903 Analysis Method: EPA 8015C
QC Batch Method: EPA 3511 Analysis Description: EPA 8015C
Associated Lab Samples: 60222076001, 60222076002, 60222076003

METHOD BLANK: 1791218 Matrix: Water
Associated Lab Samples: 60222076001, 60222076002, 60222076003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
MRH (C9-C18)	mg/L	ND	0.062	07/12/16 20:47	
1-Chloro-octadecane (S)	%	117	40-140	07/12/16 20:47	

LABORATORY CONTROL SAMPLE & LCSD: 1791219 1791220

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
MRH (C9-C18)	mg/L	.18	0.19	0.18	108	105	40-140	4	25	
1-Chloro-octadecane (S)	%				108	102	40-140			

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QUALIFIERS

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 436248

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 436398

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 436401

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 436604

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 437396

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1e	Surrogate recovery outside laboratory control limits. Re-extraction conducted outside of hold time.
H2	Extraction or preparation conducted outside EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NUSTAR PIPELINE C2-008-72928
Pace Project No.: 60222076

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60222076001	**MW-1**	EPA 3511	437312	EPA 8015C	437606
60222076001	**MW-1**	EPA 3511	437903	EPA 8015C	438215
60222076002	**MW-5**	EPA 3511	437312	EPA 8015C	437606
60222076002	**MW-5**	EPA 3511	437903	EPA 8015C	438215
60222076003	**MW-17**	EPA 3511	437312	EPA 8015C	437606
60222076003	**MW-17**	EPA 3511	437903	EPA 8015C	438215
60222076001	**MW-1**	EPA 5030B/8260	436248		
60222076001	**MW-1**	EPA 5030B/8260	436398		
60222076002	**MW-5**	EPA 5030B/8260	436248		
60222076003	**MW-17**	EPA 5030B/8260	436248		
60222076004	**TRIP BLANK**	EPA 5030B/8260	436401		
60222076001	**MW-1**	EPA 8260	437396		
60222076002	**MW-5**	EPA 8260	436604		
60222076003	**MW-17**	EPA 8260	437396		

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Sample Condition Upon Receipt

WO#: 60222076
60222076

Client Name: KDHE

Optional
Proj Due Date:
Proj Name:

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☑ Other ☐ Client ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☑ No ☐

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ Pipe

Thermometer Used: CF -0.1 T-239 / CF 0.0 T-262 **Type of Ice:** Wet Blue None (circle one) ☐ Samples received on ice, cooling process has begun.

Cooler Temperature: 5.7

Temperature should be above freezing to 6°C

Date and initials of person examining contents: 8 6/23/16

Chain of Custody present:	☑Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☑Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☑Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☑Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	7.
Sufficient volume:	☑Yes ☐No ☐N/A	8.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	9.
Containers intact:	☑Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	12.
Sample labels match COC: Includes date/time/ID/analyses Matrix: WT	☑Yes ☐No ☐N/A	13.
All containers needing preservation have been checked.	☐Yes ☑No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☑No ☐N/A	14.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed / Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): Covered / Jun14	☑Yes ☐No ☐N/A	15.
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☑N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes ☐No ☑N/A	18.

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: **REVIEWED** *By hwilson at 11:07 am, 6/24/16* Date: _____

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A Required Client Information:

Company:	KDHE
Address:	1000 SW Jackson
	Topeka, KS 66612
Email To:	dnewman@kdheks.gov
Phone: 785-296-1660	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Daniel Newman
Copy To:	
Purchase Order No.:	
Project Name:	NuStar Pipeline Release North Andover Site
Project Number:	C2-008-72928

Section C Invoice Information:

Attention:	Theresa Hattan
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Heather Wilson
Pace Profile #:	8442, 2

REGULATORY AGENCY

☑ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: KS

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Full list VOCs 8260**	8260 KS LRH	8015 KS MRH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			6/22/16	9:45		4				4						X	X	X		9(DH9H) 01
2	MW-5	WT	G			6/22/16	11:10		4				4						X	X	X		02
3	MW-17	WT	G			6/22/16	10:20		4				4						X	X	X		03
4	TRIP BLANK	WT	G			6/22/16	12:00		2				2						X				4(DH9H)TB 04
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
J flag results	Dan Newman / KDHE	6/23/16	2:25	[signature]	6-23	2:25				
				[signature] / NASE	6/23/16	1555	5.7	Y	Y	N

SAMPLER NAME AND SIGNATURE			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Daniel Newman					
SIGNATURE of SAMPLER:	Dan Newman	DATE Signed (MM/DD/YY): 06/22/16				

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

ANALYTICAL REPORT

August 11, 2016

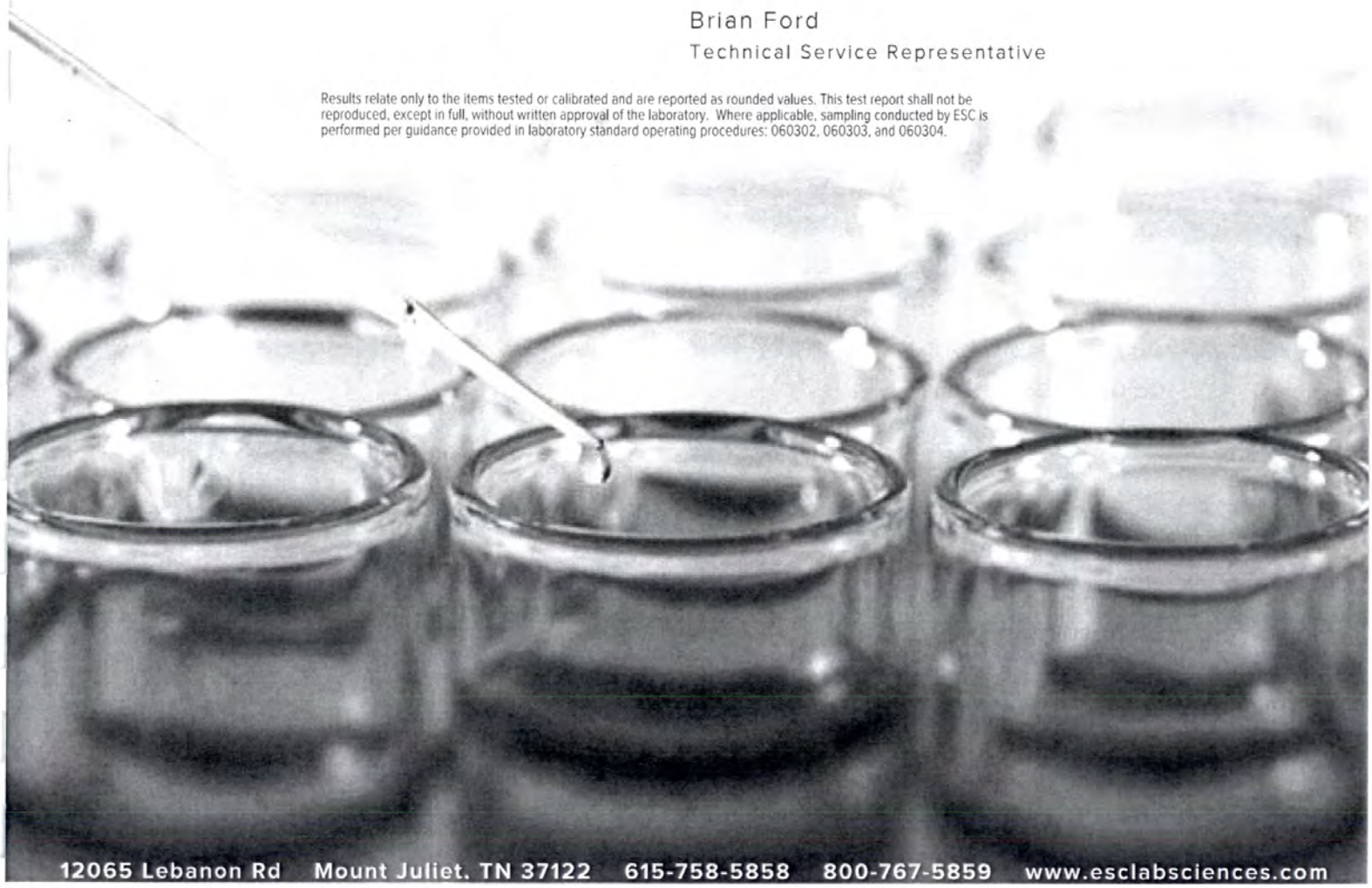
APEX Companies - Portland, OR

Sample Delivery Group:	L843460
Samples Received:	06/24/2016
Project Number:	
Description:	Andover Colt Court Release Site
Report To:	Samuel Jackson 3015 SW First Avenue Portland, OR 97201-4707

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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Cp
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Al
Sc

MW-1 32.5FT L843460-01 GW

Collected by: Ted Alfred | Collected date/time: 06/22/16 09:45 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 20:49	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	10	06/27/16 20:06	06/27/16 20:06	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	200	07/02/16 14:56	07/02/16 14:56	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG884420	200	06/29/16 22:40	06/29/16 22:40	DWR

MW-2 36FT L843460-02 GW

Collected by: Ted Alfred | Collected date/time: 06/23/16 09:57 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 21:14	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	1	06/27/16 20:26	06/27/16 20:26	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 15:17	07/02/16 15:17	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG884420	1	06/29/16 23:13	06/29/16 23:13	DWR

MW-3 40FT L843460-03 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 15:45 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 21:39	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	5	06/27/16 20:46	06/27/16 20:46	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	5	07/02/16 15:37	07/02/16 15:37	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG883442	1	06/26/16 05:23	06/26/16 05:23	JAH

MW-4 31FT L843460-04 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 10:20 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 22:03	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	1	06/27/16 21:06	06/27/16 21:06	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884818	1	06/30/16 19:28	06/30/16 19:28	DAH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 14:14	06/27/16 14:14	BMB

MW-5 22FT L843460-05 GW

Collected by: Ted Alfred | Collected date/time: 06/22/16 11:10 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 22:28	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	1	06/27/16 21:27	06/27/16 21:27	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884818	1	06/30/16 19:51	06/30/16 19:51	DAH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 14:47	06/27/16 14:47	BMB

MW-6 25FT L843460-06 GW

Collected by: Ted Alfred | Collected date/time: 06/20/16 12:47 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 22:53	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883588	1	06/27/16 10:19	06/27/16 10:19	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885046	1	07/01/16 02:18	07/01/16 02:18	DWR
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 15:20	06/27/16 15:20	BMB

MW-7 18FT L843460-07 GW

Collected by: Ted Alfred | Collected date/time: 06/20/16 12:03 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 23:18	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883588	1	06/27/16 03:25	06/27/16 03:25	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884345	1	06/29/16 17:57	06/29/16 17:57	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 15:53	06/27/16 15:53	BMB

MW-8 22FT L843460-08 GW

Collected by: Ted Alfred | Collected date/time: 06/20/16 15:15 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/29/16 23:43	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883588	1	06/27/16 03:45	06/27/16 03:45	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884345	1	06/29/16 18:17	06/29/16 18:17	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 16:26	06/27/16 16:26	BMB

MW-9 31FT L843460-09 GW

Collected by: Ted Alfred | Collected date/time: 06/23/16 08:55 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 00:07	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	1	06/27/16 21:46	06/27/16 21:46	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884818	1	06/30/16 20:13	06/30/16 20:13	DAH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 16:59	06/27/16 16:59	BMB

MW-10 30FT L843460-10 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 16:55 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 00:32	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	1	06/27/16 22:07	06/27/16 22:07	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884818	1	06/30/16 20:36	06/30/16 20:36	DAH
Volatile Petroleum Hydrocarbons by Method 8015	WG884422	1	07/01/16 17:00	07/01/16 17:00	BMB

MW-11 31FT L843460-11 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 14:16 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 00:57	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	1	06/27/16 22:27	06/27/16 22:27	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884818	1	06/30/16 20:59	06/30/16 20:59	DAH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 18:04	06/27/16 18:04	BMB

MW-12 31.5FT L843460-12 GW

Collected by: Ted Alfred | Collected date/time: 06/22/16 08:55 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 01:22	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG883806	1	06/27/16 22:46	06/27/16 22:46	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884818	1	06/30/16 21:21	06/30/16 21:21	DAH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 18:37	06/27/16 18:37	BMB

Cp
Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-13 33FT L843460-13 GW

Collected by: Ted Alfred | Collected date/time: 06/23/16 11:13 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 01:47	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 15:58	07/02/16 15:58	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 19:10	06/27/16 19:10	BMB

MW-15 33FT L843460-14 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 11:05 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 02:11	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 16:18	07/02/16 16:18	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 19:43	06/27/16 19:43	BMB

MW-16 32FT L843460-15 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 12:20 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 02:36	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 16:39	07/02/16 16:39	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 20:16	06/27/16 20:16	BMB

MW-17 32FT L843460-16 GW

Collected by: Ted Alfred | Collected date/time: 06/22/16 10:20 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 03:01	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 16:59	07/02/16 16:59	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	5	07/05/16 01:11	07/05/16 01:11	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885802	10	07/05/16 17:38	07/05/16 17:38	JHH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	5	06/27/16 20:49	06/27/16 20:49	BMB

MW-18 33FT L843460-17 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 08:56 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 03:26	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 17:20	07/02/16 17:20	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	1	07/05/16 01:31	07/05/16 01:31	JHH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 21:22	06/27/16 21:22	BMB

MW-19 32FT L843460-18 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 09:36 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 03:51	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 17:40	07/02/16 17:40	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	5	07/05/16 01:52	07/05/16 01:52	JHH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 21:55	06/27/16 21:55	BMB

SVE-2 L843460-19 GW

Collected by: Ted Alfred | Collected date/time: 06/23/16 09:12 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	1	06/29/16 14:54	06/30/16 04:15	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 18:00	07/02/16 18:00	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	1	07/05/16 02:12	07/05/16 02:12	JHH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/27/16 22:28	06/27/16 22:28	BMB

SVE-4 L843460-20 GW

Collected by: Ted Alfred | Collected date/time: 06/23/16 09:20 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883950	5	06/29/16 14:54	06/30/16 12:07	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	5	07/02/16 18:21	07/02/16 18:21	LRL
Volatile Petroleum Hydrocarbons by Method 8015	WG884422	1	07/01/16 17:42	07/01/16 17:42	BMB

TRIP BLANK L843460-21 GW

Collected by: Ted Alfred | Collected date/time: 06/22/16 00:00 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 14:15	07/02/16 14:15	LRL

DUP-2 L843460-23 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 00:00 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 07:34	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 18:41	07/02/16 18:41	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	5	07/05/16 02:32	07/05/16 02:32	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885802	10	07/05/16 17:17	07/05/16 17:17	JHH
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	5	06/27/16 23:34	06/27/16 23:34	BMB

DUP-3 L843460-24 GW

Collected by: Ted Alfred | Collected date/time: 06/22/16 00:00 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 07:59	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884161	1	07/02/16 19:02	07/02/16 19:02	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	1	07/05/16 02:53	07/05/16 02:53	GLN
Volatile Petroleum Hydrocarbons by Method 8015	WG883686	1	06/28/16 00:07	06/28/16 00:07	BMB

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	23.3		20.0	200	06/29/2016 22:40	WG884420
(S) 2,5-Dibromotoluene(FID)	*98.5*		*70.0-130*		*06/29/2016 22:40*	WG884420
(S) 2,5-Dibromotoluene(PID)	*91.0*		*70.0-130*		*06/29/2016 22:40*	WG884420

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	4.02		0.100	200	07/02/2016 14:56	WG884161
Toluene	10.0		0.100	200	07/02/2016 14:56	WG884161
Ethylbenzene	1.51		0.00500	10	06/27/2016 20:06	WG883806
Xylenes, Total	8.19		0.300	200	07/02/2016 14:56	WG884161
Methyl tert-butyl ether	0.0205		0.00500	10	06/27/2016 20:06	WG883806
Naphthalene	0.157		0.00500	10	06/27/2016 20:06	WG883806
1,2-Dichloroethane	ND		0.00500	10	06/27/2016 20:06	WG883806
1,2,4-Trimethylbenzene	0.869		0.00500	10	06/27/2016 20:06	WG883806
1,3,5-Trimethylbenzene	0.240		0.00500	10	06/27/2016 20:06	WG883806
n-Butylbenzene	ND		0.00500	10	06/27/2016 20:06	WG883806
n-Propylbenzene	0.0780		0.00500	10	06/27/2016 20:06	WG883806
Isopropylbenzene	0.0305		0.00500	10	06/27/2016 20:06	WG883806
2-Butanone (MEK)	0.107	J4	0.0250	10	06/27/2016 20:06	WG883806
Cyclohexane	0.188		0.0100	10	06/27/2016 20:06	WG883806
Methyl Cyclohexane	ND		0.200	200	07/02/2016 14:56	WG884161
(S) Toluene-d8	*99.3*		*90.0-115*		*07/02/2016 14:56*	WG884161
(S) Toluene-d8	*103*		*90.0-115*		*06/27/2016 20:06*	WG883806
(S) Dibromofluoromethane	*97.9*		*79.0-121*		*07/02/2016 14:56*	WG884161
(S) Dibromofluoromethane	*89.6*		*79.0-121*		*06/27/2016 20:06*	WG883806
(S) 4-Bromofluorobenzene	*93.2*		*80.1-120*		*06/27/2016 20:06*	WG883806
(S) 4-Bromofluorobenzene	*88.4*		*80.1-120*		*07/02/2016 14:56*	WG884161

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	5.94		0.100	1	06/29/2016 20:49	WG883950
(S) 1-Chloro-octadecane	*76.0*		*40.0-140*		*06/29/2016 20:49*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/29/2016 23:13	WG884420
(S) 2,5-Dibromotoluene(FID)	*101*		*70.0-130*		*06/29/2016 23:13*	WG884420
(S) 2,5-Dibromotoluene(PID)	*92.4*		*70.0-130*		*06/29/2016 23:13*	WG884420

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 15:17	WG884161
Toluene	0.00103		0.000500	1	07/02/2016 15:17	WG884161
Ethylbenzene	0.000607		0.000500	1	06/27/2016 20:26	WG883806
Xylenes, Total	ND		0.00150	1	07/02/2016 15:17	WG884161
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 20:26	WG883806
Naphthalene	0.000836		0.000500	1	06/27/2016 20:26	WG883806
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 20:26	WG883806
1,2,4-Trimethylbenzene	0.000574		0.000500	1	06/27/2016 20:26	WG883806
1,3,5-Trimethylbenzene	ND		0.000500	1	06/27/2016 20:26	WG883806
n-Butylbenzene	ND		0.000500	1	06/27/2016 20:26	WG883806
n-Propylbenzene	ND		0.000500	1	06/27/2016 20:26	WG883806
Isopropylbenzene	ND		0.000500	1	06/27/2016 20:26	WG883806
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 20:26	WG883806
Cyclohexane	ND		0.00100	1	06/27/2016 20:26	WG883806
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 15:17	WG884161
(S) Toluene-d8	*101*		*90.0-115*		*07/02/2016 15:17*	WG884161
(S) Toluene-d8	*102*		*90.0-115*		*06/27/2016 20:26*	WG883806
(S) Dibromofluoromethane	*96.3*		*79.0-121*		*06/27/2016 20:26*	WG883806
(S) Dibromofluoromethane	*101*		*79.0-121*		*07/02/2016 15:17*	WG884161
(S) 4-Bromofluorobenzene	*87.7*		*80.1-120*		*07/02/2016 15:17*	WG884161
(S) 4-Bromofluorobenzene	*94.0*		*80.1-120*		*06/27/2016 20:26*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/29/2016 21:14	WG883950
(S) 1-Chloro-octadecane	*60.8*		*40.0-140*		*06/29/2016 21:14*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	1.80		0.100	1	06/26/2016 05:23	WG883442
(S) 2,5-Dibromotoluene(FID)	*98.7*		*70.0-130*		*06/26/2016 05:23*	WG883442
(S) 2,5-Dibromotoluene(PID)	*92.8*		*70.0-130*		*06/26/2016 05:23*	WG883442

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.624		0.00250	5	06/27/2016 20:46	WG883806
Toluene	0.00342		0.00250	5	07/02/2016 15:37	WG884161
Ethylbenzene	0.336		0.00250	5	06/27/2016 20:46	WG883806
Xylenes, Total	ND		0.00750	5	06/27/2016 20:46	WG883806
Methyl tert-butyl ether	ND		0.00250	5	06/27/2016 20:46	WG883806
Naphthalene	0.0162		0.00250	5	06/27/2016 20:46	WG883806
1,2-Dichloroethane	ND		0.00250	5	06/27/2016 20:46	WG883806
1,2,4-Trimethylbenzene	0.0201		0.00250	5	06/27/2016 20:46	WG883806
1,3,5-Trimethylbenzene	ND		0.00250	5	06/27/2016 20:46	WG883806
n-Butylbenzene	ND		0.00250	5	06/27/2016 20:46	WG883806
n-Propylbenzene	0.0356		0.00250	5	06/27/2016 20:46	WG883806
Isopropylbenzene	0.0128		0.00250	5	06/27/2016 20:46	WG883806
2-Butanone (MEK)	ND	J4	0.0125	5	06/27/2016 20:46	WG883806
Cyclohexane	0.0996		0.00500	5	06/27/2016 20:46	WG883806
Methyl Cyclohexane	0.0115	B	0.00500	5	07/02/2016 15:37	WG884161
(S) Toluene-d8	*97.9*		*90.0-115*		*07/02/2016 15:37*	WG884161
(S) Toluene-d8	*102*		*90.0-115*		*06/27/2016 20:46*	WG883806
(S) Dibromofluoromethane	*94.7*		*79.0-121*		*06/27/2016 20:46*	WG883806
(S) Dibromofluoromethane	*97.1*		*79.0-121*		*07/02/2016 15:37*	WG884161
(S) 4-Bromofluorobenzene	*89.8*		*80.1-120*		*07/02/2016 15:37*	WG884161
(S) 4-Bromofluorobenzene	*89.6*		*80.1-120*		*06/27/2016 20:46*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	0.365		0.100	1	06/29/2016 21:39	WG883950
(S) 1-Chloro-octadecane	*83.0*		*40.0-140*		*06/29/2016 21:39*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 14:14	WG883686
(S) 2,5-Dibromotoluene(FID)	*97.6*		*70.0-130*		*06/27/2016 14:14*	WG883686
(S) 2,5-Dibromotoluene(PID)	*91.2*		*70.0-130*		*06/27/2016 14:14*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00257		0.000500	1	06/27/2016 21:06	WG883806
Toluene	0.00226	B	0.000500	1	06/27/2016 21:06	WG883806
Ethylbenzene	0.000911		0.000500	1	06/27/2016 21:06	WG883806
Xylenes, Total	0.00614		0.00150	1	06/27/2016 21:06	WG883806
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 21:06	WG883806
Naphthalene	ND		0.000500	1	06/27/2016 21:06	WG883806
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 21:06	WG883806
1,2,4-Trimethylbenzene	0.00143		0.000500	1	06/27/2016 21:06	WG883806
1,3,5-Trimethylbenzene	ND		0.000500	1	06/27/2016 21:06	WG883806
n-Butylbenzene	ND		0.000500	1	06/27/2016 21:06	WG883806
n-Propylbenzene	ND		0.000500	1	06/27/2016 21:06	WG883806
Isopropylbenzene	ND		0.000500	1	06/27/2016 21:06	WG883806
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 21:06	WG883806
Cyclohexane	ND		0.00100	1	06/27/2016 21:06	WG883806
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 19:28	WG884818
(S) Toluene-d8	*103*		*90.0-115*		*06/30/2016 19:28*	WG884818
(S) Toluene-d8	*101*		*90.0-115*		*06/27/2016 21:06*	WG883806
(S) Dibromofluoromethane	*92.5*		*79.0-121*		*06/27/2016 21:06*	WG883806
(S) Dibromofluoromethane	*96.1*		*79.0-121*		*06/30/2016 19:28*	WG884818
(S) 4-Bromofluorobenzene	*101*		*80.1-120*		*06/30/2016 19:28*	WG884818
(S) 4-Bromofluorobenzene	*89.0*		*80.1-120*		*06/27/2016 21:06*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/29/2016 22:03	WG883950
(S) 1-Chloro-octadecane	*76.4*		*40.0-140*		*06/29/2016 22:03*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 14:47	WG883686
(S) 2,5-Dibromotoluene(FID)	*97.2*		*70.0-130*		*06/27/2016 14:47*	WG883686
(S) 2,5-Dibromotoluene(PID)	*90.5*		*70.0-130*		*06/27/2016 14:47*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00329		0.000500	1	06/27/2016 21:27	WG883806
Toluene	0.0158		0.000500	1	06/27/2016 21:27	WG883806
Ethylbenzene	0.00429		0.000500	1	06/27/2016 21:27	WG883806
Xylenes, Total	0.0177		0.00150	1	06/27/2016 21:27	WG883806
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 21:27	WG883806
Naphthalene	0.000570		0.000500	1	06/27/2016 21:27	WG883806
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 21:27	WG883806
1,2,4-Trimethylbenzene	0.00229		0.000500	1	06/27/2016 21:27	WG883806
1,3,5-Trimethylbenzene	0.000606		0.000500	1	06/27/2016 21:27	WG883806
n-Butylbenzene	ND		0.000500	1	06/27/2016 21:27	WG883806
n-Propylbenzene	ND		0.000500	1	06/27/2016 21:27	WG883806
Isopropylbenzene	ND		0.000500	1	06/27/2016 21:27	WG883806
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 21:27	WG883806
Cyclohexane	ND		0.00100	1	06/27/2016 21:27	WG883806
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 19:51	WG884818
(S) Toluene-d8	*105*		*90.0-115*		*06/30/2016 19:51*	WG884818
(S) Toluene-d8	*102*		*90.0-115*		*06/27/2016 21:27*	WG883806
(S) Dibromofluoromethane	*98.1*		*79.0-121*		*06/27/2016 21:27*	WG883806
(S) Dibromofluoromethane	*94.2*		*79.0-121*		*06/30/2016 19:51*	WG884818
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*06/30/2016 19:51*	WG884818
(S) 4-Bromofluorobenzene	*88.3*		*80.1-120*		*06/27/2016 21:27*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/29/2016 22:28	WG883950
(S) 1-Chloro-octadecane	*75.5*		*40.0-140*		*06/29/2016 22:28*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 15:20	WG883686
(S) 2,5-Dibromotoluene(FID)	*94.1*		*70.0-130*		*06/27/2016 15:20*	WG883686
(S) 2,5-Dibromotoluene(PID)	*87.7*		*70.0-130*		*06/27/2016 15:20*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/27/2016 10:19	WG883588
Toluene	ND		0.000500	1	06/27/2016 10:19	WG883588
Ethylbenzene	ND		0.000500	1	06/27/2016 10:19	WG883588
Xylenes, Total	ND		0.00150	1	06/27/2016 10:19	WG883588
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 10:19	WG883588
Naphthalene	ND		0.000500	1	06/27/2016 10:19	WG883588
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 10:19	WG883588
1,2,4-Trimethylbenzene	ND		0.000500	1	06/27/2016 10:19	WG883588
1,3,5-Trimethylbenzene	ND	J4	0.000500	1	06/27/2016 10:19	WG883588
n-Butylbenzene	ND		0.000500	1	06/27/2016 10:19	WG883588
n-Propylbenzene	ND		0.000500	1	06/27/2016 10:19	WG883588
Isopropylbenzene	ND		0.000500	1	06/27/2016 10:19	WG883588
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 10:19	WG883588
Cyclohexane	ND		0.00100	1	06/27/2016 10:19	WG883588
Methyl Cyclohexane	ND		0.00100	1	07/01/2016 02:18	WG885046
(S) Toluene-d8	*105*		*90.0-115*		*07/01/2016 02:18*	WG885046
(S) Toluene-d8	*103*		*90.0-115*		*06/27/2016 10:19*	WG883588
(S) Dibromofluoromethane	*101*		*79.0-121*		*06/27/2016 10:19*	WG883588
(S) Dibromofluoromethane	*94.2*		*79.0-121*		*07/01/2016 02:18*	WG885046
(S) 4-Bromofluorobenzene	*102*		*80.1-120*		*07/01/2016 02:18*	WG885046
(S) 4-Bromofluorobenzene	*87.5*		*80.1-120*		*06/27/2016 10:19*	WG883588

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/29/2016 22:53	WG883950
(S) 1-Chloro-octadecane	*77.6*		*40.0-140*		*06/29/2016 22:53*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 15:53	WG883686
(S) 2,5-Dibromotoluene(FID)	*98.5*		*70.0-130*		*06/27/2016 15:53*	WG883686
(S) 2,5-Dibromotoluene(PID)	*92.4*		*70.0-130*		*06/27/2016 15:53*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/27/2016 03:25	WG883588
Toluene	ND		0.000500	1	06/27/2016 03:25	WG883588
Ethylbenzene	ND		0.000500	1	06/27/2016 03:25	WG883588
Xylenes, Total	ND		0.00150	1	06/27/2016 03:25	WG883588
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 03:25	WG883588
Naphthalene	ND		0.000500	1	06/27/2016 03:25	WG883588
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 03:25	WG883588
1,2,4-Trimethylbenzene	ND		0.000500	1	06/27/2016 03:25	WG883588
1,3,5-Trimethylbenzene	ND	J4	0.000500	1	06/27/2016 03:25	WG883588
n-Butylbenzene	ND		0.000500	1	06/27/2016 03:25	WG883588
n-Propylbenzene	ND		0.000500	1	06/27/2016 03:25	WG883588
Isopropylbenzene	ND		0.000500	1	06/27/2016 03:25	WG883588
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 03:25	WG883588
Cyclohexane	ND		0.00100	1	06/27/2016 03:25	WG883588
Methyl Cyclohexane	ND		0.00100	1	06/29/2016 17:57	WG884345
(S) Toluene-d8	*99.9*		*90.0-115*		*06/29/2016 17:57*	WG884345
(S) Toluene-d8	*103*		*90.0-115*		*06/27/2016 03:25*	WG883588
(S) Dibromofluoromethane	*102*		*79.0-121*		*06/27/2016 03:25*	WG883588
(S) Dibromofluoromethane	*103*		*79.0-121*		*06/29/2016 17:57*	WG884345
(S) 4-Bromofluorobenzene	*85.8*		*80.1-120*		*06/29/2016 17:57*	WG884345
(S) 4-Bromofluorobenzene	*91.6*		*80.1-120*		*06/27/2016 03:25*	WG883588

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/29/2016 23:18	WG883950
(S) 1-Chloro-octadecane	*81.3*		*40.0-140*		*06/29/2016 23:18*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 16:26	WG883686
(S) 2,5-Dibromotoluene(FID)	*102*		*70.0-130*		*06/27/2016 16:26*	WG883686
(S) 2,5-Dibromotoluene(PID)	*94.8*		*70.0-130*		*06/27/2016 16:26*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/27/2016 03:45	WG883588
Toluene	ND		0.000500	1	06/27/2016 03:45	WG883588
Ethylbenzene	ND		0.000500	1	06/27/2016 03:45	WG883588
Xylenes, Total	ND		0.00150	1	06/27/2016 03:45	WG883588
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 03:45	WG883588
Naphthalene	ND		0.000500	1	06/27/2016 03:45	WG883588
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 03:45	WG883588
1,2,4-Trimethylbenzene	ND		0.000500	1	06/27/2016 03:45	WG883588
1,3,5-Trimethylbenzene	ND	J4	0.000500	1	06/27/2016 03:45	WG883588
n-Butylbenzene	ND		0.000500	1	06/27/2016 03:45	WG883588
n-Propylbenzene	ND		0.000500	1	06/27/2016 03:45	WG883588
Isopropylbenzene	ND		0.000500	1	06/27/2016 03:45	WG883588
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 03:45	WG883588
Cyclohexane	ND		0.00100	1	06/27/2016 03:45	WG883588
Methyl Cyclohexane	ND		0.00100	1	06/29/2016 18:17	WG884345
(S) Toluene-d8	*98.2*		*90.0-115*		*06/29/2016 18:17*	WG884345
(S) Toluene-d8	*103*		*90.0-115*		*06/27/2016 03:45*	WG883588
(S) Dibromofluoromethane	*99.7*		*79.0-121*		*06/27/2016 03:45*	WG883588
(S) Dibromofluoromethane	*103*		*79.0-121*		*06/29/2016 18:17*	WG884345
(S) 4-Bromofluorobenzene	*86.7*		*80.1-120*		*06/29/2016 18:17*	WG884345
(S) 4-Bromofluorobenzene	*86.6*		*80.1-120*		*06/27/2016 03:45*	WG883588

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/29/2016 23:43	WG883950
(S) 1-Chloro-octadecane	*72.9*		*40.0-140*		*06/29/2016 23:43*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 16:59	WG883686
(S) 2,5-Dibromotoluene(FID)	*99.3*		*70.0-130*		*06/27/2016 16:59*	WG883686
(S) 2,5-Dibromotoluene(PID)	*92.7*		*70.0-130*		*06/27/2016 16:59*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00567		0.000500	1	06/27/2016 21:46	WG883806
Toluene	0.00282		0.000500	1	06/27/2016 21:46	WG883806
Ethylbenzene	0.00138		0.000500	1	06/27/2016 21:46	WG883806
Xylenes, Total	0.0415		0.00150	1	06/27/2016 21:46	WG883806
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 21:46	WG883806
Naphthalene	0.0124		0.000500	1	06/27/2016 21:46	WG883806
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 21:46	WG883806
1,2,4-Trimethylbenzene	0.0327		0.000500	1	06/27/2016 21:46	WG883806
1,3,5-Trimethylbenzene	0.00592		0.000500	1	06/27/2016 21:46	WG883806
n-Butylbenzene	0.000823		0.000500	1	06/27/2016 21:46	WG883806
n-Propylbenzene	0.00178		0.000500	1	06/27/2016 21:46	WG883806
Isopropylbenzene	0.00216		0.000500	1	06/27/2016 21:46	WG883806
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 21:46	WG883806
Cyclohexane	0.00192		0.00100	1	06/27/2016 21:46	WG883806
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 20:13	WG884818
(S) Toluene-d8	*103*		*90.0-115*		*06/30/2016 20:13*	WG884818
(S) Toluene-d8	*103*		*90.0-115*		*06/27/2016 21:46*	WG883806
(S) Dibromofluoromethane	*97.4*		*79.0-121*		*06/27/2016 21:46*	WG883806
(S) Dibromofluoromethane	*96.9*		*79.0-121*		*06/30/2016 20:13*	WG884818
(S) 4-Bromofluorobenzene	*103*		*80.1-120*		*06/30/2016 20:13*	WG884818
(S) 4-Bromofluorobenzene	*90.9*		*80.1-120*		*06/27/2016 21:46*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	0.251		0.100	1	06/30/2016 00:07	WG883950
(S) 1-Chloro-octadecane	*76.0*		*40.0-140*		*06/30/2016 00:07*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/01/2016 17:00	WG884422
(S) 2,5-Dibromotoluene(FID)	*118*		*70.0-130*		*07/01/2016 17:00*	WG884422
(S) 2,5-Dibromotoluene(PID)	*93.8*		*70.0-130*		*07/01/2016 17:00*	WG884422

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/27/2016 22:07	WG883806
Toluene	ND		0.000500	1	06/27/2016 22:07	WG883806
Ethylbenzene	ND		0.000500	1	06/27/2016 22:07	WG883806
Xylenes, Total	ND		0.00150	1	06/27/2016 22:07	WG883806
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 22:07	WG883806
Naphthalene	ND		0.000500	1	06/27/2016 22:07	WG883806
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 22:07	WG883806
1,2,4-Trimethylbenzene	ND		0.000500	1	06/27/2016 22:07	WG883806
1,3,5-Trimethylbenzene	ND		0.000500	1	06/27/2016 22:07	WG883806
n-Butylbenzene	ND		0.000500	1	06/27/2016 22:07	WG883806
n-Propylbenzene	ND		0.000500	1	06/27/2016 22:07	WG883806
Isopropylbenzene	ND		0.000500	1	06/27/2016 22:07	WG883806
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 22:07	WG883806
Cyclohexane	ND		0.00100	1	06/27/2016 22:07	WG883806
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 20:36	WG884818
(S) Toluene-d8	*104*		*90.0-115*		*06/30/2016 20:36*	WG884818
(S) Toluene-d8	*102*		*90.0-115*		*06/27/2016 22:07*	WG883806
(S) Dibromofluoromethane	*98.2*		*79.0-121*		*06/27/2016 22:07*	WG883806
(S) Dibromofluoromethane	*94.4*		*79.0-121*		*06/30/2016 20:36*	WG884818
(S) 4-Bromofluorobenzene	*103*		*80.1-120*		*06/30/2016 20:36*	WG884818
(S) 4-Bromofluorobenzene	*87.6*		*80.1-120*		*06/27/2016 22:07*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 00:32	WG883950
(S) 1-Chloro-octadecane	*78.0*		*40.0-140*		*06/30/2016 00:32*	WG883950

Method Blank (MB)

(MB) R3146548-3 06/29/16 12:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl Cyclohexane	U		0.000380	0.00100
(S) Toluene-d8	*98.7*			*90.0-115*
(S) Dibromofluoromethane	*102*			*79.0-121*
(S) 4-Bromofluorobenzene	*85.7*			*80.1-120*

Method Blank (MB)

(MB) R3146954-3 06/30/16 14:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl Cyclohexane	U		0.000380	0.00100
(S) Toluene-d8	*104*			*90.0-115*
(S) Dibromofluoromethane	*95.0*			*79.0-121*
(S) 4-Bromofluorobenzene	*101*			*80.1-120*

Method Blank (MB)

(MB) R3147084-3 06/30/16 23:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl Cyclohexane	U		0.000380	0.00100
(S) Toluene-d8	*97.7*			*90.0-115*
(S) Dibromofluoromethane	*95.1*			*79.0-121*
(S) 4-Bromofluorobenzene	*102*			*80.1-120*

Method Blank (MB)

(MB) R3147409-3 07/04/16 12:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
Cyclohexane	U		0.000390	0.00100
Ethylbenzene	U		0.000158	0.000500
Naphthalene	U		0.000174	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
Toluene	U		0.000102	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*101*			*90.0-115*
(S) Dibromofluoromethane	*102*			*79.0-121*
(S) 4-Bromofluorobenzene	*84.5*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147409-1 07/04/16 09:58 • (LCSD) R3147409-2 07/04/16 10:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0278	0.0255	111	102	73.0-122			8.96	20
1,2,4-Trimethylbenzene	0.0250	0.0265	0.0237	106	94.6	79.0-122			11.2	20
Ethylbenzene	0.0250	0.0281	0.0248	112	99.3	80.9-121			12.3	20
Naphthalene	0.0250	0.0242	0.0231	96.8	92.5	69.7-134			4.63	20
Toluene	0.0250	0.0265	0.0243	106	97.2	77.9-116			8.65	20
Xylenes, Total	0.0750	0.0838	0.0741	112	98.8	79.2-122			12.2	20
(S) Toluene-d8				*97.7*	*98.3*	*90.0-115*				
(S) Dibromofluoromethane				*105*	*104*	*79.0-121*				
(S) 4-Bromofluorobenzene				*86.9*	*84.5*	*80.1-120*				

L843749-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L843749-04 07/05/16 07:59 • (MS) R3147409-4 07/04/16 23:49 • (MSD) R3147409-5 07/05/16 00:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0286	0.263	0.254	93.8	90.3	10	58.6-133			3.38	20
1,2,4-Trimethylbenzene	0.0250	0.208	0.437	0.417	91.8	83.8	10	60.5-137			4.68	20
Ethylbenzene	0.0250	1.40	1.58	1.52	73.5	47.8	10	62.7-136		V	4.14	20
Naphthalene	0.0250	0.0305	0.248	0.254	87.1	89.3	10	61.8-143			2.24	20
Toluene	0.0250	0.0270	0.253	0.248	90.3	88.2	10	67.8-124			2.04	20
Xylenes, Total	0.0750	0.676	1.40	1.33	96.3	87.8	10	65.6-133			4.66	20
(S) Toluene-d8					*97.6*	*97.8*		*90.0-115*				
(S) Dibromofluoromethane					*101*	*104*		*79.0-121*				

QUALITY CONTROL SUMMARY

L843460-16,17,18,19,23,24

L843749-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L843749-04 07/05/16 07:59 • (MS) R3147409-4 07/04/16 23:49 • (MSD) R3147409-5 07/05/16 00:09

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
(S) 4-Bromofluorobenzene					*87.8*	*86.6*		*80.1-120*				

Method Blank (MB)

(MB) R3147682-3 07/05/16 16:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyclohexane	U		0.000390	0.00100
(S) Toluene-d8	*100*			*90.0-115*
(S) Dibromofluoromethane	*104*			*79.0-121*
(S) 4-Bromofluorobenzene	*87.0*			*80.1-120*

Method Blank (MB)

(MB) R3146883-1 06/29/16 19:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
MRH (C9-C18)	U		0.00754	0.100
(S) 1-Chloro-octadecane	*67.6*			*40.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3146883-2 06/29/16 19:59 • (LCSD) R3146883-3 06/29/16 20:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MRH (C9-C18)	1.20	0.798	0.764	66.5	63.6	40.0-140			4.44	25
(S) 1-Chloro-octadecane				*46.4*	*41.7*	*40.0-140*				

Method Blank (MB)

(MB) R3146884-1 06/30/16 06:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
MRH (C9-C18)	U		0.00754	0.100
(S) 1-Chloro-octadecane	*65.9*			*40.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3146884-2 06/30/16 06:44 • (LCSD) R3146884-3 06/30/16 07:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MRH (C9-C18)	1.20	0.732	0.739	61.0	61.6	40.0-140			0.930	25
(S) 1-Chloro-octadecane				*56.7*	*50.0*	*40.0-140*				

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Apex Companies, LLC- Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; TAlfred@apexcos.com; TCochran@apexcos.com

Project Description: Andover Colt Court Release Site

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #

Lab Project # ASHCREPOR-NUSTARCOLT

Collected by (print): Ted Alfred

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1843460

B142

Acctnum: ASHCREPOR
Template: T110556
Prelogin: P557346
TSR: 358 - Jarred Willis
PB: 6/10/16 AP
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl						Rem./Contaminant	Sample # (lab only)
MW-1	Grab	GW	32.5'	6-22-16	0945	8	X	X		X							-01
MW-2		GW	36'	6-23-16	0957												-02
MW-3		GW	40'	6-21-16	1545												-03
MW-4		GW	31'	6-21-16	1020												-04
MW-5		GW	22'	6-22-16	1110												-05
MW-6		GW	25'	6-20-16	1247												-06
MW-7		GW	18'	6-20-16	1203												-07
MW-8		GW	22'	6-20-16	1515												-08
MW-9		GW	31'	6-23-16	0855												-09
MW-10		GW	30'	6-21-16	1655												-10

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260LL= BTEX, 1,2-DCA, Naphthalene, 1,2,4-TMB, 1,3,5-TMB, n-butylbenzene, n-propylbenzene

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6-23-16	1245	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6-23-16	1245	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____

Temp: 2.4 °C Bottles Received: 168

Date: 6/24/16 Time: 0900

Condition: DB9 (lab use only)

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF: X

6711014059 28.5972

Apex Companies, LLC- Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; TAlfred@apexcos.com; TCochran@apexcos.com

Project Description: Andover Colt Court Release Site

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #

Lab Project # ASHCREPOR-NUSTARCOLT

Collected by (print): Ted Alfred

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 2 of 3

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L813460

Table #

Acctnum: ASHCREPOR
Template: T110556
Prelogin: P557346
TSR: 358 - Jarred Willis
PB: 6/24/16
Shipped Via: FedEx Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl						Rem./Contaminant	Sample # (lab only)
MW-11	Grab	GW	31'	6-21-16	1416	8	X	X		X							-11
MW-12		GW	31.5'	6-22-16	0855												-12
MW-13		GW	33'	6-23-16	1113												-13
MW-14		GW	33'	6-23-16	1035	Ø											
MW-15		GW	33	6-21-16	1105												-14
MW-16		GW	32'	6-21-16	1220												-15
MW-17		GW	32'	6-22-16	1020												-16
MW-18		GW	33'	6-21-16	0856												-17
MW-19		GW	32'	6-21-16	0936												-18
SVE-2		GW	—	6-23-16	0912												-19

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260LL= BTEX, 1,2-DCA, Naphthalene, 1,2,4-TMB, 1,3,5-TMB, n-butylbenzene, n-propylbenzene

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
	6-23-16	1245			DB9
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.4 °C Bottles Received: 16	COC Seal Intact: ___Y ___N ___NA
	6-23-16	13:45			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/24/16 Time: 0900	pH Checked: / NCF: X

Apex Companies, LLC- Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
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Report to: Samuel Jackson

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Collected by (print): Ted Alfred

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P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 3 of 3

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L843460

Table #

Acctnum: ASHCREPOR
Template: T110556
Prelogin: P557346
TSR: 358 - Jarred Willis
PB: 6/10/16 DD
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl							Rem./Contaminant	Sample # (lab only)
~~SVE-3~~		~~GW~~																
SVE-4	Grab	GW	—	6-23-16	0920	6	X	X		X								-20
TRIP BLANK	—	GW	—	—	—	1			X									-21
TRIP BLANK	—	GW	—	—	—	1			X									-22
~~DUP-1~~		~~GW~~																
DUP-2	Grab	GW	—	6-21-16	—	8	X	X		X								-23
DUP-3	Grab	GW	—	6-22-16	—	8	X	X		X								-24
		GW																
		GW																

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260LL= BTEX, 1,2-DCA, Naphthalene, 1,2,4-TMB, 1,3,5-TMB, n-butylbenzene, n-propylbenzene

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
	6-23-16	1245			NB9
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.4 °C Bottles Received: 168	COC Seal Intact: ✓ Y ___N ___NA
	6-23-16	1345			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/24/16 Time: 0900	pH Checked: / NCF: X

ESC Lab Sciences
Non-Conformance Form

Login #: L843460	Client: ASHCREPOR	Date: 6/24/16	Evaluated by: Troy Dunlap

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	X	Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: Did not receive MW-14.

Client informed by:		Call		Email	x	Voice Mail		Date:06/24/16	Time:1540
TSR Initials:bjf	Client Contact: Samuel Jackson								

Login Instructions:

Client has been informed

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

ANALYTICAL REPORT

July 05, 2016

myESC
REAL TIME DATA ACCESS

Apex Companies, LLC- Portland, OR

Sample Delivery Group:	L843589
Samples Received:	06/24/2016
Project Number:	E3CE-0065
Description:	Andover Release Site - 4Q2015 Quail Crossing GWM□□
Site:	ANDOVER QUAIL CROSSING
Report To:	Samuel Jackson 3015 SW First Avenue Portland, OR 97201-4707

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Cp
Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

2006 N COLT CT L843589-01 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 15:55 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 09:38	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884132	5	07/01/16 02:39	07/01/16 02:39	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885470	50	07/02/16 17:45	07/02/16 17:45	BMB
Volatile Petroleum Hydrocarbons by Method 8015	WG884421	50	07/01/16 01:31	07/01/16 01:31	DWR

HOA-1 L843589-02 GW

Collected by: Ted Alfred | Collected date/time: 06/20/16 15:30 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 10:03	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884132	1	07/01/16 02:59	07/01/16 02:59	CAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885470	1	07/02/16 18:06	07/02/16 18:06	BMB
Volatile Petroleum Hydrocarbons by Method 8015	WG884421	1	07/01/16 02:04	07/01/16 02:04	DWR

2028 N RUGER CIR L843589-03 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 11:35 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 10:27	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884132	1	07/01/16 03:20	07/01/16 03:20	DWR
Volatile Petroleum Hydrocarbons by Method 8015	WG884421	1	07/01/16 02:37	07/01/16 02:37	DWR

2021 N RUGER CIR L843589-04 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 12:15 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 10:52	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884132	1	07/01/16 03:40	07/01/16 03:40	DWR
Volatile Petroleum Hydrocarbons by Method 8015	WG884421	1	07/01/16 03:10	07/01/16 03:10	DWR

2025 N RUGER CIR L843589-05 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 14:25 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 11:17	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885470	1	07/02/16 18:27	07/02/16 18:27	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	1	07/05/16 05:16	07/05/16 05:16	JHH
Volatile Petroleum Hydrocarbons by Method 8015	WG884421	1	07/01/16 03:43	07/01/16 03:43	DWR

TRIP BLANK L843589-06 GW

Collected by: Ted Alfred | Collected date/time: 06/21/16 00:00 | Received date/time: 06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884132	1	06/30/16 21:38	06/30/16 21:38	DWR

DUP-1 L843589-07 GW

Collected by	Collected date/time	Received date/time
Ted Alfred	06/20/16 00:00	06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG883951	1	06/29/16 14:56	06/30/16 11:42	ACM
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885470	1	07/02/16 18:49	07/02/16 18:49	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG885801	1	07/04/16 23:28	07/04/16 23:28	JHH
Volatile Petroleum Hydrocarbons by Method 8015	WG884421	1	07/01/16 04:15	07/01/16 04:15	DWR

TRIP BLANK L843589-08 GW

Collected by	Collected date/time	Received date/time
Ted Alfred	06/21/16 00:00	06/24/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG884132	1	06/30/16 21:59	06/30/16 21:59	DWR

Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	7.64		5.00	50	07/01/2016 01:31	WG884421
(S) 2,5-Dibromotoluene(FID)	*101*		*70.0-130*		*07/01/2016 01:31*	WG884421
(S) 2,5-Dibromotoluene(PID)	*93.2*		*70.0-130*		*07/01/2016 01:31*	WG884421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.799		0.00250	5	07/01/2016 02:39	WG884132
Toluene	2.83		0.0250	50	07/02/2016 17:45	WG885470
Ethylbenzene	1.44		0.0250	50	07/02/2016 17:45	WG885470
Xylenes, Total	5.00		0.0750	50	07/02/2016 17:45	WG885470
Methyl tert-butyl ether	ND		0.00250	5	07/01/2016 02:39	WG884132
Naphthalene	0.167		0.00250	5	07/01/2016 02:39	WG884132
1,2-Dichloroethane	ND		0.00250	5	07/01/2016 02:39	WG884132
1,2,4-Trimethylbenzene	1.34		0.0250	50	07/02/2016 17:45	WG885470
1,3,5-Trimethylbenzene	0.354		0.00250	5	07/01/2016 02:39	WG884132
n-Butylbenzene	0.00989		0.00250	5	07/01/2016 02:39	WG884132
n-Propylbenzene	0.163		0.00250	5	07/01/2016 02:39	WG884132
Isopropylbenzene	0.0552		0.00250	5	07/01/2016 02:39	WG884132
2-Butanone (MEK)	0.0315		0.0125	5	07/01/2016 02:39	WG884132
Cyclohexane	0.359		0.0500	50	07/02/2016 17:45	WG885470
Methyl Cyclohexane	0.0412		0.00500	5	07/01/2016 02:39	WG884132
(S) Toluene-d8	*98.5*		*90.0-115*		*07/01/2016 02:39*	WG884132
(S) Toluene-d8	*109*		*90.0-115*		*07/02/2016 17:45*	WG885470
(S) Dibromofluoromethane	*101*		*79.0-121*		*07/02/2016 17:45*	WG885470
(S) Dibromofluoromethane	*93.3*		*79.0-121*		*07/01/2016 02:39*	WG884132
(S) 4-Bromofluorobenzene	*85.6*		*80.1-120*		*07/01/2016 02:39*	WG884132
(S) 4-Bromofluorobenzene	*92.5*		*80.1-120*		*07/02/2016 17:45*	WG885470

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	8.08		0.100	1	06/30/2016 09:38	WG883951
(S) 1-Chloro-octadecane	*82.7*		*40.0-140*		*06/30/2016 09:38*	WG883951

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/01/2016 02:04	WG884421
(S) 2,5-Dibromotoluene(FID)	*102*		*70.0-130*		*07/01/2016 02:04*	WG884421
(S) 2,5-Dibromotoluene(PID)	*94.0*		*70.0-130*		*07/01/2016 02:04*	WG884421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/01/2016 02:59	WG884132
Toluene	ND		0.000500	1	07/02/2016 18:06	WG885470
Ethylbenzene	ND		0.000500	1	07/02/2016 18:06	WG885470
Xylenes, Total	ND		0.00150	1	07/02/2016 18:06	WG885470
Methyl tert-butyl ether	ND		0.000500	1	07/01/2016 02:59	WG884132
Naphthalene	0.00183	B	0.000500	1	07/01/2016 02:59	WG884132
1,2-Dichloroethane	ND		0.000500	1	07/01/2016 02:59	WG884132
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:06	WG885470
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:06	WG885470
n-Butylbenzene	ND		0.000500	1	07/01/2016 02:59	WG884132
n-Propylbenzene	ND		0.000500	1	07/01/2016 02:59	WG884132
Isopropylbenzene	ND		0.000500	1	07/01/2016 02:59	WG884132
2-Butanone (MEK)	ND		0.00250	1	07/01/2016 02:59	WG884132
Cyclohexane	ND		0.00100	1	07/01/2016 02:59	WG884132
Methyl Cyclohexane	ND		0.00100	1	07/01/2016 02:59	WG884132
(S) Toluene-d8	*98.8*		*90.0-115*		*07/01/2016 02:59*	WG884132
(S) Toluene-d8	*105*		*90.0-115*		*07/02/2016 18:06*	WG885470
(S) Dibromofluoromethane	*105*		*79.0-121*		*07/02/2016 18:06*	WG885470
(S) Dibromofluoromethane	*98.1*		*79.0-121*		*07/01/2016 02:59*	WG884132
(S) 4-Bromofluorobenzene	*86.8*		*80.1-120*		*07/01/2016 02:59*	WG884132
(S) 4-Bromofluorobenzene	*86.9*		*80.1-120*		*07/02/2016 18:06*	WG885470

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 10:03	WG883951
(S) 1-Chloro-octadecane	*74.5*		*40.0-140*		*06/30/2016 10:03*	WG883951

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/01/2016 02:37	WG884421
(S) 2,5-Dibromotoluene(FID)	*105*		*70.0-130*		*07/01/2016 02:37*	WG884421
(S) 2,5-Dibromotoluene(PID)	*95.9*		*70.0-130*		*07/01/2016 02:37*	WG884421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/01/2016 03:20	WG884132
Toluene	ND		0.000500	1	07/01/2016 03:20	WG884132
Ethylbenzene	ND		0.000500	1	07/01/2016 03:20	WG884132
Xylenes, Total	ND		0.00150	1	07/01/2016 03:20	WG884132
Methyl tert-butyl ether	ND		0.000500	1	07/01/2016 03:20	WG884132
Naphthalene	ND		0.000500	1	07/01/2016 03:20	WG884132
1,2-Dichloroethane	ND		0.000500	1	07/01/2016 03:20	WG884132
1,2,4-Trimethylbenzene	ND		0.000500	1	07/01/2016 03:20	WG884132
1,3,5-Trimethylbenzene	ND		0.000500	1	07/01/2016 03:20	WG884132
n-Butylbenzene	ND		0.000500	1	07/01/2016 03:20	WG884132
n-Propylbenzene	ND		0.000500	1	07/01/2016 03:20	WG884132
Isopropylbenzene	ND		0.000500	1	07/01/2016 03:20	WG884132
2-Butanone (MEK)	ND		0.00250	1	07/01/2016 03:20	WG884132
Cyclohexane	ND		0.00100	1	07/01/2016 03:20	WG884132
Methyl Cyclohexane	ND		0.00100	1	07/01/2016 03:20	WG884132
(S) Toluene-d8	*98.2*		*90.0-115*		*07/01/2016 03:20*	WG884132
(S) Dibromofluoromethane	*97.9*		*79.0-121*		*07/01/2016 03:20*	WG884132
(S) 4-Bromofluorobenzene	*89.0*		*80.1-120*		*07/01/2016 03:20*	WG884132

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 10:27	WG883951
(S) 1-Chloro-octadecane	*85.0*		*40.0-140*		*06/30/2016 10:27*	WG883951

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/01/2016 03:10	WG884421
(S) 2,5-Dibromotoluene(FID)	*104*		*70.0-130*		*07/01/2016 03:10*	WG884421
(S) 2,5-Dibromotoluene(PID)	*96.2*		*70.0-130*		*07/01/2016 03:10*	WG884421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/01/2016 03:40	WG884132
Toluene	ND		0.000500	1	07/01/2016 03:40	WG884132
Ethylbenzene	ND		0.000500	1	07/01/2016 03:40	WG884132
Xylenes, Total	ND		0.00150	1	07/01/2016 03:40	WG884132
Methyl tert-butyl ether	ND		0.000500	1	07/01/2016 03:40	WG884132
Naphthalene	ND		0.000500	1	07/01/2016 03:40	WG884132
1,2-Dichloroethane	ND		0.000500	1	07/01/2016 03:40	WG884132
1,2,4-Trimethylbenzene	ND		0.000500	1	07/01/2016 03:40	WG884132
1,3,5-Trimethylbenzene	ND		0.000500	1	07/01/2016 03:40	WG884132
n-Butylbenzene	ND		0.000500	1	07/01/2016 03:40	WG884132
n-Propylbenzene	ND		0.000500	1	07/01/2016 03:40	WG884132
Isopropylbenzene	ND		0.000500	1	07/01/2016 03:40	WG884132
2-Butanone (MEK)	ND		0.00250	1	07/01/2016 03:40	WG884132
Cyclohexane	ND		0.00100	1	07/01/2016 03:40	WG884132
Methyl Cyclohexane	ND		0.00100	1	07/01/2016 03:40	WG884132
(S) Toluene-d8	*98.2*		*90.0-115*		*07/01/2016 03:40*	WG884132
(S) Dibromofluoromethane	*99.6*		*79.0-121*		*07/01/2016 03:40*	WG884132
(S) 4-Bromofluorobenzene	*87.6*		*80.1-120*		*07/01/2016 03:40*	WG884132

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 10:52	WG883951
(S) 1-Chloro-octadecane	*79.0*		*40.0-140*		*06/30/2016 10:52*	WG883951

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/01/2016 03:43	WG884421
(S) 2,5-Dibromotoluene(FID)	*99.2*		*70.0-130*		*07/01/2016 03:43*	WG884421
(S) 2,5-Dibromotoluene(PID)	*91.9*		*70.0-130*		*07/01/2016 03:43*	WG884421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 18:27	WG885470
Toluene	ND		0.000500	1	07/02/2016 18:27	WG885470
Ethylbenzene	ND		0.000500	1	07/02/2016 18:27	WG885470
Xylenes, Total	ND		0.00150	1	07/02/2016 18:27	WG885470
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 18:27	WG885470
Naphthalene	ND		0.000500	1	07/05/2016 05:16	WG885801
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 18:27	WG885470
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:27	WG885470
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:27	WG885470
n-Butylbenzene	ND		0.000500	1	07/02/2016 18:27	WG885470
n-Propylbenzene	ND		0.000500	1	07/02/2016 18:27	WG885470
Isopropylbenzene	ND		0.000500	1	07/02/2016 18:27	WG885470
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 18:27	WG885470
Cyclohexane	ND		0.00100	1	07/02/2016 18:27	WG885470
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 18:27	WG885470
(S) Toluene-d8	*105*		*90.0-115*		*07/02/2016 18:27*	WG885470
(S) Toluene-d8	*99.7*		*90.0-115*		*07/05/2016 05:16*	WG885801
(S) Dibromofluoromethane	*105*		*79.0-121*		*07/05/2016 05:16*	WG885801
(S) Dibromofluoromethane	*104*		*79.0-121*		*07/02/2016 18:27*	WG885470
(S) 4-Bromofluorobenzene	*87.3*		*80.1-120*		*07/02/2016 18:27*	WG885470
(S) 4-Bromofluorobenzene	*87.8*		*80.1-120*		*07/05/2016 05:16*	WG885801

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 11:17	WG883951
(S) 1-Chloro-octadecane	*83.0*		*40.0-140*		*06/30/2016 11:17*	WG883951

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/30/2016 21:38	WG884132
Toluene	ND		0.000500	1	06/30/2016 21:38	WG884132
Ethylbenzene	ND		0.000500	1	06/30/2016 21:38	WG884132
Xylenes, Total	ND		0.00150	1	06/30/2016 21:38	WG884132
Methyl tert-butyl ether	ND		0.000500	1	06/30/2016 21:38	WG884132
Naphthalene	ND		0.000500	1	06/30/2016 21:38	WG884132
1,2-Dichloroethane	ND		0.000500	1	06/30/2016 21:38	WG884132
1,2,4-Trimethylbenzene	ND		0.000500	1	06/30/2016 21:38	WG884132
1,3,5-Trimethylbenzene	ND		0.000500	1	06/30/2016 21:38	WG884132
n-Butylbenzene	ND		0.000500	1	06/30/2016 21:38	WG884132
n-Propylbenzene	ND		0.000500	1	06/30/2016 21:38	WG884132
Isopropylbenzene	ND		0.000500	1	06/30/2016 21:38	WG884132
2-Butanone (MEK)	ND		0.00250	1	06/30/2016 21:38	WG884132
Cyclohexane	ND		0.00100	1	06/30/2016 21:38	WG884132
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 21:38	WG884132
(S) Toluene-d8	*97.9*		*90.0-115*		*06/30/2016 21:38*	WG884132
(S) Dibromofluoromethane	*99.3*		*79.0-121*		*06/30/2016 21:38*	WG884132
(S) 4-Bromofluorobenzene	*86.4*		*80.1-120*		*06/30/2016 21:38*	WG884132

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/01/2016 04:15	WG884421
(S) 2,5-Dibromotoluene(FID)	*103*		*70.0-130*		*07/01/2016 04:15*	WG884421
(S) 2,5-Dibromotoluene(PID)	*94.8*		*70.0-130*		*07/01/2016 04:15*	WG884421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 18:49	WG885470
Toluene	ND		0.000500	1	07/02/2016 18:49	WG885470
Ethylbenzene	ND		0.000500	1	07/02/2016 18:49	WG885470
Xylenes, Total	ND		0.00150	1	07/02/2016 18:49	WG885470
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 18:49	WG885470
Naphthalene	ND		0.000500	1	07/04/2016 23:28	WG885801
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 18:49	WG885470
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:49	WG885470
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:49	WG885470
n-Butylbenzene	ND		0.000500	1	07/02/2016 18:49	WG885470
n-Propylbenzene	ND		0.000500	1	07/02/2016 18:49	WG885470
Isopropylbenzene	ND		0.000500	1	07/02/2016 18:49	WG885470
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 18:49	WG885470
Cyclohexane	ND		0.00100	1	07/02/2016 18:49	WG885470
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 18:49	WG885470
(S) Toluene-d8	*109*		*90.0-115*		*07/02/2016 18:49*	WG885470
(S) Toluene-d8	*98.8*		*90.0-115*		*07/04/2016 23:28*	WG885801
(S) Dibromofluoromethane	*103*		*79.0-121*		*07/04/2016 23:28*	WG885801
(S) Dibromofluoromethane	*108*		*79.0-121*		*07/02/2016 18:49*	WG885470
(S) 4-Bromofluorobenzene	*89.3*		*80.1-120*		*07/02/2016 18:49*	WG885470
(S) 4-Bromofluorobenzene	*87.6*		*80.1-120*		*07/04/2016 23:28*	WG885801

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 11:42	WG883951
(S) 1-Chloro-octadecane	*73.1*		*40.0-140*		*06/30/2016 11:42*	WG883951

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/30/2016 21:59	WG884132
Toluene	ND		0.000500	1	06/30/2016 21:59	WG884132
Ethylbenzene	ND		0.000500	1	06/30/2016 21:59	WG884132
Xylenes, Total	ND		0.00150	1	06/30/2016 21:59	WG884132
Methyl tert-butyl ether	ND		0.000500	1	06/30/2016 21:59	WG884132
Naphthalene	ND		0.000500	1	06/30/2016 21:59	WG884132
1,2-Dichloroethane	ND		0.000500	1	06/30/2016 21:59	WG884132
1,2,4-Trimethylbenzene	ND		0.000500	1	06/30/2016 21:59	WG884132
1,3,5-Trimethylbenzene	ND		0.000500	1	06/30/2016 21:59	WG884132
n-Butylbenzene	ND		0.000500	1	06/30/2016 21:59	WG884132
n-Propylbenzene	ND		0.000500	1	06/30/2016 21:59	WG884132
Isopropylbenzene	ND		0.000500	1	06/30/2016 21:59	WG884132
2-Butanone (MEK)	ND		0.00250	1	06/30/2016 21:59	WG884132
Cyclohexane	ND		0.00100	1	06/30/2016 21:59	WG884132
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 21:59	WG884132
(S) Toluene-d8	*97.7*		*90.0-115*		*06/30/2016 21:59*	WG884132
(S) Dibromofluoromethane	*99.1*		*79.0-121*		*06/30/2016 21:59*	WG884132
(S) 4-Bromofluorobenzene	*89.3*		*80.1-120*		*06/30/2016 21:59*	WG884132

Method Blank (MB)

(MB) R3147179-3 06/30/16 21:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	0.0126	J	0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*99.7*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*92.2*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147179-1 06/30/16 16:04 • (LCSD) R3147179-2 06/30/16 16:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.08	1.05	90.2	87.6	70.0-130			2.96	25
(S) 2,5-Dibromotoluene(FID)				*104*	*101*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*95.7*	*93.5*	*70.0-130*				

L843750-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L843750-05 07/01/16 00:58 • (MS) R3147179-4 06/30/16 22:13 • (MSD) R3147179-5 06/30/16 22:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	0.194	1.51	1.39	110	99.6	1	70.0-130			8.42	25
(S) 2,5-Dibromotoluene(FID)					*98.4*	*102*		*70.0-130*				
(S) 2,5-Dibromotoluene(PID)					*91.8*	*94.4*		*70.0-130*				

Method Blank (MB)

(MB) R3147057-3 06/30/16 18:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
n-Butylbenzene	U		0.000143	0.000500
Cyclohexane	U		0.000390	0.00100
1,2-Dichloroethane	U		0.000108	0.000500
Ethylbenzene	U		0.000158	0.000500
Isopropylbenzene	U		0.000126	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methyl Cyclohexane	U		0.000380	0.00100
Methyl tert-butyl ether	U		0.000102	0.000500
Naphthalene	0.000370	J	0.000174	0.000500
n-Propylbenzene	U		0.000162	0.000500
Toluene	U		0.000102	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*98.1*			*90.0-115*
(S) Dibromofluoromethane	*97.6*			*79.0-121*
(S) 4-Bromofluorobenzene	*88.2*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147057-1 06/30/16 16:55 • (LCSD) R3147057-2 06/30/16 17:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0239	0.0248	95.6	99.0	73.0-122			3.54	20
n-Butylbenzene	0.0250	0.0234	0.0246	93.7	98.3	75.9-134			4.84	20
1,2-Dichloroethane	0.0250	0.0213	0.0229	85.0	91.4	65.3-126			7.27	20
Ethylbenzene	0.0250	0.0248	0.0261	99.2	104	80.9-121			4.97	20
Isopropylbenzene	0.0250	0.0233	0.0243	93.1	97.4	81.6-124			4.43	20
2-Butanone (MEK)	0.125	0.111	0.125	89.2	100	46.4-155			11.5	20
Methyl tert-butyl ether	0.0250	0.0215	0.0230	85.9	92.1	70.1-125			6.94	20
Naphthalene	0.0250	0.0208	0.0234	83.3	93.8	69.7-134			11.9	20
n-Propylbenzene	0.0250	0.0239	0.0252	95.8	101	81.9-122			5.13	20
Toluene	0.0250	0.0240	0.0244	95.8	97.6	77.9-116			1.85	20
1,2,4-Trimethylbenzene	0.0250	0.0230	0.0243	92.1	97.4	79.0-122			5.51	20
1,3,5-Trimethylbenzene	0.0250	0.0227	0.0237	91.0	95.0	81.0-123			4.32	20
Xylenes, Total	0.0750	0.0735	0.0775	98.1	103	79.2-122			5.22	20
(S) Toluene-d8				*98.5*	*97.8*	*90.0-115*				
(S) Dibromofluoromethane				*98.4*	*99.8*	*79.0-121*				

QUALITY CONTROL SUMMARY

L843589-01,02,03,04,06,08

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147057-1 06/30/16 16:55 • (LCSD) R3147057-2 06/30/16 17:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene				*85.4*	*86.6*	*80.1-120*				

L843514-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L843514-01 06/30/16 22:20 • (MS) R3147057-4 06/30/16 19:08 • (MSD) R3147057-5 06/30/16 19:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.00270	0.0244	0.0248	86.6	88.2	1	58.6-133			1.61	20
n-Butylbenzene	0.0250	ND	0.0219	0.0227	87.5	90.7	1	64.8-145			3.63	20
1,2-Dichloroethane	0.0250	ND	0.0210	0.0204	83.8	81.7	1	60.7-132			2.51	20
Ethylbenzene	0.0250	0.00143	0.0246	0.0249	92.9	94.0	1	62.7-136			1.17	20
Isopropylbenzene	0.0250	ND	0.0221	0.0223	88.2	89.2	1	67.4-136			1.13	20
2-Butanone (MEK)	0.125	ND	0.0897	0.0846	71.7	67.7	1	45.0-156			5.83	20.8
Methyl tert-butyl ether	0.0250	ND	0.0208	0.0213	83.3	85.1	1	61.4-136			2.03	20
Naphthalene	0.0250	ND	0.0209	0.0214	81.9	83.9	1	61.8-143			2.37	20
n-Propylbenzene	0.0250	ND	0.0228	0.0228	91.2	91.1	1	63.2-139			0.120	20
Toluene	0.0250	0.00502	0.0263	0.0268	84.9	87.0	1	67.8-124			1.93	20
1,2,4-Trimethylbenzene	0.0250	0.000639	0.0220	0.0224	85.6	87.1	1	60.5-137			1.66	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0215	0.0218	85.1	86.6	1	67.9-134			1.75	20
Xylenes, Total	0.0750	0.00565	0.0747	0.0755	92.1	93.1	1	65.6-133			1.02	20
(S) Toluene-d8					*97.3*	*97.2*		*90.0-115*				
(S) Dibromofluoromethane					*98.7*	*99.8*		*79.0-121*				
(S) 4-Bromofluorobenzene					*86.0*	*85.4*		*80.1-120*				

Method Blank (MB)

(MB) R3147370-3 07/02/16 14:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
n-Butylbenzene	U		0.000143	0.000500
Cyclohexane	U		0.000390	0.00100
1,2-Dichloroethane	U		0.000108	0.000500
Ethylbenzene	U		0.000158	0.000500
Isopropylbenzene	U		0.000126	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methyl Cyclohexane	U		0.000380	0.00100
Methyl tert-butyl ether	U		0.000102	0.000500
n-Propylbenzene	U		0.000162	0.000500
Toluene	U		0.000102	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*105*			*90.0-115*
(S) Dibromofluoromethane	*101*			*79.0-121*
(S) 4-Bromofluorobenzene	*90.3*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147370-1 07/02/16 12:44 • (LCSD) R3147370-2 07/02/16 13:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0267	0.0268	107	107	73.0-122			0.680	20
n-Butylbenzene	0.0250	0.0282	0.0278	113	111	75.9-134			1.31	20
1,2-Dichloroethane	0.0250	0.0265	0.0267	106	107	65.3-126			0.860	20
Ethylbenzene	0.0250	0.0246	0.0246	98.5	98.3	80.9-121			0.170	20
Isopropylbenzene	0.0250	0.0241	0.0247	96.5	99.0	81.6-124			2.58	20
2-Butanone (MEK)	0.125	0.110	0.0990	87.7	79.2	46.4-155			10.2	20
Methyl tert-butyl ether	0.0250	0.0265	0.0256	106	103	70.1-125			3.32	20
n-Propylbenzene	0.0250	0.0244	0.0243	97.7	97.1	81.9-122			0.540	20
Toluene	0.0250	0.0257	0.0252	103	101	77.9-116			1.79	20
1,2,4-Trimethylbenzene	0.0250	0.0256	0.0256	102	102	79.0-122			0.0600	20
1,3,5-Trimethylbenzene	0.0250	0.0247	0.0252	98.8	101	81.0-123			1.87	20
Xylenes, Total	0.0750	0.0739	0.0755	98.6	101	79.2-122			2.15	20
(S) Toluene-d8				*107*	*106*	*90.0-115*				
(S) Dibromofluoromethane				*101*	*98.4*	*79.0-121*				
(S) 4-Bromofluorobenzene				*93.6*	*95.0*	*80.1-120*				

QUALITY CONTROL SUMMARY

L843589-01,02,05,07

L844678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L844678-01 07/02/16 15:58 • (MS) R3147370-4 07/02/16 14:54 • (MSD) R3147370-5 07/02/16 15:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	ND	0.0264	0.0282	105	113	1	58.6-133			6.84	20
n-Butylbenzene	0.0250	ND	0.0277	0.0309	111	124	1	64.8-145			11.0	20
1,2-Dichloroethane	0.0250	ND	0.0269	0.0286	108	114	1	60.7-132			5.97	20
Ethylbenzene	0.0250	ND	0.0243	0.0273	97.0	109	1	62.7-136			11.8	20
Isopropylbenzene	0.0250	ND	0.0244	0.0265	97.6	106	1	67.4-136			8.26	20
2-Butanone (MEK)	0.125	ND	0.107	0.112	85.6	89.7	1	45.0-156			4.62	20.8
Methyl tert-butyl ether	0.0250	ND	0.0270	0.0277	108	111	1	61.4-136			2.45	20
n-Propylbenzene	0.0250	ND	0.0244	0.0272	97.5	109	1	63.2-139			11.0	20
Toluene	0.0250	ND	0.0256	0.0270	102	108	1	67.8-124			5.09	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0248	0.0284	99.3	114	1	60.5-137			13.6	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0246	0.0273	98.3	109	1	67.9-134			10.5	20
Xylenes, Total	0.0750	ND	0.0736	0.0823	98.2	110	1	65.6-133			11.1	20
(S) Toluene-d8					*105*	*103*		*90.0-115*				
(S) Dibromofluoromethane					*97.4*	*95.4*		*79.0-121*				
(S) 4-Bromofluorobenzene					*89.4*	*94.0*		*80.1-120*				

Method Blank (MB)

(MB) R3147409-3 07/04/16 12:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Naphthalene	U		0.000174	0.000500
(S) Toluene-d8	*101*			*90.0-115*
(S) Dibromofluoromethane	*102*			*79.0-121*
(S) 4-Bromofluorobenzene	*84.5*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147409-1 07/04/16 09:58 • (LCSD) R3147409-2 07/04/16 10:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.0250	0.0242	0.0231	96.8	92.5	69.7-134			4.63	20
(S) Toluene-d8				*97.7*	*98.3*	*90.0-115*				
(S) Dibromofluoromethane				*105*	*104*	*79.0-121*				
(S) 4-Bromofluorobenzene				*86.9*	*84.5*	*80.1-120*				

L843749-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L843749-04 07/05/16 07:59 • (MS) R3147409-4 07/04/16 23:49 • (MSD) R3147409-5 07/05/16 00:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.0250	0.0305	0.248	0.254	87.1	89.3	10	61.8-143			2.24	20
(S) Toluene-d8					*97.6*	*97.8*		*90.0-115*				
(S) Dibromofluoromethane					*101*	*104*		*79.0-121*				
(S) 4-Bromofluorobenzene					*87.8*	*86.6*		*80.1-120*				

QUALITY CONTROL SUMMARY

L843589-01,02,03,04,05,07

Method Blank (MB)

(MB) R3146884-1 06/30/16 06:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
MRH (C9-C18)	U		0.00754	0.100
(S) 1-Chloro-octadecane	*65.9*			*40.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3146884-2 06/30/16 06:44 • (LCSD) R3146884-3 06/30/16 07:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MRH (C9-C18)	1.20	0.732	0.739	61.0	61.6	40.0-140			0.930	25
(S) 1-Chloro-octadecane				*56.7*	*50.0*	*40.0-140*				

Cp
1 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold — Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Apex Companies, LLC- Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; TAlfred@apexcos.com; TCochran@apexcos.com

Project Description: Andover Release Site - Quail Crossing

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: E3CE-0065

Lab Project #: ASHCREPOR-NUANDQUAIL

Collected by (print): Ted Alfred

Site/Facility ID #: ANDOVER QUAIL CROSSING

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl						Rem./Contaminant	Sample # (lab only)
2001 N COLT CT	Grab	GW	X	6-20-16	1650	8	X	X		X							
2002 N COLT CT		GW		6-20-16	1700												
2004 N COLT CT		GW		6-23-16	1138												
2005 N COLT CT		GW		6-20-16	1635												
2006 N COLT CT		GW		6-21-16	1555												-01
HOA-1		GW		6-20-16	1530												-02
2007 N COLT CT		GW		6-20-16	1620												
2019 N RUGER CIR		GW		6-21-16	1445												
2020 N RUGER CIR		GW		6-21-16	1500												
2028 N RUGER CIR		GW		6-21-16	1135												-03

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260LL= BTEX, 1,2-DCA, Naphthalene, 1,2,4-TMB, 1,3,5-TMB, n-butylbenzene, n-propylbenzene

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____	Condition: (lab use only) TP11
Relinquished by : (Signature)	6-23-16	1245	Received by: (Signature)	Temp: 0.8°C Bottles Received: 49	COC Seal Intact: ___Y ___N ___NA
Relinquished by : (Signature)	6-23-16	1345	Received for lab by: (Signature)	Date: 6-24-16 Time: 0900	pH Checked: NCF: X
	Date:	Time:			

Chain of Custody Page 1 of 3

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L843589

Table #

Acctnum: ASHCREPOR
Template: T107889
Prelogin: P557345
TSR: 358 - Jarred Willis
PB: 6/24/16 AC

Shipped Via: FedEX Ground

Apex Companies, LLC- Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; TAlfred@apexcos.com; TCochran@apexcos.com

Project Description: Andover Release Site - Quail Crossing

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: E3CE-0065

Lab Project #: ASHCREPOR-NUANDQUAIL

Collected by (print): Ted Alfred

Site/Facility ID #: ANDOVER QUAIL CROSSING

P.O. #

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 2 of 3

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L843589

Table #

Acctnum: ASHCREPOR
Template: T107889
Prelogin: P557345
TSR: 358 - Jarred Willis
PB: 6/10/16 NL
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl							Rem./Contaminant	Sample # (lab only)
2032 N RUGER CIR	Grab	GW	X	6-21-16	1125	8	X	X		X								
2021 N RUGER CIR		GW		6-21-16	1215													-04
2025 N RUGER CIR		GW		6-21-16	1425													-05
1009 W MOUNTAIN		GW		6-23-16	1230													
2007 N MOUNTAIN CT		GW		6-23-16	1155													
2009 N MOUNTAIN CT		GW		6-23-16	1205													
1211 W QUAIL CROSSING		GW		6-20-16	1555													
TRIP BLANK	—	GW		—	—	1			X									-06
TRIP BLANK	—	GW		—	—	1			X									
DUP-1	Grab	GW		6-20-16	—	8												-07 ~~-06~~

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260LL= BTEX, 1,2-DCA, Naphthalene, 1,2,4-TMB, 1,3,5-TMB, n-butylbenzene, n-propylbenzene

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____	Condition: (lab use only) TOll
[signature]	6-23-16	1245	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.8c °C Bottles Received: 49	COC Seal Intact: ___Y ___N ___NA
[signature]	6-23-16	1345	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6-24-16 Time: 0900	pH Checked: / NCF: X
[signature]			[signature]		

Apex Companies, LLC- Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; TAlfred@apexcos.com; TCochran@apexcos.com

Project Description: Andover Release Site - Quail Crossing

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: E3CE-0065

Lab Project #: ASHCREPOR-NUANDQUAIL

Collected by (print): Ted Alfred

Site/Facility ID #: ANDOVER QUAIL CROSSING

P.O. #

Collected by (signature): Immediately

Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 3 of 3

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L843589

Table #

Acctnum: ASHCREPOR
Template: T107889
Prelogin: P557345
TSR: 358 - Jarred Willis
PB: collective DC
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl						Rem./Contaminant	Sample # (lab only)
DUP-2	Grab	GW	X	6-21-16	—	8	X	X		X							
		GW															
		GW															
		GW															

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: V8260LL= BTEX, 1,2-DCA, Naphthalene, 1,2,4-TMB, 1,3,5-TMB, n-butylbenzene, n-propylbenzene

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
[signature]	6-23-16	1245	[signature]		Toll
Relinquished by : (Signature) [signature]	Date: 6-23-16	Time: 1345	Received by: (Signature) [signature]	Temp: 28°C Bottles Received: 49	COC Seal Intact: ___Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 6-24-16 Time: 0900	pH Checked: / NCF: X

ESC Lab Sciences
Non-Conformance Form

Login #: L843589	Client: ASHCREPOR	Date: 6/24/16	Evaluated by: Troy Dunlap

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by: Ryan Jones
	Broken container:	X	Chain of Custody is missing		Date/Time: 6/24/16 / 0900
	Sufficient sample remains				Temp./Cont. Rec./pH: 2.8°c/48 +1TB
					Carrier: FedEx
					Tracking# 6711 0140 5917

Login Comments: COC is missing. Project: Andover Release Site - P557345/T107889. Sample ID's: HOA-1, DUP-1, 2028 N RUGER CIR, 2021 N RUGER CIR, 2006 N COLT CT and 2025 N RUGER CIR plus one Trip Blank.

Client informed by:		Call		Email	x	Voice Mail		Date:06/24/16	Time:1600
TSR Initials:bjf	Client Contact: Samuel Jackson								

Login Instructions:

Copy of COC provided by the client. Other samples on the COC were never received. Cooler was lost by fedex.

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Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 18:04	WG883686
(S) 2,5-Dibromotoluene(FID)	*103*		*70.0-130*		*06/27/2016 18:04*	WG883686
(S) 2,5-Dibromotoluene(PID)	*95.9*		*70.0-130*		*06/27/2016 18:04*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/27/2016 22:27	WG883806
Toluene	0.000518	B	0.000500	1	06/27/2016 22:27	WG883806
Ethylbenzene	ND		0.000500	1	06/27/2016 22:27	WG883806
Xylenes, Total	ND		0.00150	1	06/27/2016 22:27	WG883806
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 22:27	WG883806
Naphthalene	ND		0.000500	1	06/27/2016 22:27	WG883806
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 22:27	WG883806
1,2,4-Trimethylbenzene	ND		0.000500	1	06/27/2016 22:27	WG883806
1,3,5-Trimethylbenzene	ND		0.000500	1	06/27/2016 22:27	WG883806
n-Butylbenzene	ND		0.000500	1	06/27/2016 22:27	WG883806
n-Propylbenzene	ND		0.000500	1	06/27/2016 22:27	WG883806
Isopropylbenzene	ND		0.000500	1	06/27/2016 22:27	WG883806
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 22:27	WG883806
Cyclohexane	ND		0.00100	1	06/27/2016 22:27	WG883806
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 20:59	WG884818
(S) Toluene-d8	*104*		*90.0-115*		*06/30/2016 20:59*	WG884818
(S) Toluene-d8	*100*		*90.0-115*		*06/27/2016 22:27*	WG883806
(S) Dibromofluoromethane	*94.9*		*79.0-121*		*06/27/2016 22:27*	WG883806
(S) Dibromofluoromethane	*93.7*		*79.0-121*		*06/30/2016 20:59*	WG884818
(S) 4-Bromofluorobenzene	*101*		*80.1-120*		*06/30/2016 20:59*	WG884818
(S) 4-Bromofluorobenzene	*87.8*		*80.1-120*		*06/27/2016 22:27*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 00:57	WG883950
(S) 1-Chloro-octadecane	*59.6*		*40.0-140*		*06/30/2016 00:57*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 18:37	WG883686
(S) 2,5-Dibromotoluene(FID)	*99.5*		*70.0-130*		*06/27/2016 18:37*	WG883686
(S) 2,5-Dibromotoluene(PID)	*92.6*		*70.0-130*		*06/27/2016 18:37*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/27/2016 22:46	WG883806
Toluene	ND		0.000500	1	06/27/2016 22:46	WG883806
Ethylbenzene	ND		0.000500	1	06/27/2016 22:46	WG883806
Xylenes, Total	ND		0.00150	1	06/27/2016 22:46	WG883806
Methyl tert-butyl ether	ND		0.000500	1	06/27/2016 22:46	WG883806
Naphthalene	ND		0.000500	1	06/27/2016 22:46	WG883806
1,2-Dichloroethane	ND		0.000500	1	06/27/2016 22:46	WG883806
1,2,4-Trimethylbenzene	ND		0.000500	1	06/27/2016 22:46	WG883806
1,3,5-Trimethylbenzene	ND		0.000500	1	06/27/2016 22:46	WG883806
n-Butylbenzene	ND		0.000500	1	06/27/2016 22:46	WG883806
n-Propylbenzene	ND		0.000500	1	06/27/2016 22:46	WG883806
Isopropylbenzene	ND		0.000500	1	06/27/2016 22:46	WG883806
2-Butanone (MEK)	ND	J4	0.00250	1	06/27/2016 22:46	WG883806
Cyclohexane	ND		0.00100	1	06/27/2016 22:46	WG883806
Methyl Cyclohexane	ND		0.00100	1	06/30/2016 21:21	WG884818
(S) Toluene-d8	*105*		*90.0-115*		*06/30/2016 21:21*	WG884818
(S) Toluene-d8	*101*		*90.0-115*		*06/27/2016 22:46*	WG883806
(S) Dibromofluoromethane	*93.6*		*79.0-121*		*06/27/2016 22:46*	WG883806
(S) Dibromofluoromethane	*95.6*		*79.0-121*		*06/30/2016 21:21*	WG884818
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*06/30/2016 21:21*	WG884818
(S) 4-Bromofluorobenzene	*89.9*		*80.1-120*		*06/27/2016 22:46*	WG883806

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 01:22	WG883950
(S) 1-Chloro-octadecane	*73.4*		*40.0-140*		*06/30/2016 01:22*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 19:10	WG883686
(S) 2,5-Dibromotoluene(FID)	*98.1*		*70.0-130*		*06/27/2016 19:10*	WG883686
(S) 2,5-Dibromotoluene(PID)	*92.0*		*70.0-130*		*06/27/2016 19:10*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 15:58	WG884161
Toluene	0.000706		0.000500	1	07/02/2016 15:58	WG884161
Ethylbenzene	0.000610		0.000500	1	07/02/2016 15:58	WG884161
Xylenes, Total	ND		0.00150	1	07/02/2016 15:58	WG884161
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 15:58	WG884161
Naphthalene	ND		0.000500	1	07/02/2016 15:58	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 15:58	WG884161
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 15:58	WG884161
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 15:58	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 15:58	WG884161
n-Propylbenzene	ND		0.000500	1	07/02/2016 15:58	WG884161
Isopropylbenzene	ND		0.000500	1	07/02/2016 15:58	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 15:58	WG884161
Cyclohexane	ND		0.00100	1	07/02/2016 15:58	WG884161
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 15:58	WG884161
(S) Toluene-d8	*99.6*		*90.0-115*		*07/02/2016 15:58*	WG884161
(S) Dibromofluoromethane	*100*		*79.0-121*		*07/02/2016 15:58*	WG884161
(S) 4-Bromofluorobenzene	*89.2*		*80.1-120*		*07/02/2016 15:58*	WG884161

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 01:47	WG883950
(S) 1-Chloro-octadecane	*60.3*		*40.0-140*		*06/30/2016 01:47*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 19:43	WG883686
(S) 2,5-Dibromotoluene(FID)	*102*		*70.0-130*		*06/27/2016 19:43*	WG883686
(S) 2,5-Dibromotoluene(PID)	*95.2*		*70.0-130*		*06/27/2016 19:43*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 16:18	WG884161
Toluene	0.00130		0.000500	1	07/02/2016 16:18	WG884161
Ethylbenzene	ND		0.000500	1	07/02/2016 16:18	WG884161
Xylenes, Total	0.00242		0.00150	1	07/02/2016 16:18	WG884161
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 16:18	WG884161
Naphthalene	ND		0.000500	1	07/02/2016 16:18	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 16:18	WG884161
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 16:18	WG884161
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 16:18	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 16:18	WG884161
n-Propylbenzene	ND		0.000500	1	07/02/2016 16:18	WG884161
Isopropylbenzene	ND		0.000500	1	07/02/2016 16:18	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 16:18	WG884161
Cyclohexane	ND		0.00100	1	07/02/2016 16:18	WG884161
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 16:18	WG884161
(S) Toluene-d8	*100*		*90.0-115*		*07/02/2016 16:18*	WG884161
(S) Dibromofluoromethane	*99.6*		*79.0-121*		*07/02/2016 16:18*	WG884161
(S) 4-Bromofluorobenzene	*87.6*		*80.1-120*		*07/02/2016 16:18*	WG884161

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 02:11	WG883950
(S) 1-Chloro-octadecane	*72.0*		*40.0-140*		*06/30/2016 02:11*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 20:16	WG883686
(S) 2,5-Dibromotoluene(FID)	*100*		*70.0-130*		*06/27/2016 20:16*	WG883686
(S) 2,5-Dibromotoluene(PID)	*93.7*		*70.0-130*		*06/27/2016 20:16*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 16:39	WG884161
Toluene	ND		0.000500	1	07/02/2016 16:39	WG884161
Ethylbenzene	ND		0.000500	1	07/02/2016 16:39	WG884161
Xylenes, Total	ND		0.00150	1	07/02/2016 16:39	WG884161
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 16:39	WG884161
Naphthalene	ND		0.000500	1	07/02/2016 16:39	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 16:39	WG884161
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 16:39	WG884161
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 16:39	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 16:39	WG884161
n-Propylbenzene	ND		0.000500	1	07/02/2016 16:39	WG884161
Isopropylbenzene	ND		0.000500	1	07/02/2016 16:39	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 16:39	WG884161
Cyclohexane	ND		0.00100	1	07/02/2016 16:39	WG884161
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 16:39	WG884161
(S) Toluene-d8	*98.8*		*90.0-115*		*07/02/2016 16:39*	WG884161
(S) Dibromofluoromethane	*102*		*79.0-121*		*07/02/2016 16:39*	WG884161
(S) 4-Bromofluorobenzene	*87.7*		*80.1-120*		*07/02/2016 16:39*	WG884161

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 02:36	WG883950
(S) 1-Chloro-octadecane	*63.9*		*40.0-140*		*06/30/2016 02:36*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	2.13		0.500	5	06/27/2016 20:49	WG883686
(S) 2,5-Dibromotoluene(FID)	*100*		*70.0-130*		*06/27/2016 20:49*	WG883686
(S) 2,5-Dibromotoluene(PID)	*93.9*		*70.0-130*		*06/27/2016 20:49*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.384		0.00250	5	07/05/2016 01:11	WG885801
Toluene	0.390		0.00250	5	07/05/2016 01:11	WG885801
Ethylbenzene	0.473		0.00250	5	07/05/2016 01:11	WG885801
Xylenes, Total	0.977		0.00750	5	07/05/2016 01:11	WG885801
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 16:59	WG884161
Naphthalene	0.0578		0.000500	1	07/02/2016 16:59	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 16:59	WG884161
1,2,4-Trimethylbenzene	0.313		0.00250	5	07/05/2016 01:11	WG885801
1,3,5-Trimethylbenzene	0.0575		0.000500	1	07/02/2016 16:59	WG884161
n-Butylbenzene	0.00235		0.000500	1	07/02/2016 16:59	WG884161
n-Propylbenzene	0.0449		0.000500	1	07/02/2016 16:59	WG884161
Isopropylbenzene	0.0178		0.000500	1	07/02/2016 16:59	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 16:59	WG884161
Cyclohexane	0.101		0.0100	10	07/05/2016 17:38	WG885802
Methyl Cyclohexane	0.0137		0.00100	1	07/02/2016 16:59	WG884161
(S) Toluene-d8	*98.6*		*90.0-115*		*07/02/2016 16:59*	WG884161
(S) Toluene-d8	*99.2*		*90.0-115*		*07/05/2016 01:11*	WG885801
(S) Toluene-d8	*99.2*		*90.0-115*		*07/05/2016 17:38*	WG885802
(S) Dibromofluoromethane	*105*		*79.0-121*		*07/05/2016 17:38*	WG885802
(S) Dibromofluoromethane	*102*		*79.0-121*		*07/05/2016 01:11*	WG885801
(S) Dibromofluoromethane	*94.6*		*79.0-121*		*07/02/2016 16:59*	WG884161
(S) 4-Bromofluorobenzene	*83.7*		*80.1-120*		*07/02/2016 16:59*	WG884161
(S) 4-Bromofluorobenzene	*87.6*		*80.1-120*		*07/05/2016 01:11*	WG885801
(S) 4-Bromofluorobenzene	*87.4*		*80.1-120*		*07/05/2016 17:38*	WG885802

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	1.83		0.100	1	06/30/2016 03:01	WG883950
(S) 1-Chloro-octadecane	*84.2*		*40.0-140*		*06/30/2016 03:01*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	0.114		0.100	1	06/27/2016 21:22	WG883686
(S) 2,5-Dibromotoluene(FID)	*100*		*70.0-130*		*06/27/2016 21:22*	WG883686
(S) 2,5-Dibromotoluene(PID)	*93.8*		*70.0-130*		*06/27/2016 21:22*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0444		0.000500	1	07/05/2016 01:31	WG885801
Toluene	0.0154		0.000500	1	07/05/2016 01:31	WG885801
Ethylbenzene	0.0282		0.000500	1	07/05/2016 01:31	WG885801
Xylenes, Total	0.115		0.00150	1	07/05/2016 01:31	WG885801
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 17:20	WG884161
Naphthalene	0.00767		0.000500	1	07/02/2016 17:20	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 17:20	WG884161
1,2,4-Trimethylbenzene	0.0222		0.000500	1	07/05/2016 01:31	WG885801
1,3,5-Trimethylbenzene	0.00562		0.000500	1	07/02/2016 17:20	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 17:20	WG884161
n-Propylbenzene	0.00187		0.000500	1	07/02/2016 17:20	WG884161
Isopropylbenzene	0.000980		0.000500	1	07/02/2016 17:20	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 17:20	WG884161
Cyclohexane	0.00470		0.00100	1	07/05/2016 01:31	WG885801
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 17:20	WG884161
(S) Toluene-d8	*98.5*		*90.0-115*		*07/02/2016 17:20*	WG884161
(S) Toluene-d8	*100*		*90.0-115*		*07/05/2016 01:31*	WG885801
(S) Dibromofluoromethane	*101*		*79.0-121*		*07/05/2016 01:31*	WG885801
(S) Dibromofluoromethane	*101*		*79.0-121*		*07/02/2016 17:20*	WG884161
(S) 4-Bromofluorobenzene	*89.7*		*80.1-120*		*07/02/2016 17:20*	WG884161
(S) 4-Bromofluorobenzene	*87.4*		*80.1-120*		*07/05/2016 01:31*	WG885801

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	1.04		0.100	1	06/30/2016 03:26	WG883950
(S) 1-Chloro-octadecane	*78.5*		*40.0-140*		*06/30/2016 03:26*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	1.24		0.100	1	06/27/2016 21:55	WG883686
(S) 2,5-Dibromotoluene(FID)	*97.4*		*70.0-130*		*06/27/2016 21:55*	WG883686
(S) 2,5-Dibromotoluene(PID)	*90.3*		*70.0-130*		*06/27/2016 21:55*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.177		0.000500	1	07/02/2016 17:40	WG884161
Toluene	0.647		0.00250	5	07/05/2016 01:52	WG885801
Ethylbenzene	0.179		0.000500	1	07/02/2016 17:40	WG884161
Xylenes, Total	0.988		0.00750	5	07/05/2016 01:52	WG885801
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 17:40	WG884161
Naphthalene	0.0274		0.000500	1	07/02/2016 17:40	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 17:40	WG884161
1,2,4-Trimethylbenzene	0.117		0.000500	1	07/02/2016 17:40	WG884161
1,3,5-Trimethylbenzene	0.0308		0.000500	1	07/02/2016 17:40	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 17:40	WG884161
n-Propylbenzene	0.00971		0.000500	1	07/02/2016 17:40	WG884161
Isopropylbenzene	0.00457		0.000500	1	07/02/2016 17:40	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 17:40	WG884161
Cyclohexane	0.0162		0.00100	1	07/02/2016 17:40	WG884161
Methyl Cyclohexane	0.00187	B	0.00100	1	07/02/2016 17:40	WG884161
(S) Toluene-d8	*98.5*		*90.0-115*		*07/02/2016 17:40*	WG884161
(S) Toluene-d8	*99.1*		*90.0-115*		*07/05/2016 01:52*	WG885801
(S) Dibromofluoromethane	*99.1*		*79.0-121*		*07/05/2016 01:52*	WG885801
(S) Dibromofluoromethane	*97.4*		*79.0-121*		*07/02/2016 17:40*	WG884161
(S) 4-Bromofluorobenzene	*87.3*		*80.1-120*		*07/02/2016 17:40*	WG884161
(S) 4-Bromofluorobenzene	*89.0*		*80.1-120*		*07/05/2016 01:52*	WG885801

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	0.153		0.100	1	06/30/2016 03:51	WG883950
(S) 1-Chloro-octadecane	*60.5*		*40.0-140*		*06/30/2016 03:51*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/27/2016 22:28	WG883686
(S) 2,5-Dibromotoluene(FID)	*100*		*70.0-130*		*06/27/2016 22:28*	WG883686
(S) 2,5-Dibromotoluene(PID)	*92.4*		*70.0-130*		*06/27/2016 22:28*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 18:00	WG884161
Toluene	ND		0.000500	1	07/05/2016 02:12	WG885801
Ethylbenzene	0.000885		0.000500	1	07/02/2016 18:00	WG884161
Xylenes, Total	ND		0.00150	1	07/05/2016 02:12	WG885801
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 18:00	WG884161
Naphthalene	0.00162		0.000500	1	07/02/2016 18:00	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 18:00	WG884161
1,2,4-Trimethylbenzene	0.00150		0.000500	1	07/02/2016 18:00	WG884161
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:00	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 18:00	WG884161
n-Propylbenzene	ND		0.000500	1	07/02/2016 18:00	WG884161
Isopropylbenzene	ND		0.000500	1	07/02/2016 18:00	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 18:00	WG884161
Cyclohexane	ND		0.00100	1	07/02/2016 18:00	WG884161
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 18:00	WG884161
(S) Toluene-d8	*100*		*90.0-115*		*07/02/2016 18:00*	WG884161
(S) Toluene-d8	*98.8*		*90.0-115*		*07/05/2016 02:12*	WG885801
(S) Dibromofluoromethane	*104*		*79.0-121*		*07/05/2016 02:12*	WG885801
(S) Dibromofluoromethane	*103*		*79.0-121*		*07/02/2016 18:00*	WG884161
(S) 4-Bromofluorobenzene	*89.8*		*80.1-120*		*07/02/2016 18:00*	WG884161
(S) 4-Bromofluorobenzene	*86.6*		*80.1-120*		*07/05/2016 02:12*	WG885801

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 04:15	WG883950
(S) 1-Chloro-octadecane	*59.8*		*40.0-140*		*06/30/2016 04:15*	WG883950

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/01/2016 17:42	WG884422
(S) 2,5-Dibromotoluene(FID)	*94.4*		*70.0-130*		*07/01/2016 17:42*	WG884422
(S) 2,5-Dibromotoluene(PID)	*87.3*		*70.0-130*		*07/01/2016 17:42*	WG884422

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00250	5	07/02/2016 18:21	WG884161
Toluene	ND		0.00250	5	07/02/2016 18:21	WG884161
Ethylbenzene	0.0173		0.00250	5	07/02/2016 18:21	WG884161
Xylenes, Total	ND		0.00750	5	07/02/2016 18:21	WG884161
Methyl tert-butyl ether	ND		0.00250	5	07/02/2016 18:21	WG884161
Naphthalene	0.0202		0.00250	5	07/02/2016 18:21	WG884161
1,2-Dichloroethane	ND		0.00250	5	07/02/2016 18:21	WG884161
1,2,4-Trimethylbenzene	0.0385		0.00250	5	07/02/2016 18:21	WG884161
1,3,5-Trimethylbenzene	ND		0.00250	5	07/02/2016 18:21	WG884161
n-Butylbenzene	ND		0.00250	5	07/02/2016 18:21	WG884161
n-Propylbenzene	0.00286		0.00250	5	07/02/2016 18:21	WG884161
Isopropylbenzene	0.00256		0.00250	5	07/02/2016 18:21	WG884161
2-Butanone (MEK)	ND		0.0125	5	07/02/2016 18:21	WG884161
Cyclohexane	ND		0.00500	5	07/02/2016 18:21	WG884161
Methyl Cyclohexane	ND		0.00500	5	07/02/2016 18:21	WG884161
(S) Toluene-d8	*98.5*		*90.0-115*		*07/02/2016 18:21*	WG884161
(S) Dibromofluoromethane	*101*		*79.0-121*		*07/02/2016 18:21*	WG884161
(S) 4-Bromofluorobenzene	*92.0*		*80.1-120*		*07/02/2016 18:21*	WG884161

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	26.4		0.500	5	06/30/2016 12:07	WG883950
(S) 1-Chloro-octadecane	*72.4*		*40.0-140*		*06/30/2016 12:07*	WG883950

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/02/2016 14:15	WG884161
Toluene	ND		0.000500	1	07/02/2016 14:15	WG884161
Ethylbenzene	ND		0.000500	1	07/02/2016 14:15	WG884161
Xylenes, Total	ND		0.00150	1	07/02/2016 14:15	WG884161
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 14:15	WG884161
Naphthalene	ND		0.000500	1	07/02/2016 14:15	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 14:15	WG884161
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 14:15	WG884161
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 14:15	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 14:15	WG884161
n-Propylbenzene	ND		0.000500	1	07/02/2016 14:15	WG884161
Isopropylbenzene	ND		0.000500	1	07/02/2016 14:15	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 14:15	WG884161
Cyclohexane	ND		0.00100	1	07/02/2016 14:15	WG884161
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 14:15	WG884161
(S) Toluene-d8	*101*		*90.0-115*		*07/02/2016 14:15*	WG884161
(S) Dibromofluoromethane	*98.0*		*79.0-121*		*07/02/2016 14:15*	WG884161
(S) 4-Bromofluorobenzene	*88.8*		*80.1-120*		*07/02/2016 14:15*	WG884161

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	1.40		0.500	5	06/27/2016 23:34	WG883686
(S) 2,5-Dibromotoluene(FID)	*100*		*70.0-130*		*06/27/2016 23:34*	WG883686
(S) 2,5-Dibromotoluene(PID)	*93.7*		*70.0-130*		*06/27/2016 23:34*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.607		0.00250	5	07/05/2016 02:32	WG885801
Toluene	0.00304		0.000500	1	07/02/2016 18:41	WG884161
Ethylbenzene	0.408		0.00250	5	07/05/2016 02:32	WG885801
Xylenes, Total	0.00219		0.00150	1	07/02/2016 18:41	WG884161
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 18:41	WG884161
Naphthalene	0.0214		0.000500	1	07/02/2016 18:41	WG884161
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 18:41	WG884161
1,2,4-Trimethylbenzene	0.0229		0.000500	1	07/02/2016 18:41	WG884161
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 18:41	WG884161
n-Butylbenzene	0.00141		0.000500	1	07/02/2016 18:41	WG884161
n-Propylbenzene	0.0375		0.000500	1	07/02/2016 18:41	WG884161
Isopropylbenzene	0.0159		0.000500	1	07/02/2016 18:41	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 18:41	WG884161
Cyclohexane	0.0928		0.0100	10	07/05/2016 17:17	WG885802
Methyl Cyclohexane	0.00885		0.00100	1	07/02/2016 18:41	WG884161
(S) Toluene-d8	*98.0*		*90.0-115*		*07/02/2016 18:41*	WG884161
(S) Toluene-d8	*100*		*90.0-115*		*07/05/2016 17:17*	WG885802
(S) Toluene-d8	*98.3*		*90.0-115*		*07/05/2016 02:32*	WG885801
(S) Dibromofluoromethane	*99.7*		*79.0-121*		*07/05/2016 02:32*	WG885801
(S) Dibromofluoromethane	*104*		*79.0-121*		*07/05/2016 17:17*	WG885802
(S) Dibromofluoromethane	*90.9*		*79.0-121*		*07/02/2016 18:41*	WG884161
(S) 4-Bromofluorobenzene	*88.2*		*80.1-120*		*07/02/2016 18:41*	WG884161
(S) 4-Bromofluorobenzene	*86.9*		*80.1-120*		*07/05/2016 17:17*	WG885802
(S) 4-Bromofluorobenzene	*88.7*		*80.1-120*		*07/05/2016 02:32*	WG885801

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	0.477		0.100	1	06/30/2016 07:34	WG883951
(S) 1-Chloro-octadecane	*83.8*		*40.0-140*		*06/30/2016 07:34*	WG883951

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	06/28/2016 00:07	WG883686
(S) 2,5-Dibromotoluene(FID)	*102*		*70.0-130*		*06/28/2016 00:07*	WG883686
(S) 2,5-Dibromotoluene(PID)	*95.3*		*70.0-130*		*06/28/2016 00:07*	WG883686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/05/2016 02:53	WG885801
Toluene	ND		0.000500	1	07/02/2016 19:02	WG884161
Ethylbenzene	ND		0.000500	1	07/05/2016 02:53	WG885801
Xylenes, Total	ND		0.00150	1	07/02/2016 19:02	WG884161
Methyl tert-butyl ether	ND		0.000500	1	07/02/2016 19:02	WG884161
Naphthalene	ND		0.000500	1	07/05/2016 02:53	WG885801
1,2-Dichloroethane	ND		0.000500	1	07/02/2016 19:02	WG884161
1,2,4-Trimethylbenzene	ND		0.000500	1	07/02/2016 19:02	WG884161
1,3,5-Trimethylbenzene	ND		0.000500	1	07/02/2016 19:02	WG884161
n-Butylbenzene	ND		0.000500	1	07/02/2016 19:02	WG884161
n-Propylbenzene	ND		0.000500	1	07/02/2016 19:02	WG884161
Isopropylbenzene	ND		0.000500	1	07/02/2016 19:02	WG884161
2-Butanone (MEK)	ND		0.00250	1	07/02/2016 19:02	WG884161
Cyclohexane	ND		0.00100	1	07/05/2016 02:53	WG885801
Methyl Cyclohexane	ND		0.00100	1	07/02/2016 19:02	WG884161
(S) Toluene-d8	*99.2*		*90.0-115*		*07/02/2016 19:02*	WG884161
(S) Toluene-d8	*100*		*90.0-115*		*07/05/2016 02:53*	WG885801
(S) Dibromofluoromethane	*105*		*79.0-121*		*07/05/2016 02:53*	WG885801
(S) Dibromofluoromethane	*101*		*79.0-121*		*07/02/2016 19:02*	WG884161
(S) 4-Bromofluorobenzene	*89.3*		*80.1-120*		*07/02/2016 19:02*	WG884161
(S) 4-Bromofluorobenzene	*86.5*		*80.1-120*		*07/05/2016 02:53*	WG885801

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	06/30/2016 07:59	WG883951
(S) 1-Chloro-octadecane	*73.2*		*40.0-140*		*06/30/2016 07:59*	WG883951

Method Blank (MB)

(MB) R3146033-3 06/25/16 16:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	0.0121	J	0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*97.4*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*91.4*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3146033-1 06/25/16 13:41 • (LCSD) R3146033-2 06/25/16 14:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.11	1.06	92.6	88.5	70.0-130			4.49	25
(S) 2,5-Dibromotoluene(FID)				*101*	*100*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*94.9*	*94.7*	*70.0-130*				

Method Blank (MB)

(MB) R3146796-3 06/27/16 12:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	0.0114	J	0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*96.6*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*91.1*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3146796-1 06/27/16 11:15 • (LCSD) R3146796-2 06/27/16 11:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.09	1.04	90.6	86.3	70.0-130			4.85	25
(S) 2,5-Dibromotoluene(FID)				*99.0*	*99.2*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*92.7*	*93.6*	*70.0-130*				

Method Blank (MB)

(MB) R3146715-3 06/29/16 12:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	0.0107	J	0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*99.8*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*92.7*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3146715-1 06/29/16 10:01 • (LCSD) R3146715-2 06/29/16 10:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.02	1.07	85.2	88.8	70.0-130			4.14	25
(S) 2,5-Dibromotoluene(FID)				*103*	*99.3*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*94.7*	*93.4*	*70.0-130*				

Method Blank (MB)

(MB) R3147324-3 07/01/16 11:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	U		0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*97.1*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*89.5*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147324-1 07/01/16 09:23 • (LCSD) R3147324-2 07/01/16 10:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.14	1.15	95.3	95.7	70.0-130			0.400	25
(S) 2,5-Dibromotoluene(FID)				*103*	*102*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*96.3*	*94.4*	*70.0-130*				

Method Blank (MB)

(MB) R3145967-1 06/26/16 19:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
n-Butylbenzene	U		0.000143	0.000500
Cyclohexane	U		0.000390	0.00100
1,2-Dichloroethane	U		0.000108	0.000500
Ethylbenzene	U		0.000158	0.000500
Isopropylbenzene	U		0.000126	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methyl tert-butyl ether	U		0.000102	0.000500
Naphthalene	U		0.000174	0.000500
n-Propylbenzene	U		0.000162	0.000500
Toluene	U		0.000102	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*102*			*90.0-115*
(S) Dibromofluoromethane	*102*			*79.0-121*
(S) 4-Bromofluorobenzene	*86.5*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3145967-2 06/26/16 19:53 • (LCSD) R3145967-5 06/26/16 21:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0268	0.0256	107	102	73.0-122			4.52	20
n-Butylbenzene	0.0250	0.0264	0.0255	106	102	75.9-134			3.50	20
1,2-Dichloroethane	0.0250	0.0253	0.0241	101	96.5	65.3-126			4.61	20
Ethylbenzene	0.0250	0.0217	0.0210	86.9	84.2	80.9-121			3.20	20
Isopropylbenzene	0.0250	0.0213	0.0210	85.4	83.8	81.6-124			1.82	20
2-Butanone (MEK)	0.125	0.207	0.185	166	148	46.4-155	J4		11.0	20
Methyl tert-butyl ether	0.0250	0.0240	0.0235	95.9	93.9	70.1-125			2.12	20
Naphthalene	0.0250	0.0231	0.0200	92.2	80.1	69.7-134			14.1	20
n-Propylbenzene	0.0250	0.0232	0.0221	92.9	88.2	81.9-122			5.12	20
Toluene	0.0250	0.0244	0.0239	97.6	95.5	77.9-116			2.25	20
1,2,4-Trimethylbenzene	0.0250	0.0219	0.0202	87.5	80.9	79.0-122			7.80	20
1,3,5-Trimethylbenzene	0.0250	0.0213	0.0200	85.1	80.2	81.0-123		J4	5.98	20
Xylenes, Total	0.0750	0.0655	0.0645	87.3	86.0	79.2-122			1.54	20
(S) Toluene-d8				*102*	*103*	*90.0-115*				
(S) Dibromofluoromethane				*99.8*	*97.6*	*79.0-121*				
(S) 4-Bromofluorobenzene				*92.3*	*91.5*	*80.1-120*				

L843460-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L843460-06 06/27/16 10:19 • (MS) R3145967-3 06/26/16 20:34 • (MSD) R3145967-4 06/26/16 20:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	ND	0.0232	0.0240	93.0	96.2	1	58.6-133			3.42	20
n-Butylbenzene	0.0250	ND	0.0230	0.0238	92.1	95.4	1	64.8-145			3.49	20
1,2-Dichloroethane	0.0250	ND	0.0228	0.0229	91.1	91.6	1	60.7-132			0.510	20
Ethylbenzene	0.0250	ND	0.0191	0.0199	76.3	79.5	1	62.7-136			4.14	20
Isopropylbenzene	0.0250	ND	0.0188	0.0196	75.2	78.6	1	67.4-136			4.39	20
2-Butanone (MEK)	0.125	ND	0.147	0.140	118	112	1	45.0-156			5.17	20.8
Methyl tert-butyl ether	0.0250	ND	0.0227	0.0224	90.8	89.7	1	61.4-136			1.26	20
Naphthalene	0.0250	ND	0.0202	0.0210	80.9	84.2	1	61.8-143			3.98	20
n-Propylbenzene	0.0250	ND	0.0197	0.0205	78.6	81.9	1	63.2-139			4.05	20
Toluene	0.0250	ND	0.0215	0.0219	85.9	87.7	1	67.8-124			2.16	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0181	0.0191	72.3	76.4	1	60.5-137			5.52	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0178	0.0189	71.4	75.5	1	67.9-134			5.70	20
Xylenes, Total	0.0750	ND	0.0571	0.0591	76.1	78.8	1	65.6-133			3.45	20
(S) Toluene-d8					*101*	*99.9*		*90.0-115*				
(S) Dibromofluoromethane					*98.5*	*97.0*		*79.0-121*				
(S) 4-Bromofluorobenzene					*88.7*	*88.0*		*80.1-120*				

QUALITY CONTROL SUMMARY

L843460-01,02,03,04,05,09,10,11,12

Method Blank (MB)

(MB) R3146244-3 06/27/16 15:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
n-Butylbenzene	U		0.000143	0.000500
Cyclohexane	U		0.000390	0.00100
1,2-Dichloroethane	U		0.000108	0.000500
Ethylbenzene	U		0.000158	0.000500
Isopropylbenzene	U		0.000126	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methyl tert-butyl ether	U		0.000102	0.000500
Naphthalene	U		0.000174	0.000500
n-Propylbenzene	U		0.000162	0.000500
Toluene	0.000268	J	0.000102	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*103*			*90.0-115*
(S) Dibromofluoromethane	*98.5*			*79.0-121*
(S) 4-Bromofluorobenzene	*93.6*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3146244-1 06/27/16 12:22 • (LCSD) R3146244-2 06/27/16 12:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0270	0.0256	108	102	73.0-122			5.09	20
n-Butylbenzene	0.0250	0.0259	0.0254	103	102	75.9-134			1.86	20
1,2-Dichloroethane	0.0250	0.0250	0.0237	100	94.6	65.3-126			5.55	20
Ethylbenzene	0.0250	0.0218	0.0213	87.3	85.4	80.9-121			2.19	20
Isopropylbenzene	0.0250	0.0211	0.0211	84.3	84.5	81.6-124			0.280	20
2-Butanone (MEK)	0.125	0.202	0.168	162	134	46.4-155	J4		18.4	20
Methyl tert-butyl ether	0.0250	0.0250	0.0233	99.8	93.2	70.1-125			6.86	20
Naphthalene	0.0250	0.0208	0.0211	83.1	84.2	69.7-134			1.34	20
n-Propylbenzene	0.0250	0.0222	0.0225	89.0	90.0	81.9-122			1.12	20
Toluene	0.0250	0.0263	0.0239	105	95.5	77.9-116			9.64	20
1,2,4-Trimethylbenzene	0.0250	0.0209	0.0212	83.7	84.8	79.0-122			1.22	20
1,3,5-Trimethylbenzene	0.0250	0.0202	0.0208	81.0	83.3	81.0-123			2.87	20
Xylenes, Total	0.0750	0.0658	0.0643	87.7	85.8	79.2-122			2.28	20
(S) Toluene-d8				*101*	*101*	*90.0-115*				
(S) Dibromofluoromethane				*96.0*	*94.6*	*79.0-121*				
(S) 4-Bromofluorobenzene				*88.4*	*93.4*	*80.1-120*				

QUALITY CONTROL SUMMARY

L843460-01,02,03,04,05,09,10,11,12

L842847-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L842847-05 06/27/16 17:25 • (MS) R3146244-4 06/27/16 17:46 • (MSD) R3146244-5 06/27/16 18:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	U	0.0283	0.0282	113	113	1	58.6-133			0.340	20
n-Butylbenzene	0.0250	U	0.0269	0.0269	108	108	1	64.8-145			0.170	20
1,2-Dichloroethane	0.0250	U	0.0269	0.0260	108	104	1	60.7-132			3.41	20
Ethylbenzene	0.0250	U	0.0227	0.0225	90.7	89.8	1	62.7-136			0.910	20
Isopropylbenzene	0.0250	U	0.0221	0.0224	88.6	89.4	1	67.4-136			0.960	20
2-Butanone (MEK)	0.125	U	0.154	0.143	123	114	1	45.0-156			7.57	20.8
Methyl tert-butyl ether	0.0250	U	0.0268	0.0264	107	106	1	61.4-136			1.64	20
Naphthalene	0.0250	U	0.0215	0.0216	86.0	86.5	1	61.8-143			0.540	20
n-Propylbenzene	0.0250	U	0.0232	0.0231	92.8	92.4	1	63.2-139			0.470	20
Toluene	0.0250	U	0.0255	0.0257	102	103	1	67.8-124			0.570	20
1,2,4-Trimethylbenzene	0.0250	U	0.0213	0.0211	85.2	84.6	1	60.5-137			0.770	20
1,3,5-Trimethylbenzene	0.0250	U	0.0211	0.0210	84.3	84.2	1	67.9-134			0.180	20
Xylenes, Total	0.0750	U	0.0679	0.0679	90.6	90.6	1	65.6-133			0.0400	20
(S) Toluene-d8					*102*	*101*		*90.0-115*				
(S) Dibromofluoromethane					*97.3*	*99.0*		*79.0-121*				
(S) 4-Bromofluorobenzene					*90.6*	*89.2*		*80.1-120*				

Method Blank (MB)

(MB) R3147364-3 07/02/16 12:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
n-Butylbenzene	U		0.000143	0.000500
Cyclohexane	U		0.000390	0.00100
1,2-Dichloroethane	U		0.000108	0.000500
Ethylbenzene	U		0.000158	0.000500
Methyl Cyclohexane	0.000426	J	0.000380	0.00100
Isopropylbenzene	U		0.000126	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methyl tert-butyl ether	U		0.000102	0.000500
Naphthalene	U		0.000174	0.000500
n-Propylbenzene	U		0.000162	0.000500
Toluene	U		0.000102	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*99.0*			*90.0-115*
(S) Dibromofluoromethane	*98.7*			*79.0-121*
(S) 4-Bromofluorobenzene	*90.0*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147364-1 07/02/16 04:23 • (LCSD) R3147364-2 07/02/16 04:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0234	0.0239	93.7	95.7	73.0-122			2.14	20
n-Butylbenzene	0.0250	0.0232	0.0225	92.8	90.2	75.9-134			2.91	20
1,2-Dichloroethane	0.0250	0.0213	0.0211	85.3	84.4	65.3-126			1.06	20
Ethylbenzene	0.0250	0.0255	0.0259	102	104	80.9-121			1.67	20
Isopropylbenzene	0.0250	0.0236	0.0247	94.2	98.9	81.6-124			4.79	20
2-Butanone (MEK)	0.125	0.120	0.126	96.1	101	46.4-155			4.53	20
Methyl tert-butyl ether	0.0250	0.0213	0.0218	85.3	87.1	70.1-125			2.06	20
Naphthalene	0.0250	0.0217	0.0223	86.9	89.1	69.7-134			2.50	20
n-Propylbenzene	0.0250	0.0243	0.0250	97.2	100	81.9-122			2.93	20
Toluene	0.0250	0.0242	0.0243	96.9	97.2	77.9-116			0.260	20
1,2,4-Trimethylbenzene	0.0250	0.0233	0.0236	93.1	94.5	79.0-122			1.49	20
1,3,5-Trimethylbenzene	0.0250	0.0230	0.0237	92.1	94.6	81.0-123			2.73	20
Xylenes, Total	0.0750	0.0748	0.0766	99.8	102	79.2-122			2.32	20
(S) Toluene-d8				*98.9*	*98.8*	*90.0-115*				
(S) Dibromofluoromethane				*95.7*	*99.2*	*79.0-121*				

QUALITY CONTROL SUMMARY

L843460-01,02,03,13,14,15,16,17,18,19,20,21,23,24

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3147364-1 07/02/16 04:23 • (LCSD) R3147364-2 07/02/16 04:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene				*86.9*	*90.4*	*80.1-120*				

L843861-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L843861-05 07/02/16 14:36 • (MS) R3147364-4 07/02/16 13:14 • (MSD) R3147364-5 07/02/16 13:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	ND	0.0220	0.0227	87.8	90.8	1	58.6-133			3.31	20
n-Butylbenzene	0.0250	ND	0.0230	0.0240	92.0	96.1	1	64.8-145			4.30	20
1,2-Dichloroethane	0.0250	ND	0.0192	0.0203	76.6	81.3	1	60.7-132			5.84	20
Ethylbenzene	0.0250	ND	0.0234	0.0245	93.6	98.0	1	62.7-136			4.55	20
Isopropylbenzene	0.0250	ND	0.0228	0.0233	91.3	93.2	1	67.4-136			2.02	20
2-Butanone (MEK)	0.125	ND	0.0833	0.0860	66.6	68.8	1	45.0-156			3.21	20.8
Methyl tert-butyl ether	0.0250	ND	0.0205	0.0211	82.2	84.5	1	61.4-136			2.83	20
Naphthalene	0.0250	ND	0.0204	0.0225	81.6	89.8	1	61.8-143			9.59	20
n-Propylbenzene	0.0250	ND	0.0233	0.0240	93.3	96.0	1	63.2-139			2.90	20
Toluene	0.0250	ND	0.0223	0.0230	89.1	91.9	1	67.8-124			3.12	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0223	0.0230	89.3	92.0	1	60.5-137			3.01	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0223	0.0226	89.1	90.5	1	67.9-134			1.53	20
Xylenes, Total	0.0750	ND	0.0702	0.0719	93.6	95.9	1	65.6-133			2.40	20
(S) Toluene-d8					*98.0*	*98.0*		*90.0-115*				
(S) Dibromofluoromethane					*97.4*	*98.4*		*79.0-121*				
(S) 4-Bromofluorobenzene					*87.7*	*86.9*		*80.1-120*				

ANALYTICAL REPORT

August 01, 2016

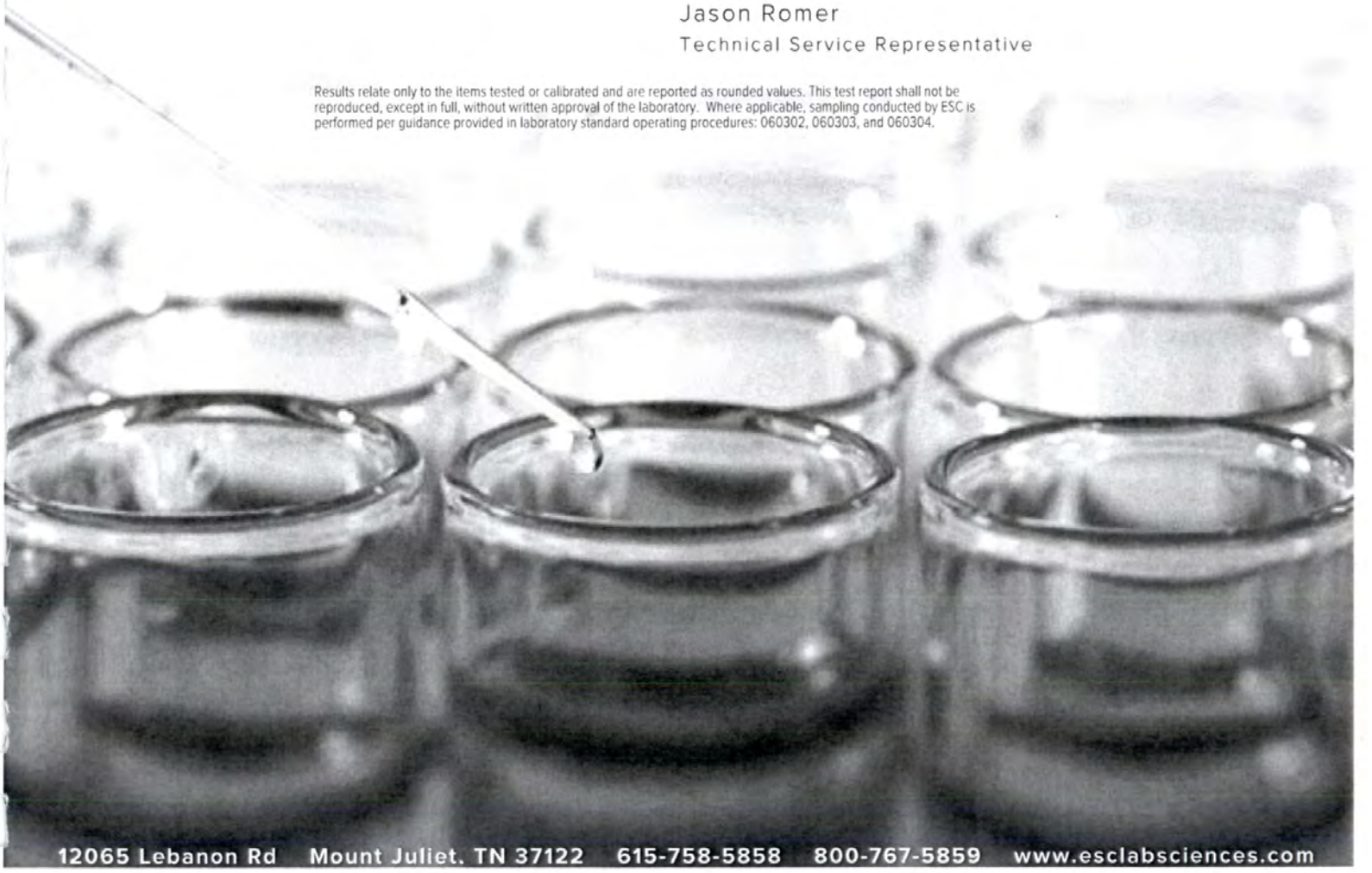
APEX Companies - Portland, OR

Sample Delivery Group:	L848748
Samples Received:	07/22/2016
Project Number:	E3CE-0065
Description:	Andover Release Site - 2Q2016 GW Irrigation Followup
Site:	ANDOVER QUAIL CROSSING
Report To:	Samuel Jackson 3015 SW First Avenue Portland, OR 97201-4707

Entire Report Reviewed By:

Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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DUP L848748-01 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 00:00 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 18:34	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 15:00	07/26/16 15:00	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 11:02	07/25/16 11:02	LRL

2004 N COLT CT L848748-02 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 17:40 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 18:59	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 15:20	07/26/16 15:20	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 11:35	07/25/16 11:35	LRL

2005 N COLT CT L848748-03 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 17:30 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 19:23	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	5	07/26/16 15:40	07/26/16 15:40	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 12:08	07/25/16 12:08	LRL

2007 N COLT CT L848748-04 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 17:15 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 19:48	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 16:00	07/26/16 16:00	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 12:41	07/25/16 12:41	LRL

DUP-2 L848748-05 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 00:00 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 20:13	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 16:20	07/26/16 16:20	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 13:15	07/25/16 13:15	LRL

2019 N RUGER CIR L848748-06 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 16:15 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 20:38	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 16:41	07/26/16 16:41	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 13:48	07/25/16 13:48	LRL

2020 N RUGER CIR L848748-07 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 16:00 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 21:03	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 17:01	07/26/16 17:01	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 14:21	07/25/16 14:21	LRL

2032 N RUGER CIR L848748-09 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 16:30 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 21:27	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 17:22	07/26/16 17:22	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 15:28	07/25/16 15:28	LRL

2007 N MOUNTAIN CT L848748-10 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 17:00 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 21:52	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 17:42	07/26/16 17:42	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 16:01	07/25/16 16:01	LRL

2009 N MOUNTAIN CT L848748-11 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 16:45 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	2	07/29/16 08:57	07/29/16 22:17	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 18:02	07/26/16 18:02	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG891779	1	07/25/16 16:35	07/25/16 16:35	LRL

TRIP BLANK L848748-12 GW

Collected by: Ted Alfred | Collected date/time: 07/21/16 00:00 | Received date/time: 07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 12:58	07/26/16 12:58	DWR

2001 N COLT COURT L848748-13 GW

Collected by: Ted Alfred | Collected date/time: 07/22/16 17:00 | Received date/time: 07/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	2	07/29/16 08:57	07/29/16 22:42	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 18:23	07/26/16 18:23	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG892893	1	07/27/16 17:13	07/27/16 17:13	BMB

1211 W QUAIL CROSSING CT L848748-14 GW

Collected by: Ted Alfred | Collected date/time: 07/22/16 16:45 | Received date/time: 07/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 23:07	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 18:43	07/26/16 18:43	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG892893	1	07/27/16 17:54	07/27/16 17:54	BMB

1009 W MOUNTAIN L848748-15 GW

Collected by	Collected date/time	Received date/time
Ted Alfred	07/22/16 17:50	07/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	2	07/29/16 08:57	07/29/16 23:32	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 19:04	07/26/16 19:04	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG892893	1	07/27/16 18:34	07/27/16 18:34	BMB

2002 N COLT CT L848748-16 GW

Collected by	Collected date/time	Received date/time
Ted Alfred	07/21/16 18:00	07/22/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG893622	1	07/29/16 08:57	07/29/16 23:56	DMG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG892318	1	07/26/16 19:24	07/26/16 19:24	ACG
Volatile Petroleum Hydrocarbons by Method 8015	WG892893	1	07/27/16 19:15	07/27/16 19:15	BMB

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 11:02	WG891779
(S) 2,5-Dibromotoluene(FID)	*92.3*		*70.0-130*		*07/25/2016 11:02*	WG891779
(S) 2,5-Dibromotoluene(PID)	*88.8*		*70.0-130*		*07/25/2016 11:02*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 15:00	WG892318
Toluene	ND		0.000500	1	07/26/2016 15:00	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 15:00	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 15:00	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 15:00	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 15:00	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 15:00	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 15:00	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 15:00	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 15:00	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 15:00	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 15:00	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 15:00	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 15:00	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 15:00	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 15:00*	WG892318
(S) Dibromofluoromethane	*98.6*		*79.0-121*		*07/26/2016 15:00*	WG892318
(S) 4-Bromofluorobenzene	*103*		*80.1-120*		*07/26/2016 15:00*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 18:34	WG893622
(S) 1-Chloro-octadecane	*98.2*		*40.0-140*		*07/29/2016 18:34*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 11:35	WG891779
(S) 2,5-Dibromotoluene(FID)	*91.8*		*70.0-130*		*07/25/2016 11:35*	WG891779
(S) 2,5-Dibromotoluene(PID)	*88.1*		*70.0-130*		*07/25/2016 11:35*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 15:20	WG892318
Toluene	ND		0.000500	1	07/26/2016 15:20	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 15:20	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 15:20	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 15:20	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 15:20	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 15:20	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 15:20	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 15:20	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 15:20	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 15:20	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 15:20	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 15:20	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 15:20	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 15:20	WG892318
(S) Toluene-d8	*104*		*90.0-115*		*07/26/2016 15:20*	WG892318
(S) Dibromofluoromethane	*97.4*		*79.0-121*		*07/26/2016 15:20*	WG892318
(S) 4-Bromofluorobenzene	*102*		*80.1-120*		*07/26/2016 15:20*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 18:59	WG893622
(S) 1-Chloro-octadecane	*99.8*		*40.0-140*		*07/29/2016 18:59*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	0.467		0.100	1	07/25/2016 12:08	WG891779
(S) 2,5-Dibromotoluene(FID)	*91.1*		*70.0-130*		*07/25/2016 12:08*	WG891779
(S) 2,5-Dibromotoluene(PID)	*88.2*		*70.0-130*		*07/25/2016 12:08*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0257		0.00250	5	07/26/2016 15:40	WG892318
Toluene	0.0821		0.00250	5	07/26/2016 15:40	WG892318
Ethylbenzene	0.0512		0.00250	5	07/26/2016 15:40	WG892318
Xylenes, Total	0.101		0.00750	5	07/26/2016 15:40	WG892318
Methyl tert-butyl ether	0.00325		0.00250	5	07/26/2016 15:40	WG892318
Naphthalene	0.00554		0.00250	5	07/26/2016 15:40	WG892318
1,2-Dichloroethane	ND		0.00250	5	07/26/2016 15:40	WG892318
1,2,4-Trimethylbenzene	0.0417		0.00250	5	07/26/2016 15:40	WG892318
1,3,5-Trimethylbenzene	0.0112		0.00250	5	07/26/2016 15:40	WG892318
n-Butylbenzene	ND		0.00250	5	07/26/2016 15:40	WG892318
n-Propylbenzene	0.00557		0.00250	5	07/26/2016 15:40	WG892318
Isopropylbenzene	ND		0.00250	5	07/26/2016 15:40	WG892318
2-Butanone (MEK)	ND		0.0125	5	07/26/2016 15:40	WG892318
Cyclohexane	0.0188		0.00500	5	07/26/2016 15:40	WG892318
Methyl Cyclohexane	ND		0.00500	5	07/26/2016 15:40	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 15:40*	WG892318
(S) Dibromofluoromethane	*97.1*		*79.0-121*		*07/26/2016 15:40*	WG892318
(S) 4-Bromofluorobenzene	*103*		*80.1-120*		*07/26/2016 15:40*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	0.130		0.100	1	07/29/2016 19:23	WG893622
(S) 1-Chloro-octadecane	*99.0*		*40.0-140*		*07/29/2016 19:23*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 12:41	WG891779
(S) 2,5-Dibromotoluene(FID)	*91.5*		*70.0-130*		*07/25/2016 12:41*	WG891779
(S) 2,5-Dibromotoluene(PID)	*88.4*		*70.0-130*		*07/25/2016 12:41*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 16:00	WG892318
Toluene	ND		0.000500	1	07/26/2016 16:00	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 16:00	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 16:00	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 16:00	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 16:00	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 16:00	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 16:00	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 16:00	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 16:00	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 16:00	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 16:00	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 16:00	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 16:00	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 16:00	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 16:00*	WG892318
(S) Dibromofluoromethane	*101*		*79.0-121*		*07/26/2016 16:00*	WG892318
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*07/26/2016 16:00*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 19:48	WG893622
(S) 1-Chloro-octadecane	*101*		*40.0-140*		*07/29/2016 19:48*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 13:15	WG891779
(S) 2,5-Dibromotoluene(FID)	*90.9*		*70.0-130*		*07/25/2016 13:15*	WG891779
(S) 2,5-Dibromotoluene(PID)	*87.7*		*70.0-130*		*07/25/2016 13:15*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 16:20	WG892318
Toluene	ND		0.000500	1	07/26/2016 16:20	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 16:20	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 16:20	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 16:20	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 16:20	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 16:20	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 16:20	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 16:20	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 16:20	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 16:20	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 16:20	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 16:20	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 16:20	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 16:20	WG892318
(S) Toluene-d8	*104*		*90.0-115*		*07/26/2016 16:20*	WG892318
(S) Dibromofluoromethane	*99.3*		*79.0-121*		*07/26/2016 16:20*	WG892318
(S) 4-Bromofluorobenzene	*102*		*80.1-120*		*07/26/2016 16:20*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 20:13	WG893622
(S) 1-Chloro-octadecane	*100*		*40.0-140*		*07/29/2016 20:13*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 13:48	WG891779
(S) 2,5-Dibromotoluene(FID)	*91.1*		*70.0-130*		*07/25/2016 13:48*	WG891779
(S) 2,5-Dibromotoluene(PID)	*87.8*		*70.0-130*		*07/25/2016 13:48*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 16:41	WG892318
Toluene	ND		0.000500	1	07/26/2016 16:41	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 16:41	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 16:41	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 16:41	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 16:41	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 16:41	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 16:41	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 16:41	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 16:41	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 16:41	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 16:41	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 16:41	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 16:41	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 16:41	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 16:41*	WG892318
(S) Dibromofluoromethane	*99.8*		*79.0-121*		*07/26/2016 16:41*	WG892318
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*07/26/2016 16:41*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 20:38	WG893622
(S) 1-Chloro-octadecane	*100*		*40.0-140*		*07/29/2016 20:38*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 14:21	WG891779
(S) 2,5-Dibromotoluene(FID)	*95.2*		*70.0-130*		*07/25/2016 14:21*	WG891779
(S) 2,5-Dibromotoluene(PID)	*91.3*		*70.0-130*		*07/25/2016 14:21*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 17:01	WG892318
Toluene	ND		0.000500	1	07/26/2016 17:01	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 17:01	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 17:01	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 17:01	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 17:01	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 17:01	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 17:01	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 17:01	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 17:01	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 17:01	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 17:01	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 17:01	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 17:01	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 17:01	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 17:01*	WG892318
(S) Dibromofluoromethane	*100*		*79.0-121*		*07/26/2016 17:01*	WG892318
(S) 4-Bromofluorobenzene	*103*		*80.1-120*		*07/26/2016 17:01*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 21:03	WG893622
(S) 1-Chloro-octadecane	*98.8*		*40.0-140*		*07/29/2016 21:03*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 15:28	WG891779
(S) 2,5-Dibromotoluene(FID)	*92.6*		*70.0-130*		*07/25/2016 15:28*	WG891779
(S) 2,5-Dibromotoluene(PID)	*88.9*		*70.0-130*		*07/25/2016 15:28*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 17:22	WG892318
Toluene	ND		0.000500	1	07/26/2016 17:22	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 17:22	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 17:22	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 17:22	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 17:22	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 17:22	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 17:22	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 17:22	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 17:22	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 17:22	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 17:22	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 17:22	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 17:22	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 17:22	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 17:22*	WG892318
(S) Dibromofluoromethane	*99.2*		*79.0-121*		*07/26/2016 17:22*	WG892318
(S) 4-Bromofluorobenzene	*103*		*80.1-120*		*07/26/2016 17:22*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 21:27	WG893622
(S) 1-Chloro-octadecane	*98.7*		*40.0-140*		*07/29/2016 21:27*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 16:01	WG891779
(S) 2,5-Dibromotoluene(FID)	*94.9*		*70.0-130*		*07/25/2016 16:01*	WG891779
(S) 2,5-Dibromotoluene(PID)	*90.9*		*70.0-130*		*07/25/2016 16:01*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 17:42	WG892318
Toluene	ND		0.000500	1	07/26/2016 17:42	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 17:42	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 17:42	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 17:42	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 17:42	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 17:42	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 17:42	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 17:42	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 17:42	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 17:42	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 17:42	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 17:42	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 17:42	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 17:42	WG892318
(S) Toluene-d8	*104*		*90.0-115*		*07/26/2016 17:42*	WG892318
(S) Dibromofluoromethane	*97.7*		*79.0-121*		*07/26/2016 17:42*	WG892318
(S) 4-Bromofluorobenzene	*101*		*80.1-120*		*07/26/2016 17:42*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 21:52	WG893622
(S) 1-Chloro-octadecane	*98.8*		*40.0-140*		*07/29/2016 21:52*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/25/2016 16:35	WG891779
(S) 2,5-Dibromotoluene(FID)	*92.5*		*70.0-130*		*07/25/2016 16:35*	WG891779
(S) 2,5-Dibromotoluene(PID)	*88.6*		*70.0-130*		*07/25/2016 16:35*	WG891779

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 18:02	WG892318
Toluene	ND		0.000500	1	07/26/2016 18:02	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 18:02	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 18:02	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 18:02	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 18:02	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 18:02	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 18:02	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 18:02	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 18:02	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 18:02	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 18:02	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 18:02	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 18:02	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 18:02	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 18:02*	WG892318
(S) Dibromofluoromethane	*98.8*		*79.0-121*		*07/26/2016 18:02*	WG892318
(S) 4-Bromofluorobenzene	*103*		*80.1-120*		*07/26/2016 18:02*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.200	2	07/29/2016 22:17	WG893622
(S) 1-Chloro-octadecane	*96.5*		*40.0-140*		*07/29/2016 22:17*	WG893622

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 12:58	WG892318
Toluene	ND		0.000500	1	07/26/2016 12:58	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 12:58	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 12:58	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 12:58	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 12:58	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 12:58	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 12:58	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 12:58	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 12:58	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 12:58	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 12:58	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 12:58	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 12:58	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 12:58	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 12:58*	WG892318
(S) Dibromofluoromethane	*98.9*		*79.0-121*		*07/26/2016 12:58*	WG892318
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*07/26/2016 12:58*	WG892318

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/27/2016 17:13	WG892893
(S) 2,5-Dibromotoluene(FID)	*101*		*70.0-130*		*07/27/2016 17:13*	WG892893
(S) 2,5-Dibromotoluene(PID)	*102*		*70.0-130*		*07/27/2016 17:13*	WG892893

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 18:23	WG892318
Toluene	ND		0.000500	1	07/26/2016 18:23	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 18:23	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 18:23	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 18:23	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 18:23	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 18:23	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 18:23	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 18:23	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 18:23	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 18:23	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 18:23	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 18:23	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 18:23	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 18:23	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 18:23*	WG892318
(S) Dibromofluoromethane	*99.6*		*79.0-121*		*07/26/2016 18:23*	WG892318
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*07/26/2016 18:23*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.200	2	07/29/2016 22:42	WG893622
(S) 1-Chloro-octadecane	*95.0*		*40.0-140*		*07/29/2016 22:42*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/27/2016 17:54	WG892893
(S) 2,5-Dibromotoluene(FID)	*95.0*		*70.0-130*		*07/27/2016 17:54*	WG892893
(S) 2,5-Dibromotoluene(PID)	*96.3*		*70.0-130*		*07/27/2016 17:54*	WG892893

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 18:43	WG892318
Toluene	ND		0.000500	1	07/26/2016 18:43	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 18:43	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 18:43	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 18:43	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 18:43	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 18:43	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 18:43	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 18:43	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 18:43	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 18:43	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 18:43	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 18:43	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 18:43	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 18:43	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 18:43*	WG892318
(S) Dibromofluoromethane	*99.7*		*79.0-121*		*07/26/2016 18:43*	WG892318
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*07/26/2016 18:43*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 23:07	WG893622
(S) 1-Chloro-octadecane	*97.9*		*40.0-140*		*07/29/2016 23:07*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/27/2016 18:34	WG892893
(S) 2,5-Dibromotoluene(FID)	*99.9*		*70.0-130*		*07/27/2016 18:34*	WG892893
(S) 2,5-Dibromotoluene(PID)	*100*		*70.0-130*		*07/27/2016 18:34*	WG892893

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 19:04	WG892318
Toluene	ND		0.000500	1	07/26/2016 19:04	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 19:04	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 19:04	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 19:04	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 19:04	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 19:04	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 19:04	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 19:04	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 19:04	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 19:04	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 19:04	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 19:04	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 19:04	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 19:04	WG892318
(S) Toluene-d8	*103*		*90.0-115*		*07/26/2016 19:04*	WG892318
(S) Dibromofluoromethane	*98.6*		*79.0-121*		*07/26/2016 19:04*	WG892318
(S) 4-Bromofluorobenzene	*106*		*80.1-120*		*07/26/2016 19:04*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.200	2	07/29/2016 23:32	WG893622
(S) 1-Chloro-octadecane	*94.2*		*40.0-140*		*07/29/2016 23:32*	WG893622

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	07/27/2016 19:15	WG892893
(S) 2,5-Dibromotoluene(FID)	*97.6*		*70.0-130*		*07/27/2016 19:15*	WG892893
(S) 2,5-Dibromotoluene(PID)	*99.6*		*70.0-130*		*07/27/2016 19:15*	WG892893

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	07/26/2016 19:24	WG892318
Toluene	ND		0.000500	1	07/26/2016 19:24	WG892318
Ethylbenzene	ND		0.000500	1	07/26/2016 19:24	WG892318
Xylenes, Total	ND		0.00150	1	07/26/2016 19:24	WG892318
Methyl tert-butyl ether	ND		0.000500	1	07/26/2016 19:24	WG892318
Naphthalene	ND		0.000500	1	07/26/2016 19:24	WG892318
1,2-Dichloroethane	ND		0.000500	1	07/26/2016 19:24	WG892318
1,2,4-Trimethylbenzene	ND		0.000500	1	07/26/2016 19:24	WG892318
1,3,5-Trimethylbenzene	ND		0.000500	1	07/26/2016 19:24	WG892318
n-Butylbenzene	ND		0.000500	1	07/26/2016 19:24	WG892318
n-Propylbenzene	ND		0.000500	1	07/26/2016 19:24	WG892318
Isopropylbenzene	ND		0.000500	1	07/26/2016 19:24	WG892318
2-Butanone (MEK)	ND		0.00250	1	07/26/2016 19:24	WG892318
Cyclohexane	ND		0.00100	1	07/26/2016 19:24	WG892318
Methyl Cyclohexane	ND		0.00100	1	07/26/2016 19:24	WG892318
(S) Toluene-d8	*102*		*90.0-115*		*07/26/2016 19:24*	WG892318
(S) Dibromofluoromethane	*99.2*		*79.0-121*		*07/26/2016 19:24*	WG892318
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*07/26/2016 19:24*	WG892318

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	07/29/2016 23:56	WG893622
(S) 1-Chloro-octadecane	*99.7*		*40.0-140*		*07/29/2016 23:56*	WG893622

QUALITY CONTROL SUMMARY

L848748-01,02,03,04,05,06,07,09,10,11

Method Blank (MB)

(MB) R3152526-3 07/25/16 09:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	0.0154	J	0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*85.9*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*83.2*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3152526-1 07/25/16 00:30 • (LCSD) R3152526-2 07/25/16 01:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.07	1.06	89.5	88.6	70.0-130			1.00	25
(S) 2,5-Dibromotoluene(FID)				*88.8*	*89.5*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*88.3*	*88.7*	*70.0-130*				

QUALITY CONTROL SUMMARY

L848748-13,14,15,16

Method Blank (MB)

(MB) R3152752-3 07/27/16 15:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	0.0354	J	0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*89.3*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*91.0*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3152752-1 07/27/16 13:00 • (LCSD) R3152752-2 07/27/16 13:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.10	1.09	91.8	91.2	70.0-130			0.760	25
(S) 2,5-Dibromotoluene(FID)				*104*	*102*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*107*	*104*	*70.0-130*				

Method Blank (MB)

(MB) R3152372-3 07/26/16 12:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
n-Butylbenzene	U		0.000143	0.000500
Cyclohexane	U		0.000390	0.00100
1,2-Dichloroethane	U		0.000108	0.000500
Ethylbenzene	U		0.000158	0.000500
Isopropylbenzene	U		0.000126	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methyl Cyclohexane	U		0.000380	0.00100
Methyl tert-butyl ether	U		0.000102	0.000500
Naphthalene	U		0.000174	0.000500
n-Propylbenzene	U		0.000162	0.000500
Toluene	U		0.000102	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*103*			*90.0-115*
(S) Dibromofluoromethane	*97.5*			*79.0-121*
(S) 4-Bromofluorobenzene	*102*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3152372-1 07/26/16 10:30 • (LCSD) R3152372-2 07/26/16 10:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0232	0.0235	92.8	94.1	73.0-122			1.43	20
n-Butylbenzene	0.0250	0.0237	0.0242	94.9	96.9	75.9-134			2.16	20
1,2-Dichloroethane	0.0250	0.0237	0.0243	94.7	97.1	65.3-126			2.46	20
Ethylbenzene	0.0250	0.0255	0.0262	102	105	80.9-121			2.60	20
Isopropylbenzene	0.0250	0.0254	0.0262	102	105	81.6-124			2.76	20
2-Butanone (MEK)	0.125	0.104	0.107	83.1	85.6	46.4-155			2.94	20
Methyl tert-butyl ether	0.0250	0.0231	0.0237	92.4	95.0	70.1-125			2.73	20
Naphthalene	0.0250	0.0231	0.0247	92.4	98.8	69.7-134			6.65	20
n-Propylbenzene	0.0250	0.0257	0.0264	103	105	81.9-122			2.69	20
Toluene	0.0250	0.0233	0.0239	93.2	95.7	77.9-116			2.71	20
1,2,4-Trimethylbenzene	0.0250	0.0254	0.0261	102	105	79.0-122			2.79	20
1,3,5-Trimethylbenzene	0.0250	0.0256	0.0263	103	105	81.0-123			2.67	20
Xylenes, Total	0.0750	0.0771	0.0794	103	106	79.2-122			2.92	20
(S) Toluene-d8				*103*	*103*	*90.0-115*				
(S) Dibromofluoromethane				*99.6*	*98.0*	*79.0-121*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3152372-1 07/26/16 10:30 • (LCSD) R3152372-2 07/26/16 10:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene				*101*	*102*	*80.1-120*				

L848748-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L848748-16 07/26/16 19:24 • (MS) R3152372-4 07/26/16 19:45 • (MSD) R3152372-5 07/26/16 20:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	ND	0.0245	0.0243	97.9	97.4	1	58.6-133			0.520	20
n-Butylbenzene	0.0250	ND	0.0245	0.0240	98.1	96.1	1	64.8-145			2.00	20
1,2-Dichloroethane	0.0250	ND	0.0258	0.0257	103	103	1	60.7-132			0.620	20
Ethylbenzene	0.0250	ND	0.0269	0.0273	108	109	1	62.7-136			1.32	20
Isopropylbenzene	0.0250	ND	0.0269	0.0273	108	109	1	67.4-136			1.15	20
2-Butanone (MEK)	0.125	ND	0.0902	0.0914	72.2	73.1	1	45.0-156			1.32	20.8
Methyl tert-butyl ether	0.0250	ND	0.0255	0.0260	102	104	1	61.4-136			1.89	20
Naphthalene	0.0250	ND	0.0257	0.0271	103	108	1	61.8-143			5.34	20
n-Propylbenzene	0.0250	ND	0.0273	0.0269	109	108	1	63.2-139			1.18	20
Toluene	0.0250	ND	0.0249	0.0248	99.7	99.0	1	67.8-124			0.650	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0267	0.0269	107	108	1	60.5-137			0.790	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0268	0.0268	107	107	1	67.9-134			0.0700	20
Xylenes, Total	0.0750	ND	0.0817	0.0817	109	109	1	65.6-133			0.000	20
(S) Toluene-d8					*103*	*103*		*90.0-115*				
(S) Dibromofluoromethane					*99.8*	*99.7*		*79.0-121*				
(S) 4-Bromofluorobenzene					*101*	*101*		*80.1-120*				

Method Blank (MB)

(MB) R3153434-1 07/29/16 17:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
MRH (C9-C18)	U		0.00754	0.100
(S) 1-Chloro-octadecane	*57.8*			*40.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3153434-2 07/29/16 17:44 • (LCSD) R3153434-3 07/29/16 18:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MRH (C9-C18)	1.20	0.818	0.930	68.2	77.5	40.0-140			12.7	25
(S) 1-Chloro-octadecane				*53.4*	*97.2*	*40.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

APEX Companies - Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; mwhitson@apexcos.com

Project Description: Andover Release Site - Quail Crossing

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: E3CE-0065

Lab Project #: ASHCREPOR-NUANDQUAIL

Collected by (print): Ted Alfred

Site/Facility ID #: ANDOVER QUAIL CROSSING

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L848746

E045

Acctnum: ASHCREPOR
Template: T107889
Prelogin: P561410
TSR: 110 - Brian Ford
PB: 7/18/16 NO
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl	Total Metals - K 6010 C2	Sulfate / O-Phos	Nitrate*/Alk/602/pH	NH3 C2	Methane RSK175	Diss Metals - Fe 6010	Rem./Contaminant	Sample # (lab only)
~~2001 N COLT CT~~	Grab	GW		7-21-16														
~~2002 N COLT CT~~ DUP	Grab	GW	—	7-21-16	—	8	X	X		X								-01
2004 N COLT CT		GW	—		1740	8	X	X		X								-02
2005 N COLT CT		GW	—		1730	8	X	X		X								-03
2007 N COLT CT		GW	—		1715	8	X	X		X								-04
~~HOA-1~~ DUP-2		GW	—		—	8	X	X		X								-05
~~2007 N COLT CT~~		~~GW~~																
2019 N RUGER CIR		GW	—		1615	8	X	X		X								-06
2020 N RUGER CIR		GW	—		1600	8	X	X		X								-07
~~2020 N RUGER CIR~~ MW-4		GW			1349	13	X	X		X	X	X	X	X	X	X		-08

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: 6093 4750 2957

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	7-21-16	1930	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			Greg Dean

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 3.7 °C Bottles Received: 103

Date: 7-22-16 Time: 900

Hold #

Condition: (lab use only) ok ok

COC Seal Intact: ✓ Y ___N ___NA

pH Checked: 02 NCF: X

APEX Companies - Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; mwhitson@apexcos.com

Project Description: Andover Release Site - Quail Crossing

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # E3CE-0065

Lab Project # ASHCREPOR-NUANDQUAIL

Collected by (print): Ted Alfred

Site/Facility ID # ANDOVER QUAIL CROSSING

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L848746

Table #

Acctnum: ASHCREPOR
Template: T107889
Prelogin: P561410
TSR: 110 - Brian Ford
PB: 7/18/16 MWS

Shipped Via: FedEx Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPHKSLVI (MRH) 40mlAmb-HCl	V8260LL (VOCs 8260) 40mlAmb-HCl	V8260LL- Trip Blank 40mlAmb-HCl-Blk	VPHKS (LRH) 40mlAmb HCl							Rem./Contaminant	Sample # (lab only)
2032 N RUGER CIR	Grab	GW	—	7-21-16	1630	8	X	X		X								-09
~~2021 N RUGER CIR~~		~~GW~~																
~~2025 N RUGER CIR~~		~~GW~~																
~~1009 W MOUNTAIN~~		~~GW~~																
2007 N MOUNTAIN CT	Grab	GW	—	7-21-16	1700	8	X	X		X								-10
2009 N MOUNTAIN CT	Grab	GW	—	7-21-16	1645	8	X	X		X								-11
~~1211 W QUAIL CROSSING~~		~~GW~~																
~~TRIP BLANK~~		~~GW~~																
TRIP BLANK	—	GW	—	—	—	1			X									-12
~~DUP-1~~		~~GW~~																

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: (lab use only) Good
	7-21-16	1930			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 37 °C Bottles Received: 103	COC Seal Intact: ✓ Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7-22-16 Time: 900	pH Checked: <2 NCF: ✓

ESC LAB SCIENCES

YOUR LAB OF CHOICE

Cooler Receipt Checklist

Client: ASH CREPOR SDG# L848748

Cooler Received/Opened On: 7-22-16 By: Grey Deaume

Temperature Upon Receipt: 3.7 °c

(Signature)

Cooler Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	/		
Were custody papers properly filled out (ink, signed, etc.)?	/		
Did all bottles arrive in good condition?	/		
Were correct bottles used for the analyses requested?	/		
Was sufficient amount of sample sent in each bottle?	/		
Were correct preservatives used?	/		
Were all applicable sample containers checked for preservation? (Any samples not in accepted pH range noted on COC .)	/		
If applicable, was an observable VOA headspace present?		/	
Non Conformance Generated? (If yes see attached NCF)	✓		

Andy Vann

ESC Lab Sciences
Non-Conformance Form

Login #:L848748	Client:ASHCREPOR	Date:07/22/16	Evaluated by:Greg D.

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.	x	Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:Received 2002 N COLT CT @ 1800 not on chain

Client informed by:		Call		Email	x	Voice Mail		Date:07/24/16	Time:0800
TSR Initials:bjf	Client Contact: Samuel Jackson								

Login Instructions:

Log "2002 N COLT CT" for TPHKSLVI, VPHKS, V8260LL, and EDD.

ESC LAB SCIENCES
YOUR LAB OF CHOICE

ANALYTICAL REPORT

August 16, 2016

myESC
REAL TIME DATA ACCESS

APEX Companies - Portland, OR

Sample Delivery Group:	L853352
Samples Received:	08/13/2016
Project Number:	E3CE-0065
Description:	Andover Release Site - Quail Crossing
Site:	ANDOVER QUAIL CROSSING
Report To:	Samuel Jackson 3015 SW First Avenue Portland, OR 97201-4707

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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ONE LAB. NATIONWIDE.

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MW-9 31.5FT L853352-01 GW

Collected by	Collected date/time	Received date/time
Bill Jones	08/12/16 14:25	08/13/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG898729	1	08/15/16 08:32	08/15/16 17:39	CLG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG898748	1	08/15/16 21:35	08/15/16 21:35	DWR
Volatile Petroleum Hydrocarbons by Method 8015	WG898699	1	08/16/16 04:20	08/16/16 04:20	JAH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Volatile Petroleum Hydrocarbons by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
LRH (C5-C8)	ND		0.100	1	08/16/2016 04:20	WG898699
(S) 2,5-Dibromotoluene(FID)	*100*		*70.0-130*		*08/16/2016 04:20*	WG898699
(S) 2,5-Dibromotoluene(PID)	*98.1*		*70.0-130*		*08/16/2016 04:20*	WG898699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	08/15/2016 21:35	WG898748
Toluene	ND		0.000500	1	08/15/2016 21:35	WG898748
Ethylbenzene	ND		0.000500	1	08/15/2016 21:35	WG898748
Xylenes, Total	ND		0.00150	1	08/15/2016 21:35	WG898748
Methyl tert-butyl ether	ND		0.000500	1	08/15/2016 21:35	WG898748
Naphthalene	ND		0.000500	1	08/15/2016 21:35	WG898748
1,2-Dichloroethane	ND		0.000500	1	08/15/2016 21:35	WG898748
1,2,4-Trimethylbenzene	ND		0.000500	1	08/15/2016 21:35	WG898748
1,3,5-Trimethylbenzene	ND		0.000500	1	08/15/2016 21:35	WG898748
n-Butylbenzene	ND		0.000500	1	08/15/2016 21:35	WG898748
n-Propylbenzene	ND		0.000500	1	08/15/2016 21:35	WG898748
Isopropylbenzene	ND		0.000500	1	08/15/2016 21:35	WG898748
2-Butanone (MEK)	ND		0.00250	1	08/15/2016 21:35	WG898748
Cyclohexane	ND		0.00100	1	08/15/2016 21:35	WG898748
Methyl Cyclohexane	ND		0.00100	1	08/15/2016 21:35	WG898748
(S) Toluene-d8	*102*		*90.0-115*		*08/15/2016 21:35*	WG898748
(S) Dibromofluoromethane	*96.9*		*79.0-121*		*08/15/2016 21:35*	WG898748
(S) 4-Bromofluorobenzene	*95.6*		*80.1-120*		*08/15/2016 21:35*	WG898748

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
MRH (C9-C18)	ND		0.100	1	08/15/2016 17:39	WG898729
(S) 1-Chloro-octadecane	*93.7*		*40.0-140*		*08/15/2016 17:39*	WG898729

Method Blank (MB)

(MB) R3157002-3 08/15/16 23:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
LRH (C5-C8)	0.00969	J	0.00931	0.100
(S) 2,5-Dibromotoluene(FID)	*102*			*70.0-130*
(S) 2,5-Dibromotoluene(PID)	*99.5*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3157002-1 08/15/16 21:58 • (LCSD) R3157002-2 08/15/16 22:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
LRH (C5-C8)	1.20	1.09	1.11	90.6	92.2	70.0-130			1.65	25
(S) 2,5-Dibromotoluene(FID)				*102*	*101*	*70.0-130*				
(S) 2,5-Dibromotoluene(PID)				*102*	*102*	*70.0-130*				

Method Blank (MB)

(MB) R3157021-3 08/15/16 20:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000896	0.000500
n-Butylbenzene	U		0.000143	0.000500
Cyclohexane	U		0.000390	0.00100
1,2-Dichloroethane	U		0.000108	0.000500
Ethylbenzene	U		0.000158	0.000500
Isopropylbenzene	U		0.000126	0.000500
2-Butanone (MEK)	U		0.00128	0.00250
Methyl Cyclohexane	U		0.000380	0.00100
Methyl tert-butyl ether	U		0.000102	0.000500
Naphthalene	0.000309	J	0.000174	0.000500
n-Propylbenzene	U		0.000162	0.000500
Toluene	U		0.000102	0.000500
1,2,4-Trimethylbenzene	U		0.000123	0.000500
1,3,5-Trimethylbenzene	U		0.000124	0.000500
Xylenes, Total	U		0.000316	0.00150
(S) Toluene-d8	*103*			*90.0-115*
(S) Dibromofluoromethane	*94.8*			*79.0-121*
(S) 4-Bromofluorobenzene	*98.8*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3157021-1 08/15/16 18:51 • (LCSD) R3157021-2 08/15/16 19:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0224	0.0220	89.7	87.9	73.0-122			2.04	20
n-Butylbenzene	0.0250	0.0228	0.0225	91.1	90.1	75.9-134			1.16	20
1,2-Dichloroethane	0.0250	0.0229	0.0224	91.6	89.4	65.3-126			2.36	20
Ethylbenzene	0.0250	0.0261	0.0251	104	100	80.9-121			4.00	20
Isopropylbenzene	0.0250	0.0253	0.0249	101	99.6	81.6-124			1.48	20
2-Butanone (MEK)	0.125	0.0962	0.0935	77.0	74.8	46.4-155			2.89	20
Methyl tert-butyl ether	0.0250	0.0218	0.0217	87.1	86.6	70.1-125			0.570	20
Naphthalene	0.0250	0.0217	0.0213	86.7	85.1	69.7-134			1.81	20
n-Propylbenzene	0.0250	0.0258	0.0256	103	102	81.9-122			0.860	20
Toluene	0.0250	0.0238	0.0234	95.2	93.7	77.9-116			1.53	20
1,2,4-Trimethylbenzene	0.0250	0.0251	0.0248	100	99.0	79.0-122			1.33	20
1,3,5-Trimethylbenzene	0.0250	0.0250	0.0247	100	98.8	81.0-123			1.33	20
Xylenes, Total	0.0750	0.0784	0.0771	104	103	79.2-122			1.59	20
(S) Toluene-d8				*103*	*103*	*90.0-115*				
(S) Dibromofluoromethane				*96.4*	*96.4*	*79.0-121*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3157021-1 08/15/16 18:51 • (LCSD) R3157021-2 08/15/16 19:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene				*97.5*	*96.7*	*80.1-120*				

L853213-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L853213-03 08/16/16 00:40 • (MS) R3157021-4 08/16/16 01:01 • (MSD) R3157021-5 08/16/16 01:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	U	0.0246	0.0229	98.3	91.7	1	58.6-133			6.87	20
n-Butylbenzene	0.0250	U	0.0238	0.0229	95.2	91.5	1	64.8-145			3.93	20
1,2-Dichloroethane	0.0250	U	0.0243	0.0231	97.1	92.3	1	60.7-132			5.06	20
Ethylbenzene	0.0250	U	0.0271	0.0266	108	106	1	62.7-136			1.87	20
Isopropylbenzene	0.0250	U	0.0264	0.0261	106	105	1	67.4-136			1.04	20
2-Butanone (MEK)	0.125	0.00371	0.113	0.108	87.8	83.8	1	45.0-156			4.51	20.8
Methyl tert-butyl ether	0.0250	U	0.0234	0.0226	93.4	90.3	1	61.4-136			3.43	20
Naphthalene	0.0250	U	0.0238	0.0238	95.3	95.2	1	61.8-143			0.0800	20
n-Propylbenzene	0.0250	U	0.0270	0.0268	108	107	1	63.2-139			0.710	20
Toluene	0.0250	U	0.0258	0.0241	103	96.5	1	67.8-124			6.89	20
1,2,4-Trimethylbenzene	0.0250	U	0.0252	0.0252	101	101	1	60.5-137			0.310	20
1,3,5-Trimethylbenzene	0.0250	U	0.0256	0.0257	102	103	1	67.9-134			0.340	20
Xylenes, Total	0.0750	U	0.0801	0.0800	107	107	1	65.6-133			0.130	20
(S) Toluene-d8					*103*	*102*		*90.0-115*				
(S) Dibromofluoromethane					*97.8*	*95.5*		*79.0-121*				
(S) 4-Bromofluorobenzene					*94.1*	*97.2*		*80.1-120*				

Method Blank (MB)

(MB) R3156914-1 08/15/16 14:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
MRH (C9-C18)	U		0.00754	0.100
(S) 1-Chloro-octadecane	*80.4*			*40.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3156914-2 08/15/16 15:10 • (LCSD) R3156914-3 08/15/16 15:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MRH (C9-C18)	1.20	0.940	0.943	78.3	78.6	40.0-140			0.360	25
(S) 1-Chloro-octadecane				*46.2*	*56.9*	*40.0-140*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Company Name/Address:
Apex Companies, LLC - Portland
3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable - Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Report to: Samuel Jackson

Email To: SJackson@apexcos.com; paul.wa

Project Description: Andover Release Site - Quail Crossing

City/State Collected: Andover, KS

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #

Lab Project # ASHCREPOR-NUANDQUA II

Collected by (print): Bill Jones

Site/Facility ID # ANDOVER QUAIL CROSS

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L853352
I063

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diss Metals - Fe 6010 250mlHDPE-NoPres	Methane RSK175 40mlAmbHCl	NH3 125mlHDPE-H2SO4	NITRATE*/ALK/CO2/PH 250mlHDPE-NoPres	Sulfate/Ortho Phos 250HDPE-NoPres	TPHKSLVI 40mlAmb-HCl	Total Metals K 6010 250mlHDPE-HNO3	V8260LL 40mlAmb-HCl	VPHKS 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
MW-9	Grab	GW	31.5	8-12-16	2:25	1	X	X	X	X	X	X	X	X	X		
						154	1	1	12	1	1	2	2	3	2		

L2 L2

MW 8-13-16

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Flow _____ Other _____

7838 1457 2772

Remarks:

Hold #:

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
	8/12/16	1445			✓
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.4 °C Bottles Received: 14	COC Seal Intact: ___Y ___N ___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8-13-16 Time: 9:00	pH Checked: L2 NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Checklist

Client: ASHCREPOR SDG# L653352

Cooler Received/Opened On: 8-13-16 By Michael Witherspoon

Temperature Upon Receipt: 3.4 °c

(Signature)

Cooler Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			✓
Were custody papers properly filled out (ink, signed, etc.)?		✓	
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were correct preservatives used?	✓		
Were all applicable sample containers checked for preservation? (Any samples not in accepted pH range noted on COC .)	✓		
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated? (If yes see attached NCF)		✓	