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October 6, 2017

*Delivered via FedEx Overnight Delivery*

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2600 Bull Street  
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Subject: Second Quarter 2017 Monitoring Report  
Plantation Pipe Line Company  
Lewis Drive Remediation Site  
Belton, South Carolina  
Site ID #18693, "Kinder Morgan Belton Pipeline Release"

Dear Ms. Coleman,

On behalf of Plantation Pipe Line Company (Plantation), CH2M HILL Engineers, Inc. (CH2M) is submitting this Second Quarter 2017 Monitoring Report for the Lewis Drive Remediation Site in Belton, South Carolina. This report summarizes the work performed at the site between April 1, 2017, and June 30, 2017.

Although future quarterly reports are anticipated to be published within 60 days following the end of the quarter, this first report was delayed due to the unscheduled continuation of concurrent monthly reporting at the request of the South Carolina Department of Health and Environmental Control (SCDHEC) as communicated at a meeting in Columbia, South Carolina, on July 21, 2017.

## 1.0 Work Activities

The following activities were performed during the second quarter 2017 in accordance with the Corrective Action Plan (CAP) (CH2M, 2016) and the CAP Addendum, Revision 1 (CH2M, 2017a):

- Conducted three groundwater and surface water sampling events.
- Performed weekly remediation monitoring of the Brown's Creek and Cupboard Creek Protection Zones (Figure 1) in accordance with the approved *Startup Plan for Surface Water Protection Measures* (Startup Plan) provided in Appendix B of the CAP Addendum (CH2M, 2017a).
- Operated vertical biosparging wells in the areas of Brown's Creek and Cupboard Creek, as well as the stream aerators.
- In May 2017, initiated biosparging in the horizontal wells in the Hayfield Zone.
- Performed routine operation and maintenance (O&M) events on the air sparge (AS) system.
- During the sitewide AS system startup, recorded changes in water levels and barometric pressures using In Situ Rugged Troll 100 water level data loggers.

- Performed twice weekly free product recovery in wells with greater than 0.5 foot of product.
- Performed a light non-aqueous phase liquid (LNAPL) mobility test on select recovery wells. Mobility testing was performed to quantify LNAPL transmissivity and evaluate the most effective method of LNAPL recovery.
- Installed residuum monitoring well MW-34.
- Installed reactive core mat adjacent to recovery trench riser RT-2B.
- Established surface water sampling location SW-14 in the Cupboard Creek drainage area.
- Transported and disposed of soil and liquid waste generated during the completion of site work.

## 2.0 Work Procedures

### 2.1 Product Recovery

Free product recovery was performed on a bi-weekly basis from recovery features and wells that had a product thickness of 0.5 foot and greater. Vacuum trucks were used to recover the product. During product recovery, changes in the color of the extracted fluid were monitored, and extraction ceased when liquids from the well ran clear and emulsification was minimal. During each evacuation event, the operator recorded the duration of product recovery from each well. The quantity was tracked by gauging the levels in the frac tank prior to and after the recovery event. Recovered petroleum-contact water from the vacuum truck was then transferred to an onsite frac tank for temporary storage and settling. When the level in the tank was within 2 feet of the top of the frac tank, the fluids were decanted and transported to the A&D facility in Archdale, North Carolina, for disposal.

### 2.2 Surface Water

Bi-weekly inspections were performed of surface water features at the site. The inspection route used by ECS Southeast is illustrated on Figures 2A and 2B. Observations made during the bi-weekly inspections are summarized in Table 1. No new signs of distressed vegetation, hydrocarbon sheen, or odor were observed during the inspections for this monitoring period. However, biological sheens (not from the hydrocarbon release at the site) were periodically observed on Brown's Creek. During the end of May and into June 2017, occasional hydrocarbon sheens were noted in the depression area (due to recovery trench settlement) adjacent to Brown's Creek near recovery trench risers RT-2B, RT-2C, and RT-2K. However, through biological processes, the hydrocarbon sheen did not migrate to Brown's Creek.

For this reporting period, surface water samples were collected on April 5, May 4, and June 13, 2017, as follows:

- In April 2017, 13 surface water samples were collected from SW-01, SW-02, SW-03, SW-04, SW-07, SW-08, SW-09, SW-10, SW-11, SW-12, SW-13, FP-01, and FP-02. Locations SW-05 and SW-06 in Cupboard Creek were dry so samples were not collected, and location FP-03 could not be sampled because of imminent inclement weather at the end of the sampling event.
- During the May and June 2017 events, 14 surface water samples were collected at locations SW-01, SW-02, SW-03, SW-04, SW-07, SW-08, SW-09, SW-10, SW-11, SW-12, SW-13, FP-01, FP-02, and FP-03. Locations SW-05 and SW-06 in Cupboard Creek were dry so samples were not collected.

Samples collected during each event were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and naphthalene (see Table 2) using U.S. Environmental Protection Agency (EPA) Method 8260B. Surface water samples were collected by dipping a clean glass vial into the stream. Sample water was transferred to a 40-milliliter (mL) volatile organic analysis (VOA) vial containing a hydrochloric acid (HCl)



preservative. The vials were labeled, packed in wet ice, and transported by FedEx under standard chain-of-custody (COC) procedures to ESC Lab Sciences in Mount Juliet, Tennessee. Laboratory reports for surface water samples and COC records are included in Attachment A. Laboratory results are summarized in Table 2.

### 2.3 Groundwater Sampling Events

Three groundwater sampling events were performed during the reporting period, on April 6, 2017 (Event 1), May 3 and 4, 2017 (Event 2), and June 28 and 29, 2017 (Event 3). Prior to sampling, a comprehensive round of well gauging was performed using an oil-water interface probe to determine the depth to water and test for the presence and thickness (if present) of product. The oil-water interface probe was decontaminated before each measurement. Decontamination was accomplished by wiping the interface probe with a clean paper towel that contained Alconox and deionized water, and a second clean paper towel that only contained deionized water, or by spraying down the probe using a spray bottle containing Alconox and deionized water followed by a final deionized water rinse. If the paper towel method was used, two new clean paper towels were used at each location and were properly disposed. Water level and product thickness data are summarized in Table 3 and are depicted on Figures 2A, 2B, and 3.

Groundwater wells without free product were sampled using either HydraSleeves or purged method using a peristaltic pump. The height of the water column determined whether a well was sampled using a HydraSleeve or peristaltic pump according to the following criteria:

- Water column greater than 3 feet — A HydraSleeve was used to sample the well, and dissolved oxygen (DO) concentrations were measured using a YSI ProODO meter. Stabilized DO concentrations were recorded in the field logbook and are summarized in Table 4.
- Water column less than 3 feet but greater than 0.5 foot — A peristaltic pump was used to purge the well, and field parameters were measured using a YSI 6920 V2-2 Multi-Parameter Water Quality Sonde meter to confirm stabilization of the well, in accordance with the SCDHEC Programmatic Quality Assurance Program Plan (QAPP) (South Carolina Underground Storage Tank [UST] Management Division, 2016). Once the parameters stabilized, a sample was collected from the well using the straw method. DO concentrations were measured using a YSI ProODO meter. Upon stabilization, the field parameters were recorded in the field logbook. DO measurements are summarized in Table 4.
- Water column less than 0.5 foot — The well was considered dry and was not sampled, and DO measurements were not collected.

Water samples were collected by filling 40-mL VOA vials containing HCl preservative. The vials were labeled, packed on wet ice, and transported by FedEx under standard COC procedures to ESC Lab Sciences in Mount Juliet, Tennessee. Samples were analyzed for BTEX, 1,2-dichloroethane, methyl tertiary butyl ether (MTBE), and naphthalene using EPA Method 8260B. Laboratory data sheets for groundwater samples and COC records are included in Attachment B. Laboratory results are summarized in Table 5.

### 2.4 Air Sparging System O&M

Air sparging was initiated on March 6, 2017, according to the Startup Plan (CH2M, 2017a), with routine O&M activities performed during this reporting period. Sparging activities are summarized by remediation area below.

- **Brown's Creek Protection Zone (BCPZ):** Air sparging in the BCPZ began on March 6, 2017, using a curtain of 27 vertical sparging wells; sparging began at a rate of 1 standard cubic foot per minute

(scfm) and was increased to 4 scfm in each well, as outlined in the Startup Plan. Additionally, air was injected into two submersible diffusion aerators installed in Brown's Creek. The flow rate in these aerators was initiated at 1 scfm and increased to 4 scfm during 4 weeks of operation, as outlined in the CAP (CH2M, 2016) and Startup Plan (CH2M, 2017a).

- **Cupboard Creek Protection Zone (CCPZ):** Air sparging was initiated at 1 scfm in the CCPZ on March 6, 2017, using a curtain of 19 vertical sparging wells until flow rates achieved 4 scfm in each vertical well, as outlined in the Startup Plan (CH2M, 2017a).
- **Shallow Bedrock Zone:** No air sparging has been performed in the Shallow Bedrock Zone to date. A pilot plan for sparging in the Shallow Bedrock Zone was submitted to SCDHEC on May 8, 2017. Plantation is awaiting SCDHEC approval of this plan. A copy of the pilot plan for sparging in the Shallow Bedrock Zone is included in Appendix D of the CAP Addendum (CH2M, 2017a).
- **Hayfield Zone:** Air sparging was initiated in the Hayfield Zone on May 9, 2017, in accordance with Plantation's, "*Request for Authorization to Initiate Remediation in the Hayfield Zone*" dated April 11, 2017. Air sparging was initiated at a rate of 0.05 scfm per foot of screen in each of the three horizontal wells (HAS-1, HAS-2, and HAS-3). These wells have screen lengths of approximately 752 feet, 715 feet, and 377 feet, respectively. Therefore, the initial total injection rate in the Hayfield Zone was approximately 92 scfm. The flow rate into the injection wells was increased once a week by 0.02 scfm per foot of screen during this reporting period until a flow rate of approximately 313 scfm was achieved. A copy of Plantation's *Request for Authorization to Initiate Remediation in the Hayfield Zone* is included in Appendix C of the CAP Addendum (CH2M, 2017a).

Water levels were measured in the BCPZ, CCPZ, and Hayfield Zone to document the influence of the AS system on the residuum aquifer. In April and May 2017, water levels were measured continuously from four locations with water level data loggers (In Situ Rugged Troll 100) in MW-02, MW-12, MW-15, and MW-20, and with a barometric pressure logger in MW-01 during AS system startup activities. In June 2017, water levels were measured continuously from six locations with water level data loggers in MW-02, MW-08, MW-12, MW-15, MW-20, and MW-25, and with barometric pressure loggers in MW-01 and MW-10. Water level data from these data loggers are presented in Attachment C.

## 2.5 Light Non-Aqueous Phase Liquid Mobility Tests

LNAPL mobility tests were completed at recovery wells RW-04, RW-05, RW-07, RW-10, RW-11, and RW-13. These wells are screened in the residuum aquifer and had sufficient LNAPL thicknesses to perform LNAPL mobility testing (see Figure 3). The mobility tests were completed by CH2M between April 18 and April 21, 2017, with follow-up gauging continuing until May 3, 2017. Recovery wells RW-02, RW-06, RW-08, RW-12, and RW-14 were also planned for mobility testing, but did not have sufficient LNAPL thickness to perform the mobility tests.

LNAPL mobility (baildown) tests were completed in accordance with the ASTM International (ASTM) E2856-13: Standard Guide for Estimation of LNAPL Transmissivity (ASTM, 2013). Routine LNAPL recovery was suspended in the 2 weeks prior to testing to provide the greatest levels of LNAPL to allow for a representative test. The baildown tests involved gauging the depth to product and depth to water in each well using an oil-water interface probe, and then removing the LNAPL present using a peristaltic pump (at RW-04, RW-05, and RW-07) or bailer (at RW-10, RW-11, and RW-13). Following the removal of LNAPL, the wells were gauged as the LNAPL recovered. These tests were discussed in the *Light Non-Aqueous Phase Liquid Mobility Testing Technical Memorandum* submitted to SCDHEC on May 25, 2017 (CH2M, 2017b). The results are summarized in Section 3.7 below.

## 2.6 Additional Activities

The following additional activities were performed during this reporting period:

- In March 2017
  - Installed MW-34 on March 6, 2017, using a hand auger. MW-34 was advanced to a total depth of 5 feet below ground surface (bgs), and was constructed using 2.5 feet of 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) well screen (slot size of 0.010 inch) and a variable amount of 2-inch-diameter Schedule 40 PVC riser. After installing the well screen and PVC riser, the annular space between the screen interval was filled with 20/30 silica sand. The filter pack was installed from the bottom of the borehole and continued up the annulus to 0.5 foot above the top of the well screen. A bentonite seal was installed above the filter pack at a thickness of 1 foot. Cement grout was installed from the bentonite seal to approximately 6 inches bgs. The well was completed with a 6-inch steel, abovegrade well completion casing in a 4-square-foot concrete pad. The well pad had four concrete-filled steel bollards painted a high-visibility yellow installed at each corner.
- In April 2017
  - Transported 13,902 gallons of product/water from extraction/development/sampling to the A&D facility in Archdale, North Carolina, for disposal. Approximately 2,132 gallons of the 13,902 gallons were product. See Attachment D for the Bills of Lading and Table 6 for a summary of total fluids and product transported and disposed of offsite.
  - Transported 15,880 pounds of soil from well installations at the site to the Upstate Regional Municipal Solid Waste Landfill in Enoree, South Carolina, for disposal. See Attachment D for the Bills of Lading for the soil transported and disposed of offsite.
- In May 2017
  - Transported 4,800 gallons of product/water from extraction/sampling of wells to the A&D facility in Archdale, North Carolina, for disposal. Approximately 50 gallons of the 4,800 gallons were product. See Attachment D for the Bills of Lading and Table 6 for a summary of total fluids and product transported and disposed of offsite.
- In June 2017
  - Installed a reactive core mat adjacent to recovery trench riser RT-2B to address a surface seep. The mat was covered with soil, seed, and straw matting to match the surrounding topography.
  - Established surface water sampling location SW-14 in the Cupboard Creek drainage area. This was accomplished by driving a stake into the ground near a branch of Cupboard Creek to ensure that samples would be collected from the same location during each sampling event. The stake was marked with surveying tape and the identification number (SW-14) was applied to it with a permanent marker. Global positioning system (GPS) coordinates were collected using a handheld GPS unit. The location will be surveyed by a licensed South Carolina surveyor when monitoring wells are installed in Fall 2017 to close some data gaps.
  - Transported 9,667 gallons of product/water from extraction/sampling of wells to the A&D facility in Archdale, North Carolina, for disposal. Approximately 695 gallons of the 9,667 gallons were product. See Attachment D for the Bills of Lading and Table 6 for a summary of total fluids and product transported and disposed of offsite.

## 3.0 Discussion of Results

### 3.1 Product Recovery

Between April 1 and June 30, 2017, approximately 3,535 gallons (84 barrels) of product were shipped offsite for disposal. Table 3 summarizes the dates, times, and recovery features used for product recovery. Table 6 shows the dates and quantities of fluids that were shipped offsite for disposal. Attachment D contains the Bills of Lading for transportation of fluids offsite for disposal. From December 9, 2014, through June 30, 2017, approximately 222,731 gallons (5,303 barrels) of product have been shipped offsite for disposal.

### 3.2 Surface Water

During this reporting period, BTEX concentrations were detected in surface water at SW-01, SW-02, SW-04, SW-12, and SW-13 (Table 2). However, benzene was the only constituent that exceeded the surface water standard for protection of human health for consumption of water and organism (SCDHEC, 2014).

Benzene concentrations above the surface water standard of 2.2 micrograms per liter ( $\mu\text{g/L}$ ) were detected at the following locations.

- In April 2017:
  - 2.87  $\mu\text{g/L}$  benzene at SW-02
  - 67.1  $\mu\text{g/L}$  benzene at SW-12
- In May 2017:
  - 52.8  $\mu\text{g/L}$  benzene at SW-12
- In June 2017:
  - 102  $\mu\text{g/L}$  benzene at SW-12

Sample results are summarized in Table 2. Trends for surface water sampling locations SW-02 and SW-12 are presented in Attachment E. Analytical data sheets and COC records are included in Attachment A.

### 3.3 Groundwater Flow and Product Distribution

Water levels from the June 2017 gauging event were used to prepare potentiometric surface maps for the site (Figures 2A and 2B). Groundwater in both the residuum (Figure 2A) and bedrock (Figure 2B) aquifers mimics the topography of the site and flows from topographic highs to topographic lows. It was observed that Cupboard Creek flows intermittently, indicating the primary direction of groundwater flow is northeast toward Brown's Creek. The June 2017 water table configurations and direction of groundwater flow are consistent with previous findings.

Product was detected in site wells during the 2017 well gauging events at the following locations (see Table 3).

- On April 6, 2017:
  - 21 locations had product thicknesses greater than 0.5 foot: 4 monitoring wells, 5 recovery sumps, 9 recovery wells, and 3 temporary wells (piezometers).
  - RW-10 was the recovery feature that had the greatest thickness of product (3.45 feet).
  - MW-18 was the non-recovery feature (permanent or temporary monitoring wells) that had the greatest thickness of product (2.86 feet).
  - Only product (no water) was detected in two locations: RW-02 (0.87 foot) and TW-42 (0.80 foot).

- On May 4, 2017:
  - 11 locations had product thicknesses greater than 0.5 foot: 3 monitoring wells, 2 recovery sumps, 4 recovery wells, and 2 temporary wells (piezometers).
  - RW-10 was the recovery feature that had the greatest thickness of product (2.38 feet).
  - MW-18 was the non-recovery feature that had the greatest thickness of product (2.86 feet).
- On June 4 and 5, 2017:
  - 6 locations had product thicknesses greater than 0.5 foot: 2 monitoring wells, 2 recovery wells, and 2 temporary wells (piezometers).
  - RW-04 was the recovery feature that had the greatest thickness of product (0.93 foot).
  - MW-18 was the non-recovery feature that had the greatest thickness of product (1.40 feet).

For comparison, the product extent in June 2016 was added to Figure 3 to show how the thickness and extent of product has decreased over the past 12 months. The largest change is in the thicknesses that were recorded across the site. For example, the product thickness in MW-18 decreased from 3.16 feet in June 2016 over 50 percent to 1.40 feet in June 2017. A similar reduction was seen in MW-20 from 2.29 feet in June 2016 to 1.19 feet in June 2017. Near the BCPZ, the extent has decreased since product is no longer detected in MW-12, RW-03, RW-06, RW-08, and RW-14. The extent near the CCPZ has reduced in size because RS-07 no longer has measurable product. Also, the extents in the northern Hayfield Zone (around TW-94 and MW-09) have been reduced to the point that the oil-water interface probe no longer registers product. Hydrographs of product recovery wells and select monitoring wells representative of general product thickness trends are presented in Attachment F.

Stream elevations from staff gauges are tabulated in Table 7 and are depicted along with groundwater elevations on Figure 2A. Construction information for recovery and non-recovery features is presented in Table 8. The only well that was installed during this reporting period was MW-34. The well construction diagram and soil boring log is provided in Attachment G. Groundwater elevation and product thickness data for 2017 are presented in Table 3. Groundwater elevation (residuum and bedrock aquifers) and product thicknesses for June 2017 are shown on Figures 2A, 2B, and 3, respectively.

### **3.4 Dissolved Oxygen Distribution**

The DO measurements in groundwater in April, May, and June 2017, are provided in Table 4. The average DO concentrations in the residuum and bedrock wells have increased. The average DO concentration in the residuum wells increased from 3.98 milligrams per liter (mg/L) in April 2017 to 5.71 mg/L in June 2017. The average DO concentration in the bedrock wells increased from 0.89 mg/L in April 2017 to 1.56 mg/L in June 2017.

#### **3.4.1 Brown's Creek Protection Zone**

The changes in average DO concentrations in the BCPZ are mixed. DO concentrations increased from April to May 2017, but decreased from May to June 2017, with June 2017 measurements that were below the April 2017 measurements. This is likely due to a combination of temperature increases during this season and increasing biomass as a result of air sparging in this zone, which reduces DO concentrations.

### **3.4.2 Cupboard Creek Protection Zone**

DO concentrations in the CCPZ decreased from 4.25 mg/L in April 2017 to 3.23 mg/L in June 2017. This trend is likely due to a combination of temperature increases during this season and increasing biomass as a result of air sparging in this zone, which reduces DO concentrations.

### **3.4.3 Hayfield Zone**

Average DO concentrations in the Hayfield Zone increased from 5.62 mg/L in April 2017 to 7.35 mg/L in June 2017 due to the startup operation of the horizontal air sparging wells.

### **3.4.4 Shallow Bedrock Zone**

The Shallow Bedrock Zone was not in operation during the reporting period; however, DO increases were observed, which are likely from rainwater infiltration.

## **3.5 Groundwater Monitoring Results**

Monitoring results for samples collected in April, May, and June 2017 are presented in Table 5. Table 5 presents all the results that have been collected at the site since July 2015. The analytical laboratory reports are provided in Attachment B. All risk-based screening levels listed below were identified in the South Carolina Programmatic QAPP, Table D1 (South Carolina UST Management Division, 2016). The June 2017 results are shown on Figures 4A and 4B and are summarized below.

### **3.5.1 Brown's Creek Protection Zone**

Benzene was detected above its screening level in 11 of 13 residuum monitoring wells in the BCPZ ranging from 9.71 µg/L (in MW-38) to 9,250 µg/L (in MW-40). Toluene was detected above its screening level in MW-12, MW-39, and MW-40. Ethylbenzene was detected above its screening level in MW-40. MTBE was detected above its screening level in MW-15, MW-34, MW-39, and MW-40. Constituents in cross-gradient monitoring wells MW-37 (to the north) and MW-35 (to the south) were below screening levels. These BTEX concentrations reflect generally stable trends in this zone since initiating sparging in this zone on March 6, 2017. Prior to initiating sparging, BTEX concentrations were increasing.

Benzene was detected above its screening level in 3 of 4 bedrock monitoring wells in the BCPZ ranging from 28.9 µg/L (in MW-24B) to 1,510 µg/L (in MW-15B). Toluene was also detected above its screening level in MW-15B at 3,520 µg/L.

### **3.5.2 Cupboard Creek Protection Zone**

Benzene was detected above its screening level in two residuum monitoring wells in the CCPZ (9,410 µg/L in MW-19 and 131 µg/L in MW-23). Toluene and MTBE were also detected above screening levels in MW-19. Downgradient monitoring wells MW-26 and MW-29 were nondetect for all constituents. BTEX concentrations in MW-23 were increasing prior to initiating the sparging system on March 6, 2017, and have since been decreasing.

No constituents were detected above screening levels in bedrock monitoring wells in the CCPZ.

### **3.5.3 Hayfield Zone**

Benzene was detected above its screening level in 6 of 19 residuum monitoring wells in the Hayfield Zone ranging from 10.9 µg/L (in MW-03) to 12,900 µg/L (in MW-16). Toluene was detected above its screening level in 5 monitoring wells in the Hayfield Zone, ranging from 1,630 µg/L (in MW-30) to 36,400 µg/L (in MW-16). Ethylbenzene was detected above its screening level in MW-02 and MW-16. Xylenes and MTBE were also detected above their respective screening levels in MW-16. Constituents in downgradient monitoring wells MW-04, MW-05, MW-06, MW-08, MW-10, MW-13, MW-14, MW-21,

MW-31, MW-32, MW-36, and MW-45 were below screening levels. No trends in the Hayfield Zone are evident at this time.

Benzene was detected above its screening level in three of six bedrock monitoring wells, ranging from 38.1 µg/L in MW-14B to 11,200 µg/L in MW-17B. MTBE was detected above its screening level in MW-13B and MW-17B. MW-17B also had detections of ethylbenzene and toluene above their respective screening levels. Constituents in downgradient monitoring wells MW-36B and MW-45B (to the west) were below screening levels.

#### **3.5.4 Shallow Bedrock Zone**

Benzene was detected above its screening level in two residuum monitoring wells in the Shallow Bedrock Zone (234 µg/L in MW-22 and 10,900 µg/L in MW-11). Ethylbenzene, toluene, xylenes, and MTBE were also detected above their respective screening levels in MW-11.

No constituents were detected above screening levels in bedrock monitoring wells in the Shallow Bedrock Zone.

### **3.6 Air Sparge System Operating Efficiency and Performance Data**

Between March 6 and June 28, 2017, the AS system operated a total of approximately 2,658 hours, with an operating efficiency of 97.4 percent (downtime vs. operational time). There were 72 hours during this period when the system was shut down due to power grid fluctuations caused by local area storms. Operating flows are at approximately 30 percent of design flow capacity.

### **3.7 Light Non-Aqueous Phase Liquid Mobility Test Results**

Based on published literature (Interstate Technology & Regulatory Council, 2009), fluid recovery is considered impractical in wells with low transmissivities, ranging from 0.1 to 0.8 square feet per day (ft<sup>2</sup>/day). The results in Table 9 indicate that the average transmissivity at the well locations tested is within or below this threshold of impracticality. Therefore, it is anticipated that further recovery would produce diminishing volumes, and the intervals between removal events and wells reaching equilibrium thickness would continue to increase over time.

## **4.0 Conclusions**

The following conclusions are based on the site work performed between April 1, 2017, and June 30, 2017:

- The number of locations with product thicknesses greater than 0.5 foot decreased from 21 in April 2017 to 6 in June 2017. Product thickness values also have been declining for both the recovery and non-recovery features. The locations that have product thickness greater than 0.5 foot are located away from surface water bodies at the site. The number of wells containing only product has also decreased.
- Approximately 3,535 gallons (84 barrels) of product were shipped offsite for disposal between April and June 2017 during twice weekly product evacuation events. From December 9, 2014, through the end of June 2017, approximately 222,731 gallons (5,303 barrels) of product have been shipped offsite for disposal.
- Three gauging and surface water sampling events occurred. Apart from locations SW-02 and SW-12, no dissolved hydrocarbons were detected above the respective surface water standards. The detections at SW-02 and SW-12 were only for benzene. In SW-02, the detection was only in April 2017, and concentrations have been nondetect since that time.
- Decreases in DO in the BCPZ and CCPZ are likely due to a combination of increased surface temperature and increased biomass as a result of sparging activities leading to increase oxygen

demand. Sparging should be increased in these zones to meet the increasing biomass oxygen demand.

- Trends of dissolved BTEX concentrations in the BCPZ and the CCPZ residuum layers have been stable since initiating sparging in these zones. Before sparging, these dissolved concentrations were on an increasing trend.
- Decreases in product thicknesses sitewide and a shift from increasing to stable trends of dissolved concentrations in the creek protection zones indicate that sparging is taking, but the current low flow rates are insufficient and need to be increased to design levels.
- During this reporting period, the air sparging system had an operating efficient of 97.4 percent. Downtime was a result of local power outages due to area storms. Operating flows are at approximately 30 percent of design flow capacity.
- The results of the transmissivity testing indicate continued recovery will not significantly remove additional LNAPL at the site.

## 5.0 Future Activities

The following activities are planned for the site.

### 5.1 Groundwater and Surface Water Monitoring

- Continue monthly gauging and sampling of monitoring wells and surface water sampling stations in accordance with the CAP Addendum (CH2M, 2017a).
- Install proposed monitoring wells MW-06B, MW-09B, MW-43, MW-43B, MW-46, MW-47, MW-48B, and MW-49 to address data gaps.
- Continue routine visual inspection of Brown's Creek and Cupboard Creek as outlined in the CAP Addendum (CH2M, 2017a).

### 5.2 System O&M

- Continue routine O&M activities for the air sparging system as described in the CAP Addendum (CH2M, 2017a).
- Continue biosparging in the BCPZ and CCPZ. Increase flows in each area up to the design flow rate of 15 scfm per vertical well according to the Sparging Operating Limits letter submitted to SCDHEC on July 26, 2017 (CH2M, 2017c).
- Continue biosparging in the horizontal wells in the Hayfield Zone. Increase flows in each well up to the maximum design flow rate of 0.75 scfm per foot of screen.
- Continue operating the stream diffusion aerators and increase flows up to the design flow rate of 15 scfm in each according to the Sparging Operating Limits letter (CH2M, 2017c).
- Implement the bedrock sparging pilot study upon SCDHEC approval.

### 5.3 Light Non-Aqueous Phase Liquid Recovery

- Perform the following activities in accordance with the Interim Free Product Recovery Plan – Revision 3 (CH2M, 2017d):
  - Gauge monitoring wells, recovery wells, and recovery trenches in the BCPZ and the CCPZ once a week to monitor and prevent product movement toward the creeks.



- Perform focused product recovery at recovery wells RW-04, RW-05, and other wells in the BCPZ and CCPZ depending on gauging results to prevent product movement toward the creeks. Recovery features within the radius of influence of the BCPZ and CCPZ sparging curtains will not be evacuated unless data indicate that the air sparging system is not adequately reducing product thicknesses in these areas.
- Perform monthly oil-water interface gauging in the Hayfield Zone and the Shallow Bedrock Zone. To allow the sparging system to address residual product, no product recovery will be performed in these zones unless data indicate that the sparging system is not adequately addressing removal.
- Due to the anticipated decrease in future recovery of LNAPL and petroleum contact water, the onsite frac tank will be replaced with two 1,550-gallon storage tanks that will be located in the secured (fenced) system operation area.
- Plantation is committed to using the biosparging system as a more effective alternative to abate LNAPL sitewide than the use of recovery wells, which address only small areas of the site. An interim goal for the project is to transition from free-phase LNAPL recovery to in situ destruction of LNAPL by the end of December 2017.

## 6.0 References

ASTM International (ASTM). 2013. ASTM E2856-13 Standard Guide for Estimation of LNAPL Transmissivity.

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If you have any questions or concerns, please call me at 919-760-1777, Mr. Scott Powell/CH2M at 678-530-4457, or Mr. Jerry Aycock/Plantation at 770-751-4165.

Regards,  
CH2M HILL Engineers, Inc.



William M. Waldron, P.E.  
Program Manager

I affirm that this report was prepared under my direct supervision.



Jonathan Grimes, P.G.  
South Carolina Registered Professional Geologist #2235



06 Oct 17  
Date

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**Attachments:**

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Attachment A – Surface Water Analytical Laboratory Reports  
Attachment B – Groundwater Analytical Laboratory Reports  
Attachment C – Operation and Maintenance Logs  
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Tables

**Table 1. Field Observation Log**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

<b>Date</b>	<b>Inspect Wetlands South of Calhoun Road (Any odor, sheen or distressed vegetation? Describe.)</b>	<b>Inspect Brown's Creek Upstream and Downstream of the Culvert Under Lewis Drive (Any odor, sheen or distressed vegetation? Describe.)</b>
4/3/2017	No odors, sheen or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2 @ Brown's Creek. No other sheens, odors or distressed vegetation observed.
4/6/2017	No odors, sheens or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen near RT-2K and petroleum sheen around RT-2A @ Brown's Creek. No other sheens, odors or distressed vegetation observed.
4/10/2017	No odors, sheens or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen near RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed.
4/13/2017	No odors, sheens or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen from area of RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed.
4/16/2017	No odors, sheens or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed.
4/20/2017	No odors, sheens or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
4/25/2017	No odors, sheens or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
4/27/2017	No odors, sheens or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/4/2017	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/6/2017	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/7/2017	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/15/2017	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed.
5/18/2017	No odors, sheens, or distressed vegetation observed.	Micro bio sheen from area of RT-2K @ Brown's Creek. No other sheens, odors or distressed vegetation observed.
5/22/2017	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K @ Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.

**Table 1. Field Observation Log**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

<b>Date</b>	<b>Inspect Wetlands South of Calhoun Road (Any odor, sheen or distressed vegetation? Describe.)</b>	<b>Inspect Brown's Creek Upstream and Downstream of the Culvert Under Lewis Drive (Any odor, sheen or distressed vegetation? Describe.)</b>
5/24/2017	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2C. No other sheens, odors, or distressed vegetation observed. Hydrocarbon sheen not noted in Brown's Creek.
5/31/2017	No odors, sheens, or distressed vegetation observed.	Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2C. No other sheens, odors, or distressed vegetation observed. Hydrocarbon sheen not noted in Brown's Creek.
6/2/2017	No odors, sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2B and RT-2C were observed. Hydrocarbon sheen not noted in Brown's Creek.
6/4 and 6/5/2017	No odors, sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2B and RT-2C were observed. Hydrocarbon sheen not noted in Brown's Creek.
6/9/2017	No odors, sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen coming from side slope near Brown's Creek around RT-2C (~30 feet in length) and micro bio sheen coming from RT-2K were observed. <b>Hydrocarbon sheen not noted in Brown's Creek.</b>
6/12/2017	No odors, sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen coming from side slope near Brown's Creek around RT-2C and micro bio sheen coming from RT-2K were observed. Hydrocarbon sheen not noted in Brown's Creek.
6/15/2017	No odors, sheens, or distressed vegetation observed.	No odors, sheens, or distressed vegetation observed.
6/19/2017	No odors, sheens, or distressed vegetation observed.	No odors, sheens, or distressed vegetation observed.
6/22/2017	No odors, sheens, or distressed vegetation observed.	No odors, sheens, or distressed vegetation observed.
6/29/2017	No odors, sheens, or distressed vegetation observed.	No odors, sheens, or distressed vegetation observed.

**Notes:**

ID = identification

RT = recovery trench

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						MTBE
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	
SW-RELEASE	SW-RELEASE	1/20/2015	µg/L	<b>330</b>	<b>490</b>	<b>2,400</b>	<b>2,100</b>	<b>940</b>	<b>140</b>	<b>5.7 J</b>
	SW01-121114	12/11/2014	µg/L	0.5 U	1 U	1 U	2 U	1 U	1 U*	1 U
	SW01-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-033115	3/31/2015	µg/L	5 U*	5 U	17.6	10 U	5 U	5 U*	NA
	SW01-042215	4/22/2015	µg/L	5 U*	5 U	14.9	10 U	5 U	5 U*	NA
	SW01-050715	5/7/2015	µg/L	5 U*	5 U	7.0	10 U	5 U	5 U*	NA
	SW01-051915	5/19/2015	µg/L	5 U*	5 U	8.8	10.6	6.4	5 U*	NA
	SW01-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-092415	9/24/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW01-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW01-112415	11/24/2015	µg/L	7.8	1.5	13.0	9.3	4.6	1 U*	NA
	SW01-122215	12/22/2015	µg/L	4.6	1 U	8.8	5.5	3.1	1 U*	NA
	SW01-012516	1/25/2016	µg/L	17.6	2.3	36.0	11.3	6.3	1 U*	NA
SW-01	SW01-021816	2/18/2016	µg/L	23.4	3.0	55.6	15.0	9.1	1 U*	NA
	SW01-031616	3/16/2016	µg/L	20.1	2.4	42.3	13.3	7.6	1 U*	NA
	SW01-042716	4/27/2016	µg/L	20.8	1 U	30.6	2.9	2.0	1 U*	NA
	SW01-050916	5/9/2016	µg/L	16.5	1.4	16.3	7.0	4.8	1 U*	NA
	SW01-062716	6/27/2016	µg/L	9	1 U	3.3	2 U	1 U	1 U*	NA
	SW01-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW01-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW01-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW01-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW01-112816	11/28/2016	µg/L	5.0	1 U	10.4	4.9	8.3	1 U*	NA
	SW01-122916	12/29/2016	µg/L	12.6	1 U	22.1	11.2	13.5	1 U*	NA
	SW01-012017	1/20/2017	µg/L	1.0	1 U	2.3	2 U	3.5	1 U*	NA
	SW01-022817	2/28/2017	µg/L	18.5	1.93	37.0	13.8	10.2	5 U*	NA
	SW01-031517	3/15/2017	µg/L	3.02	1 U	5.13	2.16	1.74	5 U*	NA
	SW01-032117	3/21/2017	µg/L	1 U	1 U	1.57	2 U	1 U	5 U*	NA
	SW01-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW01-040517	4/5/2017	µg/L	1 U	1 U	2.25	2 U	1 U	5 U*	NA
	SW01-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW01-061317	6/13/2017	µg/L	1 U	1 U	1.90	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW02-121114	12/11/2014	µg/L	0.5 U	1 U	1 U	2 U	1 U	1 U*	1 U
	SW02-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-033115	3/31/2015	µg/L	5 U*	5 U	6.0	10 U	5 U	5 U*	NA
	SW02-042215	4/22/2015	µg/L	5 U*	5 U	13.0	10 U	5 U	5 U*	NA
	SW02-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-092415	9/24/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW02-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW02-112415	11/24/2015	µg/L	6	1.3	10.0	7.8	4.0	1 U*	NA
	SW02-122215	12/22/2015	µg/L	4.1	1 U	7.6	5.1	3.1	1 U*	NA
	SW02-012516	1/25/2016	µg/L	12	1.5	25.0	8.4	4.6	1 U*	NA
SW-02	SW02-021816	2/18/2016	µg/L	15.5	1.8	35.3	10.1	5.9	1 U*	NA
	SW02-031616	3/16/2016	µg/L	8	1.0	17.5	5.8	3.9	1 U*	NA
	SW02-042716	4/27/2016	µg/L	5.6	1 U	7.1	2 U	1 U	1 U*	NA
	SW02-050916	5/9/2016	µg/L	7.1	1 U	4.5	2.2	1.6	1 U*	NA
	SW02-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW02-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW02-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW02-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW02-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW02-112816	11/28/2016	µg/L	5.4	1 U	1.6	2.6	4.8	1 U*	NA
	SW02-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1.4	1 U*	NA
	SW02-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW02-022817	2/28/2017	µg/L	10.7	1 U	11.0	4.14	4.23	5 U*	NA
	SW02-031517	3/15/2017	µg/L	11.4	1 U	8.6	4.45	3.6	5 U*	NA
	SW02-032117	3/21/2017	µg/L	8.42	1 U	2.45	2.48	2.68	5 U*	NA
	SW02-033017	3/30/2017	µg/L	2.18	1 U	1 U	2 U	1 U	5 U*	NA
	SW02-040517	4/5/2017	µg/L	2.87	1 U	1.12	2 U	1.14	5 U*	NA
	SW02-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW02-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA



Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW-UPGRADIENT	1/20/2015	µg/L	0.5 U	1 U	0.23 J	2 U	1 U	1 U*	1 U
	SW03-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW03-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
SW-03	SW03-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW03-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW03-031517	3/15/2017	µg/L	1 U	1 U	3 U	2 U	1 U	5 U*	NA
	SW03-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW03-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW03-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW03-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW03-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW-DOWNGRADIENT	1/20/2015	µg/L	95	27	310	110	63	94 U*	2.7
	SW04-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-092415	9/24/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW04-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-112415	11/24/2015	µg/L	1.7	1 U	2.7	2.9	1.6	1 U*	NA
	SW04-122215	12/22/2015	µg/L	3.3	1 U	7.3	5.2	2.7	1 U*	NA
	SW04-012516	1/25/2016	µg/L	6.9	1 U	14.0	4.9	2.8	1 U*	NA
SW-04	SW04-021816	2/18/2016	µg/L	10.9	1.1	25.4	7.0	4.3	1 U*	NA
	SW04-031616	3/16/2016	µg/L	1 U	1 U	2.0	2 U	1.8	1 U*	NA
	SW04-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-062716	6/27/2016	µg/L	1 U	1 U	1.1	2 U	1 U	1 U*	NA
	SW04-072816	7/28/2016	µg/L	1 U	1 U	23.5	2 U	1 U	1 U*	NA
	SW04-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW04-022817	2/28/2017	µg/L	1 U	1 U	1.13	2 U	1 U	5 U*	NA
	SW04-031517	3/15/2017	µg/L	1 U	1 U	2.90	2 U	1 U	5 U*	NA
	SW04-032117	3/21/2017	µg/L	1 U	1 U	3.28	2 U	1 U	5 U*	NA
	SW04-033017	3/30/2017	µg/L	1 U	1 U	6.15	2 U	1 U	5 U*	NA
	SW04-040517	4/5/2017	µg/L	1 U	1 U	9.47	2 U	1 U	5 U*	NA
	SW04-050417	5/4/2017	µg/L	1 U	1 U	13.8	2 U	1 U	5 U*	NA
	SW04-061317	6/13/2017	µg/L	1 U	1 U	1.37	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
SW-05	SW05-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW05-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW05-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW05-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW05-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW05-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW05-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW05-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW05-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW05-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW05-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW05-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW-06	SW06-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*
SW06-030215		3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
SW06-031115		3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
SW06-031815		3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
SW06-042215		4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
SW06-122215		12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
SW06-012516		1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
SW06-021816		2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW07-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW07-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
SW-07	SW07-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW07-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW07-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW07-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW07-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW07-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW07-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW07-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW07-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW07-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW07-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW07-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW07-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW08-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-092415	9/24/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW08-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-122215	12/22/2015	µg/L	1.6	1 U	3.8	2.5	1.6	1 U*	NA
	SW08-012516	1/25/2016	µg/L	2.4	1 U	5.6	2	1.3	1 U*	NA
	SW08-021816	2/18/2016	µg/L	2.9	1 U	7.6	2.3	1.5	1 U*	NA
SW-08	SW08-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW08-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW08-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW08-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW08-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW08-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW08-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW08-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW09-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-092415	9/24/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW09-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-122215	12/22/2015	µg/L	2.1	1 U	4.8	3.3	2.1	1 U*	NA
	SW09-012516	1/25/2016	µg/L	3.3	1 U	7.1	2.4	1.5	1 U*	NA
	SW09-021816	2/18/2016	µg/L	2.2	1 U	5.9	2 U	1.2	1 U*	NA
SW-09	SW09-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW09-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW09-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW09-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW09-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW09-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW09-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW09-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW10-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-092415	9/24/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW10-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
SW-10	SW10-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW10-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW10-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW-10-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW-10-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW-10-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW10-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW10-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW11-022515	2/25/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-030215	3/2/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-031115	3/11/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-031815	3/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-033115	3/31/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-042215	4/22/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-050715	5/7/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-051915	5/19/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-060315	6/3/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-061815	6/18/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-071515	7/15/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-081315	8/13/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-092415	9/24/2015	µg/L	5 U*	5 U	5 U	10 U	5 U	5 U*	NA
	SW11-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
SW-11	SW11-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW11-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW11-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW-11-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW-11-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW-11-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW11-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW11-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA



Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						MTBE
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	
	SW12-081916	8/19/2016	µg/L	6,430	764	15,400	3,360	1,730	128	NA
	SW12-092916	9/29/2016	µg/L	7,850	1,030	19,000	3,910	1,940	143	NA
	SW12-103116	10/31/2016	µg/L	165	17.7	302	103	58.2	4.7	NA
	SW12-112816	11/28/2016	µg/L	486	59.6	976	351	181	14.2	NA
	SW12-122916	12/29/2016	µg/L	707	97.3	1,790	408	213	16.8	NA
	SW12-012017	1/20/2017	µg/L	212	19.8	396	104	58	3.8	NA
SW-12	SW12-022817	2/28/2017	µg/L	26.1	4.04	62.3	18.0	9.73	5 U*	NA
	SW12-031517	3/15/2017	µg/L	125	15.3	185	67.9	35.5	5 U*	NA
	SW12-032117	3/21/2017	µg/L	134	12.1	45.0	60.8	33.6	5 U*	NA
	SW12-033017	3/30/2017	µg/L	48.5	5.69	86.3	27.7	15.8	5 U*	NA
	SW12-040517	4/5/2017	µg/L	67.1	9.24	127.0	43.6	23.7	5 U*	NA
	SW12-050417	5/4/2017	µg/L	52.8	7.96	91.7	42	23.2	5 U*	NA
	SW12-061317	6/13/2017	µg/L	102	16.6	166	85.1	46.2	5 U*	NA
	SW13-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW13-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW13-103116	10/31/2016	µg/L	1 U	1 U	2.0	2 U	1 U	1 U*	NA
	SW13-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW13-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	SW13-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
SW-13	SW13-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW13-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW13-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW13-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW13-040517	4/5/2017	µg/L	1 U	1 U	1.21	2 U	1 U	5 U*	NA
	SW13-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	SW13-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA

Table 2. Analytical Results for Surface Water  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
FP-01	FP01-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP01-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP01-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-01-032117	3/21/2017	µg/L	1 U	1 U	3 U	2 U	1 U	5 U*	NA
	FP-01-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-01-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-01-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
FP-01-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA	
FP-02	FP02-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP02-022817	2/28/2017	µg/L	1 U	1 U	2 U	2 U	1 U	5 U*	NA
	FP02-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-02-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-02-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-02-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-02-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
FP-02-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
FP-03	FP03-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U*	NA
	FP03-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP03-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-03-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-03-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-03-040517	4/5/2017	µg/L	NS	NS	NS	NS	NS	NS	NA
	FP-03-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
	FP-03-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U*	NA
Screening Value:			µg/L	2.2 <sup>a</sup>	530 <sup>a</sup>	1,000 <sup>a</sup>	190 <sup>b,c</sup>	190 <sup>b</sup>	0.17 <sup>b</sup>	14 <sup>b</sup>

Notes:

<sup>a</sup> South Carolina Department of Health and Environmental Control (SCDHEC) R.61-68, Water Classifications and Standards, Human Health for consumption of water and organism, June 22, 2012

<sup>b</sup> U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs). Tapwater. June 2015. RSLs based on hazard quotient (HQ) = 1 and cancer risk = 1 x 10<sup>-6</sup>

<sup>c</sup> RSL value for total xylenes used for m&p-Xylene

**Bold** indicates the analyte was detected above the method detection limit.

Gray shading indicates the analyte exceeded RBLSs.

µg/L = microgram(s) per liter

FP = free product

ID = identification

MTBE = methyl tertiary butyl ether

NA = not applicable

NS = not sampled

SW = surface water

J = estimated

U = analyte was not detected above the reported sample quantitation limit

U\* = The analyte was analyzed for, but was not detected above the laboratory reporting/quantitation limit. However, the laboratory reporting/quantitation limit is above the screening criteria.

The actual absence or presence of this analyte between the screening criteria and the laboratory reporting/quantitation limit cannot be determined.

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-01					853.07			-	-	-
	6/26/2017	-	5.64	-		847.43	-	-	-	-
	6/4/2017	-	6.22	-		846.85	-	-	-	-
	5/4/2017	-	5.40	-		847.67	-	-	-	-
	4/6/2017	-	4.60	-		848.47	-	-	-	-
	3/2/2017	-	9.43	-		843.64	-	-	-	-
	2/2/2017	-	9.77	-		843.30	-	-	-	-
	1/5/2017	-	14.12	-		838.95	-	-	-	-
MW-01B					852.99			-	-	-
	6/26/2017	-	7.92	-		845.07	-	-	-	-
	6/4/2017	-	7.90	-		845.09	-	-	-	-
	5/4/2017	-	8.65	-		844.34	-	-	-	-
	4/6/2017	-	10.85	-		842.14	-	-	-	-
	3/2/2017	-	11.27	-		841.72	-	-	-	-
	2/2/2017	-	12.80	-		840.19	-	-	-	-
	1/5/2017	15.38	15.39	0.01		837.60	837.61	-	-	-
MW-02					841.04			-	-	-
	6/26/2017	-	1.82	-		839.22	-	-	-	-
	6/4/2017	-	2.44	-		838.60	-	-	-	-
	5/4/2017	-	6.80	-		834.24	-	-	-	-
	4/6/2017	-	7.07	-		833.97	-	-	-	-
	3/2/2017	10.60	10.61	0.01		830.43	830.44	-	-	-
	2/2/2017	10.85	11.00	0.15		830.04	830.15	-	-	-
	1/5/2017	12.96	13.29	0.33		827.75	827.99	-	-	-
MW-02B					841.18			-	-	-
	6/26/2017	-	2.41	-		838.77	-	-	-	-
	6/4/2017	-	2.31	-		838.87	-	-	-	-
	5/4/2017	-	8.20	-		832.98	-	-	-	-
	4/6/2017	-	8.38	-		832.80	-	-	-	-
	3/2/2017	-	12.64	-		828.54	-	-	-	-
	2/2/2017	-	11.85	-		829.33	-	-	-	-
	1/5/2017	-	13.67	-		827.51	-	-	-	-
MW-03					838.36			-	-	-
	6/26/2017	-	8.15	-		830.21	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	8.43	-		829.93	-	-	-	-
	4/6/2017	-	10.61	-		827.75	-	-	-	-
	3/2/2017	-	11.52	-		826.84	-	-	-	-
	2/2/2017	-	11.80	-		826.56	-	-	-	-
	1/5/2017	-	13.14	-		825.22	-	-	-	-
MW-04					844.42			-	-	-
	6/26/2017	-	8.21	-		836.21	-	-	-	-
	6/4/2017	-	7.90	-		836.52	-	-	-	-
	5/4/2017	-	10.92	-		833.50	-	-	-	-
	4/6/2017	-	13.99	-		830.43	-	-	-	-
	3/2/2017	-	14.15	-		830.27	-	-	-	-
	2/2/2017	-	14.80	-		829.62	-	-	-	-
	1/5/2017	-	16.95	-		827.47	-	-	-	-
MW-05					851.11			-	-	-
	6/26/2017	-	14.52	-		836.59	-	-	-	-
	6/4/2017	-	14.90	-		836.21	-	-	-	-
	5/4/2017	-	16.38	-		834.73	-	-	-	-
	5/3/2017	-	16.68	-		834.43	-	-	-	-
	4/6/2017	-	18.18	-		832.93	-	-	-	-
	3/2/2017	-	18.51	-		832.60	-	-	-	-
	2/2/2017	-	19.55	-		831.56	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-05 (cont'd)	1/5/2017	-	19.80	-		831.31	-	-	-	-
MW-06					852.92					
	6/26/2017	-	14.85	-		838.07	-	-	-	-
	6/4/2017	-	15.55	-		837.37	-	-	-	-
	5/4/2017	-	16.78	-		836.14	-	-	-	-
	4/6/2017	-	17.55	-		835.37	-	-	-	-
	3/2/2017	-	17.68	-		835.24	-	-	-	-
	2/2/2017	-	18.18	-		834.74	-	-	-	-
	1/5/2017	-	DRY	-		-	-	-	-	-
MW-07					853.02					
	6/26/2017	-	12.73	-		840.29	-	-	-	-
	6/4/2017	-	12.68	-		840.34	-	-	-	-
	5/4/2017	-	13.19	-		839.83	-	-	-	-
	4/6/2017	-	13.20	-		839.82	-	-	-	-
	3/2/2017	-	13.22	-		839.80	-	-	-	-
	2/2/2017	-	13.19	-		839.83	-	-	-	-
	1/5/2017	13.20	13.21	0.01		839.81	839.81	-	-	-
MW-08					844.72					
	6/26/2017	-	8.25	-		836.47	-	-	-	-
	6/4/2017	-	8.90	-		835.82	-	-	-	-
	5/4/2017	-	12.31	-		832.41	-	-	-	-
	4/6/2017	-	9.68	-		835.04	-	-	-	-
	3/2/2017	-	15.70	-		829.02	-	-	-	-
	2/2/2017	-	14.97	-		829.75	-	-	-	-
	1/5/2017	-	16.20	-		828.52	-	-	-	-
MW-09					843.63					
	6/26/2017	-	2.30	-		841.33	-	-	-	-
	6/4/2017	-	2.66	-		840.97	-	-	-	-
	5/4/2017	-	6.99	-		836.64	-	-	-	-
	4/6/2017	5.61	5.62	0.01		838.01	838.02	-	-	-
	3/2/2017	-	12.03	-		831.60	-	-	-	-
	2/2/2017	-	12.09	-		831.54	-	-	-	-
	1/5/2017	13.69	13.70	0.01		829.93	829.94	-	-	-
MW-10					845.41					
	6/26/2017	-	9.60	-		835.81	-	-	-	-
	6/4/2017	-	9.33	-		836.08	-	-	-	-
	5/4/2017	-	12.75	-		832.66	-	-	-	-
	5/3/2017	-	12.83	-		832.58	-	-	-	-
	4/6/2017	-	15.47	-		829.94	-	-	-	-
	3/2/2017	-	15.91	-		829.50	-	-	-	-
	2/2/2017	-	17.05	-		828.36	-	-	-	-
	1/5/2017	-	19.70	-		825.71	-	-	-	-
MW-11					855.63					
	6/26/2017	-	28.26	-		827.37	-	-	-	-
	6/4/2017	28.72	28.73	0.01		826.90	826.91	-	-	-
	5/4/2017	30.15	30.57	0.42		825.06	825.37	-	-	-
	4/6/2017	-	32.00	-		823.63	-	-	-	-
	3/2/2017	-	32.00	-		823.63	-	-	-	-
	2/2/2017	-	32.00	-		823.63	-	-	-	-
	1/5/2017	-	32.00	-		823.63	-	-	-	-
MW-12					834.53					
	6/26/2017	-	13.29	-		821.24	-	-	-	-
	6/4/2017	-	13.70	-		820.83	-	-	-	-
	5/4/2017	13.90	13.91	0.01		820.62	820.63	-	-	-
	4/26/2017	-	13.69	-		820.84	-	-	-	-
	4/6/2017	14.42	14.50	0.08		820.03	820.09	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-12 (cont'd)	4/3/2017	15.05	15.23	0.18		819.30	819.43	-	-	-
	3/30/2017	15.05	15.28	0.23		819.25	819.42	-	-	-
	3/27/2017	15.04	15.73	0.69		818.80	819.31	-	-	-
	3/20/2017	14.81	15.20	0.39		819.34	819.62	-	-	-
	3/13/2017	14.89	15.62	0.73		818.92	819.45	-	-	-
	3/10/2017	14.76	15.39	0.63		819.14	819.60	-	-	-
	3/9/2017	14.90	15.71	0.81		818.82	819.41	-	-	-
	3/8/2017	14.78	15.41	0.63		819.12	819.58	-	-	-
	3/7/2017	14.71	15.19	0.48		819.34	819.69	-	-	-
	3/6/2017	14.99	15.57	0.58		818.96	819.39	-	-	-
	3/2/2017	15.35	16.30	0.95		818.23	818.93	-	-	-
	2/2/2017	15.57	16.71	1.14		817.82	818.65	-	-	-
	1/19/2017	15.80	17.15	1.35		817.38	818.37	-	-	-
1/5/2017	15.64	16.91	1.27		817.62	818.55	-	-	-	
MW-12B					834.98			-	-	-
	6/26/2017	-	13.63	-		821.35	-	-	-	-
	6/4/2017	-	14.03	-		820.95	-	-	-	-
	5/4/2017	-	14.22	-		820.76	-	-	-	-
	4/26/2017	-	14.03	-		820.95	-	-	-	-
	4/6/2017	-	14.66	-		820.32	-	-	-	-
	4/3/2017	-	15.43	-		819.55	-	-	-	-
	3/30/2017	-	15.48	-		819.50	-	-	-	-
	3/27/2017	-	15.54	-		819.44	-	-	-	-
	3/20/2017	-	15.45	-		819.53	-	-	-	-
	3/13/2017	-	15.33	-		819.65	-	-	-	-
	3/10/2017	-	15.17	-		819.81	-	-	-	-
	3/9/2017	-	15.41	-		819.57	-	-	-	-
	3/8/2017	-	15.19	-		819.79	-	-	-	-
	3/7/2017	15.12	15.13	0.01		819.85	819.85	-	-	-
	3/6/2017	-	15.32	-		819.66	-	-	-	-
	3/2/2017	-	15.87	-		819.11	-	-	-	-
	2/2/2017	-	16.17	-		818.81	-	-	-	-
	1/5/2017	-	16.27	-		818.71	-	-	-	-
MW-13					848.84			-	-	-
	6/26/2017	-	20.78	-		828.06	-	-	-	-
	6/4/2017	-	21.20	-		827.64	-	-	-	-
	5/4/2017	-	22.04	-		826.80	-	-	-	-
	4/6/2017	-	22.05	-		826.79	-	-	-	-
	3/2/2017	-	22.05	-		826.79	-	-	-	-
	2/2/2017	-	22.04	-		826.80	-	-	-	-
	1/5/2017	-	22.06	-		826.78	-	-	-	-
MW-13B					849.82			-	-	-
	6/26/2017	-	21.30	-		828.52	-	-	-	-
	6/4/2017	-	21.58	-		828.24	-	-	-	-
	5/4/2017	-	23.02	-		826.80	-	-	-	-
	4/6/2017	-	24.37	-		825.45	-	-	-	-
	3/2/2017	-	24.80	-		825.02	-	-	-	-
	2/2/2017	-	25.35	-		824.47	-	-	-	-
	1/5/2017	-	25.90	-		823.92	-	-	-	-
MW-14					838.70			-	-	-
	6/26/2017	-	16.51	-		822.19	-	-	-	-
	6/4/2017	-	16.52	-		822.18	-	-	-	-
	5/4/2017	-	16.90	-		821.80	-	-	-	-
	4/6/2017	-	18.26	-		820.44	-	-	-	-
	3/2/2017	-	18.87	-		819.83	-	-	-	-
	2/2/2017	-	19.23	-		819.47	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-14 (cont'd)	1/5/2017	-	19.80	-		818.90	-	-	-	-
MW-14B					840.20					
	6/26/2017	-	17.85	-		822.35	-	-	-	-
	6/4/2017	-	18.13	-		822.07	-	-	-	-
	5/4/2017	-	19.08	-		821.12	-	-	-	-
	4/6/2017	-	20.07	-		820.13	-	-	-	-
	3/2/2017	-	20.62	-		819.58	-	-	-	-
	2/2/2017	-	21.10	-		819.10	-	-	-	-
	1/5/2017	-	21.40	-		818.80	-	-	-	-
MW-15					831.03					
	6/26/2017	-	11.09	-		819.94	-	-	-	-
	6/4/2017	-	13.68	-		817.35	-	-	-	-
	5/4/2017	-	13.00	-		818.03	-	-	-	-
	4/26/2017	-	12.80	-		818.23	-	-	-	-
	4/6/2017	-	12.29	-		818.75	-	-	-	-
	4/3/2017	-	13.43	-		817.60	-	-	-	-
	3/30/2017	-	13.69	-		817.34	-	-	-	-
	3/27/2017	-	13.78	-		817.25	-	-	-	-
	3/20/2017	-	13.12	-		817.92	-	-	-	-
	3/13/2017	-	13.27	-		817.76	-	-	-	-
	3/10/2017	-	12.87	-		818.16	-	-	-	-
	3/9/2017	-	13.28	-		817.75	-	-	-	-
	3/8/2017	-	13.02	-		818.01	-	-	-	-
	3/7/2017	-	12.33	-		818.70	-	-	-	-
	3/6/2017	-	12.79	-		818.24	-	-	-	-
	3/2/2017	-	13.85	-		817.18	-	-	-	-
	2/2/2017	-	13.87	-		817.16	-	-	-	-
	1/5/2017	-	13.95	-		817.08	-	-	-	-
MW-15B					831.29					
	6/26/2017	-	15.78	-		815.51	-	-	-	-
	6/4/2017	-	15.56	-		815.73	-	-	-	-
	5/4/2017	-	15.80	-		815.49	-	-	-	-
	4/26/2017	-	15.83	-		815.46	-	-	-	-
	4/6/2017	-	16.31	-		814.98	-	-	-	-
	4/3/2017	-	16.54	-		814.75	-	-	-	-
	3/30/2017	-	16.47	-		814.82	-	-	-	-
	3/27/2017	-	16.69	-		814.60	-	-	-	-
	3/20/2017	-	16.68	-		814.61	-	-	-	-
	3/13/2017	-	16.63	-		814.66	-	-	-	-
	3/10/2017	-	16.42	-		814.87	-	-	-	-
	3/9/2017	-	16.18	-		815.11	-	-	-	-
	3/8/2017	-	16.91	-		814.38	-	-	-	-
	3/7/2017	-	16.46	-		814.83	-	-	-	-
	3/6/2017	-	16.87	-		814.42	-	-	-	-
	3/2/2017	-	17.01	-		814.28	-	-	-	-
	2/2/2017	-	17.12	-		814.17	-	-	-	-
	1/5/2017	-	17.22	-		814.07	-	-	-	-
MW-16					847.67					
	6/26/2017	-	8.71	-		838.96	-	-	-	-
	6/4/2017	9.26	9.30	0.04		838.37	838.39	-	-	-
	5/4/2017	13.02	14.82	1.80		832.85	834.16	-	-	-
	4/6/2017	14.86	17.74	2.88		829.93	832.03	-	-	-
	3/2/2017	15.05	18.55	3.50		829.12	831.67	-	-	-
	2/2/2017	15.10	19.30	4.20		828.37	831.43	-	-	-
	1/19/2017	15.45	20.00	4.55		827.67	830.99	-	-	-
	1/5/2017	15.40	20.00	4.60		827.67	831.02	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-17					855.35			-	-	-
	6/26/2017	-	10.82	-		844.53	-	-	-	-
	6/4/2017	-	10.82	-		844.53	-	-	-	-
	5/4/2017	-	10.82	-		844.53	-	-	-	-
	4/6/2017	-	10.53	-		844.82	-	-	-	-
	3/30/2017	-	10.84	-		844.51	-	-	-	-
	3/20/2017	-	10.83	-		844.52	-	-	-	-
	3/13/2017	-	10.82	-		844.53	-	-	-	-
	3/2/2017	-	10.83	-		844.52	-	-	-	-
	2/2/2017	-	10.84	-		844.51	-	-	-	-
	1/5/2017	-	10.83	-		844.52	-	-	-	-
MW-17B					855.37			-	-	-
	6/26/2017	-	16.96	-		838.41	-	-	-	-
	6/4/2017	-	16.55	-		838.82	-	-	-	-
	5/4/2017	-	17.78	-		837.59	-	-	-	-
	4/6/2017	-	18.77	-		836.60	-	-	-	-
	3/30/2017	-	18.98	-		836.39	-	-	-	-
	3/20/2017	-	19.06	-		836.31	-	-	-	-
	3/13/2017	-	19.05	-		836.32	-	-	-	-
	3/2/2017	-	19.28	-		836.09	-	-	-	-
	2/2/2017	-	19.79	-		835.58	-	-	-	-
	1/5/2017	-	21.11	-		834.26	-	-	-	-
MW-18					846.89			-	-	-
	6/26/2017	9.65	11.04	1.39		835.85	836.86	-	-	-
	6/4/2017	10.57	11.97	1.40		834.92	835.94	-	-	-
	5/4/2017	13.84	16.70	2.86		830.19	832.27	-	-	-
	4/6/2017	16.10	19.48	3.38		827.41	829.87	-	-	-
	3/2/2017	17.16	19.45	2.29		827.44	829.11	-	-	-
	2/2/2017	17.29	19.55	2.26		827.34	828.99	-	-	-
	1/19/2017	18.22	NO WATER	1.53		-	-	-	-	-
	1/5/2017	18.40	20.10	1.70		826.79	828.03	-	-	-
MW-19					853.94			-	-	-
	6/26/2017	-	10.12	-		843.82	-	-	-	-
	6/4/2017	-	10.85	-		843.09	-	-	-	-
	5/4/2017	-	11.61	-		842.33	-	-	-	-
	4/26/2017	-	10.21	-		843.73	-	-	-	-
	4/6/2017	-	9.16	-		844.78	-	-	-	-
	4/3/2017	-	11.78	-		842.16	-	-	-	-
	3/30/2017	-	11.77	-		842.17	-	-	-	-
	3/27/2017	-	11.86	-		842.08	-	-	-	-
	3/20/2017	-	11.79	-		842.15	-	-	-	-
	3/13/2017	-	11.77	-		842.17	-	-	-	-
	3/10/2017	-	11.71	-		842.23	-	-	-	-
	3/9/2017	-	11.79	-		842.15	-	-	-	-
	3/8/2017	-	11.78	-		842.16	-	-	-	-
	3/7/2017	-	11.77	-		842.17	-	-	-	-
	3/6/2017	11.76	11.76	0.00		842.18	842.18	-	-	-
	3/2/2017	-	11.75	-		842.19	-	-	-	-
	2/2/2017	-	11.73	-		842.21	-	-	-	-
	1/5/2017	-	11.79	-		842.15	-	-	-	-
MW-20					852.89			-	-	-
	6/26/2017	11.62	12.95	1.33		839.94	840.91	-	-	-
	6/4/2017	12.08	13.27	1.19		839.62	840.48	-	-	-
	5/4/2017	12.93	14.00	1.07		838.89	839.67	-	-	-
	4/26/2017	13.40	14.49	1.09		838.40	839.19	-	-	-
	4/6/2017	14.10	15.72	1.62		837.17	838.35	-	-	-



**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-20 (cont'd)	4/3/2017	14.28	15.81	1.53		837.08	838.19	-	-	-
	3/30/2017	13.34	15.94	2.60		836.95	838.84	-	-	-
	3/27/2017	14.41	16.00	1.59		836.89	838.05	-	-	-
	3/20/2017	14.48	15.60	1.12		837.29	838.11	-	-	-
	3/13/2017	14.60	16.33	1.73		836.56	837.82	-	-	-
	3/10/2017	14.59	16.34	1.75		836.55	837.82	-	-	-
	3/9/2017	14.60	15.32	0.72		837.57	838.09	-	-	-
	3/8/2017	14.63	15.39	0.76		837.50	838.05	-	-	-
	3/7/2017	14.71	16.43	1.72		836.46	837.71	-	-	-
	3/6/2017	14.77	16.56	1.79		836.33	837.64	-	-	-
	3/2/2017	14.74	16.55	1.81		836.34	837.66	-	-	-
	2/2/2017	15.20	17.30	2.10		835.59	837.12	-	-	-
	1/26/2017	15.30	17.00	1.70		835.89	837.13	-	-	-
	1/16/2017	15.40	17.72	2.32		835.17	836.86	-	-	-
1/5/2017	15.68	17.64	1.96		835.25	836.68	-	-	-	
MW-21					855.77			-	-	-
	6/26/2017	-	16.14	-		839.63	-	-	-	-
	6/4/2017	-	16.61	-		839.16	-	-	-	-
	5/4/2017	-	17.08	-		838.69	-	-	-	-
	4/6/2017	-	18.23	-		837.54	-	-	-	-
	3/30/2017	-	18.41	-		837.36	-	-	-	-
	3/20/2017	-	18.47	-		837.30	-	-	-	-
	3/13/2017	-	18.58	-		837.19	-	-	-	-
	3/2/2017	-	18.65	-		837.12	-	-	-	-
	2/2/2017	-	19.05	-		836.72	-	-	-	-
	1/5/2017	-	19.65	-		836.12	-	-	-	-
MW-22					854.60			-	-	-
	6/26/2017	-	4.44	-		850.16	-	-	-	-
	6/4/2017	-	9.66	-		844.94	-	-	-	-
	5/4/2017	-	9.95	-		844.65	-	-	-	-
	5/3/2017	-	9.93	-		844.67	-	-	-	-
	4/6/2017	-	9.85	-		844.75	-	-	-	-
	3/2/2017	-	9.99	-		844.61	-	-	-	-
	2/2/2017	-	9.98	-		844.62	-	-	-	-
	1/5/2017	-	9.98	-		844.62	-	-	-	-
MW-23					849.57			-	-	-
	6/26/2017	-	9.72	-		839.85	-	-	-	-
	6/4/2017	-	10.01	-		839.56	-	-	-	-
	5/4/2017	-	10.42	-		839.15	-	-	-	-
	4/6/2017	-	11.50	-		838.07	-	-	-	-
	3/30/2017	-	12.02	-		837.55	-	-	-	-
	3/20/2017	-	12.01	-		837.56	-	-	-	-
	3/13/2017	-	12.09	-		837.48	-	-	-	-
	3/2/2017	-	12.23	-		837.34	-	-	-	-
	2/2/2017	-	12.57	-		837.00	-	-	-	-
	1/5/2017	-	13.23	-		836.34	-	-	-	-
MW-23B					849.69			-	-	-
	6/26/2017	-	11.50	-		838.19	-	-	-	-
	6/4/2017	-	11.93	-		837.76	-	-	-	-
	5/4/2017	-	12.44	-		837.25	-	-	-	-
	4/6/2017	-	12.81	-		836.88	-	-	-	-
	3/30/2017	-	12.82	-		836.87	-	-	-	-
	3/20/2017	-	12.81	-		836.88	-	-	-	-
	3/13/2017	-	12.77	-		836.92	-	-	-	-
	3/2/2017	-	12.80	-		836.89	-	-	-	-
	2/2/2017	-	12.91	-		836.78	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-23B (cont'd)	1/5/2017	-	12.90	-		836.79	-	-	-	-
MW-24					817.92					
	6/26/2017	-	4.51	-		813.41	-	-	-	-
	6/4/2017	-	4.49	-		813.43	-	-	-	-
	5/4/2017	-	4.49	-		813.43	-	-	-	-
	4/6/2017	-	4.13	-		813.79	-	-	-	-
	3/13/2017	-	4.50	-		813.42	-	-	-	-
	3/2/2017	-	4.54	-		813.38	-	-	-	-
	2/2/2017	-	4.88	-		813.04	-	-	-	-
	1/5/2017	-	4.77	-		813.15	-	-	-	-
MW-24B					818.72					
	6/26/2017	-	5.41	-		813.31	-	-	-	-
	6/4/2017	-	5.44	-		813.28	-	-	-	-
	5/4/2017	-	5.41	-		813.31	-	-	-	-
	4/6/2017	-	5.18	-		813.54	-	-	-	-
	3/13/2017	-	5.51	-		813.21	-	-	-	-
	3/2/2017	-	5.60	-		813.12	-	-	-	-
	2/2/2017	-	5.84	-		812.88	-	-	-	-
	1/5/2017	-	5.74	-		812.98	-	-	-	-
MW-25					826.18					
	6/26/2017	-	7.81	-		818.37	-	-	-	-
	6/4/2017	-	8.05	-		818.13	-	-	-	-
	5/4/2017	-	8.15	-		818.03	-	-	-	-
	5/3/2017	-	8.21	-		817.97	-	-	-	-
	4/26/2017	-	8.09	-		818.09	-	-	-	-
	4/6/2017	-	8.02	-		818.16	-	-	-	-
	4/3/2017	-	8.58	-		817.60	-	-	-	-
	3/30/2017	-	8.62	-		817.56	-	-	-	-
	3/27/2017	-	8.66	-		817.52	-	-	-	-
	3/20/2017	-	7.09	-		819.10	-	-	-	-
	3/13/2017	-	8.52	-		817.66	-	-	-	-
	3/10/2017	-	8.46	-		817.72	-	-	-	-
	3/9/2017	-	8.61	-		817.57	-	-	-	-
	3/8/2017	-	8.58	-		817.60	-	-	-	-
	3/7/2017	-	8.52	-		817.66	-	-	-	-
	3/6/2017	-	8.48	-		817.70	-	-	-	-
	3/2/2017	-	8.87	-		817.31	-	-	-	-
	2/2/2017	-	9.09	-		817.09	-	-	-	-
	1/5/2017	6.05	6.06	0.01		820.12	820.13	-	-	-
MW-25B					823.81					
	6/26/2017	-	4.85	-		818.96	-	-	-	-
	6/4/2017	-	5.01	-		818.80	-	-	-	-
	5/4/2017	-	5.22	-		818.59	-	-	-	-
	4/26/2017	-	5.18	-		818.63	-	-	-	-
	4/6/2017	-	5.52	-		818.29	-	-	-	-
	4/3/2017	-	5.72	-		818.09	-	-	-	-
	3/30/2017	-	5.79	-		818.02	-	-	-	-
	3/27/2017	-	5.85	-		817.96	-	-	-	-
	3/20/2017	-	7.34	-		816.47	-	-	-	-
	3/13/2017	-	5.95	-		817.86	-	-	-	-
	3/10/2017	-	5.94	-		817.87	-	-	-	-
	3/9/2017	-	5.92	-		817.89	-	-	-	-
	3/8/2017	-	5.91	-		817.90	-	-	-	-
	3/7/2017	-	5.99	-		817.82	-	-	-	-
	3/6/2017	-	6.31	-		817.50	-	-	-	-
	3/2/2017	-	6.07	-		817.74	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-25B (cont'd)	2/2/2017	-	6.45	-		817.36	-	-	-	-
	1/5/2017	6.40	6.41	0.01		817.40	817.40	-	-	-
MW-26					847.56					
	6/26/2017	-	4.93	-		842.63	-	-	-	-
	6/4/2017	-	5.14	-		842.42	-	-	-	-
	5/4/2017	-	5.08	-		842.48	-	-	-	-
	5/3/2017	-	5.20	-		842.36	-	-	-	-
	4/6/2017	-	5.93	-		841.63	-	-	-	-
	3/30/2017	-	7.38	-		840.18	-	-	-	-
	3/20/2017	-	7.34	-		840.22	-	-	-	-
	3/13/2017	-	7.40	-		840.16	-	-	-	-
	3/2/2017	-	7.53	-		840.03	-	-	-	-
	2/2/2017	-	8.01	-		839.55	-	-	-	-
	1/5/2017	-	8.98	-		838.58	-	-	-	-
MW-26B					847.81					
	6/26/2017	-	7.23	-		840.58	-	-	-	-
	6/4/2017	-	7.25	-		840.56	-	-	-	-
	5/4/2017	-	7.88	-		839.93	-	-	-	-
	4/6/2017	-	9.45	-		838.36	-	-	-	-
	3/30/2017	-	9.79	-		838.02	-	-	-	-
	3/20/2017	-	9.87	-		837.94	-	-	-	-
	3/13/2017	-	9.92	-		837.89	-	-	-	-
	3/2/2017	-	10.03	-		837.78	-	-	-	-
	2/2/2017	-	10.49	-		837.32	-	-	-	-
	1/5/2017	-	10.96	-		836.85	-	-	-	-
MW-27					854.11					
	6/26/2017	-	25.61	-		828.50	-	-	-	-
	6/4/2017	-	25.86	-		828.25	-	-	-	-
	5/4/2017	-	26.70	-		827.41	-	-	-	-
	4/6/2017	-	27.98	-		826.13	-	-	-	-
	3/2/2017	-	28.65	-		825.46	-	-	-	-
	2/2/2017	-	28.97	-		825.14	-	-	-	-
	1/5/2017	-	29.20	-		824.91	-	-	-	-
MW-27B					857.14					
	6/26/2017	-	29.95	-		827.19	-	-	-	-
	6/4/2017	-	30.37	-		826.77	-	-	-	-
	5/4/2017	-	31.07	-		826.07	-	-	-	-
	4/6/2017	-	31.66	-		825.48	-	-	-	-
	3/2/2017	-	32.08	-		825.06	-	-	-	-
	2/2/2017	-	32.38	-		824.76	-	-	-	-
	1/5/2017	-	32.52	-		824.62	-	-	-	-
MW-28					844.31					
	6/26/2017	-	22.63	-		821.68	-	-	-	-
	6/4/2017	-	22.52	-		821.79	-	-	-	-
	5/4/2017	-	22.88	-		821.43	-	-	-	-
	5/3/2017	-	22.86	-		821.45	-	-	-	-
	4/26/2017	-	23.61	-		820.70	-	-	-	-
	4/6/2017	-	25.49	-		818.82	-	-	-	-
	4/3/2017	-	25.69	-		818.62	-	-	-	-
	3/30/2017	-	25.08	-		819.23	-	-	-	-
	3/27/2017	-	25.23	-		819.08	-	-	-	-
	3/20/2017	-	25.63	-		818.68	-	-	-	-
	3/13/2017	-	24.65	-		819.67	-	-	-	-
	3/10/2017	-	24.71	-		819.60	-	-	-	-
	3/9/2017	-	24.74	-		819.57	-	-	-	-
	3/8/2017	-	24.74	-		819.57	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-28 (cont'd)	3/7/2017	-	24.78	-		819.53	-	-	-	-
	3/6/2017	-	24.72	-		819.60	-	-	-	-
	3/2/2017	-	24.75	-		819.56	-	-	-	-
	2/2/2017	-	25.10	-		819.21	-	-	-	-
	1/5/2017	-	25.33	-		818.98	-	-	-	-
MW-29				852.20						
	6/26/2017	-	7.68	-		844.52	-	-	-	-
	6/4/2017	-	7.71	-		844.49	-	-	-	-
	5/4/2017	-	8.32	-		843.88	-	-	-	-
	5/3/2017	-	8.39	-		843.81	-	-	-	-
	4/26/2017	-	7.77	-		844.43	-	-	-	-
	4/6/2017	-	10.11	-		842.09	-	-	-	-
	4/3/2017	-	10.95	-		841.25	-	-	-	-
	3/30/2017	-	11.26	-		840.94	-	-	-	-
	3/27/2017	-	11.27	-		840.93	-	-	-	-
	3/20/2017	-	11.28	-		840.92	-	-	-	-
	3/13/2017	-	11.35	-		840.85	-	-	-	-
	3/10/2017	-	11.37	-		840.83	-	-	-	-
	3/9/2017	-	10.35	-		841.85	-	-	-	-
	3/8/2017	-	11.45	-		840.75	-	-	-	-
	3/7/2017	-	11.42	-		840.78	-	-	-	-
	3/6/2017	-	11.41	-		840.79	-	-	-	-
	3/2/2017	-	11.55	-		840.65	-	-	-	-
	2/2/2017	-	12.10	-		840.10	-	-	-	-
	1/5/2017	-	13.25	-		838.95	-	-	-	-
MW-30					841.28					
	6/26/2017	-	12.06	-		829.22	-	-	-	-
	6/4/2017	-	11.79	-		829.49	-	-	-	-
	5/4/2017	-	13.65	-		827.63	-	-	-	-
	5/3/2017	-	13.66	-		827.62	-	-	-	-
	4/6/2017	-	14.51	-		826.77	-	-	-	-
	3/2/2017	-	14.51	-		826.77	-	-	-	-
	2/2/2017	-	14.51	-		826.77	-	-	-	-
	1/5/2017	-	14.51	-		826.77	-	-	-	-
MW-31					845.04					
	6/26/2017	-	17.75	-		827.29	-	-	-	-
	6/4/2017	-	17.75	-		827.29	-	-	-	-
	5/4/2017	-	19.85	-		825.19	-	-	-	-
	5/3/2017	-	19.99	-		825.05	-	-	-	-
	4/6/2017	-	21.45	-		823.59	-	-	-	-
	3/2/2017	-	21.58	-		823.46	-	-	-	-
	2/2/2017	-	22.07	-		822.97	-	-	-	-
	1/5/2017	-	22.90	-		822.14	-	-	-	-
MW-31B					844.94					
	6/26/2017	-	18.33	-		826.61	-	-	-	-
	6/4/2017	-	18.45	-		826.49	-	-	-	-
	5/4/2017	-	20.45	-		824.49	-	-	-	-
	4/6/2017	-	21.73	-		823.21	-	-	-	-
	3/2/2017	-	21.78	-		823.16	-	-	-	-
	2/2/2017	-	22.37	-		822.57	-	-	-	-
	1/5/2017	-	22.86	-		822.08	-	-	-	-
MW-32					842.93					
	6/26/2017	-	7.56	-		835.37	-	-	-	-
	6/4/2017	-	7.30	-		835.63	-	-	-	-
	5/4/2017	-	11.77	-		831.16	-	-	-	-
	4/6/2017	-	13.60	-		829.33	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-32 (cont'd)	3/2/2017	-	14.85	-		828.08	-	-	-	-
	2/2/2017	-	15.39	-		827.54	-	-	-	-
	1/5/2017	-	17.46	-		825.47	-	-	-	-
MW-33				849.20						
	6/26/2017	-	23.86	-		825.34	-	-	-	-
	6/4/2017	-	24.21	-		824.99	-	-	-	-
	5/4/2017	-	25.69	-		823.51	-	-	-	-
	4/6/2017	-	26.67	-		822.53	-	-	-	-
	3/2/2017	-	26.98	-		822.22	-	-	-	-
	2/2/2017	-	27.52	-		821.68	-	-	-	-
	1/5/2017	-	27.77	-		821.43	-	-	-	-
MW-33T					849.11					
	6/26/2017	-	25.49	-		823.62	-	-	-	-
	6/4/2017	-	25.75	-		823.36	-	-	-	-
	5/4/2017	-	27.00	-		822.11	-	-	-	-
	4/6/2017	-	27.93	-		821.18	-	-	-	-
	3/2/2017	-	28.18	-		820.93	-	-	-	-
	2/2/2017	-	28.54	-		820.57	-	-	-	-
	1/5/2017	-	28.74	-		820.37	-	-	-	-
MW-34					816.35					
	6/26/2017	-	7.43	-		808.92	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	5/3/2017	-	2.55	-		813.80	-	-	-	-
	4/6/2017	-	2.50	-		813.85	-	-	-	-
	3/30/2017	-	2.64	-		813.71	-	-	-	-
	3/20/2017	-	2.67	-		813.68	-	-	-	-
	3/13/2017	-	2.58	-		813.77	-	-	-	-
MW-35					829.40					
	6/26/2017	-	9.68	-		819.72	-	-	-	-
	6/4/2017	-	7.93	-		821.47	-	-	-	-
	5/4/2017	-	8.82	-		820.58	-	-	-	-
	5/3/2017	-	9.08	-		820.32	-	-	-	-
	4/26/2017	-	8.28	-		821.12	-	-	-	-
	4/6/2017	-	8.43	-		820.97	-	-	-	-
	4/3/2017	-	9.44	-		819.96	-	-	-	-
	3/30/2017	-	9.36	-		820.04	-	-	-	-
	3/27/2017	-	9.57	-		819.83	-	-	-	-
	3/20/2017	-	9.48	-		819.92	-	-	-	-
	3/17/2017	-	9.01	-		820.39	-	-	-	-
	3/16/2017	-	9.01	-		820.39	-	-	-	-
	3/15/2017	-	8.79	-		820.61	-	-	-	-
	3/14/2017	-	9.69	-		819.71	-	-	-	-
	3/13/2017	-	9.65	-		819.76	-	-	-	-
	3/10/2017	-	9.78	-		819.62	-	-	-	-
	3/9/2017	-	8.57	-		820.83	-	-	-	-
	3/8/2017	-	7.99	-		821.41	-	-	-	-
	3/7/2017	-	9.44	-		819.96	-	-	-	-
	3/6/2017	-	9.59	-		819.82	-	-	-	-
	3/2/2017	-	10.03	-		819.37	-	-	-	-
	2/2/2017	-	10.26	-		819.14	-	-	-	-
	1/5/2017	10.43	10.44	0.01		818.96	818.97	-	-	-
MW-36					858.47					
	6/29/2017	-	19.19	-		839.28	-	-	-	-
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	19.80	-		838.67	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-36 (cont'd)	5/4/2017	-	20.69	-		837.78	-	-	-	-
	4/6/2017	-	21.55	-		836.92	-	-	-	-
	3/2/2017	-	21.87	-		836.60	-	-	-	-
	2/2/2017	-	22.40	-		836.07	-	-	-	-
	1/5/2017	-	22.75	-		835.72	-	-	-	-
MW-36B					858.15					
	6/29/2017	-	18.90	-		839.25	-	-	-	-
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	19.48	-		838.67	-	-	-	-
	5/4/2017	-	20.38	-		837.77	-	-	-	-
	4/6/2017	-	21.26	-		836.89	-	-	-	-
	3/2/2017	-	21.55	-		836.60	-	-	-	-
	2/2/2017	-	22.11	-		836.04	-	-	-	-
	1/5/2017	-	22.46	-		835.69	-	-	-	-
MW-37					813.92					
	6/26/2017	-	3.42	-		810.50	-	-	-	-
	6/5/2017	-	3.46	-		810.46	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	3.48	-		810.44	-	-	-	-
	4/6/2017	-	3.28	-		810.64	-	-	-	-
	3/2/2017	-	3.54	-		810.38	-	-	-	-
	2/2/2017	-	3.55	-		810.37	-	-	-	-
	1/5/2017	-	3.60	-		810.32	-	-	-	-
MW-38					813.28					
	6/26/2017	-	1.80	-		811.48	-	-	-	-
	6/5/2017	-	1.86	-		811.42	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	1.88	-		811.40	-	-	-	-
	5/3/2017	-	1.89	-		811.39	-	-	-	-
	4/6/2017	-	1.52	-		811.76	-	-	-	-
	3/30/2017	-	2.07	-		811.21	-	-	-	-
	3/20/2017	-	1.99	-		811.29	-	-	-	-
	3/13/2017	-	1.93	-		811.35	-	-	-	-
	3/2/2017	-	2.00	-		811.28	-	-	-	-
	2/2/2017	-	2.05	-		811.23	-	-	-	-
	1/5/2017	-	2.05	-		811.23	-	-	-	-
MW-39					819.90					
	6/26/2017	-	4.13	-		815.77	-	-	-	-
	6/4/2017	-	4.85	-		815.05	-	-	-	-
	5/4/2017	-	5.21	-		814.69	-	-	-	-
	4/26/2017	-	5.09	-		814.81	-	-	-	-
	4/6/2017	-	4.83	-		815.07	-	-	-	-
	4/3/2017	-	5.34	-		814.56	-	-	-	-
	3/30/2017	-	5.38	-		814.52	-	-	-	-
	3/27/2017	-	5.42	-		814.48	-	-	-	-
	3/20/2017	-	5.12	-		814.79	-	-	-	-
	3/17/2017	-	4.57	-		815.33	-	-	-	-
	3/16/2017	-	5.25	-		814.65	-	-	-	-
	3/15/2017	-	4.45	-		815.45	-	-	-	-
	3/14/2017	-	4.77	-		815.13	-	-	-	-
	3/13/2017	-	5.09	-		814.82	-	-	-	-
	3/10/2017	-	4.79	-		815.11	-	-	-	-
	3/9/2017	-	4.98	-		814.92	-	-	-	-
	3/8/2017	-	4.61	-		815.29	-	-	-	-
	3/7/2017	-	4.25	-		815.65	-	-	-	-
	3/6/2017	-	4.32	-		815.59	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-39 (cont'd)	3/2/2017	-	4.99	-		814.91	-	-	-	-
	2/2/2017	5.15	5.16	0.01		814.74	814.75	-	-	-
	1/5/2017	5.08	5.10	0.02		814.80	814.81	-	-	-
MW-40				817.79						
	6/26/2017	-	2.03	-		815.76	-	-	-	-
	6/4/2017	-	3.13	-		814.66	-	-	-	-
	5/4/2017	-	2.35	-		815.44	-	-	-	-
	4/6/2017	-	2.61	-		815.18	-	-	-	-
	3/30/2017	-	3.24	-		814.55	-	-	-	-
	3/20/2017	-	2.72	-		815.07	-	-	-	-
	3/13/2017	-	3.88	-		813.91	-	-	-	-
	3/2/2017	-	2.91	-		814.88	-	-	-	-
	2/2/2017	3.15	3.16	0.01		814.63	814.64	-	-	-
	1/5/2017	3.02	3.03	0.01		814.76	814.77	-	-	-
MW-41					819.68					
	6/26/2017	-	3.79	-		815.89	-	-	-	-
	6/4/2017	-	4.00	-		815.68	-	-	-	-
	5/4/2017	-	3.95	-		815.73	-	-	-	-
	4/26/2017	-	3.85	-		815.83	-	-	-	-
	4/6/2017	-	3.85	-		815.83	-	-	-	-
	4/3/2017	-	4.07	-		815.61	-	-	-	-
	3/30/2017	-	4.12	-		815.56	-	-	-	-
	3/27/2017	-	4.16	-		815.52	-	-	-	-
	3/20/2017	-	4.18	-		815.51	-	-	-	-
	3/17/2017	-	4.17	-		815.51	-	-	-	-
	3/16/2017	-	4.25	-		815.43	-	-	-	-
	3/15/2017	-	4.22	-		815.46	-	-	-	-
	3/14/2017	-	4.08	-		815.60	-	-	-	-
	3/13/2017	-	3.70	-		815.99	-	-	-	-
	3/10/2017	-	4.14	-		815.54	-	-	-	-
	3/9/2017	-	4.23	-		815.45	-	-	-	-
	3/8/2017	-	4.23	-		815.45	-	-	-	-
	3/7/2017	-	4.15	-		815.53	-	-	-	-
	3/6/2017	-	4.23	-		815.46	-	-	-	-
	3/2/2017	-	4.30	-		815.38	-	-	-	-
	2/2/2017	-	4.60	-		815.08	-	-	-	-
	1/5/2017	4.60	4.61	0.01		815.07	815.08	-	-	-
MW-42					820.33					
	6/26/2017	-	4.46	-		815.87	-	-	-	-
	6/4/2017	-	4.57	-		815.76	-	-	-	-
	5/4/2017	-	4.50	-		815.83	-	-	-	-
	4/6/2017	-	4.55	-		815.78	-	-	-	-
	3/30/2017	-	4.65	-		815.68	-	-	-	-
	3/20/2017	-	4.80	-		815.53	-	-	-	-
	3/13/2017	-	4.84	-		815.49	-	-	-	-
	3/2/2017	-	4.91	-		815.42	-	-	-	-
	2/2/2017	5.25	5.26	0.01		815.07	815.08	-	-	-
	1/5/2017	5.24	5.25	0.01		815.08	815.09	-	-	-
MW-44					853.67					
	6/26/2017	-	7.36	-		846.31	-	-	-	-
	6/4/2017	-	7.28	-		846.39	-	-	-	-
	5/4/2017	-	7.78	-		845.89	-	-	-	-
	4/6/2017	-	8.09	-		845.58	-	-	-	-
	3/13/2017	-	9.61	-		844.06	-	-	-	-
	3/2/2017	-	9.60	-		844.07	-	-	-	-
MW-44B					853.38					

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-44B (cont'd)	6/26/2017	-	12.45	-		840.93	-	-	-	-
	6/4/2017	-	12.54	-		840.84	-	-	-	-
	5/4/2017	-	13.45	-		839.93	-	-	-	-
	4/6/2017	-	15.15	-		838.23	-	-	-	-
	3/13/2017	-	15.50	-		837.88	-	-	-	-
	3/2/2017	-	15.56	-		837.82	-	-	-	-
MW-45					852.47					
	6/26/2017	-	13.38	-		839.09	-	-	-	-
	6/4/2017	-	13.48	-		838.99	-	-	-	-
	5/4/2017	-	13.92	-		838.55	-	-	-	-
	5/3/2017	-	14.00	-		838.47	-	-	-	-
	4/6/2017	-	14.23	-		838.24	-	-	-	-
	3/30/2017	-	14.27	-		838.20	-	-	-	-
	3/20/2017	-	14.22	-		838.25	-	-	-	-
	3/13/2017	-	14.16	-		838.31	-	-	-	-
3/2/2017	-	14.14	-		838.33	-	-	-	-	
MW-45B					852.85					
	6/26/2017	-	15.35	-		837.50	-	-	-	-
	6/4/2017	-	15.75	-		837.10	-	-	-	-
	5/4/2017	-	16.53	-		836.32	-	-	-	-
	4/6/2017	-	18.15	-		834.70	-	-	-	-
	3/30/2017	-	18.52	-		834.33	-	-	-	-
	3/20/2017	-	19.39	-		833.46	-	-	-	-
	3/13/2017	-	20.23	-		832.62	-	-	-	-
3/2/2017	-	21.45	-		831.40	-	-	-	-	
RS-01					849.13					
	6/29/2017	10.19	10.30	0.11		838.83	838.91	-	-	-
	6/22/2017	11.75	11.85	0.10		837.28	837.35	6/24/2017	12:25	12:36
	6/19/2017	11.00	11.49	0.49		837.64	838.00	6/21/2017	13:01	13:09
	6/15/2017	10.86	11.29	0.43		837.84	838.15	6/16/2017	13:08	13:16
	6/12/2017	10.68	11.05	0.37		838.08	838.35	-	-	-
	6/9/2017	10.52	10.81	0.29		838.32	838.53	-	-	-
	6/5/2017	10.57	10.81	0.24		838.32	838.50	-	-	-
	6/2/2017	11.01	11.24	0.23		837.89	838.06	-	-	-
	5/31/2017	10.69	11.05	0.36		838.08	838.34	5/31/2017	14:51	14:59
	5/24/2017	11.25	11.53	0.28		837.60	837.80	-	-	-
	5/22/2017	12.62	12.92	0.30		836.21	836.43	-	-	-
	5/18/2017	12.24	12.40	0.16		836.73	836.85	-	-	-
	5/15/2017	12.39	12.75	0.36		836.38	836.64	5/16/2017	13:32	13:40
	5/11/2017	13.07	13.24	0.17		835.89	836.01	-	-	-
	5/7/2017	14.34	15.09	0.75		834.04	834.59	5/9/2017	8:52	9:17
	5/4/2017	14.40	14.95	0.55		834.18	834.58	-	-	-
	4/27/2017	15.46	15.96	0.50		833.17	833.54	-	-	-
	4/25/2017	16.16	16.58	0.42		832.55	832.86	-	-	-
	4/20/2017	16.62	16.92	0.30		832.21	832.43	-	-	-
	4/16/2017	16.69	17.20	0.51		831.93	832.30	4/17/2017	10:21	10:33
	4/13/2017	17.19	17.58	0.39		831.55	831.83	-	-	-
	4/10/2017	16.87	17.78	0.91		831.35	832.01	4/11/2017	12:49	12:58
4/6/2017	17.65	18.36	0.71		830.77	831.29	-	-	-	
4/3/2017	17.90	18.30	0.40		830.83	831.12	-	-	-	
3/31/2017	17.70	18.77	1.07		830.36	831.14	3/31/2017	12:15	12:24	
3/27/2017	17.75	18.57	0.82		830.56	831.16	-	-	-	
3/24/2017	17.89	18.45	0.56		830.68	831.09	-	-	-	
3/20/2017	17.93	18.55	0.62		830.58	831.03	3/20/2017	12:14	12:24	
3/16/2017	18.82	19.12	0.30		830.01	830.23	-	-	-	
3/13/2017	19.11	19.70	0.59		830.63	831.06	3/15/2017	11:13	11:22	



**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-01 (cont'd)	3/6/2017	19.41	19.80	0.39		830.53	830.82	-	-	-
	3/2/2017	19.15	19.65	0.50		830.68	831.05	3/3/2017	10:02	10:13
	2/27/2017	19.05	19.77	0.72		830.56	831.09	2/27/2017	12:47	12:52
	2/23/2017	19.45	19.82	0.37		830.51	830.78	-	-	-
	2/20/2017	19.05	19.64	0.59		830.69	831.12	2/21/2017	9:17	9:28
	2/17/2017	18.92	19.67	0.75		830.66	831.21	2/17/2017	12:44	12:51
	2/9/2017	19.16	19.88	0.72		830.45	830.98	2/9/2017	13:45	14:15
	2/6/2017	19.00	19.95	0.95		830.38	831.08	2/6/2017	10:02	10:15
	2/2/2017	19.42	19.47	0.05		830.86	830.90	2/2/2017	13:35	13:50
	1/30/2017	19.45	20.05	0.60		830.28	830.72	1/30/2017	11:49	12:00
	1/26/2017	19.92	20.42	0.50		829.91	830.28	1/26/2017	9:40	9:51
	1/23/2017	19.90	20.60	0.70		829.73	830.24	1/23/2017	14:07	14:20
	1/19/2017	19.73	21.19	1.46		829.14	830.21	1/19/2017	14:30	14:37
	1/16/2017	19.94	21.10	1.16		829.23	830.08	-	-	-
	1/12/2017	19.11	22.51	3.40		827.82	830.30	1/12/2017	7:15	7:45
	1/5/2017	19.65	22.55	2.90		827.78	829.90	-	-	-
RS-02					849.52			-	-	-
	6/29/2017	9.47	9.74	0.27		839.78	839.98	-	-	-
	6/22/2017	10.22	10.46	0.24		839.06	839.24	6/24/2017	12:10	12:19
	6/19/2017	10.50	10.95	0.45		838.57	838.90	6/21/2017	13:13	13:21
	6/15/2017	10.25	10.64	0.39		838.88	839.16	-	-	-
	6/12/2017	9.96	10.30	0.34		839.22	839.47	-	-	-
	6/9/2017	9.74	10.00	0.26		839.52	839.71	-	-	-
	6/5/2017	10.06	10.30	0.24		839.22	839.40	-	-	-
	6/2/2017	9.99	10.17	0.18		839.35	839.48	-	-	-
	5/31/2017	9.87	10.25	0.38		839.27	839.55	5/31/2017	14:41	14:48
	5/24/2017	10.31	10.57	0.26		838.95	839.14	-	-	-
	5/22/2017	11.87	12.13	0.26		837.39	837.58	-	-	-
	5/18/2017	11.77	12.05	0.28		837.47	837.67	-	-	-
	5/15/2017	11.86	12.12	0.26		837.40	837.59	-	-	-
	5/11/2017	12.10	12.27	0.17		837.25	837.37	-	-	-
	5/7/2017	13.11	13.33	0.22		836.19	836.35	-	-	-
	5/4/2017	13.02	13.25	0.23		836.27	836.44	-	-	-
	4/27/2017	13.32	13.49	0.17		836.03	836.15	-	-	-
	4/25/2017	14.64	14.81	0.17		834.71	834.83	-	-	-
	4/20/2017	15.37	15.64	0.27		833.88	834.08	-	-	-
	4/16/2017	15.23	15.52	0.29		834.00	834.21	-	-	-
	4/13/2017	15.15	15.43	0.28		834.09	834.29	-	-	-
	4/10/2017	15.15	15.50	0.35		834.02	834.28	-	-	-
	4/6/2017	16.70	17.10	0.40		832.42	832.71	-	-	-
	4/3/2017	17.15	17.60	0.45		831.92	832.25	-	-	-
	3/31/2017	17.21	17.65	0.44		831.87	832.19	-	-	-
	3/27/2017	17.21	17.64	0.43		831.88	832.19	-	-	-
	3/24/2017	17.23	17.60	0.37		831.92	832.19	-	-	-
	3/20/2017	17.28	17.55	0.27		831.97	832.17	-	-	-
	3/16/2017	17.60	17.77	0.17		831.75	831.87	-	-	-
	3/13/2017	17.73	18.31	0.58		831.79	832.22	3/15/2017	11:30	11:37
	3/6/2017	17.84	18.20	0.36		831.90	832.16	-	-	-
	3/2/2017	17.80	18.07	0.27		832.03	832.23	-	-	-
	2/27/2017	17.62	18.17	0.55		831.93	832.33	2/27/2017	12:53	13:02
	2/23/2017	17.53	17.91	0.38		832.19	832.47	-	-	-
	2/20/2017	17.55	17.84	0.29		832.26	832.47	-	-	-
	2/17/2017	17.35	17.89	0.54		832.21	832.61	2/17/2017	13:07	13:14
	2/9/2017	17.77	18.10	0.33		832.00	832.24	-	-	-
	2/6/2017	17.72	18.30	0.58		831.80	832.23	2/6/2017	9:52	10:00
	2/2/2017	17.75	18.20	0.45		831.90	832.23	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RS-02 (cont'd)	1/30/2017	17.80	18.15	0.35		831.95	832.21	-	-	-
	1/26/2017	18.10	18.35	0.25		831.75	831.93	-	-	-
	1/23/2017	18.35	18.60	0.25		831.50	831.68	-	-	-
	1/19/2017	18.55	NO WATER	1.45		-	-	1/19/2017	14:15	14:25
	1/16/2017	18.58	NO WATER	1.42		-	-	-	-	-
	1/12/2017	18.26	19.84	1.58		830.26	831.42	1/12/2017	7:49	8:19
	1/5/2017	18.50	NO WATER	1.50		-	-	-	-	-
RS-04					851.44					
	6/29/2017	-	9.68	-		841.79	-	6/29/2017	12:47	12:56
	6/22/2017	-	9.68	-		841.79	-	-	-	-
	6/19/2017	-	9.70	-		841.77	-	-	-	-
	6/15/2017	-	9.67	-		841.80	-	-	-	-
	6/12/2017	-	9.67	-		841.80	-	-	-	-
	6/9/2017	-	9.68	-		841.79	-	-	-	-
	6/5/2017	-	9.67	-		841.80	-	-	-	-
	6/2/2017	-	9.66	-		841.81	-	-	-	-
	5/31/2017	-	9.67	-		841.80	-	-	-	-
	5/24/2017	-	9.30	-		842.17	-	-	-	-
	5/22/2017	-	8.80	-		842.67	-	-	-	-
	5/18/2017	-	9.68	-		841.79	-	-	-	-
	5/15/2017	-	9.69	-		841.78	-	-	-	-
	5/11/2017	9.68	10.25	0.57		841.22	841.64	-	-	-
	5/7/2017	-	9.72	-		841.75	-	-	-	-
	5/4/2017	-	9.70	-		841.77	-	-	-	-
	4/27/2017	-	9.70	-		841.77	-	-	-	-
	4/25/2017	-	8.38	-		843.09	-	-	-	-
	4/20/2017	9.70	9.71	0.01		841.76	841.77	-	-	-
	4/16/2017	9.71	9.72	0.01		841.75	841.76	-	-	-
	4/13/2017	-	9.71	-		841.76	-	-	-	-
	4/10/2017	9.67	9.68	0.01		841.79	841.80	-	-	-
	4/6/2017	-	8.48	-		842.99	-	4/7/2017	13:43	13:49
	4/3/2017	9.69	9.70	0.01		841.77	841.78	-	-	-
	3/31/2017	9.57	9.58	0.01		841.89	841.90	-	-	-
	3/27/2017	9.64	9.99	0.35		841.48	841.74	-	-	-
	3/24/2017	9.68	9.70	0.02		841.77	841.78	-	-	-
	3/20/2017	9.75	10.25	0.50		841.22	841.59	-	-	-
	3/16/2017	9.74	9.75	0.01		841.72	841.73	-	-	-
	3/13/2017	9.70	9.77	0.07		841.67	841.72	-	-	-
	3/6/2017	-	9.75	-		841.69	-	-	-	-
	3/2/2017	-	9.77	-		841.67	-	-	-	-
	2/27/2017	9.74	9.75	0.01		841.69	841.70	-	-	-
	2/23/2017	9.72	9.73	0.01		841.71	841.72	-	-	-
	2/20/2017	9.72	9.73	0.01		841.71	841.72	-	-	-
	2/17/2017	9.72	9.73	0.01		841.71	841.72	-	-	-
	2/9/2017	9.06	9.07	0.01		842.37	842.38	-	-	-
	2/6/2017	9.78	9.79	0.01		841.65	841.66	-	-	-
	2/2/2017	9.79	9.80	0.01		841.64	841.65	-	-	-
	1/30/2017	9.73	9.74	0.01		841.70	841.71	-	-	-
	1/26/2017	9.72	9.73	0.01		841.71	841.72	-	-	-
	1/23/2017	8.51	8.52	0.01		842.92	842.93	-	-	-
	1/19/2017	9.78	9.79	0.01		841.65	841.66	1/19/2017	15:07	15:17
	1/16/2017	9.73	9.74	0.01		841.70	841.71	-	-	-
	1/12/2017	-	9.66	-		841.78	-	1/12/2017	13:30	14:00
	1/5/2017	9.75	9.77	0.02		841.67	841.69	-	-	-
RS-05					848.31					
	6/29/2017	10.02	10.42	0.40		837.89	838.18	6/29/2017	12:32	12:39

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-05 (cont'd)	6/22/2017	10.67	11.07	0.40		837.24	837.53	6/24/2017	11:51	11:59
	6/19/2017	10.58	10.99	0.41		837.32	837.62	-	-	-
	6/15/2017	10.82	11.20	0.38		837.11	837.39	-	-	-
	6/12/2017	10.94	11.22	0.28		837.09	837.29	-	-	-
	6/9/2017	10.51	10.95	0.44		837.36	837.68	6/11/2017	11:30	11:43
	6/5/2017	10.30	10.62	0.32		837.69	837.92	-	-	-
	6/2/2017	10.73	11.06	0.33		837.25	837.49	-	-	-
	5/31/2017	11.65	12.14	0.49		836.17	836.53	5/31/2017	14:31	14:39
	5/24/2017	10.41	10.75	0.34		837.56	837.81	-	-	-
	5/22/2017	11.80	12.18	0.38		836.13	836.41	-	-	-
	5/18/2017	11.33	11.61	0.28		836.70	836.90	-	-	-
	5/15/2017	11.66	12.12	0.46		836.19	836.53	5/16/2017	13:07	13:17
	5/11/2017	11.37	11.67	0.30		836.64	836.86	-	-	-
	5/7/2017	14.13	15.83	1.70		832.48	833.72	5/9/2017	9:21	9:37
	5/4/2017	14.22	15.80	1.58		832.51	833.66	-	-	-
	4/27/2017	15.01	16.34	1.33		831.97	832.94	-	-	-
	4/25/2017	15.38	16.63	1.25		831.68	832.59	-	-	-
	4/20/2017	15.90	16.85	0.95		831.46	832.15	-	-	-
	4/16/2017	16.17	16.80	0.63		831.51	831.97	-	-	-
	4/13/2017	16.57	16.95	0.38		831.36	831.64	-	-	-
	4/10/2017	16.42	17.00	0.58		831.31	831.73	4/11/2017	12:10	12:21
	4/6/2017	16.72	17.73	1.01		830.58	831.32	4/7/2017	13:09	13:32
	4/3/2017	16.99	17.75	0.76		830.56	831.11	-	-	-
	3/31/2017	16.85	18.06	1.21		830.25	831.13	3/31/2017	12:30	12:38
	3/27/2017	16.92	17.87	0.95		830.44	831.13	-	-	-
	3/24/2017	17.06	17.80	0.74		830.51	831.05	-	-	-
	3/20/2017	17.14	17.81	0.67		830.50	830.99	3/20/2017	12:01	12:12
	3/16/2017	17.50	17.83	0.33		830.48	830.72	-	-	-
	3/13/2017	17.25	18.15	0.90		830.40	831.05	3/15/2017	11:01	11:12
	3/6/2017	17.55	18.05	0.50		830.50	830.86	3/6/2017	11:10	11:30
	3/2/2017	17.38	18.01	0.63		830.54	831.00	3/3/2017	9:51	10:01
	2/27/2017	17.50	18.05	0.55		830.50	830.90	2/27/2017	12:35	12:45
	2/23/2017	17.44	18.03	0.59		830.52	830.95	2/24/2017	9:33	9:42
	2/20/2017	17.30	18.07	0.77		830.48	831.04	2/21/2017	9:03	9:15
	2/17/2017	17.27	18.07	0.80		830.48	831.06	2/17/2017	12:25	12:34
	2/9/2017	17.48	18.23	0.75		830.32	830.86	2/9/2017	13:20	13:32
	2/6/2017	17.45	18.17	0.72		830.38	830.90	2/6/2017	10:20	10:31
	2/2/2017	17.68	18.40	0.72		830.15	830.67	2/2/2017	13:15	13:30
	1/30/2017	17.70	18.60	0.90		829.95	830.60	1/30/2017	11:07	11:15
	1/26/2017	18.00	18.59	0.59		829.96	830.39	-	-	-
	1/23/2017	18.06	18.78	0.72		829.77	830.29	1/23/2017	13:15	13:25
	1/19/2017	17.97	19.55	1.58		829.00	830.15	1/19/2017	15:19	15:29
	1/16/2017	18.07	19.40	1.33		829.15	830.12	1/16/2017	13:16	13:21
	1/12/2017	17.40	20.71	3.31		827.84	830.25	1/12/2017	8:22	8:52
	1/5/2017	17.75	20.67	2.92		827.88	830.01	-	-	-
RS-06					849.47			-	-	-
	6/29/2017	10.59	10.65	0.06		838.82	838.86	-	-	-
	6/22/2017	11.26	11.45	0.19		838.02	838.16	-	-	-
	6/19/2017	11.18	11.41	0.23		838.06	838.23	-	-	-
	6/15/2017	11.27	11.51	0.24		837.96	838.14	-	-	-
	6/12/2017	11.20	11.39	0.19		838.08	838.22	-	-	-
	6/9/2017	11.16	11.38	0.22		838.09	838.25	-	-	-
	6/5/2017	11.17	11.35	0.18		838.12	838.25	-	-	-
	6/2/2017	10.95	11.03	0.08		838.44	838.50	-	-	-
	5/31/2017	12.05	12.31	0.26		837.16	837.35	-	-	-
	5/24/2017	11.78	11.94	0.16		837.53	837.65	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-06 (cont'd)	5/22/2017	12.50	12.71	0.21		836.76	836.91	-	-	-
	5/18/2017	12.58	12.77	0.19		836.70	836.84	-	-	-
	5/15/2017	12.70	15.10	2.40		834.37	836.12	5/16/2017	13:20	13:29
	5/11/2017	12.34	12.49	0.15		836.98	837.09	-	-	-
	5/7/2017	14.88	15.38	0.50		834.09	834.46	5/9/2017	9:41	9:55
	5/4/2017	-	15.35	-		834.12	-	-	-	-
	4/27/2017	15.85	16.20	0.35		833.27	833.53	-	-	-
	4/25/2017	16.20	16.53	0.33		832.94	833.18	-	-	-
	4/20/2017	16.55	16.82	0.27		832.65	832.85	-	-	-
	4/16/2017	16.72	16.95	0.23		832.52	832.69	-	-	-
	4/13/2017	17.12	17.32	0.20		832.15	832.30	-	-	-
	4/10/2017	16.86	17.37	0.51		832.10	832.47	4/11/2017	12:24	12:32
	4/6/2017	17.27	17.74	0.47		831.73	832.07	-	-	-
	4/3/2017	17.47	17.89	0.42		831.58	831.89	-	-	-
	3/31/2017	17.41	17.92	0.51		831.55	831.92	3/31/2017	12:40	12:49
	3/27/2017	17.45	17.93	0.48		831.54	831.89	-	-	-
	3/24/2017	17.54	17.97	0.43		831.50	831.81	-	-	-
	3/20/2017	17.60	18.11	0.51		831.36	831.73	3/20/2017	12:37	12:45
	3/16/2017	17.60	18.35	0.75		831.12	831.67	3/17/2017	8:33	8:41
	3/13/2017	18.76	19.32	0.56		831.41	831.81	-	-	-
	3/6/2017	18.95	19.30	0.35		831.43	831.68	-	-	-
	3/2/2017	18.82	19.33	0.51		831.40	831.77	3/3/2017	10:15	10:25
	2/27/2017	18.80	19.42	0.62		831.31	831.76	2/27/2017	13:05	13:15
	2/23/2017	18.83	19.30	0.47		831.43	831.77	-	-	-
	2/20/2017	18.80	19.31	0.51		831.42	831.79	2/21/2017	9:30	9:37
	2/17/2017	18.78	19.32	0.54		831.41	831.80	2/17/2017	12:55	13:05
	2/9/2017	18.97	19.52	0.55		831.21	831.61	2/9/2017	13:35	13:41
	2/6/2017	18.95	19.51	0.56		831.22	831.62	2/6/2017	9:41	9:50
	2/2/2017	19.13	19.59	0.46		831.14	831.47	-	-	-
	1/30/2017	19.20	19.70	0.50		831.03	831.39	1/30/2017	11:32	11:48
	1/26/2017	19.42	19.95	0.53		830.78	831.16	1/26/2017	10:15	10:25
1/23/2017	19.45	20.08	0.63		830.65	831.11	1/23/2017	13:55	14:05	
1/19/2017	19.53	20.35	0.82		830.38	830.97	1/19/2017	15:31	15:41	
1/16/2017	19.56	20.27	0.71		830.46	830.97	-	-	-	
1/12/2017	19.15	20.91	1.76		829.82	831.10	1/12/2017	8:56	9:26	
1/5/2017	19.35	21.00	1.65		829.73	830.93	-	-	-	
RS-07					855.08					
	6/29/2017	-	12.55	-		842.53	-	-	-	-
	6/22/2017	-	12.62	-		842.46	-	-	-	-
	6/19/2017	12.73	12.76	0.03		842.32	842.34	-	-	-
	6/15/2017	12.70	12.71	0.01		842.37	842.38	-	-	-
	6/12/2017	12.71	12.75	0.04		842.33	842.36	-	-	-
	6/9/2017	12.75	12.76	0.01		842.32	842.33	-	-	-
	6/5/2017	-	12.81	-		842.27	-	-	-	-
	6/2/2017	-	12.91	-		842.17	-	-	-	-
	5/31/2017	-	13.00	-		842.08	-	-	-	-
	5/24/2017	-	13.16	-		841.92	-	-	-	-
	5/22/2017	13.31	13.32	0.01		841.76	841.77	-	-	-
	5/18/2017	13.52	13.56	0.04		841.52	841.55	-	-	-
	5/15/2017	13.50	13.56	0.06		841.52	841.57	-	-	-
	5/11/2017	-	13.49	-		841.59	-	-	-	-
	5/7/2017	13.61	13.62	0.01		841.46	841.47	-	-	-
	5/4/2017	13.76	13.78	0.02		841.30	841.32	-	-	-
	4/27/2017	-	14.01	-		841.07	-	-	-	-
	4/25/2017	14.01	14.02	0.01		841.06	841.07	-	-	-
	4/20/2017	14.45	14.50	0.05		840.58	840.62	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-07 (cont'd)	4/16/2017	14.62	14.64	0.02		840.44	840.46	-	-	-
	4/13/2017	14.64	14.66	0.02		840.42	840.44	-	-	-
	4/10/2017	14.66	14.68	0.02		840.40	840.42	4/11/2017	9:36	9:42
	4/6/2017	14.42	14.44	0.02		840.64	840.66	4/7/2017	14:10	14:11
	4/3/2017	14.95	14.97	0.02		840.11	840.13	-	-	-
	3/31/2017	14.78	14.84	0.06		840.24	840.29	-	-	-
	3/27/2017	14.99	15.06	0.07		840.02	840.07	-	-	-
	3/24/2017	15.03	15.08	0.05		840.00	840.04	-	-	-
	3/20/2017	15.17	15.18	0.01		839.90	839.91	-	-	-
	3/16/2017	15.12	15.14	0.02		839.94	839.96	-	-	-
	3/13/2017	16.12	16.14	0.02		839.90	839.92	-	-	-
	3/6/2017	16.21	16.22	0.01		839.82	839.83	-	-	-
	3/2/2017	16.21	16.23	0.02		839.81	839.83	-	-	-
	2/27/2017	16.26	16.29	0.03		839.75	839.78	-	-	-
	2/23/2017	16.32	16.35	0.03		839.69	839.72	-	-	-
	2/20/2017	16.32	16.33	0.01		839.71	839.72	-	-	-
	2/17/2017	16.32	16.33	0.01		839.71	839.72	-	-	-
	2/9/2017	16.09	16.10	0.01		839.94	839.95	-	-	-
	2/6/2017	16.36	16.37	0.01		839.67	839.68	-	-	-
	2/2/2017	16.36	16.37	0.01		839.67	839.68	-	-	-
	1/30/2017	16.32	16.33	0.01		839.71	839.72	-	-	-
	1/26/2017	16.37	16.38	0.01		839.66	839.67	-	-	-
	1/23/2017	16.36	16.37	0.01		839.67	839.68	-	-	-
1/19/2017	16.41	16.42	0.01		839.62	839.63	-	-	-	
1/16/2017	16.40	16.41	0.01		839.63	839.64	-	-	-	
1/12/2017	-	16.33	-		839.71	-	-	-	-	
1/5/2017	16.35	16.36	0.01		839.68	839.69	-	-	-	
RS-08					854.00					
	6/29/2017	12.81	12.99	0.18		841.01	841.14	-	-	-
	6/22/2017	12.95	13.15	0.20		840.85	841.00	-	-	-
	6/19/2017	13.10	13.35	0.25		840.65	840.83	-	-	-
	6/15/2017	13.07	13.25	0.18		840.75	840.88	-	-	-
	6/12/2017	13.10	13.28	0.18		840.72	840.85	-	-	-
	6/9/2017	13.03	13.25	0.22		840.75	840.91	-	-	-
	6/5/2017	13.18	13.34	0.16		840.66	840.78	-	-	-
	6/2/2017	13.16	13.37	0.21		840.63	840.78	-	-	-
	5/31/2017	13.29	13.57	0.28		840.43	840.63	-	-	-
	5/24/2017	13.59	13.78	0.19		840.22	840.36	-	-	-
	5/22/2017	13.89	14.10	0.21		839.90	840.05	-	-	-
	5/18/2017	13.99	14.19	0.20		839.81	839.96	-	-	-
	5/15/2017	13.90	14.19	0.29		839.81	840.02	5/16/2017	12:42	12:51
	5/11/2017	13.96	14.20	0.24		839.80	839.98	-	-	-
	5/7/2017	14.01	14.20	0.19		839.80	839.94	-	-	-
	5/4/2017	13.97	14.24	0.27		839.76	839.96	-	-	-
	4/27/2017	14.37	14.87	0.50		839.13	839.50	4/28/2017	12:34	12:45
	4/25/2017	14.61	14.62	0.01		839.38	839.39	-	-	-
	4/20/2017	14.85	15.33	0.48		838.67	839.02	-	-	-
	4/16/2017	14.90	15.33	0.43		838.67	838.98	-	-	-
	4/13/2017	15.03	15.45	0.42		838.55	838.86	-	-	-
	4/10/2017	15.10	15.51	0.41		838.49	838.79	-	-	-
	4/6/2017	15.33	16.20	0.87		837.80	838.44	4/7/2017	10:21	10:34
	4/3/2017	15.46	16.27	0.81		837.73	838.32	-	-	-
	3/31/2017	15.53	16.33	0.80		837.67	838.25	-	-	-
	3/27/2017	15.62	16.32	0.70		837.68	838.19	-	-	-
	3/24/2017	15.65	16.30	0.65		837.70	838.17	-	-	-
	3/20/2017	15.80	16.25	0.45		837.75	838.08	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-08 (cont'd)	3/16/2017	16.05	16.25	0.20		837.75	837.90	3/17/2017	7:48	7:55
	3/13/2017	16.83	17.30	0.47		837.61	837.95	3/15/2017	8:02	8:12
	3/6/2017	16.91	17.43	0.52		837.48	837.86	3/6/2017	12:02	12:25
	3/2/2017	16.93	17.57	0.64		837.34	837.80	3/3/2017	8:42	8:56
	2/27/2017	16.95	17.62	0.67		837.29	837.78	2/27/2017	13:51	14:00
	2/23/2017	16.95	17.65	0.70		837.26	837.77	2/24/2017	11:30	11:41
	2/20/2017	16.96	17.74	0.78		837.17	837.74	2/21/2017	13:49	14:00
	2/17/2017	16.94	17.95	1.01		836.96	837.69	2/17/2017	11:12	11:20
	2/9/2017	17.17	18.30	1.13		836.61	837.43	2/9/2017	11:25	12:00
	2/6/2017	17.11	18.45	1.34		836.46	837.43	2/6/2017	11:32	11:41
	2/2/2017	17.14	18.51	1.37		836.40	837.40	2/2/2017	9:40	9:55
	1/30/2017	17.15	18.76	1.61		836.15	837.32	1/30/2017	9:15	9:35
	1/26/2017	17.33	18.94	1.61		835.97	837.14	-	-	-
	1/23/2017	17.40	19.19	1.79		835.72	837.02	1/23/2017	12:10	12:20
	1/19/2017	17.58	19.45	1.87		835.46	836.82	1/19/2017	12:05	12:15
	1/16/2017	17.45	NO WATER	2.77		-	-	1/16/2017	12:20	12:29
	1/12/2017	17.40	NO WATER	2.82		-	-	-	-	-
1/5/2017	17.68	NO WATER	2.54		-	-	-	-	-	
RS-09					847.60					
	6/29/2017	9.07	9.39	0.32		838.21	838.44	-	-	-
	6/22/2017	9.67	9.89	0.22		837.71	837.87	-	-	-
	6/19/2017	10.04	10.22	0.18		837.38	837.51	-	-	-
	6/15/2017	10.08	10.32	0.24		837.28	837.46	-	-	-
	6/12/2017	9.81	10.51	0.70		837.09	837.60	6/13/2017	15:38	15:46
	6/9/2017	9.38	9.90	0.52		837.70	838.08	-	-	-
	6/5/2017	9.30	9.48	0.18		838.12	838.25	-	-	-
	6/2/2017	11.12	11.33	0.21		836.27	836.42	-	-	-
	5/31/2017	9.38	9.67	0.29		837.93	838.14	-	-	-
	5/24/2017	9.15	9.30	0.15		838.30	838.41	-	-	-
	5/22/2017	9.90	10.15	0.25		837.45	837.63	-	-	-
	5/18/2017	9.98	10.18	0.20		837.42	837.57	-	-	-
	5/15/2017	10.12	10.34	0.22		837.26	837.42	-	-	-
	5/11/2017	10.86	11.10	0.24		836.50	836.68	-	-	-
	5/7/2017	14.36	14.82	0.46		832.78	833.12	-	-	-
	5/4/2017	14.48	14.86	0.38		832.74	833.02	-	-	-
	4/27/2017	14.49	14.90	0.41		832.70	833.00	-	-	-
	4/25/2017	13.80	14.15	0.35		833.45	833.71	-	-	-
	4/20/2017	15.98	16.36	0.38		831.24	831.52	-	-	-
	4/16/2017	16.14	16.48	0.34		831.12	831.37	-	-	-
	4/13/2017	16.18	16.69	0.51		830.91	831.28	4/13/2017	9:27	9:34
	4/10/2017	16.08	16.82	0.74		830.78	831.32	4/11/2017	13:15	13:19
	4/6/2017	15.61	16.22	0.61		831.38	831.83	4/7/2017	14:01	14:09
	4/3/2017	16.90	17.15	0.25		830.45	830.63	-	-	-
	3/31/2017	16.93	17.18	0.25		830.42	830.60	-	-	-
	3/27/2017	16.93	17.15	0.22		830.45	830.61	-	-	-
	3/24/2017	16.92	17.15	0.23		830.45	830.62	-	-	-
	3/20/2017	16.97	17.20	0.23		830.40	830.57	-	-	-
	3/16/2017	16.98	17.21	0.23		830.39	830.56	-	-	-
	3/13/2017	18.47	18.72	0.25		830.40	830.58	-	-	-
	3/6/2017	18.47	18.69	0.22		830.43	830.59	-	-	-
	3/2/2017	18.45	NO WATER	0.40		-	-	-	-	-
	2/27/2017	18.48	NO WATER	0.37		-	-	-	-	-
	2/23/2017	18.40	NO WATER	0.45		-	-	-	-	-
	2/20/2017	18.41	18.75	0.34		830.37	830.62	-	-	-
	2/17/2017	18.40	NO WATER	0.45		-	-	-	-	-
	2/9/2017	18.38	NO WATER	0.47		-	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-09 (cont'd)	2/6/2017	18.45	NO WATER	0.40		-	-	-	-	-
	2/2/2017	18.49	NO WATER	0.36		-	-	-	-	-
	1/30/2017	18.48	NO WATER	0.37		-	-	-	-	-
	1/26/2017	18.50	NO WATER	0.35		-	-	-	-	-
	1/23/2017	18.01	18.51	0.50		830.61	830.97	1/23/2017	13:45	13:50
	1/19/2017	18.50	18.51	0.01		830.61	830.62	-	-	-
	1/16/2017	18.50	18.51	0.01		830.61	830.62	1/16/2017	13:42	13:49
	1/12/2017	-	18.37	-		830.75	-	-	-	-
	1/5/2017	18.49	18.50	0.01		830.62	830.63	-	-	-
RS-10					847.42					
	6/29/2017	8.60	8.87	0.27		838.55	838.75	-	-	-
	6/22/2017	9.22	9.48	0.26		837.94	838.13	-	-	-
	6/19/2017	9.30	9.57	0.27		837.85	838.05	-	-	-
	6/15/2017	9.60	9.97	0.37		837.45	837.72	6/16/2017	13:22	13:29
	6/12/2017	9.41	9.73	0.32		837.69	837.92	-	-	-
	6/9/2017	9.05	9.40	0.35		838.02	838.28	-	-	-
	6/5/2017	9.73	10.06	0.33		837.36	837.60	-	-	-
	6/2/2017	8.91	9.22	0.31		838.20	838.43	-	-	-
	5/31/2017	11.25	11.73	0.48		835.69	836.04	5/31/2017	14:09	14:17
	5/24/2017	8.02	8.03	0.01		839.39	839.40	-	-	-
	5/22/2017	9.41	9.42	0.01		838.00	838.01	-	-	-
	5/18/2017	9.46	9.92	0.46		837.50	837.84	-	-	-
	5/15/2017	9.97	10.41	0.44		837.01	837.33	-	-	-
	5/11/2017	9.19	9.62	0.43		837.80	838.11	-	-	-
	5/7/2017	13.46	13.91	0.45		833.51	833.84	-	-	-
	5/4/2017	13.57	13.90	0.33		833.52	833.76	-	-	-
	4/27/2017	14.00	14.28	0.28		833.14	833.34	-	-	-
	4/25/2017	13.97	14.31	0.34		833.11	833.36	-	-	-
	4/20/2017	15.02	15.25	0.23		832.17	832.34	-	-	-
	4/16/2017	15.05	15.54	0.49		831.88	832.24	4/17/2017	10:01	10:16
	4/13/2017	15.14	15.56	0.42		831.86	832.17	-	-	-
	4/10/2017	15.15	15.60	0.45		831.82	832.15	-	-	-
	4/6/2017	14.94	15.36	0.42		832.06	832.37	-	-	-
	4/3/2017	15.88	16.20	0.32		831.22	831.45	-	-	-
	3/31/2017	15.65	16.30	0.65		831.12	831.59	3/31/2017	11:31	11:40
	3/27/2017	15.90	16.46	0.56		830.96	831.37	-	-	-
	3/24/2017	15.97	16.40	0.43		831.02	831.33	-	-	-
	3/20/2017	16.00	16.65	0.65		830.77	831.24	3/20/2017	11:35	11:44
	3/16/2017	16.14	16.64	0.50		830.78	831.15	-	-	-
	3/13/2017	16.05	16.41	0.36		831.11	831.38	-	-	-
	3/6/2017	16.18	16.53	0.35		830.99	831.25	-	-	-
	3/2/2017	15.99	16.55	0.56		830.97	831.38	3/3/2017	9:21	9:29
	2/27/2017	16.10	16.53	0.43		830.99	831.31	-	-	-
	2/23/2017	15.92	16.50	0.58		831.02	831.45	2/24/2017	9:21	9:31
	2/20/2017	16.05	16.44	0.39		831.08	831.37	-	-	-
	2/17/2017	15.85	16.64	0.79		830.88	831.46	-	-	-
	2/9/2017	15.80	16.25	0.45		831.27	831.60	-	-	-
	2/6/2017	16.11	16.70	0.59		830.82	831.25	2/6/2017	11:07	11:18
	2/2/2017	16.25	16.60	0.35		830.92	831.18	-	-	-
	1/30/2017	16.25	16.80	0.55		830.72	831.13	1/30/2017	11:17	11:30
	1/26/2017	16.48	16.83	0.35		830.69	830.95	-	-	-
	1/23/2017	16.13	16.54	0.41		830.98	831.28	1/23/2017	14:47	14:56
	1/19/2017	16.80	17.35	0.55		830.17	830.58	-	-	-
	1/16/2017	16.84	17.20	0.36		830.32	830.59	1/16/2017	14:00	14:10
	1/12/2017	16.12	18.61	2.49		828.91	830.73	1/12/2017	9:30	10:00
	1/5/2017	16.40	18.70	2.30		828.82	830.50	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RS-11					847.44					
	6/29/2017	-	8.45	-		838.99	-	-	-	-
	6/22/2017	-	9.01	-		838.43	-	-	-	-
	6/19/2017	-	9.07	-		838.37	-	-	-	-
	6/15/2017	-	9.47	-		837.97	-	-	-	-
	6/12/2017	-	9.36	-		838.08	-	-	-	-
	6/9/2017	-	9.19	-		838.25	-	-	-	-
	6/5/2017	-	8.86	-		838.58	-	-	-	-
	6/2/2017	-	8.49	-		838.95	-	-	-	-
	5/31/2017	12.72	12.73	0.01		834.71	834.72	-	-	-
	5/24/2017	8.31	8.33	0.02		839.11	839.12	-	-	-
	5/22/2017	9.60	9.63	0.03		837.81	837.83	-	-	-
	5/18/2017	9.76	9.79	0.03		837.65	837.67	-	-	-
	5/15/2017	10.27	10.33	0.06		837.11	837.15	-	-	-
	5/11/2017	8.93	9.97	1.04		837.47	838.23	5/14/2017	11:31	11:42
	5/7/2017	13.20	13.63	0.43		833.81	834.12	-	-	-
	5/4/2017	13.30	13.67	0.37		833.77	834.04	-	-	-
	4/27/2017	13.89	14.20	0.31		833.24	833.47	-	-	-
	4/25/2017	14.16	14.67	0.51		832.77	833.14	-	-	-
	4/20/2017	14.53	15.01	0.48		832.43	832.78	-	-	-
	4/16/2017	14.63	15.10	0.47		832.34	832.68	-	-	-
	4/13/2017	14.73	15.18	0.45		832.26	832.59	-	-	-
	4/10/2017	14.78	15.24	0.46		832.20	832.54	-	-	-
	4/6/2017	15.19	15.61	0.42		831.83	832.14	-	-	-
	4/3/2017	15.35	15.74	0.39		831.70	831.98	-	-	-
	3/31/2017	15.36	15.77	0.41		831.67	831.97	-	-	-
	3/27/2017	15.40	15.90	0.50		831.54	831.91	-	-	-
	3/24/2017	15.46	15.86	0.40		831.58	831.87	-	-	-
	3/20/2017	15.58	15.94	0.36		831.50	831.76	-	-	-
	3/16/2017	15.62	16.09	0.47		831.35	831.69	-	-	-
	3/13/2017	16.47	16.92	0.45		831.49	831.82	-	-	-
	3/6/2017	16.54	16.94	0.40		831.47	831.76	-	-	-
	3/2/2017	16.43	16.82	0.39		831.59	831.88	-	-	-
	2/27/2017	16.50	16.90	0.40		831.51	831.80	-	-	-
	2/23/2017	16.50	16.85	0.35		831.56	831.82	-	-	-
	2/20/2017	16.43	16.94	0.51		831.47	831.84	2/21/2017	8:15	8:29
	2/17/2017	16.46	16.92	0.46		831.49	831.83	-	-	-
	2/9/2017	16.70	17.13	0.43		831.28	831.60	-	-	-
	2/6/2017	16.65	17.10	0.45		831.31	831.64	2/6/2017	10:55	11:05
	2/2/2017	16.73	17.75	1.02		830.66	831.41	-	-	-
	1/30/2017	16.80	17.20	0.40		831.21	831.50	-	-	-
	1/26/2017	17.04	17.38	0.34		831.03	831.28	-	-	-
	1/23/2017	17.15	17.54	0.39		830.87	831.16	1/23/2017	14:33	14:37
	1/19/2017	17.27	17.70	0.43		830.71	831.03	-	-	-
	1/16/2017	17.28	17.65	0.37		830.76	831.03	1/16/2017	14:20	14:30
	1/12/2017	17.00	17.26	0.26		831.15	831.34	1/12/2017	11:02	11:32
	1/5/2017	17.22	18.03	0.81		830.38	830.97	-	-	-
RS-12					847.74					
	6/29/2017	8.77	8.80	0.03		838.94	838.96	-	-	-
	6/22/2017	9.33	9.34	0.01		838.40	838.41	-	-	-
	6/19/2017	9.38	9.40	0.02		838.34	838.35	-	-	-
	6/15/2017	9.77	9.81	0.04		837.93	837.96	-	-	-
	6/12/2017	9.68	9.72	0.04		838.02	838.05	-	-	-
	6/9/2017	9.51	9.53	0.02		838.21	838.22	-	-	-
	6/5/2017	9.18	9.21	0.03		838.53	838.55	-	-	-
	6/2/2017	8.78	8.81	0.03		838.93	838.95	-	-	-



**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-12 (cont'd)	5/31/2017	13.03	13.10	0.07		834.64	834.69	-	-	-
	5/24/2017	8.62	8.73	0.11		839.01	839.09	-	-	-
	5/22/2017	9.91	9.95	0.04		837.79	837.82	-	-	-
	5/18/2017	10.02	10.31	0.29		837.43	837.64	-	-	-
	5/15/2017	10.62	10.69	0.07		837.05	837.10	-	-	-
	5/11/2017	9.16	9.93	<b>0.77</b>		837.81	838.37	5/14/2017	11:45	11:54
	5/7/2017	13.49	13.93	0.44		833.81	834.13	-	-	-
	5/4/2017	13.57	13.92	0.35		833.82	834.08	-	-	-
	4/27/2017	14.18	14.49	0.31		833.25	833.48	-	-	-
	4/25/2017	14.44	14.94	0.50		832.80	833.17	-	-	-
	4/20/2017	14.81	15.30	0.49		832.44	832.80	-	-	-
	4/16/2017	14.92	15.39	0.47		832.35	832.69	-	-	-
	4/13/2017	15.02	15.45	0.43		832.29	832.60	-	-	-
	4/10/2017	15.06	15.62	<b>0.56</b>		832.12	832.53	-	-	-
	4/6/2017	15.46	15.88	0.42		831.86	832.17	-	-	-
	4/3/2017	15.62	16.00	0.38		831.74	832.02	-	-	-
	3/31/2017	15.65	16.05	0.40		831.69	831.98	-	-	-
	3/27/2017	15.68	16.07	0.39		831.67	831.95	-	-	-
	3/24/2017	15.75	16.15	0.40		831.59	831.88	-	-	-
	3/20/2017	15.86	16.20	0.34		831.54	831.79	-	-	-
	3/16/2017	15.90	16.38	0.48		831.36	831.71	3/17/2017	9:07	9:17
	3/13/2017	16.92	17.40	0.48		831.47	831.82	-	-	-
	3/6/2017	16.98	17.40	0.42		831.47	831.78	-	-	-
	3/2/2017	16.90	17.30	0.40		831.57	831.86	-	-	-
	2/27/2017	16.96	17.36	0.40		831.51	831.80	-	-	-
	2/23/2017	16.98	17.30	0.32		831.57	831.80	-	-	-
	2/20/2017	16.90	17.41	<b>0.51</b>		831.46	831.83	2/21/2017	8:31	8:35
	2/17/2017	16.90	17.36	0.46		831.51	831.85	-	-	-
	2/9/2017	17.15	17.58	0.43		831.29	831.60	-	-	-
	2/6/2017	17.10	17.55	0.45		831.32	831.65	-	-	-
2/2/2017	17.15	17.60	0.45		831.27	831.60	-	-	-	
1/30/2017	17.27	17.64	0.37		831.23	831.50	-	-	-	
1/26/2017	17.46	17.82	0.36		831.05	831.31	-	-	-	
1/23/2017	17.60	17.97	0.37		830.90	831.17	-	-	-	
1/19/2017	17.73	18.20	0.47		830.67	831.01	-	-	-	
1/16/2017	17.74	18.10	0.36		830.77	831.03	-	-	-	
1/12/2017	17.45	18.20	<b>0.75</b>		830.67	831.22	-	-	-	
1/5/2017	17.70	18.50	<b>0.80</b>		830.37	830.95	-	-	-	
RS-13					846.61					
	6/29/2017	-	6.08	-		840.53	-	-	-	-
	6/22/2017	-	5.55	-		841.06	-	-	-	-
	6/19/2017	-	8.10	-		838.51	-	-	-	-
	6/15/2017	-	7.84	-		838.77	-	-	-	-
	6/12/2017	-	6.75	-		839.86	-	-	-	-
	6/9/2017	-	5.13	-		841.48	-	-	-	-
	6/5/2017	-	6.78	-		839.83	-	-	-	-
	6/2/2017	-	7.90	-		838.71	-	-	-	-
	5/31/2017	-	5.75	-		840.86	-	-	-	-
	5/24/2017	-	2.75	-		843.86	-	-	-	-
	5/22/2017	-	3.85	-		842.76	-	-	-	-
	5/18/2017	-	5.45	-		841.16	-	-	-	-
	5/15/2017	-	5.67	-		840.94	-	-	-	-
	5/11/2017	-	7.01	-		839.60	-	-	-	-
	5/7/2017	-	13.53	-		833.08	-	-	-	-
	5/4/2017	-	13.35	-		833.26	-	-	-	-
	4/27/2017	-	10.73	-		835.88	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RS-13 (cont'd)	4/25/2017	-	7.78	-		838.83	-	-	-	-
	4/20/2017	15.20	15.23	0.03		831.38	831.40	-	-	-
	4/16/2017	15.04	15.06	0.02		831.55	831.56	-	-	-
	4/13/2017	14.82	14.83	0.01		831.78	831.79	-	-	-
	4/10/2017	14.59	14.60	0.01		832.01	832.02	-	-	-
	4/6/2017	-	14.26	-		832.35	-	-	-	-
	4/3/2017	16.44	16.46	0.02		830.15	830.16	-	-	-
	3/31/2017	16.65	16.71	0.06		829.90	829.94	-	-	-
	3/27/2017	16.59	16.69	0.10		829.92	829.99	-	-	-
	3/24/2017	16.56	16.66	0.10		829.95	830.02	-	-	-
	3/20/2017	16.51	16.60	0.09		830.01	830.08	-	-	-
	3/16/2017	16.43	16.47	0.04		830.14	830.17	-	-	-
	3/13/2017	18.23	18.31	0.08		829.97	830.03	-	-	-
	3/6/2017	18.30	18.42	0.12		829.86	829.95	-	-	-
	3/2/2017	18.14	18.25	0.11		830.03	830.11	-	-	-
	2/27/2017	18.10	18.23	0.13		830.05	830.15	-	-	-
	2/23/2017	17.91	18.04	0.13		830.24	830.34	-	-	-
	2/20/2017	17.85	18.00	0.15		830.28	830.39	-	-	-
	2/17/2017	17.76	17.87	0.11		830.41	830.49	-	-	-
	2/9/2017	17.86	17.96	0.10		830.32	830.39	-	-	-
	2/6/2017	17.45	17.55	0.10		830.73	830.80	-	-	-
	2/2/2017	18.11	18.31	0.20		829.97	830.12	-	-	-
	1/30/2017	17.97	18.10	0.13		830.18	830.28	-	-	-
	1/26/2017	17.77	17.87	0.10		830.41	830.48	-	-	-
	1/23/2017	17.74	17.80	0.06		830.48	830.53	1/23/2017	14:39	14:44
	1/19/2017	19.05	19.20	0.15		829.08	829.19	-	-	-
	1/16/2017	18.90	19.08	0.18		829.20	829.33	1/16/2017	14:35	14:45
	1/12/2017	18.65	18.77	0.12		829.51	829.60	1/12/2017	12:45	13:15
	1/5/2017	18.70	18.89	0.19		829.39	829.53	-	-	-
RS-14					845.97			-	-	-
	6/29/2017	4.79	4.87	0.08		841.10	841.16	-	-	-
	6/22/2017	4.47	4.53	0.06		841.44	841.48	-	-	-
	6/19/2017	6.20	6.28	0.08		839.69	839.75	-	-	-
	6/15/2017	5.72	5.81	0.09		840.16	840.23	-	-	-
	6/12/2017	5.10	5.20	0.10		840.77	840.84	-	-	-
	6/9/2017	4.32	4.40	0.08		841.57	841.63	-	-	-
	6/5/2017	5.13	5.20	0.07		840.77	840.82	-	-	-
	6/2/2017	5.46	5.52	0.06		840.45	840.49	-	-	-
	5/31/2017	4.55	4.65	0.10		841.32	841.39	-	-	-
	5/24/2017	3.17	3.26	0.09		842.71	842.78	-	-	-
	5/22/2017	3.97	4.04	0.07		841.93	841.98	-	-	-
	5/18/2017	6.08	6.14	0.06		839.83	839.87	-	-	-
	5/15/2017	6.26	6.35	0.09		839.62	839.69	-	-	-
	5/11/2017	8.13	8.21	0.08		837.76	837.82	-	-	-
	5/7/2017	9.60	9.74	0.14		836.23	836.33	-	-	-
	5/4/2017	9.41	9.88	0.47		836.09	836.43	-	-	-
	4/27/2017	6.05	6.19	0.14		839.78	839.88	-	-	-
	4/25/2017	4.45	4.64	0.19		841.33	841.47	-	-	-
	4/20/2017	11.71	11.89	0.18		834.08	834.21	-	-	-
	4/16/2017	11.15	11.35	0.20		834.62	834.77	-	-	-
	4/13/2017	10.43	10.62	0.19		835.35	835.49	-	-	-
	4/10/2017	9.69	9.92	0.23		836.05	836.22	-	-	-
	4/6/2017	6.25	6.47	0.22		839.50	839.66	-	-	-
	4/3/2017	12.70	12.93	0.23		833.04	833.21	-	-	-
	3/31/2017	12.70	12.90	0.20		833.07	833.22	-	-	-
	3/27/2017	13.80	14.12	0.32		831.85	832.08	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-14 (cont'd)	3/24/2017	13.75	14.06	0.31		831.91	832.14	-	-	-
	3/20/2017	13.66	13.92	0.26		832.05	832.24	-	-	-
	3/16/2017	13.63	13.87	0.24		832.10	832.28	-	-	-
	3/13/2017	14.63	14.88	0.25		832.04	832.22	-	-	-
	3/6/2017	14.60	14.85	0.25		832.07	832.25	-	-	-
	3/2/2017	14.30	14.60	0.30		832.32	832.54	-	-	-
	2/27/2017	14.15	14.50	0.35		832.42	832.67	-	-	-
	2/23/2017	13.77	14.08	0.31		832.84	833.07	-	-	-
	2/20/2017	13.45	13.75	0.30		833.17	833.39	-	-	-
	2/17/2017	12.96	13.26	0.30		833.66	833.88	-	-	-
	2/9/2017	10.80	11.03	0.23		835.89	836.06	-	-	-
	2/6/2017	13.94	14.22	0.28		832.70	832.90	-	-	-
	2/2/2017	13.67	13.98	0.31		832.94	833.17	-	-	-
	1/30/2017	13.03	13.32	0.29		833.60	833.81	-	-	-
	1/26/2017	11.20	11.60	0.40		835.32	835.61	-	-	-
	1/23/2017	8.82	9.10	0.28		837.82	838.02	-	-	-
1/19/2017	15.15	15.55	0.40		831.37	831.66	-	-	-	
1/16/2017	14.80	15.21	0.41		831.71	832.01	-	-	-	
1/12/2017	14.08	14.42	0.34		832.50	832.75	1/12/2017	11:34	12:04	
1/5/2017	13.70	14.11	0.41		832.81	833.11	-	-	-	
RS-15					846.41					
	6/29/2017	5.32	5.35	0.03		841.06	841.08	-	-	-
	6/22/2017	6.31	6.33	0.02		840.08	840.09	-	-	-
	6/19/2017	6.38	6.40	0.02		840.01	840.02	-	-	-
	6/15/2017	6.06	6.08	0.02		840.33	840.34	-	-	-
	6/12/2017	5.67	5.70	0.03		840.71	840.73	-	-	-
	6/9/2017	5.09	5.12	0.03		841.29	841.31	-	-	-
	6/5/2017	5.60	5.62	0.02		840.79	840.80	-	-	-
	6/2/2017	5.78	5.80	0.02		840.61	840.62	-	-	-
	5/31/2017	5.08	5.10	0.02		841.31	841.32	-	-	-
	5/24/2017	3.89	3.91	0.02		842.50	842.51	-	-	-
	5/22/2017	4.90	4.94	0.04		841.47	841.50	-	-	-
	5/18/2017	-	7.01	-		839.40	-	-	-	-
	5/15/2017	7.20	7.21	0.01		839.20	839.21	-	-	-
	5/11/2017	8.00	8.01	0.01		838.40	838.41	-	-	-
	5/7/2017	9.07	9.10	0.03		837.31	837.33	-	-	-
	5/4/2017	8.70	8.75	0.05		837.66	837.70	-	-	-
	4/27/2017	6.71	6.80	0.09		839.61	839.68	-	-	-
	4/25/2017	5.30	5.38	0.08		841.03	841.09	-	-	-
	4/20/2017	11.07	11.19	0.12		835.22	835.31	-	-	-
	4/16/2017	10.65	10.75	0.10		835.66	835.73	-	-	-
	4/13/2017	10.18	10.28	0.10		836.13	836.20	-	-	-
	4/10/2017	9.77	9.88	0.11		836.53	836.61	-	-	-
	4/6/2017	7.90	7.96	0.06		838.45	838.49	-	-	-
	4/3/2017	12.79	12.85	0.06		833.56	833.60	-	-	-
	3/31/2017	12.94	13.04	0.10		833.37	833.44	-	-	-
	3/27/2017	13.10	13.28	0.18		833.13	833.26	-	-	-
	3/24/2017	13.10	13.26	0.16		833.15	833.27	-	-	-
	3/20/2017	13.07	13.19	0.12		833.22	833.31	-	-	-
	3/16/2017	13.12	13.30	0.18		833.11	833.24	-	-	-
	3/13/2017	15.67	15.84	0.17		833.13	833.26	-	-	-
	3/6/2017	15.47	15.67	0.20		833.30	833.45	-	-	-
	3/2/2017	15.25	15.44	0.19		833.53	833.67	-	-	-
	2/27/2017	15.20	15.40	0.20		833.57	833.72	-	-	-
	2/23/2017	14.92	15.11	0.19		833.86	834.00	-	-	-
	2/20/2017	14.82	15.02	0.20		833.95	834.10	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-15 (cont'd)	2/17/2017	14.69	14.88	0.19		834.09	834.23	-	-	-
	2/9/2017	14.22	14.35	0.13		834.62	834.72	-	-	-
	2/6/2017	15.16	15.36	0.20		833.61	833.76	-	-	-
	2/2/2017	15.03	15.25	0.22		833.72	833.88	-	-	-
	1/30/2017	14.82	15.03	0.21		833.94	834.10	-	-	-
	1/26/2017	14.37	14.77	0.40		834.20	834.50	-	-	-
	1/23/2017	13.48	13.67	0.19		835.30	835.44	-	-	-
	1/19/2017	16.50	16.73	0.23		832.24	832.41	-	-	-
	1/16/2017	16.43	16.68	0.25		832.29	832.48	-	-	-
	1/12/2017	16.30	16.45	0.15		832.52	832.63	-	-	-
	1/5/2017	16.73	16.95	0.22		832.02	832.18	-	-	-
RS-16					845.44					
	6/29/2017	-	4.00	-		841.44	-	-	-	-
	6/22/2017	-	3.61	-		841.83	-	-	-	-
	6/19/2017	-	5.38	-		840.06	-	-	-	-
	6/15/2017	-	4.87	-		840.57	-	-	-	-
	6/12/2017	-	4.25	-		841.19	-	-	-	-
	6/9/2017	-	3.50	-		841.94	-	-	-	-
	6/5/2017	-	4.24	-		841.20	-	-	-	-
	6/2/2017	-	4.23	-		841.21	-	-	-	-
	5/31/2017	-	3.80	-		841.64	-	-	-	-
	5/24/2017	-	2.27	-		843.17	-	-	-	-
	5/22/2017	-	3.03	-		842.41	-	-	-	-
	5/18/2017	-	4.84	-		840.60	-	-	-	-
	5/15/2017	-	4.98	-		840.46	-	-	-	-
	5/11/2017	-	5.71	-		839.73	-	-	-	-
	5/7/2017	-	9.74	-		835.70	-	-	-	-
	5/4/2017	-	9.67	-		835.77	-	-	-	-
	4/27/2017	-	5.05	-		840.39	-	-	-	-
	4/25/2017	-	3.68	-		841.76	-	-	-	-
	4/20/2017	11.98	11.99	0.01		833.45	833.46	-	-	-
	4/16/2017	11.71	11.72	0.01		833.72	833.73	-	-	-
	4/13/2017	-	11.25	-		834.19	-	-	-	-
	4/10/2017	10.61	10.62	0.01		834.82	834.83	-	-	-
	4/6/2017	-	5.34	-		840.10	-	-	-	-
	4/3/2017	13.07	13.10	0.03		832.34	832.36	-	-	-
	3/31/2017	12.57	12.58	0.01		832.86	832.87	-	-	-
	3/27/2017	13.72	13.81	0.09		831.63	831.70	-	-	-
	3/24/2017	13.71	13.78	0.07		831.66	831.71	-	-	-
	3/20/2017	13.60	13.66	0.06		831.78	831.82	-	-	-
	3/16/2017	13.51	13.60	0.09		831.84	831.91	-	-	-
	3/13/2017	14.96	14.97	0.01		831.80	831.81	-	-	-
	3/6/2017	15.00	15.01	0.01		831.76	831.77	-	-	-
	3/2/2017	14.78	14.87	0.09		831.90	831.97	-	-	-
	2/27/2017	14.80	14.90	0.10		831.87	831.94	-	-	-
	2/23/2017	14.53	14.58	0.05		832.19	832.23	-	-	-
	2/20/2017	14.45	14.50	0.05		832.27	832.31	-	-	-
	2/17/2017	14.23	14.27	0.04		832.50	832.53	-	-	-
	2/9/2017	12.75	12.76	0.01		834.01	834.02	-	-	-
	2/6/2017	14.55	14.62	0.07		832.15	832.20	-	-	-
	2/2/2017	14.80	14.90	0.10		831.87	831.94	-	-	-
	1/30/2017	14.55	14.60	0.05		832.17	832.21	-	-	-
	1/26/2017	13.54	13.55	0.01		833.22	833.23	-	-	-
	1/23/2017	9.30	9.31	0.01		837.46	837.47	-	-	-
	1/19/2017	16.26	16.42	0.16		830.35	830.47	-	-	-
	1/16/2017	16.25	16.38	0.13		830.39	830.48	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RS-16 (cont'd)	1/12/2017	15.91	16.03	0.12		830.74	830.83	1/12/2017	10:01	10:30
	1/5/2017	16.12	16.28	0.16		830.49	830.61	-	-	-
RS-17					844.22					
	6/29/2017	-	3.45	-		840.77	-	-	-	-
	6/22/2017	-	2.83	-		841.39	-	-	-	-
	6/19/2017	-	4.85	-		839.37	-	-	-	-
	6/15/2017	-	4.27	-		839.95	-	-	-	-
	6/12/2017	-	3.69	-		840.53	-	-	-	-
	6/9/2017	-	1.26	-		842.96	-	-	-	-
	6/5/2017	-	3.75	-		840.47	-	-	-	-
	6/2/2017	-	4.99	-		839.23	-	-	-	-
	5/31/2017	-	3.25	-		840.97	-	-	-	-
	5/24/2017	-	1.30	-		842.92	-	-	-	-
	5/22/2017	-	2.05	-		842.17	-	-	-	-
	5/18/2017	-	4.35	-		839.87	-	-	-	-
	5/15/2017	-	5.02	-		839.20	-	-	-	-
	5/11/2017	-	5.85	-		838.37	-	-	-	-
	5/7/2017	-	6.43	-		837.79	-	-	-	-
	5/4/2017	-	7.36	-		836.86	-	-	-	-
	4/27/2017	-	4.30	-		839.92	-	-	-	-
	4/25/2017	-	2.63	-		841.59	-	-	-	-
	4/20/2017	11.43	11.44	0.01		832.78	832.79	-	-	-
	4/16/2017	9.10	9.11	0.01		835.11	835.12	-	-	-
	4/13/2017	-	8.55	-		835.67	-	-	-	-
	4/10/2017	7.97	7.98	0.01		836.24	836.25	-	-	-
	4/6/2017	-	3.23	-		840.99	-	-	-	-
	4/3/2017	9.94	9.95	0.01		834.27	834.28	-	-	-
	3/31/2017	7.98	7.99	0.01		836.23	836.24	-	-	-
	3/27/2017	11.38	11.40	0.02		832.82	832.83	-	-	-
	3/24/2017	11.23	11.25	0.02		832.97	832.98	-	-	-
	3/20/2017	10.70	10.76	0.06		833.46	833.50	-	-	-
	3/16/2017	9.37	9.38	0.01		834.84	834.85	-	-	-
	3/13/2017	9.45	9.47	0.02		835.68	835.70	-	-	-
	3/6/2017	12.26	12.27	0.01		832.88	832.89	-	-	-
	3/2/2017	11.16	11.17	0.01		833.98	833.99	-	-	-
	2/27/2017	12.10	12.15	0.05		833.00	833.04	-	-	-
	2/23/2017	11.58	11.60	0.02		833.55	833.57	-	-	-
	2/20/2017	11.18	11.20	0.02		833.95	833.97	-	-	-
	2/17/2017	10.03	10.04	0.01		835.11	835.12	-	-	-
	2/9/2017	7.02	7.03	0.01		838.12	838.13	-	-	-
	2/6/2017	12.38	12.40	0.02		832.75	832.77	-	-	-
	2/2/2017	12.25	12.32	0.07		832.83	832.88	-	-	-
	1/30/2017	11.80	11.82	0.02		833.33	833.35	-	-	-
	1/26/2017	10.19	10.20	0.01		834.95	834.96	-	-	-
	1/23/2017	6.10	6.11	0.01		839.04	839.05	-	-	-
	1/19/2017	13.82	13.95	0.13		831.20	831.30	-	-	-
	1/16/2017	13.55	13.67	0.12		831.48	831.57	-	-	-
	1/12/2017	12.90	13.00	0.10		832.15	832.23	-	-	-
	1/5/2017	12.67	12.77	0.10		832.38	832.46	-	-	-
RS-18					847.89					
	6/29/2017	9.60	9.77	0.17		838.12	838.24	-	-	-
	6/22/2017	9.52	9.72	0.20		838.17	838.32	-	-	-
	6/19/2017	10.55	10.75	0.20		837.14	837.29	-	-	-
	6/15/2017	10.52	10.75	0.23		837.14	837.31	-	-	-
	6/12/2017	10.30	10.51	0.21		837.38	837.53	-	-	-
	6/9/2017	9.98	10.04	0.06		837.85	837.89	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RS-18 (cont'd)	6/5/2017	9.77	9.94	0.17		837.95	838.07	-	-	-
	6/2/2017	11.82	12.01	0.19		835.88	836.02	-	-	-
	5/31/2017	9.95	10.40	0.45		837.49	837.82	5/31/2017	14:21	14:29
	5/24/2017	9.48	9.87	0.39		838.02	838.30	-	-	-
	5/22/2017	9.27	9.65	0.38		838.24	838.52	-	-	-
	5/18/2017	10.56	11.01	0.45		836.88	837.21	-	-	-
	5/15/2017	10.95	11.15	0.20		836.74	836.89	-	-	-
	5/11/2017	11.23	11.65	0.42		836.24	836.55	-	-	-
	5/7/2017	14.19	14.67	0.48		833.22	833.57	-	-	-
	5/4/2017	14.25	14.65	0.40		833.24	833.53	-	-	-
	4/27/2017	14.06	14.43	0.37		833.46	833.73	-	-	-
	4/25/2017	11.44	11.80	0.36		836.09	836.35	-	-	-
	4/20/2017	16.02	16.38	0.36		831.51	831.77	-	-	-
	4/16/2017	16.23	16.50	0.27		831.39	831.59	-	-	-
	4/13/2017	16.73	16.94	0.21		830.95	831.10	-	-	-
	4/10/2017	16.15	16.70	0.55		831.19	831.59	4/11/2017	13:23	13:27
	4/6/2017	12.80	13.30	0.50		834.59	834.96	-	-	-
	4/3/2017	17.07	17.48	0.41		830.41	830.71	-	-	-
	3/31/2017	16.58	17.06	0.48		830.83	831.18	3/31/2017	12:05	12:13
	3/27/2017	17.24	17.73	0.49		830.16	830.52	-	-	-
	3/24/2017	17.31	17.71	0.40		830.18	830.47	-	-	-
	3/20/2017	17.40	17.64	0.24		830.25	830.43	-	-	-
	3/16/2017	17.90	18.05	0.15		829.84	829.95	-	-	-
	3/13/2017	17.92	18.52	0.60		830.07	830.51	3/15/2017	10:14	10:20
	3/6/2017	18.10	18.52	0.42		830.07	830.38	-	-	-
	3/2/2017	18.11	18.36	0.25		830.23	830.41	-	-	-
	2/27/2017	17.95	18.45	0.50		830.14	830.51	2/27/2017	13:30	13:38
	2/23/2017	17.88	18.22	0.34		830.37	830.62	-	-	-
	2/20/2017	18.03	18.30	0.27		830.29	830.49	-	-	-
	2/17/2017	17.79	18.34	0.55		830.25	830.65	2/17/2017	12:36	12:42
2/9/2017	17.18	17.56	0.38		831.03	831.31	-	-	-	
2/6/2017	17.97	18.30	0.33		830.29	830.53	-	-	-	
2/2/2017	18.28	18.55	0.27		830.04	830.24	-	-	-	
1/30/2017	18.35	18.57	0.22		830.02	830.18	-	-	-	
1/26/2017	18.14	18.27	0.13		830.32	830.42	-	-	-	
1/23/2017	16.30	16.37	0.07		832.22	832.27	-	-	-	
1/19/2017	18.93	19.48	0.55		829.11	829.51	1/19/2017	16:01	16:10	
1/16/2017	18.99	19.44	0.45		829.15	829.48	-	-	-	
1/12/2017	18.93	19.19	0.26		829.40	829.59	1/12/2017	10:31	11:00	
1/5/2017	18.50	18.60	0.10		829.99	830.07	-	-	-	
RS-19					850.40					
	6/29/2017	-	NM	-		-	-	-	-	-
	6/22/2017	-	NM	-		-	-	-	-	-
	6/19/2017	-	NM	-		-	-	-	-	-
	6/15/2017	-	NM	-		-	-	-	-	-
	6/12/2017	-	NM	-		-	-	-	-	-
	6/9/2017	-	NM	-		-	-	-	-	-
	6/5/2017	-	NM	-		-	-	-	-	-
	6/2/2017	-	NM	-		-	-	-	-	-
	5/31/2017	-	NM	-		-	-	-	-	-
	5/24/2017	-	NM	-		-	-	-	-	-
	5/22/2017	-	NM	-		-	-	-	-	-
	5/18/2017	-	NM	-		-	-	-	-	-
	5/15/2017	-	NM	-		-	-	-	-	-
	5/11/2017	-	NM	-		-	-	-	-	-
	5/7/2017	-	NM	-		-	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RS-19 (cont'd)	5/4/2017	-	NM	-	-	-	-	-	-	-
	4/27/2017	-	NM	-	-	-	-	-	-	-
	4/25/2017	-	NM	-	-	-	-	-	-	-
	4/20/2017	-	NM	-	-	-	-	-	-	-
	4/16/2017	-	NM	-	-	-	-	-	-	-
	4/13/2017	-	NM	-	-	-	-	-	-	-
	4/10/2017	-	NM	-	-	-	-	-	-	-
	4/6/2017	-	NM	-	-	-	-	-	-	-
	4/3/2017	-	NM	-	-	-	-	-	-	-
	3/31/2017	-	NM	-	-	-	-	-	-	-
	3/27/2017	-	NM	-	-	-	-	-	-	-
	3/24/2017	-	NM	-	-	-	-	-	-	-
	3/20/2017	-	NM	-	-	-	-	-	-	-
	3/16/2017	-	NM	-	-	-	-	-	-	-
	3/13/2017	-	NM	-	-	-	-	-	-	-
	3/6/2017	-	NM	-	-	-	-	-	-	-
	3/2/2017	-	NM	-	-	-	-	-	-	-
	2/27/2017	-	NM	-	-	-	-	-	-	-
	2/23/2017	-	NM	-	-	-	-	-	-	-
	2/20/2017	-	NM	-	-	-	-	-	-	-
	2/17/2017	-	NM	-	-	-	-	-	-	-
	2/9/2017	-	NM	-	-	-	-	-	-	-
	2/6/2017	-	NM	-	-	-	-	-	-	-
2/2/2017	-	NM	-	-	-	-	-	-	-	
1/30/2017	-	NM	-	-	-	-	-	-	-	
1/26/2017	-	NM	-	-	-	-	-	-	-	
1/23/2017	-	NM	-	-	-	-	-	-	-	
1/19/2017	-	-	12.11	-	-	840.26	-	-	-	-
1/16/2017	-	12.09	12.10	0.01	-	840.27	840.27	-	-	-
1/12/2017	-	-	NM	-	-	-	-	-	-	-
1/5/2017	-	11.55	11.56	0.01	-	840.81	840.81	-	-	-
RS-20					842.69					
	6/29/2017	-	4.43	-	-	838.26	-	-	-	-
	6/22/2017	-	4.59	-	-	838.10	-	-	-	-
	6/19/2017	-	5.39	-	-	837.30	-	-	-	-
	6/15/2017	-	5.21	-	-	837.48	-	-	-	-
	6/12/2017	-	4.78	-	-	837.91	-	-	-	-
	6/9/2017	-	4.12	-	-	838.57	-	-	-	-
	6/5/2017	-	4.34	-	-	838.35	-	-	-	-
	6/2/2017	-	5.11	-	-	837.58	-	-	-	-
	5/31/2017	-	4.40	-	-	838.29	-	-	-	-
	5/24/2017	-	2.08	-	-	840.61	-	-	-	-
	5/22/2017	-	3.25	-	-	839.44	-	-	-	-
	5/18/2017	-	3.93	-	-	838.76	-	-	-	-
	5/15/2017	-	4.12	-	-	838.57	-	-	-	-
	5/11/2017	-	12.40	-	-	830.29	-	-	-	-
	5/7/2017	-	8.93	-	-	833.76	-	-	-	-
	5/4/2017	-	8.63	-	-	834.06	-	-	-	-
	4/27/2017	-	6.65	-	-	836.04	-	-	-	-
	4/25/2017	-	6.59	-	-	836.10	-	-	-	-
	4/20/2017	-	10.48	-	-	832.21	-	-	-	-
	4/16/2017	-	10.48	-	-	832.21	-	-	-	-
	4/13/2017	-	10.50	-	-	832.19	-	-	-	-
	4/10/2017	-	10.47	-	-	832.22	-	-	-	-
	4/6/2017	-	10.15	-	-	832.54	-	-	-	-
	4/3/2017	-	10.53	-	-	832.16	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RS-20 (cont'd)	3/31/2017	-	10.53	-		832.16	-	-	-	-
	3/27/2017	-	10.51	-		832.18	-	-	-	-
	3/24/2017	-	10.51	-		832.18	-	-	-	-
	3/20/2017	-	10.54	-		832.15	-	-	-	-
	3/16/2017	-	10.54	-		832.15	-	-	-	-
	3/13/2017	-	11.41	-		832.08	-	-	-	-
	3/6/2017	-	11.40	-		832.09	-	-	-	-
	3/2/2017	-	11.40	-		832.09	-	-	-	-
	2/27/2017	-	11.41	-		832.08	-	-	-	-
	2/23/2017	-	11.42	-		832.07	-	-	-	-
	2/20/2017	-	11.40	-		832.09	-	-	-	-
	2/17/2017	-	11.41	-		832.08	-	-	-	-
	2/9/2017	-	11.41	-		832.08	-	-	-	-
	2/6/2017	-	11.40	-		832.09	-	-	-	-
	2/2/2017	-	11.40	-		832.09	-	-	-	-
	1/30/2017	-	11.40	-		832.09	-	-	-	-
	1/26/2017	-	11.40	-		832.09	-	-	-	-
	1/23/2017	-	11.40	-		832.09	-	-	-	-
	1/19/2017	-	11.41	-		832.08	-	-	-	-
	1/16/2017	-	11.40	-		832.09	-	-	-	-
1/12/2017	-	11.35	-		832.14	-	-	-	-	
1/5/2017	-	11.41	-		832.08	-	-	-	-	
RT-1A					854.06					
	6/29/2017	13.69	13.75	0.06		840.31	840.35	6/29/2017	13:15	13:23
	6/22/2017	13.49	13.52	0.03		840.54	840.56	6/24/2017	13:08	13:15
	6/19/2017	13.76	13.88	0.12		840.18	840.27	6/21/2017	12:21	12:26
	6/15/2017	13.65	13.69	0.04		840.37	840.40	6/16/2017	13:44	13:49
	6/12/2017	13.86	13.95	0.09		840.11	840.18	6/13/2017	15:10	15:16
	6/9/2017	13.74	13.86	0.12		840.20	840.29	6/11/2017	12:13	12:17
	6/5/2017	13.80	13.82	0.02		840.24	840.25	6/5/2017	14:19	14:23
	6/2/2017	13.88	13.93	0.05		840.13	840.17	6/2/2017	14:51	14:54
	5/31/2017	14.03	14.15	0.12		839.91	840.00	5/31/2017	13:31	13:37
	5/24/2017	14.17	14.27	0.10		839.79	839.86	5/26/2017	15:17	15:24
	5/22/2017	14.40	14.45	0.05		839.61	839.65	-	-	-
	5/18/2017	14.55	14.61	0.06		839.45	839.49	5/19/2017	13:22	13:27
	5/15/2017	14.56	14.61	0.05		839.45	839.49	5/16/2017	12:17	12:24
	5/11/2017	14.50	14.54	0.04		839.52	839.55	5/14/2017	12:15	12:25
	5/7/2017	14.60	14.67	0.07		839.39	839.44	5/9/2017	10:43	10:49
	5/4/2017	14.69	14.80	0.11		839.26	839.34	5/5/2017	9:43	9:49
	4/27/2017	14.89	14.94	0.05		839.12	839.16	-	-	-
	4/25/2017	15.08	15.12	0.04		838.94	838.97	4/25/2017	10:57	11:01
	4/20/2017	15.37	15.47	0.10		838.59	838.66	4/21/2017	12:59	13:12
	4/16/2017	15.40	15.50	0.10		838.56	838.63	4/17/2017	9:33	9:38
	4/13/2017	15.50	15.61	0.11		838.45	838.53	-	-	-
	4/10/2017	15.57	15.77	0.20		838.29	838.44	-	-	-
	4/6/2017	15.84	16.09	0.25		837.97	838.15	4/7/2017	10:01	10:06
	4/3/2017	15.98	16.20	0.22		837.86	838.02	-	-	-
	3/31/2017	16.05	16.25	0.20		837.81	837.96	-	-	-
	3/27/2017	16.10	16.32	0.22		837.74	837.90	3/27/2017	13:32	13:39
	3/24/2017	16.11	16.39	0.28		837.67	837.87	3/24/2017	13:45	13:54
	3/20/2017	16.22	16.43	0.21		837.63	837.78	-	-	-
	3/16/2017	16.42	16.60	0.18		837.46	837.59	3/17/2017	7:37	7:39
	3/13/2017	18.47	NO WATER	2.42		-	-	3/15/2017	8:14	8:19
	3/6/2017	18.55	18.96	0.41		837.25	837.55	3/6/2017	12:27	12:33
	3/2/2017	18.60	19.01	0.41		837.20	837.50	3/3/2017	8:30	8:33
	2/27/2017	18.65	19.12	0.47		837.09	837.43	2/27/2017	14:02	14:09



**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-1A (cont'd)	2/23/2017	18.65	19.10	0.45		837.11	837.44	2/24/2017	11:01	11:09
	2/20/2017	18.68	19.18	0.50		837.03	837.40	2/21/2017	14:10	14:17
	2/17/2017	18.70	19.28	0.58		836.93	837.35	2/17/2017	11:23	11:30
	2/9/2017	18.85	19.89	1.04		836.32	837.08	2/9/2017	12:02	12:20
	2/6/2017	19.91	NO WATER	0.98		-	-	2/6/2017	11:42	11:46
	2/2/2017	18.75	20.50	1.75		835.71	836.99	2/2/2017	9:01	9:10
	1/30/2017	18.76	NO WATER	2.13		-	-	1/30/2017	9:40	9:45
	1/26/2017	18.85	NO WATER	2.04		-	-	-	-	-
	1/23/2017	18.96	NO WATER	1.93		-	-	1/23/2017	12:22	12:27
	1/19/2017	19.07	NO WATER	1.82		-	-	1/19/2017	12:40	12:47
	1/16/2017	18.92	NO WATER	1.97		-	-	1/16/2017	12:30	12:40
	1/12/2017	18.91	20.80	1.89		835.41	836.79	-	-	-
	1/5/2017	19.23	NO WATER	1.66		-	-	-	-	-
	RT-1B					854.15				
	6/29/2017	13.65	13.70	0.05		840.45	840.49	6/29/2017	13:24	13:32
	6/22/2017	13.46	13.48	0.02		840.67	840.68	6/24/2017	13:16	13:23
	6/19/2017	13.71	13.83	0.12		840.32	840.41	6/21/2017	12:26	12:31
	6/15/2017	13.61	13.65	0.04		840.50	840.53	6/16/2017	13:49	13:54
	6/12/2017	13.82	13.92	0.10		840.23	840.30	6/13/2017	15:17	15:23
	6/9/2017	13.69	13.81	0.12		840.34	840.43	6/11/2017	12:18	12:22
	6/5/2017	13.76	13.79	0.03		840.36	840.38	6/5/2017	14:24	14:28
	6/2/2017	13.83	13.88	0.05		840.27	840.31	6/2/2017	14:55	14:58
	5/31/2017	13.98	14.12	0.14		840.03	840.13	5/31/2017	13:37	13:43
	5/24/2017	14.12	14.22	0.10		839.93	840.00	5/26/2017	15:24	15:31
	5/22/2017	14.35	14.40	0.05		839.75	839.79	-	-	-
	5/18/2017	14.51	14.56	0.05		839.59	839.63	5/19/2017	13:27	13:32
	5/15/2017	14.49	14.65	0.16		839.50	839.62	5/16/2017	12:24	12:31
	5/11/2017	14.46	14.49	0.03		839.66	839.68	5/14/2017	12:25	12:35
	5/7/2017	14.56	14.62	0.06		839.53	839.57	5/9/2017	10:49	10:55
	5/4/2017	14.65	14.76	0.11		839.39	839.47	5/5/2017	9:50	9:56
	4/27/2017	14.85	14.89	0.04		839.26	839.29	-	-	-
	4/25/2017	15.03	15.09	0.06		839.06	839.10	4/25/2017	11:02	11:06
	4/20/2017	-	NM	-		-	-	4/21/2017	13:13	13:26
	4/16/2017	-	NM	-		-	-	4/17/2017	9:39	9:44
	4/13/2017	-	NM	-		-	-	-	-	-
	4/10/2017	-	NM	-		-	-	-	-	-
	4/6/2017	-	NM	-		-	-	4/7/2017	10:07	10:12
	4/3/2017	-	NM	-		-	-	-	-	-
	3/31/2017	-	NM	-		-	-	-	-	-
	3/27/2017	16.05	16.27	0.22		837.88	838.04	3/27/2017	13:39	13:46
	3/24/2017	16.07	16.34	0.27		837.81	838.01	3/24/2017	13:56	14:08
	3/20/2017	16.18	16.35	0.17		837.80	837.92	-	-	-
	3/16/2017	16.38	16.55	0.17		837.60	837.72	3/17/2017	7:40	7:42
	3/13/2017	19.43	19.75	0.32		837.55	837.78	3/15/2017	8:20	8:25
	3/6/2017	19.52	20.00	0.48		837.30	837.65	3/6/2017	12:34	12:40
	3/2/2017	19.56	19.99	0.43		837.31	837.62	3/3/2017	8:34	8:37
	2/27/2017	19.61	20.06	0.45		837.24	837.56	2/27/2017	14:09	14:15
	2/23/2017	19.60	20.05	0.45		837.25	837.57	2/24/2017	11:09	11:17
	2/20/2017	19.64	20.12	0.48		837.18	837.53	2/21/2017	14:17	14:24
	2/17/2017	19.64	20.22	0.58		837.08	837.50	2/17/2017	11:30	11:37
	2/9/2017	19.79	NO WATER	1.31		-	-	2/9/2017	12:20	12:38
	2/6/2017	19.74	NO WATER	1.36		-	-	2/6/2017	11:46	11:50
	2/2/2017	19.70	NO WATER	1.40		-	-	2/2/2017	9:11	9:21
	1/30/2017	19.71	NO WATER	1.39		-	-	1/30/2017	9:50	9:55
	1/26/2017	19.78	NO WATER	1.32		-	-	1/26/2017	12:34	12:40
	1/23/2017	19.92	NO WATER	1.18		-	-	1/23/2017	12:29	12:38

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-1B (cont'd)	1/19/2017	20.01	NO WATER	1.09		-	-	1/19/2017	12:48	12:59
	1/16/2017	19.90	NO WATER	1.20		-	-	1/16/2017	12:45	12:55
	1/12/2017	19.88	NO WATER	1.22		-	-	-	-	-
	1/5/2017	20.20	NO WATER	0.90		-	-	-	-	-
RT-1C					854.55					
	6/29/2017	14.08	14.14	0.06		840.41	840.45	6/29/2017	13:33	13:41
	6/22/2017	13.88	13.91	0.03		840.64	840.66	6/24/2017	13:24	13:31
	6/19/2017	14.18	14.28	0.10		840.27	840.34	6/21/2017	12:31	12:36
	6/15/2017	14.03	14.08	0.05		840.47	840.51	6/16/2017	13:54	13:59
	6/12/2017	14.27	14.36	0.09		840.19	840.26	6/13/2017	15:24	15:30
	6/9/2017	14.14	14.25	0.11		840.30	840.38	6/11/2017	12:23	12:27
	6/5/2017	14.19	14.21	0.02		840.34	840.35	6/5/2017	14:29	14:32
	6/2/2017	14.27	14.32	0.05		840.23	840.27	6/2/2017	14:59	15:02
	5/31/2017	14.42	14.55	0.13		840.00	840.09	5/31/2017	13:43	13:50
	5/24/2017	14.57	14.65	0.08		839.90	839.96	5/26/2017	15:31	15:39
	5/22/2017	14.80	14.85	0.05		839.70	839.74	-	-	-
	5/18/2017	14.95	14.99	0.04		839.56	839.59	5/19/2017	13:32	13:37
	5/15/2017	14.95	15.01	0.06		839.54	839.58	5/16/2017	12:31	12:38
	5/11/2017	14.89	14.94	0.05		839.61	839.65	5/14/2017	12:35	12:45
	5/7/2017	14.99	15.05	0.06		839.50	839.54	5/9/2017	10:55	11:01
	5/4/2017	15.10	15.16	0.06		839.39	839.43	5/5/2017	9:57	10:02
	4/27/2017	15.29	15.33	0.04		839.22	839.25	-	-	-
	4/25/2017	15.48	15.52	0.04		839.03	839.06	4/25/2017	11:07	11:11
	4/20/2017	15.80	15.90	0.10		838.65	838.72	4/21/2017	13:27	13:39
	4/16/2017	15.80	15.90	0.10		838.65	838.72	4/17/2017	9:45	9:49
	4/13/2017	15.92	16.02	0.10		838.53	838.60	-	-	-
	4/10/2017	15.97	16.17	0.20		838.38	838.53	-	-	-
	4/6/2017	16.25	16.48	0.23		838.07	838.24	4/7/2017	10:13	10:18
	4/3/2017	16.37	16.50	0.13		838.05	838.14	-	-	-
	3/31/2017	16.45	16.67	0.22		837.88	838.04	-	-	-
	3/27/2017	16.50	16.73	0.23		837.82	837.99	3/27/2017	13:47	13:55
	3/24/2017	16.50	16.77	0.27		837.78	837.98	3/24/2017	14:10	14:21
	3/20/2017	16.64	16.85	0.21		837.70	837.85	-	-	-
	3/16/2017	16.84	17.00	0.16		837.55	837.67	3/17/2017	7:43	7:45
	3/13/2017	19.61	19.91	0.30		837.11	837.33	3/15/2017	8:26	8:31
	3/6/2017	19.69	20.18	0.49		836.84	837.19	3/6/2017	12:41	12:47
	3/2/2017	19.74	20.15	0.41		836.87	837.17	3/3/2017	8:37	8:41
	2/27/2017	19.79	20.24	0.45		836.78	837.11	2/27/2017	14:15	14:22
	2/23/2017	19.28	20.22	0.94		836.80	837.48	2/24/2017	11:17	11:25
	2/20/2017	19.82	20.31	0.49		836.71	837.06	2/21/2017	14:24	14:30
	2/17/2017	19.87	20.42	0.55		836.60	837.00	2/17/2017	11:37	11:45
	2/9/2017	19.98	NO WATER	1.29		-	-	2/9/2017	12:38	12:55
	2/6/2017	18.78	NO WATER	2.49		-	-	2/6/2017	11:50	11:55
	2/2/2017	19.90	NO WATER	1.37		-	-	2/2/2017	9:22	9:33
	1/30/2017	19.88	NO WATER	1.39		-	-	1/30/2017	9:55	10:05
	1/26/2017	20.96	NO WATER	0.31		-	-	1/26/2017	12:41	12:50
	1/23/2017	20.10	NO WATER	1.17		-	-	1/23/2017	12:40	12:49
	1/19/2017	20.19	NO WATER	1.08		-	-	1/19/2017	13:02	13:15
	1/16/2017	20.09	NO WATER	1.18		-	-	1/16/2017	12:56	13:08
	1/12/2017	20.05	NO WATER	1.22		-	-	-	-	-
	1/5/2017	20.35	NO WATER	0.92		-	-	-	-	-
RT-2A					817.48					
	6/29/2017	-	0.95	-		816.53	-	-	-	-
	6/22/2017	-	0.80	-		816.68	-	6/24/2017	10:46	10:51
	6/19/2017	-	1.04	-		816.44	-	6/21/2017	10:51	10:54
	6/15/2017	-	1.09	-		816.39	-	6/16/2017	11:59	12:03

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2A (cont'd)	6/12/2017	-	0.70	-		816.78	-	-	-	-
	6/9/2017	-	0.48	-		817.00	-	-	-	-
	6/5/2017	-	1.00	-		816.48	-	6/5/2017	11:30	11:36
	6/2/2017	-	0.88	-		816.60	-	-	-	-
	5/31/2017	-	0.70	-		816.78	-	-	-	-
	5/24/2017	-	0.70	-		816.78	-	5/26/2017	14:44	14:51
	5/22/2017	-	0.68	-		816.80	-	5/22/2017	11:01	11:06
	5/18/2017	-	1.12	-		816.36	-	5/19/2017	11:17	11:21
	5/15/2017	-	1.20	-		816.28	-	5/16/2017	10:40	10:44
	5/11/2017	-	1.13	-		816.35	-	-	-	-
	5/7/2017	-	0.73	-		816.75	-	5/9/2017	11:40	11:45
	5/4/2017	1.02	1.03	0.01		816.45	816.46	5/5/2017	12:42	12:47
	4/27/2017	-	0.84	-		816.64	-	4/28/2017	10:13	10:17
	4/25/2017	-	0.63	-		816.85	-	4/25/2017	9:59	10:04
	4/20/2017	1.07	1.08	0.01		816.40	816.41	-	-	-
	4/16/2017	-	1.16	-		816.32	-	-	-	-
	4/13/2017	-	1.18	-		816.30	-	4/13/2017	11:20	11:23
	4/10/2017	-	1.08	-		816.40	-	4/11/2017	9:50	9:53
	4/6/2017	-	0.70	-		816.78	-	4/7/2017	14:31	14:34
	4/3/2017	-	1.25	-		816.23	-	-	-	-
	3/31/2017	-	0.96	-		816.52	-	3/31/2017	10:20	10:23
	3/27/2017	-	1.48	-		816.00	-	3/27/2017	11:01	11:11
	3/24/2017	-	1.35	-		816.13	-	3/24/2017	10:39	10:48
	3/20/2017	-	1.40	-		816.08	-	-	-	-
	3/16/2017	-	1.15	-		816.33	-	-	-	-
	3/13/2017	2.01	2.02	0.01		816.29	816.30	-	-	-
	3/6/2017	-	2.46	-		815.85	-	-	-	-
	3/2/2017	-	2.37	-		815.94	-	-	-	-
	2/27/2017	-	2.57	-		815.74	-	-	-	-
	2/23/2017	-	2.42	-		815.89	-	-	-	-
	2/20/2017	-	2.54	-		815.77	-	-	-	-
	2/17/2017	-	2.34	-		815.97	-	-	-	-
	2/9/2017	-	1.94	-		816.37	-	-	-	-
2/6/2017	-	2.69	-		815.62	-	-	-	-	
2/2/2017	-	2.59	-		815.72	-	2/2/2017	10:15	10:20	
1/30/2017	-	2.58	-		815.73	-	-	-	-	
1/26/2017	-	2.31	-		816.00	-	1/26/2017	12:51	13:01	
1/23/2017	1.75	1.76	0.01		816.55	816.56	-	-	-	
1/19/2017	-	2.78	-		815.53	-	1/19/2017	13:30	13:40	
1/16/2017	-	2.71	-		815.60	-	-	-	-	
1/12/2017	-	2.60	-		815.71	-	-	-	-	
1/5/2017	-	2.20	-		816.11	-	-	-	-	
RT-2B					817.61					
	6/29/2017	-	1.02	-		816.59	-	-	-	-
	6/22/2017	-	0.88	-		816.73	-	6/24/2017	10:36	10:40
	6/19/2017	-	1.12	-		816.49	-	6/21/2017	10:44	10:47
	6/15/2017	-	1.17	-		816.44	-	6/16/2017	11:54	11:58
	6/12/2017	-	1.11	-		816.50	-	6/13/2017	11:40	11:45
	6/9/2017	-	0.50	-		817.11	-	6/11/2017	10:28	10:33
	6/5/2017	-	1.11	-		816.50	-	6/5/2017	11:17	11:22
	6/2/2017	-	0.98	-		816.63	-	6/2/2017	13:59	14:08
	5/31/2017	-	0.90	-		816.71	-	5/31/2017	11:22	11:26
	5/24/2017	-	0.78	-		816.83	-	5/26/2017	14:32	14:40
	5/22/2017	-	0.85	-		816.76	-	5/22/2017	10:51	10:55
	5/18/2017	-	1.22	-		816.39	-	5/19/2017	11:10	11:15
	5/15/2017	-	1.31	-		816.30	-	5/16/2017	10:32	10:36

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2B (cont'd)	5/11/2017	-	1.23	-		816.38	-	5/14/2017	9:37	9:42
	5/7/2017	-	0.92	-		816.69	-	5/9/2017	11:50	11:54
	5/4/2017	1.15	1.16	0.01		816.45	816.46	5/5/2017	12:36	12:41
	4/27/2017	0.96	0.97	0.01		816.64	816.65	4/28/2017	10:02	10:10
	4/25/2017	-	0.79	-		816.82	-	4/25/2017	9:49	9:54
	4/20/2017	1.14	1.15	0.01		816.46	816.47	4/21/2017	11:12	11:16
	4/16/2017	1.18	1.19	0.01		816.42	816.43	-	-	-
	4/13/2017	1.28	1.30	0.02		816.31	816.32	4/13/2017	11:25	11:29
	4/10/2017	1.14	1.15	0.01		816.46	816.47	4/11/2017	9:55	10:00
	4/6/2017	0.82	0.84	0.02		816.77	816.78	4/7/2017	14:38	14:51
	4/3/2017	1.37	1.38	0.01		816.23	816.24	-	-	-
	3/31/2017	1.07	1.09	0.02		816.52	816.53	3/31/2017	10:25	10:28
	3/27/2017	1.54	1.56	0.02		816.05	816.06	3/27/2017	11:13	11:25
	3/24/2017	1.42	1.44	0.02		816.17	816.18	3/24/2017	10:51	11:01
	3/20/2017	1.55	1.56	0.01		816.05	816.06	3/20/2017	9:15	9:20
	3/16/2017	1.30	1.32	0.02		816.29	816.30	3/17/2017	10:21	10:26
	3/13/2017	2.64	2.68	0.04		816.24	816.27	3/15/2017	12:41	12:44
	3/6/2017	3.09	3.12	0.03		815.80	815.82	3/6/2017	9:07	9:11
	3/2/2017	2.98	3.02	0.04		815.90	815.93	3/3/2017	11:11	11:16
	2/27/2017	3.12	3.14	0.02		815.78	815.79	2/27/2017	9:02	9:10
	2/23/2017	3.03	3.09	0.06		815.83	815.87	-	-	-
2/20/2017	3.15	3.20	0.05		815.72	815.75	-	-	-	
2/17/2017	3.02	3.12	0.10		815.80	815.87	2/17/2017	10:09	10:19	
2/9/2017	2.49	2.60	0.11		816.32	816.40	2/9/2017	9:50	10:00	
2/6/2017	3.32	3.33	0.01		815.59	815.60	2/6/2017	12:30	12:34	
2/2/2017	3.25	3.26	0.01		815.66	815.67	2/2/2017	10:21	10:24	
1/30/2017	3.20	3.21	0.01		815.71	815.72	1/30/2017	13:51	13:56	
1/26/2017	2.94	2.98	0.04		815.94	815.97	1/26/2017	13:05	13:15	
1/23/2017	2.43	2.46	0.03		816.46	816.48	-	-	-	
1/19/2017	3.40	3.42	0.02		815.50	815.51	1/19/2017	13:45	13:50	
1/16/2017	3.34	3.36	0.02		815.56	815.57	-	-	-	
1/12/2017	-	3.22	-		815.70	-	-	-	-	
1/5/2017	-	2.88	-		816.04	-	-	-	-	
RT-2C					818.06					
	6/29/2017	-	1.48	-		816.58	-	-	-	-
	6/22/2017	1.39	1.40	0.01		816.66	816.67	6/24/2017	10:29	10:31
	6/19/2017	-	1.59	-		816.47	-	6/21/2017	10:39	10:41
	6/15/2017	-	1.66	-		816.40	-	6/16/2017	11:48	11:51
	6/12/2017	-	1.57	-		816.49	-	6/13/2017	11:30	11:35
	6/9/2017	-	1.40	-		816.66	-	6/11/2017	10:18	10:24
	6/5/2017	-	1.56	-		816.50	-	6/5/2017	10:59	11:06
	6/2/2017	-	1.43	-		816.63	-	6/2/2017	13:52	13:57
	5/31/2017	-	1.49	-		816.57	-	5/31/2017	11:15	11:20
	5/24/2017	-	1.30	-		816.76	-	5/26/2017	14:15	14:21
	5/22/2017	-	1.30	-		816.76	-	5/22/2017	10:43	10:47
	5/18/2017	-	1.66	-		816.40	-	5/19/2017	11:03	11:07
	5/15/2017	-	1.78	-		816.28	-	5/16/2017	10:26	10:30
	5/11/2017	-	1.66	-		816.40	-	5/14/2017	9:23	9:31
	5/7/2017	-	1.38	-		816.68	-	5/9/2017	11:59	12:04
	5/4/2017	1.59	1.60	0.01		816.46	816.47	5/5/2017	12:30	12:34
	4/27/2017	-	1.41	-		816.65	-	4/28/2017	9:41	9:46
	4/25/2017	-	1.21	-		816.85	-	4/25/2017	9:40	9:44
	4/20/2017	-	1.59	-		816.47	-	4/21/2017	11:04	11:09
	4/16/2017	-	1.61	-		816.45	-	-	-	-
	4/13/2017	-	1.73	-		816.33	-	4/13/2017	11:32	11:35
	4/10/2017	1.61	1.62	0.01		816.44	816.45	4/11/2017	10:02	10:07

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2C (cont'd)	4/6/2017	-	1.30	-		816.76	-	4/7/2017	14:53	14:56
	4/3/2017	-	1.80	-		816.26	-	-	-	-
	3/31/2017	1.55	1.56	0.01		816.50	816.51	3/31/2017	10:30	10:34
	3/27/2017	2.00	2.02	0.02		816.04	816.05	3/27/2017	11:30	11:39
	3/24/2017	1.95	1.96	0.01		816.10	816.11	3/24/2017	11:04	11:13
	3/20/2017	2.95	2.96	0.01		815.10	815.11	3/20/2017	9:21	9:26
	3/16/2017	2.70	2.71	0.01		815.35	815.36	3/17/2017	10:28	10:32
	3/13/2017	2.40	2.41	0.01		816.61	816.61	3/15/2017	12:45	12:49
	3/6/2017	-	2.85	-		816.17	-	3/6/2017	9:12	9:18
	3/2/2017	-	2.75	-		816.27	-	3/3/2017	11:18	11:23
	2/27/2017	2.88	2.90	0.02		816.12	816.13	2/27/2017	9:11	9:18
	2/23/2017	2.81	2.82	0.01		816.20	816.20	-	-	-
	2/20/2017	2.91	2.92	0.01		816.10	816.10	-	-	-
	2/17/2017	2.82	2.83	0.01		816.19	816.19	2/17/2017	10:02	10:08
	2/9/2017	2.26	2.28	0.02		816.74	816.75	2/9/2017	10:01	10:09
	2/6/2017	3.05	3.06	0.01		815.96	815.96	2/6/2017	12:35	12:39
	2/2/2017	2.99	3.00	0.01		816.02	816.02	2/2/2017	10:26	10:30
	1/30/2017	2.94	2.95	0.01		816.07	816.07	1/30/2017	14:15	14:20
	1/26/2017	2.70	2.71	0.01		816.31	816.31	1/26/2017	13:16	13:30
	1/23/2017	2.19	2.20	0.01		816.82	816.82	-	-	-
1/19/2017	3.13	3.16	0.03		815.86	815.88	1/19/2017	14:01	14:11	
1/16/2017	3.08	3.10	0.02		815.92	815.93	-	-	-	
1/12/2017	-	2.94	-		816.08	-	-	-	-	
1/5/2017	-	2.60	-		816.42	-	-	-	-	
RT-2D					818.12					
	6/29/2017	-	1.57	-		816.55	-	6/29/2017	11:10	11:15
	6/22/2017	-	1.46	-		816.66	-	6/24/2017	10:22	10:26
	6/19/2017	-	1.70	-		816.42	-	6/21/2017	10:30	10:34
	6/15/2017	-	1.71	-		816.41	-	6/16/2017	11:40	11:43
	6/12/2017	-	1.56	-		816.56	-	6/13/2017	11:17	11:22
	6/9/2017	-	1.57	-		816.55	-	6/11/2017	10:09	10:13
	6/5/2017	-	1.65	-		816.47	-	6/5/2017	10:50	10:56
	6/2/2017	-	1.52	-		816.60	-	6/2/2017	13:44	13:49
	5/31/2017	-	1.60	-		816.52	-	5/31/2017	11:05	11:10
	5/24/2017	-	1.38	-		816.74	-	5/26/2017	14:01	14:10
	5/22/2017	-	1.38	-		816.74	-	5/22/2017	10:37	10:41
	5/18/2017	-	1.75	-		816.37	-	5/19/2017	10:57	10:59
	5/15/2017	-	1.89	-		816.23	-	5/16/2017	10:21	10:24
	5/11/2017	-	1.76	-		816.36	-	5/14/2017	9:11	9:17
	5/7/2017	-	1.44	-		816.68	-	5/9/2017	12:16	12:20
	5/4/2017	-	1.69	-		816.43	-	5/5/2017	12:23	12:27
	4/27/2017	-	1.52	-		816.60	-	4/28/2017	9:30	9:35
	4/25/2017	-	1.31	-		816.81	-	4/25/2017	9:30	9:35
	4/20/2017	-	1.71	-		816.41	-	4/21/2017	10:52	11:00
	4/16/2017	-	1.77	-		816.35	-	-	-	-
	4/13/2017	-	1.82	-		816.30	-	4/13/2017	11:38	11:41
	4/10/2017	-	1.72	-		816.40	-	4/11/2017	10:10	10:14
	4/6/2017	-	1.35	-		816.77	-	4/7/2017	15:01	15:05
	4/3/2017	-	1.86	-		816.26	-	-	-	-
	3/31/2017	-	1.65	-		816.47	-	3/31/2017	10:40	10:44
	3/27/2017	2.15	2.16	0.01		815.96	815.97	3/27/2017	11:44	11:55
	3/24/2017	2.05	2.06	0.01		816.06	816.07	3/24/2017	11:15	11:26
	3/20/2017	2.06	2.07	0.01		816.05	816.06	3/20/2017	9:28	9:34
	3/16/2017	1.80	1.83	0.03		816.29	816.31	3/17/2017	10:36	10:40
	3/13/2017	3.24	3.26	0.02		816.31	816.32	3/15/2017	12:51	12:55
	3/6/2017	-	3.68	-		815.89	-	3/6/2017	9:22	9:30

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2D (cont'd)	3/2/2017	-	3.58	-		815.99	-	3/3/2017	11:25	11:30
	2/27/2017	3.71	3.72	0.01		815.85	815.85	2/27/2017	9:20	9:29
	2/23/2017	3.61	3.62	0.01		815.95	815.95	-	-	-
	2/20/2017	3.72	3.73	0.01		815.84	815.84	-	-	-
	2/17/2017	3.62	3.63	0.01		815.94	815.94	2/17/2017	9:54	10:01
	2/9/2017	3.08	3.09	0.01		816.48	816.48	2/9/2017	10:10	10:19
	2/6/2017	3.90	3.91	0.01		815.66	815.66	2/6/2017	12:41	12:44
	2/2/2017	3.80	3.81	0.01		815.76	815.76	2/2/2017	10:32	10:36
	1/30/2017	3.78	3.79	0.01		815.78	815.78	1/30/2017	13:35	13:40
	1/26/2017	3.51	3.52	0.01		816.05	816.05	-	-	-
	1/23/2017	3.00	3.01	0.01		816.56	816.56	-	-	-
	1/19/2017	3.95	4.00	0.05		815.57	815.60	-	-	-
	1/16/2017	3.81	3.92	0.11		815.65	815.73	-	-	-
	1/12/2017	2.76	2.78	0.02		816.79	816.80	-	-	-
	1/5/2017	3.43	3.45	0.02		816.12	816.13	-	-	-
RT-2E					818.25					
	6/29/2017	-	1.68	-		816.57	-	6/29/2017	11:01	11:06
	6/22/2017	-	1.58	-		816.67	-	6/24/2017	10:15	10:19
	6/19/2017	-	1.79	-		816.46	-	6/21/2017	10:23	10:27
	6/15/2017	-	1.81	-		816.44	-	6/16/2017	11:33	11:37
	6/12/2017	-	1.72	-		816.53	-	6/13/2017	10:52	11:00
	6/9/2017	-	1.48	-		816.77	-	6/11/2017	10:01	10:06
	6/5/2017	-	1.76	-		816.49	-	6/5/2017	10:40	10:46
	6/2/2017	-	1.63	-		816.62	-	6/2/2017	13:37	13:41
	5/31/2017	-	1.96	-		816.29	-	-	-	-
	5/24/2017	-	1.48	-		816.77	-	5/26/2017	13:43	13:50
	5/22/2017	-	1.53	-		816.72	-	5/22/2017	10:32	10:35
	5/18/2017	-	1.85	-		816.40	-	5/19/2017	10:51	10:54
	5/15/2017	-	1.96	-		816.29	-	5/16/2017	10:14	10:18
	5/11/2017	-	1.87	-		816.38	-	5/14/2017	9:01	9:07
	5/7/2017	-	1.56	-		816.69	-	5/9/2017	12:23	12:27
	5/4/2017	-	1.80	-		816.45	-	5/5/2017	12:16	12:21
	4/27/2017	-	1.60	-		816.65	-	4/28/2017	9:23	9:27
	4/25/2017	-	1.44	-		816.81	-	4/25/2017	9:20	9:26
	4/20/2017	-	1.80	-		816.45	-	4/21/2017	10:26	10:32
	4/16/2017	-	1.82	-		816.43	-	-	-	-
	4/13/2017	-	1.95	-		816.30	-	4/13/2017	11:53	11:56
	4/10/2017	1.82	1.83	0.01		816.42	816.43	4/11/2017	10:16	10:20
	4/6/2017	-	1.48	-		816.77	-	4/7/2017	15:07	15:10
	4/3/2017	-	2.00	-		816.25	-	-	-	-
	3/31/2017	-	1.78	-		816.47	-	3/31/2017	10:46	10:50
	3/27/2017	2.20	2.21	0.01		816.04	816.05	3/27/2017	11:59	12:10
	3/24/2017	2.10	2.11	0.01		816.14	816.15	3/24/2017	11:30	11:41
	3/20/2017	2.17	2.18	0.01		816.07	816.08	3/20/2017	9:35	9:40
	3/16/2017	1.98	1.99	0.01		816.26	816.27	3/17/2017	10:42	10:46
	3/13/2017	3.04	3.05	0.01		816.35	816.36	3/15/2017	13:01	13:07
	3/6/2017	-	3.50	-		815.90	-	3/6/2017	9:32	9:36
	3/2/2017	-	3.40	-		816.00	-	3/3/2017	11:31	11:36
	2/27/2017	3.47	3.48	0.01		815.92	815.93	2/27/2017	9:30	9:38
	2/23/2017	3.40	3.41	0.01		815.99	816.00	-	-	-
	2/20/2017	3.50	3.51	0.01		815.89	815.90	-	-	-
	2/17/2017	3.40	3.41	0.01		815.99	816.00	2/17/2017	9:47	9:53
	2/9/2017	2.89	2.90	0.01		816.50	816.51	2/9/2017	10:20	10:27
	2/6/2017	3.64	3.65	0.01		815.75	815.76	2/6/2017	12:20	12:25
	2/2/2017	3.60	3.61	0.01		815.79	815.80	2/2/2017	10:39	10:44
	1/30/2017	3.58	3.59	0.01		815.81	815.82	1/30/2017	13:26	13:32

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2E (cont'd)	1/26/2017	3.03	3.04	0.01		816.36	816.37	1/26/2017	11:30	11:36
	1/23/2017	2.85	2.86	0.01		816.54	816.55	1/23/2017	9:00	9:05
	1/19/2017	3.78	3.79	0.01		815.61	815.62	1/19/2017	8:40	8:45
	1/16/2017	-	3.71	-		815.69	-	1/16/2017	9:10	9:15
	1/12/2017	-	3.57	-		815.83	-	-	-	-
	1/5/2017	3.19	3.20	0.01		816.20	816.21	-	-	-
RT-2F					818.57					
	6/29/2017	-	2.01	-		816.56	-	6/29/2017	10:51	10:55
	6/22/2017	-	1.90	-		816.67	-	6/24/2017	10:07	10:10
	6/19/2017	-	2.11	-		816.46	-	6/21/2017	10:16	10:20
	6/15/2017	-	2.17	-		816.40	-	6/16/2017	11:26	11:30
	6/12/2017	-	2.04	-		816.53	-	6/13/2017	10:41	10:48
	6/9/2017	-	1.92	-		816.65	-	6/11/2017	9:52	9:58
	6/5/2017	-	2.08	-		816.49	-	6/5/2017	10:32	10:37
	6/2/2017	-	1.99	-		816.58	-	-	-	-
	5/31/2017	-	2.06	-		816.51	-	5/31/2017	10:56	11:01
	5/24/2017	-	1.85	-		816.72	-	5/26/2017	13:32	13:38
	5/22/2017	-	1.84	-		816.73	-	5/22/2017	10:26	10:30
	5/18/2017	-	2.19	-		816.38	-	5/19/2017	10:39	10:43
	5/15/2017	-	2.29	-		816.28	-	5/16/2017	10:09	10:13
	5/11/2017	-	2.22	-		816.35	-	5/14/2017	8:50	8:56
	5/7/2017	-	1.92	-		816.65	-	5/9/2017	12:31	12:34
	5/4/2017	-	2.18	-		816.39	-	5/5/2017	12:10	12:14
	4/27/2017	-	1.98	-		816.59	-	4/28/2017	9:15	9:21
	4/25/2017	-	1.77	-		816.80	-	4/25/2017	9:13	9:18
	4/20/2017	-	2.27	-		816.30	-	4/21/2017	10:17	10:22
	4/16/2017	2.15	2.16	0.01		816.41	816.42	-	-	-
	4/13/2017	-	2.28	-		816.29	-	4/13/2017	11:59	12:03
	4/10/2017	2.18	2.19	0.01		816.38	816.39	4/11/2017	10:22	10:26
	4/6/2017	-	1.84	-		816.73	-	4/7/2017	15:11	15:14
	4/3/2017	-	2.34	-		816.23	-	-	-	-
	3/31/2017	-	2.09	-		816.48	-	3/31/2017	10:53	10:57
	3/27/2017	2.55	2.56	0.01		816.01	816.02	3/27/2017	12:11	12:21
	3/24/2017	2.45	2.46	0.01		816.11	816.12	3/24/2017	12:13	12:21
	3/20/2017	2.50	2.51	0.01		816.06	816.07	3/20/2017	9:45	9:50
	3/16/2017	2.28	2.29	0.01		816.28	816.29	3/17/2017	10:47	10:51
	3/13/2017	2.87	2.88	0.01		816.64	816.64	3/15/2017	13:09	13:19
	3/6/2017	-	3.34	-		816.18	-	3/6/2017	9:38	9:43
	3/2/2017	3.21	3.22	0.01		816.30	816.30	3/3/2017	11:38	11:41
2/27/2017	3.23	3.24	0.01		816.28	816.28	2/27/2017	9:40	9:47	
2/23/2017	3.28	3.29	0.01		816.23	816.23	-	-	-	
2/20/2017	3.35	3.36	0.01		816.16	816.16	-	-	-	
2/17/2017	3.28	3.29	0.01		816.23	816.23	2/17/2017	9:41	9:46	
2/9/2017	2.69	2.70	0.01		816.82	816.82	2/9/2017	10:30	10:36	
2/6/2017	3.51	3.52	0.01		816.00	816.00	2/6/2017	12:26	12:30	
2/2/2017	3.45	3.46	0.01		816.06	816.06	2/2/2017	10:47	10:52	
1/30/2017	3.40	3.41	0.01		816.11	816.11	1/30/2017	13:16	13:25	
1/26/2017	3.15	3.16	0.01		816.36	816.36	1/26/2017	11:18	11:27	
1/23/2017	2.65	2.66	0.01		816.86	816.86	1/23/2017	9:07	9:14	
1/19/2017	3.59	3.60	0.01		815.92	815.92	1/19/2017	8:47	8:52	
1/16/2017	3.52	3.53	0.01		815.99	815.99	1/16/2017	9:17	9:21	
1/12/2017	-	3.41	-		816.11	-	-	-	-	
1/5/2017	3.07	3.09	0.02		816.43	816.44	-	-	-	
RT-2G					820.07					
	6/29/2017	-	1.70	-		818.37	-	6/29/2017	10:42	10:48
	6/22/2017	-	2.79	-		817.28	-	6/24/2017	9:58	10:02

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
							Groundwater Elevation (ft amsl)			
RT-2G (cont'd)	6/19/2017	-	2.26	-		817.81	-	6/21/2017	10:11	10:14
	6/15/2017	-	2.91	-		817.16	-	6/16/2017	11:18	11:21
	6/12/2017	-	2.28	-		817.79	-	6/13/2017	10:26	10:32
	6/9/2017	-	0.98	-		819.09	-	-	-	-
	6/5/2017	-	2.81	-		817.26	-	6/5/2017	10:25	10:30
	6/2/2017	-	0.96	-		819.11	-	6/2/2017	12:51	12:56
	5/31/2017	-	2.41	-		817.66	-	5/31/2017	10:51	10:54
	5/24/2017	-	2.90	-		817.17	-	5/26/2017	11:30	11:37
	5/22/2017	-	2.76	-		817.31	-	5/22/2017	10:17	10:21
	5/18/2017	-	3.17	-		816.90	-	5/19/2017	10:34	10:38
	5/15/2017	-	2.99	-		817.08	-	5/16/2017	10:03	10:07
	5/11/2017	-	3.04	-		817.03	-	5/14/2017	8:40	8:47
	5/7/2017	-	4.08	-		815.99	-	5/9/2017	12:37	12:41
	5/4/2017	-	3.26	-		816.81	-	5/5/2017	12:01	12:06
	4/27/2017	-	3.13	-		816.94	-	4/28/2017	9:07	9:11
	4/25/2017	-	1.20	-		818.87	-	4/25/2017	9:04	9:10
	4/20/2017	-	3.41	-		816.66	-	4/21/2017	10:08	10:16
	4/16/2017	3.20	3.21	0.01		816.86	816.87	-	-	-
	4/13/2017	-	3.52	-		816.55	-	4/13/2017	12:07	12:11
	4/10/2017	2.06	2.07	0.01		818.00	818.01	4/11/2017	10:30	10:34
	4/6/2017	-	3.12	-		816.95	-	4/7/2017	15:16	15:18
	4/3/2017	-	3.65	-		816.42	-	-	-	-
	3/31/2017	-	1.95	-		818.12	-	-	-	-
	3/27/2017	3.58	3.59	0.01		816.48	816.49	3/27/2017	12:23	12:30
	3/24/2017	2.05	2.06	0.01		818.01	818.02	3/24/2017	12:32	12:41
	3/20/2017	3.30	3.31	0.01		816.76	816.77	3/20/2017	9:53	9:58
	3/16/2017	3.27	3.28	0.01		816.79	816.80	3/17/2017	10:53	10:57
	3/13/2017	3.52	3.53	0.01		816.78	816.79	3/15/2017	13:20	13:25
	3/6/2017	-	3.30	-		817.01	-	3/6/2017	9:45	9:50
	3/2/2017	-	3.24	-		817.07	-	3/3/2017	11:42	11:47
	2/27/2017	3.32	3.33	0.01		816.98	816.99	2/27/2017	9:50	9:56
	2/23/2017	3.30	3.31	0.01		817.00	817.01	-	-	-
	2/20/2017	3.32	3.33	0.01		816.98	816.99	-	-	-
2/17/2017	3.30	3.32	0.02		816.99	817.00	2/17/2017	9:34	9:40	
2/9/2017	3.22	3.23	0.01		817.08	817.09	2/9/2017	10:37	10:42	
2/6/2017	3.50	3.51	0.01		816.80	816.81	2/6/2017	12:46	12:50	
2/2/2017	3.49	3.50	0.01		816.81	816.82	2/2/2017	10:55	11:00	
1/30/2017	3.43	3.45	0.02		816.86	816.87	1/30/2017	13:10	13:15	
1/26/2017	3.31	3.32	0.01		816.99	817.00	1/26/2017	11:08	11:16	
1/23/2017	3.13	3.14	0.01		817.17	817.18	1/23/2017	9:17	9:23	
1/19/2017	3.66	3.67	0.01		816.64	816.65	1/19/2017	8:55	9:00	
1/16/2017	3.61	3.62	0.01		816.69	816.70	1/16/2017	9:22	9:27	
1/12/2017	-	3.51	-		816.80	-	-	-	-	
1/5/2017	3.42	3.44	0.02		816.87	816.88	-	-	-	
RT-2H					822.17					
	6/29/2017	-	NM	-		-	-	-	-	-
	6/22/2017	-	NM	-		-	-	-	-	-
	6/19/2017	-	NM	-		-	-	-	-	-
	6/15/2017	-	NM	-		-	-	-	-	-
	6/12/2017	-	NM	-		-	-	-	-	-
	6/9/2017	-	NM	-		-	-	-	-	-
	6/5/2017	-	NM	-		-	-	-	-	-
	6/2/2017	-	NM	-		-	-	-	-	-
	5/31/2017	-	NM	-		-	-	-	-	-
	5/24/2017	-	NM	-		-	-	-	-	-
	5/22/2017	-	NM	-		-	-	-	-	-



Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation, Belton Site, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time	
RT-2H (cont'd)	5/18/2017	-	NM	-	-	-	-	-	-	-	
	5/15/2017	-	NM	-	-	-	-	-	-	-	
	5/11/2017	-	NM	-	-	-	-	-	-	-	
	5/7/2017	-	NM	-	-	-	-	-	-	-	
	5/4/2017	-	NM	-	-	-	-	-	-	-	
	4/27/2017	-	NM	-	-	-	-	-	-	-	
	4/25/2017	-	NM	-	-	-	-	-	-	-	
	4/20/2017	-	NM	-	-	-	-	-	-	-	
	4/16/2017	-	NM	-	-	-	-	-	-	-	
	4/13/2017	-	NM	-	-	-	-	-	-	-	
	4/10/2017	-	NM	-	-	-	-	-	-	-	
	4/6/2017	-	NM	-	-	-	-	-	-	-	
	4/3/2017	-	NM	-	-	-	-	-	-	-	
	3/31/2017	-	NM	-	-	-	-	-	3/31/2017	11:01	11:05
	3/27/2017	-	NM	-	-	-	-	-	-	-	-
	3/24/2017	-	NM	-	-	-	-	-	-	-	-
	3/20/2017	-	NM	-	-	-	-	-	-	-	-
	3/16/2017	-	NM	-	-	-	-	-	-	-	-
	3/13/2017	-	NM	-	-	-	-	-	-	-	-
	3/6/2017	-	NM	-	-	-	-	-	-	-	-
	3/2/2017	-	NM	-	-	-	-	-	-	-	-
	2/27/2017	-	NM	-	-	-	-	-	-	-	-
	2/23/2017	-	NM	-	-	-	-	-	-	-	-
	2/20/2017	-	NM	-	-	-	-	-	-	-	-
	2/17/2017	-	NM	-	-	-	-	-	-	-	-
	2/9/2017	-	NM	-	-	-	-	-	-	-	-
	2/6/2017	-	NM	-	-	-	-	-	-	-	-
	2/2/2017	-	NM	-	-	-	-	-	-	-	-
	1/30/2017	-	NM	-	-	-	-	-	-	-	-
	1/26/2017	-	NM	-	-	-	-	-	-	-	-
	1/23/2017	-	NM	-	-	-	-	-	-	-	-
	1/19/2017	-	NM	-	-	-	-	-	-	-	-
	1/16/2017	-	5.33	5.34	0.01	-	816.83	816.83	-	-	-
1/12/2017	-	-	5.15	-	-	817.02	-	-	-	-	
1/5/2017	-	4.63	4.65	0.02	-	817.52	817.53	-	-	-	
RT-2I					819.51						
	6/29/2017	-	1.78	-	-	817.73	-	6/29/2017	10:07	10:13	
	6/22/2017	-	2.95	-	-	816.56	-	6/24/2017	9:18	9:22	
	6/19/2017	-	2.67	-	-	816.84	-	6/21/2017	9:39	9:42	
	6/15/2017	-	3.01	-	-	816.50	-	6/16/2017	10:45	10:48	
	6/12/2017	-	2.72	-	-	816.79	-	6/13/2017	9:31	9:40	
	6/9/2017	-	2.13	-	-	817.38	-	6/11/2017	9:16	9:20	
	6/5/2017	-	2.97	-	-	816.54	-	6/5/2017	12:31	12:36	
	6/2/2017	-	1.97	-	-	817.54	-	6/2/2017	12:13	12:18	
	5/31/2017	-	2.45	-	-	817.06	-	5/31/2017	10:17	10:22	
	5/24/2017	-	2.66	-	-	816.85	-	5/26/2017	12:06	12:12	
	5/22/2017	-	2.66	-	-	816.85	-	5/22/2017	11:12	11:16	
	5/18/2017	-	3.18	-	-	816.33	-	5/19/2017	11:51	11:55	
	5/15/2017	-	3.24	-	-	816.27	-	5/16/2017	10:51	10:54	
	5/11/2017	-	3.16	-	-	816.35	-	5/14/2017	9:51	9:57	
	5/7/2017	-	2.91	-	-	816.60	-	5/9/2017	12:51	12:55	
	5/4/2017	3.25	3.26	0.01	-	816.25	816.26	5/5/2017	12:49	12:52	
	4/27/2017	3.22	3.23	0.01	-	816.28	816.29	4/28/2017	10:32	10:41	
	4/25/2017	-	2.27	-	-	817.24	-	4/25/2017	10:11	10:17	
	4/20/2017	-	3.30	-	-	816.21	-	4/21/2017	11:28	11:36	
	4/16/2017	-	1.62	-	-	817.89	-	-	-	-	

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2I (cont'd)	4/13/2017	-	3.30	-		816.21	-	4/13/2017	12:15	12:20
	4/10/2017	-	3.30	-		816.21	-	4/11/2017	10:36	10:40
	4/6/2017	3.12	3.13	0.01		816.38	816.39	4/7/2017	15:21	15:25
	4/3/2017	-	3.43	-		816.08	-	-	-	-
	3/31/2017	-	3.25	-		816.26	-	3/31/2017	11:07	11:10
	3/27/2017	-	3.35	-		816.16	-	3/27/2017	12:33	12:40
	3/24/2017	3.19	3.21	0.02		816.30	816.31	3/24/2017	12:44	12:55
	3/20/2017	3.15	3.16	0.01		816.35	816.36	3/20/2017	10:01	10:06
	3/16/2017	3.15	3.16	0.01		816.35	816.36	3/17/2017	11:01	11:06
	3/13/2017	3.29	3.30	0.01		816.21	816.22	3/15/2017	13:30	13:35
	3/6/2017	-	3.09	-		816.42	-	3/6/2017	9:52	9:57
	3/2/2017	2.96	2.97	0.01		816.54	816.55	3/3/2017	11:50	11:55
	2/27/2017	3.11	3.12	0.01		816.39	816.40	2/27/2017	9:58	10:06
	2/23/2017	3.09	3.10	0.01		816.41	816.42	-	-	-
	2/20/2017	3.11	3.12	0.01		816.39	816.40	-	-	-
	2/17/2017	3.07	3.08	0.01		816.43	816.44	2/17/2017	9:26	9:32
	2/9/2017	2.89	2.90	0.01		816.61	816.62	2/9/2017	10:43	10:47
	2/6/2017	3.30	3.31	0.01		816.20	816.21	2/6/2017	13:11	13:14
	2/2/2017	3.27	3.29	0.02		816.22	816.24	2/2/2017	11:03	11:07
	1/30/2017	3.24	3.25	0.01		816.26	816.27	1/30/2017	13:52	13:57
	1/26/2017	3.12	3.13	0.01		816.38	816.39	1/26/2017	10:53	11:04
	1/23/2017	2.82	2.83	0.01		816.68	816.69	1/23/2017	9:30	9:35
	1/19/2017	3.45	3.46	0.01		816.05	816.06	1/19/2017	9:10	9:15
1/16/2017	3.41	3.42	0.01		816.09	816.10	1/16/2017	9:30	9:35	
1/12/2017	-	3.57	-		815.94	-	-	-	-	
1/5/2017	3.18	3.20	0.02		816.31	816.33	-	-	-	
RT-2J					817.63					
	6/29/2017	1.39	1.40	0.01		816.23	816.24	6/29/2017	10:15	10:20
	6/22/2017	-	1.52	-		816.11	-	6/24/2017	9:24	9:28
	6/19/2017	-	1.50	-		816.13	-	6/21/2017	9:47	9:51
	6/15/2017	2.51	2.52	0.01		815.11	815.12	6/16/2017	10:50	10:54
	6/12/2017	-	1.26	-		816.37	-	6/13/2017	9:43	9:51
	6/9/2017	-	0.50	-		817.13	-	6/11/2017	9:22	9:30
	6/5/2017	1.50	1.51	0.01		816.12	816.13	6/5/2017	12:40	12:45
	6/2/2017	1.16	1.17	0.01		816.46	816.47	6/2/2017	12:21	12:26
	5/31/2017	0.98	1.00	0.02		816.63	816.64	5/31/2017	10:24	10:28
	5/24/2017	-	1.27	-		816.36	-	5/26/2017	12:21	12:27
	5/22/2017	1.31	1.32	0.01		816.31	816.32	5/22/2017	11:18	11:21
	5/18/2017	1.80	1.81	0.01		815.82	815.83	5/19/2017	12:02	12:07
	5/15/2017	1.76	1.78	0.02		815.85	815.86	5/16/2017	10:56	11:01
	5/11/2017	1.72	1.78	0.06		815.85	815.89	5/14/2017	10:03	10:10
	5/7/2017	-	1.35	-		816.28	-	5/9/2017	13:01	13:06
	5/4/2017	1.93	1.94	0.01		815.69	815.70	5/5/2017	13:01	13:07
	4/27/2017	1.86	1.90	0.04		815.73	815.76	4/28/2017	10:44	10:51
	4/25/2017	-	1.01	-		816.62	-	4/25/2017	10:21	10:26
	4/20/2017	2.08	2.09	0.01		815.54	815.55	4/21/2017	11:18	11:26
	4/16/2017	0.25	0.26	0.01		817.37	817.38	-	-	-
	4/13/2017	2.06	2.07	0.01		815.56	815.57	4/13/2017	12:25	12:29
	4/10/2017	1.48	1.58	0.10		816.05	816.12	4/11/2017	10:43	10:48
	4/6/2017	1.68	1.70	0.02		815.93	815.94	4/7/2017	15:29	15:30
	4/3/2017	2.26	2.27	0.01		815.36	815.37	-	-	-
	3/31/2017	1.14	1.15	0.01		816.48	816.49	3/31/2017	11:12	11:16
	3/27/2017	2.08	2.09	0.01		815.54	815.55	3/27/2017	12:43	12:50
	3/24/2017	0.90	0.91	0.01		816.72	816.73	3/24/2017	12:57	13:08
	3/20/2017	1.80	1.81	0.01		815.82	815.83	3/20/2017	10:10	10:15
	3/16/2017	1.76	1.77	0.01		815.86	815.87	3/17/2017	11:10	11:14

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2J (cont'd)	3/13/2017	1.99	2.00	0.01		816.38	816.39	3/15/2017	13:37	13:39
	3/6/2017	2.47	2.48	0.01		815.90	815.91	3/6/2017	10:00	10:04
	3/2/2017	2.02	2.05	0.03		816.33	816.36	3/3/2017	11:57	12:01
	2/27/2017	1.12	1.15	0.03		817.23	817.26	2/27/2017	10:08	10:15
	2/23/2017	2.09	2.10	0.01		816.28	816.29	-	-	-
	2/20/2017	2.15	2.16	0.01		816.22	816.23	-	-	-
	2/17/2017	2.12	2.13	0.01		816.25	816.26	2/17/2017	9:18	9:25
	2/9/2017	2.00	2.01	0.01		816.37	816.38	2/9/2017	10:49	10:52
	2/6/2017	2.30	2.31	0.01		816.07	816.08	2/6/2017	13:05	13:09
	2/2/2017	2.30	2.31	0.01		816.07	816.08	2/2/2017	11:09	11:13
	1/30/2017	2.25	2.26	0.01		816.12	816.13	1/30/2017	14:00	14:04
	1/26/2017	2.06	2.08	0.02		816.30	816.32	1/26/2017	10:49	10:51
	1/23/2017	1.92	1.95	0.03		816.43	816.46	1/23/2017	9:38	9:50
	1/19/2017	2.40	2.50	0.10		815.88	815.96	1/19/2017	9:17	9:21
	1/16/2017	2.38	2.49	0.11		815.89	815.97	1/16/2017	9:38	9:41
	1/12/2017	2.24	2.31	0.07		816.07	816.12	-	-	-
	1/5/2017	2.19	2.28	0.09		816.10	816.17	-	-	-
RT-2K					817.40					
	6/29/2017	-	2.65	-		814.75	-	6/29/2017	10:22	10:27
	6/22/2017	-	3.07	-		814.33	-	6/24/2017	9:30	9:34
	6/19/2017	-	2.34	-		815.06	-	6/21/2017	9:55	9:59
	6/15/2017	-	2.59	-		814.81	-	6/16/2017	10:56	10:59
	6/12/2017	1.21	1.25	0.04		816.15	816.18	6/13/2017	9:58	10:05
	6/9/2017	-	2.39	-		815.01	-	6/11/2017	9:33	9:40
	6/5/2017	0.85	0.87	0.02		816.53	816.54	6/5/2017	12:50	12:56
	6/2/2017	0.98	1.00	0.02		816.40	816.41	6/2/2017	12:30	12:36
	5/31/2017	0.95	0.97	0.02		816.43	816.44	5/31/2017	10:31	10:35
	5/24/2017	0.99	1.00	0.01		816.40	816.41	5/26/2017	12:33	12:40
	5/22/2017	1.45	1.47	0.02		815.93	815.94	5/22/2017	11:25	11:29
	5/18/2017	-	2.45	-		814.95	-	5/19/2017	12:15	12:20
	5/15/2017	2.80	2.81	0.01		814.59	814.60	5/16/2017	11:03	11:07
	5/11/2017	-	2.34	-		815.06	-	5/14/2017	10:15	10:21
	5/7/2017	-	2.53	-		814.87	-	5/9/2017	13:08	13:13
	5/4/2017	-	2.66	-		814.74	-	5/5/2017	13:10	13:14
	4/27/2017	-	2.85	-		814.55	-	4/28/2017	10:55	11:01
	4/25/2017	-	2.75	-		814.65	-	4/25/2017	10:31	10:35
	4/20/2017	-	2.36	-		815.04	-	4/21/2017	11:39	11:44
	4/16/2017	2.58	2.59	0.01		814.81	814.82	-	-	-
	4/13/2017	2.30	2.31	0.01		815.09	815.10	4/13/2017	12:31	12:34
	4/10/2017	2.73	2.75	0.02		814.65	814.66	4/11/2017	10:52	10:56
	4/6/2017	2.60	2.61	0.01		814.79	814.80	4/7/2017	15:32	15:36
	4/3/2017	2.71	2.72	0.01		814.68	814.69	-	-	-
	3/31/2017	-	2.80	-		814.60	-	3/31/2017	11:18	11:22
	3/27/2017	2.83	2.84	0.01		814.56	814.57	3/27/2017	12:51	12:59
	3/24/2017	1.28	1.30	0.02		816.10	816.11	3/24/2017	13:10	13:21
	3/20/2017	1.34	1.36	0.02		816.04	816.05	3/20/2017	10:17	10:22
	3/16/2017	1.36	1.39	0.03		816.01	816.03	3/17/2017	11:16	11:20
	3/13/2017	1.30	1.34	0.04		816.12	816.15	3/15/2017	13:42	13:50
	3/6/2017	2.86	2.87	0.01		814.59	814.60	3/6/2017	10:06	10:21
	3/2/2017	1.08	1.10	0.02		816.36	816.37	3/3/2017	12:02	12:06
	2/27/2017	1.30	1.31	0.01		816.15	816.16	2/27/2017	10:17	10:26
	2/23/2017	2.03	2.04	0.01		815.42	815.43	-	-	-
	2/20/2017	2.34	2.35	0.01		815.11	815.12	-	-	-
	2/17/2017	1.39	1.40	0.01		816.06	816.07	2/17/2017	9:10	9:17
	2/9/2017	1.13	1.14	0.01		816.32	816.33	2/9/2017	10:53	10:58
	2/6/2017	2.57	2.58	0.01		814.88	814.89	2/6/2017	12:58	13:03

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RT-2K (cont'd)	2/2/2017	2.01	2.02	0.01		815.44	815.45	2/2/2017	11:15	11:19
	1/30/2017	1.81	1.82	0.01		815.64	815.65	1/30/2017	14:06	14:11
	1/26/2017	1.05	1.06	0.01		816.40	816.41	1/26/2017	10:36	10:47
	1/23/2017	1.10	1.11	0.01		816.35	816.36	1/23/2017	9:55	10:10
	1/19/2017	1.70	1.72	0.02		815.74	815.75	1/19/2017	9:23	9:28
	1/16/2017	1.72	1.73	0.01		815.73	815.74	1/16/2017	9:43	9:48
	1/12/2017	-	1.70	-		815.76	-	-	-	-
	1/5/2017	-	1.06	-		816.40	-	-	-	-
RT-2L					819.54					
	6/29/2017	2.17	2.23	0.06		817.31	817.35	6/29/2017	10:30	10:34
	6/22/2017	2.81	2.86	0.05		816.68	816.72	6/24/2017	9:39	9:41
	6/19/2017	2.32	2.33	0.01		817.21	817.22	6/21/2017	10:01	10:04
	6/15/2017	2.42	2.49	0.07		817.05	817.10	6/16/2017	11:06	11:10
	6/12/2017	2.28	2.31	0.03		817.23	817.25	6/13/2017	10:00	10:15
	6/9/2017	2.15	2.21	0.06		817.33	817.37	6/11/2017	9:44	9:48
	6/5/2017	-	2.10	-		817.44	-	6/5/2017	13:03	13:08
	6/2/2017	-	1.97	-		817.57	-	6/2/2017	12:40	12:46
	5/31/2017	-	2.20	-		817.34	-	5/31/2017	10:38	10:41
	5/24/2017	-	1.92	-		817.62	-	5/26/2017	13:07	13:14
	5/22/2017	-	2.08	-		817.46	-	5/22/2017	11:32	11:36
	5/18/2017	-	2.38	-		817.16	-	5/19/2017	12:35	12:40
	5/15/2017	-	3.24	-		816.30	-	5/16/2017	11:10	11:15
	5/11/2017	-	2.37	-		817.17	-	5/14/2017	10:27	10:31
	5/7/2017	-	1.90	-		817.64	-	5/9/2017	13:15	13:19
	5/4/2017	2.35	2.36	0.01		817.18	817.19	5/5/2017	13:19	13:25
	4/27/2017	2.15	2.17	0.02		817.37	817.38	4/28/2017	11:04	11:11
	4/25/2017	1.95	2.00	0.05		817.54	817.58	4/25/2017	10:37	10:42
	4/20/2017	2.60	2.65	0.05		816.89	816.93	4/21/2017	11:46	11:52
	4/16/2017	2.25	2.32	0.07		817.22	817.27	-	-	-
	4/13/2017	3.60	3.67	0.07		815.87	815.92	4/13/2017	12:37	12:42
	4/10/2017	2.55	2.65	0.10		816.89	816.96	4/11/2017	10:59	11:03
	4/6/2017	2.42	2.52	0.10		817.02	817.09	4/7/2017	15:41	15:46
	4/3/2017	2.78	2.82	0.04		816.72	816.75	-	-	-
	3/31/2017	2.85	2.92	0.07		816.62	816.67	-	-	-
	3/27/2017	3.08	3.12	0.04		816.42	816.45	3/27/2017	13:07	13:17
	3/24/2017	2.60	2.70	0.10		816.84	816.91	3/24/2017	13:23	13:30
	3/20/2017	2.78	2.87	0.09		816.67	816.74	3/20/2017	10:24	10:30
	3/16/2017	2.60	2.70	0.10		816.84	816.91	3/17/2017	11:22	11:30
	3/13/2017	3.47	3.60	0.13		816.78	816.87	3/15/2017	14:00	14:07
	3/6/2017	4.14	4.20	0.06		816.18	816.22	3/6/2017	10:23	10:27
	3/2/2017	4.24	4.36	0.12		816.02	816.10	3/3/2017	12:08	12:12
	2/27/2017	3.95	4.06	0.11		816.32	816.40	2/27/2017	10:27	10:34
	2/23/2017	4.01	4.15	0.14		816.23	816.33	-	-	-
	2/20/2017	4.22	4.33	0.11		816.05	816.13	-	-	-
	2/17/2017	3.91	4.06	0.15		816.32	816.43	2/17/2017	9:02	9:08
	2/9/2017	3.95	4.05	0.10		816.33	816.40	-	-	-
	2/6/2017	4.25	4.40	0.15		815.98	816.09	2/6/2017	12:52	12:56
	2/2/2017	4.15	4.35	0.20		816.03	816.17	2/2/2017	11:23	11:27
	1/30/2017	4.27	4.39	0.12		815.99	816.07	1/30/2017	13:45	13:50
	1/26/2017	3.82	3.98	0.16		816.40	816.51	1/26/2017	10:30	10:35
	1/23/2017	3.69	3.82	0.13		816.56	816.65	1/23/2017	10:15	10:21
	1/19/2017	4.22	4.42	0.20		815.96	816.10	1/19/2017	9:30	9:35
	1/16/2017	4.12	4.33	0.21		816.05	816.20	1/16/2017	9:51	9:55
	1/12/2017	4.00	4.80	0.80		815.58	816.16	-	-	-
	1/5/2017	3.77	3.95	0.18		816.43	816.56	-	-	-
RW-01					851.92					

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RW-01 (cont'd)	6/29/2017	-	12.27	-		839.65	-	-	-	-
	6/22/2017	-	12.17	-		839.75	-	-	-	-
	6/19/2017	-	12.56	-		839.36	-	-	-	-
	6/15/2017	-	12.04	-		839.88	-	-	-	-
	6/12/2017	-	12.81	-		839.11	-	-	-	-
	6/9/2017	-	12.83	-		839.09	-	-	-	-
	6/5/2017	-	11.72	-		840.20	-	-	-	-
	6/2/2017	-	11.77	-		840.15	-	-	-	-
	5/31/2017	-	13.68	-		838.24	-	-	-	-
	5/24/2017	-	11.76	-		840.16	-	-	-	-
	5/22/2017	-	11.77	-		840.15	-	-	-	-
	5/18/2017	-	11.79	-		840.13	-	-	-	-
	5/15/2017	11.84	11.89	0.05		840.03	840.07	-	-	-
	5/11/2017	-	11.52	-		840.40	-	-	-	-
	5/7/2017	-	11.59	-		840.33	-	-	-	-
	5/4/2017	-	11.55	-		840.37	-	-	-	-
	4/27/2017	-	10.73	-		841.19	-	-	-	-
	4/25/2017	-	10.83	-		841.09	-	-	-	-
	4/20/2017	13.11	13.12	0.01		838.80	838.81	-	-	-
	4/16/2017	-	12.60	-		839.32	-	-	-	-
	4/13/2017	-	12.06	-		839.86	-	-	-	-
	4/10/2017	-	11.72	-		840.20	-	-	-	-
	4/6/2017	-	11.51	-		840.41	-	-	-	-
	4/3/2017	-	14.28	-		837.64	-	-	-	-
	3/31/2017	-	14.37	-		837.55	-	-	-	-
	3/27/2017	15.79	15.80	0.01		836.12	836.13	-	-	-
	3/24/2017	15.73	15.74	0.01		836.18	836.19	-	-	-
	3/20/2017	15.22	15.24	0.02		836.68	836.70	-	-	-
	3/16/2017	14.31	14.32	0.01		837.60	837.61	-	-	-
	3/13/2017	15.51	15.52	0.01		836.40	836.41	-	-	-
	3/6/2017	-	15.36	-		836.56	-	-	-	-
	3/2/2017	14.95	14.96	0.01		836.96	836.97	-	-	-
	2/27/2017	15.08	15.09	0.01		836.83	836.84	-	-	-
	2/23/2017	14.50	14.51	0.01		837.41	837.42	-	-	-
	2/20/2017	14.30	14.31	0.01		837.61	837.62	-	-	-
	2/17/2017	13.75	13.76	0.01		838.16	838.17	-	-	-
	2/9/2017	12.70	12.71	0.01		839.21	839.22	-	-	-
	2/6/2017	15.40	15.41	0.01		836.51	836.52	-	-	-
	2/2/2017	15.21	15.22	0.01		836.70	836.71	-	-	-
	1/30/2017	14.66	14.67	0.01		837.25	837.26	-	-	-
	1/26/2017	12.94	12.95	0.01		838.97	838.98	-	-	-
	1/23/2017	12.39	12.40	0.01		839.52	839.53	-	-	-
	1/19/2017	18.17	18.18	0.01		833.74	833.75	1/19/2017	15:31	15:41
	1/16/2017	17.85	17.86	0.01		834.06	834.07	-	-	-
	1/12/2017	-	17.25	-		834.67	-	1/12/2017	8:56	9:26
	1/5/2017	17.37	17.38	0.01		834.54	834.55	-	-	-
RW-02					852.69					
	6/29/2017	21.03	21.26	0.23		831.43	831.60	-	-	-
	6/22/2017	21.34	21.62	0.28		831.07	831.27	-	-	-
	6/19/2017	21.47	21.81	0.34		830.88	831.13	-	-	-
	6/15/2017	21.37	21.67	0.30		831.02	831.24	-	-	-
	6/12/2017	21.28	21.50	0.22		831.19	831.35	-	-	-
	6/9/2017	21.26	21.48	0.22		831.21	831.37	-	-	-
	6/5/2017	21.38	21.60	0.22		831.09	831.25	-	-	-
	6/2/2017	21.50	21.73	0.23		830.96	831.13	-	-	-
	5/31/2017	21.60	22.00	0.40		830.69	830.98	5/31/2017	13:07	13:14

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-02 (cont'd)	5/24/2017	21.61	21.86	0.25		830.83	831.01	-	-	-
	5/22/2017	22.14	22.43	0.29		830.26	830.47	-	-	-
	5/18/2017	22.31	22.61	0.30		830.08	830.30	-	-	-
	5/15/2017	22.29	22.79	0.50		829.90	830.26	5/16/2017	12:02	12:07
	5/11/2017	22.41	23.16	0.75		829.53	830.08	5/14/2017	11:20	11:29
	5/7/2017	22.93	23.60	0.67		829.09	829.58	-	-	-
	5/4/2017	23.40	23.64	0.24		829.05	829.22	-	-	-
	4/27/2017	23.50	23.97	0.47		828.72	829.06	-	-	-
	4/25/2017	23.81	24.18	0.37		828.51	828.78	-	-	-
	4/20/2017	24.24	24.80	0.56		827.89	828.30	-	-	-
	4/16/2017	24.32	24.83	0.51		827.86	828.23	-	-	-
	4/13/2017	24.39	24.80	0.41		827.89	828.19	-	-	-
	4/10/2017	24.35	25.65	1.30		827.04	827.99	4/11/2017	11:18	11:21
	4/6/2017	24.85	NO WATER	0.87		-	-	-	-	-
	4/3/2017	25.58	NO WATER	0.14		-	-	-	-	-
	3/31/2017	25.65	NO WATER	0.07		-	-	-	-	-
	3/27/2017	25.56	25.64	0.08		827.05	827.11	-	-	-
	3/24/2017	25.61	25.62	0.01		827.07	827.08	-	-	-
	3/20/2017	25.61	NO WATER	0.11		-	-	-	-	-
	3/16/2017	25.64	25.65	0.01		827.04	827.05	-	-	-
	3/13/2017	-	25.25	-		827.44	-	-	-	-
	3/6/2017	-	25.25	-		827.44	-	-	-	-
	3/2/2017	-	25.25	-		827.44	-	-	-	-
	2/27/2017	-	25.25	-		827.44	-	-	-	-
	2/23/2017	-	25.25	-		827.44	-	-	-	-
	2/20/2017	-	25.25	-		827.44	-	-	-	-
	2/17/2017	-	25.25	-		827.44	-	-	-	-
	2/9/2017	-	25.25	-		827.44	-	-	-	-
	2/6/2017	-	25.25	-		827.44	-	-	-	-
	2/2/2017	-	25.25	-		827.44	-	-	-	-
	1/30/2017	-	25.25	-		827.44	-	-	-	-
	1/26/2017	-	25.25	-		827.44	-	-	-	-
	1/23/2017	-	25.25	-		827.44	-	-	-	-
1/19/2017	-	25.25	-		827.44	-	-	-	-	
1/16/2017	-	25.25	-		827.44	-	-	-	-	
1/12/2017	-	25.25	-		827.44	-	-	-	-	
1/5/2017	-	25.25	-		827.44	-	-	-	-	
RW-03					852.34					
	6/29/2017	-	21.72	-		830.62	-	-	-	-
	6/22/2017	-	22.01	-		830.33	-	-	-	-
	6/19/2017	-	22.10	-		830.24	-	-	-	-
	6/15/2017	-	22.00	-		830.34	-	-	-	-
	6/12/2017	-	21.98	-		830.36	-	-	-	-
	6/9/2017	-	22.30	-		830.04	-	-	-	-
	6/5/2017	-	22.05	-		830.29	-	-	-	-
	6/2/2017	-	22.19	-		830.15	-	-	-	-
	5/31/2017	-	24.52	-		827.82	-	-	-	-
	5/24/2017	-	22.09	-		830.25	-	-	-	-
	5/22/2017	22.61	22.62	0.01		829.72	829.73	-	-	-
	5/18/2017	-	22.81	-		829.53	-	-	-	-
	5/15/2017	23.00	23.02	0.02		829.32	829.33	-	-	-
	5/11/2017	-	23.16	-		829.18	-	-	-	-
	5/7/2017	-	23.81	-		828.53	-	-	-	-
	5/4/2017	-	25.90	-		826.44	-	-	-	-
	4/27/2017	-	24.36	-		827.98	-	-	-	-
	4/25/2017	-	24.55	-		827.79	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-03 (cont'd)	4/20/2017	-	24.81	-		827.53	-	-	-	-
	4/16/2017	24.91	24.92	0.01		827.42	827.43	-	-	-
	4/13/2017	25.01	25.02	0.01		827.32	827.33	-	-	-
	4/10/2017	25.03	25.05	0.02		827.29	827.30	-	-	-
	4/6/2017	25.45	25.46	0.01		826.88	826.89	-	-	-
	4/3/2017	25.56	25.57	0.01		826.77	826.78	-	-	-
	3/31/2017	25.64	25.65	0.01		826.69	826.70	-	-	-
	3/27/2017	25.62	25.63	0.01		826.71	826.72	-	-	-
	3/24/2017	25.56	25.65	0.09		826.69	826.75	-	-	-
	3/20/2017	-	25.65	-		826.69	-	-	-	-
	3/16/2017	25.71	25.73	0.02		826.61	826.62	-	-	-
	3/13/2017	25.65	25.66	0.01		826.68	826.69	-	-	-
	3/6/2017	25.79	25.80	0.01		826.54	826.55	-	-	-
	3/2/2017	25.75	25.76	0.01		826.58	826.59	-	-	-
	2/27/2017	25.81	25.82	0.01		826.52	826.53	-	-	-
	2/23/2017	25.75	25.76	0.01		826.58	826.59	-	-	-
	2/20/2017	25.78	25.79	0.01		826.55	826.56	-	-	-
	2/17/2017	25.81	25.82	0.01		826.52	826.53	-	-	-
	2/9/2017	26.03	26.04	0.01		826.30	826.31	-	-	-
	2/6/2017	26.05	26.06	0.01		826.28	826.29	-	-	-
	2/2/2017	26.31	26.32	0.01		826.02	826.03	-	-	-
	1/30/2017	26.40	26.41	0.01		825.93	825.94	-	-	-
	1/26/2017	26.58	26.60	0.02		825.74	825.75	-	-	-
	1/23/2017	26.71	26.72	0.01		825.62	825.63	-	-	-
	1/19/2017	26.82	26.84	0.02		825.50	825.51	-	-	-
	1/16/2017	26.80	26.81	0.01		825.53	825.54	-	-	-
	1/12/2017	32.67	NO WATER	0.72		-	-	-	-	-
	1/5/2017	26.89	26.91	0.02		825.43	825.44	-	-	-
RW-04					853.93					
	6/29/2017	28.05	28.56	0.51		825.37	825.74	-	-	-
	6/22/2017	28.23	28.71	0.48		825.22	825.57	6/24/2017	11:31	11:39
	6/19/2017	28.21	28.64	0.43		825.29	825.61	6/21/2017	11:47	11:56
	6/15/2017	28.28	28.62	0.34		825.31	825.56	6/16/2017	12:36	12:43
	6/12/2017	28.28	28.70	0.42		825.23	825.54	6/13/2017	14:09	14:20
	6/9/2017	28.32	28.99	0.67		824.94	825.43	6/11/2017	11:15	11:26
	6/5/2017	28.34	29.27	0.93		824.66	825.34	6/5/2017	13:57	14:10
	6/2/2017	28.52	29.36	0.84		824.57	825.19	6/2/2017	14:35	14:39
	5/31/2017	28.57	29.35	0.78		824.58	825.15	5/31/2017	12:48	13:01
	5/24/2017	-	28.95	-		824.98	-	5/26/2017	10:32	10:39
	5/22/2017	29.12	29.70	0.58		824.23	824.66	5/22/2017	12:19	12:28
	5/18/2017	29.33	29.73	0.40		824.20	824.49	-	-	-
	5/15/2017	29.46	29.82	0.36		824.11	824.37	5/16/2017	11:48	11:55
	5/11/2017	29.66	30.13	0.47		823.80	824.15	5/14/2017	11:07	11:16
	5/7/2017	29.90	30.38	0.48		823.55	823.90	5/9/2017	13:30	13:35
	5/4/2017	30.05	30.45	0.40		823.48	823.77	-	-	-
	4/27/2017	30.44	31.34	0.90		822.59	823.25	4/28/2017	12:10	12:21
	4/25/2017	30.56	31.54	0.98		822.39	823.11	-	-	-
	4/20/2017	30.75	31.70	0.95		822.23	822.93	4/21/2017	12:30	12:39
	4/16/2017	30.88	31.97	1.09		821.96	822.76	-	-	-
	4/13/2017	31.07	31.95	0.88		821.98	822.62	4/13/2017	12:57	13:01
	4/10/2017	31.11	32.07	0.96		821.86	822.56	4/11/2017	11:10	11:14
	4/6/2017	31.32	32.20	0.88		821.73	822.37	-	-	-
	4/3/2017	31.24	32.20	0.96		821.73	822.43	-	-	-
	3/31/2017	31.39	32.25	0.86		821.68	822.31	-	-	-
	3/27/2017	31.39	32.27	0.88		821.66	822.30	-	-	-
	3/24/2017	31.43	32.34	0.91		821.59	822.26	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-04 (cont'd)	3/20/2017	31.55	32.40	0.85		821.53	822.15	3/20/2017	11:20	11:24
	3/16/2017	31.63	32.49	0.86		821.44	822.07	3/17/2017	9:25	9:32
	3/13/2017	31.68	32.60	0.92		821.33	822.00	3/15/2017	15:07	15:16
	3/6/2017	31.84	32.90	1.06		821.03	821.81	3/6/2017	10:31	10:34
	3/2/2017	31.80	32.90	1.10		821.03	821.84	3/3/2017	13:01	13:10
	2/27/2017	31.88	32.96	1.08		820.97	821.76	2/27/2017	11:26	11:32
	2/23/2017	31.90	33.02	1.12		820.91	821.73	2/24/2017	13:21	13:34
	2/20/2017	31.95	33.07	1.12		820.86	821.68	2/21/2017	13:32	13:39
	2/17/2017	32.02	33.14	1.12		820.79	821.61	2/17/2017	10:49	10:54
	2/9/2017	32.25	33.30	1.05		820.63	821.40	2/9/2017	11:12	11:20
	2/6/2017	32.32	33.28	0.96		820.65	821.35	-	-	-
	2/2/2017	32.55	33.59	1.04		820.34	821.10	2/2/2017	12:28	12:35
	1/30/2017	32.62	33.65	1.03		820.28	821.03	-	-	-
	1/26/2017	32.70	34.01	1.31		819.92	820.88	-	-	-
	1/23/2017	32.75	34.15	1.40		819.78	820.80	-	-	-
	1/19/2017	32.78	34.23	1.45		819.70	820.76	1/19/2017	11:25	11:35
	1/16/2017	32.75	34.25	1.50		819.68	820.78	-	-	-
1/12/2017	34.12	NO WATER	0.92		-	-	1/12/2017	10:00	10:30	
1/5/2017	32.70	34.33	1.63		819.60	820.79	-	-	-	
RW-05					853.53					
	6/29/2017	31.93	32.73	0.80		820.80	821.39	-	-	-
	6/22/2017	32.11	32.72	0.61		820.81	821.26	6/24/2017	11:17	11:22
	6/19/2017	32.17	32.75	0.58		820.78	821.21	6/21/2017	11:25	11:38
	6/15/2017	32.13	32.59	0.46		820.94	821.28	-	-	-
	6/12/2017	32.24	32.65	0.41		820.88	821.18	-	-	-
	6/9/2017	32.33	32.71	0.38		820.82	821.10	-	-	-
	6/5/2017	32.22	32.45	0.23		821.08	821.25	-	-	-
	6/2/2017	32.42	32.66	0.24		820.87	821.05	-	-	-
	5/31/2017	32.43	32.89	0.46		820.64	820.98	-	-	-
	5/24/2017	32.56	32.86	0.30		820.67	820.89	-	-	-
	5/22/2017	32.71	32.94	0.23		820.59	820.76	-	-	-
	5/18/2017	32.80	32.96	0.16		820.57	820.69	-	-	-
	5/15/2017	32.76	33.27	0.51		820.26	820.64	5/16/2017	11:41	11:45
	5/11/2017	32.73	33.16	0.43		820.37	820.69	-	-	-
	5/7/2017	32.75	33.07	0.32		820.46	820.70	-	-	-
	5/4/2017	32.85	33.22	0.37		820.31	820.58	-	-	-
	4/27/2017	33.13	33.42	0.29		820.11	820.33	-	-	-
	4/25/2017	33.41	33.70	0.29		819.83	820.05	-	-	-
	4/20/2017	33.49	33.70	0.21		819.83	819.99	-	-	-
	4/16/2017	33.43	33.87	0.44		819.66	819.98	-	-	-
	4/13/2017	33.63	34.05	0.42		819.48	819.79	-	-	-
	4/10/2017	33.77	34.22	0.45		819.31	819.64	-	-	-
	4/6/2017	33.79	34.15	0.36		819.38	819.65	-	-	-
	4/3/2017	33.88	34.23	0.35		819.30	819.56	-	-	-
	3/31/2017	34.08	34.46	0.38		819.07	819.35	-	-	-
	3/27/2017	34.05	34.40	0.35		819.13	819.39	-	-	-
	3/24/2017	34.08	34.40	0.32		819.13	819.37	-	-	-
	3/20/2017	34.14	34.40	0.26		819.13	819.32	-	-	-
	3/16/2017	34.14	34.38	0.24		819.15	819.33	-	-	-
	3/13/2017	34.34	34.60	0.26		818.93	819.12	-	-	-
	3/6/2017	34.75	35.05	0.30		818.48	818.70	-	-	-
	3/2/2017	34.77	34.93	0.16		818.60	818.72	3/3/2017	12:44	12:51
	2/27/2017	34.75	35.25	0.50		818.28	818.65	2/27/2017	11:15	11:22
	2/23/2017	34.76	35.18	0.42		818.35	818.66	-	-	-
	2/20/2017	34.80	35.15	0.35		818.38	818.64	-	-	-
	2/17/2017	34.84	35.13	0.29		818.40	818.62	-	-	-



**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-05 (cont'd)	2/9/2017	34.82	35.85	1.03		817.68	818.44	2/9/2017	11:00	11:08
	2/6/2017	34.81	35.90	1.09		817.63	818.43	-	-	-
	2/2/2017	34.82	35.94	1.12		817.59	818.41	2/2/2017	12:20	12:24
	1/30/2017	34.82	35.94	1.12		817.59	818.41	-	-	-
	1/26/2017	34.88	36.05	1.17		817.48	818.34	-	-	-
	1/23/2017	34.96	36.17	1.21		817.36	818.25	1/23/2017	11:40	11:48
	1/19/2017	35.08	36.35	1.27		817.18	818.11	1/19/2017	11:07	11:17
	1/16/2017	35.06	36.30	1.24		817.23	818.14	1/16/2017	10:50	11:00
	1/12/2017	-	NM	-		-	-	1/12/2017	10:35	11:05
	1/5/2017	35.11	36.10	0.99		817.43	818.16	-	-	-
RW-06					846.21					
	6/29/2017	26.19	26.20	0.01		820.01	820.02	-	-	-
	6/22/2017	26.48	26.49	0.01		819.72	819.73	-	-	-
	6/19/2017	-	26.30	-		819.91	-	-	-	-
	6/15/2017	-	26.37	-		819.84	-	-	-	-
	6/12/2017	-	26.31	-		819.90	-	-	-	-
	6/9/2017	-	26.28	-		819.93	-	-	-	-
	6/5/2017	-	26.34	-		819.87	-	-	-	-
	6/2/2017	-	26.26	-		819.95	-	-	-	-
	5/31/2017	26.43	26.44	0.01		819.77	819.78	-	-	-
	5/24/2017	-	26.93	-		819.28	-	-	-	-
	5/22/2017	-	26.81	-		819.40	-	-	-	-
	5/18/2017	-	26.88	-		819.33	-	-	-	-
	5/15/2017	26.65	26.66	0.01		819.55	819.56	-	-	-
	5/11/2017	-	26.75	-		819.46	-	-	-	-
	5/7/2017	-	26.39	-		819.82	-	-	-	-
	5/4/2017	-	26.90	-		819.31	-	-	-	-
	4/27/2017	27.12	27.13	0.01		819.08	819.09	-	-	-
	4/25/2017	27.09	27.10	0.01		819.11	819.12	-	-	-
	4/20/2017	-	26.97	-		819.24	-	-	-	-
	4/16/2017	26.73	26.74	0.01		819.47	819.48	-	-	-
	4/13/2017	27.71	27.72	0.01		818.49	818.50	-	-	-
	4/10/2017	27.53	27.55	0.02		818.66	818.67	-	-	-
	4/6/2017	27.50	27.51	0.01		818.70	818.71	-	-	-
	4/3/2017	27.83	27.84	0.01		818.37	818.38	-	-	-
	3/31/2017	27.78	27.79	0.01		818.42	818.43	-	-	-
	3/27/2017	27.98	28.00	0.02		818.21	818.22	-	-	-
	3/24/2017	27.72	27.73	0.01		818.48	818.49	-	-	-
	3/20/2017	27.82	27.83	0.01		818.38	818.39	-	-	-
	3/16/2017	27.90	27.93	0.03		818.28	818.30	-	-	-
	3/13/2017	28.15	28.17	0.02		818.04	818.05	-	-	-
	3/6/2017	28.50	28.60	0.10		817.61	817.68	-	-	-
	3/2/2017	28.50	28.55	0.05		817.66	817.69	-	-	-
	2/27/2017	28.50	28.62	0.12		817.59	817.68	-	-	-
	2/23/2017	28.54	28.60	0.06		817.61	817.65	-	-	-
	2/20/2017	28.55	28.60	0.05		817.61	817.64	-	-	-
	2/17/2017	28.56	28.60	0.04		817.61	817.64	-	-	-
	2/9/2017	28.71	28.76	0.05		817.45	817.48	-	-	-
	2/6/2017	28.73	28.77	0.04		817.44	817.47	-	-	-
	2/2/2017	28.72	28.79	0.07		817.42	817.47	-	-	-
	1/30/2017	28.74	28.80	0.06		817.41	817.45	-	-	-
	1/26/2017	28.71	28.75	0.04		817.46	817.49	-	-	-
	1/23/2017	28.80	28.85	0.05		817.36	817.39	1/23/2017	11:50	11:55
	1/19/2017	29.05	29.10	0.05		817.11	817.14	1/19/2017	10:50	11:00
	1/16/2017	29.00	29.02	0.02		817.19	817.20	1/16/2017	11:05	11:15
	1/12/2017	24.90	27.50	2.60		818.71	820.61	1/12/2017	11:08	11:28

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RW-06 (cont'd)	1/5/2017	28.92	29.05	0.13		817.16	817.25	-	-	-
RW-07					843.19			-	-	-
	6/29/2017	22.85	23.09	0.24		820.10	820.28	-	-	-
	6/22/2017	22.92	23.44	0.52		819.75	820.13	6/24/2017	11:01	11:11
	6/19/2017	22.76	23.32	0.56		819.87	820.28	6/21/2017	11:06	11:17
	6/15/2017	22.92	23.60	0.68		819.59	820.09	6/16/2017	12:18	12:27
	6/12/2017	22.66	23.10	0.44		820.09	820.41	6/13/2017	12:35	13:18
	6/9/2017	22.42	22.92	0.50		820.27	820.64	6/11/2017	10:45	11:01
	6/5/2017	22.84	23.44	0.60		819.75	820.19	6/5/2017	13:35	13:46
	6/2/2017	22.38	23.13	0.75		820.06	820.61	6/2/2017	14:17	14:27
	5/31/2017	22.71	23.50	0.79		819.69	820.27	5/31/2017	12:31	12:42
	5/24/2017	22.39	22.95	0.56		820.24	820.65	5/26/2017	10:45	10:52
	5/22/2017	23.17	23.83	0.66		819.36	819.84	5/22/2017	11:59	12:11
	5/18/2017	23.33	24.42	1.09		818.77	819.57	5/19/2017	12:51	13:10
	5/15/2017	23.05	24.16	1.11		819.03	819.84	5/16/2017	11:30	11:37
	5/11/2017	23.14	24.30	1.16		818.89	819.74	5/14/2017	10:50	10:59
	5/7/2017	22.51	23.30	0.79		819.89	820.47	5/9/2017	11:11	11:32
	5/4/2017	23.26	24.40	1.14		818.79	819.62	5/5/2017	11:31	11:49
	4/27/2017	23.31	24.19	0.88		819.00	819.64	4/28/2017	11:30	11:55
	4/25/2017	22.69	23.50	0.81		819.69	820.28	-	-	-
	4/20/2017	23.49	24.92	1.43		818.27	819.32	-	-	-
	4/16/2017	22.74	24.05	1.31		819.14	820.10	-	-	-
	4/13/2017	23.69	25.40	1.71		817.79	819.04	4/13/2017	10:50	11:00
	4/10/2017	23.27	24.82	1.55		818.37	819.50	-	-	-
	4/6/2017	23.32	25.00	1.68		818.19	819.42	-	-	-
	4/3/2017	24.00	25.97	1.97		817.22	818.66	-	-	-
	3/31/2017	23.50	25.33	1.83		817.86	819.20	3/31/2017	10:11	10:16
	3/27/2017	23.99	26.12	2.13		817.07	818.63	-	-	-
	3/24/2017	23.45	25.25	1.80		817.94	819.26	-	-	-
	3/20/2017	23.90	25.85	1.95		817.34	818.77	3/20/2017	11:07	11:15
	3/16/2017	23.89	25.73	1.84		817.46	818.81	3/17/2017	10:02	10:13
	3/13/2017	24.03	26.15	2.12		817.04	818.59	3/15/2017	14:50	14:56
	3/6/2017	24.35	26.45	2.10		816.74	818.27	3/6/2017	8:50	8:57
	3/2/2017	24.32	26.50	2.18		816.69	818.28	3/3/2017	12:37	12:41
	2/27/2017	24.35	26.60	2.25		816.59	818.23	2/27/2017	10:59	11:07
	2/23/2017	24.34	26.59	2.25		816.60	818.24	2/24/2017	13:09	13:19
	2/20/2017	24.37	26.64	2.27		816.55	818.21	2/21/2017	12:37	12:43
	2/17/2017	24.37	26.65	2.28		816.54	818.21	2/17/2017	10:22	10:27
	2/9/2017	24.45	26.82	2.37		816.37	818.10	2/9/2017	9:05	9:14
	2/6/2017	24.52	26.98	2.46		816.21	818.01	2/6/2017	13:43	13:52
	2/2/2017	24.50	26.95	2.45		816.24	818.03	2/2/2017	11:30	11:41
	1/30/2017	24.48	26.90	2.42		816.29	818.06	1/30/2017	12:48	13:01
	1/26/2017	24.44	26.75	2.31		816.44	818.13	1/26/2017	12:10	12:21
	1/23/2017	24.45	26.80	2.35		816.39	818.11	-	-	-
	1/19/2017	24.22	27.44	3.22		815.75	818.10	1/19/2017	9:40	9:48
	1/16/2017	24.70	27.35	2.65		815.84	817.78	1/16/2017	11:18	11:28
	1/12/2017	18.70	20.19	1.49		823.00	824.09	1/12/2017	11:30	12:00
	1/5/2017	24.61	27.21	2.60		815.98	817.88	-	-	-
RW-08					835.48			-	-	-
	6/29/2017	16.42	16.43	0.01		819.05	819.06	-	-	-
	6/22/2017	16.89	16.90	0.01		818.58	818.59	-	-	-
	6/19/2017	16.24	16.25	0.01		819.23	819.24	-	-	-
	6/15/2017	-	16.77	-		818.71	-	-	-	-
	6/12/2017	-	15.96	-		819.52	-	-	-	-
	6/9/2017	-	15.48	-		820.00	-	-	-	-
	6/5/2017	-	16.51	-		818.97	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RW-08 (cont'd)	6/2/2017	-	15.48	-		820.00	-	-	-	-
	5/31/2017	16.11	16.12	0.01		819.36	819.37	-	-	-
	5/24/2017	-	15.93	-		819.55	-	-	-	-
	5/22/2017	-	17.05	-		818.43	-	-	-	-
	5/18/2017	-	17.22	-		818.26	-	-	-	-
	5/15/2017	16.56	16.57	0.01		818.91	818.92	-	-	-
	5/11/2017	16.80	16.81	0.01		818.67	818.68	-	-	-
	5/7/2017	-	15.97	-		819.51	-	-	-	-
	5/4/2017	17.08	17.09	0.01		818.39	818.40	-	-	-
	4/27/2017	17.19	17.20	0.01		818.28	818.29	-	-	-
	4/25/2017	-	15.48	-		820.00	-	-	-	-
	4/20/2017	16.65	16.66	0.01		818.82	818.83	-	-	-
	4/16/2017	16.10	16.12	0.02		819.36	819.37	-	-	-
	4/13/2017	17.95	18.00	0.05		817.48	817.51	-	-	-
	4/10/2017	16.41	16.56	0.15		818.92	819.03	-	-	-
	4/6/2017	16.70	17.26	0.56		818.22	818.63	-	-	-
	4/3/2017	17.89	18.07	0.18		817.41	817.54	-	-	-
	3/31/2017	16.50	16.83	0.33		818.65	818.89	-	-	-
	3/27/2017	17.74	18.47	0.73		817.01	817.54	-	-	-
	3/24/2017	16.58	17.15	0.57		818.33	818.74	-	-	-
	3/20/2017	17.30	18.39	1.09		817.09	817.88	3/20/2017	10:52	11:03
	3/16/2017	17.61	17.96	0.35		817.52	817.77	-	-	-
	3/13/2017	17.80	18.55	0.75		816.93	817.48	3/15/2017	14:25	14:32
	3/6/2017	17.60	19.03	1.43		816.45	817.49	3/6/2017	8:34	8:41
	3/2/2017	17.57	19.07	1.50		816.41	817.50	3/3/2017	12:30	12:37
	2/27/2017	17.62	19.15	1.53		816.33	817.44	2/27/2017	10:49	10:56
	2/23/2017	17.72	18.85	1.13		816.63	817.45	2/24/2017	12:45	12:59
	2/20/2017	17.59	19.28	1.69		816.20	817.43	2/21/2017	12:45	12:51
	2/17/2017	17.51	19.53	2.02		815.95	817.42	2/17/2017	10:38	10:43
	2/9/2017	17.85	18.89	1.04		816.59	817.35	2/9/2017	9:16	9:24
	2/6/2017	17.83	19.30	1.47		816.18	817.25	2/6/2017	13:30	13:41
	2/2/2017	17.91	18.96	1.05		816.52	817.28	2/2/2017	11:43	11:57
	1/30/2017	17.86	19.03	1.17		816.45	817.30	1/30/2017	12:20	12:31
	1/26/2017	17.80	18.95	1.15		816.53	817.37	1/26/2017	11:50	12:08
	1/23/2017	17.61	19.38	1.77		816.10	817.39	1/23/2017	10:40	10:55
	1/19/2017	17.92	20.15	2.23		815.33	816.96	1/19/2017	9:50	10:00
	1/16/2017	17.80	20.26	2.46		815.22	817.01	1/16/2017	10:05	10:15
	1/12/2017	18.00	20.40	2.40		815.08	816.83	1/12/2017	12:02	12:32
	1/5/2017	17.70	20.10	2.40		815.38	817.13	-	-	-
RW-09					835.12					
	6/29/2017	13.53	13.54	0.01		821.58	821.59	-	-	-
	6/22/2017	13.52	13.54	0.02		821.58	821.60	-	-	-
	6/19/2017	13.51	13.52	0.01		821.60	821.61	-	-	-
	6/15/2017	16.62	16.63	0.01		818.49	818.50	-	-	-
	6/12/2017	-	13.17	-		821.95	-	6/13/2017	13:30	13:40
	6/9/2017	12.70	12.71	0.01		822.41	822.42	-	-	-
	6/5/2017	-	13.51	-		821.61	-	-	-	-
	6/2/2017	12.70	12.71	0.01		822.41	822.42	-	-	-
	5/31/2017	13.40	13.43	0.03		821.69	821.72	-	-	-
	5/24/2017	13.15	13.17	0.02		821.95	821.97	-	-	-
	5/22/2017	13.65	13.69	0.04		821.43	821.46	-	-	-
	5/18/2017	14.01	14.12	0.11		821.00	821.08	-	-	-
	5/15/2017	13.10	13.22	0.12		821.90	821.99	-	-	-
	5/11/2017	13.84	14.03	0.19		821.09	821.23	-	-	-
	5/7/2017	13.47	13.48	0.01		821.64	821.65	-	-	-
	5/4/2017	13.85	14.15	0.30		820.97	821.19	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-09 (cont'd)	4/27/2017	13.80	13.92	0.12		821.20	821.29	-	-	-
	4/25/2017	12.60	12.68	0.08		822.44	822.50	-	-	-
	4/20/2017	13.81	14.22	0.41		820.90	821.20	-	-	-
	4/16/2017	13.80	14.31	0.51		820.81	821.19	-	-	-
	4/13/2017	14.07	16.05	1.98		819.07	820.52	4/13/2017	10:42	10:48
	4/10/2017	13.70	13.75	0.05		821.37	821.41	-	-	-
	4/6/2017	13.56	14.17	0.61		820.95	821.40	-	-	-
	4/3/2017	14.36	15.00	0.64		820.12	820.59	-	-	-
	3/31/2017	13.92	14.06	0.14		821.06	821.17	-	-	-
	3/27/2017	14.59	16.38	1.79		818.74	820.05	-	-	-
	3/24/2017	14.02	14.70	0.68		820.42	820.92	-	-	-
	3/20/2017	13.88	14.64	0.76		820.48	821.04	3/20/2017	10:41	10:49
	3/16/2017	14.24	16.00	1.76		819.12	820.41	3/17/2017	9:42	9:51
	3/13/2017	14.42	16.40	1.98		818.72	820.17	3/15/2017	14:10	14:21
	3/6/2017	14.75	16.47	1.72		818.65	819.91	3/6/2017	8:24	8:30
	3/2/2017	14.75	16.48	1.73		818.64	819.91	3/3/2017	12:17	12:25
	2/27/2017	14.80	16.60	1.80		818.52	819.84	2/27/2017	10:40	10:47
	2/23/2017	14.78	16.60	1.82		818.52	819.85	2/24/2017	12:04	12:09
	2/20/2017	14.80	16.60	1.80		818.52	819.84	2/21/2017	13:01	13:11
	2/17/2017	14.80	16.60	1.80		818.52	819.84	2/17/2017	10:30	10:36
	2/9/2017	14.90	16.72	1.82		818.40	819.73	2/9/2017	9:25	9:34
	2/6/2017	14.98	16.88	1.90		818.24	819.63	2/6/2017	13:17	13:27
	2/2/2017	14.96	16.90	1.94		818.22	819.64	2/2/2017	12:04	12:15
	1/30/2017	14.92	16.80	1.88		818.32	819.70	1/30/2017	12:33	12:45
	1/26/2017	14.84	16.69	1.85		818.43	819.78	1/26/2017	11:40	11:48
	1/23/2017	14.80	16.69	1.89		818.43	819.81	1/23/2017	11:01	11:20
	1/19/2017	15.20	17.30	2.10		817.82	819.36	1/19/2017	10:10	10:20
	1/16/2017	15.15	17.20	2.05		817.92	819.42	1/16/2017	10:18	10:28
	1/12/2017	15.00	16.40	1.40		818.72	819.75	1/12/2017	12:36	13:06
	1/5/2017	15.02	17.02	2.00		818.10	819.56	-	-	-
RW-10					848.53			-	-	-
	6/29/2017	11.65	11.73	0.08		836.80	836.86	-	-	-
	6/22/2017	11.99	12.75	0.76		835.78	836.34	-	-	-
	6/19/2017	12.39	12.72	0.33		835.81	836.05	-	-	-
	6/15/2017	12.78	12.99	0.21		835.54	835.70	-	-	-
	6/12/2017	12.71	12.85	0.14		835.68	835.78	-	-	-
	6/9/2017	12.47	12.53	0.06		836.00	836.05	-	-	-
	6/5/2017	12.07	12.08	0.01		836.45	836.46	-	-	-
	6/2/2017	10.63	10.64	0.01		837.89	837.90	-	-	-
	5/31/2017	18.43	19.15	0.72		829.38	829.91	5/31/2017	13:59	14:05
	5/24/2017	-	10.83	-		837.70	-	-	-	-
	5/22/2017	-	11.91	-		836.62	-	-	-	-
	5/18/2017	-	12.66	-		835.87	-	-	-	-
	5/15/2017	12.15	12.40	0.25		836.13	836.32	-	-	-
	5/11/2017	11.24	11.86	0.62		836.67	837.13	5/14/2017	11:59	12:07
	5/7/2017	15.98	16.89	0.91		831.64	832.31	5/9/2017	10:15	10:26
	5/4/2017	15.60	17.98	2.38		830.55	832.29	5/5/2017	10:51	11:01
	5/3/2017	15.70	18.04	2.34		830.49	832.20	-	-	-
	4/27/2017	16.08	18.35	2.27		830.18	831.84	-	-	-
	4/25/2017	16.29	18.84	2.55		829.69	831.55	-	-	-
	4/20/2017	17.21	18.92	1.71		829.61	830.86	-	-	-
	4/16/2017	17.01	20.00	2.99		828.53	830.72	-	-	-
	4/13/2017	17.16	20.05	2.89		828.48	830.59	4/13/2017	9:38	9:51
	4/10/2017	17.15	20.22	3.07		828.31	830.55	4/11/2017	11:50	11:55
	4/6/2017	17.30	20.75	3.45		827.78	830.30	4/7/2017	11:30	11:41
	4/3/2017	17.65	21.18	3.53		827.35	829.93	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-10 (cont'd)	3/31/2017	17.55	21.66	4.11		826.87	829.87	3/31/2017	11:42	11:48
	3/27/2017	17.64	21.72	4.08		826.81	829.79	-	-	-
	3/24/2017	17.77	21.48	3.71		827.05	829.76	-	-	-
	3/20/2017	17.83	21.70	3.87		826.83	829.66	3/20/2017	11:46	11:54
	3/16/2017	18.40	21.05	2.65		827.48	829.42	3/17/2017	8:21	8:30
	3/13/2017	17.78	21.60	3.82		826.93	829.72	3/15/2017	15:31	15:37
	3/6/2017	17.92	21.79	3.87		826.74	829.57	3/6/2017	10:50	10:55
	3/2/2017	17.82	21.84	4.02		826.69	829.63	3/3/2017	9:01	9:11
	2/27/2017	17.86	21.80	3.94		826.73	829.61	2/27/2017	11:54	12:00
	2/23/2017	17.82	21.53	3.71		827.00	829.71	2/24/2017	9:11	9:18
	2/20/2017	17.72	21.90	4.18		826.63	829.68	2/21/2017	8:48	8:59
	2/17/2017	17.54	22.32	4.78		826.21	829.70	2/17/2017	12:08	12:13
	2/9/2017	17.85	22.44	4.59		826.09	829.44	2/9/2017	13:00	13:07
	2/6/2017	17.89	22.50	4.61		826.03	829.40	2/6/2017	10:33	10:43
	2/2/2017	17.76	22.33	4.57		826.20	829.54	2/2/2017	12:50	13:10
	1/30/2017	17.84	22.63	4.79		825.90	829.40	1/30/2017	10:37	10:49
	1/26/2017	18.09	22.75	4.66		825.78	829.18	1/26/2017	9:30	9:38
	1/23/2017	17.96	23.50	5.54		825.03	829.08	1/23/2017	11:22	11:49
	1/19/2017	18.12	24.20	6.08		824.33	828.77	1/19/2017	10:30	10:40
	1/16/2017	18.26	23.40	5.14		825.13	828.88	1/16/2017	10:35	10:45
	1/12/2017	17.98	23.90	5.92		824.63	828.95	1/12/2017	15:30	16:00
	1/5/2017	18.60	22.96	4.36		825.57	828.76	-	-	-
RW-11					852.97					
	6/29/2017	11.52	11.63	0.11		841.34	841.42	-	-	-
	6/22/2017	11.62	11.79	0.17		841.18	841.30	-	-	-
	6/19/2017	11.16	11.47	0.31		841.50	841.72	-	-	-
	6/15/2017	11.40	11.77	0.37		841.20	841.47	-	-	-
	6/12/2017	11.20	11.49	0.29		841.48	841.69	-	-	-
	6/9/2017	11.16	11.45	0.29		841.52	841.73	-	-	-
	6/5/2017	11.43	11.67	0.24		841.30	841.47	-	-	-
	6/2/2017	11.49	11.61	0.12		841.36	841.45	-	-	-
	5/31/2017	11.53	11.67	0.14		841.30	841.40	-	-	-
	5/24/2017	11.11	11.15	0.04		841.82	841.85	-	-	-
	5/22/2017	-	11.78	-		841.19	-	-	-	-
	5/18/2017	12.20	12.21	0.01		840.76	840.76	-	-	-
	5/15/2017	-	12.19	-		840.78	-	-	-	-
	5/11/2017	12.11	12.12	0.01		840.85	840.85	-	-	-
	5/7/2017	12.18	12.19	0.01		840.78	840.78	-	-	-
	5/4/2017	12.28	12.29	0.01		840.68	840.68	-	-	-
	4/27/2017	12.35	12.36	0.01		840.61	840.61	-	-	-
	4/25/2017	12.28	12.38	0.10		840.59	840.66	-	-	-
	4/20/2017	12.95	13.65	0.70		839.32	839.83	-	-	-
	4/16/2017	13.05	13.69	0.64		839.28	839.74	-	-	-
	4/13/2017	13.03	13.92	0.89		839.05	839.70	4/13/2017	10:32	10:39
	4/10/2017	13.05	13.92	0.87		839.05	839.68	4/11/2017	11:30	11:35
	4/6/2017	13.16	14.29	1.13		838.68	839.50	4/7/2017	10:44	10:55
	4/3/2017	13.70	14.78	1.08		838.19	838.98	-	-	-
	3/31/2017	13.83	14.97	1.14		838.00	838.83	-	-	-
	3/27/2017	13.90	15.10	1.20		837.87	838.74	-	-	-
	3/24/2017	13.92	15.10	1.18		837.87	838.73	-	-	-
	3/20/2017	13.97	15.10	1.13		837.87	838.69	3/20/2017	13:01	13:07
	3/16/2017	14.06	15.23	1.17		837.74	838.59	3/17/2017	8:02	8:12
	3/13/2017	14.09	15.30	1.21		837.67	838.55	3/15/2017	10:42	10:51
	3/6/2017	14.22	15.50	1.28		837.47	838.40	3/6/2017	11:50	11:56
	3/2/2017	14.24	14.25	0.01		838.72	838.72	-	-	-
	2/27/2017	14.29	15.60	1.31		837.37	838.32	2/27/2017	13:42	13:49

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-11 (cont'd)	2/23/2017	14.22	15.75	1.53		837.22	838.33	-	-	-
	2/20/2017	14.30	15.58	1.28		837.39	838.32	-	-	-
	2/17/2017	14.28	15.60	1.32		837.37	838.33	2/17/2017	11:00	11:10
	2/9/2017	14.59	15.93	1.34		837.04	838.02	-	-	-
	2/6/2017	14.60	16.05	1.45		836.92	837.98	2/6/2017	11:25	11:31
	2/2/2017	14.60	15.82	1.22		837.15	838.04	-	-	-
	1/30/2017	14.65	16.00	1.35		836.97	837.95	1/30/2017	10:08	10:20
	1/26/2017	14.82	16.02	1.20		836.95	837.82	-	-	-
	1/23/2017	14.76	15.92	1.16		837.05	837.89	1/23/2017	12:01	12:07
	1/19/2017	15.25	17.18	1.93		835.79	837.20	1/19/2017	14:38	14:41
	1/16/2017	15.24	17.12	1.88		835.85	837.22	1/16/2017	12:07	12:14
	1/12/2017	15.15	16.99	1.84		835.98	837.32	-	-	-
	1/5/2017	15.41	17.75	2.34		835.22	836.93	-	-	-
	RW-12					852.75			-	-
	6/29/2017	-	13.19	-		839.56	-	-	-	-
	6/22/2017	-	13.15	-		839.60	-	-	-	-
	6/19/2017	-	13.35	-		839.40	-	-	-	-
	6/15/2017	-	13.19	-		839.56	-	-	-	-
	6/12/2017	-	13.24	-		839.51	-	-	-	-
	6/9/2017	-	13.20	-		839.55	-	-	-	-
	6/5/2017	-	13.28	-		839.47	-	-	-	-
	6/2/2017	-	13.29	-		839.46	-	-	-	-
	5/31/2017	-	13.31	-		839.44	-	-	-	-
	5/24/2017	-	13.03	-		839.72	-	-	-	-
	5/22/2017	-	13.93	-		838.82	-	-	-	-
	5/18/2017	-	13.93	-		838.82	-	-	-	-
	5/15/2017	13.93	13.95	0.02		838.80	838.81	-	-	-
	5/11/2017	-	14.00	-		838.75	-	-	-	-
	5/7/2017	14.11	14.12	0.01		838.63	838.64	-	-	-
	5/4/2017	14.05	14.06	0.01		838.69	838.70	-	-	-
	4/27/2017	-	13.57	-		839.18	-	-	-	-
	4/25/2017	12.77	12.78	0.01		839.97	839.98	-	-	-
	4/20/2017	14.84	14.85	0.01		837.90	837.91	-	-	-
	4/16/2017	14.81	14.84	0.03		837.91	837.93	-	-	-
	4/13/2017	14.71	14.72	0.01		838.03	838.04	-	-	-
	4/10/2017	14.56	14.57	0.01		838.18	838.19	-	-	-
	4/6/2017	13.36	13.37	0.01		839.38	839.39	4/7/2017	11:03	11:13
	4/3/2017	15.35	16.29	0.94		836.46	837.15	-	-	-
	3/31/2017	15.45	16.15	0.70		836.60	837.11	-	-	-
	3/27/2017	15.62	15.77	0.15		836.98	837.09	-	-	-
	3/24/2017	15.72	15.74	0.02		837.01	837.02	-	-	-
	3/20/2017	15.77	15.80	0.03		836.95	836.97	-	-	-
	3/16/2017	15.85	15.86	0.01		836.89	836.90	-	-	-
	3/13/2017	15.91	15.93	0.02		836.82	836.83	-	-	-
	3/6/2017	15.98	16.00	0.02		836.75	836.76	-	-	-
	3/2/2017	15.96	15.97	0.01		836.78	836.79	-	-	-
	2/27/2017	16.03	16.12	0.09		836.63	836.70	-	-	-
	2/23/2017	16.02	16.05	0.03		836.70	836.72	-	-	-
	2/20/2017	16.04	16.08	0.04		836.67	836.70	-	-	-
	2/17/2017	16.05	16.10	0.05		836.65	836.69	-	-	-
	2/9/2017	16.35	16.36	0.01		836.39	836.40	-	-	-
	2/6/2017	16.40	16.42	0.02		836.33	836.34	-	-	-
	2/2/2017	16.44	16.50	0.06		836.25	836.29	-	-	-
	1/30/2017	16.40	16.45	0.05		836.30	836.34	-	-	-
	1/26/2017	14.70	14.71	0.01		838.04	838.05	-	-	-
	1/23/2017	14.07	14.08	0.01		838.67	838.68	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RW-12 (cont'd)	1/19/2017	-	DRY	-	-	-	-	-	-	-
	1/16/2017	-	21.40	-	-	831.35	-	-	-	-
	1/12/2017	-	DRY	-	-	-	-	-	-	-
	1/5/2017	-	DRY	-	-	-	-	-	-	-
RW-13				847.97						
	6/29/2017	-	NM	-	-	-	-	-	-	-
	6/22/2017	-	NM	-	-	-	-	-	-	-
	6/19/2017	-	NM	-	-	-	-	-	-	-
	6/15/2017	-	NM	-	-	-	-	-	-	-
	6/12/2017	-	NM	-	-	-	-	-	-	-
	6/9/2017	-	19.18	-	-	828.79	-	-	-	-
	6/5/2017	-	7.25	-	-	840.72	-	-	-	-
	6/2/2017	-	4.20	-	-	843.77	-	-	-	-
	5/31/2017	-	23.28	-	-	824.69	-	-	-	-
	5/24/2017	-	6.20	-	-	841.77	-	5/26/2017	10:15	10:22
	5/22/2017	-	NM	-	-	-	-	5/22/2017	12:49	12:58
	5/18/2017	-	10.30	-	-	837.67	-	-	-	-
	5/15/2017	-	26.80	-	-	821.17	-	-	-	-
	5/11/2017	-	9.30	-	-	838.67	-	-	-	-
	5/7/2017	16.12	16.62	0.50	-	831.35	831.71	5/9/2017	10:01	10:13
	5/4/2017	16.06	16.90	0.84	-	831.07	831.68	5/5/2017	11:09	11:21
	5/3/2017	16.13	17.02	0.89	-	830.95	831.60	-	-	-
	4/27/2017	16.50	17.45	0.95	-	830.52	831.21	-	-	-
	4/25/2017	16.73	17.83	1.10	-	830.14	830.94	-	-	-
	4/20/2017	17.10	18.90	1.80	-	829.07	830.38	-	-	-
	4/16/2017	17.19	19.05	1.86	-	828.92	830.28	-	-	-
	4/13/2017	17.38	18.94	1.56	-	829.03	830.17	4/13/2017	9:57	10:09
	4/10/2017	17.32	19.19	1.87	-	828.78	830.14	4/11/2017	11:59	12:05
	4/6/2017	17.69	19.35	1.66	-	828.62	829.83	4/7/2017	12:15	12:27
	4/3/2017	17.85	19.68	1.83	-	828.29	829.62	-	-	-
	3/31/2017	17.86	19.88	2.02	-	828.09	829.56	3/31/2017	11:51	12:01
	3/27/2017	17.90	19.98	2.08	-	827.99	829.51	-	-	-
	3/24/2017	18.02	19.86	1.84	-	828.11	829.45	-	-	-
	3/20/2017	18.05	20.45	2.40	-	827.52	829.27	3/20/2017	12:28	12:34
	3/16/2017	18.20	20.47	2.27	-	827.50	829.16	3/17/2017	8:50	9:00
	3/13/2017	18.02	20.24	2.22	-	827.73	829.35	3/15/2017	10:30	10:41
	3/6/2017	18.12	20.20	2.08	-	827.77	829.29	3/6/2017	11:01	11:07
	3/2/2017	18.00	20.38	2.38	-	827.59	829.33	3/3/2017	9:31	9:40
	2/27/2017	18.06	20.30	2.24	-	827.67	829.30	2/27/2017	11:48	11:53
	2/23/2017	17.90	20.53	2.63	-	827.44	829.36	2/24/2017	9:01	9:09
	2/20/2017	17.95	20.45	2.50	-	827.52	829.34	2/21/2017	8:37	8:45
	2/17/2017	17.89	20.60	2.71	-	827.37	829.35	2/17/2017	12:15	12:22
	2/9/2017	18.00	21.20	3.20	-	826.77	829.11	2/9/2017	13:09	13:18
	2/6/2017	18.05	21.22	3.17	-	826.75	829.06	2/6/2017	10:45	10:52
	2/2/2017	18.10	20.99	2.89	-	826.98	829.09	2/2/2017	13:55	14:10
	1/30/2017	18.10	21.24	3.14	-	826.73	829.02	1/30/2017	10:51	11:02
	1/26/2017	18.20	21.67	3.47	-	826.30	828.83	1/26/2017	9:10	9:25
	1/23/2017	18.17	22.15	3.98	-	825.82	828.72	1/23/2017	13:30	13:40
	1/19/2017	18.30	22.40	4.10	-	825.57	828.56	1/19/2017	12:20	12:28
	1/16/2017	18.40	22.02	3.62	-	825.95	828.59	1/16/2017	13:30	13:40
	1/12/2017	18.28	22.98	4.70	-	824.99	828.42	1/12/2017	14:45	15:15
	1/5/2017	18.44	22.32	3.88	-	825.65	828.48	-	-	-
RW-14					827.54					
	6/29/2017	-	11.94	-	-	815.60	-	-	-	-
	6/22/2017	-	9.32	-	-	818.22	-	-	-	-
	6/19/2017	-	NM	-	-	-	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-14 (cont'd)	6/15/2017	-	11.95	-		815.59	-	-	-	-
	6/12/2017	-	12.68	-		814.86	-	-	-	-
	6/9/2017	-	9.12	-		818.42	-	-	-	-
	6/5/2017	-	12.03	-		815.51	-	-	-	-
	6/2/2017	-	7.80	-		819.74	-	-	-	-
	5/31/2017	-	11.99	-		815.55	-	-	-	-
	5/24/2017	-	12.15	-		815.39	-	-	-	-
	5/22/2017	-	12.05	-		815.49	-	-	-	-
	5/18/2017	-	12.44	-		815.10	-	-	-	-
	5/15/2017	-	12.10	-		815.44	-	-	-	-
	5/11/2017	-	12.30	-		815.24	-	-	-	-
	5/7/2017	-	13.89	-		813.65	-	-	-	-
	5/4/2017	-	12.54	-		815.00	-	-	-	-
	4/27/2017	-	12.61	-		814.93	-	-	-	-
	4/25/2017	8.88	8.89	0.01		818.65	818.66	-	-	-
	4/20/2017	-	13.10	-		814.44	-	-	-	-
	4/16/2017	12.86	12.87	0.01		814.67	814.68	-	-	-
	4/13/2017	13.09	13.10	0.01		814.44	814.45	-	-	-
	4/10/2017	9.66	9.67	0.01		817.87	817.88	-	-	-
	4/6/2017	12.64	12.65	0.01		814.89	814.90	-	-	-
	4/3/2017	13.36	13.37	0.01		814.17	814.18	-	-	-
	3/31/2017	8.79	8.80	0.01		818.74	818.75	-	-	-
	3/27/2017	13.17	13.18	0.01		814.36	814.37	-	-	-
	3/24/2017	9.21	9.23	0.02		818.31	818.32	-	-	-
	3/20/2017	12.65	12.66	0.01		814.88	814.89	-	-	-
	3/16/2017	12.67	12.68	0.01		814.86	814.87	-	-	-
	3/13/2017	13.00	13.03	0.03		814.51	814.53	-	-	-
	3/6/2017	12.39	12.45	0.06		815.09	815.13	-	-	-
	3/2/2017	12.40	12.44	0.04		815.10	815.13	3/3/2017	9:41	9:50
	2/27/2017	12.45	12.46	0.01		815.08	815.09	-	-	-
	2/23/2017	12.43	12.47	0.04		815.07	815.10	-	-	-
	2/20/2017	12.45	12.48	0.03		815.06	815.08	2/21/2017	13:21	13:29
	2/17/2017	12.39	12.44	0.05		815.10	815.14	2/17/2017	10:40	10:46
	2/9/2017	12.41	12.45	0.04		815.09	815.12	-	-	-
2/6/2017	12.56	12.64	0.08		814.90	814.96	-	-	-	
2/2/2017	12.58	12.65	0.07		814.89	814.94	-	-	-	
1/30/2017	12.50	12.57	0.07		814.97	815.02	-	-	-	
1/26/2017	12.43	12.50	0.07		815.04	815.09	-	-	-	
1/23/2017	12.30	12.36	0.06		815.18	815.22	-	-	-	
1/19/2017	12.75	12.93	0.18		814.61	814.74	-	-	-	
1/16/2017	12.70	12.88	0.18		814.66	814.79	-	-	-	
1/12/2017	-	NM	-		-	-	1/12/2017	14:10	14:40	
1/5/2017	12.59	12.69	0.10		814.85	814.92	-	-	-	
RW-15					851.64					
	6/29/2017	-	13.57	-		838.07	-	-	-	
	6/22/2017	-	14.00	-		837.64	-	-	-	
	6/19/2017	14.10	14.11	0.01		837.53	837.53	-	-	
	6/15/2017	14.16	14.17	0.01		837.47	837.47	-	-	
	6/12/2017	-	14.11	-		837.53	-	-	-	
	6/9/2017	-	12.13	-		839.51	-	-	-	
	6/5/2017	-	14.23	-		837.41	-	-	-	
	6/2/2017	-	14.15	-		837.49	-	-	-	
	5/31/2017	-	15.24	-		836.40	-	-	-	
	5/24/2017	-	14.72	-		836.92	-	-	-	
	5/22/2017	15.25	15.34	0.09		836.30	836.36	-	-	
	5/18/2017	15.49	15.68	0.19		835.96	836.10	-	-	



**Table 3. Groundwater Elevation and Product Thickness Data**

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected <sup>a</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
RW-15 (cont'd)	5/15/2017	15.57	15.80	0.23		835.84	836.01	-	-	-
	5/11/2017	15.73	15.90	0.17		835.74	835.86	-	-	-
	5/7/2017	16.96	17.31	0.35		834.33	834.58	-	-	-
	5/4/2017	16.91	17.55	0.64		834.09	834.55	5/5/2017	10:27	10:35
	4/27/2017	17.48	17.92	0.44		833.72	834.04	-	-	-
	4/25/2017	17.85	18.30	0.45		833.34	833.67	-	-	-
	4/20/2017	18.21	18.60	0.39		833.04	833.32	-	-	-
	4/16/2017	18.37	19.60	1.23		832.04	832.94	-	-	-
	4/13/2017	18.37	19.00	0.63		832.64	833.10	4/13/2017	10:13	10:26
	4/10/2017	18.43	18.97	0.54		832.67	833.06	4/11/2017	13:06	13:12
	4/6/2017	18.60	20.14	1.54		831.50	832.62	4/7/2017	12:59	13:07
	4/3/2017	18.75	20.10	1.35		831.54	832.52	-	-	-
	3/31/2017	18.82	20.05	1.23		831.59	832.49	3/31/2017	12:55	13:06
	3/27/2017	18.92	19.85	0.93		831.79	832.47	-	-	-
	3/24/2017	19.04	19.63	0.59		832.01	832.44	-	-	-
	3/20/2017	19.09	19.74	0.65		831.90	832.37	3/20/2017	12:47	12:53
	3/16/2017	19.29	19.40	0.11		832.24	832.32	-	-	-
	3/13/2017	19.10	19.50	0.40		832.14	832.43	-	-	-
	3/6/2017	19.03	20.04	1.01		831.60	832.33	3/6/2017	11:02	11:40
	3/2/2017	19.10	19.66	0.56		831.98	832.39	3/3/2017	10:30	10:40
	2/27/2017	19.08	19.80	0.72		831.84	832.36	2/27/2017	13:20	13:27
	2/23/2017	19.13	19.40	0.27		832.24	832.43	-	-	-
	2/20/2017	19.12	19.63	0.51		832.01	832.38	2/21/2017	9:40	9:55
	2/17/2017	19.11	19.75	0.64		831.89	832.35	2/17/2017	13:17	13:25
	2/9/2017	19.31	19.97	0.66		831.67	832.15	2/9/2017	14:17	14:28
	2/6/2017	19.29	20.00	0.71		831.64	832.16	2/6/2017	9:30	9:40
	2/2/2017	19.35	19.96	0.61		831.68	832.12	2/2/2017	14:11	14:20
	1/30/2017	19.45	20.10	0.65		831.54	832.01	1/30/2017	12:08	12:18
1/26/2017	19.68	20.18	0.50		831.46	831.82	1/26/2017	9:55	10:12	
1/23/2017	19.20	20.44	1.24		831.20	832.10	1/23/2017	14:23	14:30	
1/19/2017	19.76	20.71	0.95		830.93	831.62	1/19/2017	14:50	15:01	
1/16/2017	19.85	20.40	0.55		831.24	831.64	-	-	-	
1/12/2017	19.64	21.00	1.36		830.64	831.63	-	-	-	
1/5/2017	19.99	20.35	0.36		831.29	831.55	-	-	-	
SW-01					812.82					
	6/4/2017	-	(0.98)	-		813.80	-	-	-	-
	5/4/2017	-	(0.89)	-		813.71	-	-	-	-
	4/6/2017	-	(0.90)	-		813.72	-	-	-	-
	3/2/2017	-	(0.90)	-		813.72	-	-	-	-
	2/2/2017	-	(0.52)	-		813.34	-	-	-	-
	1/5/2017	-	(0.59)	-		813.41	-	-	-	-
SW-02					808.65					
	6/4/2017	-	(1.57)	-		810.22	-	-	-	-
	5/4/2017	-	(1.54)	-		810.19	-	-	-	-
	4/6/2017	-	(1.55)	-		810.20	-	-	-	-
	3/2/2017	-	(1.53)	-		810.18	-	-	-	-
	2/2/2017	-	(1.50)	-		810.15	-	-	-	-
	1/5/2017	-	(1.46)	-		810.11	-	-	-	-
SW-03					815.09					
	6/4/2017	-	(1.74)	-		816.83	-	-	-	-
	5/4/2017	-	(1.96)	-		817.05	-	-	-	-
	4/6/2017	-	(1.96)	-		817.05	-	-	-	-
	3/2/2017	-	(1.62)	-		816.71	-	-	-	-
	2/2/2017	-	(0.91)	-		816.00	-	-	-	-
	1/5/2017	-	(0.88)	-		815.97	-	-	-	-
SW-05					838.75					

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
SW-05 (cont'd)	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	4/6/2017	-	NM	-		-	-	-	-	-
	3/2/2017	-	NM	-		-	-	-	-	-
	2/2/2017	-	NM	-		-	-	-	-	-
	1/5/2017	-	NM	-		-	-	-	-	-
SW-08					802.04					
	6/9/2017	-	(1.07)	-		803.11	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	(1.24)	-		803.28	-	-	-	-
	4/6/2017	-	(1.24)	-		803.28	-	-	-	-
	3/2/2017	-	(1.22)	-		803.26	-	-	-	-
	2/2/2017	-	(1.25)	-		803.29	-	-	-	-
	1/5/2017	-	(1.24)	-		803.28	-	-	-	-
SW-10					778.09					
	6/9/2017	-	(0.30)	-		778.39	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	(0.48)	-		778.57	-	-	-	-
	4/6/2017	-	(0.50)	-		778.59	-	-	-	-
	3/2/2017	-	(0.47)	-		778.56	-	-	-	-
	2/2/2017	-	(0.46)	-		778.55	-	-	-	-
	1/5/2017	-	(0.46)	-		778.55	-	-	-	-
TW-04R					852.64					
	6/4/2017	-	4.01	-		848.63	-	-	-	-
	5/4/2017	-	4.20	-		848.44	-	-	-	-
	4/6/2017	-	4.95	-		847.69	-	-	-	-
	3/2/2017	-	DRY	-		-	-	-	-	-
	2/2/2017	-	DRY	-		-	-	-	-	-
	1/5/2017	-	DRY	-		-	-	-	-	-
TW-05R					849.93					
	6/4/2017	-	5.70	-		844.23	-	-	-	-
	5/4/2017	-	3.64	-		846.29	-	-	-	-
	4/6/2017	-	1.90	-		848.03	-	-	-	-
	3/2/2017	-	7.95	-		841.98	-	-	-	-
	2/2/2017	-	8.10	-		841.83	-	-	-	-
	1/5/2017	-	7.55	-		842.38	-	-	-	-
TW-14R					853.37					
	6/4/2017	-	4.53	-		848.84	-	-	-	-
	5/4/2017	-	3.43	-		849.94	-	-	-	-
	4/6/2017	-	2.63	-		850.74	-	-	-	-
	3/2/2017	-	DRY	-		-	-	-	-	-
	2/2/2017	-	DRY	-		-	-	-	-	-
	1/5/2017	-	3.29	-		850.08	-	-	-	-
TW-15R					850.62					
	6/4/2017	-	2.91	-		847.71	-	-	-	-
	5/4/2017	-	2.58	-		848.04	-	-	-	-
	4/6/2017	-	3.55	-		847.07	-	-	-	-
	3/2/2017	-	DRY	-		-	-	-	-	-
	2/2/2017	-	DRY	-		-	-	-	-	-
	1/5/2017	-	2.92	-		847.70	-	-	-	-
TW-21					849.70					
	6/4/2017	-	2.65	-		847.05	-	-	-	-
	5/4/2017	-	1.89	-		847.81	-	-	-	-
	4/6/2017	-	0.95	-		848.75	-	-	-	-
	3/2/2017	-	5.88	-		843.82	-	-	-	-
	2/2/2017	-	6.22	-		843.48	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
TW-21 (cont'd)	1/5/2017	-	DRY	-		-	-	-	-	-
TW-28					851.42					
	6/4/2017	21.59	22.35	0.76		829.07	829.63	-	-	-
	5/4/2017	23.16	23.45	0.29		827.97	828.19	-	-	-
	4/6/2017	24.26	25.70	1.44		825.72	826.78	-	-	-
	3/2/2017	24.50	26.15	1.65		825.27	826.48	-	-	-
	2/2/2017	25.21	25.70	0.49		825.72	826.08	-	-	-
	1/5/2017	25.74	26.20	0.46		825.22	825.56	-	-	-
TW-30					851.81					
	6/4/2017	-	20.40	-		831.41	-	-	-	-
	5/4/2017	-	21.45	-		830.36	-	-	-	-
	4/6/2017	-	20.45	-		831.36	-	-	-	-
	3/2/2017	-	DRY	-		-	-	-	-	-
	2/2/2017	-	DRY	-		-	-	-	-	-
	1/5/2017	-	DRY	-		-	-	-	-	-
TW-34					854.79					
	6/4/2017	-	22.25	-		832.54	-	-	-	-
	5/4/2017	-	22.22	-		832.57	-	-	-	-
	4/6/2017	-	22.25	-		832.54	-	-	-	-
	3/2/2017	-	22.30	-		832.49	-	-	-	-
	2/2/2017	-	22.23	-		832.56	-	-	-	-
	1/5/2017	-	22.22	-		832.57	-	-	-	-
TW-35					854.10					
	6/4/2017	-	22.71	-		831.39	-	-	-	-
	5/4/2017	-	22.69	-		831.41	-	-	-	-
	4/6/2017	-	22.75	-		831.35	-	-	-	-
	3/2/2017	-	23.67	-		830.43	-	-	-	-
	2/2/2017	-	22.66	-		831.44	-	-	-	-
	1/5/2017	-	22.70	-		831.40	-	-	-	-
TW-40					853.35					
	6/4/2017	-	28.48	-		824.87	-	-	-	-
	5/4/2017	-	28.76	-		824.59	-	-	-	-
	4/6/2017	-	29.20	-		824.15	-	-	-	-
	3/2/2017	-	29.45	-		823.90	-	-	-	-
	2/2/2017	-	29.61	-		823.74	-	-	-	-
	1/5/2017	29.70	29.71	0.01		823.64	823.65	-	-	-
TW-41					849.38					
	6/4/2017	-	26.70	-		822.68	-	-	-	-
	5/4/2017	-	27.42	-		821.96	-	-	-	-
	4/6/2017	-	28.68	-		820.70	-	-	-	-
	3/2/2017	-	29.40	-		819.98	-	-	-	-
	2/2/2017	-	29.69	-		819.69	-	-	-	-
	1/5/2017	-	30.00	-		819.38	-	-	-	-
TW-42					846.84					
	6/4/2017	25.14	26.30	1.16		820.54	821.39	-	-	-
	5/4/2017	25.65	26.85	1.20		819.99	820.86	-	-	-
	4/6/2017	26.70	NO WATER	0.80		-	-	-	-	-
	3/2/2017	-	DRY	-		-	-	-	-	-
	2/2/2017	-	DRY	-		-	-	-	-	-
	1/5/2017	-	DRY	-		-	-	-	-	-
TW-45					848.31					
	6/4/2017	26.85	27.20	0.35		821.11	821.36	-	-	-
	5/4/2017	27.27	27.85	0.58		820.46	820.88	-	-	-
	4/6/2017	28.30	29.27	0.97		819.04	819.75	-	-	-
	3/2/2017	29.00	30.57	1.57		817.74	818.88	-	-	-
	2/2/2017	29.20	30.99	1.79		817.32	818.63	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
TW-45 (cont'd)	1/5/2017	29.31	31.33	2.02		816.98	818.45	-	-	-
TW-46					846.88					
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	4/6/2017	-	NM	-		-	-	-	-	-
	3/2/2017	-	NM	-		-	-	-	-	-
	2/2/2017	-	NM	-		-	-	-	-	-
	1/5/2017	-	NM	-		-	-	-	-	-
TW-55					845.93					
	6/26/2017	-	5.04	-		840.89	-	-	-	-
	6/4/2017	-	4.95	-		840.98	-	-	-	-
	5/4/2017	-	8.82	-		837.11	-	-	-	-
	4/6/2017	-	10.80	-		835.13	-	-	-	-
	3/2/2017	-	12.05	-		833.88	-	-	-	-
	2/2/2017	-	12.72	-		833.21	-	-	-	-
	1/5/2017	-	14.73	-		831.20	-	-	-	-
TW-59					834.78					
	6/26/2017	-	13.47	-		821.31	-	-	-	-
	6/4/2017	-	13.71	-		821.07	-	-	-	-
	5/4/2017	-	13.90	-		820.88	-	-	-	-
	4/26/2017	-	13.73	-		821.05	-	-	-	-
	4/6/2017	-	14.74	-		820.04	-	-	-	-
	4/3/2017	-	15.20	-		819.58	-	-	-	-
	3/30/2017	-	15.21	-		819.57	-	-	-	-
	3/27/2017	-	15.25	-		819.53	-	-	-	-
	3/20/2017	-	15.07	-		819.72	-	-	-	-
	3/13/2017	-	15.13	-		819.65	-	-	-	-
	3/10/2017	-	15.02	-		819.76	-	-	-	-
	3/9/2017	-	14.23	-		820.55	-	-	-	-
	3/8/2017	-	14.99	-		819.79	-	-	-	-
	3/7/2017	-	15.02	-		819.76	-	-	-	-
	3/6/2017	-	18.56	-		816.22	-	-	-	-
	3/2/2017	-	15.67	-		819.11	-	-	-	-
	2/2/2017	-	15.90	-		818.88	-	-	-	-
	1/5/2017	16.05	16.06	0.01		818.72	818.73	-	-	-
TW-60					828.03					
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	9.40	-		818.63	-	-	-	-
	5/4/2017	-	9.45	-		818.58	-	-	-	-
	4/26/2017	-	9.37	-		818.66	-	-	-	-
	4/6/2017	-	8.93	-		819.10	-	-	-	-
	4/3/2017	-	10.01	-		818.02	-	-	-	-
	3/30/2017	-	10.33	-		817.70	-	-	-	-
	3/27/2017	-	10.21	-		817.82	-	-	-	-
	3/20/2017	-	8.49	-		819.54	-	-	-	-
	3/13/2017	-	9.12	-		818.91	-	-	-	-
	3/10/2017	-	8.72	-		819.31	-	-	-	-
	3/9/2017	-	9.66	-		818.37	-	-	-	-
	3/8/2017	-	9.45	-		818.58	-	-	-	-
	3/7/2017	-	7.59	-		820.44	-	-	-	-
	3/6/2017	-	8.40	-		819.64	-	-	-	-
	3/2/2017	-	9.96	-		818.07	-	-	-	-
	2/2/2017	10.20	10.21	0.01		817.82	817.83	-	-	-
	1/5/2017	10.20	10.21	0.01		817.82	817.83	-	-	-
TW-61					847.50					
	4/26/2017	-	1.53	-		845.97	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
TW-64					845.88			-	-	-
	6/4/2017	-	15.55	-		830.33	-	-	-	-
	5/4/2017	-	17.87	-		828.01	-	-	-	-
	4/6/2017	-	19.29	-		826.59	-	-	-	-
	3/2/2017	-	19.58	-		826.30	-	-	-	-
	2/2/2017	-	19.96	-		825.92	-	-	-	-
	1/5/2017	-	20.94	-		824.94	-	-	-	-
TW-65					845.62			-	-	-
	6/4/2017	-	20.35	-		825.27	-	-	-	-
	5/4/2017	-	21.95	-		823.67	-	-	-	-
	4/6/2017	-	22.95	-		822.67	-	-	-	-
	3/2/2017	-	23.23	-		822.39	-	-	-	-
	2/2/2017	-	23.70	-		821.92	-	-	-	-
	1/5/2017	-	24.10	-		821.52	-	-	-	-
TW-66					820.31			-	-	-
	6/26/2017	-	1.00	-		819.31	-	-	-	-
	6/4/2017	-	1.75	-		818.56	-	-	-	-
	5/4/2017	-	1.78	-		818.53	-	-	-	-
	4/6/2017	-	1.86	-		818.45	-	-	-	-
	4/3/2017	-	2.32	-		817.99	-	-	-	-
	3/30/2017	-	2.39	-		817.92	-	-	-	-
	3/27/2017	-	2.41	-		817.90	-	-	-	-
	3/20/2017	-	1.92	-		818.39	-	-	-	-
	3/13/2017	-	2.05	-		818.26	-	-	-	-
	3/10/2017	-	1.92	-		818.39	-	-	-	-
	3/9/2017	-	2.30	-		818.01	-	-	-	-
	3/8/2017	-	2.28	-		818.03	-	-	-	-
	3/7/2017	-	1.85	-		818.46	-	-	-	-
	3/6/2017	-	1.90	-		818.41	-	-	-	-
	3/2/2017	-	2.64	-		817.67	-	-	-	-
	2/2/2017	-	2.89	-		817.42	-	-	-	-
	1/5/2017	-	2.92	-		817.39	-	-	-	-
TW-67					852.71			-	-	-
	6/26/2017	-	11.76	-		840.95	-	-	-	-
	6/4/2017	-	12.47	-		840.24	-	-	-	-
	5/4/2017	-	12.65	-		840.06	-	-	-	-
	4/26/2017	-	13.57	-		839.14	-	-	-	-
	4/6/2017	-	14.30	-		838.41	-	-	-	-
	4/3/2017	-	9.54	-		843.17	-	-	-	-
	3/30/2017	-	14.23	-		838.48	-	-	-	-
	3/27/2017	-	14.89	-		837.82	-	-	-	-
	3/20/2017	-	14.43	-		838.28	-	-	-	-
	3/13/2017	-	15.07	-		837.64	-	-	-	-
	3/10/2017	-	15.00	-		837.71	-	-	-	-
	3/9/2017	-	15.19	-		837.52	-	-	-	-
	3/8/2017	-	15.11	-		837.60	-	-	-	-
	3/7/2017	-	15.14	-		837.57	-	-	-	-
	3/6/2017	-	15.03	-		837.68	-	-	-	-
	3/2/2017	-	15.44	-		837.27	-	-	-	-
	2/2/2017	-	15.60	-		837.11	-	-	-	-
	1/5/2017	-	16.22	-		836.49	-	-	-	-
TW-68					846.45			-	-	-
	6/4/2017	-	22.41	-		824.04	-	-	-	-
	5/4/2017	-	23.54	-		822.91	-	-	-	-
	4/6/2017	-	24.32	-		822.13	-	-	-	-
	3/2/2017	-	24.49	-		821.96	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
TW-68 (cont'd)	2/2/2017	-	24.93	-		821.52	-	-	-	-
	1/5/2017	-	25.07	-		821.38	-	-	-	-
TW-69					840.27					
	6/4/2017	-	12.06	-		828.21	-	-	-	-
	5/4/2017	-	14.15	-		826.12	-	-	-	-
	4/6/2017	-	16.05	-		824.22	-	-	-	-
	3/2/2017	-	16.36	-		823.91	-	-	-	-
	2/2/2017	-	16.64	-		823.63	-	-	-	-
	1/5/2017	-	17.70	-		822.57	-	-	-	-
TW-70					841.95					
	6/4/2017	-	17.69	-		824.26	-	-	-	-
	5/4/2017	-	18.44	-		823.51	-	-	-	-
	4/6/2017	-	20.14	-		821.81	-	-	-	-
	3/2/2017	-	20.24	-		821.71	-	-	-	-
	2/2/2017	-	20.50	-		821.45	-	-	-	-
	1/5/2017	-	20.70	-		821.25	-	-	-	-
TW-73					850.53					
	6/26/2017	-	6.41	-		844.12	-	-	-	-
	6/4/2017	-	6.18	-		844.35	-	-	-	-
	5/4/2017	-	7.25	-		843.28	-	-	-	-
	4/26/2017	-	DRY	-		-	-	-	-	-
	4/6/2017	-	9.26	-		841.27	-	-	-	-
	4/3/2017	-	8.71	-		841.82	-	-	-	-
	3/30/2017	-	10.24	-		840.29	-	-	-	-
	3/27/2017	-	10.27	-		840.26	-	-	-	-
	3/20/2017	-	8.58	-		841.96	-	-	-	-
	3/13/2017	-	10.38	-		840.16	-	-	-	-
	3/10/2017	-	10.51	-		840.02	-	-	-	-
	3/9/2017	-	11.45	-		839.08	-	-	-	-
	3/8/2017	-	10.35	-		840.18	-	-	-	-
	3/7/2017	-	10.34	-		840.19	-	-	-	-
	3/6/2017	-	10.58	-		839.96	-	-	-	-
	3/2/2017	-	10.47	-		840.06	-	-	-	-
	2/2/2017	-	10.90	-		839.63	-	-	-	-
	1/5/2017	-	11.18	-		839.35	-	-	-	-
TW-76					852.44					
	6/4/2017	-	14.76	-		837.68	-	-	-	-
	5/4/2017	-	16.50	-		835.94	-	-	-	-
	4/6/2017	-	17.56	-		834.88	-	-	-	-
	3/2/2017	-	17.74	-		834.70	-	-	-	-
	2/2/2017	-	18.22	-		834.22	-	-	-	-
	1/5/2017	-	18.50	-		833.94	-	-	-	-
TW-81					849.43					
	6/4/2017	-	2.75	-		846.68	-	-	-	-
	5/4/2017	-	2.06	-		847.37	-	-	-	-
	4/6/2017	-	NM	-		-	-	-	-	-
	3/2/2017	-	4.95	-		844.48	-	-	-	-
	2/2/2017	-	5.45	-		843.98	-	-	-	-
	1/5/2017	-	5.80	-		843.63	-	-	-	-
TW-82					849.64					
	6/4/2017	-	2.50	-		847.14	-	-	-	-
	5/4/2017	-	1.75	-		847.89	-	-	-	-
	4/6/2017	-	1.52	-		848.12	-	-	-	-
	3/2/2017	-	5.72	-		843.92	-	-	-	-
	2/2/2017	-	6.04	-		843.60	-	-	-	-
	1/5/2017	-	DRY	-		-	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
TW-83					850.44			-	-	-
	6/4/2017	-	3.25	-		847.19	-	-	-	-
	5/4/2017	-	2.61	-		847.83	-	-	-	-
	4/6/2017	-	2.32	-		848.12	-	-	-	-
	3/2/2017	-	6.50	-		843.94	-	-	-	-
	2/2/2017	-	6.76	-		843.68	-	-	-	-
	1/5/2017	10.49	10.50	0.01		839.94	839.95	-	-	-
TW-84					851.22			-	-	-
	6/4/2017	3.74	3.75	0.01		847.47	847.47	-	-	-
	5/4/2017	-	3.36	-		847.86	-	-	-	-
	4/6/2017	-	4.25	-		846.97	-	-	-	-
	3/2/2017	7.10	7.15	0.05		844.07	844.10	-	-	-
	2/2/2017	7.44	7.70	0.26		843.52	843.71	-	-	-
	1/5/2017	11.74	12.28	0.54		838.94	839.33	-	-	-
TW-85					843.49			-	-	-
	6/4/2017	-	8.61	-		834.88	-	-	-	-
	5/4/2017	-	11.95	-		831.54	-	-	-	-
	4/6/2017	-	14.45	-		829.04	-	-	-	-
	3/2/2017	-	15.21	-		828.28	-	-	-	-
	2/2/2017	-	15.13	-		828.36	-	-	-	-
	1/5/2017	-	17.15	-		826.34	-	-	-	-
TW-86					853.10			-	-	-
	6/4/2017	-	4.94	-		848.16	-	-	-	-
	5/4/2017	-	4.40	-		848.70	-	-	-	-
	4/6/2017	-	4.30	-		848.80	-	-	-	-
	3/2/2017	-	5.65	-		847.45	-	-	-	-
	2/2/2017	-	5.60	-		847.50	-	-	-	-
	1/5/2017	-	5.55	-		847.55	-	-	-	-
TW-87					852.25			-	-	-
	6/4/2017	-	4.95	-		847.30	-	-	-	-
	5/4/2017	-	4.82	-		847.43	-	-	-	-
	4/6/2017	-	6.15	-		846.10	-	-	-	-
	3/2/2017	-	6.75	-		845.50	-	-	-	-
	2/2/2017	-	DRY	-		-	-	-	-	-
	1/5/2017	-	DRY	-		-	-	-	-	-
TW-90					845.43			-	-	-
	6/4/2017	-	11.27	-		834.16	-	-	-	-
	5/4/2017	-	15.02	-		830.41	-	-	-	-
	4/6/2017	-	16.89	-		828.54	-	-	-	-
	3/2/2017	-	17.35	-		828.08	-	-	-	-
	2/2/2017	-	17.72	-		827.71	-	-	-	-
	1/5/2017	-	18.14	-		827.29	-	-	-	-
TW-94					840.58			-	-	-
	6/4/2017	-	1.70	-		838.88	-	-	-	-
	5/4/2017	7.17	7.18	0.01		833.40	833.41	-	-	-
	4/6/2017	6.55	6.63	0.08		833.95	834.01	-	-	-
	3/2/2017	10.75	10.85	0.10		829.73	829.81	-	-	-
	2/2/2017	10.95	11.35	0.40		829.23	829.53	-	-	-
	1/5/2017	12.95	13.38	0.43		827.20	827.52	-	-	-
TW-96					840.40			-	-	-
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	5.35	-		835.05	-	-	-	-
	5/4/2017	-	9.02	-		831.38	-	-	-	-
	4/6/2017	-	10.82	-		829.58	-	-	-	-
	3/2/2017	-	12.12	-		828.28	-	-	-	-
	2/2/2017	-	12.92	-		827.48	-	-	-	-

**Table 3. Groundwater Elevation and Product Thickness Data**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater	Corrected <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)	Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
TW-96 (cont'd)	1/5/2017	-	14.93	-		825.47	-	-	-	-

**Notes:**

1. Elevation of zero mark (ft amsl) for surface water staff gauges

2. "RS-" and "RT-" features were trimmed to less than 12 inches above ground surface on 3/14/2017. Only the resurveyed top of casing elevation after trimming is displayed. Groundwater elevation calculations are based on the true top of casing elevation at the time of gauging.

3. Calculated based on an oil:water density ratio of 0.73

**Bold indicates the gauged product thickness was greater than 0.5 foot.**

amsl = above mean sea level

BTOC = below top of casing

DRY = well contained no measurable water or product

ft = feet

ID = identification

NM = not measured. The following features are no longer reliable for calculating

- RS-19 was damaged on or about January 20, 2017.
- RT-2H was covered over on or about January 17, 2017, due to construction efforts in the vicinity.
- TW-46 was damaged on or about December 8, 2016.



Table 4 - Dissolved Oxygen Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Site Area	Distance to		DO (mg/L) 4/3/2017	DO (mg/L) 5/4/2017	DO (mg/L) 6/26/2017
		Nearest Sparge Well (ft)	Nearest Sparge Well (ft)			
MW-02	Hayfield	HAS-02	33	NM	0.35	5.30
MW-02B	Hayfield	HAS-02	24	NM	0.26	3.74
MW-03	Hayfield	HAS-02	12	NM	0.27	10.25
MW-04	Hayfield	HAS-01	82	NM	8.02	6.51
MW-08	Hayfield	HAS-03	12	NM	7.00	7.14
MW-09	Hayfield	HAS-01	37	NM	0.20	8.72
MW-10	Hayfield	HAS-03	27	NM	6.32	5.95
MW-16	Hayfield	HAS-01	24	NM	FP	8.46
MW-18	Hayfield	HAS-03	2	NM	FP	1.39
MW-30	Hayfield	HAS-01	15	NM	3.62	7.56
TW-55	Hayfield	HAS-01	40	NM	1.68	8.10
TW-59 <sup>a</sup>	Hayfield	VAS-38	6	NM	NM	NM
TW-60	Hayfield	VAS-25	10	0.76	1.80	NM
TW-64	Hayfield	HAS-03	132	NM	7.85	NM
TW-66	Hayfield	VAS-28	49	2.90	5.35	4.57
TW-67	Hayfield	VAS-11	14	9.26	9.82	16.86
TW-73	Hayfield	VAS-19	11	9.57	NC	8.34
TW-96	Hayfield	HAS-03	78	NM	7.29	NM
<i>Average Hayfield Zone Values</i>				5.62	4.27	7.35
MW-12	Brown's Creek	VAS-37	18	FP	1.62	0.50
MW-12B	Brown's Creek	VAS-37	9	1.17	0.51	0.70
MW-15	Brown's Creek	VAS-21	14	1.67	3.91	1.45
MW-15B	Brown's Creek	VAS-22	13	0.95	1.58	0.66
MW-25	Brown's Creek	VAS-29	54	0.75	0.53	0.48
MW-25B	Brown's Creek	VAS-29	56	0.55	0.51	1.13
MW-28	Brown's Creek	VAS-46	26	2.41	0.66	0.50
<i>Average Brown's Creek Protection Zone Values</i>				1.25	1.33	0.77
MW-19	Cupboard Creek	VAS-08	17	1.74	1.43	0.65
MW-20	Cupboard Creek	VAS-03	23	FP	FP	NM
MW-29	Cupboard Creek	VAS-19	111	6.76	6.68	5.80
<i>Average Cupboard Creek Protection Zone Values</i>				4.25	4.06	3.23
MW-01	Shallow Bedrock	VBS-01	147	NM	NM	NM
MW-01B	Shallow Bedrock	VBS-01	152	NM	NM	NM
MW-11	Shallow Bedrock	VBS-01	368	NM	NM	NM
MW-22	Shallow Bedrock	VBS-03	115	NM	NM	NM
<i>Average Shallow Bedrock Zone Values</i>				-	-	-
<i>Average Residuuum</i>				3.98	3.92	5.71
<i>Average Bedrock Values</i>				0.89	0.72	1.56

Notes:

<sup>a</sup> = TW-59 cannot be measured as the probe does not fit into the well because the polyvinyl chloride pipe has shifted in the vault.

Brown's Creek and Cupboard Creek Protection Zones startup was March 6, 2017.

Hayfield Zone startup was May 9, 2017.

Shallow Bedrock Zone has not been started as of June 30, 2017, no measurements were collected.

DO = dissolved oxygen

FP = measurement not collected due to the presence of free product in the well

NC = measurement not collected due to insufficient volume of water in the well

NM = not measured

Table 5. Analytical Results for Groundwater  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-01	MW-01-072715	7/27/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-01-012716	1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-01-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-01B	MW-01B-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-01B-012716	1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-01B-120116	12/1/2016	µg/L	1 U	1 U	1.4	5.6	1 U	1 U	1.3	--
	MW-01B-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-01B-062817-FD	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-02	MW-02-072715	7/27/2015	µg/L	4,320	625 U	9,670	2,460	5 U	171	74.7	0.02 U
	MW-02-012616	1/26/2016	µg/L	9,500	1,160	25,000	6,310	50 U*	285	139	0.019 U
	--	11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-02-062917	6/29/2017	µg/L	8,040	833	27,100	9,890	250 U*	250 U*	1,250 U*	--
MW-02B	MW-02B-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-02B-D-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.019 U
	--	1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-02B-030116	3/1/2016	µg/L	1 U	1 U	4.8	4.6	1 U	1 U	1 U	0.019 U
	MW-02B-D-030116	3/1/2016	µg/L	1 U	1 U	4.8	5.3	1 U	1 U	1 U	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-02B-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-02B-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-03	MW-03-072715	7/27/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-03-012516	1/25/2016	µg/L	108	20.1	958	598	1 U	1 U	11.1	0.02 U
	MW-03-120616	12/6/2016	µg/L	61.1	25.1	229	330	2 U	2 U	3.6	--
	MW-03-062917	6/29/2017	µg/L	10.9	1 U	24.6	6.98	1 U	2.34	5 U	--
MW-04	MW-04-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.019 U
	MW-04-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-04-120616	12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-04-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-05	MW-05-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.019 U
	MW-05-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-05-050317	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-05-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--

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Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-06	MW-06-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-06-012116	1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-06-120216	12/2/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-06-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-07	--	7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-07-012116	1/21/2016	µg/L	1,060	389	5,210	2,620	40 U*	40 U	40 U*	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-07-062917	6/29/2017	µg/L	4,290	629	17,700	4,990	250 U*	250 U*	1,250 U*	--
MW-08	MW-08-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-08-012616	1/26/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-08-120616	12/6/2016	µg/L	1 U	1 U	14.4	7.1	1 U	1 U	1 U	--
	MW-08-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-09	--	7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-09-062917	6/29/2017	µg/L	3,860	517	13,000	8,680	200 U*	200 U*	1,000 U*	--
MW-10	MW-10-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.019 U
	MW-10-012616	1/26/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-10-120616	12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-10-050317	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-050317-FD	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-11	--	7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-11-012616	1/26/2016	µg/L	10,600	948	24,400	4,700	10 U*	432	123	0.019 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-11-062817	6/28/2017	µg/L	10,900	2,140	29,600	11,700	100 U*	147	500 U*	--
MW-12	MW-12-072815	7/28/2015	µg/L	51.3	5 U	22.9	39.2	5 U	5 U	5 U	0.02 U
	--	1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	3/13/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	3/20/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	3/31/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	4/6/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-12-062817	6/28/2017	µg/L	1190	467	7910	5100	50 U*	50 U*	250 U*	--

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Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-12B	MW-12B-012616	1/26/2016	µg/L	228	31.4	193	532	1 U	5.4	14.6	0.019 U
	MW-12B-113016	11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-12B-031417	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-031417-FD	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-062817	6/28/2017	µg/L	30.1	1 U	7.28	14.3	1 U	11.8	5 U	--
MW-13	--	7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-13-012816	1/28/2016	µg/L	2	1 U	12.5	6.9	1 U	1 U	1 U	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-13-062917	6/29/2017	µg/L	1.18	1 U	3.39	3 U	1 U	1 U	5 U	--
MW-13B	MW-13B-012816	1/28/2016	µg/L	367	1 U	5.6	59.5	1 U	119	1 U	0.02 U
	MW-13B-D-012816	1/28/2016	µg/L	405	1 U	6.1	59.1	1 U	108	1 U	0.02 U
	MW-13B-113016	11/30/2016	µg/L	550	5.1	21.2	140	5 U	158	7.9	--
	MW-13B-062817	6/28/2017	µg/L	308	3.09	10.3	103	1 U	121	5.13	--
MW-14	MW-14-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-14-012816	1/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-14-113016	11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-14-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-14B	MW-14B-052516	5/25/2016	µg/L	5	1 U	1 U	4.4	1 U	17.2	1 U	0.02 U
	MW-14B-052516-FD	5/25/2016	µg/L	4.6	1 U	1 U	4.1	1 U	23.6	1 U	0.02 U
	MW-14B-113016	11/30/2016	µg/L	10.5	1 U	1.1	5.5	1 U	19.7	1 U	--
	MW-14B-062817	6/28/2017	µg/L	38.1	1.34	2.56	19.1	1 U	36.2	5 U	--
MW-15	MW-15-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.019 U
	MW-15-012816	1/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-15-120716	12/7/2016	µg/L	3,680	139	422	2,280	25 U	188	43.8	--
	MW-15-031417	3/14/2017	µg/L	1,960	72	324	1,320	25 U	161	125 U	--
	MW-15-031417-FD	3/14/2017	µg/L	1,820	61	286	1,120	25 U	153	125 U	--
	MW-15-032017	3/20/2017	µg/L	3390	103	505	2,460	50 U	194	250 U	--
	MW-15-033117	3/31/2017	µg/L	2850	65.4	444	1,860	20 U	221	100 U	--
	MW-15-040617	4/6/2017	µg/L	1790	60.6	465	886	25 U	181	125 U	--
	MW-15-062817	6/28/2017	µg/L	73	25 U	29	110	25 U	91.8	125 U	--

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Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-15B	MW-15B-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.019 U
	MW-15B-012816	1/28/2016	µg/L	4.8	1 U	2	3.9	1 U	1 U	1 U	0.02 U
	MW-15B-113016	11/30/2016	µg/L	337	34	565	194	5 U	26.7	5	--
	MW-15B-031417	3/14/2017	µg/L	2,160	248	4,580	1,500	100 U	118	500 U	--
	MW-15B-032017	3/20/2017	µg/L	615	88.6	1,270	555	25 U	67.5	125 U	--
	MW-15B-033117	3/31/2017	µg/L	1,630	205	3,240	1,180	50 U	115	250 U	--
	MW-15B-040617	4/6/2017	µg/L	1,020	132	2,020	789	25 U	84.7	125 U	--
	MW-15B-040617-FD	4/6/2017	µg/L	973	124	1,910	742	25 U	82.9	125 U	--
	MW-15B-062817	6/28/2017	µg/L	1,510	145	3,520	1,280	100 U*	100 U*	500 U*	--
MW-16	--	7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-16-062917	6/29/2017	µg/L	12,900	1,770	36,400	12,500	500 U*	1,740	2500 U*	--
MW-17	--	7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	4/6/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/26/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
MW-17B	MW-17B-030116	3/1/2016	µg/L	6480	488	11900	2870	5	742	104	0.019 U
	MW-17B-120116	12/1/2016	µg/L	9,370	761	16,900	4,500	100 U	954	112	--
	MW-17B-031317	3/13/2017	µg/L	7,350	770	14,100	4,510	200 U	944	1,000 U	--
	MW-17B-032017	3/20/2017	µg/L	10,700	1,360	21,400	7,910	323	1,210	1,000 U	--
	MW-17B-033117	3/31/2017	µg/L	9,190	900	17,500	5,910	100 U	1,200	500 U	--
	MW-17B-033117FD	3/31/2017	µg/L	9,190	956	18,200	6,330	100 U	1,210	500 U	--
	MW-17B-040617	4/6/2017	µg/L	7,780	833	14,900	5,330	200 U	991	1,000 U	--
	MW-17B-062817	6/28/2017	µg/L	11,200	704	21,600	5,650	200 U*	1,150	1,000 U*	--
MW-18	--	7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	6/26/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP

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Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-19	--	7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-19-012116	1/21/2016	µg/L	22.8	18.5	256	437	1 U	1 U	10.7	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/31/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-19-040617	4/6/2017	µg/L	9,810	1,030	25,000	10,300	250 U	250 U	1,250 U	--
	MW-19-062917	6/29/2017	µg/L	9,410	683	27,200	9,580	200 U*	320	1,000 U*	--
MW-20	--	7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	3/13/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	3/20/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	3/31/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	4/6/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	6/26/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
MW-21	MW-21-072715	7/27/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-21-012116	1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-21-D-012116	1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-21-112916	11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-21-031417	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-21-032117	3/21/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-21-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-21-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-21-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-21-062817-FD	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-22	--	7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-22-012116	1/21/2016	µg/L	19.8	3.4	47.2	37.4	1 U	1 U	1 U	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-22-062917	6/29/2017	µg/L	234	10 U	125	30 U	10 U*	10 U	50 U*	--

Table 5. Analytical Results for Groundwater  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-23	MW-23-072715	7/27/2015	µg/L	5 U	5 U	7.5	10 U	5 U	5 U	5 U	0.02 U
	MW-23D-072715	7/27/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-23-012016	1/20/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-23-120216	12/2/2016	µg/L	450	5 U	14.6	336	5 U	46.4	5.9	--
	MW-23-031317	3/13/2017	µg/L	709	5 U	23.1	548	5 U	127	25 U	--
	MW-23-032017	3/20/2017	µg/L	642	10 U	12.7	579	10 U	108	50 U	--
	MW-23-032017-FD	3/20/2017	µg/L	620	10 U	12.0	548	10 U	110	50 U	--
	MW-23-033117	3/31/2017	µg/L	685	10 U	16.5	624	10 U	130	50 U	--
	MW-23-040617	4/6/2017	µg/L	432	1 U	6.6	254	1 U	76.5	5 U	--
MW-23-062817	6/28/2017	µg/L	131	10 U	10 U	117	10 U*	19.1	5 U	--	
MW-23B	MW-23B-080515	8/5/2015	µg/L	5 U	5 U	7.0	10 U	5 U	5 U	5 U	0.02 U
	MW-23B-012016	1/20/2016	µg/L	1 U	1 U	3.9	7.1	1 U	1 U	1 U	0.02 U
	MW-23B-120216	12/2/2016	µg/L	1 U	1.4	3.5	11.0	1 U	1 U	1.3	--
	MW-23B-031317	3/13/2017	µg/L	1 U	1.11	2.63	8.86	1 U	1 U	5 U	--
	MW-23B-032017	3/20/2017	µg/L	1 U	1.55	2.98	11.7	1 U	1 U	5 U	--
	MW-23B-033117	3/31/2017	µg/L	1 U	1.24	2.41	8.86	1 U	1 U	5 U	--
	MW-23B-040617	4/6/2017	µg/L	1 U	1.21	2.41	9.23	1 U	1 U	5 U	--
	MW-23B-062817	6/28/2017	µg/L	1 U	1 U	1.73	6.20	1 U	1 U	5 U	--
MW-24	MW-24-080515	8/5/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-24-012616	1/26/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-24-120716	12/7/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-24-062817	6/28/2017	µg/L	28.8	3.96	1.7	22.2	1 U	1 U	5 U	--
MW-24B	MW-24B-080515	8/5/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-24B-012616	1/26/2016	µg/L	1 U	1 U	3.3	6.8	1 U	1 U	1 U	0.019 U
	MW-24B-120716	12/7/2016	µg/L	1 U	1 U	2.9	1.6	1 U	1 U	1 U	--
	MW-24B-062817	6/28/2017	µg/L	28.9	3.89	1.77	20.7	1 U	1 U	5 U	--
MW-25	MW-25-012716	1/27/2016	µg/L	101	1 U	1 U	115	1 U	1 U	1.8	0.02 U
	MW-25-012716	12/1/2016	µg/L	675	30.2	15.3	619	5 U	5.9	29.7	--
	MW-25-031417	3/14/2017	µg/L	627	28.6	10.1	668	10 U	10 U	50 U	--
	MW-25-032017	3/20/2017	µg/L	604	20.4	20 U	680	20 U	20 U	100 U	--
	MW-25-033117	3/31/2017	µg/L	673	30.1	12	736	10 U	10 U	50 U	--
	MW-25-033117FD	3/31/2017	µg/L	790	35.4	12.5	861	10 U	10 U	50 U	--
	MW-25-040617	4/6/2017	µg/L	558	24.3	10 U	682	10 U	10 U	50 U	--
	MW-25-050317	5/3/2017	µg/L	519	49.3	10.1	614	1 U	1 U	43.2	--
	MW-25-062817	6/28/2017	µg/L	431	34.8	10 U	520	10 U*	10 U	50 U*	--

Table 5. Analytical Results for Groundwater  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-25B	MW-25B-012716	1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-25B-120116	12/1/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-25B-031417	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-25B-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-25B-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-25B-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-25B-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-26	MW-26-012016	1/20/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-26-120116	12/1/2016	µg/L	1 U	1 U	2.3	1 U	1 U	1 U	1 U	--
	MW-26-031417	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26-040617-FD	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26-050317	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-26B	MW-26B-012016	1/20/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-26B-120116	12/1/2016	µg/L	1 U	1 U	1 U	1.3	1 U	1 U	1 U	--
	MW-26B-031417	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26B-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26B-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26B-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26B-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-27	MW-27-012716	1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-27-062817	6/28/2017	µg/L	2.69	4.06	3.88	35.9	1 U	1 U	5 U	--
MW-27B	MW-27B-051216	5/12/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-27B-120216	12/2/2016	µg/L	1 U	5.3	9.1	45.7	1 U	1 U	8.9	--
	MW-27B-062817	6/28/2017	µg/L	1 U	4.04	4.04	32.7	1 U	1 U	6.09	--



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 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-28	MW-28-012716	1/27/2016	µg/L	542	430	3,850	3,370	1 U	4.8	96.3	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-28-031517	3/15/2017	µg/L	1,120	68.9	3,350	1,370	50 U	50 U	250 U	--
	--	3/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/31/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	4/6/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-28-050317	5/3/2017	µg/L	65.9	14.5	263	1,010	1 U	2.94	9.33	--
MW-28-062817	6/28/2017	µg/L	199	55	108	546	1 U	1 U	10.1	--	
MW-29	MW-29-012116	1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-29-112916	11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-29-031317	3/13/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-050317	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-29-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-30	MW-30-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-30-050417	5/4/2017	µg/L	104	3.98	341	161	1 U	1 U	5 U	--
MW-30-062917	6/29/2017	µg/L	646	25 U	1,630	736	25 U*	25 U	125 U*	--	
MW-31	MW-31-051016	5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-31-112916	11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-31-050317	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-31B	MW-31B-051116	5/11/2016	µg/L	1 U	1 U	2.7	1 U	1 U	1 U	1 U	0.02 U
MW-32	MW-32-051016	5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-32-120616	12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-32-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-33	MW-33-051016	5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
MW-33T	MW-33T-051016	5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U

Table 5. Analytical Results for Groundwater  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-34	MW-34-031517	3/15/2017	--	978	33.0	143	218	10 U	157	50 U	--
	MW-34-032017	3/20/2017	µg/L	801	10.0 U	113	305	10 U	149	50 U	--
	MW-34-033117	3/31/2017	µg/L	728	10.0 U	81.4	224	10 U	152	50 U	--
	MW-34-040617	4/6/2017	µg/L	860	1.7	58.6	181	1 U	123	5 U	--
	MW-34-050317	5/3/2017	µg/L	287	2.62	27.2	130	1 U	124	5 U	--
	MW-34-062817	6/28/2017	µg/L	167	4.59	9.3	39.2	1 U	68.3	5 U	--
MW-35	MW-35-051016	5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-35-120116	12/1/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-35-031417	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-050317	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-35-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-36	MW-36-051116	5/11/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-36-112916	11/29/2016	µg/L	1.3	1 U	6.5	1.1	1 U	1 U	1 U	--
	MW-36-D-112916	11/29/2016	µg/L	1 U	1 U	5.4	1 U	1 U	1 U	1 U	--
	MW-36-062917	6/29/2017	µg/L	2.11	1 U	2.28	3 U	1 U	1 U	5 U	--
MW-36B	MW-36B-051116	5/11/2016	µg/L	1 U	1 U	7.2	1 U	1 U	1 U	1 U	0.02 U
	MW-36B-112916	11/29/2016	µg/L	1 U	1 U	1.6	1 U	1 U	1 U	1 U	--
	MW-36B-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-36B-062917-FD	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-37	MW-37-113016	11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-37-062817	6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1.44	5 U	--
MW-38	MW-38-113016	11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	5.5	1 U	--
	MW-38-031417	3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	9.14	5 U	--
	MW-38-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	7.55	5 U	--
	MW-38-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	10.2	5 U	--
	MW-38-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	8.06	5 U	--
	MW-38-050317	5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	9.08	5 U	--
	MW-38-062817	6/28/2017	µg/L	9.71	1.17	1 U	6.63	1 U	1 U	5 U	--

Table 5. Analytical Results for Groundwater  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-39	MW-39-120716	12/7/2016	µg/L	6,320	682	1,290	3,650	50 U	311	86	--
	MW-39-031417	3/14/2017	µg/L	6,370	431	2,200	3,700	10 U	199	117	--
	MW-39-032017	3/20/2017	µg/L	7,340	704	2,990	4,050	100 U	248	500 U	--
	MW-39-033117	3/31/2017	µg/L	7,540	899	3,140	4,400	50 U	272	250 U	--
	MW-39-040617	4/6/2017	µg/L	6,180	754	3,280	3,860	50 U	257	250 U	--
	MW-39-062817	6/28/2017	µg/L	5,470	58	3,360	3,900	20 U*	239	100 U*	--
MW-40	MW-40-120716	12/7/2016	µg/L	6,730	588	7,460	3,390	50 U	373	64.8	--
	MW-40-031417	3/14/2017	µg/L	11,600	1,280	16,100	7,260	50 U	691	250 U	--
	MW-40-032017	3/20/2017	µg/L	12,300	1,330	19,600	7,500	200 U	654	1000 U	--
	MW-40-033117	3/31/2017	µg/L	13,300	1,500	19,500	8,070	100 U	727	500 U	--
	MW-40-040617	4/6/2017	µg/L	10,400	1,180	16,200	6,570	200 U	650	1000 U	--
	MW-40-062817	6/28/2017	µg/L	9,250	1,030	19,200	6,540	500 U*	590	2500 U*	--
MW-41	MW-41-120716	12/7/2016	µg/L	212	2 U	2 U	155	2 U	6.7	5.6	--
	MW-41-031417	3/14/2017	µg/L	469	1.78	1 U	275	1 U	4.34	18.1	--
	MW-41-032017	3/20/2017	µg/L	424	2.62	1 U	342	1 U	1 U	16.9	--
	MW-41-033117	3/31/2017	µg/L	449	5 U	5 U	343	5 U	5 U	25 U	--
	MW-41-040617	4/6/2017	µg/L	470	2.06	1 U	258	1 U	3.84	10.6	--
	MW-41-062817	6/28/2017	µg/L	292	8.83	2.09	271	1 U	3.36	13.3	--
MW-42	MW-42-120716	12/7/2016	µg/L	3.8	1 U	1 U	2.7	1 U	1 U	1 U	--
	MW-42-031417	3/14/2017	µg/L	19.3	1 U	1 U	3 U	1 U	1.12	5 U	--
	MW-42-032017	3/20/2017	µg/L	59.6	1 U	1 U	16.9	1 U	1.24	5 U	--
	MW-42-033117	3/31/2017	µg/L	135	1 U	1 U	73.8	1 U	1 U	5.19	--
	MW-42-040617	4/6/2017	µg/L	93.5	1 U	1 U	53.3	1 U	1.18	5 U	--
	MW-42-062817	6/28/2017	µg/L	15.1	1 U	1 U	11.7	1 U	1.25	5 U	--
MW-44	--	3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-44-062917	6/29/2017	µg/L	1.06	1 U	7.12	3.11	1 U	1 U	5 U	--
MW-44B	MW-44B-031317	3/13/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-44B-062817	6/28/2017	µg/L	1 U	1 U	2.39	3 U	1 U	1 U	5 U	--
MW-45	--	3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/31/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	4/6/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-45-062917	6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-45B	MW-45B-031317	3/13/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-45B-032017	3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-45B-033117	3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-45B-040617	4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-45B-062817	6/28/2017	µg/L	1 U	1 U	<b>1.73</b>	3 U	1 U	1 U	5 U	--
RBSL <sup>a</sup> :			µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05

Notes:

<sup>a</sup> RBSL = Risk-based screening levels identified in South Carolina Underground Storage Tank Management Division Programmatic Quality Assurance Program Plan, Revision 3, Table D1 "RBSLs for Groundwater", May 2015

Samples analyzed by EPA Methods SW 8260B and 8011.

**Bold** indicates the analyte was detected above the method detection limit.

**Gray shading** indicates the analyte exceeded RBSLs.

µg/L = microgram(s) per liter

1,2-DCA = 1,2-dichloroethane

EDB = 1,2-dibromoethane

ID = identification

MTBE = methyl tertiary butyl ether

NS-FP = sample not collected due to the presence of free product in the well

NS-IW = sample not collected due to insufficient volume of water in well

U = analyte was not detected above the reported sample quantitation limit

U\* = The analyte was analyzed for, but was not detected above the laboratory reporting/quantitation limit. However, the laboratory reporting/quantitation limit is above the screening criteria. The actual absence or presence of this analyte between the screening criteria and the laboratory reporting/quantitation limit cannot be determined.

**Table 6. Cumulative Fluids Shipped from the Site**  
*Plantation Pipe Line Company*  
*Lewis Drive Remediation Site, Belton, South Carolina*  
*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Date	Destination	Total Fluid (gal)	Total Product (gal)
12/9/2014	PPL Greensboro	4,289	4,289
12/9/2014	PPL Greensboro	3,100	3,100
12/12/2014	PPL Greensboro	1,189	1,189
12/30/2014	Crystal Clean (FCC)	5,512	5,057
12/31/2014	Crystal Clean (FCC)	5,576	5,333
1/4/2015	Crystal Clean (FCC)	5,000	5,000
1/4/2015	Crystal Clean (FCC)	2,872	2,872
1/5/2015	Crystal Clean (FCC)	5,013	5,013
1/6/2015	Crystal Clean (FCC)	5,333	4,800
1/7/2015	Allied Energies	6,532	6,532
1/7/2015	Allied Energies	6,425	6,425
1/7/2015	Allied Energies	8,200	8,200
1/9/2015	Allied Energies	6,482	6,482
1/9/2015	Allied Energies	7,825	7,825
1/12/2015	Allied Energies	6,540	6,540
1/12/2015	Allied Energies	6,467	6,467
1/13/2015	Allied Energies	6,732	6,732
1/13/2015	Allied Energies	6,595	6,595
1/15/2015	Allied Energies	6,500	6,500
1/22/2015	Allied Energies	5,791	5,791
1/23/2015	Allied Energies	5,450	5,450
1/27/2015	Allied Energies	5,791	5,791
1/27/2015	Allied Energies	5,557	5,557
1/27/2015	Allied Energies	6,043	6,043
1/28/2015	Allied Energies	4,411	4,411
2/5/2015	Allied Energies	5,513	5,513
2/11/2015	Allied Energies	5,732	5,732
2/11/2015	Allied Energies	5,606	5,606
2/25/2015	Allied Energies	5,583	5,583
3/4/2015	Allied Energies	4,000	4,000
3/16/2015	Allied Energies	5,200	5,200
6/3/2015	Allied Energies	6,500	6,500

Date	Destination	Total Fluid (gal)	Total Product (gal)
6/3/2015	Allied Energies	4,214	4,214
8/10/2015	Allied Energies	6,000	6,000
11/2/2015	Allied Energies	5,800	5,800
11/13/2015	Crystal Clean (FCC)	2,900	2,900
12/1/2015	Allied Energies	6,690	6,690
12/1/2015	Allied Energies	6,700	6,700
12/7/2015	Crystal Clean (FCC)	2,250	500
9/28/2016	Shamrock	5,000	495
10/17/2016	Shamrock	334	110
10/24/2016	Shamrock	289	85
10/31/2016	Shamrock	382	70
11/10/2016	Shamrock	431	168
1/18/2017	A&D Archdale	6,264	3,758
3/3/2017	A&D Archdale	4,601	460
3/8/2017	A&D Archdale	5,000	500
3/15/2017	A&D Archdale	4,928	4,189
4/3/2017	A&D Archdale	5,089	458
4/19/2017	A&D Archdale	4,880	927
4/19/2017	A&D Archdale	3,933	747
5/22/2017	A&D Archdale	4,800	50
6/7/2017	A&D Archdale	4,700	658
6/29/2017	A&D Archdale	4,967	695
6/29/2017	Remaining in frac tank (estimated)	18,110	428
<b>Total (gallons)</b>		<b>285,620</b>	<b>222,731</b>
<b>Total (barrels)</b>		<b>6,800</b>	<b>5,303</b>

Notes:

A 21,000 gallon frac tank was mobilized to the site on January 19, 2017. Gasoline and water are field-segregated using the frac tank prior to offsite disposal.

A&D = A&D Environmental

gal = gallons

PPL = Plantation Pipe Line Company

Table 7. Stream Gauge Construction Information

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Date Installed	Stream Bottom	
			Elevation (ft amsl)	Elevation of Zero Mark (ft amsl)
SW-01	By hand	3/29/2016	812.39	812.82
SW-02	By hand	3/29/2016	808.36	808.65
SW-03	By hand	3/29/2016	815.05	815.09
SW-05	By hand	3/29/2016	838.69	838.75
SW-08	By hand	3/29/2016	802.14	802.04
SW-10	By hand	3/29/2016	776.62	778.09

Notes:

amsl = above mean sea level relative to North American Vertical Datum of 1988 (NAVD88). Benchmark is 34.8289659 degrees north, 82.3710354 degrees west (NAD83, 2011), elevation 929.1 ft NAVD88

ft = feet

ID = identification

SW = surface water

Table 8. Well Construction Information  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of Screen or Open Borehole Interval (ft BTOC)	Bottom of Screen or Open Borehole Interval (ft bgs)	Top of Screen or Open Borehole Interval (ft bgs)	Bottom of Screen or Open Borehole Interval (ft amsl)	Top of Screen or Open Borehole Interval (ft amsl)	Bottom of Screen or Open Borehole Interval (ft amsl)	Length of Screen or Open Borehole Interval (ft)
MW-01	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	850.25	853.07	15.61	8	2	13.00	837.2	5.82	15.82	3.0	13.0	847.2	837.2	10.00
MW-01B	Schramm Air Rig	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	850.45	852.99	45.26	10	6	38.50	812.0	21.03	41.03	18.5	38.5	832.0	812.0	20.00
MW-02	CME 750 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	841.24	841.04	19.78	8	2	20.00	821.2	4.80	19.80	5.0	20.0	836.2	821.2	15.00
MW-02B	Schramm Air Rig	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	841.40	841.18	71.20	10	6	81.00	760.4	69.78	80.78	70.0	81.0	771.4	760.4	11.00
MW-03	CME 550 HSA	MW-10136	6/23/2015	Still in use	Monitoring Well/Gauging	838.38	838.36	22.19	8	2	20.00	818.4	4.98	19.98	5.0	20.0	833.4	818.4	15.00
MW-04	CME 550 HSA	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	844.51	844.42	20.65	8	2	20.00	824.5	4.91	19.91	5.0	20.0	839.5	824.5	15.00
MW-05	CME 550 HSA	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	851.15	851.11	19.89	8	2	20.00	831.1	4.96	19.96	5.0	20.0	846.1	831.1	15.00
MW-06	CME 550 HSA	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	852.98	852.92	19.20	8	2	19.60	833.4	4.54	19.54	5.0	19.6	848.0	833.4	15.00
MW-07	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	853.02	853.02	13.58	8	2	13.50	839.5	-1.50	13.50	3.5	13.5	849.5	839.5	15.00
MW-08	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	844.75	844.72	19.80	8	2	19.70	825.1	4.67	19.67	4.7	19.7	840.1	825.1	15.00
MW-09	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	843.72	843.63	20.21	8	2	19.50	824.2	4.41	19.41	4.5	19.5	839.2	824.2	15.00
MW-10	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	842.33	845.41	23.54	8	2	20.00	822.3	8.08	23.08	5.0	20.0	837.3	822.3	15.00
MW-11	CME 550 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	852.36	855.63	32.50	8	2	25.20	827.2	13.27	28.27	14.2	25.0	838.2	827.4	15.00
MW-12	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	832.20	834.53	21.69	8	2	19.30	812.9	6.63	21.63	4.3	19.3	827.9	812.9	15.00
MW-12B	Geoprobe 3230 DT HSA	MW-10460	12/22/2015	Still in use	Monitoring Well/Gauging	832.26	834.98	45.81	10	6	43.00	789.3	35.72	45.72	33.0	43.0	799.3	789.3	10.00
MW-13	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	845.93	848.84	22.18	8	2	19.00	826.9	6.92	21.92	4.0	19.0	841.9	826.9	15.00
MW-13B	Geoprobe 3230 DT HSA	MW-10461	12/21/2015	Still in use	Monitoring Well/Gauging	847.19	849.52	55.36	10	6	58.00	789.2	50.64	60.64	48.0	58.0	799.2	789.2	10.00
MW-14	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	836.47	838.70	22.20	8	2	19.30	817.2	6.53	21.53	4.3	19.3	832.2	817.2	15.00
MW-14B	Mobile ST Schramm	MW-10578	5/3/2016	Still in use	Monitoring Well/Gauging	837.12	840.20	76.97	10	6	76.90	760.2	66.07	76.07	66.0	76.0	771.1	761.1	10.00
MW-15	CME 550 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	828.68	831.03	21.22	8	2	19.00	809.7	6.35	21.35	4.0	19.0	824.7	809.7	15.00
MW-15B	CME 550 HSA	MW-10136	7/28/2015	Still in use	Monitoring Well/Gauging	828.66	831.29	74.41	10	6	77.85	750.8	70.48	80.48	67.9	77.9	760.8	750.8	10.00
MW-16	CME 750 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	847.63	847.67	20.37	8	2	20.00	827.6	5.03	20.03	5.0	20.0	842.6	827.6	15.00
MW-17	CME 750 HSA	MW-10136	6/27/2015	Still in use	Monitoring Well/Gauging	855.32	855.35	15.30	8	2	11.00	844.3	6.03	11.03	6.0	11.0	849.3	844.3	5.00
MW-17B	Geoprobe 3230 DT HSA	MW-10462	1/7/2016	Still in use	Monitoring Well/Gauging	855.37	855.37	27.50	10	6	27.00	828.4	17.00	27.00	17.0	27.0	838.4	828.4	10.00
MW-18	CME 550 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	846.82	846.89	19.75	8	2	20.00	826.8	5.06	20.06	5.0	20.0	841.8	826.8	15.00
MW-19	CME 750 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	851.23	853.94	12.13	8	2	9.50	841.7	7.20	12.20	4.5	9.5	846.7	841.7	5.00
MW-20	CME 750 HSA	MW-10136	6/30/2015	Still in use	Monitoring Well/Gauging	853.07	852.89	19.45	8	2	19.00	834.1	3.81	18.81	4.0	19.0	849.1	834.1	15.00
MW-21	CME 750 HSA	MW-10136	6/30/2015	Still in use	Monitoring Well/Gauging	855.68	855.77	20.70	8	2	20.00	835.7	5.09	20.09	5.0	20.0	850.7	835.7	15.00
MW-22	CME 750 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	854.62	854.60	10.30	8	2	11.00	843.6	5.98	10.98	6.0	11.0	848.6	843.6	5.00
MW-23	CME 750 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	846.66	849.57	23.50	8	2	20.00	826.7	7.91	22.91	5.0	20.0	841.7	826.7	15.00
MW-23B	CME 550 HSA	MW-10136	7/22/2015	Still in use	Monitoring Well/Gauging	846.81	849.69	53.48	10	6	50.50	796.3	30.88	53.38	28.0	50.5	818.8	796.3	22.50
MW-24	CME 550 HSA	MW-10136	7/15/2015	Still in use	Monitoring Well/Gauging	815.72	817.92	15.30	8	2	13.00	802.7	10.20	15.20	8.0	13.0	807.7	802.7	5.00
MW-24B	CME 550 HSA	MW-10136	7/20/2015	Still in use	Monitoring Well/Gauging	815.83	818.72	45.10	10	6	39.50	776.3	22.39	42.39	19.5	39.5	796.3	776.3	20.00
MW-25	Geoprobe 3230 DT HSA	MW-10463	1/5/2016	Still in use	Monitoring Well/Gauging	823.46	826.18	15.07	8	2	15.00	808.5	8.04	18.04	5.0	15.0	818.5	808.5	10.00
MW-25B	Geoprobe 3230 DT HSA	MW-10464	1/5/2016	Still in use	Monitoring Well/Gauging	822.59	823.81	59.00	10	6	58.00	764.6	49.22	59.22	48.0	58.0	774.6	764.6	10.00
MW-26	Geoprobe 3230 DT HSA	MW-10465	1/4/2016	Still in use	Monitoring Well/Gauging	844.76	847.56	17.15	8	2	15.25	829.5	7.27	17.27	5.0	15.0	839.8	829.8	10.00
MW-26B	Geoprobe 3230 DT HSA	MW-10466	1/4/2016	Still in use	Monitoring Well/Gauging	844.81	847.81	43.84	10	6	38.00	806.8	29.00	41.00	26.0	38.0	818.8	806.8	12.00
MW-27	Geoprobe 3230 DT HSA	MW-10467	1/5/2016	Still in use	Monitoring Well/Gauging	854.22	854.11	29.51	8	2	30.25	824.0	15.11	30.11	15.0	30.0	839.2	824.0	15.00
MW-27B	CME 550 HSA / Schramm	MW-10578	4/26/2016	Still in use	Monitoring Well/Gauging	854.27	857.14	41.45	10	6	46.00	808.3	31.45	41.45	36.0	46.0	818.3	808.3	10.00
MW-28	Geoprobe 3230 DT HSA	MW-10468	1/5/2016	Still in use	Monitoring Well/Gauging	841.49	844.31	25.93	8	2	23.50	818.0	8.50	23.50	10.0	25.0	831.5	816.5	15.00
MW-29	Geoprobe 3230 DT HSA	MW-10469	1/4/2016	Still in use	Monitoring Well/Gauging	852.07	852.20	15.10	8	2	15.25	836.8	5.00	15.00	5.0	15.0	847.1	837.1	10.00
MW-30	Geoprobe 3230 DT HSA	MW-10470	1/6/2016	Still in use	Monitoring Well/Gauging	841.21	841.28	14.69	8	2	15.25	826.0	5.00	15.00	5.0	15.0	836.2	826.2	10.00
MW-31	CME 550 HSA	MW-10578	4/19/2016	Still in use	Monitoring Well/Gauging	842.26	845.04	28.20	8	2	25.00	817.3	13.20	28.20	10.0	25.0	832.3	817.3	15.00
MW-31B	CME 550 HSA / Schramm	MW-10578	4/22/2016	Still in use	Monitoring Well/Gauging	842.01	844.94	79.25	10	6	76.00	766.0	68.25	79.25	65.0	76.0	777.0	766.0	11.00
MW-32	CME 550 HSA	MW-10578	4/19/2016	Still in use	Monitoring Well/Gauging	839.81	842.93	29.09	8	2	26.00	813.8	13.09	28.09	10.0	25.0	829.8	814.8	15.00
MW-33	CME 550 HSA	MW-10578	4/15/2016	Still in use	Monitoring Well/Gauging	846.20	849.20	28.30	8	2	27.00	819.2	11.30	26.30	10.0	25.0	836.2	821.2	15.00
MW-33T	CME 550 HSA/Air Rotary	MW-10578	4/14/2016	Still in use	Monitoring Well/Gauging	846.15	849.11	100.35	8	2	96.50	749.7	87.85	97.85	84.0	94.0	762.2	752.2	10.00
MW-34	Hand Auger	MW-10994	3/16/2017	Still in use	Monitoring Well/Gauging	813.99	816.35	7.86	4	2	5.00	809.0	5.36	7.86	2.5	5.0	811.5	809.0	2.50

Table 8. Well Construction Information  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of Screen or Open Borehole Interval (ft BTOC)	Bottom of Screen or Open Borehole Interval (ft BTOC)	Top of Screen or Open Borehole Interval (ft bgs)	Bottom of Screen or Open Borehole Interval (ft bgs)	Top of Screen or Open Borehole Interval (ft amsl)	Bottom of Screen or Open Borehole Interval (ft amsl)	Length of Screen or Open Borehole Interval (ft)
MW-35	CME 550 HSA	MW-10578	4/20/2016	Still in use	Monitoring Well/Gauging	826.22	829.40	28.42	8	2	26.00	800.2	12.42	27.42	10.0	25.0	816.2	801.2	15.00
MW-36	CME 550 HSA	MW-10578	4/22/2016	Still in use	Monitoring Well/Gauging	858.66	858.47	23.65	8	2	24.50	834.2	8.65	23.65	9.5	24.5	849.2	834.2	15.00
MW-36B	CME 550 HSA / Schramm	MW-10578	4/28/2016	Still in use	Monitoring Well/Gauging	858.49	858.15	47.54	10	6	54.90	803.6	36.64	46.64	44.0	54.0	814.5	804.5	10.00
MW-37	Geoprobe 8040 HSA	MW-10759	8/9/2016	Still in use	Monitoring Well/Gauging	810.93	813.92	18.11	6.25	2	16.00	794.9	7.11	17.11	5.0	15.0	805.9	795.9	10.00
MW-38	Geoprobe 8040 HSA	MW-10759	8/9/2016	Still in use	Monitoring Well/Gauging	810.49	813.28	11.61	6.25	2	9.10	801.4	6.41	11.41	3.9	8.9	806.6	801.6	5.00
MW-39	Geoprobe 8040 HSA	MW-10759	11/29/2016	Still in use	Monitoring Well/Gauging	816.92	819.90	13.01	6.25	2	11.00	805.9	7.01	12.01	5.0	10.0	811.9	806.9	5.00
MW-40	Geoprobe 8040 HSA	MW-10759	11/30/2016	Still in use	Monitoring Well/Gauging	814.75	817.79	13.18	6.25	2	11.00	803.8	7.18	12.18	5.0	10.0	809.8	804.8	5.00
MW-41	Geoprobe 8040 HSA	MW-10759	11/28/2016	Still in use	Monitoring Well/Gauging	816.67	819.68	13.20	6.25	2	11.00	805.7	7.20	12.20	5.0	10.0	811.7	806.7	5.00
MW-42	Geoprobe 8040 HSA	MW-10759	11/28/2016	Still in use	Monitoring Well/Gauging	817.31	820.33	13.40	6.25	2	11.00	806.3	7.40	12.40	5.0	10.0	812.3	807.3	5.00
MW-44	Hollow Stem Auger	MW-10964	1/23/2017	Still in use	Monitoring Well/Gauging	853.82	853.67	9.82	6.25	2	10.00	843.8	4.82	9.82	5.0	10.0	848.8	843.8	5.00
MW-44B	Hollow Stem Auger/Wire Line/Air Rotary	MW-10964	1/23/2017	Still in use	Monitoring Well/Gauging	853.66	853.38	34.50	10.25	4	37.10	816.6	13.50	34.50	16.1	37.1	837.6	816.6	21.00
MW-45	Hollow Stem Auger	MW-10964	1/26/2017	Still in use	Monitoring Well/Gauging	852.39	852.47	14.42	6.25	2	14.00	838.4	4.42	14.42	4.0	14.0	848.4	838.4	10.00
MW-45B	Hollow Stem Auger/Wire Line/Air Rotary	MW-10964	1/25/2017	Still in use	Monitoring Well/Gauging	852.69	852.85	40.30	10.25	4	40.30	812.4	19.00	40.30	19.0	40.3	833.7	812.4	21.30
Recovery Wells																			
RW-01	HSA	MW-09978	1/28/2015	Still in use	Gauging/LNAPL Recovery	849.49	851.92	20.80	6.25	4	17	832.5	4.44	19.44	2.0	17.0	847.5	832.5	15
RW-02	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	850.22	852.69	25.72	6.25	4	23	827.2	15.47	25.47	13.0	23.0	837.2	827.2	10
RW-03	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	850.03	852.34	33.39	6.25	4	31.2	818.8	18.51	33.51	16.2	31.2	833.8	818.8	15
RW-04	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	852.15	853.93	35.04	6.25	4	33	819.2	14.78	34.78	13.0	33.0	839.2	819.2	20
RW-05	HSA	MW-09978	1/30/2015	Still in use	Gauging/LNAPL Recovery	850.99	853.53	38.25	6.25	4	34.5	816.5	22.04	37.04	19.5	34.5	831.5	816.5	15
RW-06	HSA	MW-09978	1/30/2015	Still in use	Gauging/LNAPL Recovery	844.21	846.21	36.50	6.25	4	38.5	805.7	20.49	40.49	18.5	38.5	825.7	805.7	20
RW-07	HSA	MW-09978	2/2/2015	Still in use	Gauging/LNAPL Recovery	841.01	843.19	35.00	6.25	4	38	803.0	15.18	40.18	13.0	38.0	828.0	803.0	25
RW-08	HSA	MW-09978	2/2/2015	Still in use	Gauging/LNAPL Recovery	833.46	835.48	33.50	6.25	4	33.5	800.0	10.52	35.52	8.5	33.5	825.0	800.0	25
RW-09	HSA	MW-09978	2/3/2015	Still in use	Gauging/LNAPL Recovery	831.13	835.12	42.13	6.25	4	41.5	789.6	15.49	45.49	11.5	41.5	819.6	789.6	30
RW-10	HSA	MW-10006	2/4/2015	Still in use	Gauging/LNAPL Recovery	846.76	848.53	66.51	6.25	4	68.5	778.3	5.27	70.27	3.5	68.5	843.3	778.3	65
RW-11	HSA	MW-10006	2/4/2015	Still in use	Gauging/LNAPL Recovery	851.03	852.97	21.40	6.25	4	19.5	831.5	6.44	21.44	4.5	19.5	846.5	831.5	15
RW-12	HSA	MW-10006	2/5/2015	Still in use	Gauging/LNAPL Recovery	851.48	852.75	16.90	6.25	4	14	837.5	6.90	16.90	4.0	14.0	847.5	837.5	10
RW-13	HSA	MW-10006	2/5/2015	Still in use	Gauging/LNAPL Recovery	847.57	847.97	45.53	6.25	4	50	797.6	0.53	45.53	5.0	50.0	842.6	797.6	45
RW-14	HSA	MW-10006	2/6/2015	Still in use	Gauging/LNAPL Recovery	826.25	827.54	55.00	6.25	4	55	771.2	5.00	55.00	5.0	55.0	821.2	771.2	50
RW-15	HSA	MW-10006	2/10/2015	Still in use	Gauging/LNAPL Recovery	849.48	851.64	36.50	6.25	4	36.5	813.0	1.50	36.50	1.5	36.5	848.0	813.0	35
Recovery Sumps																			
RS-01	Trackhoe	MW-09978	12/29/2014	Still in use	Gauging/LNAPL Recovery	847.95	849.13	23.60	NA	4	22.42	825.5	3.18	23.60	2.0	22.4	845.9	825.5	20.42
RS-02	Trackhoe	MW-09978	12/29/2014	Still in use	Gauging/LNAPL Recovery	848.54	849.52	20.00	NA	4	19.02	829.5	2.98	20.00	2.0	19.0	846.5	829.5	17.02
RS-04	Trackhoe	MW-09978	12/30/2014	Still in use	Gauging/LNAPL Recovery	850.36	851.47	10.75	NA	4	9.64	840.7	3.11	10.75	2.0	9.6	848.4	840.7	7.64
RS-05	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	847.14	848.31	25.20	NA	4	24.03	823.1	3.17	25.20	2.0	24.0	845.1	823.1	22.03
RS-06	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	848.25	849.47	25.18	NA	4	23.96	824.3	3.22	25.18	2.0	24.0	846.2	824.3	21.96
RS-07	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	854.06	855.08	16.65	NA	4	15.63	838.4	3.02	16.65	2.0	15.6	852.1	838.4	13.63
RS-08	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	852.59	854.00	20.22	NA	4	18.81	833.8	3.41	20.22	2.0	18.8	850.6	833.8	16.81
RS-09	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.75	847.60	18.85	NA	4	18.00	828.8	2.85	18.85	2.0	18.0	844.8	828.8	16.00
RS-10	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.28	847.42	20.06	NA	4	18.92	827.4	3.14	20.06	2.0	18.9	844.3	827.4	16.92
RS-11	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.35	847.44	22.06	NA	4	20.97	825.4	3.09	22.06	2.0	21.0	844.3	825.4	18.97
RS-12	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.58	847.74	21.29	NA	4	20.13	826.5	3.16	21.29	2.0	20.1	844.6	826.5	18.13
RS-13	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	845.51	846.61	19.92	NA	4	18.82	826.7	2.47	19.92	1.4	18.8	844.1	826.7	17.45
RS-14	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	844.66	845.97	19.93	NA	4	18.62	826.0	3.31	19.93	2.0	18.6	842.7	826.0	16.62
RS-15	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	845.36	846.41	19.93	NA	4	18.88	826.5	3.05	19.93	2.0	18.9	843.4	826.5	16.88
RS-16	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	844.56	845.44	19.98	NA	4	19.10	825.5	2.88	19.98	2.0	19.1	842.6	825.5	17.10
RS-17	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	843.29	844.22	19.91	NA	4	18.98	824.3	2.93	19.91	2.0	19.0	841.3	824.3	16.98
RS-18	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	846.82	847.89	19.98	NA	4	18.91	827.9	3.07	19.98	2.0	18.9	844.8	827.9	16.91



Table 8. Well Construction Information  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of Screen or Open Borehole Interval (ft BTOC)	Bottom of Screen or Open Borehole Interval (ft BTOC)	Top of Screen or Open Borehole Interval (ft bgs)	Bottom of Screen or Open Borehole Interval (ft bgs)	Top of Screen or Open Borehole Interval (ft amsl)	Bottom of Screen or Open Borehole Interval (ft amsl)	Length of Screen or Open Borehole Interval (ft)
Recovery Trench Sumps																			
RS-20	Trackhoe	MW-09978	3/19/2015	Still in use	Gauging/LNAPL Recovery	841.73	842.69	11.84	NA	4	9.91	831.8	3.93	11.84	2.0	9.9	839.7	831.8	7.91
RT-1A	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	852.86	854.06	20.89	NA	4	20.00	832.9	3.20	21.20	2.0	20.0	850.9	832.9	18
RT-1B	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	853.29	854.15	21.10	NA	4	20.00	833.3	2.86	20.86	2.0	20.0	851.3	833.3	18
RT-1C	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	853.55	854.55	21.27	NA	4	20.00	833.5	3.00	21.00	2.0	20.0	851.5	833.5	18
RT-2A	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	815.66	817.48	10.81	NA	4	10.00	805.7	3.82	11.82	2.0	10.0	813.7	805.7	8
RT-2B	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	816.72	817.61	10.82	NA	4	10.00	806.7	2.89	10.89	2.0	10.0	814.7	806.7	8
RT-2C	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	816.86	818.06	10.23	NA	4	10.00	806.9	3.20	11.20	2.0	10.0	814.9	806.9	8
RT-2D	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.11	818.12	10.21	NA	4	10.00	807.1	3.01	11.01	2.0	10.0	815.1	807.1	8
RT-2E	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.32	818.25	10.24	NA	4	10.00	807.3	2.93	10.93	2.0	10.0	815.3	807.3	8
RT-2F	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.74	818.57	10.23	NA	4	10.00	807.7	2.83	10.83	2.0	10.0	815.7	807.7	8
RT-2G	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.27	820.07	10.24	NA	4	10.00	809.3	2.80	10.80	2.0	10.0	817.3	809.3	8
RT-2H	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.91	822.17	8.35	NA	4	10.00	809.9	3.90	12.25	1.7	10.0	818.3	809.9	8
RT-2I	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.23	819.51	10.20	NA	4	10.00	809.2	2.28	10.28	2.0	10.0	817.2	809.2	8
RT-2J	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.47	817.63	10.22	NA	4	10.00	807.5	2.16	10.16	2.0	10.0	815.5	807.5	8
RT-2K	Trackhoe	MW-09978	3/20/2015	Still in use	Gauging/LNAPL Recovery	816.11	817.40	4.14	NA	4	2.50	813.6	2.64	4.14	1.0	2.5	815.1	813.6	2
RT-2L	Trackhoe	MW-09978	3/20/2015	Still in use	Gauging/LNAPL Recovery	817.95	819.54	6.60	NA	4	3.71	814.2	3.89	6.60	1.0	3.7	816.9	814.2	3
Piezometers																			
TW-04R	DPT	MW-10006	2/4/2015	Still in use	Gauging	852.68	852.64	5.46	2.2	1	5.5	847.2	2.46	5.46	2.5	5.5	850.2	847.2	3
TW-05R	DPT	MW-10006	2/4/2015	Still in use	Gauging	849.96	849.93	8.87	2.2	1	8.8	841.2	2.87	8.87	2.8	8.9	847.2	841.1	6
TW-14R	DPT	MW-10006	2/4/2015	Still in use	Gauging	853.47	853.37	6.20	2.2	1	6.5	847.0	2.20	6.20	2.5	6.3	851.0	847.2	4
TW-15R	DPT	MW-10006	2/4/2015	Still in use	Gauging	850.70	850.62	4.85	2.2	1	5	845.7	1.85	4.85	2.0	4.9	848.7	845.8	3
TW-21	DPT	MW-09978	1/22/2015	Still in use	Gauging	849.72	849.70	9.41	2.2	1	14	835.7	-0.59	9.41	4.0	9.4	845.7	840.3	10
TW-28	DPT	MW-09978	1/23/2015	Still in use	Gauging	851.57	851.42	31.84	2.2	1	30	821.6	11.84	31.84	10.0	32.0	841.6	819.6	20
TW-30	DPT	MW-09978	1/23/2015	Still in use	Gauging	851.86	851.81	23.15	2.2	1	24	827.9	8.15	23.15	9.0	23.2	842.9	828.7	15
TW-34	DPT	MW-09978	1/24/2015	Still in use	Gauging	854.92	854.79	25.04	2.2	1	23	831.9	10.04	25.04	8.0	25.2	846.9	829.7	15
TW-35	DPT	MW-09978	1/24/2015	Still in use	Gauging	854.22	854.10	25.12	2.2	1	23	831.2	10.12	25.12	8.0	25.2	846.2	829.0	15
TW-40	DPT	MW-09978	1/24/2015	Still in use	Gauging	853.45	853.35	34.05	2.2	1	33	820.5	14.05	34.05	13.0	34.2	840.5	819.3	20
TW-41	DPT	MW-09978	1/25/2015	Still in use	Gauging	849.38	849.38	32.15	2.2	1	34	815.4	7.15	32.15	9.0	32.1	840.4	817.2	25
TW-42	DPT	MW-09978	1/25/2015	Still in use	Gauging	847.02	846.84	27.50	2.2	1	29.5	817.5	7.50	27.50	9.5	27.7	837.5	819.3	20
TW-45	DPT	MW-09978	1/25/2015	Still in use	Gauging	848.26	848.31	36.86	2.2	1	37.5	810.8	11.86	36.86	12.5	36.8	835.8	811.4	25
TW-55	DPT	MW-10006	2/5/2015	Still in use	Gauging	846.00	845.93	41.50	2.7	1	43	803.0	11.50	41.50	13.0	41.6	833.0	804.4	30
TW-59	DPT	MW-09978	1/30/2015	Still in use	Gauging	834.84	834.78	21.15	2.7	1	22	812.8	6.15	21.15	7.0	21.2	827.8	813.6	15
TW-60	DPT	MW-09978	1/30/2015	Still in use	Gauging	828.00	828.03	34.75	2.7	1	41.5	786.5	-0.25	34.75	6.5	34.7	821.5	793.3	35
TW-64	DPT	MW-09978	2/2/2015	Still in use	Gauging	845.89	845.88	52.85	2.2	1	55	790.9	2.85	52.85	5.0	52.9	840.9	793.0	50
TW-65	DPT	MW-09978	2/2/2015	Still in use	Gauging	845.66	845.62	44.81	2.2	1	44.5	801.2	9.81	44.81	9.5	44.8	836.2	800.8	35
TW-66	DPT	MW-09978	2/2/2015	Still in use	Gauging	820.18	820.31	23.81	2.7	1	24	796.2	3.81	23.81	4.0	23.7	816.2	796.5	20
TW-67	DPT	MW-09978	2/3/2015	Still in use	Gauging	852.88	852.71	26.47	2.7	1	27	825.9	6.47	26.47	7.0	26.6	845.9	826.2	20
TW-68	DPT	MW-09978	2/3/2015	Still in use	Gauging	846.59	846.45	29.96	2.2	1	27	819.6	9.96	29.96	7.0	30.1	839.6	816.5	20
TW-69	DPT	MW-09978	2/3/2015	Still in use	Gauging	840.38	840.27	51.91	2.2	1	50	790.4	11.91	51.91	10.0	52.0	830.4	788.4	40
TW-70	DPT	MW-09978	2/3/2015	Still in use	Gauging	842.07	841.95	45.05	2.2	1	43	799.1	10.05	45.05	8.0	45.2	834.1	796.9	35
TW-73	DPT	MW-09978	2/3/2015	Still in use	Gauging	850.60	850.53	16.00	2.7	1	16	834.6	6.00	16.00	6.0	16.1	844.5	834.5	10
TW-76	DPT	MW-10006	2/4/2015	Still in use	Gauging	852.53	852.44	43.62	2.7	1	43	809.5	8.62	43.62	8.0	43.7	844.5	808.8	35
TW-81	DPT	MW-10006	2/5/2015	Still in use	Gauging	849.48	849.43	7.00	2.2	1	7	842.5	2.00	7.00	2.0	7.0	847.5	842.4	5
TW-82	DPT	MW-10006	2/5/2015	Still in use	Gauging	849.83	849.64	10.00	2.2	1	10	839.8	2.00	10.00	2.0	10.2	847.8	839.6	8
TW-83	DPT	MW-10006	2/5/2015	Still in use	Gauging	850.54	850.44	17.00	2.2	1	17	833.5	2.00	17.00	2.0	17.1	848.5	833.4	15
TW-84	DPT	MW-10006	2/5/2015	Still in use	Gauging	851.38	851.22	13.50	2.2	1	13.5	837.9	3.50	13.50	3.5	13.7	847.9	837.7	10
TW-85	DPT	MW-10006	2/5/2015	Still in use	Gauging	843.64	843.49	39.00	2.7	1	39	804.6	9.00	39.00	9.0	39.2	834.6	804.5	30
TW-86	DPT	MW-10006	2/5/2015	Still in use	Gauging	853.28	853.10	6.00	2.2	1	6	847.3	2.00	6.00	2.0	6.2	851.3	847.1	4

Table 8. Well Construction Information  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of Screen or Open Borehole Interval (ft BTOC)	Bottom of Screen or Open Borehole Interval (ft BTOC)	Top of Screen or Open Borehole Interval (ft bgs)	Bottom of Screen or Open Borehole Interval (ft bgs)	Top of Screen or Open Borehole Interval (ft amsl)	Bottom of Screen or Open Borehole Interval (ft amsl)	Length of Screen or Open Borehole Interval (ft)
TW-87	DPT	MW-10006	2/5/2015	Still in use	Gauging	852.33	852.25	7.00	2.2	1	7	845.3	2.00	7.00	2.0	7.1	850.3	845.3	5
TW-90	DPT	MW-10006	2/6/2015	Still in use	Gauging	845.48	845.43	46.50	2.7	1	46.5	799.0	6.50	46.50	6.5	46.6	839.0	798.9	40
TW-94	DPT	MW-10006	2/10/2015	Still in use	Gauging	840.75	840.58	40.00	2.7	1	40	800.8	5.00	40.00	5.0	40.2	835.8	800.6	35
TW-96	DPT	MW-10006	2/11/2015	Still in use	Gauging	840.52	840.40	28.76	2.7	1	30	810.5	3.76	28.76	5.0	28.9	835.5	811.6	25
Vertical Air Sparging Wells																			
VAS-01	Mobile B57 HSA	SCHE03020469	7/28/2016	Still in use	Cupboard Creek Protection	853.269	NS	NA	8.50	2.00	32.20	NA	NA	NA	28.70	31.20	NA	NA	2.50
VAS-02	Mobile B57 HSA	SCHE03020469	7/27/2016	Still in use	Cupboard Creek Protection	852.360	NS	NA	8.50	2.00	27.00	NA	NA	NA	23.50	26.00	NA	NA	2.50
VAS-03	Mobile B57 HSA	SCHE03020469	7/27/2016	Still in use	Cupboard Creek Protection	852.132	NS	NA	8.50	2.00	18.30	NA	NA	NA	14.80	17.30	NA	NA	2.50
VAS-04	Geoprobe 8040 HSA	SCHE03020469	8/4/2016	Still in use	Cupboard Creek Protection	852.056	NS	NA	8.50	2.00	16.70	NA	NA	NA	13.20	15.70	NA	NA	2.50
VAS-05	Mobile B57 HSA	SCHE03020469	7/27/2016	Still in use	Cupboard Creek Protection	851.559	NS	NA	8.50	2.00	13.00	NA	NA	NA	9.50	12.00	NA	NA	2.50
VAS-06	Mobile B57 HSA	SCHE03020469	7/26/2016	Still in use	Cupboard Creek Protection	851.612	NS	NA	8.50	2.00	14.40	NA	NA	NA	10.90	13.40	NA	NA	2.50
VAS-07	Mobile B57 HSA	SCHE03020469	7/26/2016	Still in use	Cupboard Creek Protection	851.603	NS	NA	8.50	2.00	19.40	NA	NA	NA	15.90	18.40	NA	NA	2.50
VAS-08	Mobile B57 HSA	SCHE03020469	7/25/2016	Still in use	Cupboard Creek Protection	851.583	NS	NA	8.50	2.00	22.00	NA	NA	NA	18.50	21.00	NA	NA	2.50
VAS-09	Mobile B57 HSA	SCHE03020469	7/25/2016	Still in use	Cupboard Creek Protection	851.607	NS	NA	8.50	2.00	14.00	NA	NA	NA	10.50	13.00	NA	NA	2.50
VAS-10	Mobile B57 HSA	SCHE03020469	7/25/2016	Still in use	Cupboard Creek Protection	851.411	NS	NA	8.50	2.00	16.10	NA	NA	NA	12.60	15.10	NA	NA	2.50
VAS-11	Mobile B57 HSA	SCHE03020469	7/28/2016	Still in use	Cupboard Creek Protection	852.476	NS	NA	8.50	2.00	25.30	NA	NA	NA	21.80	24.30	NA	NA	2.50
VAS-12	Geoprobe 8040 HSA	SCHE03020469	8/5/2016	Still in use	Cupboard Creek Protection	851.535	NS	NA	8.50	2.00	24.20	NA	NA	NA	20.70	23.20	NA	NA	2.50
VAS-13	Geoprobe 8040 HSA	SCHE03020469	8/5/2016	Still in use	Cupboard Creek Protection	851.701	NS	NA	8.50	2.00	19.60	NA	NA	NA	16.10	18.60	NA	NA	2.50
VAS-14	Geoprobe 8040 HSA	SCHE03020469	8/4/2016	Still in use	Cupboard Creek Protection	851.239	NS	NA	8.50	2.00	16.20	NA	NA	NA	12.70	15.20	NA	NA	2.50
VAS-15	Geoprobe 8040 HSA	SCHE03020469	8/4/2016	Still in use	Cupboard Creek Protection	850.732	NS	NA	8.50	2.00	15.50	NA	NA	NA	12.00	14.50	NA	NA	2.50
VAS-16	Geoprobe 8040 HSA	SCHE03020469	8/3/2016	Still in use	Cupboard Creek Protection	850.305	NS	NA	8.50	2.00	17.90	NA	NA	NA	14.40	16.90	NA	NA	2.50
VAS-17	Geoprobe 8040 HSA	SCHE03020469	8/3/2016	Still in use	Cupboard Creek Protection	849.842	NS	NA	8.50	2.00	19.30	NA	NA	NA	15.80	18.30	NA	NA	2.50
VAS-18	Geoprobe 8040 HSA	SCHE03020469	8/8/2016	Still in use	Cupboard Creek Protection	849.513	NS	NA	8.50	2.00	16.50	NA	NA	NA	13.00	15.50	NA	NA	2.50
VAS-19	Mobile B57 HSA	SCHE03020469	7/26/2016	Still in use	Cupboard Creek Protection	850.465	NS	NA	8.50	2.00	17.20	NA	NA	NA	13.60	16.10	NA	NA	2.50
VAS-20	Mobile B57 HSA	SCHE03020469	7/19/2016	Still in use	Brown's Creek Protection	827.789	NS	NA	8.50	2.00	47.60	NA	NA	NA	44.60	47.10	NA	NA	2.50
VAS-21	Mobile B57 HSA	SCHE03020469	7/19/2016	Still in use	Brown's Creek Protection	826.304	NS	NA	8.50	2.00	53.50	NA	NA	NA	50.00	52.50	NA	NA	2.50
VAS-22	Mobile B57 HSA	SCHE03020469	7/21/2016	Still in use	Brown's Creek Protection	827.394	NS	NA	8.50	2.00	57.00	NA	NA	NA	53.50	56.00	NA	NA	2.50
VAS-23	Mobile B57 HSA	SCHE03020469	7/22/2016	Still in use	Brown's Creek Protection	827.211	NS	NA	8.50	2.00	49.50	NA	NA	NA	46.00	48.50	NA	NA	2.50
VAS-24	Mobile B57 HSA	SCHE03020469	7/15/2016	Still in use	Brown's Creek Protection	826.803	NS	NA	8.50	2.00	58.50	NA	NA	NA	55.00	57.50	NA	NA	2.50
VAS-25	Mobile B57 HSA	SCHE03020469	7/11/2016	Still in use	Brown's Creek Protection	826.411	NS	NA	8.50	2.00	54.00	NA	NA	NA	50.50	53.00	NA	NA	2.50
VAS-26	Mobile B57 HSA	SCHE03020469	7/11/2016	Still in use	Brown's Creek Protection	825.180	NS	NA	8.50	2.00	55.00	NA	NA	NA	51.50	54.00	NA	NA	2.50
VAS-27	Mobile B57 HSA	SCHE03020469	7/8/2016	Still in use	Brown's Creek Protection	826.369	NS	NA	8.50	2.00	54.00	NA	NA	NA	50.50	53.00	NA	NA	2.50
VAS-28	Mobile B57 HSA	SCHE03020469	7/6/2016	Still in use	Brown's Creek Protection	828.930	NS	NA	8.50	2.00	23.10	NA	NA	NA	19.80	22.30	NA	NA	2.50
VAS-29	Mobile B57 HSA	SCHE03020469	7/6/2016	Still in use	Brown's Creek Protection	832.025	NS	NA	8.50	2.00	27.50	NA	NA	NA	24.00	26.50	NA	NA	2.50
VAS-30	Mobile B57 HSA	SCHE03020469	6/21/2016	Still in use	Brown's Creek Protection	831.485	NS	NA	8.50	2.00	52.90	NA	NA	NA	49.40	51.90	NA	NA	2.50
VAS-31	Mobile B57 HSA	SCHE03020469	6/21/2016	Still in use	Brown's Creek Protection	828.337	NS	NA	8.50	2.00	42.00	NA	NA	NA	38.50	41.00	NA	NA	2.50
VAS-32	Mobile B57 HSA	SCHE03020469	6/30/2016	Still in use	Brown's Creek Protection	836.257	NS	NA	8.50	2.00	43.00	NA	NA	NA	39.50	42.00	NA	NA	2.50
VAS-33	Mobile B57 HSA	SCHE03020469	6/29/2016	Still in use	Brown's Creek Protection	840.900	NS	NA	8.50	2.00	52.60	NA	NA	NA	49.10	51.60	NA	NA	2.50
VAS-34	Mobile B57 HSA	SCHE03020469	7/13/2016	Still in use	Brown's Creek Protection	836.585	NS	NA	8.50	2.00	53.50	NA	NA	NA	50.00	52.50	NA	NA	2.50
VAS-35	Mobile B57 HSA	SCHE03020469	7/13/2016	Still in use	Brown's Creek Protection	831.212	NS	NA	8.50	2.00	40.00	NA	NA	NA	36.50	39.00	NA	NA	2.50
VAS-36	Mobile B57 HSA	SCHE03020469	7/7/2016	Still in use	Brown's Creek Protection	831.361	NS	NA	8.50	2.00	33.20	NA	NA	NA	29.70	32.20	NA	NA	2.50
VAS-37	Mobile B57 HSA	SCHE03020469	7/7/2016	Still in use	Brown's Creek Protection	832.454	NS	NA	8.50	2.00	16.50	NA	NA	NA	13.00	15.50	NA	NA	2.50
VAS-38	Mobile B57 HSA	SCHE03020469	7/6/2016	Still in use	Brown's Creek Protection	834.566	NS	NA	8.50	2.00	21.10	NA	NA	NA	16.60	19.10	NA	NA	2.50
VAS-39	Mobile B57 HSA	SCHE03020469	6/22/2016	Still in use	Brown's Creek Protection	835.956	NS	NA	8.50	2.00	42.40	NA	NA	NA	38.90	41.40	NA	NA	2.50

Table 8. Well Construction Information  
 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of Screen or Open Borehole Interval (ft BTOC)	Bottom of Screen or Open Borehole Interval (ft BTOC)	Top of Screen or Open Borehole Interval (ft bgs)	Bottom of Screen or Open Borehole Interval (ft bgs)	Top of Screen or Open Borehole Interval (ft amsl)	Bottom of Screen or Open Borehole Interval (ft amsl)	Length of Screen or Open Borehole Interval (ft)
VAS-40	Mobile B57 HSA	SCHE03020469	6/23/2016	Still in use	Brown's Creek Protection	833.753	NS	NA	8.50	2.00	40.00	NA	NA	NA	36.50	39.00	NA	NA	2.50
VAS-41	Mobile B57 HSA	SCHE03020469	6/28/2016	Still in use	Brown's Creek Protection	845.071	NS	NA	8.50	2.00	27.80	NA	NA	NA	24.30	26.80	NA	NA	2.50
VAS-42A	Mobile B57 HSA	SCHE03020469	7/14/2016	Still in use	Brown's Creek Protection	845.304	NS	NA	8.50	2.00	39.30	NA	NA	NA	35.80	38.30	NA	NA	2.50
VAS-43A	Mobile B57 HSA	SCHE03020469	7/15/2016	Still in use	Brown's Creek Protection	843.078	NS	NA	8.50	2.00	66.50	NA	NA	NA	63.00	65.50	NA	NA	2.50
VAS-44A	Mobile B57 HSA	SCHE03020469	7/18/2016	Still in use	Brown's Creek Protection	838.353	NS	NA	8.50	2.00	72.50	NA	NA	NA	69.00	71.50	NA	NA	2.50
VAS-46	Mobile B57 HSA	SCHE03020469	6/24/2016	Still in use	Brown's Creek Protection	839.503	NS	NA	8.50	2.00	20.80	NA	NA	NA	18.00	20.50	NA	NA	2.50
Vertical Bedrock Sparging Wells																			
VBS-01	Hollow Stem Auger/Wire Line/Air Rotary	SCHE03020469M	1/28/2017	Still in use	Brown's Creek Protection	NS	NS	38.15	4.00	2.00	38.50	NA	NA	NA	34.50	38.50	NA	NA	2.00
VBS-02	Hollow Stem Auger/Wire Line/Air Rotary	SCHE03020469M	1/28/2017	Still in use	Brown's Creek Protection	NS	NS	31.05	4.00	2.00	31.00	NA	NA	NA	27.00	31.00	NA	NA	2.00
VBS-03	Hollow Stem Auger/Wire Line/Air Rotary	SCHE03020469M	1/27/2017	Still in use	Brown's Creek Protection	NS	NS	36.20	4.00	2.00	36.20	NA	NA	NA	32.20	36.20	NA	NA	2.00

Notes:  
 amsl = above mean sea level relative to North American Vertical Datum of 1988 (NAVD88). Benchmark is 34.8289659 degrees north, 82.3710354 degrees west (NAD83, 2011), elevation 929.1 ft NAVD88  
 bgs = below ground surface  
 in = inches  
 BTOC = below top of casing  
 NA = not applicable  
 DPT = direct push  
 NS = location not surveyed  
 ft = feet  
 RNE = Refusal not encountered

**Table 9. 2017 LNAPL Mobility Test Results**

*Plantation Pipe Line Company*

*Lewis Drive Remediation Site, Belton, South Carolina*

*Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Well	Date	B&R <sup>a</sup>	LNAPL Transmissivity (ft <sup>2</sup> /day)			Average	Recommended Return Time (days)
			C&J <sup>b</sup>	CB&P <sup>c</sup>			
RW-4	4/18/2017	0.10	0.30	0.33	0.24	3	
RW-5	4/19/2017	0.01	0.20	0.10	0.10	7	
RW-7	4/21/2017	0.32	0.60	0.70	0.54	2	
RW-10	4/19/2017	0.18	0.25	0.30	0.24	4	
RW-11	4/20/2017	0.08	0.30	0.20	0.19	4	
RW-13	4/21/2017	0.04	0.09	0.08	0.07	10	

**Notes:**

<sup>a</sup> Bouwer, Herman, and R.C. Rice (1976)

<sup>b</sup> Cooper, H.H., and C.E. Jacob (1946)

<sup>c</sup> Cooper, Hilton H. Jr., John D. Bredehoeft, and Istavros S. Papadopulos (1967)

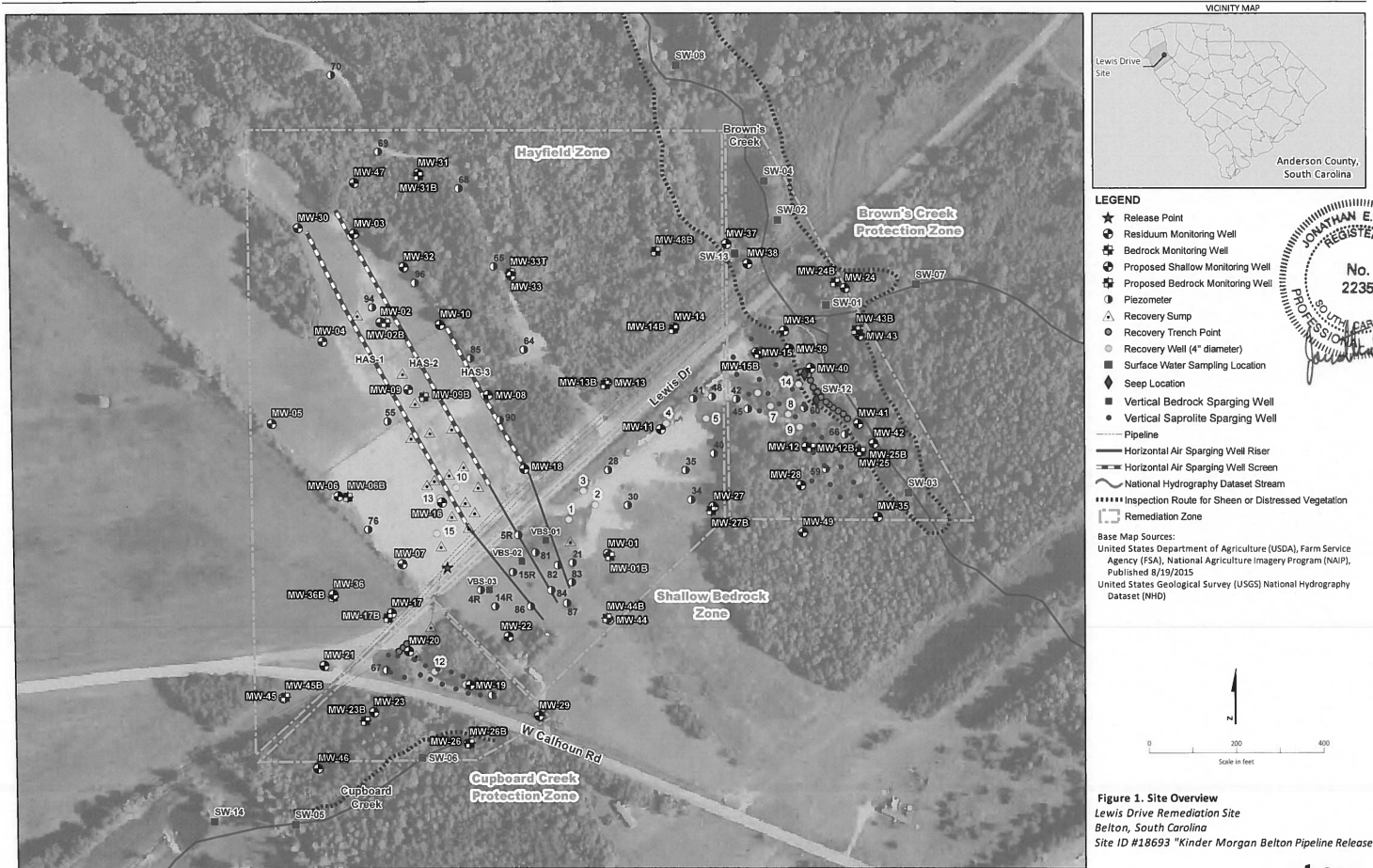
Tests on RW-8 and RW-9 could not be completed due to insufficient thickness and/or significant air sparge well effects.

ft<sup>2</sup>/day = square feet per day

LNAPL = light non-aqueous phase liquid

N/A = not applicable

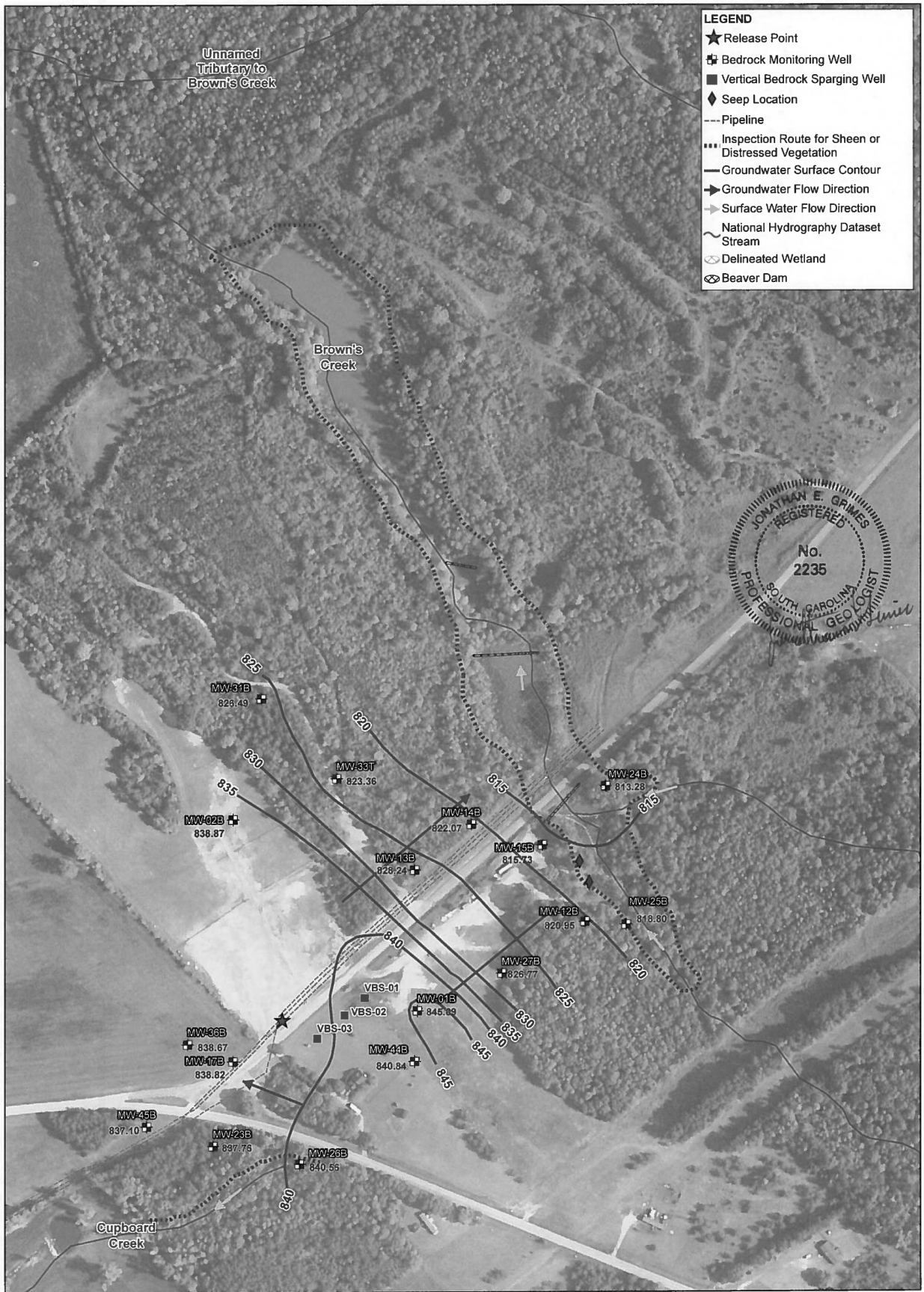
Figures



JONATHAN E. GRIMES  
 REGISTERED  
 No. 2235  
 SOUTH CAROLINA  
 PROFESSIONAL GEOLOGIST

ch2m





821.07 Corrected Groundwater Elevation as of 6/4/2017 in feet above mean sea level  
 NM Not measured  
 Note: Surface water elevation recorded on 6/4/2017 and 6/9/2017 in feet above mean sea level  
 Base Map Sources:  
 \*USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), Published 8/19/2015  
 \*United States Geological Survey (USGS) National Hydrography Dataset (NHD)

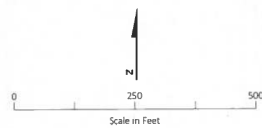


Figure 2B. Bedrock Groundwater and Surface Water Elevation Map  
 Lewis Drive Remediation Site  
 Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"







- LEGEND**
- ★ Release Point
  - Monitoring Well
  - ⊕ Bedrock Monitoring Well
  - ◆ Seep Location
  - △ Recovery Sump
  - Piezometer ("R" indicates Replacement)
  - Recovery Well (4-inch diameter)
  - Vertical Bedrock Sparging Well
  - Vertical Saprillite Sparging Well
  - Surface Water Sampling Location
  - ▲ Septic Tank
  - Recovery Trench Extraction Point
  - Recovery Trench
  - Surface Water Flow Direction
  - Horizontal Air Sparging Well Risers
  - Horizontal Air Sparging Well Screen
  - Pipeline
  - National Hydrography Dataset Stream
  - ⊗ Delineated Wetland
  - ⊗ Beaver Dam
  - Detail Area
  - Approximate Extent of Product > 0.01' Thickness based on 6/4/2017 data
  - Approximate Extent of Product > 0.01' Thickness based on 6/10/2016 data (data not shown)
  - 0.02 Product thickness in feet as of 6/4/2017
  - NP No product detected
  - NM Not measured
- Base Map Sources:  
 \*USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), Published 8/19/2015  
 \*United States Geological Survey (USGS) National Hydrography Dataset (NHD)



**Figure 3. Product Thickness Map**  
 Lewis Drive Remediation Site  
 Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"







Attachment A  
Surface Water Analytical Laboratory  
Reports

May 15, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L907384  
Samples Received: 05/05/2017  
Project Number: 684910.LDMR.GW  
Description: Lewis Drive Site Surface water event  
Site: LEWIS DRIVE  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
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.



Cp: Cover Page	1	
Tc: Table of Contents	2	<sup>1</sup> Cp
Ss: Sample Summary	3	<sup>2</sup> Tc
Cn: Case Narrative	5	
Sr: Sample Results	6	<sup>3</sup> Ss
SW-11-050417 L907384-01	6	
SW-10-050417 L907384-02	7	<sup>4</sup> Cn
SW-09-050417 L907384-03	8	
FP-01-050417 L907384-04	9	<sup>5</sup> Sr
FP-02-050417 L907384-05	10	<sup>6</sup> Qc
SW-08-050417 L907384-06	11	
SW-13-050417 L907384-07	12	<sup>7</sup> Gl
FP-03-050417 L907384-08	13	
SW-02-050417 L907384-09	14	<sup>8</sup> Al
SW-04-050417 L907384-10	15	
SW-01-050417 L907384-11	16	<sup>9</sup> Sc
SW-12-050417 L907384-12	17	
SW-03-050417 L907384-13	18	
SW-07-050417 L907384-14	19	
TB-01-050417 L907384-15	20	
Qc: Quality Control Summary	21	
Volatile Organic Compounds (GC/MS) by Method 8260B	21	
Gl: Glossary of Terms	22	
Al: Accreditations & Locations	23	
Sc: Chain of Custody	24	

# SAMPLE SUMMARY



SW-11-050417 L907384-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 18:22	05/10/17 18:22	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 08:05  
 Received date/time 05/05/17 08:45

1  
Cp

SW-10-050417 L907384-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 18:40	05/10/17 18:40	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 08:25  
 Received date/time 05/05/17 08:45

2  
Tc

3  
Ss

4  
Cn

5  
Sr

SW-09-050417 L907384-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 18:58	05/10/17 18:58	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 09:00  
 Received date/time 05/05/17 08:45

6  
Qc

7  
Gl

8  
Al

FP-01-050417 L907384-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 19:16	05/10/17 19:16	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 08:35  
 Received date/time 05/05/17 08:45

9  
Sc

FP-02-050417 L907384-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 19:34	05/10/17 19:34	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 08:45  
 Received date/time 05/05/17 08:45

SW-08-050417 L907384-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 19:51	05/10/17 19:51	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 09:10  
 Received date/time 05/05/17 08:45

SW-13-050417 L907384-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 20:09	05/10/17 20:09	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 09:20  
 Received date/time 05/05/17 08:45

FP-03-050417 L907384-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 20:27	05/10/17 20:27	ACG

Collected by JM / MW  
 Collected date/time 05/04/17 09:40  
 Received date/time 05/05/17 08:45

# SAMPLE SUMMARY

SW-02-050417 L907384-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 20:45	05/10/17 20:45	ACG

Collected by JM / MW  
Collected date/time 05/04/17 10:05  
Received date/time 05/05/17 08:45

1  
Cp

SW-04-050417 L907384-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 21:02	05/10/17 21:02	ACG

Collected by JM / MW  
Collected date/time 05/04/17 09:55  
Received date/time 05/05/17 08:45

2  
Tc

3  
Ss

4  
Cn

5  
Sr

SW-01-050417 L907384-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 21:20	05/10/17 21:20	ACG

Collected by JM / MW  
Collected date/time 05/04/17 10:10  
Received date/time 05/05/17 08:45

6  
Qc

7  
Gl

SW-12-050417 L907384-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 21:37	05/10/17 21:37	ACG

Collected by JM / MW  
Collected date/time 05/04/17 10:25  
Received date/time 05/05/17 08:45

8  
Al

9  
Sc

SW-03-050417 L907384-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 21:55	05/10/17 21:55	ACG

Collected by JM / MW  
Collected date/time 05/04/17 10:30  
Received date/time 05/05/17 08:45

SW-07-050417 L907384-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 22:12	05/10/17 22:12	ACG

Collected by JM / MW  
Collected date/time 05/04/17 10:15  
Received date/time 05/05/17 08:45

TB-01-050417 L907384-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 17:29	05/10/17 17:29	ACG

Collected by JM / MW  
Collected date/time 05/04/17 10:45  
Received date/time 05/05/17 08:45





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.

Chris McCord  
 Technical Service Representative

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 18:22	WG978200
Toluene	ND		1.00	1	05/10/2017 18:22	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 18:22	WG978200
o-Xylene	ND		1.00	1	05/10/2017 18:22	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 18:22	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 18:22	WG978200
Naphthalene	ND		5.00	1	05/10/2017 18:22	WG978200
(S) Toluene-d8	101		80.0-120		05/10/2017 18:22	WG978200
(S) Dibromofluoromethane	95.4		76.0-123		05/10/2017 18:22	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 18:22	WG978200
(S) 4-Bromofluorobenzene	108		80.0-120		05/10/2017 18:22	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 18:40	WG978200
Toluene	ND		1.00	1	05/10/2017 18:40	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 18:40	WG978200
o-Xylene	ND		1.00	1	05/10/2017 18:40	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 18:40	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 18:40	WG978200
Naphthalene	ND		5.00	1	05/10/2017 18:40	WG978200
(S) Toluene-d8	101		80.0-120		05/10/2017 18:40	WG978200
(S) Dibromofluoromethane	94.0		76.0-123		05/10/2017 18:40	WG978200
(S) a,a,a-Trifluorotoluene	104		80.0-120		05/10/2017 18:40	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 18:40	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 18:58	WG978200
Toluene	ND		1.00	1	05/10/2017 18:58	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 18:58	WG978200
o-Xylene	ND		1.00	1	05/10/2017 18:58	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 18:58	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 18:58	WG978200
Naphthalene	ND		5.00	1	05/10/2017 18:58	WG978200
(S) Toluene-d8	99.9		80.0-120		05/10/2017 18:58	WG978200
(S) Dibromofluoromethane	94.4		76.0-123		05/10/2017 18:58	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 18:58	WG978200
(S) 4-Bromofluorobenzene	107		80.0-120		05/10/2017 18:58	WG978200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 19:16	WG978200
Toluene	ND		1.00	1	05/10/2017 19:16	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 19:16	WG978200
o-Xylene	ND		1.00	1	05/10/2017 19:16	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 19:16	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 19:16	WG978200
Naphthalene	ND		5.00	1	05/10/2017 19:16	WG978200
(S) Toluene-d8	102		80.0-120		05/10/2017 19:16	WG978200
(S) Dibromofluoromethane	94.0		76.0-123		05/10/2017 19:16	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 19:16	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 19:16	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 19:34	WG978200
Toluene	ND		1.00	1	05/10/2017 19:34	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 19:34	WG978200
o-Xylene	ND		1.00	1	05/10/2017 19:34	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 19:34	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 19:34	WG978200
Naphthalene	ND		5.00	1	05/10/2017 19:34	WG978200
(S) Toluene-d8	99.9		80.0-120		05/10/2017 19:34	WG978200
(S) Dibromofluoromethane	93.9		76.0-123		05/10/2017 19:34	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 19:34	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 19:34	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 19:51	WG978200
Toluene	ND		1.00	1	05/10/2017 19:51	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 19:51	WG978200
o-Xylene	ND		1.00	1	05/10/2017 19:51	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 19:51	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 19:51	WG978200
Naphthalene	ND		5.00	1	05/10/2017 19:51	WG978200
(S) Toluene-d8	103		80.0-120		05/10/2017 19:51	WG978200
(S) Dibromofluoromethane	94.2		76.0-123		05/10/2017 19:51	WG978200
(S) a,a,a-Trifluorotoluene	104		80.0-120		05/10/2017 19:51	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 19:51	WG978200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 20:09	WG978200
Toluene	ND		1.00	1	05/10/2017 20:09	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 20:09	WG978200
o-Xylene	ND		1.00	1	05/10/2017 20:09	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 20:09	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 20:09	WG978200
Naphthalene	ND		5.00	1	05/10/2017 20:09	WG978200
(S) Toluene-d8	101		80.0-120		05/10/2017 20:09	WG978200
(S) Dibromofluoromethane	94.6		76.0-123		05/10/2017 20:09	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 20:09	WG978200
(S) 4-Bromofluorobenzene	107		80.0-120		05/10/2017 20:09	WG978200

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 20:27	WG978200
Toluene	ND		1.00	1	05/10/2017 20:27	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 20:27	WG978200
o-Xylene	ND		1.00	1	05/10/2017 20:27	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 20:27	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 20:27	WG978200
Naphthalene	ND		5.00	1	05/10/2017 20:27	WG978200
(S) Toluene-d8	100		80.0-120		05/10/2017 20:27	WG978200
(S) Dibromofluoromethane	95.8		76.0-123		05/10/2017 20:27	WG978200
(S) a,a,a-Trifluorotoluene	104		80.0-120		05/10/2017 20:27	WG978200
(S) 4-Bromofluorobenzene	111		80.0-120		05/10/2017 20:27	WG978200

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 20:45	WG978200
Toluene	ND		1.00	1	05/10/2017 20:45	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 20:45	WG978200
o-Xylene	ND		1.00	1	05/10/2017 20:45	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 20:45	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 20:45	WG978200
Naphthalene	ND		5.00	1	05/10/2017 20:45	WG978200
(S) Toluene-d8	102		80.0-120		05/10/2017 20:45	WG978200
(S) Dibromofluoromethane	95.8		76.0-123		05/10/2017 20:45	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 20:45	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 20:45	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 21:02	WG978200
Toluene	13.8		1.00	1	05/10/2017 21:02	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 21:02	WG978200
o-Xylene	ND		1.00	1	05/10/2017 21:02	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 21:02	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 21:02	WG978200
Naphthalene	ND		5.00	1	05/10/2017 21:02	WG978200
(S) Toluene-d8	102		80.0-120		05/10/2017 21:02	WG978200
(S) Dibromofluoromethane	93.9		76.0-123		05/10/2017 21:02	WG978200
(S) a,a,a-Trifluorotoluene	103		80.0-120		05/10/2017 21:02	WG978200
(S) 4-Bromofluorobenzene	112		80.0-120		05/10/2017 21:02	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 21:20	WG978200
Toluene	ND		1.00	1	05/10/2017 21:20	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 21:20	WG978200
o-Xylene	ND		1.00	1	05/10/2017 21:20	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 21:20	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 21:20	WG978200
Naphthalene	ND		5.00	1	05/10/2017 21:20	WG978200
(S) Toluene-d8	100		80.0-120		05/10/2017 21:20	WG978200
(S) Dibromofluoromethane	95.3		76.0-123		05/10/2017 21:20	WG978200
(S) a,a,a-Trifluorotoluene	103		80.0-120		05/10/2017 21:20	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 21:20	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	52.8		1.00	1	05/10/2017 21:37	WG978200
Toluene	91.7		1.00	1	05/10/2017 21:37	WG978200
Ethylbenzene	7.96		1.00	1	05/10/2017 21:37	WG978200
o-Xylene	23.2		1.00	1	05/10/2017 21:37	WG978200
m&p-Xylene	42.0		2.00	1	05/10/2017 21:37	WG978200
Xylenes, Total	65.2		3.00	1	05/10/2017 21:37	WG978200
Naphthalene	ND		5.00	1	05/10/2017 21:37	WG978200
(S) Toluene-d8	102		80.0-120		05/10/2017 21:37	WG978200
(S) Dibromofluoromethane	96.4		76.0-123		05/10/2017 21:37	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 21:37	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 21:37	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 21:55	WG978200
Toluene	ND		1.00	1	05/10/2017 21:55	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 21:55	WG978200
o-Xylene	ND		1.00	1	05/10/2017 21:55	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 21:55	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 21:55	WG978200
Naphthalene	ND		5.00	1	05/10/2017 21:55	WG978200
(S) Toluene-d8	101		80.0-120		05/10/2017 21:55	WG978200
(S) Dibromofluoromethane	93.6		76.0-123		05/10/2017 21:55	WG978200
(S) a,a,a-Trifluorotoluene	103		80.0-120		05/10/2017 21:55	WG978200
(S) 4-Bromofluorobenzene	108		80.0-120		05/10/2017 21:55	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 22:12	WG978200
Toluene	ND		1.00	1	05/10/2017 22:12	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 22:12	WG978200
o-Xylene	ND		1.00	1	05/10/2017 22:12	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 22:12	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 22:12	WG978200
Naphthalene	ND		5.00	1	05/10/2017 22:12	WG978200
(S) Toluene-d8	99.8		80.0-120		05/10/2017 22:12	WG978200
(S) Dibromofluoromethane	94.8		76.0-123		05/10/2017 22:12	WG978200
(S) a,a,a-Trifluorotoluene	101		80.0-120		05/10/2017 22:12	WG978200
(S) 4-Bromofluorobenzene	108		80.0-120		05/10/2017 22:12	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 17:29	WG978200
Toluene	ND		1.00	1	05/10/2017 17:29	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 17:29	WG978200
o-Xylene	ND		1.00	1	05/10/2017 17:29	WG978200
m&p-Xylene	ND		2.00	1	05/10/2017 17:29	WG978200
Xylenes, Total	ND		3.00	1	05/10/2017 17:29	WG978200
Naphthalene	ND		5.00	1	05/10/2017 17:29	WG978200
(S) Toluene-d8	101		80.0-120		05/10/2017 17:29	WG978200
(S) Dibromofluoromethane	95.2		76.0-123		05/10/2017 17:29	WG978200
(S) a,a,a-Trifluorotoluene	102		80.0-120		05/10/2017 17:29	WG978200
(S) 4-Bromofluorobenzene	111		80.0-120		05/10/2017 17:29	WG978200

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



WG978200

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

QUALITY CONTROL SUMMARY

L907384-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3217831-2 05/10/17 14:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
o-Xylene	U		0.341	1.00
Xylenes, Total	U		1.06	3.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	101			80.0-120
(S) Dibromofluoromethane	94.3			76.0-123
(S) o,a,a-Trifluorotoluene	101			80.0-120
(S) 4-Bromofluorobenzene	109			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

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

(LCS) R3217831-1 05/10/17 13:27 • (LCSD) R3217831-3 05/10/17 15:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	20.7	19.5	82.8	78.2	70.0-130			5.75	20
Ethylbenzene	25.0	25.2	24.3	101	97.3	70.0-130			3.53	20
Naphthalene	25.0	20.1	19.1	80.4	76.3	70.0-130			5.19	20
Toluene	25.0	21.7	21.0	86.8	84.0	70.0-130			3.24	20
o-Xylene	25.0	24.2	23.9	96.7	95.5	70.0-130			1.24	20
m&p-Xylenes	50.0	47.6	47.5	95.1	95.0	70.0-130			0.110	20
Xylenes, Total	75.0	71.8	71.4	95.7	95.2	70.0-130			0.560	20
(S) Toluene-d8				103	104	80.0-120				
(S) Dibromofluoromethane				96.7	93.4	76.0-123				
(S) o,a,a-Trifluorotoluene				104	105	80.0-120				
(S) 4-Bromofluorobenzene				108	110	80.0-120				

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.
(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
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The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr


<sup>6</sup> Qc



<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



<b>CH2M Hill- Kinder Morgan- Atlanta, GA</b> 6600 Peachtree Dunwoody Road		Billing Information: <b>Accounts Payable</b> 1000 Windward Concourse Ste 450 Alpharetta, GA 30005		Pres Chk		Analysis / Container / Preservative						Chain of Custody Page <u>1</u> of <u>2</u>	
Report to: <b>Bethany Garvey</b>		Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;										 <b>ESC</b> 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	
Project Description: <b>Lewis Drive Site Surface water</b>		City/State Collected: <b>Belton, SC</b>										L# <b>907384</b> <b>C228</b>	
Phone: <b>770-604-9182</b>		Client Project # <b>684910.LD.MR.GW</b>		Lab Project # <b>KINCH2MGA-LEWIS</b>								Acctnum: <b>KINCH2MGA</b> Template: <b>T121339</b> Prelogin: <b>P597919</b> TSR: <b>526 - Chris McCord</b> PB: <b>424176</b>	
Collected by (print): <b>Justin McCann</b>		Site/Facility ID # <b>Lewis Dr</b>		P.O. #								Shipped Via: <b>FedEX Ground</b>	
Collected by (signature): <b>Justin McCann</b>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Quote #								Remarks:	
Immediately Packed on Ice: <b>N X Y</b>		Date Results Needed		No. of Cntrs								Sample # (lab only)	
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	X	Y	Z	AA	BB	CC
<b>SN-11-050417</b>		<b>grab</b>	<b>GW</b>	<b>N/A</b>	<b>5/4/17</b>	<b>0805</b>	<b>3</b>	<b>X</b>					<b>01</b>
<b>SN-10-050417</b>			<b>GW</b>			<b>0825</b>	<b>3</b>	<b>X</b>					<b>02</b>
<b>SN-09-050417</b>			<b>GW</b>			<b>0900</b>	<b>3</b>	<b>X</b>					<b>03</b>
<b>FP-01-050417</b>			<b>GW</b>			<b>0835</b>	<b>3</b>	<b>X</b>					<b>04</b>
<b>FP-02-050417</b>			<b>GW</b>			<b>0845</b>	<b>3</b>	<b>X</b>					<b>05</b>
<b>SN-08-050417</b>			<b>GW</b>			<b>0916</b>	<b>3</b>	<b>X</b>					<b>06</b>
<b>SN-13-050417</b>			<b>GW</b>			<b>0926</b>	<b>3</b>	<b>X</b>					<b>07</b>
<b>FP-03-050417</b>			<b>GW</b>			<b>0940</b>	<b>3</b>	<b>X</b>					<b>08</b>
<b>SN-02-050417</b>			<b>GW</b>			<b>1005</b>	<b>3</b>	<b>X</b>					<b>09</b>
<b>SN-04-050417</b>			<b>GW</b>			<b>0955</b>	<b>3</b>	<b>X</b>					<b>10</b>
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks:		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking #		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N IIC Applicable: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			
Relinquished by: (Signature) <b>Justin McCann</b>		Date: <b>5/4/17</b>	Time: <b>1600</b>	Received by: (Signature)		Trip Blank Received: <input checked="" type="checkbox"/> Yes / No <input type="checkbox"/> MeOH / TRR							
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature)		Temp: <b>2.1M</b> °C Bottles Received: <b>42</b>				If preservation required by Login: Date/Time			
Relinquished by: (Signature)		Date:	Time:	Received for lab by: (Signature) <b>as yuh</b>		Date: <b>5-5-17</b> Time: <b>845</b>		Hold:		Condition: <b>NCF / OK</b>			

<b>CH2M Hill- Kinder Morgan- Atlanta, GA</b> 6600 Peachtree Dunwoody Road Report to: <b>Bethany Garvey</b>		Billing Information: <b>Accounts Payable</b> 1000 Windward Concourse Ste 450 Alpharetta, GA 30005 Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;		Pres Chk		Analysis / Container / Preservative						Chain of Custody Page 2 of 2  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: 615-758-9859 	
Project Description: <b>Lewis Drive Site Surface water</b>		City/State Collected: <b>Belton, SC</b>		Lab Project # <b>KINCH2MGA-LEWIS</b>		V82608TEXNSC 40ml/Amb-HCl						L# <b>907387</b>	
Phone: <b>770-604-9182</b> Fax:		Client Project # <b>684910.LDMR.GW</b>		P.O. #								Table #	
Collected by (print): <b>J. McCann</b>		Site/Facility ID # <b>Lewis Drive</b>		Quote #								Acctnum: <b>KINCH2MGA</b> Template: <b>T121339</b> Prelogin: <b>P597919</b> TSR: <b>526 - Chris McCord</b> PB: <b>424176</b>	
Collected by (signature): <b>Justine Melann</b>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Date Results Needed:								Shipped Via: <b>FedEX Ground</b>	
Immediately Packed on Ice <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> Y		No. of Cntrs		Remarks		Sample # (lab only)							
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time								
<del>SW-02-050417</del>	<del>grab</del>	<del>GW</del>	<del>N/A</del>	<del>5/4/17</del>		<del>3</del>	<del>X</del>						
SW-01-050417	grab	GW	N/A	5/4/17	1010	3	X						
SW-12-050417	↓	GW	↓	↓	1025	3	X						
SW-03-050417	↓	GW	↓	↓	1030	3	X						
SW-07-050417	grab	GW	N/A	5/4/17	1015	3	X						
TB-01-050417	grab	GW	N/A	5/4/17	1045	1	X						
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks:		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking #		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> N IF Applicable VOA Zero Headpace: <input checked="" type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> N			
Relinquished by: (Signature) <b>Justine Melann</b>		Date: <b>5/4/17</b> Time: <b>1600</b>		Received by: (Signature)		Trip Blank Received: Yes / No HCL / MeOH TBR		If preservation required by Login: Date/Time					
Relinquished by: (Signature)		Date: Time:		Received by: (Signature)		Temp: °C Bottles Received:		Hold: Condition:					
Relinquished by: (Signature)		Date: Time:		Received by: (Signature)		Date: Time:		NCF / <b>108</b>					



April 13, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L901015  
Samples Received: 04/06/2017  
Project Number: 684910.LD.RA.ST  
Description: Lewis Drive Surface Water  
Site: LEWIS DRIVE  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
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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<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



# SAMPLE SUMMARY



SW-11-040517 L901015-01 GW						Collected by JM / JH	Collected date/time 04/05/17 08:10	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 00:19	04/13/17 00:19	JAH			
SW-10-040517 L901015-02 GW						Collected by JM / JH	Collected date/time 04/05/17 08:20	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 00:36	04/13/17 00:36	JAH			
FP-01-040517 L901015-03 GW						Collected by JM / JH	Collected date/time 04/05/17 08:30	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 00:53	04/13/17 00:53	JAH			
FP-02-040517 L901015-04 GW						Collected by JM / JH	Collected date/time 04/05/17 08:35	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 01:10	04/13/17 01:10	JAH			
SW-09-040517 L901015-05 GW						Collected by JM / JH	Collected date/time 04/05/17 08:45	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 01:27	04/13/17 01:27	JAH			
SW-08-040517 L901015-06 GW						Collected by JM / JH	Collected date/time 04/05/17 08:55	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 01:44	04/13/17 01:44	JAH			
SW-13-040517 L901015-07 GW						Collected by JM / JH	Collected date/time 04/05/17 09:05	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 02:00	04/13/17 02:00	JAH			
SW-04-040517 L901015-08 GW						Collected by JM / JH	Collected date/time 04/05/17 09:15	Received date/time 04/06/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 02:17	04/13/17 02:17	JAH			

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

# SAMPLE SUMMARY



SW-02-040517 L901015-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 02:34	04/13/17 02:34	JAH

Collected by JM / JH  
Collected date/time 04/05/17 09:20  
Received date/time 04/06/17 08:45

1  
Cp

SW-01-040517 L901015-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 02:51	04/13/17 02:51	JAH

Collected by JM / JH  
Collected date/time 04/05/17 09:25  
Received date/time 04/06/17 08:45

2  
Tc

3  
Ss

4  
Cn

5  
Sr

SW-07-040517 L901015-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 03:08	04/13/17 03:08	JAH

Collected by JM / JH  
Collected date/time 04/05/17 09:30  
Received date/time 04/06/17 08:45

6  
Qc

7  
Gl

8  
Al

SW-12-040517 L901015-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 03:25	04/13/17 03:25	JAH

Collected by JM / JH  
Collected date/time 04/05/17 09:35  
Received date/time 04/06/17 08:45

9  
Sc

SW-03-040517 L901015-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 03:42	04/13/17 03:42	JAH

Collected by JM / JH  
Collected date/time 04/05/17 09:40  
Received date/time 04/06/17 08:45

TRIP BLANK TB-01-040517 L901015-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/12/17 23:46	04/12/17 23:46	JAH

Collected by JM / JH  
Collected date/time 04/05/17 11:20  
Received date/time 04/06/17 08:45

TRIP BLANK TB-02-040517 L901015-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969504	1	04/13/17 00:03	04/13/17 00:03	JAH

Collected by JM / JH  
Collected date/time 04/05/17 11:20  
Received date/time 04/06/17 08:45



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.

Chris McCord  
Technical Service Representative

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 00:19	WG969504
Toluene	ND		1.00	1	04/13/2017 00:19	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 00:19	WG969504
o-Xylene	ND		1.00	1	04/13/2017 00:19	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 00:19	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 00:19	WG969504
Naphthalene	ND		5.00	1	04/13/2017 00:19	WG969504
(S) Toluene-d8	101		80.0-120		04/13/2017 00:19	WG969504
(S) Dibromofluoromethane	96.9		76.0-123		04/13/2017 00:19	WG969504
(S) a,a,a-Trifluorotoluene	105		80.0-120		04/13/2017 00:19	WG969504
(S) 4-Bromofluorobenzene	101		80.0-120		04/13/2017 00:19	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 00:36	WG969504
Toluene	ND		1.00	1	04/13/2017 00:36	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 00:36	WG969504
o-Xylene	ND		1.00	1	04/13/2017 00:36	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 00:36	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 00:36	WG969504
Naphthalene	ND		5.00	1	04/13/2017 00:36	WG969504
(S) Toluene-d8	102		80.0-120		04/13/2017 00:36	WG969504
(S) Dibromofluoromethane	95.3		76.0-123		04/13/2017 00:36	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 00:36	WG969504
(S) 4-Bromofluorobenzene	102		80.0-120		04/13/2017 00:36	WG969504

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 00:53	WG969504
Toluene	ND		1.00	1	04/13/2017 00:53	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 00:53	WG969504
o-Xylene	ND		1.00	1	04/13/2017 00:53	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 00:53	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 00:53	WG969504
Naphthalene	ND		5.00	1	04/13/2017 00:53	WG969504
(S) Toluene-d8	102		80.0-120		04/13/2017 00:53	WG969504
(S) Dibromofluoromethane	96.5		76.0-123		04/13/2017 00:53	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 00:53	WG969504
(S) 4-Bromofluorobenzene	104		80.0-120		04/13/2017 00:53	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 01:10	WG969504
Toluene	ND		1.00	1	04/13/2017 01:10	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 01:10	WG969504
o-Xylene	ND		1.00	1	04/13/2017 01:10	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 01:10	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 01:10	WG969504
Naphthalene	ND		5.00	1	04/13/2017 01:10	WG969504
(S) Toluene-d8	101		80.0-120		04/13/2017 01:10	WG969504
(S) Dibromofluoromethane	97.4		76.0-123		04/13/2017 01:10	WG969504
(S) a,a,a-Trifluorotoluene	105		80.0-120		04/13/2017 01:10	WG969504
(S) 4-Bromofluorobenzene	102		80.0-120		04/13/2017 01:10	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 01:27	WG969504
Toluene	ND		1.00	1	04/13/2017 01:27	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 01:27	WG969504
o-Xylene	ND		1.00	1	04/13/2017 01:27	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 01:27	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 01:27	WG969504
Naphthalene	ND		5.00	1	04/13/2017 01:27	WG969504
(S) Toluene-d8	101		80.0-120		04/13/2017 01:27	WG969504
(S) Dibromofluoromethane	95.5		76.0-123		04/13/2017 01:27	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 01:27	WG969504
(S) 4-Bromofluorobenzene	103		80.0-120		04/13/2017 01:27	WG969504

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 01:44	WG969504
Toluene	ND		1.00	1	04/13/2017 01:44	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 01:44	WG969504
o-Xylene	ND		1.00	1	04/13/2017 01:44	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 01:44	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 01:44	WG969504
Naphthalene	ND		5.00	1	04/13/2017 01:44	WG969504
(S) Toluene-d8	101		80.0-120		04/13/2017 01:44	WG969504
(S) Dibromofluoromethane	96.1		76.0-123		04/13/2017 01:44	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 01:44	WG969504
(S) 4-Bromofluorobenzene	102		80.0-120		04/13/2017 01:44	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 02:00	WG969504
Toluene	1.21		1.00	1	04/13/2017 02:00	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 02:00	WG969504
o-Xylene	ND		1.00	1	04/13/2017 02:00	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 02:00	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 02:00	WG969504
Naphthalene	ND		5.00	1	04/13/2017 02:00	WG969504
(S) Toluene-d8	101		80.0-120		04/13/2017 02:00	WG969504
(S) Dibromofluoromethane	95.7		76.0-123		04/13/2017 02:00	WG969504
(S) a,a,a-Trifluorotoluene	107		80.0-120		04/13/2017 02:00	WG969504
(S) 4-Bromofluorobenzene	104		80.0-120		04/13/2017 02:00	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 02:17	WG969504
Toluene	9.47		1.00	1	04/13/2017 02:17	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 02:17	WG969504
o-Xylene	ND		1.00	1	04/13/2017 02:17	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 02:17	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 02:17	WG969504
Naphthalene	ND		5.00	1	04/13/2017 02:17	WG969504
(S) Toluene-d8	101		80.0-120		04/13/2017 02:17	WG969504
(S) Dibromofluoromethane	94.1		76.0-123		04/13/2017 02:17	WG969504
(S) a,a,a-Trifluorotoluene	108		80.0-120		04/13/2017 02:17	WG969504
(S) 4-Bromofluorobenzene	103		80.0-120		04/13/2017 02:17	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	2.87		1.00	1	04/13/2017 02:34	WG969504
Toluene	1.12		1.00	1	04/13/2017 02:34	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 02:34	WG969504
o-Xylene	1.14		1.00	1	04/13/2017 02:34	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 02:34	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 02:34	WG969504
Naphthalene	ND		5.00	1	04/13/2017 02:34	WG969504
(S) Toluene-d8	102		80.0-120		04/13/2017 02:34	WG969504
(S) Dibromofluoromethane	96.1		76.0-123		04/13/2017 02:34	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 02:34	WG969504
(S) 4-Bromofluorobenzene	104		80.0-120		04/13/2017 02:34	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 02:51	WG969504
Toluene	2.25		1.00	1	04/13/2017 02:51	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 02:51	WG969504
o-Xylene	ND		1.00	1	04/13/2017 02:51	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 02:51	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 02:51	WG969504
Naphthalene	ND		5.00	1	04/13/2017 02:51	WG969504
(S) Toluene-d8	102		80.0-120		04/13/2017 02:51	WG969504
(S) Dibromofluoromethane	94.9		76.0-123		04/13/2017 02:51	WG969504
(S) a,a,a-Trifluorotoluene	107		80.0-120		04/13/2017 02:51	WG969504
(S) 4-Bromofluorobenzene	102		80.0-120		04/13/2017 02:51	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 03:08	WG969504
Toluene	ND		1.00	1	04/13/2017 03:08	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 03:08	WG969504
o-Xylene	ND		1.00	1	04/13/2017 03:08	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 03:08	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 03:08	WG969504
Naphthalene	ND		5.00	1	04/13/2017 03:08	WG969504
(S) Toluene-d8	103		80.0-120		04/13/2017 03:08	WG969504
(S) Dibromofluoromethane	94.5		76.0-123		04/13/2017 03:08	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 03:08	WG969504
(S) 4-Bromofluorobenzene	103		80.0-120		04/13/2017 03:08	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	67.1		1.00	1	04/13/2017 03:25	WG969504
Toluene	127		1.00	1	04/13/2017 03:25	WG969504
Ethylbenzene	9.24		1.00	1	04/13/2017 03:25	WG969504
o-Xylene	23.7		1.00	1	04/13/2017 03:25	WG969504
m&p-Xylene	43.6		2.00	1	04/13/2017 03:25	WG969504
Xylenes, Total	67.3		3.00	1	04/13/2017 03:25	WG969504
Naphthalene	ND		5.00	1	04/13/2017 03:25	WG969504
(S) Toluene-d8	101		80.0-120		04/13/2017 03:25	WG969504
(S) Dibromofluoromethane	97.0		76.0-123		04/13/2017 03:25	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 03:25	WG969504
(S) 4-Bromofluorobenzene	103		80.0-120		04/13/2017 03:25	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 03:42	WG969504
Toluene	ND		1.00	1	04/13/2017 03:42	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 03:42	WG969504
o-Xylene	ND		1.00	1	04/13/2017 03:42	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 03:42	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 03:42	WG969504
Naphthalene	ND		5.00	1	04/13/2017 03:42	WG969504
(S) Toluene-d8	102		80.0-120		04/13/2017 03:42	WG969504
(S) Dibromofluoromethane	97.1		76.0-123		04/13/2017 03:42	WG969504
(S) a,a,a-Trifluorotoluene	107		80.0-120		04/13/2017 03:42	WG969504
(S) 4-Bromofluorobenzene	101		80.0-120		04/13/2017 03:42	WG969504

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	04/12/2017 23:46	WG969504
Toluene	ND		1.00	1	04/12/2017 23:46	WG969504
Ethylbenzene	ND		1.00	1	04/12/2017 23:46	WG969504
o-Xylene	ND		1.00	1	04/12/2017 23:46	WG969504
m&p-Xylene	ND		2.00	1	04/12/2017 23:46	WG969504
Xylenes, Total	ND		3.00	1	04/12/2017 23:46	WG969504
Naphthalene	ND		5.00	1	04/12/2017 23:46	WG969504
(S) Toluene-d8	101		80.0-120		04/12/2017 23:46	WG969504
(S) Dibromofluoromethane	95.7		76.0-123		04/12/2017 23:46	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/12/2017 23:46	WG969504
(S) 4-Bromofluorobenzene	99.8		80.0-120		04/12/2017 23:46	WG969504

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 00:03	WG969504
Toluene	ND		1.00	1	04/13/2017 00:03	WG969504
Ethylbenzene	ND		1.00	1	04/13/2017 00:03	WG969504
o-Xylene	ND		1.00	1	04/13/2017 00:03	WG969504
m&p-Xylene	ND		2.00	1	04/13/2017 00:03	WG969504
Xylenes, Total	ND		3.00	1	04/13/2017 00:03	WG969504
Naphthalene	ND		5.00	1	04/13/2017 00:03	WG969504
(S) Toluene-d8	102		80.0-120		04/13/2017 00:03	WG969504
(S) Dibromofluoromethane	97.1		76.0-123		04/13/2017 00:03	WG969504
(S) a,a,a-Trifluorotoluene	106		80.0-120		04/13/2017 00:03	WG969504
(S) 4-Bromofluorobenzene	101		80.0-120		04/13/2017 00:03	WG969504

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

WG969504

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

QUALITY CONTROL SUMMARY

L901015-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3210502-2 04/12/17 23:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
o-Xylene	U		0.341	1.00
Xylenes, Total	U		1.06	3.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	100			80.0-120
(S) Dibromofluoromethane	96.2			76.0-123
(S) a,a,a-Trifluorotoluene	106			80.0-120
(S) 4-Bromofluorobenzene	105			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

Laboratory Control Sample (LCS)

(LCS) R3210502-1 04/12/17 22:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	23.5	94.0	70.0-130	
Ethylbenzene	25.0	24.4	97.5	70.0-130	
Naphthalene	25.0	17.8	71.2	70.0-130	
Toluene	25.0	25.1	100	70.0-130	
o-Xylene	25.0	24.1	96.3	70.0-130	
m&p-Xylenes	50.0	49.4	98.8	70.0-130	
Xylenes, Total	75.0	73.5	98.0	70.0-130	
(S) Toluene-d8			101	80.0-120	
(S) Dibromofluoromethane			95.6	76.0-123	
(S) a,a,a-Trifluorotoluene			105	80.0-120	
(S) 4-Bromofluorobenzene			102	80.0-120	

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.
(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
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The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr



<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



<b>CH2M Hill- Kinder Morgan- Atlanta, GA</b> 6600 Peachtree Dunwoody Road Report to: <b>Bethany Garvey</b> Project Description: <b>Lewis Drive Stormwater</b> Phone: <b>770-604-9182</b> Collected by (print): <b>J. McCann, J. Hansen</b> Collected by (signature): <b>Justine McLann</b> Immediately Packed on Ice <b>N X Y</b>		Billing Information: <b>Accounts Payable</b> <b>1000 Windward Concourse</b> <b>Ste 450</b> <b>Alpharetta, GA 30005</b> Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;		Pres Chk: <b>HCl</b> Analysis / Container / Preservative:		Chain of Custody Page <b>1 of 2</b>  L.A.B. S.C.I.E.N.C.E.S. YOUR LAB OF CHOICE 12055 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859  L# <b>L908015</b> <b>E083</b> Accnum: <b>KINCH2MGA</b> Template: <b>T122207</b> Prelogin: <b>P595237</b> TSR: <b>5261 Chris McCord</b> PB: <b>33117 MO</b> Shipped Via: <b>FedEX Ground</b>									
Client Project # <b>684910, IDRAST</b> Site/Facility ID # <b>Lewis Drive</b> Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		City/State Collected: <b>Belton, SC</b> Lab Project # <b>KINCH2MGA-LEWIS</b> P.O. # Quote # Date Results Needed		No of Cntrs		Remarks Sample # (lab only)									
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time										
SW-11-040517	grab	GW	N/A	4/5/17	0810	3	X						-01		
SW-10-040517		GW			0820	3	X						02		
FP-01-040517		GW			0830	3	X						03		
FP-02-040517		GW			0835	3	X						04		
SW-09-040517		GW			0845	3	X						05		
SW-08-040517		GW			0855	3	X						06		
SW-13-040517		GW			0905	3	X						07		
SW-04-040517		GW			0915	3	X						08		
SW-02-040517		GW			0920	3	X						09		
SW-01-040517		GW			0925	3	X						10		
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other		Remarks: Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking # <b>7283 8327 0498</b>		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> COC Signed/Accurate: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Bottles arrive Intact: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Correct bottles used: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sufficient volume sent: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> If Applicable VOA Zero Headspaces: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Preservation Correct/Checked: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
Relinquished by: (Signature) <b>Justine McLann</b>		Date: <b>4/5/17</b>		Time: <b>1200</b>		Received by: (Signature)		Trip Blank Received: <input checked="" type="checkbox"/> No HCL / MeOH TBR		Temp: _____ °C		Bottles Received: <b>2</b>		If preservation required by Login: Date/Time	
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: <b>21 ML</b>		Bottles Received: <b>39</b>		Hold:		Condition: <b>NCF / OK</b>	
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) <b>[Signature]</b>		Date: <b>4/6/17</b>		Time: <b>0845</b>		Hold:		Condition:	

**CH2M Hill- Atlanta, GA**

6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Report to:  
**Bethany Garvey**

Billing Information:  
**Accounts Payable**  
1000 Windward Concourse  
Ste 450  
Alpharetta, GA 30005

Email To: bethany.garvey@ch2m.com

Project:  
Description: **Lewis Drive Site Surface water event**

City/State  
Collected: **Belton, SC**

Phone: 770-604-9182  
Fax:

Client Project #  
**682410.D.R.A.S.T**

Lab Project #  
**KINCH2MGA-LEWIS12**

Collected by (print):  
**J. McConn**

Site/Facility ID #  
**Lewis Dr**

P.O. #

Collected by (signature):  
**Justine McConn**

Rush? (Lab MUST Be Notified)  
Same Day  Five Day   
Next Day  5 Day (Rad Only)   
Two Day  10 Day (Rad Only)   
Three Day


Quote #

Date Results Needed

Immediately   
Packed on Ice **N X Y**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative
SW-07-040517	grab	GW	N/A	4/5/17	0930	3	X
SW-12-040517		GW			0935	3	X
SW-03-040517		GW			0940	3	X
TRIP BLANK TB-01-040517		GW			1120	1	X
TRIP BLANK TB-01-040517		GW			1120	1	X

Chain of Custody Page 2 of 2



**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: 800-767-5850  
Fax: 615-758-5859

L# **L961015**

Table #

Accnum: **KINCH2MGA**  
Template: **T121291**  
Prelogin: **P592333**  
TSR: **526 - Chris McCord**  
PB: **3-7-176**  
Shipped Via: **FedEX Ground**

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: **V8260BTEXMNSC includes 1,2-DCA**  
**SM SM NO MTBE, surface water suite**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N

If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **7283 6327 0498**

Relinquished by: (Signature) **Justine McConn** Date: **4/5/17** Time: **1200**

Received by: (Signature) \_\_\_\_\_ Trip Blank Received:  Yes /  No  
HCL / MeOH TBR

Temp: **2.1 ML** °C Bottles Received: **39**  
**30**

Relinquished by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received for lab by: (Signature) **Th...** Date: **4/6/17** Time: **0845**

If preservation required by Login: Date/Time

Hold: \_\_\_\_\_ Condition: **NCF / OK**

June 16, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L915750  
Samples Received: 06/14/2017  
Project Number: 684910.LD.MR. SW  
Description: Lewis Drive Site Surface water event  
Site: LEWIS DR  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
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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# SAMPLE SUMMARY

SW-11-061317 L915750-01 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 10:20      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 06:22	06/15/17 06:22	JHH

1  
Cp

2  
Tc

3  
Ss

SW-10-061317 L915750-02 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 10:40      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 06:42	06/15/17 06:42	JHH

4  
Cn

5  
Sr

FP-01-061317 L915750-03 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 10:55      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 07:03	06/15/17 07:03	JHH

6  
Qc

7  
Gl

FP-02-061317 L915750-04 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 11:05      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 07:23	06/15/17 07:23	JHH

8  
Al

9  
Sc

SW-09-061317 L915750-05 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 11:15      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 07:43	06/15/17 07:43	JHH

SW-08-061317 L915750-06 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 11:30      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 08:04	06/15/17 08:04	JHH

FP-03-061317 L915750-07 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 12:10      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 08:24	06/15/17 08:24	JHH

SW-13-061317 L915750-08 GW

Collected by  
Justine McCann      Collected date/time  
06/13/17 11:40      Received date/time  
06/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 08:45	06/15/17 08:45	JHH

# SAMPLE SUMMARY



## SW-04-061317 L915750-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Justine McCann				Collected date/time 06/13/17 12:35	Received date/time 06/14/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 09:06	06/15/17 09:06	JHH

1 Cp

2 Tc

3 Ss

## SW-02-061317 L915750-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Justine McCann				Collected date/time 06/13/17 12:40	Received date/time 06/14/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 09:26	06/15/17 09:26	JHH

4 Cn

5 Sr

## SW-01-061317 L915750-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Justine McCann				Collected date/time 06/13/17 12:50	Received date/time 06/14/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 09:47	06/15/17 09:47	JHH

6 Qc

7 Gl

## SW-07-061317 L915750-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Justine McCann				Collected date/time 06/13/17 13:05	Received date/time 06/14/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 10:07	06/15/17 10:07	JHH

8 Al

9 Sc

## SW-12-061317 L915750-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Justine McCann				Collected date/time 06/13/17 13:15	Received date/time 06/14/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 10:28	06/15/17 10:28	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	10	06/16/17 14:18	06/16/17 14:18	JAH

## SW-03-061317 L915750-14 GW


Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Justine McCann				Collected date/time 06/13/17 13:25	Received date/time 06/14/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 10:49	06/15/17 10:49	JHH

## TB-01-061317 L915750-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Justine McCann				Collected date/time 06/13/17 14:30	Received date/time 06/14/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG989231	1	06/15/17 04:20	06/15/17 04:20	JHH



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.



Chris McCord  
 Technical Service Representative

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 06:22	WG989231
Toluene	ND		1.00	1	06/15/2017 06:22	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 06:22	WG989231
o-Xylene	ND		1.00	1	06/15/2017 06:22	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 06:22	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 06:22	WG989231
Naphthalene	ND		5.00	1	06/15/2017 06:22	WG989231
(S) Toluene-d8	98.1		80.0-120		06/15/2017 06:22	WG989231
(S) Dibromofluoromethane	87.6		76.0-123		06/15/2017 06:22	WG989231
(S) a,a,a-Trifluorotoluene	97.6		80.0-120		06/15/2017 06:22	WG989231
(S) 4-Bromofluorobenzene	93.9		80.0-120		06/15/2017 06:22	WG989231

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 06:42	WG989231
Toluene	ND		1.00	1	06/15/2017 06:42	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 06:42	WG989231
o-Xylene	ND		1.00	1	06/15/2017 06:42	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 06:42	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 06:42	WG989231
Naphthalene	ND		5.00	1	06/15/2017 06:42	WG989231
(S) Toluene-d8	98.4		80.0-120		06/15/2017 06:42	WG989231
(S) Dibromofluoromethane	87.5		76.0-123		06/15/2017 06:42	WG989231
(S) a,a,a-Trifluorotoluene	97.1		80.0-120		06/15/2017 06:42	WG989231
(S) 4-Bromofluorobenzene	96.3		80.0-120		06/15/2017 06:42	WG989231

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 07:03	WG989231
Toluene	ND		1.00	1	06/15/2017 07:03	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 07:03	WG989231
o-Xylene	ND		1.00	1	06/15/2017 07:03	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 07:03	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 07:03	WG989231
Naphthalene	ND		5.00	1	06/15/2017 07:03	WG989231
(S) Toluene-d8	98.7		80.0-120		06/15/2017 07:03	WG989231
(S) Dibromofluoromethane	86.8		76.0-123		06/15/2017 07:03	WG989231
(S) a,a,-Trifluorotoluene	96.8		80.0-120		06/15/2017 07:03	WG989231
(S) 4-Bromofluorobenzene	95.1		80.0-120		06/15/2017 07:03	WG989231

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 07:23	WG989231
Toluene	ND		1.00	1	06/15/2017 07:23	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 07:23	WG989231
o-Xylene	ND		1.00	1	06/15/2017 07:23	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 07:23	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 07:23	WG989231
Naphthalene	ND		5.00	1	06/15/2017 07:23	WG989231
(S) Toluene-d8	97.9		80.0-120		06/15/2017 07:23	WG989231
(S) Dibromofluoromethane	88.4		76.0-123		06/15/2017 07:23	WG989231
(S) a,a,a-Trifluorotoluene	98.5		80.0-120		06/15/2017 07:23	WG989231
(S) 4-Bromofluorobenzene	96.0		80.0-120		06/15/2017 07:23	WG989231

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	06/15/2017 07:43	WG989231
Toluene	ND		1.00	1	06/15/2017 07:43	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 07:43	WG989231
o-Xylene	ND		1.00	1	06/15/2017 07:43	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 07:43	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 07:43	WG989231
Naphthalene	ND		5.00	1	06/15/2017 07:43	WG989231
(S) Toluene-d8	97.4		80.0-120		06/15/2017 07:43	WG989231
(S) Dibromofluoromethane	87.3		76.0-123		06/15/2017 07:43	WG989231
(S) a,a,a-Trifluorotoluene	97.7		80.0-120		06/15/2017 07:43	WG989231
(S) 4-Bromofluorobenzene	95.3		80.0-120		06/15/2017 07:43	WG989231

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 08:04	WG989231
Toluene	ND		1.00	1	06/15/2017 08:04	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 08:04	WG989231
o-Xylene	ND		1.00	1	06/15/2017 08:04	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 08:04	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 08:04	WG989231
Naphthalene	ND		5.00	1	06/15/2017 08:04	WG989231
(S) Toluene-d8	98.0		80.0-120		06/15/2017 08:04	WG989231
(S) Dibromofluoromethane	86.3		76.0-123		06/15/2017 08:04	WG989231
(S) a,a,-Trifluorotoluene	97.4		80.0-120		06/15/2017 08:04	WG989231
(S) 4-Bromofluorobenzene	94.2		80.0-120		06/15/2017 08:04	WG989231

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 08:24	WG989231
Toluene	ND		1.00	1	06/15/2017 08:24	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 08:24	WG989231
o-Xylene	ND		1.00	1	06/15/2017 08:24	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 08:24	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 08:24	WG989231
Naphthalene	ND		5.00	1	06/15/2017 08:24	WG989231
(S) Toluene-d8	97.7		80.0-120		06/15/2017 08:24	WG989231
(S) Dibromofluoromethane	87.9		76.0-123		06/15/2017 08:24	WG989231
(S) a,a,-Trifluorotoluene	97.9		80.0-120		06/15/2017 08:24	WG989231
(S) 4-Bromofluorobenzene	96.5		80.0-120		06/15/2017 08:24	WG989231

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 08:45	WG989231
Toluene	ND		1.00	1	06/15/2017 08:45	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 08:45	WG989231
o-Xylene	ND		1.00	1	06/15/2017 08:45	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 08:45	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 08:45	WG989231
Naphthalene	ND		5.00	1	06/15/2017 08:45	WG989231
(S) Toluene-d8	97.8		80.0-120		06/15/2017 08:45	WG989231
(S) Dibromofluoromethane	88.1		76.0-123		06/15/2017 08:45	WG989231
(S) a,a,-Trifluorotoluene	96.8		80.0-120		06/15/2017 08:45	WG989231
(S) 4-Bromofluorobenzene	97.0		80.0-120		06/15/2017 08:45	WG989231

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 09:06	WG989231
Toluene	1.37		1.00	1	06/15/2017 09:06	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 09:06	WG989231
o-Xylene	ND		1.00	1	06/15/2017 09:06	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 09:06	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 09:06	WG989231
Naphthalene	ND		5.00	1	06/15/2017 09:06	WG989231
(S) Toluene-d8	97.9		80.0-120		06/15/2017 09:06	WG989231
(S) Dibromofluoromethane	86.1		76.0-123		06/15/2017 09:06	WG989231
(S) a,a,-Trifluorotoluene	97.7		80.0-120		06/15/2017 09:06	WG989231
(S) 4-Bromofluorobenzene	93.8		80.0-120		06/15/2017 09:06	WG989231

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 09:26	WG989231
Toluene	ND		1.00	1	06/15/2017 09:26	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 09:26	WG989231
o-Xylene	ND		1.00	1	06/15/2017 09:26	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 09:26	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 09:26	WG989231
Naphthalene	ND		5.00	1	06/15/2017 09:26	WG989231
(S) Toluene-d8	98.0		80.0-120		06/15/2017 09:26	WG989231
(S) Dibromofluoromethane	87.2		76.0-123		06/15/2017 09:26	WG989231
(S) a,a,-Trifluorotoluene	98.6		80.0-120		06/15/2017 09:26	WG989231
(S) 4-Bromofluorobenzene	97.5		80.0-120		06/15/2017 09:26	WG989231

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 09:47	WG989231
Toluene	1.90		1.00	1	06/15/2017 09:47	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 09:47	WG989231
o-Xylene	ND		1.00	1	06/15/2017 09:47	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 09:47	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 09:47	WG989231
Naphthalene	ND		5.00	1	06/15/2017 09:47	WG989231
(S) Toluene-d8	97.1		80.0-120		06/15/2017 09:47	WG989231
(S) Dibromofluoromethane	87.7		76.0-123		06/15/2017 09:47	WG989231
(S) a,a,-Trifluorotoluene	98.3		80.0-120		06/15/2017 09:47	WG989231
(S) 4-Bromofluorobenzene	98.0		80.0-120		06/15/2017 09:47	WG989231

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/15/2017 10:07	WG989231
Toluene	ND		1.00	1	06/15/2017 10:07	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 10:07	WG989231
o-Xylene	ND		1.00	1	06/15/2017 10:07	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 10:07	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 10:07	WG989231
Naphthalene	ND		5.00	1	06/15/2017 10:07	WG989231
(S) Toluene-d8	98.0		80.0-120		06/15/2017 10:07	WG989231
(S) Dibromofluoromethane	88.2		76.0-123		06/15/2017 10:07	WG989231
(S) a,a,a-Trifluorotoluene	98.3		80.0-120		06/15/2017 10:07	WG989231
(S) 4-Bromofluorobenzene	95.9		80.0-120		06/15/2017 10:07	WG989231

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	102		1.00	1	06/15/2017 10:28	WG989231
Toluene	166		10.0	10	06/16/2017 14:18	WG989231
Ethylbenzene	16.6		1.00	1	06/15/2017 10:28	WG989231
o-Xylene	46.2		1.00	1	06/15/2017 10:28	WG989231
m&p-Xylene	85.1		2.00	1	06/15/2017 10:28	WG989231
Xylenes, Total	131		3.00	1	06/15/2017 10:28	WG989231
Naphthalene	ND		5.00	1	06/15/2017 10:28	WG989231
(S) Toluene-d8	101		80.0-120		06/16/2017 14:18	WG989231
(S) Toluene-d8	98.3		80.0-120		06/15/2017 10:28	WG989231
(S) Dibromofluoromethane	88.4		76.0-123		06/15/2017 10:28	WG989231
(S) Dibromofluoromethane	102		76.0-123		06/16/2017 14:18	WG989231
(S) a,a,a-Trifluorotoluene	99.4		80.0-120		06/16/2017 14:18	WG989231
(S) a,a,a-Trifluorotoluene	97.3		80.0-120		06/15/2017 10:28	WG989231
(S) 4-Bromofluorobenzene	98.1		80.0-120		06/15/2017 10:28	WG989231
(S) 4-Bromofluorobenzene	98.7		80.0-120		06/16/2017 14:18	WG989231

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	06/15/2017 10:49	WG989231
Toluene	ND		1.00	1	06/15/2017 10:49	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 10:49	WG989231
o-Xylene	ND		1.00	1	06/15/2017 10:49	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 10:49	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 10:49	WG989231
Naphthalene	ND		5.00	1	06/15/2017 10:49	WG989231
(S) Toluene-d8	96.9		80.0-120		06/15/2017 10:49	WG989231
(S) Dibromofluoromethane	86.1		76.0-123		06/15/2017 10:49	WG989231
(S) a,a,a-Trifluorotoluene	97.3		80.0-120		06/15/2017 10:49	WG989231
(S) 4-Bromofluorobenzene	94.8		80.0-120		06/15/2017 10:49	WG989231

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	06/15/2017 04:20	WG989231
Toluene	ND		1.00	1	06/15/2017 04:20	WG989231
Ethylbenzene	ND		1.00	1	06/15/2017 04:20	WG989231
o-Xylene	ND		1.00	1	06/15/2017 04:20	WG989231
m&p-Xylene	ND		2.00	1	06/15/2017 04:20	WG989231
Xylenes, Total	ND		3.00	1	06/15/2017 04:20	WG989231
Naphthalene	ND		5.00	1	06/15/2017 04:20	WG989231
(S) Toluene-d8	98.7		80.0-120		06/15/2017 04:20	WG989231
(S) Dibromofluoromethane	87.0		76.0-123		06/15/2017 04:20	WG989231
(S) a,a,a-Trifluorotoluene	98.3		80.0-120		06/15/2017 04:20	WG989231
(S) 4-Bromofluorobenzene	98.1		80.0-120		06/15/2017 04:20	WG989231

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

WG989231

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

QUALITY CONTROL SUMMARY

L915750-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3226264-3 06/15/17 04:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
o-Xylene	U		0.341	1.00
Xylenes, Total	U		1.06	3.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	99.0			80.0-120
(S) Dibromofluoromethane	86.1			76.0-123
(S) a,a,a-Trifluorotoluene	97.8			80.0-120
(S) 4-Bromofluorobenzene	96.7			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

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

(LCS) R3226264-1 06/15/17 02:59 • (LCSD) R3226264-2 06/15/17 03:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	22.7	22.9	90.8	91.6	70.0-130			0.780	20
Ethylbenzene	25.0	25.6	25.9	102	104	70.0-130			1.32	20
Naphthalene	25.0	20.8	22.1	83.4	88.5	70.0-130			5.95	20
Toluene	25.0	24.7	25.6	98.9	102	70.0-130			3.47	20
o-Xylene	25.0	23.8	24.0	95.1	96.1	70.0-130			1.05	20
m&p-Xylenes	50.0	50.3	51.2	101	102	70.0-130			1.78	20
Xylenes, Total	75.0	74.1	75.2	98.8	100	70.0-130			1.47	20
(S) Toluene-d8				98.2	99.6	80.0-120				
(S) Dibromofluoromethane				87.9	86.5	76.0-123				
(S) a,a,a-Trifluorotoluene				96.5	98.2	80.0-120				
(S) 4-Bromofluorobenzene				91.9	92.2	80.0-120				

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.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier                      Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.  
 \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

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

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	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 <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	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-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> 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.**



<b>CH2M Hill- Kinder Morgan- Atlanta, GA</b> 6600 Peachtree Dunwoody Road		Billing Information: <b>Accounts Payable</b> 1000 Windward Concourse Ste 450 Alpharetta, GA 30005		Chain of Custody Page 1 of 2  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859			
Report to: <b>Bethany Garvey</b>		Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;		Pres Chk: <b>HCI</b>			
Project Description: <b>Lewis Drive Site Surface water</b>		City/State Collected: <b>Belton, SC</b>		Analysis / Container / Preservative V8260BTEXNSC 40mlAmb-HCI			
Phone: <b>770-604-9182</b> Fax:		Client Project # <b>684910, LD, MR, SW</b>				Lab Project # <b>KINCH2MGA-LEWIS</b>	
Collected by (print): <b>Justine McLann</b>		Site/Facility ID # <b>LEWIS D</b>				P.O. #	
Collected by (signature): <b>Justine McLann</b>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input checked="" type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day				Quote #	
Immediately Packed on Ice: <b>N X Y</b>		Date Results Needed				No. of Cntrs	
Sample ID		Comp/Grab				Matrix *	
Depth		Date				Time	
SW-11-061317		grab				GW	
SW-10-061317						GW	
FP-01-061317						GW	
FP-02-061317				GW			
SW-09-061317				GW			
SW-08-061317				GW			
FP-03-061317				GW			
SW-13-061317				GW			
SW-04-061317				GW			
SW-02-061317		v		GW			
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks:		pH _____ Temp _____ Flow _____ Other _____			
Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking # <b>7372 1956 2425</b>		Trip Blank Received: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes 2 MeOH BR			
Relinquished by: (Signature) <b>Justine McLann</b>		Date: <b>6/13/17</b> Time: <b>1545</b>		Received by: (Signature)			
Relinquished by: (Signature)		Date: _____ Time: _____		Received by: (Signature)			
Relinquished by: (Signature)		Date: _____ Time: _____		Received for lab by: (Signature)			
Temp: <b>2.12</b> °C Bottles Received: <b>42</b>		If preservation required by Login: Date/Time		Hold:			
Date: <b>6-14-17</b> Time: <b>0845</b>		Condition: <b>NCF / OK</b>		Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			

**CH2M Hill- Kinder Morgan- Atlanta, GA**

6600 Peachtree Dunwoody Road

Report to:  
**Bethany Garvey**

Project Description: **Lewis Drive Site Surface water**

Phone: **770-604-9182**  
Fax:

Collected by (print):  
**Justine McCann**

Collected by (signature):  
*Justine McCann*

Immediately Packed on Ice  N  Y

Billing Information:  
**Accounts Payable  
1000 Windward Concourse  
Ste 450  
Alpharetta, GA 30005**

Email To: **bgarvey@ch2m.com;  
tom.wiley@ch2m.com; scott.powell@ch2m.com;**

City/State Collected: **Belton, SC**

Lab Project # **KINCH2MGA-LEWIS**

P.O. #

Quote #

**Rush?** (Lab MUST Be Notified)

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page **2 of 2**



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-9859  
Fax: 615-758-5859



L# **915750**

Table #

Acctnum: **KINCH2MGA**

Template: **T121339**

Prelogin: **P605160**

TSR: **526 - Chris McCord**

PB: **6-5-17 MWB**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative	Remarks	Sample # (lab only)
SW-01-061317	grab	GW	N/A	6/13/17	1250	3	X		11
SW-07-061317	↓	↓	↓	↓	1305	3	X		12
SW-12-061317	↓	↓	↓	↓	1315	3	X		13
SW-03-061317	↓	↓	↓	↓	1325	3	X		14
TB-01-061317	↓	↓	↓	↓	1430	2	X	trip blank	15

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

**Sample Receipt Checklist**  
COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
**If Applicable**  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received:  Yes /  No  
**2 HCl MeOH TBR**

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **2.1M** °C Bottles Received: **42**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **6-14-17** Time: **0845**

Hold:

Condition: **NCF / OK**



Attachment B  
Groundwater Analytical Laboratory  
Reports

April 18, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L901362  
Samples Received: 04/07/2017  
Project Number: 684910.LD.RA.ST  
Description: Lewis Drive  
Site: LEWIS DR.  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
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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<sup>5</sup> Sr: Sample Results	8
MW-12B-040617 L901362-01	8
MW-45B-040617 L901362-02	9
MW-17B-040617 L901362-03	10
MW-23-040617 L901362-04	11
MW-23B-040617 L901362-05	12
MW-26B-040617 L901362-06	13
MW-26-040617 L901362-07	14
MW-26-040617-FD L901362-08	15
MW-29-040617 L901362-09	16
MW-19-040617 L901362-10	17
MW-38-040617 L901362-11	18
MW-15-040617 L901362-12	19
MW-15B-040617 L901362-13	20
MW-15B-040617-FD L901362-14	21
MW-34-040617 L901362-15	22
MW-39-040617 L901362-16	23
MW-40-040617 L901362-17	24
MW-41-040617 L901362-18	25
MW-42-040617 L901362-19	26
MW-25B-040617 L901362-20	27
MW-25-040617 L901362-21	28
MW-35-040617 L901362-22	29
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<sup>1</sup> Cp
<sup>2</sup> Tc
<sup>3</sup> Ss
<sup>4</sup> Cn
<sup>5</sup> Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
<sup>9</sup> Sc

# SAMPLE SUMMARY

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-12B-040617 L901362-01 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 07:40</p> <p>Received date/time 04/07/17 08:45</p> </div> <div style="width: 35%; text-align: right;"> <p>1 Cp</p> <p>2 Tc</p> <p>3 Ss</p> <p>4 Cn</p> <p>5 Sr</p> <p>6 Qc</p> <p>7 Gl</p> <p>8 Al</p> <p>9 Sc</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 20:28	04/13/17 20:28	JHH
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-45B-040617 L901362-02 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 08:15</p> <p>Received date/time 04/07/17 08:45</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 20:45	04/13/17 20:45	JHH
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-17B-040617 L901362-03 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 09:35</p> <p>Received date/time 04/07/17 08:45</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	200	04/13/17 21:02	04/13/17 21:02	JHH
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-23-040617 L901362-04 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 09:45</p> <p>Received date/time 04/07/17 08:45</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 21:19	04/13/17 21:19	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	10	04/17/17 22:33	04/17/17 22:33	JHH
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-23B-040617 L901362-05 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 09:50</p> <p>Received date/time 04/07/17 08:45</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 21:36	04/13/17 21:36	JHH
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-26B-040617 L901362-06 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 10:05</p> <p>Received date/time 04/07/17 08:45</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 21:53	04/13/17 21:53	JHH
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-26-040617 L901362-07 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 10:15</p> <p>Received date/time 04/07/17 08:45</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 22:10	04/13/17 22:10	JHH
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p>MW-26-040617-FD L901362-08 GW</p> <p>Collected by JM / JH</p> <p>Collected date/time 04/06/17 10:20</p> <p>Received date/time 04/07/17 08:45</p> </div> </div>					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 22:27	04/13/17 22:27	JHH

# SAMPLE SUMMARY



MW-29-040617 L901362-09 GW						Collected by JM / JH	Collected date/time 04/06/17 10:25	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 22:44	04/13/17 22:44	JHH			
MW-19-040617 L901362-10 GW						Collected by JM / JH	Collected date/time 04/06/17 10:40	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	250	04/13/17 23:02	04/13/17 23:02	JHH			
MW-38-040617 L901362-11 GW						Collected by JM / JH	Collected date/time 04/06/17 12:55	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/13/17 23:19	04/13/17 23:19	JHH			
MW-15-040617 L901362-12 GW						Collected by JM / JH	Collected date/time 04/06/17 13:05	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	25	04/13/17 23:36	04/13/17 23:36	JHH			
MW-15B-040617 L901362-13 GW						Collected by JM / JH	Collected date/time 04/06/17 13:15	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	25	04/13/17 23:53	04/13/17 23:53	JHH			
MW-15B-040617-FD L901362-14 GW						Collected by JM / JH	Collected date/time 04/06/17 13:20	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	25	04/14/17 00:10	04/14/17 00:10	JHH			
MW-34-040617 L901362-15 GW						Collected by JM / JH	Collected date/time 04/06/17 13:25	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/14/17 00:27	04/14/17 00:27	JHH			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	20	04/17/17 22:52	04/17/17 22:52	JHH			
MW-39-040617 L901362-16 GW						Collected by JM / JH	Collected date/time 04/06/17 13:35	Received date/time 04/07/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG969541	50	04/14/17 00:44	04/14/17 00:44	JHH			

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

# SAMPLE SUMMARY



Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
MW-40-040617 L901362-17 GW					
			Collected by JM / JH	Collected date/time 04/06/17 13:45	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	200	04/14/17 01:01	04/14/17 01:01	JHH
MW-41-040617 L901362-18 GW					
			Collected by JM / JH	Collected date/time 04/06/17 13:55	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/14/17 01:18	04/14/17 01:18	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	10	04/17/17 23:11	04/17/17 23:11	JHH
MW-42-040617 L901362-19 GW					
			Collected by JM / JH	Collected date/time 04/06/17 14:05	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/14/17 01:35	04/14/17 01:35	JHH
MW-25B-040617 L901362-20 GW					
			Collected by JM / JH	Collected date/time 04/06/17 14:15	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969541	1	04/14/17 01:52	04/14/17 01:52	JHH
MW-25-040617 L901362-21 GW					
			Collected by JM / JH	Collected date/time 04/06/17 14:25	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969556	10	04/13/17 00:09	04/13/17 00:09	JHH
MW-35-040617 L901362-22 GW					
			Collected by JM / JH	Collected date/time 04/06/17 14:35	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969556	1	04/13/17 00:32	04/13/17 00:32	JHH
FB-01-040617 L901362-23 GW					
			Collected by JM / JH	Collected date/time 04/06/17 15:15	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969556	1	04/12/17 19:42	04/12/17 19:42	JHH
MW-21-040617 L901362-24 GW					
			Collected by JM / JH	Collected date/time 04/06/17 15:45	Received date/time 04/07/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969556	1	04/13/17 00:54	04/13/17 00:54	JHH

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

# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



TB-01-040617 L901362-25 GW

Collected by  
JM / JH

Collected date/time  
04/06/17 16:30

Received date/time  
04/07/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG969556	1	04/12/17 19:20	04/12/17 19:20	JHH

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> 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.



Chris McCord  
 Technical Service Representative

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 20:28	WG969541
Toluene	ND		1.00	1	04/13/2017 20:28	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 20:28	WG969541
Total Xylenes	ND		3.00	1	04/13/2017 20:28	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 20:28	WG969541
Naphthalene	ND		5.00	1	04/13/2017 20:28	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 20:28	WG969541
(S) Toluene-d8	100		80.0-120		04/13/2017 20:28	WG969541
(S) Dibromofluoromethane	99.8		76.0-123		04/13/2017 20:28	WG969541
(S) 4-Bromofluorobenzene	93.2		80.0-120		04/13/2017 20:28	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 20:45	WG969541
Toluene	ND		1.00	1	04/13/2017 20:45	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 20:45	WG969541
Total Xylenes	ND		3.00	1	04/13/2017 20:45	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 20:45	WG969541
Naphthalene	ND		5.00	1	04/13/2017 20:45	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 20:45	WG969541
(S) Toluene-d8	100		80.0-120		04/13/2017 20:45	WG969541
(S) Dibromofluoromethane	98.7		76.0-123		04/13/2017 20:45	WG969541
(S) 4-Bromofluorobenzene	92.6		80.0-120		04/13/2017 20:45	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	7780		200	200	04/13/2017 21:02	WG969541
Toluene	14900		200	200	04/13/2017 21:02	WG969541
Ethylbenzene	833		200	200	04/13/2017 21:02	WG969541
Total Xylenes	5330		600	200	04/13/2017 21:02	WG969541
Methyl tert-butyl ether	991		200	200	04/13/2017 21:02	WG969541
Naphthalene	ND		1000	200	04/13/2017 21:02	WG969541
1,2-Dichloroethane	ND		200	200	04/13/2017 21:02	WG969541
(S) Toluene-d8	102		80.0-120		04/13/2017 21:02	WG969541
(S) Dibromofluoromethane	102		76.0-123		04/13/2017 21:02	WG969541
(S) 4-Bromofluorobenzene	96.7		80.0-120		04/13/2017 21:02	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	432		10.0	10	04/17/2017 22:33	WG969541
Toluene	6.61		1.00	1	04/13/2017 21:19	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 21:19	WG969541
Total Xylenes	254		3.00	1	04/13/2017 21:19	WG969541
Methyl tert-butyl ether	76.5		1.00	1	04/13/2017 21:19	WG969541
Naphthalene	ND		5.00	1	04/13/2017 21:19	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 21:19	WG969541
(S) Toluene-d8	103		80.0-120		04/13/2017 21:19	WG969541
(S) Toluene-d8	105		80.0-120		04/17/2017 22:33	WG969541
(S) Dibromofluoromethane	94.2		76.0-123		04/17/2017 22:33	WG969541
(S) Dibromofluoromethane	99.3		76.0-123		04/13/2017 21:19	WG969541
(S) 4-Bromofluorobenzene	93.7		80.0-120		04/13/2017 21:19	WG969541
(S) 4-Bromofluorobenzene	103		80.0-120		04/17/2017 22:33	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 21:36	WG969541
Toluene	2.41		1.00	1	04/13/2017 21:36	WG969541
Ethylbenzene	1.21		1.00	1	04/13/2017 21:36	WG969541
Total Xylenes	9.23		3.00	1	04/13/2017 21:36	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 21:36	WG969541
Naphthalene	ND		5.00	1	04/13/2017 21:36	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 21:36	WG969541
(S) Toluene-d8	101		80.0-120		04/13/2017 21:36	WG969541
(S) Dibromofluoromethane	100		76.0-123		04/13/2017 21:36	WG969541
(S) 4-Bromofluorobenzene	96.6		80.0-120		04/13/2017 21:36	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 21:53	WG969541
Toluene	ND		1.00	1	04/13/2017 21:53	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 21:53	WG969541
Total Xylenes	ND		3.00	1	04/13/2017 21:53	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 21:53	WG969541
Naphthalene	ND		5.00	1	04/13/2017 21:53	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 21:53	WG969541
(S) Toluene-d8	100		80.0-120		04/13/2017 21:53	WG969541
(S) Dibromofluoromethane	97.6		76.0-123		04/13/2017 21:53	WG969541
(S) 4-Bromofluorobenzene	93.9		80.0-120		04/13/2017 21:53	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 22:10	WG969541
Toluene	ND		1.00	1	04/13/2017 22:10	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 22:10	WG969541
Total Xylenes	ND		3.00	1	04/13/2017 22:10	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 22:10	WG969541
Naphthalene	ND		5.00	1	04/13/2017 22:10	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 22:10	WG969541
(S) Toluene-d8	101		80.0-120		04/13/2017 22:10	WG969541
(S) Dibromofluoromethane	99.9		76.0-123		04/13/2017 22:10	WG969541
(S) 4-Bromofluorobenzene	92.9		80.0-120		04/13/2017 22:10	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 22:27	WG969541
Toluene	ND		1.00	1	04/13/2017 22:27	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 22:27	WG969541
Total Xylenes	ND		3.00	1	04/13/2017 22:27	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 22:27	WG969541
Naphthalene	ND		5.00	1	04/13/2017 22:27	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 22:27	WG969541
(S) Toluene-d8	99.4		80.0-120		04/13/2017 22:27	WG969541
(S) Dibromofluoromethane	101		76.0-123		04/13/2017 22:27	WG969541
(S) 4-Bromofluorobenzene	95.9		80.0-120		04/13/2017 22:27	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 22:44	WG969541
Toluene	ND		1.00	1	04/13/2017 22:44	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 22:44	WG969541
Total Xylenes	ND		3.00	1	04/13/2017 22:44	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 22:44	WG969541
Naphthalene	ND		5.00	1	04/13/2017 22:44	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 22:44	WG969541
(S) Toluene-d8	100		80.0-120		04/13/2017 22:44	WG969541
(S) Dibromofluoromethane	101		76.0-123		04/13/2017 22:44	WG969541
(S) 4-Bromofluorobenzene	94.2		80.0-120		04/13/2017 22:44	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	9810		250	250	04/13/2017 23:02	WG969541
Toluene	25000		250	250	04/13/2017 23:02	WG969541
Ethylbenzene	1030		250	250	04/13/2017 23:02	WG969541
Total Xylenes	10300		750	250	04/13/2017 23:02	WG969541
Methyl tert-butyl ether	ND		250	250	04/13/2017 23:02	WG969541
Naphthalene	ND		1250	250	04/13/2017 23:02	WG969541
1,2-Dichloroethane	ND		250	250	04/13/2017 23:02	WG969541
(S) Toluene-d8	102		80.0-120		04/13/2017 23:02	WG969541
(S) Dibromofluoromethane	103		76.0-123		04/13/2017 23:02	WG969541
(S) 4-Bromofluorobenzene	93.2		80.0-120		04/13/2017 23:02	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 23:19	WG969541
Toluene	ND		1.00	1	04/13/2017 23:19	WG969541
Ethylbenzene	ND		1.00	1	04/13/2017 23:19	WG969541
Total Xylenes	ND		3.00	1	04/13/2017 23:19	WG969541
Methyl tert-butyl ether	8.06		1.00	1	04/13/2017 23:19	WG969541
Naphthalene	ND		5.00	1	04/13/2017 23:19	WG969541
1,2-Dichloroethane	ND		1.00	1	04/13/2017 23:19	WG969541
(S) Toluene-d8	101		80.0-120		04/13/2017 23:19	WG969541
(S) Dibromofluoromethane	100		76.0-123		04/13/2017 23:19	WG969541
(S) 4-Bromofluorobenzene	97.3		80.0-120		04/13/2017 23:19	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	1790		25.0	25	04/13/2017 23:36	WG969541
Toluene	465		25.0	25	04/13/2017 23:36	WG969541
Ethylbenzene	60.6		25.0	25	04/13/2017 23:36	WG969541
Total Xylenes	886		75.0	25	04/13/2017 23:36	WG969541
Methyl tert-butyl ether	181		25.0	25	04/13/2017 23:36	WG969541
Naphthalene	ND		125	25	04/13/2017 23:36	WG969541
1,2-Dichloroethane	ND		25.0	25	04/13/2017 23:36	WG969541
(S) Toluene-d8	102		80.0-120		04/13/2017 23:36	WG969541
(S) Dibromofluoromethane	104		76.0-123		04/13/2017 23:36	WG969541
(S) 4-Bromofluorobenzene	94.1		80.0-120		04/13/2017 23:36	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	1020		25.0	25	04/13/2017 23:53	WG969541
Toluene	2020		25.0	25	04/13/2017 23:53	WG969541
Ethylbenzene	132		25.0	25	04/13/2017 23:53	WG969541
Total Xylenes	789		75.0	25	04/13/2017 23:53	WG969541
Methyl tert-butyl ether	84.7		25.0	25	04/13/2017 23:53	WG969541
Naphthalene	ND		125	25	04/13/2017 23:53	WG969541
1,2-Dichloroethane	ND		25.0	25	04/13/2017 23:53	WG969541
(S) Toluene-d8	101		80.0-120		04/13/2017 23:53	WG969541
(S) Dibromofluoromethane	100		76.0-123		04/13/2017 23:53	WG969541
(S) 4-Bromofluorobenzene	93.4		80.0-120		04/13/2017 23:53	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	973		25.0	25	04/14/2017 00:10	WG969541
Toluene	1910		25.0	25	04/14/2017 00:10	WG969541
Ethylbenzene	124		25.0	25	04/14/2017 00:10	WG969541
Total Xylenes	742		75.0	25	04/14/2017 00:10	WG969541
Methyl tert-butyl ether	82.9		25.0	25	04/14/2017 00:10	WG969541
Naphthalene	ND		125	25	04/14/2017 00:10	WG969541
1,2-Dichloroethane	ND		25.0	25	04/14/2017 00:10	WG969541
(S) Toluene-d8	102		80.0-120		04/14/2017 00:10	WG969541
(S) Dibromofluoromethane	100		76.0-123		04/14/2017 00:10	WG969541
(S) 4-Bromofluorobenzene	96.4		80.0-120		04/14/2017 00:10	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	860		20.0	20	04/17/2017 22:52	WG969541
Toluene	58.6		1.00	1	04/14/2017 00:27	WG969541
Ethylbenzene	1.70		1.00	1	04/14/2017 00:27	WG969541
Total Xylenes	181		3.00	1	04/14/2017 00:27	WG969541
Methyl tert-butyl ether	123		1.00	1	04/14/2017 00:27	WG969541
Naphthalene	ND		5.00	1	04/14/2017 00:27	WG969541
1,2-Dichloroethane	ND		1.00	1	04/14/2017 00:27	WG969541
(S) Toluene-d8	102		80.0-120		04/14/2017 00:27	WG969541
(S) Toluene-d8	104		80.0-120		04/17/2017 22:52	WG969541
(S) Dibromofluoromethane	94.5		76.0-123		04/17/2017 22:52	WG969541
(S) Dibromofluoromethane	94.7		76.0-123		04/14/2017 00:27	WG969541
(S) 4-Bromofluorobenzene	93.9		80.0-120		04/14/2017 00:27	WG969541
(S) 4-Bromofluorobenzene	101		80.0-120		04/17/2017 22:52	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	6180		50.0	50	04/14/2017 00:44	WG969541
Toluene	3280		50.0	50	04/14/2017 00:44	WG969541
Ethylbenzene	754		50.0	50	04/14/2017 00:44	WG969541
Total Xylenes	3860		150	50	04/14/2017 00:44	WG969541
Methyl tert-butyl ether	257		50.0	50	04/14/2017 00:44	WG969541
Naphthalene	ND		250	50	04/14/2017 00:44	WG969541
1,2-Dichloroethane	ND		50.0	50	04/14/2017 00:44	WG969541
(S) Toluene-d8	103		80.0-120		04/14/2017 00:44	WG969541
(S) Dibromofluoromethane	101		76.0-123		04/14/2017 00:44	WG969541
(S) 4-Bromofluorobenzene	93.1		80.0-120		04/14/2017 00:44	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	10400		200	200	04/14/2017 01:01	WG969541
Toluene	16200		200	200	04/14/2017 01:01	WG969541
Ethylbenzene	1180		200	200	04/14/2017 01:01	WG969541
Total Xylenes	6570		600	200	04/14/2017 01:01	WG969541
Methyl tert-butyl ether	650		200	200	04/14/2017 01:01	WG969541
Naphthalene	ND		1000	200	04/14/2017 01:01	WG969541
1,2-Dichloroethane	ND		200	200	04/14/2017 01:01	WG969541
(S) Toluene-d8	103		80.0-120		04/14/2017 01:01	WG969541
(S) Dibromofluoromethane	101		76.0-123		04/14/2017 01:01	WG969541
(S) 4-Bromofluorobenzene	93.3		80.0-120		04/14/2017 01:01	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	470		10.0	10	04/17/2017 23:11	WG969541
Toluene	ND		1.00	1	04/14/2017 01:18	WG969541
Ethylbenzene	2.06		1.00	1	04/14/2017 01:18	WG969541
Total Xylenes	258		3.00	1	04/14/2017 01:18	WG969541
Methyl tert-butyl ether	3.84		1.00	1	04/14/2017 01:18	WG969541
Naphthalene	10.6		5.00	1	04/14/2017 01:18	WG969541
1,2-Dichloroethane	ND		1.00	1	04/14/2017 01:18	WG969541
(S) Toluene-d8	102		80.0-120		04/14/2017 01:18	WG969541
(S) Toluene-d8	105		80.0-120		04/17/2017 23:11	WG969541
(S) Dibromofluoromethane	94.5		76.0-123		04/17/2017 23:11	WG969541
(S) Dibromofluoromethane	99.1		76.0-123		04/14/2017 01:18	WG969541
(S) 4-Bromofluorobenzene	93.0		80.0-120		04/14/2017 01:18	WG969541
(S) 4-Bromofluorobenzene	101		80.0-120		04/17/2017 23:11	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	93.5		1.00	1	04/14/2017 01:35	WG969541
Toluene	ND		1.00	1	04/14/2017 01:35	WG969541
Ethylbenzene	ND		1.00	1	04/14/2017 01:35	WG969541
Total Xylenes	53.3		3.00	1	04/14/2017 01:35	WG969541
Methyl tert-butyl ether	1.18		1.00	1	04/14/2017 01:35	WG969541
Naphthalene	ND		5.00	1	04/14/2017 01:35	WG969541
1,2-Dichloroethane	ND		1.00	1	04/14/2017 01:35	WG969541
(S) Toluene-d8	101		80.0-120		04/14/2017 01:35	WG969541
(S) Dibromofluoromethane	100		76.0-123		04/14/2017 01:35	WG969541
(S) 4-Bromofluorobenzene	94.8		80.0-120		04/14/2017 01:35	WG969541

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/14/2017 01:52	WG969541
Toluene	ND		1.00	1	04/14/2017 01:52	WG969541
Ethylbenzene	ND		1.00	1	04/14/2017 01:52	WG969541
Total Xylenes	ND		3.00	1	04/14/2017 01:52	WG969541
Methyl tert-butyl ether	ND		1.00	1	04/14/2017 01:52	WG969541
Naphthalene	ND	V3	5.00	1	04/14/2017 01:52	WG969541
1,2-Dichloroethane	ND		1.00	1	04/14/2017 01:52	WG969541
(S) Toluene-d8	95.8		80.0-120		04/14/2017 01:52	WG969541
(S) Dibromofluoromethane	74.2	J2	76.0-123		04/14/2017 01:52	WG969541
(S) 4-Bromofluorobenzene	38.4	J2	80.0-120		04/14/2017 01:52	WG969541

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	558		10.0	10	04/13/2017 00:09	WG969556
Toluene	ND		10.0	10	04/13/2017 00:09	WG969556
Ethylbenzene	24.3		10.0	10	04/13/2017 00:09	WG969556
Total Xylenes	682		30.0	10	04/13/2017 00:09	WG969556
Methyl tert-butyl ether	ND		10.0	10	04/13/2017 00:09	WG969556
Naphthalene	ND		50.0	10	04/13/2017 00:09	WG969556
1,2-Dichloroethane	ND		10.0	10	04/13/2017 00:09	WG969556
(S) Toluene-d8	104		80.0-120		04/13/2017 00:09	WG969556
(S) Dibromofluoromethane	108		76.0-123		04/13/2017 00:09	WG969556
(S) 4-Bromofluorobenzene	102		80.0-120		04/13/2017 00:09	WG969556

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 00:32	WG969556
Toluene	ND		1.00	1	04/13/2017 00:32	WG969556
Ethylbenzene	ND		1.00	1	04/13/2017 00:32	WG969556
Total Xylenes	ND		3.00	1	04/13/2017 00:32	WG969556
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 00:32	WG969556
Naphthalene	ND		5.00	1	04/13/2017 00:32	WG969556
1,2-Dichloroethane	ND		1.00	1	04/13/2017 00:32	WG969556
(S) Toluene-d8	105		80.0-120		04/13/2017 00:32	WG969556
(S) Dibromofluoromethane	110		76.0-123		04/13/2017 00:32	WG969556
(S) 4-Bromofluorobenzene	102		80.0-120		04/13/2017 00:32	WG969556

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/12/2017 19:42	WG969556
Toluene	ND		1.00	1	04/12/2017 19:42	WG969556
Ethylbenzene	ND		1.00	1	04/12/2017 19:42	WG969556
Total Xylenes	ND		3.00	1	04/12/2017 19:42	WG969556
Methyl tert-butyl ether	ND		1.00	1	04/12/2017 19:42	WG969556
Naphthalene	ND		5.00	1	04/12/2017 19:42	WG969556
1,2-Dichloroethane	ND		1.00	1	04/12/2017 19:42	WG969556
(S) Toluene-d8	104		80.0-120		04/12/2017 19:42	WG969556
(S) Dibromofluoromethane	111		76.0-123		04/12/2017 19:42	WG969556
(S) 4-Bromofluorobenzene	100		80.0-120		04/12/2017 19:42	WG969556

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/13/2017 00:54	WG969556
Toluene	ND		1.00	1	04/13/2017 00:54	WG969556
Ethylbenzene	ND		1.00	1	04/13/2017 00:54	WG969556
Total Xylenes	ND		3.00	1	04/13/2017 00:54	WG969556
Methyl tert-butyl ether	ND		1.00	1	04/13/2017 00:54	WG969556
Naphthalene	ND		5.00	1	04/13/2017 00:54	WG969556
1,2-Dichloroethane	ND		1.00	1	04/13/2017 00:54	WG969556
(S) Toluene-d8	104		80.0-120		04/13/2017 00:54	WG969556
(S) Dibromofluoromethane	111		76.0-123		04/13/2017 00:54	WG969556
(S) 4-Bromofluorobenzene	101		80.0-120		04/13/2017 00:54	WG969556

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	04/12/2017 19:20	WG969556
Toluene	ND		1.00	1	04/12/2017 19:20	WG969556
Ethylbenzene	ND		1.00	1	04/12/2017 19:20	WG969556
Total Xylenes	ND		3.00	1	04/12/2017 19:20	WG969556
Methyl tert-butyl ether	ND		1.00	1	04/12/2017 19:20	WG969556
Naphthalene	ND		5.00	1	04/12/2017 19:20	WG969556
1,2-Dichloroethane	ND		1.00	1	04/12/2017 19:20	WG969556
(S) Toluene-d8	106		80.0-120		04/12/2017 19:20	WG969556
(S) Dibromofluoromethane	110		76.0-123		04/12/2017 19:20	WG969556
(S) 4-Bromofluorobenzene	101		80.0-120		04/12/2017 19:20	WG969556

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

WG969541

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



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

L901362-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20

Method Blank (MB)

(MB) R3211287-2 04/13/17 20:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	99.7			80.0-120
(S) Dibromofluoromethane	96.9			76.0-123
(S) 4-Bromofluorobenzene	92.9			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3211287-1 04/13/17 19:36

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	23.2	92.8	70.0-130	
1,2-Dichloroethane	25.0	22.2	88.7	70.0-130	
Ethylbenzene	25.0	22.8	91.1	70.0-130	
Methyl tert-butyl ether	25.0	23.2	92.8	70.0-130	
Naphthalene	25.0	19.6	78.4	70.0-130	
Toluene	25.0	23.2	92.6	70.0-130	
Xylenes, Total	75.0	67.4	89.9	70.0-130	
(S) Toluene-d8			101	80.0-120	
(S) Dibromofluoromethane			96.5	76.0-123	
(S) 4-Bromofluorobenzene			97.7	80.0-120	

7 Gl

8 Al

9 Sc

WG969556

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

QUALITY CONTROL SUMMARY

L901362-21,22,23,24,25

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3210499-2 04/12/17 18:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	109			76.0-123
(S) 4-Bromofluorobenzene	99.7			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3210499-1 04/12/17 18:14

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	25.0	100	70.0-130	
1,2-Dichloroethane	25.0	23.2	92.9	70.0-130	
Ethylbenzene	25.0	23.9	95.5	70.0-130	
Methyl tert-butyl ether	25.0	25.4	101	70.0-130	
Naphthalene	25.0	23.3	93.2	70.0-130	
Toluene	25.0	23.6	94.3	70.0-130	
Xylenes, Total	75.0	72.3	96.4	70.0-130	
(S) Toluene-d8			104	80.0-120	
(S) Dibromofluoromethane			109	76.0-123	
(S) 4-Bromofluorobenzene			101	80.0-120	

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.
(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
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
V3	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.  
 \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

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

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	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 <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	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-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> 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.**



CH2M Hill- Kinder Morgan-Atlanta, GA

Billing Information:  
**Accounts Payable**  
 1000 Windward Concourse  
 Ste 450  
 Alpharetta, GA 30005

Report to:  
**Bethany Garvey**

Email To:  
**bgarvey@ch2m.com**

Project Description:  
**Lewis Drive**

City/State Collected:  
**Belton, SC**

Phone: **770-604-9182**  
 Fax:

Client Project #  
**684910.LD.RA.ST**

Lab Project #  
**KINCH2MGA-LEWIS**

Collected by (print):  
*S. McCann*  
*S. Hansen*

Site/Facility ID #  
**Lewis Dr**

P.O. #

Collected by (signature):  
*Justine McCann*


**Rush? (Lab MUST Be Notified)**  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
 Date Results Needed

Immediately Packed on Ice: **N Y X**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative
MW-12B-040617	grab	GW	N/A	4/6/17	0740	3	HCL
MW-15B-040617					0815		
MW-17B-040617					0935		
MW-23-070617					0945		
MW-23B-040617					0950		
MW-26B-040617					1005		
MW-26-040617					1015		
MW-26-040617(FD)					1020		
MW-29-040617					1025		
MW-19-040617	↓	↓	↓	↓	1040	↓	↓

Chain of Custody Page 1 of 2



YOUR LAB OF CHOICE

12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859

L# **L961362**

**1072**

Acctnum:  
 Template:  
 Prelogin:  
 TSR:  
 PB:  
 Shipped Via:

- SS - Soil AIR - Air F - Filter
- GW - Groundwater B - Bioassay
- WW - WasteWater
- DW - Drinking Water
- OT - Other

Remarks:

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **7283 8327 0524**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

**Sample Receipt Checklist**

COC Seal Present/Intact:	NP	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
COC Signed/Accurate:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Bottles arrive intact:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Correct bottles used:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Sufficient volume sent:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
If Applicable			
VQA Zero Headspace:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Preservation Correct/Checked:		<input type="checkbox"/> Y	<input type="checkbox"/> N

Relinquished by: (Signature)  
*Justine McCann*

Date: **4/6/17**  
 Time: **1800**

Received by: (Signature)

Trip Blank Received:  Yes  No  
 HCL/MeOH  
 TBR

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received by: (Signature)

Temp: **21.9** °C Bottles Received: **71**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received for lab by: (Signature)  
*Justine McCann*

Date: **4-7-17** Time: **8:45**

Hold: \_\_\_\_\_ Condition: **NCF 1 (OK)**

**CH2M Hill- Kinder Morgan-Atlanta, GA**

Billing Information:  
**Accounts Payable**  
 1000 Windward Concourse  
 Ste 450  
 Alpharetta, GA 30005

Report to:  
**Bethany Garvey**

Email To:  
**bgarvey@ch2m.com**

Project Description:  
**Lewis Drive**

City/State Collected:  
**Belton, SC**

Phone: **770-604-9182**  
 Fax:

Client Project #  
**684910.LD.RA.ST**

Lab Project #  
**KINCH2MGA-LEWIS**

Collected by (print):  
*S. McCann*  
*S. Hansen*

Site/Facility ID #  
**Lewis Dr**

P.O. #

Collected by (signature):  
*Justine McLann*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day   
 Next Day  5 Day (Rad Only)   
 Two Day  10 Day (Rad Only)   
 Three Day

Quote #  
 Date Results Needed

Immediately Packed on Ice  N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative
MW-38-040617	grab	GW	N/A	4/6/17	1255	3	HCl
MW-15-040617					1305		
MW-15B-040617					1315		
MW-15B-040617-FD					1320		
MW-34-040617					1325		
MW-39-040617					1335		
MW-40-040617					1345		
MW-41-040617					1355		
MW-42-040617					1405		
MW-25B-040617	✓	✓	✓	✓	1415	✓	✓

Chain of Custody Page 2 of 3

**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# **L901362**

Table #

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks: Sample # (lab only)

- 11

12

13

14

15

16

17

18

19

20

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  NP  Y  N

COC Signed/Accurate:  Y  N

Bottles arrive intact:  Y  N

Correct bottles used:  Y  N

Sufficient volume sent:  Y  N

If Applicable  
 VOA Zero-Headspace:  Y  N

Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) *Justine McLann* Date: 4/16/17 Time: 1800

Received by: (Signature) Trip Blank Received Yes/No  HCl / MeOH TBR

Relinquished by: (Signature) Date: Time:

Received by: (Signature) Temp: 21.2 °C Bottles Received: 71

Relinquished by: (Signature) Date: Time:

Received for lab by: (Signature) Date: 4-7-17 Time: 8:45

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK





## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L906930  
Samples Received: 05/04/2017  
Project Number: 684910.LD.MR.GW  
Description: Lewis Drive Groundwater  
Site: LEWIS DRIVE  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
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.



Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	<sup>2</sup> Tc
Cn: Case Narrative	5	
Sr: Sample Results	6	<sup>3</sup> Ss
MW-31-050317 L906930-01	6	
MW-10-050317 L906930-02	7	<sup>4</sup> Cn
MW-10-050317-FD L906930-03	8	
MW-05-050317 L906930-04	9	<sup>5</sup> Sr
MW-29-050317 L906930-05	10	<sup>6</sup> Qc
MW-26-050317 L906930-06	11	
MW-28-050317 L906930-07	12	<sup>7</sup> Gl
MW-25-050317 L906930-08	13	
MW-35-050317 L906930-09	14	<sup>8</sup> Al
MW-34-050317 L906930-10	15	
MW-38-050317 L906930-11	16	<sup>9</sup> Sc
FB-01-050317 L906930-12	17	
TRIP BLANK TB-01-050317 L906930-13	18	
TRIP BLANK TB-01-050317 L906930-14	19	
Qc: Quality Control Summary	20	
Volatile Organic Compounds (GC/MS) by Method 8260B	20	
Gl: Glossary of Terms	21	
Al: Accreditations & Locations	22	
Sc: Chain of Custody	23	

# SAMPLE SUMMARY



MW-31-050317 L906930-01 GW						Collected by JM/MW	Collected date/time 05/03/17 10:10	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/08/17 23:02	05/08/17 23:02	BMB			
MW-10-050317 L906930-02 GW						Collected by JM/MW	Collected date/time 05/03/17 10:30	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/08/17 23:23	05/08/17 23:23	BMB			
MW-10-050317-FD L906930-03 GW						Collected by JM/MW	Collected date/time 05/03/17 10:35	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/08/17 23:44	05/08/17 23:44	BMB			
MW-05-050317 L906930-04 GW						Collected by JM/MW	Collected date/time 05/03/17 11:00	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 00:05	05/09/17 00:05	BMB			
MW-29-050317 L906930-05 GW						Collected by JM/MW	Collected date/time 05/03/17 13:00	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 00:25	05/09/17 00:25	BMB			
MW-26-050317 L906930-06 GW						Collected by JM/MW	Collected date/time 05/03/17 13:25	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 00:46	05/09/17 00:46	BMB			
MW-28-050317 L906930-07 GW						Collected by JM/MW	Collected date/time 05/03/17 14:00	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 01:07	05/09/17 01:07	BMB			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	10	05/11/17 01:10	05/11/17 01:10	BMB			
MW-25-050317 L906930-08 GW						Collected by JM/MW	Collected date/time 05/03/17 14:30	Received date/time 05/04/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 01:28	05/09/17 01:28	BMB			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG977675	10	05/11/17 01:22	05/11/17 01:22	BMB			

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

# SAMPLE SUMMARY



## MW-35-050317 L906930-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW				Collected date/time 05/03/17 14:50	Received date/time 05/04/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 01:49	05/09/17 01:49	BMB

1  
Cp

2  
Tc

3  
Ss

## MW-34-050317 L906930-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW				Collected date/time 05/03/17 15:15	Received date/time 05/04/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 02:10	05/09/17 02:10	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG977675	10	05/11/17 01:35	05/11/17 01:35	BMB

4  
Cn

5  
Sr

6  
Qc

## MW-38-050317 L906930-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW				Collected date/time 05/03/17 15:30	Received date/time 05/04/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 02:31	05/09/17 02:31	BMB

7  
Gl

8  
Al

## FB-01-050317 L906930-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW				Collected date/time 05/03/17 16:15	Received date/time 05/04/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/09/17 02:52	05/09/17 02:52	BMB

9  
Sc

## TRIP BLANK TB-01-050317 L906930-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW				Collected date/time 05/03/17 09:25	Received date/time 05/04/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/08/17 22:20	05/08/17 22:20	BMB

## TRIP BLANK TB-01-050317 L906930-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW				Collected date/time 05/03/17 09:25	Received date/time 05/04/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG977675	1	05/08/17 22:41	05/08/17 22:41	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.



Chris McCord  
 Technical Service Representative

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/08/2017 23:02	WG977675
Toluene	ND		1.00	1	05/08/2017 23:02	WG977675
Ethylbenzene	ND		1.00	1	05/08/2017 23:02	WG977675
Total Xylenes	ND		3.00	1	05/08/2017 23:02	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/08/2017 23:02	WG977675
Naphthalene	ND		5.00	1	05/08/2017 23:02	WG977675
1,2-Dichloroethane	ND		1.00	1	05/08/2017 23:02	WG977675
(S) Toluene-d8	105		80.0-120		05/08/2017 23:02	WG977675
(S) Dibromofluoromethane	95.9		76.0-123		05/08/2017 23:02	WG977675
(S) 4-Bromofluorobenzene	95.0		80.0-120		05/08/2017 23:02	WG977675

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/08/2017 23:23	WG977675
Toluene	ND		1.00	1	05/08/2017 23:23	WG977675
Ethylbenzene	ND		1.00	1	05/08/2017 23:23	WG977675
Total Xylenes	ND		3.00	1	05/08/2017 23:23	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/08/2017 23:23	WG977675
Naphthalene	ND		5.00	1	05/08/2017 23:23	WG977675
1,2-Dichloroethane	ND		1.00	1	05/08/2017 23:23	WG977675
(S) Toluene-d8	104		80.0-120		05/08/2017 23:23	WG977675
(S) Dibromofluoromethane	97.2		76.0-123		05/08/2017 23:23	WG977675
(S) 4-Bromofluorobenzene	97.2		80.0-120		05/08/2017 23:23	WG977675

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/08/2017 23:44	WG977675
Toluene	ND		1.00	1	05/08/2017 23:44	WG977675
Ethylbenzene	ND		1.00	1	05/08/2017 23:44	WG977675
Total Xylenes	ND		3.00	1	05/08/2017 23:44	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/08/2017 23:44	WG977675
Naphthalene	ND		5.00	1	05/08/2017 23:44	WG977675
1,2-Dichloroethane	ND		1.00	1	05/08/2017 23:44	WG977675
(S) Toluene-d8	105		80.0-120		05/08/2017 23:44	WG977675
(S) Dibromofluoromethane	98.9		76.0-123		05/08/2017 23:44	WG977675
(S) 4-Bromofluorobenzene	97.4		80.0-120		05/08/2017 23:44	WG977675

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/09/2017 00:05	WG977675
Toluene	ND		1.00	1	05/09/2017 00:05	WG977675
Ethylbenzene	ND		1.00	1	05/09/2017 00:05	WG977675
Total Xylenes	ND		3.00	1	05/09/2017 00:05	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/09/2017 00:05	WG977675
Naphthalene	ND		5.00	1	05/09/2017 00:05	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 00:05	WG977675
(S) Toluene-d8	106		80.0-120		05/09/2017 00:05	WG977675
(S) Dibromofluoromethane	99.9		76.0-123		05/09/2017 00:05	WG977675
(S) 4-Bromofluorobenzene	98.6		80.0-120		05/09/2017 00:05	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/09/2017 00:25	WG977675
Toluene	ND		1.00	1	05/09/2017 00:25	WG977675
Ethylbenzene	ND		1.00	1	05/09/2017 00:25	WG977675
Total Xylenes	ND		3.00	1	05/09/2017 00:25	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/09/2017 00:25	WG977675
Naphthalene	ND		5.00	1	05/09/2017 00:25	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 00:25	WG977675
(S) Toluene-d8	104		80.0-120		05/09/2017 00:25	WG977675
(S) Dibromofluoromethane	97.4		76.0-123		05/09/2017 00:25	WG977675
(S) 4-Bromofluorobenzene	94.5		80.0-120		05/09/2017 00:25	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/09/2017 00:46	WG977675
Toluene	ND		1.00	1	05/09/2017 00:46	WG977675
Ethylbenzene	ND		1.00	1	05/09/2017 00:46	WG977675
Total Xylenes	ND		3.00	1	05/09/2017 00:46	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/09/2017 00:46	WG977675
Naphthalene	ND		5.00	1	05/09/2017 00:46	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 00:46	WG977675
(S) Toluene-d8	105		80.0-120		05/09/2017 00:46	WG977675
(S) Dibromofluoromethane	101		76.0-123		05/09/2017 00:46	WG977675
(S) 4-Bromofluorobenzene	97.4		80.0-120		05/09/2017 00:46	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	65.9		1.00	1	05/09/2017 01:07	WG977675
Toluene	263		10.0	10	05/11/2017 01:10	WG977675
Ethylbenzene	14.5		1.00	1	05/09/2017 01:07	WG977675
Total Xylenes	1010		30.0	10	05/11/2017 01:10	WG977675
Methyl tert-butyl ether	2.94		1.00	1	05/09/2017 01:07	WG977675
Naphthalene	9.33		5.00	1	05/09/2017 01:07	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 01:07	WG977675
(S) Toluene-d8	104		80.0-120		05/11/2017 01:10	WG977675
(S) Toluene-d8	107		80.0-120		05/09/2017 01:07	WG977675
(S) Dibromofluoromethane	98.0		76.0-123		05/09/2017 01:07	WG977675
(S) Dibromofluoromethane	103		76.0-123		05/11/2017 01:10	WG977675
(S) 4-Bromofluorobenzene	96.9		80.0-120		05/11/2017 01:10	WG977675
(S) 4-Bromofluorobenzene	100		80.0-120		05/09/2017 01:07	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	519		10.0	10	05/11/2017 01:22	WG977675
Toluene	10.1		1.00	1	05/09/2017 01:28	WG977675
Ethylbenzene	49.3		1.00	1	05/09/2017 01:28	WG977675
Total Xylenes	614		30.0	10	05/11/2017 01:22	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/09/2017 01:28	WG977675
Naphthalene	43.2		5.00	1	05/09/2017 01:28	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 01:28	WG977675
(S) Toluene-d8	103		80.0-120		05/11/2017 01:22	WG977675
(S) Toluene-d8	106		80.0-120		05/09/2017 01:28	WG977675
(S) Dibromofluoromethane	90.1		76.0-123		05/09/2017 01:28	WG977675
(S) Dibromofluoromethane	103		76.0-123		05/11/2017 01:22	WG977675
(S) 4-Bromofluorobenzene	97.4		80.0-120		05/11/2017 01:22	WG977675
(S) 4-Bromofluorobenzene	99.1		80.0-120		05/09/2017 01:28	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/09/2017 01:49	WG977675
Toluene	ND		1.00	1	05/09/2017 01:49	WG977675
Ethylbenzene	ND		1.00	1	05/09/2017 01:49	WG977675
Total Xylenes	ND		3.00	1	05/09/2017 01:49	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/09/2017 01:49	WG977675
Naphthalene	ND		5.00	1	05/09/2017 01:49	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 01:49	WG977675
(S) Toluene-d8	103		80.0-120		05/09/2017 01:49	WG977675
(S) Dibromofluoromethane	97.7		76.0-123		05/09/2017 01:49	WG977675
(S) 4-Bromofluorobenzene	98.8		80.0-120		05/09/2017 01:49	WG977675

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	287		10.0	10	05/11/2017 01:35	WG977675
Toluene	27.2		1.00	1	05/09/2017 02:10	WG977675
Ethylbenzene	2.62		1.00	1	05/09/2017 02:10	WG977675
Total Xylenes	130		3.00	1	05/09/2017 02:10	WG977675
Methyl tert-butyl ether	124		1.00	1	05/09/2017 02:10	WG977675
Naphthalene	ND		5.00	1	05/09/2017 02:10	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 02:10	WG977675
(S) Toluene-d8	104		80.0-120		05/11/2017 01:35	WG977675
(S) Toluene-d8	105		80.0-120		05/09/2017 02:10	WG977675
(S) Dibromofluoromethane	95.1		76.0-123		05/09/2017 02:10	WG977675
(S) Dibromofluoromethane	102		76.0-123		05/11/2017 01:35	WG977675
(S) 4-Bromofluorobenzene	95.7		80.0-120		05/11/2017 01:35	WG977675
(S) 4-Bromofluorobenzene	102		80.0-120		05/09/2017 02:10	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/09/2017 02:31	WG977675
Toluene	ND		1.00	1	05/09/2017 02:31	WG977675
Ethylbenzene	ND		1.00	1	05/09/2017 02:31	WG977675
Total Xylenes	ND		3.00	1	05/09/2017 02:31	WG977675
Methyl tert-butyl ether	9.08		1.00	1	05/09/2017 02:31	WG977675
Naphthalene	ND		5.00	1	05/09/2017 02:31	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 02:31	WG977675
(S) Toluene-d8	105		80.0-120		05/09/2017 02:31	WG977675
(S) Dibromofluoromethane	99.6		76.0-123		05/09/2017 02:31	WG977675
(S) 4-Bromofluorobenzene	99.8		80.0-120		05/09/2017 02:31	WG977675

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/09/2017 02:52	WG977675
Toluene	ND		1.00	1	05/09/2017 02:52	WG977675
Ethylbenzene	ND		1.00	1	05/09/2017 02:52	WG977675
Total Xylenes	ND		3.00	1	05/09/2017 02:52	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/09/2017 02:52	WG977675
Naphthalene	ND		5.00	1	05/09/2017 02:52	WG977675
1,2-Dichloroethane	ND		1.00	1	05/09/2017 02:52	WG977675
(S) Toluene-d8	104		80.0-120		05/09/2017 02:52	WG977675
(S) Dibromofluoromethane	98.2		76.0-123		05/09/2017 02:52	WG977675
(S) 4-Bromofluorobenzene	98.7		80.0-120		05/09/2017 02:52	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/08/2017 22:20	WG977675
Toluene	ND		1.00	1	05/08/2017 22:20	WG977675
Ethylbenzene	ND		1.00	1	05/08/2017 22:20	WG977675
Total Xylenes	ND		3.00	1	05/08/2017 22:20	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/08/2017 22:20	WG977675
Naphthalene	ND		5.00	1	05/08/2017 22:20	WG977675
1,2-Dichloroethane	ND		1.00	1	05/08/2017 22:20	WG977675
(S) Toluene-d8	104		80.0-120		05/08/2017 22:20	WG977675
(S) Dibromofluoromethane	100		76.0-123		05/08/2017 22:20	WG977675
(S) 4-Bromofluorobenzene	98.4		80.0-120		05/08/2017 22:20	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/08/2017 22:41	WG977675
Toluene	ND		1.00	1	05/08/2017 22:41	WG977675
Ethylbenzene	ND		1.00	1	05/08/2017 22:41	WG977675
Total Xylenes	ND		3.00	1	05/08/2017 22:41	WG977675
Methyl tert-butyl ether	ND		1.00	1	05/08/2017 22:41	WG977675
Naphthalene	ND		5.00	1	05/08/2017 22:41	WG977675
1,2-Dichloroethane	ND		1.00	1	05/08/2017 22:41	WG977675
(S) Toluene-d8	105		80.0-120		05/08/2017 22:41	WG977675
(S) Dibromofluoromethane	95.3		76.0-123		05/08/2017 22:41	WG977675
(S) 4-Bromofluorobenzene	94.3		80.0-120		05/08/2017 22:41	WG977675

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

WG977675

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

QUALITY CONTROL SUMMARY

L906930-01,02,03,04,05,06,07,08,09,10,11,12,13,14

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3217118-3 05/08/17 22:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	95.9			76.0-123
(S) 4-Bromofluorobenzene	96.2			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3217118-1 05/08/17 20:57 • (LCSD) R3217118-2 05/08/17 21:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	23.6	24.8	94.3	99.4	70.0-130			5.20	20
1,2-Dichloroethane	25.0	22.3	26.3	89.1	105	70.0-130			16.5	20
Ethylbenzene	25.0	22.4	23.7	89.4	94.9	70.0-130			5.95	20
Methyl tert-butyl ether	25.0	22.5	24.9	90.0	99.4	70.0-130			9.92	20
Naphthalene	25.0	25.5	28.8	102	115	70.0-130			12.2	20
Toluene	25.0	23.9	24.4	95.5	97.6	70.0-130			2.16	20
Xylenes, Total	75.0	65.6	71.1	87.5	94.8	70.0-130			8.05	20
(S) Toluene-d8				103	104	80.0-120				
(S) Dibromofluoromethane				90.0	101	76.0-123				
(S) 4-Bromofluorobenzene				86.4	95.1	80.0-120				

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.
(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
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The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.  
 \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

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

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	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 <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	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



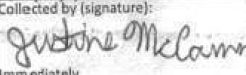
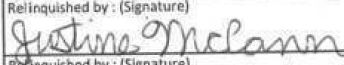
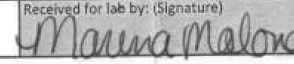
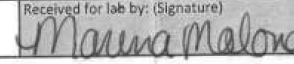

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		



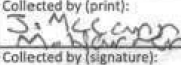
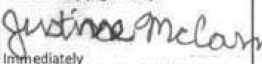
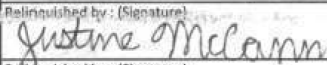
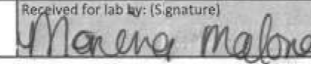
<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## 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.**



<b>CH2M Hill- Kinder Morgan- Atlanta, GA</b> 6600 Peachtree Dunwoody Road		Billing Information: <b>Accounts Payable</b> 1000 Windward Concourse Ste 450 Alpharetta, GA 30005		Pres Chk		Analysis / Container / Preservative										Chain of Custody Page 1 of 2  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12055 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859  L# 1906970 <b>B121</b> Acctnum: KINCH2MGA Template: T121318 Prelogin: P597914 TSR: 526 - Chris McCord 4-20-17 Shipped Via: FedEX Ground					
Report to: <b>Bethany Garvey</b>		Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;																			
Project Description: <b>Lewis Drive Groundwater</b>		City/State Collected: <b>Belton, SC</b>																			
Phone: 770-604-9182 Fax:		Client Project # <b>684910.LD.MR.GW</b>		Lab Project # <b>KINCH2MGA-LEWIS12</b>																	
Collected by (print): <b>J. McLann</b>		Site/Facility ID # <b>Lewis Drive</b>		P.O. #																	
Collected by (signature): 		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Quote #																	
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>		Date Results Needed		No. of Cntrs																	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs											Remarks	Sample # (lab only)			
MW-31-050317	GRAB	GW	NA	5/3/17	1010	3	X												-01		
MW-10-050317		GW			1030	3	X												-02		
MW-10-050317-FD		GW			1035	3	X											field dup	-03		
MW-05-050317		GW			1100	3	X												-04		
MW-29-050317		GW			1300	3	X												-05		
MW-26-050317		GW			1325	3	X												-06		
MW-28-050317		GW			1400	3	X												-07		
MW-25-050317		GW			1430	3	X												-08		
MW-25-050317		GW			1450	3	X												-09		
MW-34-050317		GW			1515	3	X												-10		
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other		Remarks:		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking # <b>7283 8333 6234</b>		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist: COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N											
Relinquished by: (Signature) 		Date: <b>5/13/17</b>		Time: <b>1745</b>		Received by: (Signature) 		Trip Blank Received: Yes/No <input checked="" type="checkbox"/> No / MeOH TBA												If preservation required by Login: Date/Time	
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: <b>2.3M</b> °C Bottles Received: <b>36</b>												Hold:	
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) 		Date: <b>5-4-17</b> Time: <b>0845</b>												Condition: NCF 	

<b>CH2M Hill- Kinder Morgan- Atlanta, GA</b> 6600 Peachtree Dunwoody Road		Billing Information: <b>Accounts Payable</b> 1000 Windward Concourse Ste 450 Alpharetta, GA 30005		Pres Chk		Analysis / Container / Preservative										Chain of Custody Page 2 of 2  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12055 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 							
Report to: <b>Bethany Garvey</b>		Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;																					
Project Description: <b>Lewis Drive Groundwater</b>		City/State Collected: <b>Belton, SC</b>																					
Phone: <b>770-604-9182</b> Fax:		Client Project # <b>684910.LD.MR.GW</b>		Lab Project # <b>KINCH2MGA-LEWIS12</b>												L #							
Collected by (print): 		Site/Facility ID # <b>Lewis Drive</b>		P.O. #												Table #							
Collected by (signature): 		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Quote #												Acctnum: <b>KINCH2MGA</b> Template: <b>T121318</b> Prelogin: <b>P597914</b> TSR: <b>526 - Chris McCord</b> <b>4-20-17</b> Shipped Via: <b>FedEX Ground</b>							
Immediately Packed on ice <input type="checkbox"/> N <input checked="" type="checkbox"/> X		Date Results Needed		No. of Cntrs												Remarks Sample # (lab only)							
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs											Remarks	Sample # (lab only)					
MW-38-050317	GRAB	GW	NA	5/3/17	1530	3	X																
FB-01-050317	GRAB	GW	NA	5/3/17	1615	3	X											Field Blank					
		GW				3	X																
		GW				3	X																
TRIP BLANK TB-01-050317 grab		GW	N/A	5/3/17	0925	1		X											trip blank				
TRIP BLANK TB-01-050317 grab		GW	N/A	5/3/17	0925	1		X											trip blank				
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other		Remarks:		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking # <b>7283 8333 6234</b>		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N COC Signed/Accurate: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Bottles arrive intact: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Correct bottles used: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Sufficient volume sent: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N If Applicable VOA Zero Headpace: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Preservation Correct/Checked: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N													
Relinquished by: (Signature) 		Date: <b>5/3/17</b>		Time: <b>1745</b>		Received by: (Signature)		Trip Blank Received: (Yes/No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> MeOH <input type="checkbox"/> TBR												If preservation required by Login: Date/Time			
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: _____ °C Bottles Received:												Hold:			
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) 		Date: <b>5-4-17</b>		Time: <b>0845</b>												Condition: <input checked="" type="checkbox"/> OK <input type="checkbox"/> N	



**ESC Lab Sciences**  
**Non-Conformance Form**

<b>Login #:</b> L906930	<b>Client:</b> KINCH2MGA	<b>Date:</b> 5/4/17	<b>Evaluated by:</b> Troy Dunlap
-------------------------	--------------------------	---------------------	----------------------------------

**Non-Conformance (check applicable items)**

Sample Integrity		Chain of Custody Clarification	
Parameter(s) past holding time	X	Login Clarification Needed	<b>If Broken Container:</b>
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 / Courier)
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.	<b>If no Chain of Custody:</b>
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: COC has MW-25-050317 list twice on the COC. One with time 1430 and one with time 1450. One of the sets are labeled as MW-35-050317 at 1450. Logged per COC for now.**

<b>Client informed by:</b>	Call	Email	X	Voice Mail	<b>Date:</b> 5/5/17	<b>Time:</b> 0915
<b>TSR Initials:</b> JCR	<b>Client Contact:</b> Bethany Garvey					

**Login Instructions:**

Log per containers as MW-35-050317 collected at 1450

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.

May 15, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L907387  
Samples Received: 05/05/2017  
Project Number: 684910.LDMR.GW  
Description: Lewis Drive Groundwater  
Site: LEWIS DRIVE  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
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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Gl: Glossary of Terms	10	<sup>7</sup> Gl
Al: Accreditations & Locations	11	
Sc: Chain of Custody	12	<sup>8</sup> Al
		<sup>9</sup> Sc

# SAMPLE SUMMARY

MW-30-050417 L907387-01 GW

Collected by JM / MW  
Collected date/time 05/04/17 14:25  
Received date/time 05/05/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 22:30	05/10/17 22:30	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	10	05/14/17 19:28	05/14/17 19:28	JAH

TB-02-050417 L907387-02 GW

Collected by JM / MW  
Collected date/time 05/04/17 10:45  
Received date/time 05/05/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG979021	1	05/12/17 05:14	05/12/17 05:14	JAH

FB-01-050417 L907387-03 GW

Collected by JM / MW  
Collected date/time 05/04/17 14:40  
Received date/time 05/05/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG978200	1	05/10/17 22:47	05/10/17 22:47	ACG

- 1 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.

Chris McCord  
 Technical Service Representative

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	104		1.00	1	05/10/2017 22:30	WG978200
Toluene	341		10.0	10	05/14/2017 19:28	WG978200
Ethylbenzene	3.98		1.00	1	05/10/2017 22:30	WG978200
Total Xylenes	161		3.00	1	05/10/2017 22:30	WG978200
Methyl tert-butyl ether	ND		1.00	1	05/10/2017 22:30	WG978200
Naphthalene	ND		5.00	1	05/10/2017 22:30	WG978200
1,2-Dichloroethane	ND		1.00	1	05/10/2017 22:30	WG978200
(S) Toluene-d8	100		80.0-120		05/10/2017 22:30	WG978200
(S) Toluene-d8	108		80.0-120		05/14/2017 19:28	WG978200
(S) Dibromofluoromethane	100		76.0-123		05/10/2017 22:30	WG978200
(S) Dibromofluoromethane	103		76.0-123		05/14/2017 19:28	WG978200
(S) 4-Bromofluorobenzene	101		80.0-120		05/14/2017 19:28	WG978200
(S) 4-Bromofluorobenzene	106		80.0-120		05/10/2017 22:30	WG978200

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/12/2017 05:14	WG979021
Toluene	ND		1.00	1	05/12/2017 05:14	WG979021
Ethylbenzene	ND		1.00	1	05/12/2017 05:14	WG979021
Total Xylenes	ND		3.00	1	05/12/2017 05:14	WG979021
Methyl tert-butyl ether	ND		1.00	1	05/12/2017 05:14	WG979021
Naphthalene	ND		5.00	1	05/12/2017 05:14	WG979021
1,2-Dichloroethane	ND		1.00	1	05/12/2017 05:14	WG979021
(S) Toluene-d8	100		80.0-120		05/12/2017 05:14	WG979021
(S) Dibromofluoromethane	94.8		76.0-123		05/12/2017 05:14	WG979021
(S) 4-Bromofluorobenzene	102		80.0-120		05/12/2017 05:14	WG979021

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/10/2017 22:47	WG978200
Toluene	ND		1.00	1	05/10/2017 22:47	WG978200
Ethylbenzene	ND		1.00	1	05/10/2017 22:47	WG978200
Total Xylenes	ND		3.00	1	05/10/2017 22:47	WG978200
Methyl tert-butyl ether	ND		1.00	1	05/10/2017 22:47	WG978200
Naphthalene	ND		5.00	1	05/10/2017 22:47	WG978200
1,2-Dichloroethane	ND		1.00	1	05/10/2017 22:47	WG978200
(S) Toluene-d8	101		80.0-120		05/10/2017 22:47	WG978200
(S) Dibromofluoromethane	94.7		76.0-123		05/10/2017 22:47	WG978200
(S) 4-Bromofluorobenzene	109		80.0-120		05/10/2017 22:47	WG978200

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



WG978200

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

QUALITY CONTROL SUMMARY

L907387-01.03

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3217831-2 05/10/17 14:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			80.0-120
(S) Dibromofluoromethane	94.3			76.0-123
(S) 4-Bromofluorobenzene	109			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3217831-1 05/10/17 13:27 • (LCSD) R3217831-3 05/10/17 15:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	20.7	19.5	82.8	78.2	70.0-130			5.75	20
1,2-Dichloroethane	25.0	21.8	20.9	87.2	83.5	70.0-130			4.38	20
Ethylbenzene	25.0	25.2	24.3	101	97.3	70.0-130			3.53	20
Methyl tert-butyl ether	25.0	21.4	20.8	85.7	83.2	70.0-130			2.89	20
Naphthalene	25.0	20.1	19.1	80.4	76.3	70.0-130			5.19	20
Toluene	25.0	21.7	21.0	86.8	84.0	70.0-130			3.24	20
Xylenes, Total	75.0	71.8	71.4	95.7	95.2	70.0-130			0.560	20
(S) Toluene-d8				103	104	80.0-120				
(S) Dibromofluoromethane				96.7	93.4	76.0-123				
(S) 4-Bromofluorobenzene				108	110	80.0-120				

7 Gl

8 Al

9 Sc

WG979021

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

QUALITY CONTROL SUMMARY

L907387-02

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3217570-2 05/11/17 22:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			80.0-120
(S) Dibromofluoromethane	94.9			76.0-123
(S) 4-Bromofluorobenzene	103			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3217570-1 05/11/17 21:55 • (LCSD) R3217570-3 05/11/17 23:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	19.8	18.8	79.2	75.0	70.0-130			5.40	20
1,2-Dichloroethane	25.0	20.1	19.2	80.3	76.6	70.0-130			4.60	20
Ethylbenzene	25.0	24.1	22.6	96.4	90.5	70.0-130			6.31	20
Methyl tert-butyl ether	25.0	20.6	20.5	82.3	82.1	70.0-130			0.310	20
Naphthalene	25.0	21.5	19.4	85.8	77.5	70.0-130			10.2	20
Toluene	25.0	21.6	20.5	86.5	81.8	70.0-130			5.60	20
Xylenes, Total	75.0	72.5	68.3	96.7	91.1	70.0-130			5.97	20
(S) Toluene-d8				100	99.3	80.0-120				
(S) Dibromofluoromethane				95.3	94.7	76.0-123				
(S) 4-Bromofluorobenzene				100	100	80.0-120				

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.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
-----------	-------------

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





July 10, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L919525  
Samples Received: 06/29/2017  
Project Number: 684910.LD.MP.GW  
Description: Lewis Drive Site  
Site: LEWIS DRIVE  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
Technical Service Representative

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



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<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc



# SAMPLE SUMMARY



MW-29-062817 L919525-01 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 09:45	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/06/17 22:34	07/06/17 22:34	ACG			
MW-26B-062817 L919525-02 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 09:50	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/06/17 22:52	07/06/17 22:52	ACG			
MW-26-062817 L919525-03 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 09:55	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/06/17 23:10	07/06/17 23:10	ACG			
MW-45B-062817 L919525-04 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 10:12	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/06/17 23:29	07/06/17 23:29	ACG			
MW-23B-062817 L919525-05 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 10:20	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/06/17 23:47	07/06/17 23:47	ACG			
MW-23-062817 L919525-06 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 10:28	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	10	07/07/17 00:05	07/07/17 00:05	ACG			
MW-21-062817 L919525-07 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 10:37	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 00:23	07/07/17 00:23	ACG			
MW-21-062817-FD L919525-08 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 10:40	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 00:41	07/07/17 00:41	ACG			

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

# SAMPLE SUMMARY



## MW-11-062817 L919525-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 10:50      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	100	07/07/17 00:59	07/07/17 00:59	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1000	07/07/17 16:05	07/07/17 16:05	LRL

1  
Cp

2  
Tc

3  
Ss

## MW-27B-062817 L919525-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 11:05      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 01:17	07/07/17 01:17	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 16:29	07/07/17 16:29	LRL

4  
Cn

5  
Sr

6  
Qc

## MW-27-062817 L919525-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 11:10      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 01:35	07/07/17 01:35	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 16:52	07/07/17 16:52	LRL

7  
Gl

8  
Al

9  
Sc

## MW-01-062817 L919525-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 11:20      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 01:53	07/07/17 01:53	ACG

## MW-01B-062817 L919525-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 11:25      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 02:12	07/07/17 02:12	ACG

## MW-01B-062817-FD L919525-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 11:30      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 02:30	07/07/17 02:30	ACG

## MW-44B-062817 L919525-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 11:45      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	1	07/07/17 02:48	07/07/17 02:48	ACG

## MW-15B-062817 L919525-16 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by JM/MW/MS      Collected date/time 06/28/17 12:42      Received date/time 06/29/17 08:45					
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	100	07/07/17 03:06	07/07/17 03:06	ACG

# SAMPLE SUMMARY



Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
MW-15-062817 L919525-17 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 12:50	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996024	25	07/07/17 03:24	07/07/17 03:24	ACG
MW-34-062817 L919525-18 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 13:02	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/06/17 16:25	07/06/17 16:25	JAH
MW-39-062817 L919525-19 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 13:08	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	100	07/09/17 15:50	07/09/17 15:50	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	20	07/06/17 16:42	07/06/17 16:42	JAH
MW-40-062817 L919525-20 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 13:17	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	500	07/06/17 16:58	07/06/17 16:58	JAH
MW-41-062817 L919525-21 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 13:25	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/06/17 17:15	07/06/17 17:15	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	10	07/09/17 16:14	07/09/17 16:14	ACG
MW-42-062817 L919525-22 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 13:34	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/06/17 20:49	07/06/17 20:49	JAH
MW-25-062817 L919525-23 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 13:41	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	10	07/06/17 21:05	07/06/17 21:05	JAH
MW-25B-062817 L919525-24 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 13:48	Received date/time 06/29/17 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/06/17 21:22	07/06/17 21:22	JAH

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

# SAMPLE SUMMARY



MW-35-062817 L919525-25 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 13:55	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/06/17 21:39	07/06/17 21:39	JAH			
MW-28-062817 L919525-26 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 14:01	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/06/17 21:56	07/06/17 21:56	JAH			
MW-12-062817 L919525-27 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 14:10	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	50	07/09/17 16:38	07/09/17 16:38	ACG			
MW-12B-062817 L919525-28 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 14:14	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/09/17 17:10	07/09/17 17:10	ACG			
MW-24B-062817 L919525-29 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 15:02	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/09/17 17:34	07/09/17 17:34	ACG			
MW-24-062817 L919525-30 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 15:09	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/09/17 17:57	07/09/17 17:57	ACG			
MW-38-062817 L919525-31 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 15:19	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/09/17 18:21	07/09/17 18:21	ACG			
MW-37-062817 L919525-32 GW						Collected by JM/MW/MS	Collected date/time 06/28/17 15:31	Received date/time 06/29/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/07/17 01:12	07/07/17 01:12	JAH			

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

# SAMPLE SUMMARY



Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
MW-13B-062817 L919525-33 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 15:46	Received date/time 06/29/17 08:45
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/07/17 01:47	07/07/17 01:47	JAH
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	10	07/09/17 18:44	07/09/17 18:44	ACG
MW-14B-062817 L919525-34 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 15:58	Received date/time 06/29/17 08:45
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/07/17 02:10	07/07/17 02:10	JAH
MW-14-062817 L919525-35 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 16:01	Received date/time 06/29/17 08:45
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/07/17 02:27	07/07/17 02:27	JAH
MW-31-062817 L919525-36 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 16:15	Received date/time 06/29/17 08:45
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996036	1	07/07/17 02:44	07/07/17 02:44	JAH
MW-17B-062817 L919525-37 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 16:26	Received date/time 06/29/17 08:45
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	200	07/09/17 03:03	07/09/17 03:03	BMB
TB-01-062817 L919525-38 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 17:03	Received date/time 06/29/17 08:45
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 02:38	07/09/17 02:38	BMB
FB-01-062817 L919525-39 GW					
			Collected by JM/MW/MS	Collected date/time 06/28/17 16:58	Received date/time 06/29/17 08:45
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 03:27	07/09/17 03:27	BMB

- 1 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.

Chris McCord  
 Technical Service Representative

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/06/2017 22:34	WG996024
Toluene	ND		1.00	1	07/06/2017 22:34	WG996024
Ethylbenzene	ND		1.00	1	07/06/2017 22:34	WG996024
Total Xylenes	ND		3.00	1	07/06/2017 22:34	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 22:34	WG996024
Naphthalene	ND		5.00	1	07/06/2017 22:34	WG996024
1,2-Dichloroethane	ND		1.00	1	07/06/2017 22:34	WG996024
(S) Toluene-d8	104		80.0-120		07/06/2017 22:34	WG996024
(S) Dibromofluoromethane	91.1		76.0-123		07/06/2017 22:34	WG996024
(S) 4-Bromofluorobenzene	91.2		80.0-120		07/06/2017 22:34	WG996024

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/06/2017 22:52	WG996024
Toluene	ND		1.00	1	07/06/2017 22:52	WG996024
Ethylbenzene	ND		1.00	1	07/06/2017 22:52	WG996024
Total Xylenes	ND		3.00	1	07/06/2017 22:52	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 22:52	WG996024
Naphthalene	ND		5.00	1	07/06/2017 22:52	WG996024
1,2-Dichloroethane	ND		1.00	1	07/06/2017 22:52	WG996024
(S) Toluene-d8	105		80.0-120		07/06/2017 22:52	WG996024
(S) Dibromofluoromethane	91.1		76.0-123		07/06/2017 22:52	WG996024
(S) 4-Bromofluorobenzene	92.9		80.0-120		07/06/2017 22:52	WG996024

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/06/2017 23:10	WG996024
Toluene	ND		1.00	1	07/06/2017 23:10	WG996024
Ethylbenzene	ND		1.00	1	07/06/2017 23:10	WG996024
Total Xylenes	ND		3.00	1	07/06/2017 23:10	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 23:10	WG996024
Naphthalene	ND		5.00	1	07/06/2017 23:10	WG996024
1,2-Dichloroethane	ND		1.00	1	07/06/2017 23:10	WG996024
(S) Toluene-d8	104		80.0-120		07/06/2017 23:10	WG996024
(S) Dibromofluoromethane	91.7		76.0-123		07/06/2017 23:10	WG996024
(S) 4-Bromofluorobenzene	91.2		80.0-120		07/06/2017 23:10	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/06/2017 23:29	WG996024
Toluene	1.73		1.00	1	07/06/2017 23:29	WG996024
Ethylbenzene	ND		1.00	1	07/06/2017 23:29	WG996024
Total Xylenes	ND		3.00	1	07/06/2017 23:29	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 23:29	WG996024
Naphthalene	ND		5.00	1	07/06/2017 23:29	WG996024
1,2-Dichloroethane	ND		1.00	1	07/06/2017 23:29	WG996024
(S) Toluene-d8	105		80.0-120		07/06/2017 23:29	WG996024
(S) Dibromofluoromethane	91.9		76.0-123		07/06/2017 23:29	WG996024
(S) 4-Bromofluorobenzene	91.3		80.0-120		07/06/2017 23:29	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/06/2017 23:47	WG996024
Toluene	1.73		1.00	1	07/06/2017 23:47	WG996024
Ethylbenzene	ND		1.00	1	07/06/2017 23:47	WG996024
Total Xylenes	6.20		3.00	1	07/06/2017 23:47	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 23:47	WG996024
Naphthalene	ND		5.00	1	07/06/2017 23:47	WG996024
1,2-Dichloroethane	ND		1.00	1	07/06/2017 23:47	WG996024
(S) Toluene-d8	104		80.0-120		07/06/2017 23:47	WG996024
(S) Dibromofluoromethane	91.5		76.0-123		07/06/2017 23:47	WG996024
(S) 4-Bromofluorobenzene	90.8		80.0-120		07/06/2017 23:47	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	131		10.0	10	07/07/2017 00:05	WG996024
Toluene	ND		10.0	10	07/07/2017 00:05	WG996024
Ethylbenzene	ND		10.0	10	07/07/2017 00:05	WG996024
Total Xylenes	117		30.0	10	07/07/2017 00:05	WG996024
Methyl tert-butyl ether	19.1		10.0	10	07/07/2017 00:05	WG996024
Naphthalene	ND		50.0	10	07/07/2017 00:05	WG996024
1,2-Dichloroethane	ND		10.0	10	07/07/2017 00:05	WG996024
(S) Toluene-d8	105		80.0-120		07/07/2017 00:05	WG996024
(S) Dibromofluoromethane	90.4		76.0-123		07/07/2017 00:05	WG996024
(S) 4-Bromofluorobenzene	91.2		80.0-120		07/07/2017 00:05	WG996024

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 00:23	WG996024
Toluene	ND		1.00	1	07/07/2017 00:23	WG996024
Ethylbenzene	ND		1.00	1	07/07/2017 00:23	WG996024
Total Xylenes	ND		3.00	1	07/07/2017 00:23	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 00:23	WG996024
Naphthalene	ND		5.00	1	07/07/2017 00:23	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 00:23	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 00:23	WG996024
(S) Dibromofluoromethane	90.5		76.0-123		07/07/2017 00:23	WG996024
(S) 4-Bromofluorobenzene	93.1		80.0-120		07/07/2017 00:23	WG996024

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 00:41	WG996024
Toluene	ND		1.00	1	07/07/2017 00:41	WG996024
Ethylbenzene	ND		1.00	1	07/07/2017 00:41	WG996024
Total Xylenes	ND		3.00	1	07/07/2017 00:41	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 00:41	WG996024
Naphthalene	ND		5.00	1	07/07/2017 00:41	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 00:41	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 00:41	WG996024
(S) Dibromofluoromethane	91.0		76.0-123		07/07/2017 00:41	WG996024
(S) 4-Bromofluorobenzene	90.5		80.0-120		07/07/2017 00:41	WG996024

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	10900		100	100	07/07/2017 00:59	WG996024
Toluene	29600		1000	1000	07/07/2017 16:05	WG996024
Ethylbenzene	2140		100	100	07/07/2017 00:59	WG996024
Total Xylenes	11700		300	100	07/07/2017 00:59	WG996024
Methyl tert-butyl ether	147		100	100	07/07/2017 00:59	WG996024
Naphthalene	ND		500	100	07/07/2017 00:59	WG996024
1,2-Dichloroethane	ND		100	100	07/07/2017 00:59	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 16:05	WG996024
(S) Toluene-d8	105		80.0-120		07/07/2017 00:59	WG996024
(S) Dibromofluoromethane	88.5		76.0-123		07/07/2017 00:59	WG996024
(S) Dibromofluoromethane	91.8		76.0-123		07/07/2017 16:05	WG996024
(S) 4-Bromofluorobenzene	106		80.0-120		07/07/2017 16:05	WG996024
(S) 4-Bromofluorobenzene	92.3		80.0-120		07/07/2017 00:59	WG996024

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

Sample Narrative:

L919525-09 WG996024: Targets and Non-target compounds too high to run at a lower dilution.



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 01:17	WG996024
Toluene	4.04		1.00	1	07/07/2017 16:29	WG996024
Ethylbenzene	4.04		1.00	1	07/07/2017 01:17	WG996024
Total Xylenes	32.7		3.00	1	07/07/2017 01:17	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 01:17	WG996024
Naphthalene	6.09		5.00	1	07/07/2017 01:17	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 01:17	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 01:17	WG996024
(S) Toluene-d8	98.7		80.0-120		07/07/2017 16:29	WG996024
(S) Dibromofluoromethane	90.8		76.0-123		07/07/2017 16:29	WG996024
(S) Dibromofluoromethane	92.4		76.0-123		07/07/2017 01:17	WG996024
(S) 4-Bromofluorobenzene	109		80.0-120		07/07/2017 16:29	WG996024
(S) 4-Bromofluorobenzene	91.8		80.0-120		07/07/2017 01:17	WG996024

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	2.69		1.00	1	07/07/2017 01:35	WG996024
Toluene	3.88		1.00	1	07/07/2017 16:52	WG996024
Ethylbenzene	4.06		1.00	1	07/07/2017 01:35	WG996024
Total Xylenes	35.9		3.00	1	07/07/2017 01:35	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 01:35	WG996024
Naphthalene	ND		5.00	1	07/07/2017 01:35	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 01:35	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 01:35	WG996024
(S) Toluene-d8	102		80.0-120		07/07/2017 16:52	WG996024
(S) Dibromofluoromethane	90.2		76.0-123		07/07/2017 01:35	WG996024
(S) Dibromofluoromethane	92.4		76.0-123		07/07/2017 16:52	WG996024
(S) 4-Bromofluorobenzene	92.3		80.0-120		07/07/2017 01:35	WG996024
(S) 4-Bromofluorobenzene	108		80.0-120		07/07/2017 16:52	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 01:53	WG996024
Toluene	ND		1.00	1	07/07/2017 01:53	WG996024
Ethylbenzene	ND		1.00	1	07/07/2017 01:53	WG996024
Total Xylenes	ND		3.00	1	07/07/2017 01:53	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 01:53	WG996024
Naphthalene	ND		5.00	1	07/07/2017 01:53	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 01:53	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 01:53	WG996024
(S) Dibromofluoromethane	90.3		76.0-123		07/07/2017 01:53	WG996024
(S) 4-Bromofluorobenzene	91.9		80.0-120		07/07/2017 01:53	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 02:12	WG996024
Toluene	ND		1.00	1	07/07/2017 02:12	WG996024
Ethylbenzene	ND		1.00	1	07/07/2017 02:12	WG996024
Total Xylenes	ND		3.00	1	07/07/2017 02:12	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 02:12	WG996024
Naphthalene	ND		5.00	1	07/07/2017 02:12	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 02:12	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 02:12	WG996024
(S) Dibromofluoromethane	99.2		76.0-123		07/07/2017 02:12	WG996024
(S) 4-Bromofluorobenzene	92.2		80.0-120		07/07/2017 02:12	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 02:30	WG996024
Toluene	ND		1.00	1	07/07/2017 02:30	WG996024
Ethylbenzene	ND		1.00	1	07/07/2017 02:30	WG996024
Total Xylenes	ND		3.00	1	07/07/2017 02:30	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 02:30	WG996024
Naphthalene	ND		5.00	1	07/07/2017 02:30	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 02:30	WG996024
(S) Toluene-d8	105		80.0-120		07/07/2017 02:30	WG996024
(S) Dibromofluoromethane	98.3		76.0-123		07/07/2017 02:30	WG996024
(S) 4-Bromofluorobenzene	91.6		80.0-120		07/07/2017 02:30	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 02:48	WG996024
Toluene	2.39		1.00	1	07/07/2017 02:48	WG996024
Ethylbenzene	ND		1.00	1	07/07/2017 02:48	WG996024
Total Xylenes	ND		3.00	1	07/07/2017 02:48	WG996024
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 02:48	WG996024
Naphthalene	ND		5.00	1	07/07/2017 02:48	WG996024
1,2-Dichloroethane	ND		1.00	1	07/07/2017 02:48	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 02:48	WG996024
(S) Dibromofluoromethane	90.5		76.0-123		07/07/2017 02:48	WG996024
(S) 4-Bromofluorobenzene	91.8		80.0-120		07/07/2017 02:48	WG996024

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



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1510		100	100	07/07/2017 03:06	WG996024
Toluene	3520		100	100	07/07/2017 03:06	WG996024
Ethylbenzene	145		100	100	07/07/2017 03:06	WG996024
Total Xylenes	1280		300	100	07/07/2017 03:06	WG996024
Methyl tert-butyl ether	ND		100	100	07/07/2017 03:06	WG996024
Naphthalene	ND		500	100	07/07/2017 03:06	WG996024
1,2-Dichloroethane	ND		100	100	07/07/2017 03:06	WG996024
(S) Toluene-d8	105		80.0-120		07/07/2017 03:06	WG996024
(S) Dibromofluoromethane	90.2		76.0-123		07/07/2017 03:06	WG996024
(S) 4-Bromofluorobenzene	92.2		80.0-120		07/07/2017 03:06	WG996024

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	72.7		25.0	25	07/07/2017 03:24	WG996024
Toluene	28.8		25.0	25	07/07/2017 03:24	WG996024
Ethylbenzene	ND		25.0	25	07/07/2017 03:24	WG996024
Total Xylenes	110		75.0	25	07/07/2017 03:24	WG996024
Methyl tert-butyl ether	91.8		25.0	25	07/07/2017 03:24	WG996024
Naphthalene	ND		125	25	07/07/2017 03:24	WG996024
1,2-Dichloroethane	ND		25.0	25	07/07/2017 03:24	WG996024
(S) Toluene-d8	104		80.0-120		07/07/2017 03:24	WG996024
(S) Dibromofluoromethane	90.7		76.0-123		07/07/2017 03:24	WG996024
(S) 4-Bromofluorobenzene	92.5		80.0-120		07/07/2017 03:24	WG996024

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	167		1.00	1	07/06/2017 16:25	WG996036
Toluene	9.30		1.00	1	07/06/2017 16:25	WG996036
Ethylbenzene	4.59		1.00	1	07/06/2017 16:25	WG996036
Total Xylenes	39.2		3.00	1	07/06/2017 16:25	WG996036
Methyl tert-butyl ether	68.3		1.00	1	07/06/2017 16:25	WG996036
Naphthalene	ND		5.00	1	07/06/2017 16:25	WG996036
1,2-Dichloroethane	ND		1.00	1	07/06/2017 16:25	WG996036
(S) Toluene-d8	108		80.0-120		07/06/2017 16:25	WG996036
(S) Dibromofluoromethane	104		76.0-123		07/06/2017 16:25	WG996036
(S) 4-Bromofluorobenzene	103		80.0-120		07/06/2017 16:25	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	5470		100	100	07/09/2017 15:50	WG996036
Toluene	3360		20.0	20	07/06/2017 16:42	WG996036
Ethylbenzene	57.7		20.0	20	07/06/2017 16:42	WG996036
Total Xylenes	3900		60.0	20	07/06/2017 16:42	WG996036
Methyl tert-butyl ether	239		20.0	20	07/06/2017 16:42	WG996036
Naphthalene	ND		100	20	07/06/2017 16:42	WG996036
1,2-Dichloroethane	ND		20.0	20	07/06/2017 16:42	WG996036
(S) Toluene-d8	109		80.0-120		07/06/2017 16:42	WG996036
(S) Toluene-d8	98.2		80.0-120		07/09/2017 15:50	WG996036
(S) Dibromofluoromethane	97.2		76.0-123		07/09/2017 15:50	WG996036
(S) Dibromofluoromethane	106		76.0-123		07/06/2017 16:42	WG996036
(S) 4-Bromofluorobenzene	115		80.0-120		07/09/2017 15:50	WG996036
(S) 4-Bromofluorobenzene	98.4		80.0-120		07/06/2017 16:42	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	9250		500	500	07/06/2017 16:58	WG996036
Toluene	19200		500	500	07/06/2017 16:58	WG996036
Ethylbenzene	1030		500	500	07/06/2017 16:58	WG996036
Total Xylenes	6540		1500	500	07/06/2017 16:58	WG996036
Methyl tert-butyl ether	590		500	500	07/06/2017 16:58	WG996036
Naphthalene	ND		2500	500	07/06/2017 16:58	WG996036
1,2-Dichloroethane	ND		500	500	07/06/2017 16:58	WG996036
(S) Toluene-d8	106		80.0-120		07/06/2017 16:58	WG996036
(S) Dibromofluoromethane	105		76.0-123		07/06/2017 16:58	WG996036
(S) 4-Bromofluorobenzene	99.7		80.0-120		07/06/2017 16:58	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	292		10.0	10	07/09/2017 16:14	WG996036
Toluene	2.09		1.00	1	07/06/2017 17:15	WG996036
Ethylbenzene	8.83		1.00	1	07/06/2017 17:15	WG996036
Total Xylenes	271		3.00	1	07/06/2017 17:15	WG996036
Methyl tert-butyl ether	3.36		1.00	1	07/06/2017 17:15	WG996036
Naphthalene	13.3		5.00	1	07/06/2017 17:15	WG996036
1,2-Dichloroethane	ND		1.00	1	07/06/2017 17:15	WG996036
(S) Toluene-d8	101		80.0-120		07/09/2017 16:14	WG996036
(S) Toluene-d8	106		80.0-120		07/06/2017 17:15	WG996036
(S) Dibromofluoromethane	105		76.0-123		07/06/2017 17:15	WG996036
(S) Dibromofluoromethane	95.9		76.0-123		07/09/2017 16:14	WG996036
(S) 4-Bromofluorobenzene	101		80.0-120		07/06/2017 17:15	WG996036
(S) 4-Bromofluorobenzene	107		80.0-120		07/09/2017 16:14	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	15.1		1.00	1	07/06/2017 20:49	WG996036
Toluene	ND		1.00	1	07/06/2017 20:49	WG996036
Ethylbenzene	ND		1.00	1	07/06/2017 20:49	WG996036
Total Xylenes	11.7		3.00	1	07/06/2017 20:49	WG996036
Methyl tert-butyl ether	1.25		1.00	1	07/06/2017 20:49	WG996036
Naphthalene	ND		5.00	1	07/06/2017 20:49	WG996036
1,2-Dichloroethane	ND		1.00	1	07/06/2017 20:49	WG996036
(S) Toluene-d8	102		80.0-120		07/06/2017 20:49	WG996036
(S) Dibromofluoromethane	105		76.0-123		07/06/2017 20:49	WG996036
(S) 4-Bromofluorobenzene	96.7		80.0-120		07/06/2017 20:49	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	431		10.0	10	07/06/2017 21:05	WG996036
Toluene	ND		10.0	10	07/06/2017 21:05	WG996036
Ethylbenzene	34.8		10.0	10	07/06/2017 21:05	WG996036
Total Xylenes	520		30.0	10	07/06/2017 21:05	WG996036
Methyl tert-butyl ether	ND		10.0	10	07/06/2017 21:05	WG996036
Naphthalene	ND		50.0	10	07/06/2017 21:05	WG996036
1,2-Dichloroethane	ND		10.0	10	07/06/2017 21:05	WG996036
(S) Toluene-d8	105		80.0-120		07/06/2017 21:05	WG996036
(S) Dibromofluoromethane	102		76.0-123		07/06/2017 21:05	WG996036
(S) 4-Bromofluorobenzene	97.2		80.0-120		07/06/2017 21:05	WG996036

Sample Narrative:

L919525-23 WG996036: Non-target compounds too high to run at a lower dilution.

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/06/2017 21:22	WG996036
Toluene	ND		1.00	1	07/06/2017 21:22	WG996036
Ethylbenzene	ND		1.00	1	07/06/2017 21:22	WG996036
Total Xylenes	ND		3.00	1	07/06/2017 21:22	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 21:22	WG996036
Naphthalene	ND		5.00	1	07/06/2017 21:22	WG996036
1,2-Dichloroethane	ND		1.00	1	07/06/2017 21:22	WG996036
(S) Toluene-d8	107		80.0-120		07/06/2017 21:22	WG996036
(S) Dibromofluoromethane	105		76.0-123		07/06/2017 21:22	WG996036
(S) 4-Bromofluorobenzene	97.8		80.0-120		07/06/2017 21:22	WG996036

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/06/2017 21:39	WG996036
Toluene	ND		1.00	1	07/06/2017 21:39	WG996036
Ethylbenzene	ND		1.00	1	07/06/2017 21:39	WG996036
Total Xylenes	ND		3.00	1	07/06/2017 21:39	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 21:39	WG996036
Naphthalene	ND		5.00	1	07/06/2017 21:39	WG996036
1,2-Dichloroethane	ND		1.00	1	07/06/2017 21:39	WG996036
(S) Toluene-d8	104		80.0-120		07/06/2017 21:39	WG996036
(S) Dibromofluoromethane	106		76.0-123		07/06/2017 21:39	WG996036
(S) 4-Bromofluorobenzene	102		80.0-120		07/06/2017 21:39	WG996036

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	199		1.00	1	07/06/2017 21:56	WG996036
Toluene	108		1.00	1	07/06/2017 21:56	WG996036
Ethylbenzene	55.0		1.00	1	07/06/2017 21:56	WG996036
Total Xylenes	546		3.00	1	07/06/2017 21:56	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/06/2017 21:56	WG996036
Naphthalene	10.1		5.00	1	07/06/2017 21:56	WG996036
1,2-Dichloroethane	ND		1.00	1	07/06/2017 21:56	WG996036
(S) Toluene-d8	100		80.0-120		07/06/2017 21:56	WG996036
(S) Dibromofluoromethane	105		76.0-123		07/06/2017 21:56	WG996036
(S) 4-Bromofluorobenzene	96.3		80.0-120		07/06/2017 21:56	WG996036

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





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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1190		50.0	50	07/09/2017 16:38	WG996036
Toluene	7910		50.0	50	07/09/2017 16:38	WG996036
Ethylbenzene	467		50.0	50	07/09/2017 16:38	WG996036
Total Xylenes	5100		150	50	07/09/2017 16:38	WG996036
Methyl tert-butyl ether	ND		50.0	50	07/09/2017 16:38	WG996036
Naphthalene	ND		250	50	07/09/2017 16:38	WG996036
1,2-Dichloroethane	ND		50.0	50	07/09/2017 16:38	WG996036
(S) Toluene-d8	98.2		80.0-120		07/09/2017 16:38	WG996036
(S) Dibromofluoromethane	94.9		76.0-123		07/09/2017 16:38	WG996036
(S) 4-Bromofluorobenzene	111		80.0-120		07/09/2017 16:38	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	30.1		1.00	1	07/09/2017 17:10	WG996036
Toluene	7.28		1.00	1	07/09/2017 17:10	WG996036
Ethylbenzene	ND		1.00	1	07/09/2017 17:10	WG996036
Total Xylenes	14.3		3.00	1	07/09/2017 17:10	WG996036
Methyl tert-butyl ether	11.8		1.00	1	07/09/2017 17:10	WG996036
Naphthalene	ND		5.00	1	07/09/2017 17:10	WG996036
1,2-Dichloroethane	ND		1.00	1	07/09/2017 17:10	WG996036
(S) Toluene-d8	107		80.0-120		07/09/2017 17:10	WG996036
(S) Dibromofluoromethane	95.6		76.0-123		07/09/2017 17:10	WG996036
(S) 4-Bromofluorobenzene	114		80.0-120		07/09/2017 17:10	WG996036

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	28.9		1.00	1	07/09/2017 17:34	WG996036
Toluene	1.77		1.00	1	07/09/2017 17:34	WG996036
Ethylbenzene	3.89		1.00	1	07/09/2017 17:34	WG996036
Total Xylenes	20.7		3.00	1	07/09/2017 17:34	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 17:34	WG996036
Naphthalene	ND		5.00	1	07/09/2017 17:34	WG996036
1,2-Dichloroethane	ND		1.00	1	07/09/2017 17:34	WG996036
(S) Toluene-d8	98.2		80.0-120		07/09/2017 17:34	WG996036
(S) Dibromofluoromethane	99.7		76.0-123		07/09/2017 17:34	WG996036
(S) 4-Bromofluorobenzene	107		80.0-120		07/09/2017 17:34	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	28.8		1.00	1	07/09/2017 17:57	WG996036
Toluene	1.70		1.00	1	07/09/2017 17:57	WG996036
Ethylbenzene	3.96		1.00	1	07/09/2017 17:57	WG996036
Total Xylenes	22.2		3.00	1	07/09/2017 17:57	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 17:57	WG996036
Naphthalene	ND		5.00	1	07/09/2017 17:57	WG996036
1,2-Dichloroethane	ND		1.00	1	07/09/2017 17:57	WG996036
(S) Toluene-d8	98.0		80.0-120		07/09/2017 17:57	WG996036
(S) Dibromofluoromethane	102		76.0-123		07/09/2017 17:57	WG996036
(S) 4-Bromofluorobenzene	105		80.0-120		07/09/2017 17:57	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	9.71		1.00	1	07/09/2017 18:21	WG996036
Toluene	ND		1.00	1	07/09/2017 18:21	WG996036
Ethylbenzene	1.17		1.00	1	07/09/2017 18:21	WG996036
Total Xylenes	6.63		3.00	1	07/09/2017 18:21	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 18:21	WG996036
Naphthalene	ND		5.00	1	07/09/2017 18:21	WG996036
1,2-Dichloroethane	ND		1.00	1	07/09/2017 18:21	WG996036
(S) Toluene-d8	98.9		80.0-120		07/09/2017 18:21	WG996036
(S) Dibromofluoromethane	105		76.0-123		07/09/2017 18:21	WG996036
(S) 4-Bromofluorobenzene	119		80.0-120		07/09/2017 18:21	WG996036

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 01:12	WG996036
Toluene	ND		1.00	1	07/07/2017 01:12	WG996036
Ethylbenzene	ND		1.00	1	07/07/2017 01:12	WG996036
Total Xylenes	ND		3.00	1	07/07/2017 01:12	WG996036
Methyl tert-butyl ether	1.44		1.00	1	07/07/2017 01:12	WG996036
Naphthalene	ND		5.00	1	07/07/2017 01:12	WG996036
1,2-Dichloroethane	ND		1.00	1	07/07/2017 01:12	WG996036
(S) Toluene-d8	105		80.0-120		07/07/2017 01:12	WG996036
(S) Dibromofluoromethane	104		76.0-123		07/07/2017 01:12	WG996036
(S) 4-Bromofluorobenzene	99.3		80.0-120		07/07/2017 01:12	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	308		10.0	10	07/09/2017 18:44	WG996036
Toluene	10.3		1.00	1	07/07/2017 01:47	WG996036
Ethylbenzene	3.09		1.00	1	07/07/2017 01:47	WG996036
Total Xylenes	103		3.00	1	07/07/2017 01:47	WG996036
Methyl tert-butyl ether	121		1.00	1	07/07/2017 01:47	WG996036
Naphthalene	5.13		5.00	1	07/07/2017 01:47	WG996036
1,2-Dichloroethane	ND		1.00	1	07/07/2017 01:47	WG996036
(S) Toluene-d8	98.6		80.0-120		07/09/2017 18:44	WG996036
(S) Toluene-d8	105		80.0-120		07/07/2017 01:47	WG996036
(S) Dibromofluoromethane	98.0		76.0-123		07/07/2017 01:47	WG996036
(S) Dibromofluoromethane	100		76.0-123		07/09/2017 18:44	WG996036
(S) 4-Bromofluorobenzene	99.4		80.0-120		07/07/2017 01:47	WG996036
(S) 4-Bromofluorobenzene	120		80.0-120		07/09/2017 18:44	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	38.1		1.00	1	07/07/2017 02:10	WG996036
Toluene	2.56		1.00	1	07/07/2017 02:10	WG996036
Ethylbenzene	1.34		1.00	1	07/07/2017 02:10	WG996036
Total Xylenes	19.1		3.00	1	07/07/2017 02:10	WG996036
Methyl tert-butyl ether	36.2		1.00	1	07/07/2017 02:10	WG996036
Naphthalene	ND		5.00	1	07/07/2017 02:10	WG996036
1,2-Dichloroethane	ND		1.00	1	07/07/2017 02:10	WG996036
(S) Toluene-d8	102		80.0-120		07/07/2017 02:10	WG996036
(S) Dibromofluoromethane	91.8		76.0-123		07/07/2017 02:10	WG996036
(S) 4-Bromofluorobenzene	101		80.0-120		07/07/2017 02:10	WG996036

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 02:27	WG996036
Toluene	ND		1.00	1	07/07/2017 02:27	WG996036
Ethylbenzene	ND		1.00	1	07/07/2017 02:27	WG996036
Total Xylenes	ND		3.00	1	07/07/2017 02:27	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 02:27	WG996036
Naphthalene	ND		5.00	1	07/07/2017 02:27	WG996036
1,2-Dichloroethane	ND		1.00	1	07/07/2017 02:27	WG996036
(S) Toluene-d8	105		80.0-120		07/07/2017 02:27	WG996036
(S) Dibromofluoromethane	106		76.0-123		07/07/2017 02:27	WG996036
(S) 4-Bromofluorobenzene	101		80.0-120		07/07/2017 02:27	WG996036

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/07/2017 02:44	WG996036
Toluene	ND		1.00	1	07/07/2017 02:44	WG996036
Ethylbenzene	ND		1.00	1	07/07/2017 02:44	WG996036
Total Xylenes	ND		3.00	1	07/07/2017 02:44	WG996036
Methyl tert-butyl ether	ND		1.00	1	07/07/2017 02:44	WG996036
Naphthalene	ND		5.00	1	07/07/2017 02:44	WG996036
1,2-Dichloroethane	ND		1.00	1	07/07/2017 02:44	WG996036
(S) Toluene-d8	104		80.0-120		07/07/2017 02:44	WG996036
(S) Dibromofluoromethane	106		76.0-123		07/07/2017 02:44	WG996036
(S) 4-Bromofluorobenzene	101		80.0-120		07/07/2017 02:44	WG996036

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



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	11200		200	200	07/09/2017 03:03	WG996820
Toluene	21600		200	200	07/09/2017 03:03	WG996820
Ethylbenzene	704		200	200	07/09/2017 03:03	WG996820
Total Xylenes	5650		600	200	07/09/2017 03:03	WG996820
Methyl tert-butyl ether	1150		200	200	07/09/2017 03:03	WG996820
Naphthalene	ND		1000	200	07/09/2017 03:03	WG996820
1,2-Dichloroethane	ND		200	200	07/09/2017 03:03	WG996820
(S) Toluene-d8	105		80.0-120		07/09/2017 03:03	WG996820
(S) Dibromofluoromethane	118		76.0-123		07/09/2017 03:03	WG996820
(S) 4-Bromofluorobenzene	112		80.0-120		07/09/2017 03:03	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 02:38	WG996820
Toluene	ND		1.00	1	07/09/2017 02:38	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 02:38	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 02:38	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 02:38	WG996820
Naphthalene	ND		5.00	1	07/09/2017 02:38	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 02:38	WG996820
(S) Toluene-d8	121	J1	80.0-120		07/09/2017 02:38	WG996820
(S) Dibromofluoromethane	119		76.0-123		07/09/2017 02:38	WG996820
(S) 4-Bromofluorobenzene	114		80.0-120		07/09/2017 02:38	WG996820

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 03:27	WG996820
Toluene	ND		1.00	1	07/09/2017 03:27	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 03:27	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 03:27	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 03:27	WG996820
Naphthalene	ND		5.00	1	07/09/2017 03:27	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 03:27	WG996820
(S) Toluene-d8	104		80.0-120		07/09/2017 03:27	WG996820
(S) Dibromofluoromethane	119		76.0-123		07/09/2017 03:27	WG996820
(S) 4-Bromofluorobenzene	111		80.0-120		07/09/2017 03:27	WG996820

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

WG996024

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

QUALITY CONTROL SUMMARY

L919525-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3231667-3 07/06/17 21:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	91.8			76.0-123
(S) 4-Bromofluorobenzene	93.9			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3231667-1 07/06/17 19:52 • (LCSD) R3231667-2 07/06/17 20:10

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	25.5	25.9	102	104	70.0-130			1.61	20
1,2-Dichloroethane	25.0	23.4	23.4	93.6	93.5	70.0-130			0.190	20
Ethylbenzene	25.0	27.7	27.8	111	111	70.0-130			0.400	20
Methyl tert-butyl ether	25.0	23.4	23.9	93.6	95.6	70.0-130			2.12	20
Naphthalene	25.0	21.8	22.0	87.0	87.8	70.0-130			0.920	20
Toluene	25.0	26.9	27.1	108	109	70.0-130			0.810	20
Xylenes, Total	75.0	82.7	82.8	110	110	70.0-130			0.120	20
(S) Toluene-d8				102	103	80.0-120				
(S) Dibromofluoromethane				90.5	92.8	76.0-123				
(S) 4-Bromofluorobenzene				89.8	89.2	80.0-120				

7 Gl

8 Al

9 Sc

WG996036

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



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

L919525-18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36

Method Blank (MB)

(MB) R3231474-2 07/06/17 12:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	108			76.0-123
(S) 4-Bromofluorobenzene	104			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3231474-1 07/06/17 11:56 • (LCSD) R3231474-3 07/06/17 13:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	23.8	21.3	95.0	85.4	70.0-130			10.7	20
1,2-Dichloroethane	25.0	23.7	22.2	94.8	88.9	70.0-130			6.39	20
Ethylbenzene	25.0	21.8	19.9	87.1	79.7	70.0-130			8.99	20
Methyl tert-butyl ether	25.0	24.6	23.1	98.4	92.3	70.0-130			6.36	20
Naphthalene	25.0	20.1	20.1	80.3	80.5	70.0-130			0.270	20
Toluene	25.0	20.8	19.0	83.3	76.1	70.0-130			9.07	20
Xylenes, Total	75.0	64.8	59.1	86.4	78.8	70.0-130			9.20	20
(S) Toluene-d8				102	103	80.0-120				
(S) Dibromofluoromethane				108	109	76.0-123				
(S) 4-Bromofluorobenzene				107	105	80.0-120				

7 Gl

8 Al

9 Sc

WG996820

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

QUALITY CONTROL SUMMARY

L919525-37,38,39

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3231845-2 07/09/17 02:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	120			76.0-123
(S) 4-Bromofluorobenzene	109			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3231845-1 07/09/17 01:25 • (LCSD) R3231845-3 07/09/17 12:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	26.6	25.3	107	101	70.0-130			5.14	20
1,2-Dichloroethane	25.0	26.4	24.7	106	98.8	70.0-130			6.76	20
Ethylbenzene	25.0	20.3	17.9	81.3	71.8	70.0-130			12.4	20
Methyl tert-butyl ether	25.0	26.9	24.0	107	95.8	70.0-130			11.4	20
Naphthalene	25.0	23.5	21.2	94.2	84.6	70.0-130			10.7	20
Toluene	25.0	22.6	20.8	90.5	83.2	70.0-130			8.37	20
Xylenes, Total	75.0	64.6	56.5	86.1	75.3	70.0-130			13.4	20
(S) Toluene-d8				106	105	80.0-120				
(S) Dibromofluoromethane				119	120	76.0-123				
(S) 4-Bromofluorobenzene				109	108	80.0-120				

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.
(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
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.  
 \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	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 <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	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-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> 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.**



**CH2M Hill- Kinder Morgan- Atlanta, GA**

6600 Peachtree Dunwoody Road

Report to:  
**Bethany Garvey**

Project Description: **Lewis Drive Groundwater**

Phone: **770-604-9182**  
Fax:

Collected by (print): **S. McLann**  
*M. Warner*  
*M. Simpson*

Collected by (signature):  
*Justine McLann*

Immediately  
Packed on Ice **N X Y**

Billing Information:  
**Accounts Payable**  
**1000 Windward Concourse**  
**Ste 450**  
**Alpharetta, GA 30005**

Email To: **bgarvey@ch2m.com;**  
**tom.wiley@ch2m.com; scott.powell@ch2m.com;**

City/State Collected: **Belton, SC**

Lab Project #  
**KINCH2MGA-LEWIS12**

P.O. #

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

V8260BTEXMNSC 40mlAmb-HCl  
V8260BTEXMNSC-TB 40mlAmb-HCl-BIK

Chain of Custody Page **1** of **4**



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



L# **L919525**

Tab **F085**

Accrnum: **KINCH2MGA**

Template: **T121318**

Prelogin: **P605956**

TSR: **526 - Chris McCord**

PB: **620-176**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Entrs	No. of	Remarks	Sample # (Lab only)
MW-29-062817	G	GW	NA	6/28/17	0945	3	X		01
MW-24B-062817		GW			0950	3	X		02
MW-26-062817		GW			0955	3	X		03
MW-45B-062817		GW			1012	3	X		04
MW-23B-062817		GW			1020	3	X		05
MW-23-062817		GW			1028	3	X		06
MW-21-062817		GW			1037	3	X		07
MW-21-062817-FD		GW			1040	3	X	field dup	08
MW-11-062817		GW			1050	3	X		09
MW-2TB-062817	∇	GW	∇	∇	1105	3	X		10

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:  
UPS  FedEx  Courier

Tracking # **7372 1960 6369**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
COC Seal Present/Intact:     
COC Signed/Accurate:     
Bottles arrive intact:     
Correct bottles used:     
Sufficient volume sent:     
If Applicable  
VGA Zero Headspace:     
Preservation Correct/Checked:

Relinquished by: (Signature) <i>Justine McLann</i>	Date: 6/28/17	Time: 1300	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCl/MeOH TBSP
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>17.5</b> °C Bottles Received: <b>1147TB</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 6/29/17
				Time: 0845
			Hold:	Condition: NCF / <input checked="" type="checkbox"/> OK

**CH2M Hill- Kinder Morgan- Atlanta, GA**

6600 Peachtree Dunwoody Road

Report to:  
**Bethany Garvey**

Billing Information:  
Accounts Payable  
1000 Windward Concourse  
Ste 450  
Alpharetta, GA 30005

Email To: bgarvey@ch2m.com;  
tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project  
Description: **Lewis Drive Groundwater**

City/State  
Collected: **Belton, SC**

Phone: **770-604-9182**  
Fax:

Client Project #  
**68491D.LD.MR.GW**

Lab Project #  
**KINCH2MGA-LEWIS12**

Collected by (print): **J. McClann  
M. Warren, M. Sumner**

Site/Facility ID #  
**Lewis Drive**

P.O. #

Collected by (signature):  
**Justine McClann**

Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

Immediately

Packed on Ice **N X Y**

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 4



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



L# **L919525**

Table #

Acctnum: **KINCH2MGA**

Template: **T121318**

Prelogin: **P605956**

TSR: **526 - Chris McCord**

PB: **6-20-17**

Shipped Via: **FedEX Ground**

Remarks Sample # (Lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres	Chk	Analysis / Container / Preservative	Remarks	Sample # (Lab only)
MW-27-062817	G	GW	N/A	6/28/17	1110	3	X		V8260BTEXMNSC 40miAmb-HCl		-11
MW-01-062817		GW			1120	3	X		V8260BTEXMNSC-TB 40miAmb-HCl-Bik		12
MW-01B-062817		GW			1125	3	X				13
MW-01B-062817A		GW			1130	3	X			field dup	14
MW-44B-062817		GW			1145	3	X				15
MW-15B-062817		GW			1242	3	X				16
MW-15-062817		GW			1250	3	X				17
MW-34-062817		GW			1302	3	X				18
MW-39-062817		GW			1308	3	X				19
MW-40-062817		GW			1317	3	X				20

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **Samen**

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VDA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  
**Justine McClann**

Date: **6/28/17**  
Time: **1800**

Received by: (Signature)

Trip Blank Received:  Yes  No  
**2** **MeOH**  
**7BR**

Relinquished by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: (Signature)

Temp: **17.5** °C  
**114+2TB HCL**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received for lab by: (Signature)

Date: **6/29/17**  
Time: **0845**

Hold: \_\_\_\_\_ Condition: **NCF / OK**

**CH2M Hill- Kinder Morgan- Atlanta, GA**  
 6600 Peachtree Dunwoody Road

Billing Information:  
**Accounts Payable**  
 1000 Windward Concourse  
 Ste 450  
 Alpharetta, GA 30005

Report to:  
**Bethany Garvey**

Email To: bgarvey@ch2m.com;  
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project  
 Description: **Lewis Drive Groundwater**

City/State  
 Collected: **Belton, SC**

Phone: **770-604-9182**  
 Fax:

Client Project #  
**684910-LD.MR.GW**

Lab Project #  
**KINCH2MGA-LEWIS12**

Collected by (print): **S. McLam**  
**M. Warren, M. Sumar**

Site/Facility ID #  
**Lewis Drive**

Collected by (signature):  
**Justine McLam**

P.O. #  
 Quote #

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed

Immediately  
 Packed on Ice

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	Analysis / Container / Preservative	Chain of Custody Page 3 of 4	
MW-41-062817	G	GW	N/A	6/28/17	1325	3	X	V8260BTEXMNSC-40miAmb-HCI	 YOUR LAB OF CHOICE 12065 Lebaron Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 L.A.B S.C.I.E.N.C.E.S QR Code L # Table # Acctnum: KINCH2MGA Template: T121318 Prelogin: P605956 TSR: 526 - Chris McCord PB: 6-20-17 Shipped Via: FedEX Ground Remarks Sample # (lab only)	
MW-42-062817		GW			1334	3	X	V8260BTEXMNSC-TB 40miAmb-HCI-BIK		21
MW-25-062817		GW			1341	3	X			22
MW-25B-062817		GW			1348	3	X			23
MW-35-062817		GW			1355	3	X			24
MW-28-062817		GW			1401	3	X			25
MW-12-062817		GW			1410	3	X			26
MW-12B-062817		GW			1414	3	X			27
MW-24B-062817		GW			1502	3	X			28
MW-24-062817		GW			1509	3	X			29
									30	

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 Samples returned via:  
 UPS  FedEx  Courier

Tracking # **Same**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) <b>Justine McLam</b>	Date: <b>6/28/17</b>	Time: <b>1800</b>	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>28</b> HCL/MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>1.7</b> °C Bottles Received: <b>11/4/20 HCL</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <b>B</b>	Date: <b>6/29/17</b> Time: <b>0845</b> Hold: Condition: NCF / OK

**CH2M Hill- Kinder Morgan- Atlanta, GA**

6600 Peachtree Dunwoody Road

Report to:  
**Bethany Garvey**

Project  
Description: **Lewis Drive Groundwater**

Phone: **770-604-9182**  
Fax:

Collected by (print): **J. McCann**  
**Melawren McSumner**

Collected by (signature):  
**Justine McCann**

Immediately  
Packed on Ice  Y  N

Billing Information:  
**Accounts Payable**  
1000 Windward Concourse  
Ste 450  
Alpharetta, GA 30005

Email To: **bgarvey@ch2m.com;**  
**tom.wiley@ch2m.com;** **scott.powell@ch2m.com;**

City/State  
Collected: **Belton, SC**

Lab Project #  
**KINCH2MGA-LEWIS12**

P.O. #

Quote #

Date Results Needed

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page **4** of **4**



**YOUR LAB OF CHOICE**  
12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-9858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# **L919525**

Table #

Acctnum: **KINCH2MGA**

Template: **T121318**

Prelogin: **P605956**

TSR: **526 - Chris McCord**

PB: **6-20-17**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Conrs	Pres	Chk	Analysis	Container	Preservative	Remarks	Sample # (lab only)
MW-38-062817	G	GW	N/A	6/28/17	1519	3	X						31
MW-37-062817		GW			1531	3	X						32
MW-13B-062817		GW			1546	3	X						33
MW-14B-062817		GW			1558	3	X						34
MW-14-062817		GW			1601	3	X						35
MW-31-062817		GW			1615	3	X						36
MW-17B-062817		GW			1626	3	X						37
TB-01-062817		GW			1703 <sup>2</sup>	3	X						38
FB-01-062817	✓	GW	✓	✓	1658	3	X						39
		GW				3	X						39

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - Waste Water  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **Some**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

**Sample Receipt Checklist**  
COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) <b>Justine McCann</b>	Date: <b>6/28/17</b>	Time: <b>1800</b>	Received by: (Signature) <b>[Signature]</b>	Trip Blank Received: (Yes/No) <b>2</b> (HCl/MeOH/TBR)	Temp: <b>1.7°C</b>	Bottles Received: <b>114+2TB HCL</b>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)				
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <b>[Signature]</b>	Date: <b>6/28/17</b>	Time: <b>0845</b>	Hold:	Condition: NCF <b>1 OK</b>



July 13, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L919841  
Samples Received: 06/30/2017  
Project Number: 684910.LD.MR.GW  
Description: Lewis Drive Site  
Site: LEWIS DR  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord  
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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MW-36B-062917-FD L919841-04	10
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MW-09-062917 L919841-06	12
MW-10-062917 L919841-07	13
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MW-02B-062917 L919841-10	16
MW-03-062917 L919841-11	17
MW-04-062917 L919841-12	18
MW-05-062917 L919841-13	19
MW-06-062917 L919841-14	20
MW-07-062917 L919841-15	21
MW-30-062917 L919841-16	22
MW-13-062917 L919841-17	23
MW-44-062917 L919841-18	24
TB-01-062917 L919841-19	25
FB-01-062917 L919841-20	26
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1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



# SAMPLE SUMMARY

MW-16-062917 L919841-01 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 10:55	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	500	07/09/17 03:52	07/09/17 03:52	BMB			
MW-36-062917 L919841-02 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 11:10	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/11/17 06:38	07/11/17 06:38	ACG			
MW-36B-062917 L919841-03 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 11:13	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 04:41	07/09/17 04:41	BMB			
MW-36B-062917-FD L919841-04 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 11:15	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 05:06	07/09/17 05:06	BMB			
MW-08-062917 L919841-05 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 11:30	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 05:30	07/09/17 05:30	BMB			
MW-09-062917 L919841-06 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 11:40	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	200	07/09/17 05:55	07/09/17 05:55	BMB			
MW-10-062917 L919841-07 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 11:45	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 06:20	07/09/17 06:20	BMB			
MW-32-062917 L919841-08 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 11:55	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 06:44	07/09/17 06:44	BMB			

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

# SAMPLE SUMMARY

MW-02-062917 L919841-09 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 13:15	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	250	07/09/17 07:08	07/09/17 07:08	BMB			
MW-02B-062917 L919841-10 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 13:20	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 07:32	07/09/17 07:32	BMB			
MW-03-062917 L919841-11 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 13:35	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 07:57	07/09/17 07:57	BMB			
MW-04-062917 L919841-12 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 13:40	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 08:21	07/09/17 08:21	BMB			
MW-05-062917 L919841-13 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 13:50	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 08:46	07/09/17 08:46	BMB			
MW-06-062917 L919841-14 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 14:17	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 09:11	07/09/17 09:11	BMB			
MW-07-062917 L919841-15 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 14:30	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	250	07/09/17 09:35	07/09/17 09:35	BMB			
MW-30-062917 L919841-16 GW						Collected by J.M. M.S. M.W.	Collected date/time 06/29/17 14:40	Received date/time 06/30/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Volatiles Organic Compounds (GC/MS) by Method 8260B	WG996820	25	07/09/17 09:59	07/09/17 09:59	BMB			

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

# SAMPLE SUMMARY

## MW-13-062917 L919841-17 GW

Collected by  
J.M. M.S. M.W.      Collected date/time  
06/29/17 14:50      Received date/time  
06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG996820	1	07/09/17 10:24	07/09/17 10:24	BMB

## MW-44-062917 L919841-18 GW

Collected by  
J.M. M.S. M.W.      Collected date/time  
06/29/17 15:00      Received date/time  
06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	1	07/12/17 05:52	07/12/17 05:52	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	1	07/12/17 18:18	07/12/17 18:18	BMB

## TB-01-062917 L919841-19 GW

Collected by  
J.M. M.S. M.W.      Collected date/time  
06/29/17 07:50      Received date/time  
06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	1	07/11/17 23:39	07/11/17 23:39	BMB

## FB-01-062917 L919841-20 GW

Collected by  
J.M. M.S. M.W.      Collected date/time  
06/29/17 07:40      Received date/time  
06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	1	07/12/17 06:15	07/12/17 06:15	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	1	07/12/17 18:38	07/12/17 18:38	BMB

## MW-45-062917 L919841-21 GW

Collected by  
J.M. M.S. M.W.      Collected date/time  
06/29/17 15:15      Received date/time  
06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	1	07/12/17 06:39	07/12/17 06:39	BMB

## MW-19-062917 L919841-22 GW

Collected by  
J.M. M.S. M.W.      Collected date/time  
06/29/17 15:25      Received date/time  
06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	200	07/12/17 07:02	07/12/17 07:02	BMB

## MW-22-062917 L919841-23 GW

Collected by  
J.M. M.S. M.W.      Collected date/time  
06/29/17 15:30      Received date/time  
06/30/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG997356	10	07/12/17 07:25	07/12/17 07:25	BMB

1 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.

Chris McCord  
 Technical Service Representative

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	12900		500	500	07/09/2017 03:52	WG996820
Toluene	36400		500	500	07/09/2017 03:52	WG996820
Ethylbenzene	1770		500	500	07/09/2017 03:52	WG996820
Total Xylenes	12500		1500	500	07/09/2017 03:52	WG996820
Methyl tert-butyl ether	1740		500	500	07/09/2017 03:52	WG996820
Naphthalene	ND		2500	500	07/09/2017 03:52	WG996820
1,2-Dichloroethane	ND		500	500	07/09/2017 03:52	WG996820
(S) Toluene-d8	105		80.0-120		07/09/2017 03:52	WG996820
(S) Dibromofluoromethane	119		76.0-123		07/09/2017 03:52	WG996820
(S) 4-Bromofluorobenzene	114		80.0-120		07/09/2017 03:52	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	2.11		1.00	1	07/11/2017 06:38	WG996820
Toluene	2.28		1.00	1	07/11/2017 06:38	WG996820
Ethylbenzene	ND		1.00	1	07/11/2017 06:38	WG996820
Total Xylenes	ND		3.00	1	07/11/2017 06:38	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/11/2017 06:38	WG996820
Naphthalene	ND		5.00	1	07/11/2017 06:38	WG996820
1,2-Dichloroethane	ND		1.00	1	07/11/2017 06:38	WG996820
(S) Toluene-d8	101		80.0-120		07/11/2017 06:38	WG996820
(S) Dibromofluoromethane	93.3		76.0-123		07/11/2017 06:38	WG996820
(S) 4-Bromofluorobenzene	109		80.0-120		07/11/2017 06:38	WG996820

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 04:41	WG996820
Toluene	ND		1.00	1	07/09/2017 04:41	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 04:41	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 04:41	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 04:41	WG996820
Naphthalene	ND		5.00	1	07/09/2017 04:41	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 04:41	WG996820
(S) Toluene-d8	102		80.0-120		07/09/2017 04:41	WG996820
(S) Dibromofluoromethane	121		76.0-123		07/09/2017 04:41	WG996820
(S) 4-Bromofluorobenzene	112		80.0-120		07/09/2017 04:41	WG996820

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 05:06	WG996820
Toluene	ND		1.00	1	07/09/2017 05:06	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 05:06	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 05:06	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 05:06	WG996820
Naphthalene	ND		5.00	1	07/09/2017 05:06	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 05:06	WG996820
(S) Toluene-d8	103		80.0-120		07/09/2017 05:06	WG996820
(S) Dibromofluoromethane	120		76.0-123		07/09/2017 05:06	WG996820
(S) 4-Bromofluorobenzene	110		80.0-120		07/09/2017 05:06	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 05:30	WG996820
Toluene	ND		1.00	1	07/09/2017 05:30	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 05:30	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 05:30	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 05:30	WG996820
Naphthalene	ND		5.00	1	07/09/2017 05:30	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 05:30	WG996820
(S) Toluene-d8	104		80.0-120		07/09/2017 05:30	WG996820
(S) Dibromofluoromethane	120		76.0-123		07/09/2017 05:30	WG996820
(S) 4-Bromofluorobenzene	111		80.0-120		07/09/2017 05:30	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	3860		200	200	07/09/2017 05:55	WG996820
Toluene	13000		200	200	07/09/2017 05:55	WG996820
Ethylbenzene	517		200	200	07/09/2017 05:55	WG996820
Total Xylenes	8680		600	200	07/09/2017 05:55	WG996820
Methyl tert-butyl ether	ND		200	200	07/09/2017 05:55	WG996820
Naphthalene	ND		1000	200	07/09/2017 05:55	WG996820
1,2-Dichloroethane	ND		200	200	07/09/2017 05:55	WG996820
(S) Toluene-d8	106		80.0-120		07/09/2017 05:55	WG996820
(S) Dibromofluoromethane	119		76.0-123		07/09/2017 05:55	WG996820
(S) 4-Bromofluorobenzene	111		80.0-120		07/09/2017 05:55	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 06:20	WG996820
Toluene	ND		1.00	1	07/09/2017 06:20	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 06:20	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 06:20	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 06:20	WG996820
Naphthalene	ND		5.00	1	07/09/2017 06:20	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 06:20	WG996820
(S) Toluene-d8	103		80.0-120		07/09/2017 06:20	WG996820
(S) Dibromofluoromethane	121		76.0-123		07/09/2017 06:20	WG996820
(S) 4-Bromofluorobenzene	110		80.0-120		07/09/2017 06:20	WG996820

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 06:44	WG996820
Toluene	ND		1.00	1	07/09/2017 06:44	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 06:44	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 06:44	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 06:44	WG996820
Naphthalene	ND		5.00	1	07/09/2017 06:44	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 06:44	WG996820
(S) Toluene-d8	104		80.0-120		07/09/2017 06:44	WG996820
(S) Dibromofluoromethane	122		76.0-123		07/09/2017 06:44	WG996820
(S) 4-Bromofluorobenzene	110		80.0-120		07/09/2017 06:44	WG996820

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



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	8040		250	250	07/09/2017 07:08	WG996820
Toluene	27100		250	250	07/09/2017 07:08	WG996820
Ethylbenzene	833		250	250	07/09/2017 07:08	WG996820
Total Xylenes	9890		750	250	07/09/2017 07:08	WG996820
Methyl tert-butyl ether	ND		250	250	07/09/2017 07:08	WG996820
Naphthalene	ND		1250	250	07/09/2017 07:08	WG996820
1,2-Dichloroethane	ND		250	250	07/09/2017 07:08	WG996820
(S) Toluene-d8	105		80.0-120		07/09/2017 07:08	WG996820
(S) Dibromofluoromethane	118		76.0-123		07/09/2017 07:08	WG996820
(S) 4-Bromofluorobenzene	113		80.0-120		07/09/2017 07:08	WG996820

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 07:32	WG996820
Toluene	ND		1.00	1	07/09/2017 07:32	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 07:32	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 07:32	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 07:32	WG996820
Naphthalene	ND		5.00	1	07/09/2017 07:32	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 07:32	WG996820
(S) Toluene-d8	103		80.0-120		07/09/2017 07:32	WG996820
(S) Dibromofluoromethane	121		76.0-123		07/09/2017 07:32	WG996820
(S) 4-Bromofluorobenzene	111		80.0-120		07/09/2017 07:32	WG996820

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



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	10.9		1.00	1	07/09/2017 07:57	WG996820
Toluene	24.6		1.00	1	07/09/2017 07:57	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 07:57	WG996820
Total Xylenes	6.98		3.00	1	07/09/2017 07:57	WG996820
Methyl tert-butyl ether	2.34		1.00	1	07/09/2017 07:57	WG996820
Naphthalene	ND		5.00	1	07/09/2017 07:57	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 07:57	WG996820
(S) Toluene-d8	103		80.0-120		07/09/2017 07:57	WG996820
(S) Dibromofluoromethane	121		76.0-123		07/09/2017 07:57	WG996820
(S) 4-Bromofluorobenzene	116		80.0-120		07/09/2017 07:57	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 08:21	WG996820
Toluene	ND		1.00	1	07/09/2017 08:21	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 08:21	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 08:21	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 08:21	WG996820
Naphthalene	ND		5.00	1	07/09/2017 08:21	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 08:21	WG996820
(S) Toluene-d8	104		80.0-120		07/09/2017 08:21	WG996820
(S) Dibromofluoromethane	120		76.0-123		07/09/2017 08:21	WG996820
(S) 4-Bromofluorobenzene	113		80.0-120		07/09/2017 08:21	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 08:46	WG996820
Toluene	ND		1.00	1	07/09/2017 08:46	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 08:46	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 08:46	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 08:46	WG996820
Naphthalene	ND		5.00	1	07/09/2017 08:46	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 08:46	WG996820
(S) Toluene-d8	104		80.0-120		07/09/2017 08:46	WG996820
(S) Dibromofluoromethane	121		76.0-123		07/09/2017 08:46	WG996820
(S) 4-Bromofluorobenzene	114		80.0-120		07/09/2017 08:46	WG996820

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/09/2017 09:11	WG996820
Toluene	ND		1.00	1	07/09/2017 09:11	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 09:11	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 09:11	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 09:11	WG996820
Naphthalene	ND		5.00	1	07/09/2017 09:11	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 09:11	WG996820
(S) Toluene-d8	104		80.0-120		07/09/2017 09:11	WG996820
(S) Dibromofluoromethane	122		76.0-123		07/09/2017 09:11	WG996820
(S) 4-Bromofluorobenzene	112		80.0-120		07/09/2017 09:11	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	4290		250	250	07/09/2017 09:35	WG996820
Toluene	17700		250	250	07/09/2017 09:35	WG996820
Ethylbenzene	629		250	250	07/09/2017 09:35	WG996820
Total Xylenes	4990		750	250	07/09/2017 09:35	WG996820
Methyl tert-butyl ether	ND		250	250	07/09/2017 09:35	WG996820
Naphthalene	ND		1250	250	07/09/2017 09:35	WG996820
1,2-Dichloroethane	ND		250	250	07/09/2017 09:35	WG996820
(S) Toluene-d8	106		80.0-120		07/09/2017 09:35	WG996820
(S) Dibromofluoromethane	118		76.0-123		07/09/2017 09:35	WG996820
(S) 4-Bromofluorobenzene	116		80.0-120		07/09/2017 09:35	WG996820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	646		25.0	25	07/09/2017 09:59	WG996820
Toluene	1630		25.0	25	07/09/2017 09:59	WG996820
Ethylbenzene	ND		25.0	25	07/09/2017 09:59	WG996820
Total Xylenes	736		75.0	25	07/09/2017 09:59	WG996820
Methyl tert-butyl ether	ND		25.0	25	07/09/2017 09:59	WG996820
Naphthalene	ND		125	25	07/09/2017 09:59	WG996820
1,2-Dichloroethane	ND		25.0	25	07/09/2017 09:59	WG996820
(S) Toluene-d8	105		80.0-120		07/09/2017 09:59	WG996820
(S) Dibromofluoromethane	119		76.0-123		07/09/2017 09:59	WG996820
(S) 4-Bromofluorobenzene	116		80.0-120		07/09/2017 09:59	WG996820

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	1.18		1.00	1	07/09/2017 10:24	WG996820
Toluene	3.39		1.00	1	07/09/2017 10:24	WG996820
Ethylbenzene	ND		1.00	1	07/09/2017 10:24	WG996820
Total Xylenes	ND		3.00	1	07/09/2017 10:24	WG996820
Methyl tert-butyl ether	ND		1.00	1	07/09/2017 10:24	WG996820
Naphthalene	ND		5.00	1	07/09/2017 10:24	WG996820
1,2-Dichloroethane	ND		1.00	1	07/09/2017 10:24	WG996820
(S) Toluene-d8	104		80.0-120		07/09/2017 10:24	WG996820
(S) Dibromofluoromethane	121		76.0-123		07/09/2017 10:24	WG996820
(S) 4-Bromofluorobenzene	113		80.0-120		07/09/2017 10:24	WG996820

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



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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1.06		1.00	1	07/12/2017 18:18	WG997356
Toluene	7.12		1.00	1	07/12/2017 05:52	WG997356
Ethylbenzene	ND		1.00	1	07/12/2017 05:52	WG997356
Total Xylenes	3.11		3.00	1	07/12/2017 05:52	WG997356
Methyl tert-butyl ether	ND		1.00	1	07/12/2017 05:52	WG997356
Naphthalene	ND		5.00	1	07/12/2017 18:18	WG997356
1,2-Dichloroethane	ND		1.00	1	07/12/2017 05:52	WG997356
(S) Toluene-d8	107		80.0-120		07/12/2017 18:18	WG997356
(S) Toluene-d8	106		80.0-120		07/12/2017 05:52	WG997356
(S) Dibromofluoromethane	105		76.0-123		07/12/2017 18:18	WG997356
(S) Dibromofluoromethane	97.2		76.0-123		07/12/2017 05:52	WG997356
(S) 4-Bromofluorobenzene	109		80.0-120		07/12/2017 05:52	WG997356
(S) 4-Bromofluorobenzene	106		80.0-120		07/12/2017 18:18	WG997356

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/11/2017 23:39	WG997356
Toluene	ND		1.00	1	07/11/2017 23:39	WG997356
Ethylbenzene	ND		1.00	1	07/11/2017 23:39	WG997356
Total Xylenes	ND		3.00	1	07/11/2017 23:39	WG997356
Methyl tert-butyl ether	ND		1.00	1	07/11/2017 23:39	WG997356
Naphthalene	ND		5.00	1	07/11/2017 23:39	WG997356
1,2-Dichloroethane	ND		1.00	1	07/11/2017 23:39	WG997356
(S) Toluene-d8	106		80.0-120		07/11/2017 23:39	WG997356
(S) Dibromofluoromethane	96.3		76.0-123		07/11/2017 23:39	WG997356
(S) 4-Bromofluorobenzene	114		80.0-120		07/11/2017 23:39	WG997356

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/12/2017 06:15	WG997356
Toluene	ND		1.00	1	07/12/2017 06:15	WG997356
Ethylbenzene	ND		1.00	1	07/12/2017 06:15	WG997356
Total Xylenes	ND		3.00	1	07/12/2017 06:15	WG997356
Methyl tert-butyl ether	ND		1.00	1	07/12/2017 06:15	WG997356
Naphthalene	ND		5.00	1	07/12/2017 18:38	WG997356
1,2-Dichloroethane	ND		1.00	1	07/12/2017 06:15	WG997356
(S) Toluene-d8	103		80.0-120		07/12/2017 06:15	WG997356
(S) Toluene-d8	108		80.0-120		07/12/2017 18:38	WG997356
(S) Dibromofluoromethane	96.3		76.0-123		07/12/2017 06:15	WG997356
(S) Dibromofluoromethane	105		76.0-123		07/12/2017 18:38	WG997356
(S) 4-Bromofluorobenzene	107		80.0-120		07/12/2017 18:38	WG997356
(S) 4-Bromofluorobenzene	110		80.0-120		07/12/2017 06:15	WG997356

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





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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/12/2017 06:39	WG997356
Toluene	ND		1.00	1	07/12/2017 06:39	WG997356
Ethylbenzene	ND		1.00	1	07/12/2017 06:39	WG997356
Total Xylenes	ND		3.00	1	07/12/2017 06:39	WG997356
Methyl tert-butyl ether	ND		1.00	1	07/12/2017 06:39	WG997356
Naphthalene	ND		5.00	1	07/12/2017 06:39	WG997356
1,2-Dichloroethane	ND		1.00	1	07/12/2017 06:39	WG997356
(S) Toluene-d8	104		80.0-120		07/12/2017 06:39	WG997356
(S) Dibromofluoromethane	95.1		76.0-123		07/12/2017 06:39	WG997356
(S) 4-Bromofluorobenzene	111		80.0-120		07/12/2017 06:39	WG997356

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	9410		200	200	07/12/2017 07:02	WG997356
Toluene	27200		200	200	07/12/2017 07:02	WG997356
Ethylbenzene	683		200	200	07/12/2017 07:02	WG997356
Total Xylenes	9580		600	200	07/12/2017 07:02	WG997356
Methyl tert-butyl ether	320		200	200	07/12/2017 07:02	WG997356
Naphthalene	ND		1000	200	07/12/2017 07:02	WG997356
1,2-Dichloroethane	ND		200	200	07/12/2017 07:02	WG997356
(S) Toluene-d8	99.7		80.0-120		07/12/2017 07:02	WG997356
(S) Dibromofluoromethane	94.8		76.0-123		07/12/2017 07:02	WG997356
(S) 4-Bromofluorobenzene	110		80.0-120		07/12/2017 07:02	WG997356

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



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	234		10.0	10	07/12/2017 07:25	WG997356
Toluene	125		10.0	10	07/12/2017 07:25	WG997356
Ethylbenzene	ND		10.0	10	07/12/2017 07:25	WG997356
Total Xylenes	ND		30.0	10	07/12/2017 07:25	WG997356
Methyl tert-butyl ether	ND		10.0	10	07/12/2017 07:25	WG997356
Naphthalene	ND		50.0	10	07/12/2017 07:25	WG997356
1,2-Dichloroethane	ND		10.0	10	07/12/2017 07:25	WG997356
(S) Toluene-d8	103		80.0-120		07/12/2017 07:25	WG997356
(S) Dibromofluoromethane	96.1		76.0-123		07/12/2017 07:25	WG997356
(S) 4-Bromofluorobenzene	108		80.0-120		07/12/2017 07:25	WG997356

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

WG996820

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

QUALITY CONTROL SUMMARY

L919841-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3231845-2 07/09/17 02:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	120			76.0-123
(S) 4-Bromofluorobenzene	109			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3231845-1 07/09/17 01:25 • (LCSD) R3231845-3 07/09/17 12:08

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	26.6	25.3	107	101	70.0-130			5.14	20
1,2-Dichloroethane	25.0	26.4	24.7	106	98.8	70.0-130			6.76	20
Ethylbenzene	25.0	20.3	17.9	81.3	71.8	70.0-130			12.4	20
Methyl tert-butyl ether	25.0	26.9	24.0	107	95.8	70.0-130			11.4	20
Naphthalene	25.0	23.5	21.2	94.2	84.6	70.0-130			10.7	20
Toluene	25.0	22.6	20.8	90.5	83.2	70.0-130			8.37	20
Xylenes, Total	75.0	64.6	56.5	86.1	75.3	70.0-130			13.4	20
(S) Toluene-d8				106	105	80.0-120				
(S) Dibromofluoromethane				119	120	76.0-123				
(S) 4-Bromofluorobenzene				109	108	80.0-120				

7 Gl

8 Al

9 Sc

WG997356

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



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

L919841-18,19,20,21,22,23

Method Blank (MB)

(MB) R3232752-4 07/11/17 22:52

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	95.4			76.0-123
(S) 4-Bromofluorobenzene	112			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3232752-1 07/11/17 21:19 • (LCSD) R3232752-2 07/11/17 21:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	25.7	26.0	103	104	70.0-130			1.34	20
1,2-Dichloroethane	25.0	25.2	26.1	101	104	70.0-130			3.58	20
Ethylbenzene	25.0	22.5	23.0	90.0	91.9	70.0-130			2.17	20
Methyl tert-butyl ether	25.0	27.3	27.9	109	112	70.0-130			1.96	20
Naphthalene	25.0	21.5	24.5	86.1	97.9	70.0-130			12.8	20
Toluene	25.0	23.0	23.6	92.1	94.3	70.0-130			2.34	20
Xylenes, Total	75.0	68.3	70.2	91.1	93.6	70.0-130			2.74	20
(S) Toluene-d8				98.6	99.8	80.0-120				
(S) Dibromofluoromethane				97.5	95.5	76.0-123				
(S) 4-Bromofluorobenzene				108	109	80.0-120				

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.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
-----------	-------------

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



**CH2M Hill- Kinder Morgan- Atlanta, GA**

6600 Peachtree Dunwoody Road

Report to:  
**Bethany Garvey**

Project Description: **Lewis Drive Groundwater**

Phone: **770-604-9182**  
Fax:

Collected by (print): **Justin McCann**  
**Ms. Summer McWarren**

Collected by (signature): **Justin McCann**

Immediately Packed on Ice **N X Y**

Billing Information:  
Accounts Payable  
1000 Windward Concourse  
Ste 450  
Alpharetta, GA 30005

Email To: **bgarvey@ch2m.com;**  
**tom.wiley@ch2m.com; scott.powell@ch2m.com;**

City/State Collected:  
Lab Project # **KINCH2MGA-LEWIS12**  
P.O. #

Quote #  
Date Results Needed

Client Project #

**684910.LD.MR.GW**  
Site/Facility ID #  
**Lewis Dr**

Rush? (Lab MUST Be Notified)

Same Day Five Day  
Next Day 5 Day (Rad Only)  
Two Day 10 Day (Rad Only)  
Three Day

Pres Chk

Analysis / Container / Preservative

V8260BTEXMNSC 40mlAmb-HCl  
V8260BTEXMNSC-TB 40mlAmb-HCl-Bik

Chain of Custody Page 1 of 3



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



L# **919841**

**H228**

**919841**

Acctnum: **KINCH2MGA**

Template: **T121318**

Prelogin: **P605956**

TSR: **S26 - Chris McCord**

PB: **6-20-17**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative	Remarks	Sample # (lab only)
MW-16-062917	G	GW	N/A	6/29/17	1055	3	X		-01
MW-36-062917		GW			1110	3	X		-02
MW-36B-062917		GW			1113	3	X		-03
MW-36B-062917-FD		GW			1115	3	X	field dug	-04
MW-08-062917		GW			1130	3	X		-05
MW-09-062917		GW			1140	3	X		-06
MW-10-062917		GW			1145	3	X		-07
MW-32-062917		GW			1155	3	X		-08
MW-02-062917		GW			1315	3	X		-09
MW-02B-062917		GW			1320	3	X		-10

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:  
UPS  FedEx  Courier

Tracking # **7372 1960 6370**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist:  
COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) <b>Justin McCann</b>	Date: <b>6/29/17</b>	Time: <b>1700</b>	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> No HCL / MeOH TBR	Temp: <b>2.1°C</b>	Bottles Received: <b>66</b>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)				
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: <b>6/30/17</b>	Time: <b>0845</b>	Hold:	Condition: NCF <b>1/6K</b>



**CH2M Hill- Kinder Morgan- Atlanta, GA**

6600 Peachtree Dunwoody Road

Report to:  
**Bethany Garvey**

Project Description: **Lewis Drive Groundwater**

Phone: **770-604-9182**  
Fax:

Collected by (print): **J. McCann**  
**M. Summer McWann**  
Collected by (signature): **Justine McCann**

Immediately Packed on Ice **N A Y**

Billing Information:  
**Accounts Payable**  
**1000 Windward Concourse**  
**Ste 450**  
**Alpharetta, GA 30005**

Email To: **bgarvey@ch2m.com;**  
**tom.wiley@ch2m.com; scott.powell@ch2m.com;**

City/State Collected:  
Client Project # **684910.LD.MR.GW**  
Lab Project # **KINCH2MGA-LEWIS12**

Site/Facility ID # **Lewis Dr**  
P.O. #

Quote #  
**Rush? (Lab MUST Be Notified)**  
\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Date Results Needed  
No. of Cntrs

Analysis / Container / Preservative

Pres Chk

Analysis / Container / Preservative	Pres Chk
V82608TEXMNSC 40mlAmb-HCl	
V82608TEXMNSC-TB 40mlAmb-HCl-Bik	

Chain of Custody Page 2 of 3



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



L# **919841**  
Table #  
Acctnum: **KINCH2MGA**  
Template: **T121318**  
Prelogin: **P605956**  
TSR: **526 - Chris McCord**  
PB: **6-20-17**  
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative	Pres Chk	Remarks	Sample # (lab only)
MW-03-062917	G	GW	N/A	6/29/17	1335	3	X			-11
MW-04-062917		GW			1340	3	X			-12
MW-05-062917		GW			1350	3	X			-13
MW-06-062917		GW			1417	3	X			-14
MW-06-062917		GW			1430	3	X			-15
MW-07-062917		GW			1440	3	X			-16
MW-30-062917		GW			1450	3	X			-17
MW-13-062917		GW			1500	3	X			-18
MW-44-062917		GW			0750	2				-19
TB-01-062917		GW			0740	3	X	X	trip blank	-19
FB-01-062917		GW			0740	3	X	X	field blank	-20

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier \_\_\_

Tracking #

pH \_\_\_ Temp \_\_\_  
Flow \_\_\_ Other \_\_\_

Sample Receipt Checklist  
COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
V03 Zero HeadSpace:  Y  N  
Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) <b>Justine McCann</b>	Date: <b>6/29/17</b>	Time: <b>1700</b>	Received by: (Signature)	Trip Blank Received: <b>2</b> / No HCL / MeOH TBR	Temp: <b>2.0</b> °C Bottles Received: <b>7011 66</b>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: <b>6/30/17</b>	Time: <b>0845</b>	Hold:
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Condition: NCF <input checked="" type="checkbox"/>



Attachment C  
Operation and Maintenance Logs



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/6/2017 1345	Scott Smida	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	start up	
Air Compressor 1 Run Time / Load hrs	(hours)	NA	NA	15:55 / 3:43	
Air Compressor 1 Temp (discharge)	(F)	60 - 100	? 110		
Air Compressor 1 Pressure	(psig)	90 - 110	100 ?	104	
Air Compressor 2 Run Time	(hours)	NA	NA		
Air Compressor 2 Temp	(F)	60 - 100	110		
Air Compressor 2 Pressure	(psig)	90 - 110	100		
Receiver Tank Pressure	(psig)	90 - 110	100		
Receiver Tank Temperature	(F)	60 - 100	110		
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	106	
Manifold Temperature	(F)	60 - 100	110	64	
Manifold Flow Rate	(scfm)	TBD	TBD	40.14	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	0	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	0	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	0	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30		

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/6/2017 1345	SCOTT SMITH		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-01 Pressure / regulator	(psig)	10 - 20	30	10 / 23	
VAS-02 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-02 Pressure	(psig)	10 - 20	30	5 / 20	
VAS-03 Flow Rate	(scfm)	TBD	TBD	1.2 /	
VAS-03 Pressure	(psig)	10 - 20	30	0 / 20	
VAS-04 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-04 Pressure	(psig)	10 - 20	30	0 / 20	
VAS-05 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-05 Pressure	(psig)	10 - 20	30	0 / 32	
VAS-06 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-06 Pressure	(psig)	10 - 20	30	0 / 30	
VAS-07 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-07 Pressure	(psig)	10 - 20	30	3 / 30	
VAS-08 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-08 Pressure	(psig)	10 - 20	30	3 / 18	
VAS-09 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-09 Pressure	(psig)	10 - 20	30	0 / 17	
VAS-10 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-10 Pressure	(psig)	10 - 20	30	0 / 10	
VAS-11 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-11 Pressure	(psig)	10 - 20	30	3 / 19	
VAS-12 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-12 Pressure	(psig)	10 - 20	30	3 / 20	
VAS-13 Flow Rate	(scfm)	TBD	TBD	0.6	
VAS-13 Pressure	(psig)	10 - 20	30	0 / 30	
VAS-14 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-14 Pressure	(psig)	10 - 20	30	0 / 20	
VAS-15 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-15 Pressure	(psig)	10 - 20	30	0 / 19	
VAS-16 Flow Rate	(scfm)	TBD	TBD	1.3	
VAS-16 Pressure	(psig)	10 - 20	30	3 / 25	
VAS-17 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-17 Pressure	(psig)	10 - 20	30	4 / 33	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/6/2017 1345	SCOTT SHIBATA	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-18 Pressure / regulator	(psig)	10 - 20	30	0 / 22	
VAS-19 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-19 Pressure	(psig)	10 - 20	30	2 / 30	
VAS-20 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-20 Pressure	(psig)	10 - 20	30	20 / 20	
VAS-21 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-21 Pressure	(psig)	10 - 20	30	23 / 24	
VAS-22 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-22 Pressure	(psig)	10 - 20	30	25 / 25	
VAS-23 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-23 Pressure	(psig)	10 - 20	30	19 / 20	
VAS-24 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-24 Pressure	(psig)	10 - 20	30	25 / 25	
VAS-25 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-25 Pressure	(psig)	10 - 20	30	20 / 20	
VAS-26 Flow Rate	(scfm)	TBD	TBD	0.7	
VAS-26 Pressure	(psig)	10 - 20	30	24 / 23	
VAS-27 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-27 Pressure	(psig)	10 - 20	30	20 / 24	
VAS-28 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-28 Pressure	(psig)	10 - 20	30	7 / 20	
VAS-29 Flow Rate	(scfm)	TBD	TBD	1.1	
VAS-29 Pressure	(psig)	10 - 20	30	5 / 22	
VAS-30 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-30 Pressure	(psig)	10 - 20	30	0 / 20	
VAS-31 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-31 Pressure	(psig)	10 - 20	30	20 / 20	
VAS-32 Flow Rate	(scfm)	TBD	TBD	NOT OPEN	
VAS-32 Pressure	(psig)	10 - 20	30	NOT OPEN	
VAS-33 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-33 Pressure	(psig)	10 - 20	30	15 / 20	
VAS-34 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-34 Pressure	(psig)	10 - 20	30	18 / 20	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/6/2017 1345	Scott Smiba	←	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-35 Pressure / regulator	(psig)	10 - 20	30	12 / 18	
VAS-36 Flow Rate	(scfm)	TBD	TBD	1.3	
VAS-36 Pressure	(psig)	10 - 20	30	9 / 18	
VAS-37 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-37 Pressure	(psig)	10 - 20	30	0 / 20	
VAS-38 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-38 Pressure	(psig)	10 - 20	30	2 / 20	
VAS-39 Flow Rate	(scfm)	TBD	TBD	1.1	
VAS-39 Pressure	(psig)	10 - 20	30	10 / 23	
VAS-40 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-40 Pressure	(psig)	10 - 20	30	15 / 26	
VAS-41 Flow Rate	(scfm)	TBD	TBD	0.7	
VAS-42 Pressure	(psig)	10 - 20	30	0 / 20	
VAS 42 FLOW				1.3	
VAS 42 PSI				7 / 30	
VAS-43 Flow Rate	(scfm)	TBD	TBD	1.1	
VAS-43 Pressure	(psig)	10 - 20	30	20 / 20	
VAS-44 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-44 Pressure	(psig)	10 - 20	30	25 / 25	
VAS-45 Flow Rate	(scfm)	TBD	TBD	0.6	
VAS-45 Pressure	(psig)	10 - 20	30	0 / 25	
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	0.9	
BCA-01 Pressure	(psig)	0 - 5	5	2 / 26	
BCA-02 Flow Rate	(scfm)	TBD	TBD	0.9	
BCA-02 Pressure	(psig)	0 - 5	5	2 / 20	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/16/2017 1345	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		ECS
...	...				
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

**NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.**

**Additional Comments:**

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/7/2017 0806	Scott Smida	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	
Air Compressor 1 Run Time / <i>UAD</i>	(hours)	NA	NA	34:15 / 4:25	
Air Compressor 1 Temp ? <i>discharge / Dry, Sidel oil / Interstage</i>	(F)	60 - 100?	110?	104 / 151 / 163 / 169	
Air Compressor 1 Pressure - <i>low pressure</i>	(psig)	90 - 110	100	100	
Air Compressor 2 Run Time	(hours)	NA	NA	-	
Air Compressor 2 Temp	(F)	60 - 100	110	-	
Air Compressor 2 Pressure	(psig)	90 - 110	100	-	
Receiver Tank Pressure	(psig)	90 - 110	100?	115	
Receiver Tank Temperature	(F)	60 - 100	110	No Gauge	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure / <i>HMI</i>	(psig)	90 - 110	100	108 / 107.4	
Manifold Temperature	(F)	60 - 100	110	57	
Manifold Flow Rate / <i>HMI</i>	(scfm)	TBD	TBD	21.67 / 21.5	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	NOT OPERATING	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	↓	
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30		

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/7/2017 0800 1630 1515	SCOTT SIMMONS	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-01 Pressure / regulator	(psig)	10 - 20	30	16/24	
VAS-02 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-02 Pressure	(psig)	10 - 20	30	7/20	
VAS-03 Flow Rate	(scfm)	TBD	TBD	OFF, vapors emitting from	
VAS-03 Pressure	(psig)	10 - 20	30	↓	kw11 and kw12
VAS-04 Flow Rate	(scfm)	TBD	TBD	↓	casing, OFF
VAS-04 Pressure	(psig)	10 - 20	30	↓	indefinitely. Turned
VAS-05 Flow Rate	(scfm)	TBD	TBD	↓	off released pressure
VAS-05 Pressure	(psig)	10 - 20	30	↓	and closed gate valve
VAS-06 Flow Rate	(scfm)	TBD	TBD	↓	at manifold
VAS-06 Pressure	(psig)	10 - 20	30	↓	
VAS-07 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-07 Pressure	(psig)	10 - 20	30	↓	
VAS-08 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-08 Pressure	(psig)	10 - 20	30	↓	
VAS-09 Flow Rate	(scfm)	TBD	TBD	1.1	
VAS-09 Pressure	(psig)	10 - 20	30	0/18	
VAS-10 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-10 Pressure	(psig)	10 - 20	30	0/13	
VAS-11 Flow Rate	(scfm)	TBD	TBD	1.0 0.9	
VAS-11 Pressure	(psig)	10 - 20	30	3/20 3/20	
VAS-12 Flow Rate	(scfm)	TBD	TBD	OFF	
VAS-12 Pressure	(psig)	10 - 20	30	↓	
VAS-13 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-13 Pressure	(psig)	10 - 20	30	↓	
VAS-14 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-14 Pressure	(psig)	10 - 20	30	↓	
VAS-15 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-15 Pressure	(psig)	10 - 20	30	↓	
VAS-16 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-16 Pressure	(psig)	10 - 20	30	↓	
VAS-17 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-17 Pressure	(psig)	10 - 20	30	↓	



Green, following adjustments

Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/7/2017 0800 0830 1030	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	1.1	
VAS-18 Pressure	(psig) <i>regulator</i>	10 - 20	30	5/20	
VAS-19 Flow Rate	(scfm)	TBD	TBD	1.0 0.5	Adjust to 1.0 back to 1.0
VAS-19 Pressure	(psig)	10 - 20	30	5/22 6/24	
VAS-20 Flow Rate	(scfm)	TBD	TBD	1.2	NOT Adjusted
VAS-20 Pressure	(psig) <i>regulator</i>	10 - 20	30	20/22	
VAS-21 Flow Rate	(scfm)	TBD	TBD	1.7 1.2	
VAS-21 Pressure	(psig)	10 - 20	30	25/26 24/24	
VAS-22 Flow Rate	(scfm)	TBD	TBD	1.0	NOT Adjusted
VAS-22 Pressure	(psig)	10 - 20	30	26/28	
VAS-23 Flow Rate	(scfm)	TBD	TBD	1.0	NOT Adjusted
VAS-23 Pressure	(psig)	10 - 20	30	19/22	
VAS-24 Flow Rate	(scfm)	TBD	TBD	2.2 1.1	
VAS-24 Pressure	(psig)	10 - 20	30	26/28 24/26	
VAS-25 Flow Rate	(scfm)	TBD	TBD	1.1	NOT Adjusted
VAS-25 Pressure	(psig)	10 - 20	30	21/22	
VAS-26 Flow Rate	(scfm)	TBD	TBD	1.7 1.2	
VAS-26 Pressure	(psig)	10 - 20	30	25/24 23/23	
VAS-27 Flow Rate	(scfm)	TBD	TBD	0.8 1.0	
VAS-27 Pressure	(psig)	10 - 20	30	20/24 20/24	
VAS-28 Flow Rate	(scfm)	TBD	TBD	0.4 1.1	
VAS-28 Pressure	(psig)	10 - 20	30	5/22 7/16	
VAS-29 Flow Rate	(scfm)	TBD	TBD	0.5 1.0	
VAS-29 Pressure	(psig)	10 - 20	30	5/22 5/22	
VAS-30 Flow Rate	(scfm)	TBD	TBD	0.7 1.1	
VAS-30 Pressure	(psig)	10 - 20	30	0/20 0/20	
VAS-31 Flow Rate	(scfm)	TBD	TBD	1.5 1.1	
VAS-31 Pressure	(psig)	10 - 20	30	20/22 19/20	
VAS-32 Flow Rate	(scfm)	TBD	TBD	WELL HEAD NOT OPEN	
VAS-32 Pressure	(psig)	10 - 20	30	11	
VAS-33 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-33 Pressure	(psig)	10 - 20	30	13/21	
VAS-34 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-34 Pressure	(psig)	10 - 20	30	15/19	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>	
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL		
Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/7/2017 0800 1515	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt
Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-35 Pressure	(psig) / regulator	10 - 20	30	12/20	
VAS-36 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-36 Pressure	(psig)	10 - 20	30	8/20	
VAS-37 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-37 Pressure	(psig)	10 - 20	30	0/22	
VAS-38 Flow Rate	(scfm)	TBD	TBD	0.0 } adjust to	
VAS-38 Pressure	(psig)	10 - 20	30	0/22 } 1 scfm	
VAS-39 Flow Rate	(scfm)	TBD	TBD	0.7	
VAS-39 Pressure	(psig)	10 - 20	30	8/22	
VAS-40 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-40 Pressure	(psig)	10 - 20	30	12/26	
VAS-41 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-42 Pressure	(psig)	10 - 20	30	5/30	
VAS-43 Flow Rate	(scfm)	TBD	TBD		
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD		
VAS-45 Pressure	(psig)	10 - 20	30		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	1.0 1.0	
BCA-01 Pressure	(psig) / regulator	0 - 5	5	3/20 0/25	
BCA-02 Flow Rate	(scfm)	TBD	TBD	1.1 1.2	
BCA-02 Pressure	(psig)	0 - 5	5	4/20 3/23	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/7/2017 0800-1500	SCOTT SIMON	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
...	...				
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		3/14/17, SD HR. ACD1 and Commission MCD2
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/15/2017 1460	Scott Shiva	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	YES	
Air Compressor 1 Run Time / LOAD	(hours)	NA	NA	22:09:12 / 12:55	
Air Compressor 1 Temp	(F)	60 - 100	<del>110</del>	186	
Air Compressor 1 Pressure	(psig)	<del>90 - 110</del>	<del>100</del>	163	
Air Compressor 2 Run Time	(hours)	NA	NA		
Air Compressor 2 Temp	(F)	60 - 100	110		
Air Compressor 2 Pressure	(psig)	90 - 110	100		
Receiver Tank Pressure	(psig)	90 - 110	<del>100</del>	165	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	<del>100</del>	110	
Manifold Temperature	(F)	60 - 100	110	49	
Manifold Flow Rate	(scfm)	TBD	TBD	0.000	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD		
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30		

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/15/2017 1400	SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD		
VAS-01 Pressure	(psig)	10 - 20	30		
VAS-02 Flow Rate	(scfm)	TBD	TBD		
VAS-02 Pressure	(psig)	10 - 20	30		
VAS-03 Flow Rate	(scfm)	TBD	TBD		
VAS-03 Pressure	(psig)	10 - 20	30		
VAS-04 Flow Rate	(scfm)	TBD	TBD		
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD		
VAS-09 Pressure	(psig)	10 - 20	30		
VAS-10 Flow Rate	(scfm)	TBD	TBD		
VAS-10 Pressure	(psig)	10 - 20	30		
VAS-11 Flow Rate	(scfm)	TBD	TBD	1.9	
VAS-11 Pressure	(psig)	10 - 20	30	20	
VAS-12 Flow Rate	(scfm)	TBD	TBD	0.1	
VAS-12 Pressure	(psig)	10 - 20	30	20	
VAS-13 Flow Rate	(scfm)	TBD	TBD	0.1	
VAS-13 Pressure	(psig)	10 - 20	30	20	
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/15/2017 1400	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD		
VAS-18 Pressure	(psig)	10 - 20	30		
VAS-19 Flow Rate	(scfm)	TBD	TBD	2.0	
VAS-19 Pressure	(psig)	10 - 20	30	27	
VAS-20 Flow Rate	(scfm)	TBD	TBD		
VAS-20 Pressure	(psig)	10 - 20	30		
VAS-21 Flow Rate	(scfm)	TBD	TBD		
VAS-21 Pressure	(psig)	10 - 20	30		
VAS-22 Flow Rate	(scfm)	TBD	TBD		
VAS-22 Pressure	(psig)	10 - 20	30		
VAS-23 Flow Rate	(scfm)	TBD	TBD		
VAS-23 Pressure	(psig)	10 - 20	30		
VAS-24 Flow Rate	(scfm)	TBD	TBD		
VAS-24 Pressure	(psig)	10 - 20	30		
VAS-25 Flow Rate	(scfm)	TBD	TBD		
VAS-25 Pressure	(psig)	10 - 20	30		
VAS-26 Flow Rate	(scfm)	TBD	TBD		
VAS-26 Pressure	(psig)	10 - 20	30		
VAS-27 Flow Rate	(scfm)	TBD	TBD		
VAS-27 Pressure	(psig)	10 - 20	30		
VAS-28 Flow Rate	(scfm)	TBD	TBD		
VAS-28 Pressure	(psig)	10 - 20	30		
VAS-29 Flow Rate	(scfm)	TBD	TBD		
VAS-29 Pressure	(psig)	10 - 20	30		
VAS-30 Flow Rate	(scfm)	TBD	TBD		
VAS-30 Pressure	(psig)	10 - 20	30		
VAS-31 Flow Rate	(scfm)	TBD	TBD		
VAS-31 Pressure	(psig)	10 - 20	30		
VAS-32 Flow Rate	(scfm)	TBD	TBD		
VAS-32 Pressure	(psig)	10 - 20	30		
VAS-33 Flow Rate	(scfm)	TBD	TBD		
VAS-33 Pressure	(psig)	10 - 20	30		
VAS-34 Flow Rate	(scfm)	TBD	TBD		
VAS-34 Pressure	(psig)	10 - 20	30		





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/15/2017 1460	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD		
VAS-35 Pressure	(psig)	10 - 20	30		
VAS-36 Flow Rate	(scfm)	TBD	TBD		
VAS-36 Pressure	(psig)	10 - 20	30		
VAS-37 Flow Rate	(scfm)	TBD	TBD		
VAS-37 Pressure	(psig)	10 - 20	30		
VAS-38 Flow Rate	(scfm)	TBD	TBD		
VAS-38 Pressure	(psig)	10 - 20	30		
VAS-39 Flow Rate	(scfm)	TBD	TBD		
VAS-39 Pressure	(psig)	10 - 20	30		
VAS-40 Flow Rate	(scfm)	TBD	TBD		
VAS-40 Pressure	(psig)	10 - 20	30		
VAS-41 Flow Rate / pressure	(scfm)	TBD	TBD	1.9/20	
VAS-42 Pressure	(psig)	10 - 20	30		
VAS-43 Flow Rate	(scfm)	TBD	TBD	2.3	
VAS-43 Pressure	(psig)	10 - 20	30	2.3	
VAS-44 Flow Rate	(scfm)	TBD	TBD	2.6	
VAS-44 Pressure	(psig)	10 - 20	30	2.4	
VAS-45 Flow Rate	(scfm)	TBD	TBD	2.0	
VAS-45 Pressure	(psig)	10 - 20	30	2.2	
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	2.3	
BCA-01 Pressure	(psig)	0 - 5	5	2.4	
BCA-02 Flow Rate	(scfm)	TBD	TBD	2.2	
BCA-02 Pressure	(psig)	0 - 5	5	2.3	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/15/2017 1400	Scott Smiba	←	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		no observations to report - completed by ECS
...	...				
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No	3/15/2017	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/20/2017 0830-1030	Scott Smith	Gerald Couch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes ✓	
Air Compressor 1 Run Time	(hours)	NA	NA	343:30 345:26	
Air Compressor 1 Load Time	(hours)	NA	NA	18:47 19:00	
Air Compressor 1 Discharge Temp	(F)	60-100	110?	184 179	
Air Compressor 1 Pressure	(psig)	90 - 110	100	112 112	
Air Compressor 2 Run Time	(hours)	NA	NA	—	
Air Compressor 2 Load Time	(hours)	NA	NA	—	
Air Compressor 2 Temp	(F)	60 - 100	110	—	
Air Compressor 2 Pressure	(psig)	90 - 110	100	—	
Receiver Tank Pressure	(psig)	90 - 110	100	115 112	
Receiver Tank Temperature	(F)	60 - 100	110	N/A - gauge not installed ✓	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	109 104	
Manifold Temperature	(F)	60 - 100	110	43 60	
Manifold Flow Rate	(scfm)	TBD	TBD	22.49 105.2	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	NOT operating ✓	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30		

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/20/17 0830 1030	Scott Smith	Gerald Couch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	1.8 2.9	
VAS-01 Pressure	(psig)	10 - 20	30	12 12	
VAS-02 Flow Rate	(scfm)	TBD	TBD	1.7 2.9	
VAS-02 Pressure	(psig)	10 - 20	30	8 8	
VAS-03 Flow Rate	(scfm)	TBD	TBD	0 - increase to 0.2 0.2	
VAS-03 Pressure	(psig)	10 - 20	30	0 0	
VAS-04 Flow Rate	(scfm)	TBD	TBD	OFF, Cupboard Creek	
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD	1.9 2.8	
VAS-09 Pressure	(psig)	10 - 20	30	0 0	
VAS-10 Flow Rate	(scfm)	TBD	TBD	2.2 2.9	
VAS-10 Pressure	(psig)	10 - 20	30	3 3	
VAS-11 Flow Rate	(scfm)	TBD	TBD	2.9	
VAS-11 Pressure	(psig)	10 - 20	30	5	
VAS-12 Flow Rate	(scfm)	TBD	TBD	0.3	
VAS-12 Pressure	(psig)	10 - 20	30	3.5	
VAS-13 Flow Rate	(scfm)	TBD	TBD	0.3	
VAS-13 Pressure	(psig)	10 - 20	30	1	
VAS-14 Flow Rate	(scfm)	TBD	TBD	OFF, Cupboard Creek	
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/20/2017 0830	Scott Smith	Gerald Couch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	1.9 2.7	
VAS-18 Pressure	(psig)	10 - 20	30	0 0	
VAS-19 Flow Rate	(scfm)	TBD	TBD	2.7	
VAS-19 Pressure	(psig)	10 - 20	30	5	
VAS-20 Flow Rate	(scfm)	TBD	TBD	2.9	
VAS-20 Pressure	(psig)	10 - 20	30	18	
VAS-21 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-21 Pressure	(psig)	10 - 20	30	28	
VAS-22 Flow Rate	(scfm)	TBD	TBD	3.1	
VAS-22 Pressure	(psig)	10 - 20	30	29	
VAS-23 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-23 Pressure	(psig)	10 - 20	30	24	
VAS-24 Flow Rate	(scfm)	TBD	TBD	2.8	
VAS-24 Pressure	(psig)	10 - 20	30	28	
VAS-25 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-25 Pressure	(psig)	10 - 20	30	19.5	
VAS-26 Flow Rate	(scfm)	TBD	TBD	3.1	
VAS-26 Pressure	(psig)	10 - 20	30	25.5	
VAS-27 Flow Rate	(scfm)	TBD	TBD	3.1	
VAS-27 Pressure	(psig)	10 - 20	30	25	
VAS-28 Flow Rate	(scfm)	TBD	TBD	2.9	
VAS-28 Pressure	(psig)	10 - 20	30	9	
VAS-29 Flow Rate	(scfm)	TBD	TBD	2.9	
VAS-29 Pressure	(psig)	10 - 20	30	7	
VAS-30 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-30 Pressure	(psig)	10 - 20	30	0	
VAS-31 Flow Rate	(scfm)	TBD	TBD	3.3	
VAS-31 Pressure	(psig)	10 - 20	30	23	
VAS-32 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-32 Pressure	(psig)	10 - 20	30	16	
VAS-33 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-33 Pressure	(psig)	10 - 20	30	15	
VAS-34 Flow Rate	(scfm)	TBD	TBD	2.8	
VAS-34 Pressure	(psig)	10 - 20	30	20	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/26/2017 0830 1030	Scott Smith	Geordie Couch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	2.9	
VAS-35 Pressure	(psig)	10 - 20	30	15	
VAS-36 Flow Rate	(scfm)	TBD	TBD	2.9	
VAS-36 Pressure	(psig)	10 - 20	30	11	
VAS-37 Flow Rate	(scfm)	TBD	TBD	2.8	
VAS-37 Pressure	(psig)	10 - 20	30	2	
VAS-38 Flow Rate	(scfm)	TBD	TBD	3.1	
VAS-38 Pressure	(psig)	10 - 20	30	4	
VAS-39 Flow Rate	(scfm)	TBD	TBD	3.1	
VAS-39 Pressure	(psig)	10 - 20	30	10.5	
VAS-40 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-40 Pressure	(psig)	10 - 20	30	17	
VAS-41 Flow Rate	(scfm)	TBD	TBD	2.3 3.0	
VAS-41 Pressure	(psig)	20-Oct	30	0 0	
VAS-42 Flow Rate	(scfm)	TBD	TBD	2.8	
VAS-42 Pressure	(psig)	10 - 20	30	7.5	
VAS-43 Flow Rate	(scfm)	TBD	TBD	1.7 2.8	
VAS-43 Pressure	(psig)	10 - 20	30	21 21	
VAS-44 Flow Rate	(scfm)	TBD	TBD	1.4 2.8	
VAS-44 Pressure	(psig)	10 - 20	30	26 26.5	
VAS-45 Flow Rate	(scfm)	TBD	TBD	1.9 3.1	
VAS-45 Pressure	(psig)	10 - 20	30	1 1.5	
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	1.6 2.8	
BCA-01 Pressure	(psig)	0 - 5	5	4 5	
BCA-02 Flow Rate	(scfm)	TBD	TBD	1.5 2.7	
BCA-02 Pressure	(psig)	0 - 5	5	5 5	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD	OFF	
BRS-01 Pressure	(psig)	10 - 20	30	↓	
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/20/2017 0830 1040	Scott Simons	Conrad Crouch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS-Tom Barnes	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		tightened 160sc fitting, water leaking down drain line
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No	April 2017	
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	June 2017	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No	June 2017	
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No	March 2018	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No	June 2017	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/27/2017 10:15	Scott Smoak	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	
Air Compressor 1 Run Time	(hours)	NA	NA	504:08	
Air Compressor 1 Load Time	(hours)	NA	NA	31:53	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	105	
Air Compressor 1 Pressure	(psig)	90 - 110	100	108	
Air Compressor 2 Run Time	(hours)	NA	NA	—	
Air Compressor 2 Load Time	(hours)	NA	NA	—	
Air Compressor 2 Temp	(F)	60 - 100	110	—	
Air Compressor 2 Pressure	(psig)	90 - 110	100	—	
Receiver Tank Pressure	(psig)	90 - 110	100	110	
Receiver Tank Temperature	(F)	60 - 100	110	Not Installed	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	102	
Manifold Temperature	(F)	60 - 100	110	71	
Manifold Flow Rate	(scfm)	TBD	TBD	30.62	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	OFF	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	↓	
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30		

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/27/2017 1615 1500	Scott Smiba	Gerald Couch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	2.8 4.7	
VAS-01 Pressure	(psig)	10 - 20	30	10 20	
VAS-02 Flow Rate	(scfm)	TBD	TBD	3.0 4.0	
VAS-02 Pressure	(psig)	10 - 20	30	10 20	
VAS-03 Flow Rate	(scfm)	TBD	TBD	0.1 0.1	
VAS-03 Pressure	(psig)	10 - 20	30	0 0	
VAS-04 Flow Rate	(scfm)	TBD	TBD	OFF	
VAS-04 Pressure	(psig)	10 - 20	30	↓	
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD		3.3 3.9
VAS-09 Pressure	(psig)	10 - 20	30	0 22	
VAS-10 Flow Rate	(scfm)	TBD	TBD	3.5 3.7	
VAS-10 Pressure	(psig)	10 - 20	30	1 18	
VAS-11 Flow Rate	(scfm)	TBD	TBD		3.9
VAS-11 Pressure	(psig)	10 - 20	30		24
VAS-12 Flow Rate	(scfm)	TBD	TBD		0.2
VAS-12 Pressure	(psig)	10 - 20	30		20
VAS-13 Flow Rate	(scfm)	TBD	TBD		0.2
VAS-13 Pressure	(psig)	10 - 20	30		22
VAS-14 Flow Rate	(scfm)	TBD	TBD	OFF	
VAS-14 Pressure	(psig)	10 - 20	30	↓	
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/27/2017 1615 1500	Scott Smigars	Gerard Couch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	3.1 3.8	
VAS-18 Pressure	(psig)	10 - 20	30	0 26	
VAS-19 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-19 Pressure	(psig)	10 - 20	30	22	
VAS-20 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-20 Pressure	(psig)	10 - 20	30	20	
VAS-21 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-21 Pressure	(psig)	10 - 20	30	22	
VAS-22 Flow Rate	(scfm)	TBD	TBD	4.2	
VAS-22 Pressure	(psig)	10 - 20	30	20	
VAS-23 Flow Rate	(scfm)	TBD	TBD	3.6	
VAS-23 Pressure	(psig)	10 - 20	30	20	
VAS-24 Flow Rate	(scfm)	TBD	TBD	3.6	
VAS-24 Pressure	(psig)	10 - 20	30	30	
VAS-25 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-25 Pressure	(psig)	10 - 20	30	23	
VAS-26 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-26 Pressure	(psig)	10 - 20	30	26	
VAS-27 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-27 Pressure	(psig)	10 - 20	30	30	
VAS-28 Flow Rate	(scfm)	TBD	TBD	4.2	
VAS-28 Pressure	(psig)	10 - 20	30	25	
VAS-29 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-29 Pressure	(psig)	10 - 20	30	22	
VAS-30 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-30 Pressure	(psig)	10 - 20	30	24	
VAS-31 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-31 Pressure	(psig)	10 - 20	30	26	
VAS-32 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-32 Pressure	(psig)	10 - 20	30	26	
VAS-33 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-33 Pressure	(psig)	10 - 20	30	26	
VAS-34 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-34 Pressure	(psig)	10 - 20	30	25	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/27/2017 1015 1500	Scott Smith	Gerald Couch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival		Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	3.9		
VAS-35 Pressure	(psig)	10 - 20	30	20		
VAS-36 Flow Rate	(scfm)	TBD	TBD	4.1		
VAS-36 Pressure	(psig)	10 - 20	30	22		
VAS-37 Flow Rate	(scfm)	TBD	TBD	3.9		
VAS-37 Pressure	(psig)	10 - 20	30	27		
VAS-38 Flow Rate	(scfm)	TBD	TBD	3.7		
VAS-38 Pressure	(psig)	10 - 20	30	26		
VAS-39 Flow Rate	(scfm)	TBD	TBD	4.0		
VAS-39 Pressure	(psig)	10 - 20	30	22		
VAS-40 Flow Rate	(scfm)	TBD	TBD	4.3		
VAS-40 Pressure	(psig)	10 - 20	30	26		
VAS-41 Flow Rate	(scfm)	TBD	TBD	1.7	3.8	
VAS-41 Pressure	(psig)	20-Oct	30	0	20	
VAS-42 Flow Rate	(scfm)	TBD	TBD	3.8		
VAS-42 Pressure	(psig)	10 - 20	30	26		
VAS-43 Flow Rate	(scfm)	TBD	TBD	1.4	4.4	
VAS-43 Pressure	(psig)	10 - 20	30	19	26	
VAS-44 Flow Rate	(scfm)	TBD	TBD	3.2	4.4	
VAS-44 Pressure	(psig)	10 - 20	30	26	30	
VAS-45 Flow Rate	(scfm)	TBD	TBD	1.1	3.8	
VAS-45 Pressure	(psig)	10 - 20	30	0	21	
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival		Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	3.5	3.8	
BCA-01 Pressure	(psig)	0 - 5	5	4	20	
BCA-02 Flow Rate	(scfm)	TBD	TBD	3.4	4.0	
BCA-02 Pressure	(psig)	0 - 5	5	4	20	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival		Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD			
BRS-01 Pressure	(psig)	10 - 20	30			
BRS-02 Flow Rate	(scfm)	TBD	TBD			
BRS-02 Pressure	(psig)	10 - 20	30			
BRS-03 Flow Rate	(scfm)	TBD	TBD			
BRS-03 Pressure	(psig)	10 - 20	30			



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
<i>3/27/2017 10:15</i>	<i>SCOTT SMITH</i>	<i>_____</i>	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		<i>ECS</i>
Activate and inspect condition of receiver auto drain.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	<input checked="" type="radio"/> Yes / No	Yes / No	<i>June</i>	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	<input checked="" type="radio"/> Yes / <input checked="" type="radio"/> No	Yes / No	<i>June</i>	
Test relief valve on receiver tank for proper operation.	Annually	<input checked="" type="radio"/> Yes / No	Yes / No	<i>March 2018</i>	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	<input checked="" type="radio"/> Yes / <input checked="" type="radio"/> No	Yes / No		
Calibrate EAD	<del>Annually</del> <i>Quarterly</i>	<input checked="" type="radio"/> Yes / No	Yes / No	<i>June</i>	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/4/2017 0926	Scott Smith	←	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	
Air Compressor 1 Run Time	(hours)	NA	NA	692:59	
Air Compressor 1 Load Time	(hours)	NA	NA	49:38	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	188	
Air Compressor 1 Pressure	(psig)	90 - 110	100	103	
Air Compressor 2 Run Time	(hours)	NA	NA	—	
Air Compressor 2 Load Time	(hours)	NA	NA	—	
Air Compressor 2 Temp	(F)	60 - 100	110	—	
Air Compressor 2 Pressure	(psig)	90 - 110	100	—	
Receiver Tank Pressure	(psig)	90 - 110	100	114	
Receiver Tank Temperature	(F)	60 - 100	110	Not Installed	

Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	100	
Manifold Temperature	(F)	60 - 100	110	70	
Manifold Flow Rate	(scfm)	TBD	TBD	84.83	

Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	OFF	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	↓	
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30		

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/4/2017 0920	SCOTT SIMON	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	4.2	
VAS-01 Pressure	(psig)	10 - 20	30	13	
VAS-02 Flow Rate	(scfm)	TBD	TBD	4.0	
VAS-02 Pressure	(psig)	10 - 20	30	11	
VAS-03 Flow Rate	(scfm)	TBD	TBD	0.2	
VAS-03 Pressure	(psig)	10 - 20	30	0	
VAS-04 Flow Rate	(scfm)	TBD	TBD		
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD	4.0	
VAS-09 Pressure	(psig)	10 - 20	30	0	
VAS-10 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-10 Pressure	(psig)	10 - 20	30	3	
VAS-11 Flow Rate	(scfm)	TBD	TBD		
VAS-11 Pressure	(psig)	10 - 20	30		
VAS-12 Flow Rate	(scfm)	TBD	TBD		
VAS-12 Pressure	(psig)	10 - 20	30		
VAS-13 Flow Rate	(scfm)	TBD	TBD		
VAS-13 Pressure	(psig)	10 - 20	30		
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/4/2017 0920	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	4.6	
VAS-18 Pressure	(psig)	10 - 20	30	0	
VAS-19 Flow Rate	(scfm)	TBD	TBD		
VAS-19 Pressure	(psig)	10 - 20	30		
VAS-20 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-20 Pressure	(psig)	10 - 20	30	20	
VAS-21 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-21 Pressure	(psig)	10 - 20	30	25	
VAS-22 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-22 Pressure	(psig)	10 - 20	30	20	
VAS-23 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-23 Pressure	(psig)	10 - 20	30	20	
VAS-24 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-24 Pressure	(psig)	10 - 20	30	29	
VAS-25 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-25 Pressure	(psig)	10 - 20	30	23	
VAS-26 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-26 Pressure	(psig)	10 - 20	30	22	
VAS-27 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-27 Pressure	(psig)	10 - 20	30	29	
VAS-28 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-28 Pressure	(psig)	10 - 20	30	17	
VAS-29 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-29 Pressure	(psig)	10 - 20	30	7	
VAS-30 Flow Rate	(scfm)	TBD	TBD	4.0	
VAS-30 Pressure	(psig)	10 - 20	30	0	
VAS-31 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-31 Pressure	(psig)	10 - 20	30	25	
VAS-32 Flow Rate	(scfm)	TBD	TBD		
VAS-32 Pressure	(psig)	10 - 20	30		
VAS-33 Flow Rate	(scfm)	TBD	TBD		
VAS-33 Pressure	(psig)	10 - 20	30		
VAS-34 Flow Rate	(scfm)	TBD	TBD		
VAS-34 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/4/2017 0920	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD		
VAS-35 Pressure	(psig)	10 - 20	30		
VAS-36 Flow Rate	(scfm)	TBD	TBD		
VAS-36 Pressure	(psig)	10 - 20	30		
VAS-37 Flow Rate	(scfm)	TBD	TBD		
VAS-37 Pressure	(psig)	10 - 20	30		
VAS-38 Flow Rate	(scfm)	TBD	TBD		
VAS-38 Pressure	(psig)	10 - 20	30		
VAS-39 Flow Rate	(scfm)	TBD	TBD		
VAS-39 Pressure	(psig)	10 - 20	30		
VAS-40 Flow Rate	(scfm)	TBD	TBD		
VAS-40 Pressure	(psig)	10 - 20	30		
VAS-41 Flow Rate	(scfm)	TBD	TBD		
VAS-41 Pressure	(psig)	20-Oct	30		
VAS-42 Flow Rate	(scfm)	TBD	TBD		
VAS-42 Pressure	(psig)	10 - 20	30		
VAS-43 Flow Rate	(scfm)	TBD	TBD		
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD		
VAS-45 Pressure	(psig)	10 - 20	30		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	4.6	
BCA-01 Pressure	(psig)	0 - 5	5	5	
BCA-02 Flow Rate	(scfm)	TBD	TBD	5.0	
BCA-02 Pressure	(psig)	0 - 5	5	5	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
4/4/2017 0920	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		2 1/2 gal. overflow container
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	June	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	<input checked="" type="radio"/> Yes / No	Yes / No	March 2018	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Calibrate EAD	Annually	<input checked="" type="radio"/> Yes / No	Yes / No	June	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/13/2017 0930 1415	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	Yes
Air Compressor 1 Run Time	(hours)	NA	NA	885:24	888:59
Air Compressor 1 Load Time	(hours)	NA	NA	67:13	70:43
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	200°F	197
Air Compressor 1 Pressure	(psig)	90 - 110	100	90	102
Air Compressor 2 Run Time	(hours)	NA	NA	OFF	
Air Compressor 2 Load Time	(hours)	NA	NA		
Air Compressor 2 Temp	(F)	60 - 100	110	↓	
Air Compressor 2 Pressure	(psig)	90 - 110	100	↓	
Receiver Tank Pressure	(psig)	90 - 110	100	94	105
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	90	100
Manifold Temperature	(F)	60 - 100	110	68	90
Manifold Flow Rate	(scfm)	TBD	TBD	38.42	71.57
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	OFF	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30	✓	

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/13/2017 0930 1415	SCOTT SMITH		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	3.5	OFF
VAS-01 Pressure	(psig)	10 - 20	30	13	
VAS-02 Flow Rate	(scfm)	TBD	TBD	3.5	
VAS-02 Pressure	(psig)	10 - 20	30	12	
VAS-03 Flow Rate	(scfm)	TBD	TBD	0.7	
VAS-03 Pressure	(psig)	10 - 20	30	0	
VAS-04 Flow Rate	(scfm)	TBD	TBD	OFF	
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-09 Pressure	(psig)	10 - 20	30	1	
VAS-10 Flow Rate	(scfm)	TBD	TBD	OFF	
VAS-10 Pressure	(psig)	10 - 20	30		
VAS-11 Flow Rate	(scfm)	TBD	TBD		3.7
VAS-11 Pressure	(psig)	10 - 20	30		5
VAS-12 Flow Rate	(scfm)	TBD	TBD		0.6
VAS-12 Pressure	(psig)	10 - 20	30		2
VAS-13 Flow Rate	(scfm)	TBD	TBD		0.6
VAS-13 Pressure	(psig)	10 - 20	30		0
VAS-14 Flow Rate	(scfm)	TBD	TBD		OFF
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/13/2017 0930 1415	Scott S. Waldron		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	3.3	OFF
VAS-18 Pressure	(psig)	10 - 20	30	0	11
VAS-19 Flow Rate	(scfm)	TBD	TBD	OFF	3.4
VAS-19 Pressure	(psig)	10 - 20	30		7
VAS-20 Flow Rate	(scfm)	TBD	TBD		4.3
VAS-20 Pressure	(psig)	10 - 20	30		18
VAS-21 Flow Rate	(scfm)	TBD	TBD		4.3
VAS-21 Pressure	(psig)	10 - 20	30		23
VAS-22 Flow Rate	(scfm)	TBD	TBD		3.6
VAS-22 Pressure	(psig)	10 - 20	30		22
VAS-23 Flow Rate	(scfm)	TBD	TBD		4.4
VAS-23 Pressure	(psig)	10 - 20	30		18
VAS-24 Flow Rate	(scfm)	TBD	TBD		4.4
VAS-24 Pressure	(psig)	10 - 20	30		28
VAS-25 Flow Rate	(scfm)	TBD	TBD		4.1
VAS-25 Pressure	(psig)	10 - 20	30		23
VAS-26 Flow Rate	(scfm)	TBD	TBD		4.4
VAS-26 Pressure	(psig)	10 - 20	30		24
VAS-27 Flow Rate	(scfm)	TBD	TBD		4.1
VAS-27 Pressure	(psig)	10 - 20	30		22
VAS-28 Flow Rate	(scfm)	TBD	TBD		4.0
VAS-28 Pressure	(psig)	10 - 20	30		9
VAS-29 Flow Rate	(scfm)	TBD	TBD		3.9
VAS-29 Pressure	(psig)	10 - 20	30		5
VAS-30 Flow Rate	(scfm)	TBD	TBD		3.9
VAS-30 Pressure	(psig)	10 - 20	30		0
VAS-31 Flow Rate	(scfm)	TBD	TBD		4.2
VAS-31 Pressure	(psig)	10 - 20	30		24
VAS-32 Flow Rate	(scfm)	TBD	TBD		OFF
VAS-32 Pressure	(psig)	10 - 20	30		
VAS-33 Flow Rate	(scfm)	TBD	TBD		
VAS-33 Pressure	(psig)	10 - 20	30		
VAS-34 Flow Rate	(scfm)	TBD	TBD		
VAS-34 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/13/2017 0930 1415	Scott Smith	←	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	OFF	OFF
VAS-35 Pressure	(psig)	10 - 20	30	↓	↓
VAS-36 Flow Rate	(scfm)	TBD	TBD	↓	↓
VAS-36 Pressure	(psig)	10 - 20	30	↓	↓
VAS-37 Flow Rate	(scfm)	TBD	TBD	↓	↓
VAS-37 Pressure	(psig)	10 - 20	30	↓	↓
VAS-38 Flow Rate	(scfm)	TBD	TBD	↓	↓
VAS-38 Pressure	(psig)	10 - 20	30	↓	↓
VAS-39 Flow Rate	(scfm)	TBD	TBD	↓	↓
VAS-39 Pressure	(psig)	10 - 20	30	↓	↓
VAS-40 Flow Rate	(scfm)	TBD	TBD	↓	↓
VAS-40 Pressure	(psig)	10 - 20	30	↓	↓
VAS-41 Flow Rate	(scfm)	TBD	TBD	3.6	↓
VAS-41 Pressure	(psig)	20-Oct	30	0	↓
VAS-42 Flow Rate	(scfm)	TBD	TBD	OFF	↓
VAS-42 Pressure	(psig)	10 - 20	30	11	↓
VAS-43 Flow Rate	(scfm)	TBD	TBD	3.9	↓
VAS-43 Pressure	(psig)	10 - 20	30	22	↓
VAS-44 Flow Rate	(scfm)	TBD	TBD	4.1	↓
VAS-44 Pressure	(psig)	10 - 20	30	27	↓
VAS-45 Flow Rate	(scfm)	TBD	TBD	3.2	↓
VAS-45 Pressure	(psig)	10 - 20	30	2	↓
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	4.2	5.8
BCA-01 Pressure	(psig)	0 - 5	5	5	4
BCA-02 Flow Rate	(scfm)	TBD	TBD	4.2	5.9
BCA-02 Pressure	(psig)	0 - 5	5	5	4
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD	OFF	OFF
BRS-01 Pressure	(psig)	10 - 20	30	↓	↓
BRS-02 Flow Rate	(scfm)	TBD	TBD	↓	↓
BRS-02 Pressure	(psig)	10 - 20	30	↓	↓
BRS-03 Flow Rate	(scfm)	TBD	TBD	↓	↓
BRS-03 Pressure	(psig)	10 - 20	30	↓	↓



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
4/13/2017 0930	SCOTT SMIDA	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No	→ repaired PVC drain line on A#1	
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No	A#1	
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	June	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No	March 2018	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No	March 2018	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: A#1 Drain line leaking. Repaired w/ PVC cement (photos)

→ Inspected OWS units water for clarity / any oil. Looked good, no issues.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/20/2017 0845 1350	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	Yes
Air Compressor 1 Run Time	(hours)	NA	NA	1051:33	1056:40
Air Compressor 1 Load Time	(hours)	NA	NA	233:18	238:16
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	187	181
Air Compressor 1 Pressure	(psig)	90 - 110	100	102	111
Air Compressor 2 Run Time	(hours)	NA	NA	OFF	
Air Compressor 2 Load Time	(hours)	NA	NA		
Air Compressor 2 Temp	(F)	60 - 100	110	↓	
Air Compressor 2 Pressure	(psig)	90 - 110	100	↓	
Receiver Tank Pressure	(psig)	90 - 110	100	105	114
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	102	110
Manifold Temperature	(F)	60 - 100	110	71	90
Manifold Flow Rate	(scfm)	TBD	TBD	43.68	74.69
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	OFF	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30	↓	

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/20/2017 0845 1350	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	4.1	—
VAS-01 Pressure	(psig)	10 - 20	30	15	—
VAS-02 Flow Rate	(scfm)	TBD	TBD	4.4	—
VAS-02 Pressure	(psig)	10 - 20	30	13	—
VAS-03 Flow Rate	(scfm)	TBD	TBD	1.0	—
VAS-03 Pressure	(psig)	10 - 20	30	0	—
VAS-04 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-04 Pressure	(psig)	10 - 20	30	—	—
VAS-05 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-05 Pressure	(psig)	10 - 20	30	—	—
VAS-06 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-06 Pressure	(psig)	10 - 20	30	—	—
VAS-07 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-07 Pressure	(psig)	10 - 20	30	—	—
VAS-08 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-08 Pressure	(psig)	10 - 20	30	—	—
VAS-09 Flow Rate	(scfm)	TBD	TBD	4.2	—
VAS-09 Pressure	(psig)	10 - 20	30	2	—
VAS-10 Flow Rate	(scfm)	TBD	TBD	4.7	—
VAS-10 Pressure	(psig)	10 - 20	30	5	—
VAS-11 Flow Rate	(scfm)	TBD	TBD	—	3.8
VAS-11 Pressure	(psig)	10 - 20	30	—	6
VAS-12 Flow Rate	(scfm)	TBD	TBD	—	0.4
VAS-12 Pressure	(psig)	10 - 20	30	—	4
VAS-13 Flow Rate	(scfm)	TBD	TBD	—	0.5
VAS-13 Pressure	(psig)	10 - 20	30	—	0
VAS-14 Flow Rate	(scfm)	TBD	TBD	—	0.5
VAS-14 Pressure	(psig)	10 - 20	30	—	0
VAS-15 Flow Rate	(scfm)	TBD	TBD	—	0.7
VAS-15 Pressure	(psig)	10 - 20	30	—	0
VAS-16 Flow Rate	(scfm)	TBD	TBD	—	0.3
VAS-16 Pressure	(psig)	10 - 20	30	—	2
VAS-17 Flow Rate	(scfm)	TBD	TBD	—	0.4
VAS-17 Pressure	(psig)	10 - 20	30	—	2





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/20/2017 0845 1350	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	5.0	—
VAS-18 Pressure	(psig)	10 - 20	30	0	—
VAS-19 Flow Rate	(scfm)	TBD	TBD	—	4.5
VAS-19 Pressure	(psig)	10 - 20	30	—	10
VAS-20 Flow Rate	(scfm)	TBD	TBD	—	4.9
VAS-20 Pressure	(psig)	10 - 20	30	—	26
VAS-21 Flow Rate	(scfm)	TBD	TBD	—	4.9
VAS-21 Pressure	(psig)	10 - 20	30	—	23
VAS-22 Flow Rate	(scfm)	TBD	TBD	—	4.4
VAS-22 Pressure	(psig)	10 - 20	30	—	23
VAS-23 Flow Rate	(scfm)	TBD	TBD	—	4.3
VAS-23 Pressure	(psig)	10 - 20	30	—	19
VAS-24 Flow Rate	(scfm)	TBD	TBD	—	4.3
VAS-24 Pressure	(psig)	10 - 20	30	—	28
VAS-25 Flow Rate	(scfm)	TBD	TBD	—	4.4
VAS-25 Pressure	(psig)	10 - 20	30	—	24
VAS-26 Flow Rate	(scfm)	TBD	TBD	—	4.8
VAS-26 Pressure	(psig)	10 - 20	30	—	25
VAS-27 Flow Rate	(scfm)	TBD	TBD	—	3.7
VAS-27 Pressure	(psig)	10 - 20	30	—	23
VAS-28 Flow Rate	(scfm)	TBD	TBD	—	3.8
VAS-28 Pressure	(psig)	10 - 20	30	—	8
VAS-29 Flow Rate	(scfm)	TBD	TBD	—	3.9
VAS-29 Pressure	(psig)	10 - 20	30	—	5
VAS-30 Flow Rate	(scfm)	TBD	TBD	—	4.1
VAS-30 Pressure	(psig)	10 - 20	30	—	0
VAS-31 Flow Rate	(scfm)	TBD	TBD	—	4.8
VAS-31 Pressure	(psig)	10 - 20	30	—	24
VAS-32 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-32 Pressure	(psig)	10 - 20	30	—	—
VAS-33 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-33 Pressure	(psig)	10 - 20	30	—	—
VAS-34 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-34 Pressure	(psig)	10 - 20	30	—	—



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/20/2017 0845 1350	SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-35 Pressure	(psig)	10 - 20	30	—	—
VAS-36 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-36 Pressure	(psig)	10 - 20	30	—	—
VAS-37 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-37 Pressure	(psig)	10 - 20	30	—	—
VAS-38 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-38 Pressure	(psig)	10 - 20	30	—	—
VAS-39 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-39 Pressure	(psig)	10 - 20	30	—	—
VAS-40 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-40 Pressure	(psig)	10 - 20	30	—	—
VAS-41 Flow Rate	(scfm)	TBD	TBD	4.4	—
VAS-41 Pressure	(psig)	20-Oct	30	2	—
VAS-42 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-42 Pressure	(psig)	10 - 20	30	—	—
VAS-43 Flow Rate	(scfm)	TBD	TBD	3.7	—
VAS-43 Pressure	(psig)	10 - 20	30	23	—
VAS-44 Flow Rate	(scfm)	TBD	TBD	3.4	—
VAS-44 Pressure	(psig)	10 - 20	30	28	—
VAS-45 Flow Rate	(scfm)	TBD	TBD	—	—
VAS-45 Pressure	(psig)	10 - 20	30	—	—
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	6.47	3.9
BCA-01 Pressure	(psig)	0 - 5	5	8	4
BCA-02 Flow Rate	(scfm)	TBD	TBD	6.7	4.1
BCA-02 Pressure	(psig)	0 - 5	5	8	4
} lower to 4 SCFM					
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD	—	—
BRS-01 Pressure	(psig)	10 - 20	30	—	—
BRS-02 Flow Rate	(scfm)	TBD	TBD	—	—
BRS-02 Pressure	(psig)	10 - 20	30	—	—
BRS-03 Flow Rate	(scfm)	TBD	TBD	—	—
BRS-03 Pressure	(psig)	10 - 20	30	—	—



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
4/20/2017 0845	Scott Smida	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No	5/26/17	
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	6/20/17	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No	3/2018	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No	3/2018	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → manually drain some water from inline air filter auto drains  
 → close Ailatm air slightly to allow air compressor to periodically cycle off load  
 → cleaned inlet filter screen of ACH1 using shop air



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/20/2017 0820 1515	Scott Smida	✓	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	1195:24	1201:55
Air Compressor 1 Load Time	(hours)	NA	NA	376:50	383:21
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	184	200
Air Compressor 1 Pressure	(psig)	90 - 110	100	102	102
Air Compressor 2 Run Time	(hours)	NA	NA	NOT operating	
Air Compressor 2 Load Time	(hours)	NA	NA		
Air Compressor 2 Temp	(F)	60 - 100	110		
Air Compressor 2 Pressure	(psig)	90 - 110	100		
Receiver Tank Pressure	(psig)	90 - 110	100	105	105
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	100	100
Manifold Temperature	(F)	60 - 100	110	70	88
Manifold Flow Rate	(scfm)	TBD	TBD	88.42	29.69
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	OFF	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-1 Valve Position	(%)	TBD	TBD		
HAS-1 Pressure	(psig)	10 - 20	30		
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-2 Valve Position	(%)	TBD	TBD		
HAS-2 Pressure	(psig)	10 - 20	30		
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		
HAS-3 Valve Position	(%)	TBD	TBD		
HAS-3 Pressure	(psig)	10 - 20	30		

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/26/2017 0820 1515	SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	3.5	OFF
VAS-01 Pressure	(psig)	10 - 20	30	15	
VAS-02 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-02 Pressure	(psig)	10 - 20	30	15	
VAS-03 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-03 Pressure	(psig)	10 - 20	30	1	
VAS-04 Flow Rate	(scfm)	TBD	TBD	0.3	
VAS-04 Pressure	(psig)	10 - 20	30	1	
VAS-05 Flow Rate	(scfm)	TBD	TBD	1.1	
VAS-05 Pressure	(psig)	10 - 20	30	1	
VAS-06 Flow Rate	(scfm)	TBD	TBD	1.4	
VAS-06 Pressure	(psig)	10 - 20	30	1	
VAS-07 Flow Rate	(scfm)	TBD	TBD	0.7	
VAS-07 Pressure	(psig)	10 - 20	30	5	
VAS-08 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-08 Pressure	(psig)	10 - 20	30	5	
VAS-09 Flow Rate	(scfm)	TBD	TBD	4.6	
VAS-09 Pressure	(psig)	10 - 20	30	2	
VAS-10 Flow Rate	(scfm)	TBD	TBD	4.8	
VAS-10 Pressure	(psig)	10 - 20	30	6	↓
VAS-11 Flow Rate	(scfm)	TBD	TBD	OFF	3.7
VAS-11 Pressure	(psig)	10 - 20	30		6
VAS-12 Flow Rate	(scfm)	TBD	TBD		0.4
VAS-12 Pressure	(psig)	10 - 20	30		2
VAS-13 Flow Rate	(scfm)	TBD	TBD		0.5
VAS-13 Pressure	(psig)	10 - 20	30		0
VAS-14 Flow Rate	(scfm)	TBD	TBD		0.4
VAS-14 Pressure	(psig)	10 - 20	30		0
VAS-15 Flow Rate	(scfm)	TBD	TBD		0.6
VAS-15 Pressure	(psig)	10 - 20	30		1
VAS-16 Flow Rate	(scfm)	TBD	TBD		0.2
VAS-16 Pressure	(psig)	10 - 20	30		1
VAS-17 Flow Rate	(scfm)	TBD	TBD		0.2
VAS-17 Pressure	(psig)	10 - 20	30		2



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/26/2017 0826 1515	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	4.8	OFF
VAS-18 Pressure	(psig)	10 - 20	30	0	↓
VAS-19 Flow Rate	(scfm)	TBD	TBD	OFF	4.7
VAS-19 Pressure	(psig)	10 - 20	30		10
VAS-20 Flow Rate	(scfm)	TBD	TBD		OFF
VAS-20 Pressure	(psig)	10 - 20	30		
VAS-21 Flow Rate	(scfm)	TBD	TBD		
VAS-21 Pressure	(psig)	10 - 20	30		
VAS-22 Flow Rate	(scfm)	TBD	TBD		
VAS-22 Pressure	(psig)	10 - 20	30		
VAS-23 Flow Rate	(scfm)	TBD	TBD		
VAS-23 Pressure	(psig)	10 - 20	30		
VAS-24 Flow Rate	(scfm)	TBD	TBD		
VAS-24 Pressure	(psig)	10 - 20	30		
VAS-25 Flow Rate	(scfm)	TBD	TBD		
VAS-25 Pressure	(psig)	10 - 20	30		
VAS-26 Flow Rate	(scfm)	TBD	TBD		
VAS-26 Pressure	(psig)	10 - 20	30		
VAS-27 Flow Rate	(scfm)	TBD	TBD		
VAS-27 Pressure	(psig)	10 - 20	30		
VAS-28 Flow Rate	(scfm)	TBD	TBD		
VAS-28 Pressure	(psig)	10 - 20	30		
VAS-29 Flow Rate	(scfm)	TBD	TBD		
VAS-29 Pressure	(psig)	10 - 20	30		
VAS-30 Flow Rate	(scfm)	TBD	TBD		
VAS-30 Pressure	(psig)	10 - 20	30		
VAS-31 Flow Rate	(scfm)	TBD	TBD		
VAS-31 Pressure	(psig)	10 - 20	30		
VAS-32 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-32 Pressure	(psig)	10 - 20	30	16	
VAS-33 Flow Rate	(scfm)	TBD	TBD	5.0	
VAS-33 Pressure	(psig)	10 - 20	30	22	
VAS-34 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-34 Pressure	(psig)	10 - 20	30	21	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/24/2017 0926 1515	SCOTT SIM 1049	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	4.0	OFF
VAS-35 Pressure	(psig)	10 - 20	30	15	
VAS-36 Flow Rate	(scfm)	TBD	TBD	5.0	
VAS-36 Pressure	(psig)	10 - 20	30	11	
VAS-37 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-37 Pressure	(psig)	10 - 20	30	4	
VAS-38 Flow Rate	(scfm)	TBD	TBD	5.6	
VAS-38 Pressure	(psig)	10 - 20	30	6	
VAS-39 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-39 Pressure	(psig)	10 - 20	30	11	
VAS-40 Flow Rate	(scfm)	TBD	TBD	5.7	
VAS-40 Pressure	(psig)	10 - 20	30	21	↓
VAS-41 Flow Rate	(scfm)	TBD	TBD	OFF	4.2
VAS-41 Pressure	(psig)	20-Oct	30	↓	0
VAS-42 Flow Rate	(scfm)	TBD	TBD	4.6	OFF
VAS-42 Pressure	(psig)	10 - 20	30	9	↓
VAS-43 Flow Rate	(scfm)	TBD	TBD	OFF	3.2
VAS-43 Pressure	(psig)	10 - 20	30		22
VAS-44 Flow Rate	(scfm)	TBD	TBD		3.4
VAS-44 Pressure	(psig)	10 - 20	30		24
VAS-45 Flow Rate	(scfm)	TBD	TBD		4.0
VAS-45 Pressure	(psig)	10 - 20	30	↓	3
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	4.9	2.8
BCA-01 Pressure	(psig)	0 - 5	5	5	2
BCA-02 Flow Rate	(scfm)	TBD	TBD	5.0	3.1
BCA-02 Pressure	(psig)	0 - 5	5	6	2
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
4/20/2017 0820	SCOTT SMIDA	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
Sparge Building (PPM)	...	= 7.5 on 4/25 @ 1137		recorded by ECS	

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: After recording operating well delays Adjust all back to their intended target flows.  
 → manually drain moisture from coalescing filter auto drains





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/4/2017 09:00 1540	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	13:08:20	NOT operating
Air Compressor 1 Load Time	(hours)	NA	NA	5:04:40	↓
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	193	↓
Air Compressor 1 Pressure	(psig)	90 - 110	100	102	↓
Air Compressor 2 Run Time	(hours)	NA	NA	NOT operating	4:12
Air Compressor 2 Load Time	(hours)	NA	NA	↓	3:41
Air Compressor 2 Temp	(F)	60 - 100	110	↓	185
Air Compressor 2 Pressure	(psig)	90 - 110	100	↓	110
Receiver Tank Pressure	(psig)	90 - 110	100	106	115
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A

Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	102	106
Manifold Temperature	(F)	60 - 100	110	77	77
Manifold Flow Rate	(scfm)	TBD	TBD	46.14	73.05

Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	NOT operating	X
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	↓	↓
HAS-1 Valve Position	(%)	TBD	TBD	↓	↓
HAS-1 Pressure	(psig)	10 - 20	30	↓	↓
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	↓	↓
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	↓	↓
HAS-2 Valve Position	(%)	TBD	TBD	↓	↓
HAS-2 Pressure	(psig)	10 - 20	30	↓	↓
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	↓	↓
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	↓	↓
HAS-3 Valve Position	(%)	TBD	TBD	↓	↓
HAS-3 Pressure	(psig)	10 - 20	30	↓	↓

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



increased flow to targets

Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/14/2017 0900 1546	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	4.2	off
VAS-01 Pressure	(psig)	10 - 20	30	15	
VAS-02 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-02 Pressure	(psig)	10 - 20	30	12	
VAS-03 Flow Rate	(scfm)	TBD	TBD	0.7	
VAS-03 Pressure	(psig)	10 - 20	30	0	
VAS-04 Flow Rate	(scfm)	TBD	TBD	0.4	
VAS-04 Pressure	(psig)	10 - 20	30	0	
VAS-05 Flow Rate	(scfm)	TBD	TBD	0.5	
VAS-05 Pressure	(psig)	10 - 20	30	0	
VAS-06 Flow Rate	(scfm)	TBD	TBD	0.5	
VAS-06 Pressure	(psig)	10 - 20	30	1	
VAS-07 Flow Rate	(scfm)	TBD	TBD	0.2	
VAS-07 Pressure	(psig)	10 - 20	30	3	
VAS-08 Flow Rate	(scfm)	TBD	TBD	0.2	
VAS-08 Pressure	(psig)	10 - 20	30	5	
VAS-09 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-09 Pressure	(psig)	10 - 20	30	1	
VAS-10 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-10 Pressure	(psig)	10 - 20	30	5	
VAS-11 Flow Rate	(scfm)	TBD	TBD	Not operating	4.3
VAS-11 Pressure	(psig)	10 - 20	30		8
VAS-12 Flow Rate	(scfm)	TBD	TBD		0.7
VAS-12 Pressure	(psig)	10 - 20	30		4
VAS-13 Flow Rate	(scfm)	TBD	TBD		0.8
VAS-13 Pressure	(psig)	10 - 20	30		2
VAS-14 Flow Rate	(scfm)	TBD	TBD		0.8
VAS-14 Pressure	(psig)	10 - 20	30		1
VAS-15 Flow Rate	(scfm)	TBD	TBD		1.1
VAS-15 Pressure	(psig)	10 - 20	30		2
VAS-16 Flow Rate	(scfm)	TBD	TBD		0.5
VAS-16 Pressure	(psig)	10 - 20	30		2
VAS-17 Flow Rate	(scfm)	TBD	TBD		0.5
VAS-17 Pressure	(psig)	10 - 20	30		4



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/4/2017 0900	SCOTT SIMON	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	3.9	OFF
VAS-18 Pressure	(psig)	10 - 20	30	0	"
VAS-19 Flow Rate	(scfm)	TBD	TBD	Not OPERATING	4.8
VAS-19 Pressure	(psig)	10 - 20	30		10
VAS-20 Flow Rate	(scfm)	TBD	TBD		3.4
VAS-20 Pressure	(psig)	10 - 20	30		20
VAS-21 Flow Rate	(scfm)	TBD	TBD		4.0
VAS-21 Pressure	(psig)	10 - 20	30		24
VAS-22 Flow Rate	(scfm)	TBD	TBD		4.2
VAS-22 Pressure	(psig)	10 - 20	30		24
VAS-23 Flow Rate	(scfm)	TBD	TBD		4.6
VAS-23 Pressure	(psig)	10 - 20	30		20
VAS-24 Flow Rate	(scfm)	TBD	TBD		3.1
VAS-24 Pressure	(psig)	10 - 20	30		25
VAS-25 Flow Rate	(scfm)	TBD	TBD		3.7
VAS-25 Pressure	(psig)	10 - 20	30		23
VAS-26 Flow Rate	(scfm)	TBD	TBD		4.0
VAS-26 Pressure	(psig)	10 - 20	30		26
VAS-27 Flow Rate	(scfm)	TBD	TBD		4.1
VAS-27 Pressure	(psig)	10 - 20	30		24
VAS-28 Flow Rate	(scfm)	TBD	TBD		4.4
VAS-28 Pressure	(psig)	10 - 20	30		10
VAS-29 Flow Rate	(scfm)	TBD	TBD		3.8
VAS-29 Pressure	(psig)	10 - 20	30		8
VAS-30 Flow Rate	(scfm)	TBD	TBD		4.6
VAS-30 Pressure	(psig)	10 - 20	30		0
VAS-31 Flow Rate	(scfm)	TBD	TBD		4.3
VAS-31 Pressure	(psig)	10 - 20	30		23
VAS-32 Flow Rate	(scfm)	TBD	TBD		OFF
VAS-32 Pressure	(psig)	10 - 20	30		
VAS-33 Flow Rate	(scfm)	TBD	TBD		
VAS-33 Pressure	(psig)	10 - 20	30		
VAS-34 Flow Rate	(scfm)	TBD	TBD		
VAS-34 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/4/2017 0900 BYO	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
VAS-35 Flow Rate	(scfm)	TBD	TBD	NOT operating	NOT operating		
VAS-35 Pressure	(psig)	10 - 20	30	↓	↓		
VAS-36 Flow Rate	(scfm)	TBD	TBD				
VAS-36 Pressure	(psig)	10 - 20	30				
VAS-37 Flow Rate	(scfm)	TBD	TBD				
VAS-37 Pressure	(psig)	10 - 20	30				
VAS-38 Flow Rate	(scfm)	TBD	TBD				
VAS-38 Pressure	(psig)	10 - 20	30				
VAS-39 Flow Rate	(scfm)	TBD	TBD				
VAS-39 Pressure	(psig)	10 - 20	30				
VAS-40 Flow Rate	(scfm)	TBD	TBD				
VAS-40 Pressure	(psig)	10 - 20	30				
VAS-41 Flow Rate	(scfm)	TBD	TBD			4.8	↓
VAS-41 Pressure	(psig)	20-Oct	30			3	
VAS-42 Flow Rate	(scfm)	TBD	TBD			NOT operating	
VAS-42 Pressure	(psig)	10 - 20	30			↓	
VAS-43 Flow Rate	(scfm)	TBD	TBD			3.7	
VAS-43 Pressure	(psig)	10 - 20	30	2.4			
VAS-44 Flow Rate	(scfm)	TBD	TBD	4.0			
VAS-44 Pressure	(psig)	10 - 20	30	2.8			
VAS-45 Flow Rate	(scfm)	TBD	TBD	4.4			
VAS-45 Pressure	(psig)	10 - 20	30	5			
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure		
BCA-01 Flow Rate	(scfm)	TBD	TBD	3.4	4.4		
BCA-01 Pressure	(psig)	0 - 5	5	5	4		
BCA-02 Flow Rate	(scfm)	TBD	TBD	4.2	4.1		
BCA-02 Pressure	(psig)	0 - 5	5	5	4		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
BRS-01 Flow Rate	(scfm)	TBD	TBD	NOT operating	<del>4.4</del>		
BRS-01 Pressure	(psig)	10 - 20	30	↓	↓		
BRS-02 Flow Rate	(scfm)	TBD	TBD				
BRS-02 Pressure	(psig)	10 - 20	30				
BRS-03 Flow Rate	(scfm)	TBD	TBD				
BRS-03 Pressure	(psig)	10 - 20	30				



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
5/14/2017 0900 1540	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		repair ACD / drain line
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No	Due June	
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

**NOTE:** Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

**Additional Comments:** Increased flows to targets after recording flow at arrival. shutdown to inspect cond. mgmt. system, coalescing filters, oil level ACD and clean inlet filter screens. upon restart, sump pressure gage too high and shutting ACD down. Trouble shoot issue and work w/ Airrite on resolution. See field notes for details.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/12/17 0930 1530	Scott Smida	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	1390:37	1393:11
Air Compressor 1 Load Time	(hours)	NA	NA	570:20	570:52
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	Not operating	187
Air Compressor 1 Pressure	(psig)	90 - 110	100	Not operating	107
Air Compressor 2 Run Time	(hours)	NA	NA	117:46	121:36
Air Compressor 2 Load Time	(hours)	NA	NA	20:49	21:30
Air Compressor 2 Temp	(F)	60 - 100	110	182	Not operating
Air Compressor 2 Pressure	(psig)	90 - 110	100	108	Not operating
Receiver Tank Pressure	(psig)	90 - 110	100	110	115
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	100	112
Manifold Temperature	(F)	60 - 100	110	76	89
Manifold Flow Rate	(scfm)	TBD	TBD	94.25	176.8
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	Not operating ↓	40
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		41.70
HAS-1 Valve Position	(%)	TBD	TBD		16.0
HAS-1 Pressure	(psig)	10 - 20	30		25
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		35
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		30.59
HAS-2 Valve Position	(%)	TBD	TBD		99.7
HAS-2 Pressure	(psig)	10 - 20	30		23
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		20
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		19.66
HAS-3 Valve Position	(%)	TBD	TBD		2.2
HAS-3 Pressure	(psig)	10 - 20	30		14

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

**Notes (include alarms since previous visit):**

→ Increased Brown's Creek Aeration to 5 SCFM. (photos)

→ wells adjusted to target flows after recording operating data.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/19/2017 0930 1530	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	4.4	Not operating (NO)
VAS-01 Pressure	(psig)	10 - 20	30	5	
VAS-02 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-02 Pressure	(psig)	10 - 20	30	11	
VAS-03 Flow Rate	(scfm)	TBD	TBD	0.3	
VAS-03 Pressure	(psig)	10 - 20	30	0	
VAS-04 Flow Rate	(scfm)	TBD	TBD	1.5	
VAS-04 Pressure	(psig)	10 - 20	30	0	
VAS-05 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-05 Pressure	(psig)	10 - 20	30	0	
VAS-06 Flow Rate	(scfm)	TBD	TBD	0.3	
VAS-06 Pressure	(psig)	10 - 20	30	0	
VAS-07 Flow Rate	(scfm)	TBD	TBD	6.5	
VAS-07 Pressure	(psig)	10 - 20	30	4	
VAS-08 Flow Rate	(scfm)	TBD	TBD	0.2	
VAS-08 Pressure	(psig)	10 - 20	30	4	
VAS-09 Flow Rate	(scfm)	TBD	TBD	4.0	
VAS-09 Pressure	(psig)	10 - 20	30	0	
VAS-10 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-10 Pressure	(psig)	10 - 20	30	5	
VAS-11 Flow Rate	(scfm)	TBD	TBD	NO	4.4
VAS-11 Pressure	(psig)	10 - 20	30		7
VAS-12 Flow Rate	(scfm)	TBD	TBD		1.0
VAS-12 Pressure	(psig)	10 - 20	30		2
VAS-13 Flow Rate	(scfm)	TBD	TBD		0.7
VAS-13 Pressure	(psig)	10 - 20	30		1
VAS-14 Flow Rate	(scfm)	TBD	TBD		6.8
VAS-14 Pressure	(psig)	10 - 20	30		0
VAS-15 Flow Rate	(scfm)	TBD	TBD		0.9
VAS-15 Pressure	(psig)	10 - 20	30		0
VAS-16 Flow Rate	(scfm)	TBD	TBD		0.3
VAS-16 Pressure	(psig)	10 - 20	30		2
VAS-17 Flow Rate	(scfm)	TBD	TBD		0.3
VAS-17 Pressure	(psig)	10 - 20	30		2



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/9/2017 0930 1530	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	4.0	NO
VAS-18 Pressure	(psig)	10 - 20	30	0	NO
VAS-19 Flow Rate	(scfm)	TBD	TBD	NO	4.0
VAS-19 Pressure	(psig)	10 - 20	30	NO	8
VAS-20 Flow Rate	(scfm)	TBD	TBD	4.9	NO
VAS-20 Pressure	(psig)	10 - 20	30	20	
VAS-21 Flow Rate	(scfm)	TBD	TBD	4.0	
VAS-21 Pressure	(psig)	10 - 20	30	24	
VAS-22 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-22 Pressure	(psig)	10 - 20	30	24	
VAS-23 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-23 Pressure	(psig)	10 - 20	30	20	
VAS-24 Flow Rate	(scfm)	TBD	TBD	3.3	
VAS-24 Pressure	(psig)	10 - 20	30	28	
VAS-25 Flow Rate	(scfm)	TBD	TBD	6.1	
VAS-25 Pressure	(psig)	10 - 20	30	24	
VAS-26 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-26 Pressure	(psig)	10 - 20	30	26	
VAS-27 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-27 Pressure	(psig)	10 - 20	30	25	
VAS-28 Flow Rate	(scfm)	TBD	TBD	4.7	
VAS-28 Pressure	(psig)	10 - 20	30	10	
VAS-29 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-29 Pressure	(psig)	10 - 20	30	8	
VAS-30 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-30 Pressure	(psig)	10 - 20	30	0	
VAS-31 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-31 Pressure	(psig)	10 - 20	30	26	
VAS-32 Flow Rate	(scfm)	TBD	TBD	NO	4.2
VAS-32 Pressure	(psig)	10 - 20	30		17
VAS-33 Flow Rate	(scfm)	TBD	TBD		4.8
VAS-33 Pressure	(psig)	10 - 20	30		20
VAS-34 Flow Rate	(scfm)	TBD	TBD		4.1
VAS-34 Pressure	(psig)	10 - 20	30		18





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/12/2017 0930 1530	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-35 Flow Rate	(scfm)	TBD	TBD	NO	4.5	
VAS-35 Pressure	(psig)	10 - 20	30	↓	23	
VAS-36 Flow Rate	(scfm)	TBD	TBD		3.4	
VAS-36 Pressure	(psig)	10 - 20	30		10	
VAS-37 Flow Rate	(scfm)	TBD	TBD		3.8	
VAS-37 Pressure	(psig)	10 - 20	30		2	
VAS-38 Flow Rate	(scfm)	TBD	TBD		4.1	
VAS-38 Pressure	(psig)	10 - 20	30		3	
VAS-39 Flow Rate	(scfm)	TBD	TBD		3.9	
VAS-39 Pressure	(psig)	10 - 20	30		9	
VAS-40 Flow Rate	(scfm)	TBD	TBD		4.3	
VAS-40 Pressure	(psig)	10 - 20	30		20	
VAS-41 Flow Rate	(scfm)	TBD	TBD		NO	
VAS-41 Pressure	(psig)	20-Oct	30		NO	
VAS-42 Flow Rate	(scfm)	TBD	TBD		4.10	
VAS-42 Pressure	(psig)	10 - 20	30		6	
VAS-43 Flow Rate	(scfm)	TBD	TBD		NO	
VAS-43 Pressure	(psig)	10 - 20	30		↓	
VAS-44 Flow Rate	(scfm)	TBD	TBD			
VAS-44 Pressure	(psig)	10 - 20	30			
VAS-45 Flow Rate	(scfm)	TBD	TBD		↓	
VAS-45 Pressure	(psig)	10 - 20	30			
Brown's Creek Aerators	(Units)	Optimal Level	Max Level		Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD		5.0	5.1
BCA-01 Pressure	(psig)	0 - 5	5		5	5
BCA-02 Flow Rate	(scfm)	TBD	TBD		4.5	4.9
BCA-02 Pressure	(psig)	0 - 5	5	5	4	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
BRS-01 Flow Rate	(scfm)	TBD	TBD	NO	NO	
BRS-01 Pressure	(psig)	10 - 20	30	↓		
BRS-02 Flow Rate	(scfm)	TBD	TBD			
BRS-02 Pressure	(psig)	10 - 20	30			
BRS-03 Flow Rate	(scfm)	TBD	TBD			
BRS-03 Pressure	(psig)	10 - 20	30			



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
5/9/2017 0930	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		overflow on AC#1 has < 1/4 gallon liquid AC#2 is empty
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		completed 50 HR AC#2 and replaced warranty parts AC#1
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → Manually drained a little liquid coalescing filter housings.  
→ activated bleed air and found very little moisture in line



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/16/2017 1660 1330	Scott Smidt	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	1555:41	1559:06
Air Compressor 1 Load Time	(hours)	NA	NA	610:39	611:45
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	185	187
Air Compressor 1 Pressure	(psig)	90 - 110	100	103	112
Air Compressor 2 Run Time	(hours)	NA	NA	121:36	—
Air Compressor 2 Load Time	(hours)	NA	NA	21:30	—
Air Compressor 2 Temp	(F)	60 - 100	110	NOT Operating (NO)	NO
Air Compressor 2 Pressure	(psig)	90 - 110	100	NO	NO
Receiver Tank Pressure	(psig)	90 - 110	100	110	110
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	108	110
Manifold Temperature	(F)	60 - 100	110	87	96
Manifold Flow Rate	(scfm)	TBD	TBD	188.3	190.2
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	40	55
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	40.4	61.1
HAS-1 Valve Position	(%)	TBD	TBD	6.6	8.1
HAS-1 Pressure	(psig)	10 - 20	30	17	18
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	35	50
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	33.2	49.9
HAS-2 Valve Position	(%)	TBD	TBD	5.6	6.3
HAS-2 Pressure	(psig)	10 - 20	30	20	28
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	26	35
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	12.2	24.6
HAS-3 Valve Position	(%)	TBD	TBD	1.6	1.9
HAS-3 Pressure	(psig)	10 - 20	30	14	15

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>
→ Hi Flow alarms for HAS wells aren't activating. Will inform programmer.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/10/2017 1000 1330	SCOTT Sm 10A		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-01 Pressure	(psig)	10 - 20	30	14	
VAS-02 Flow Rate	(scfm)	TBD	TBD	3.4	
VAS-02 Pressure	(psig)	10 - 20	30	12	
VAS-03 Flow Rate	(scfm)	TBD	TBD	0.2	
VAS-03 Pressure	(psig)	10 - 20	30	0	
VAS-04 Flow Rate	(scfm)	TBD	TBD	0.3	
VAS-04 Pressure	(psig)	10 - 20	30	0	
VAS-05 Flow Rate	(scfm)	TBD	TBD	0.4	
VAS-05 Pressure	(psig)	10 - 20	30	0	
VAS-06 Flow Rate	(scfm)	TBD	TBD	1.7	
VAS-06 Pressure	(psig)	10 - 20	30	0	
VAS-07 Flow Rate	(scfm)	TBD	TBD	0.1	
VAS-07 Pressure	(psig)	10 - 20	30	2	
VAS-08 Flow Rate	(scfm)	TBD	TBD	0.2	
VAS-08 Pressure	(psig)	10 - 20	30	3	
VAS-09 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-09 Pressure	(psig)	10 - 20	30	1	
VAS-10 Flow Rate	(scfm)	TBD	TBD	3.3	
VAS-10 Pressure	(psig)	10 - 20	30	4	
VAS-11 Flow Rate	(scfm)	TBD	TBD	NO	4.2
VAS-11 Pressure	(psig)	10 - 20	30		8
VAS-12 Flow Rate	(scfm)	TBD	TBD		0.8
VAS-12 Pressure	(psig)	10 - 20	30		2
VAS-13 Flow Rate	(scfm)	TBD	TBD		0.2
VAS-13 Pressure	(psig)	10 - 20	30		0
VAS-14 Flow Rate	(scfm)	TBD	TBD		0.6
VAS-14 Pressure	(psig)	10 - 20	30		0
VAS-15 Flow Rate	(scfm)	TBD	TBD		0.8
VAS-15 Pressure	(psig)	10 - 20	30		0
VAS-16 Flow Rate	(scfm)	TBD	TBD		0.1
VAS-16 Pressure	(psig)	10 - 20	30		0
VAS-17 Flow Rate	(scfm)	TBD	TBD		NO
VAS-17 Pressure	(psig)	10 - 20	30		↓



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/14/2017 1006 1336	SCOTT SMIBA	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	3.3	NO
VAS-18 Pressure	(psig)	10 - 20	30	0	NO
VAS-19 Flow Rate	(scfm)	TBD	TBD	NO	3.8
VAS-19 Pressure	(psig)	10 - 20	30	NO	9
VAS-20 Flow Rate	(scfm)	TBD	TBD	3.7	NO
VAS-20 Pressure	(psig)	10 - 20	30	18	
VAS-21 Flow Rate	(scfm)	TBD	TBD	4.0	
VAS-21 Pressure	(psig)	10 - 20	30	22	
VAS-22 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-22 Pressure	(psig)	10 - 20	30	21	
VAS-23 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-23 Pressure	(psig)	10 - 20	30	19	
VAS-24 Flow Rate	(scfm)	TBD	TBD	3.4	
VAS-24 Pressure	(psig)	10 - 20	30	26	
VAS-25 Flow Rate	(scfm)	TBD	TBD	3.5	
VAS-25 Pressure	(psig)	10 - 20	30	20	
VAS-26 Flow Rate	(scfm)	TBD	TBD	3.6	
VAS-26 Pressure	(psig)	10 - 20	30	25	
VAS-27 Flow Rate	(scfm)	TBD	TBD	3.4	
VAS-27 Pressure	(psig)	10 - 20	30	22	
VAS-28 Flow Rate	(scfm)	TBD	TBD	3.5	
VAS-28 Pressure	(psig)	10 - 20	30	8	
VAS-29 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-29 Pressure	(psig)	10 - 20	30	6	
VAS-30 Flow Rate	(scfm)	TBD	TBD	3.0	
VAS-30 Pressure	(psig)	10 - 20	30	0	
VAS-31 Flow Rate	(scfm)	TBD	TBD	3.4	
VAS-31 Pressure	(psig)	10 - 20	30	23	↓
VAS-32 Flow Rate	(scfm)	TBD	TBD	NO	4.5
VAS-32 Pressure	(psig)	10 - 20	30		19
VAS-33 Flow Rate	(scfm)	TBD	TBD		3.1
VAS-33 Pressure	(psig)	10 - 20	30		21
VAS-34 Flow Rate	(scfm)	TBD	TBD		3.2
VAS-34 Pressure	(psig)	10 - 20	30		21



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/16/2017 1066 1336	SCOTT SMIDA	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	NO	4.4
VAS-35 Pressure	(psig)	10 - 20	30	↓	15
VAS-36 Flow Rate	(scfm)	TBD	TBD		4.2
VAS-36 Pressure	(psig)	10 - 20	30		11
VAS-37 Flow Rate	(scfm)	TBD	TBD		4.7
VAS-37 Pressure	(psig)	10 - 20	30		2
VAS-38 Flow Rate	(scfm)	TBD	TBD		3.8
VAS-38 Pressure	(psig)	10 - 20	30		2
VAS-39 Flow Rate	(scfm)	TBD	TBD		3.9
VAS-39 Pressure	(psig)	10 - 20	30		9
VAS-40 Flow Rate	(scfm)	TBD	TBD		3.0
VAS-40 Pressure	(psig)	10 - 20	30		22
VAS-41 Flow Rate	(scfm)	TBD	TBD		NO
VAS-41 Pressure	(psig)	20-Oct	30		NO
VAS-42 Flow Rate	(scfm)	TBD	TBD		3.9
VAS-42 Pressure	(psig)	10 - 20	30		7
VAS-43 Flow Rate	(scfm)	TBD	TBD		NO
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD		3.8
VAS-45 Pressure	(psig)	10 - 20	30	3	2
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	4.9	5.8
BCA-01 Pressure	(psig)	0 - 5	5	5	5
BCA-02 Flow Rate	(scfm)	TBD	TBD	5.1	6.0
BCA-02 Pressure	(psig)	0 - 5	5	5	5
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD	NO	NO
BRS-01 Pressure	(psig)	10 - 20	30	↓	↓
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD	↓	↓
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
5/16/2017 10:00	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
Drain auto drains of coalescing filters		Yes			drain ~ 1/4 gallon total from both
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → Inspect water clarity in Beko units - found ok. Beko overflow containers have small amount of liquid (oil/H<sub>2</sub>O), ~ 1/4 gallon each -  
 → Inspect interior of compressor cabinet. No issues found



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/23/2017 0915 1400	SCOTT SWIBA	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	Yes
Air Compressor 1 Run Time	(hours)	NA	NA	1709:46	1714:39
Air Compressor 1 Load Time	(hours)	NA	NA	658:46	660:39
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	192	187
Air Compressor 1 Pressure	(psig)	90 - 110	100	112	112
Air Compressor 2 Run Time	(hours)	NA	NA	NOT OPERATING (NO)	
Air Compressor 2 Load Time	(hours)	NA	NA		
Air Compressor 2 Temp	(F)	60 - 100	110	↓	
Air Compressor 2 Pressure	(psig)	90 - 110	100	↓	
Receiver Tank Pressure	(psig)	90 - 110	100	115	175
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	110	112
Manifold Temperature	(F)	60 - 100	110	71	78
Manifold Flow Rate	(scfm)	TBD	TBD	280.8	275.6
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	55.0	75.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	61.5	72.2
HAS-1 Valve Position	(%)	TBD	TBD	8.2	7.9
HAS-1 Pressure	(psig)	10 - 20	30	19	21
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	50.0	72.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	49.0	69.1
HAS-2 Valve Position	(%)	TBD	TBD	6.2	8.1
HAS-2 Pressure	(psig)	10 - 20	30	21	23
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	35.0	38.0
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	38.7	50.9
HAS-3 Valve Position	(%)	TBD	TBD	3.3	3.9
HAS-3 Pressure	(psig)	10 - 20	30	16	16

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

**Notes (include alarms since previous visit):**

→ Run Fault Alarm occurred @ 1230 on 5/21/17. Likely power outage due to area storms. Restart remedy on 5/21/17 @ 1330 w/out issue.

→ Increased horizontal wells to 0.1 scfm/ft.





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/23/2017 0915 1400	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	4.2	NO
VAS-01 Pressure	(psig)	10 - 20	30	15	
VAS-02 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-02 Pressure	(psig)	10 - 20	30	15	
VAS-03 Flow Rate	(scfm)	TBD	TBD	1.2	
VAS-03 Pressure	(psig)	10 - 20	30	1	
VAS-04 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-04 Pressure	(psig)	10 - 20	30	0	
VAS-05 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-05 Pressure	(psig)	10 - 20	30	0	
VAS-06 Flow Rate	(scfm)	TBD	TBD	0.8	
VAS-06 Pressure	(psig)	10 - 20	30	1	
VAS-07 Flow Rate	(scfm)	TBD	TBD	0.3	
VAS-07 Pressure	(psig)	10 - 20	30	3	
VAS-08 Flow Rate	(scfm)	TBD	TBD	0.6	
VAS-08 Pressure	(psig)	10 - 20	30	4	
VAS-09 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-09 Pressure	(psig)	10 - 20	30	2	
VAS-10 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-10 Pressure	(psig)	10 - 20	30	5	
VAS-11 Flow Rate	(scfm)	TBD	TBD	NO	4.6
VAS-11 Pressure	(psig)	10 - 20	30		10
VAS-12 Flow Rate	(scfm)	TBD	TBD		1.1
VAS-12 Pressure	(psig)	10 - 20	30		5
VAS-13 Flow Rate	(scfm)	TBD	TBD		1.2
VAS-13 Pressure	(psig)	10 - 20	30		4
VAS-14 Flow Rate	(scfm)	TBD	TBD		1.2
VAS-14 Pressure	(psig)	10 - 20	30		1
VAS-15 Flow Rate	(scfm)	TBD	TBD		1.1
VAS-15 Pressure	(psig)	10 - 20	30		2
VAS-16 Flow Rate	(scfm)	TBD	TBD		0.9
VAS-16 Pressure	(psig)	10 - 20	30		4
VAS-17 Flow Rate	(scfm)	TBD	TBD		0.5
VAS-17 Pressure	(psig)	10 - 20	30	✓	5



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/23/2017 09K 1400	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	3.9	NO
VAS-18 Pressure	(psig)	10 - 20	30	0	NO
VAS-19 Flow Rate	(scfm)	TBD	TBD	NO	4.5
VAS-19 Pressure	(psig)	10 - 20	30	NO	9
VAS-20 Flow Rate	(scfm)	TBD	TBD	4.5	NO
VAS-20 Pressure	(psig)	10 - 20	30	19	
VAS-21 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-21 Pressure	(psig)	10 - 20	30	25	
VAS-22 Flow Rate	(scfm)	TBD	TBD	4.0	
VAS-22 Pressure	(psig)	10 - 20	30	23	
VAS-23 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-23 Pressure	(psig)	10 - 20	30	21	
VAS-24 Flow Rate	(scfm)	TBD	TBD	4.6	
VAS-24 Pressure	(psig)	10 - 20	30	36	
VAS-25 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-25 Pressure	(psig)	10 - 20	30	22	
VAS-26 Flow Rate	(scfm)	TBD	TBD	4.3	
VAS-26 Pressure	(psig)	10 - 20	30	27	
VAS-27 Flow Rate	(scfm)	TBD	TBD	4.2	
VAS-27 Pressure	(psig)	10 - 20	30	25	
VAS-28 Flow Rate	(scfm)	TBD	TBD	4.2	
VAS-28 Pressure	(psig)	10 - 20	30	8	
VAS-29 Flow Rate	(scfm)	TBD	TBD	4.2	
VAS-29 Pressure	(psig)	10 - 20	30	8	
VAS-30 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-30 Pressure	(psig)	10 - 20	30	0	
VAS-31 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-31 Pressure	(psig)	10 - 20	30	27	
VAS-32 Flow Rate	(scfm)	TBD	TBD	NO	4.6
VAS-32 Pressure	(psig)	10 - 20	30		20
VAS-33 Flow Rate	(scfm)	TBD	TBD		4.3
VAS-33 Pressure	(psig)	10 - 20	30		23
VAS-34 Flow Rate	(scfm)	TBD	TBD		4.5
VAS-34 Pressure	(psig)	10 - 20	30		21



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/23/2017 0915 1400	SCOTT SHORES		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	NO	4.4
VAS-35 Pressure	(psig)	10 - 20	30		15
VAS-36 Flow Rate	(scfm)	TBD	TBD		4.4
VAS-36 Pressure	(psig)	10 - 20	30		12
VAS-37 Flow Rate	(scfm)	TBD	TBD		4.5
VAS-37 Pressure	(psig)	10 - 20	30		3
VAS-38 Flow Rate	(scfm)	TBD	TBD		4.5
VAS-38 Pressure	(psig)	10 - 20	30		5
VAS-39 Flow Rate	(scfm)	TBD	TBD		4.4
VAS-39 Pressure	(psig)	10 - 20	30		11
VAS-40 Flow Rate	(scfm)	TBD	TBD		4.3
VAS-40 Pressure	(psig)	10 - 20	30		22
VAS-41 Flow Rate	(scfm)	TBD	TBD		NO
VAS-41 Pressure	(psig)	20-Oct	30		NO
VAS-42 Flow Rate	(scfm)	TBD	TBD		4.5
VAS-42 Pressure	(psig)	10 - 20	30		9
VAS-43 Flow Rate	(scfm)	TBD	TBD		NO
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD		
VAS-45 Pressure	(psig)	10 - 20	30		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	6.9	6.8
BCA-01 Pressure	(psig)	0 - 5	5	8	8
BCA-02 Flow Rate	(scfm)	TBD	TBD	7.0	6.9
BCA-02 Pressure	(psig)	0 - 5	5	6	5
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD	NO	
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
5/23/2017 0915 1400	SCOTT SWIDA	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		(Photos)
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		Manually triggered auto drains
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

**NOTE:** Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → manually activate auto drain. open tank and drain water from coalescing filter drains.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
6/18/2017 1230	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	
Air Compressor 1 Run Time	(hours)	NA	NA	2064:09	
Air Compressor 1 Load Time	(hours)	NA	NA	775:02	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	107	
Air Compressor 1 Pressure	(psig)	90 - 110	100	112	
Air Compressor 2 Run Time	(hours)	NA	NA	121:34	
Air Compressor 2 Load Time	(hours)	NA	NA	91:36	
Air Compressor 2 Temp	(F)	60 - 100	110	NOT OPERATING (NO)	
Air Compressor 2 Pressure	(psig)	90 - 110	100	11	
Receiver Tank Pressure	(psig)	90 - 110	100	115	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	112	
Manifold Temperature	(F)	60 - 100	110	81	
Manifold Flow Rate	(scfm)	TBD	TBD	243.7	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	75.0	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	80.7	
HAS-1 Valve Position	(%)	TBD	TBD	9.3	
HAS-1 Pressure	(psig)	10 - 20	30	18	
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	72.0	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	68.1	
HAS-2 Valve Position	(%)	TBD	TBD	7.6	
HAS-2 Pressure	(psig)	10 - 20	30	20	
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	38.0	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	37.2	
HAS-3 Valve Position	(%)	TBD	TBD	3.0	
HAS-3 Pressure	(psig)	10 - 20	30	15	

<b>Parts Needed:</b>	condensate drains for control air line and shop air line
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>
VASOS pressure gauge leaked oil, need new 0-60 gauge.
→ All wells adjusted to intended targets while in operation. Some decreased, some increased.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/8/2017 1230	Scott Smiley	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-01 Pressure	(psig)	10 - 20	30	15	
VAS-02 Flow Rate	(scfm)	TBD	TBD	3.6	
VAS-02 Pressure	(psig)	10 - 20	30	12	
VAS-03 Flow Rate	(scfm)	TBD	TBD	1.5	
VAS-03 Pressure	(psig)	10 - 20	30	1	
VAS-04 Flow Rate	(scfm)	TBD	TBD	1.5	
VAS-04 Pressure	(psig)	10 - 20	30	0	
VAS-05 Flow Rate	(scfm)	TBD	TBD	1.6	
VAS-05 Pressure	(psig)	10 - 20	30	0	
VAS-06 Flow Rate	(scfm)	TBD	TBD	1.4	
VAS-06 Pressure	(psig)	10 - 20	30	1	
VAS-07 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-07 Pressure	(psig)	10 - 20	30	5	
VAS-08 Flow Rate	(scfm)	TBD	TBD	0.9	
VAS-08 Pressure	(psig)	10 - 20	30	5	
VAS-09 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-09 Pressure	(psig)	10 - 20	30	2	
VAS-10 Flow Rate	(scfm)	TBD	TBD	3.9	
VAS-10 Pressure	(psig)	10 - 20	30	5	
VAS-11 Flow Rate	(scfm)	TBD	TBD	NO	
VAS-11 Pressure	(psig)	10 - 20	30		
VAS-12 Flow Rate	(scfm)	TBD	TBD		
VAS-12 Pressure	(psig)	10 - 20	30		
VAS-13 Flow Rate	(scfm)	TBD	TBD		
VAS-13 Pressure	(psig)	10 - 20	30		
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
6/8/2017 1230	Scott Smoak	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-18 Pressure	(psig)	10 - 20	30	0	
VAS-19 Flow Rate	(scfm)	TBD	TBD	NO	
VAS-19 Pressure	(psig)	10 - 20	30		
VAS-20 Flow Rate	(scfm)	TBD	TBD		
VAS-20 Pressure	(psig)	10 - 20	30		
VAS-21 Flow Rate	(scfm)	TBD	TBD		
VAS-21 Pressure	(psig)	10 - 20	30		
VAS-22 Flow Rate	(scfm)	TBD	TBD		
VAS-22 Pressure	(psig)	10 - 20	30		
VAS-23 Flow Rate	(scfm)	TBD	TBD		
VAS-23 Pressure	(psig)	10 - 20	30		
VAS-24 Flow Rate	(scfm)	TBD	TBD		
VAS-24 Pressure	(psig)	10 - 20	30		
VAS-25 Flow Rate	(scfm)	TBD	TBD		
VAS-25 Pressure	(psig)	10 - 20	30		
VAS-26 Flow Rate	(scfm)	TBD	TBD		
VAS-26 Pressure	(psig)	10 - 20	30		
VAS-27 Flow Rate	(scfm)	TBD	TBD		
VAS-27 Pressure	(psig)	10 - 20	30		
VAS-28 Flow Rate	(scfm)	TBD	TBD		
VAS-28 Pressure	(psig)	10 - 20	30		
VAS-29 Flow Rate	(scfm)	TBD	TBD		
VAS-29 Pressure	(psig)	10 - 20	30		
VAS-30 Flow Rate	(scfm)	TBD	TBD		
VAS-30 Pressure	(psig)	10 - 20	30		
VAS-31 Flow Rate	(scfm)	TBD	TBD		
VAS-31 Pressure	(psig)	10 - 20	30		
VAS-32 Flow Rate	(scfm)	TBD	TBD		
VAS-32 Pressure	(psig)	10 - 20	30		
VAS-33 Flow Rate	(scfm)	TBD	TBD		
VAS-33 Pressure	(psig)	10 - 20	30		
VAS-34 Flow Rate	(scfm)	TBD	TBD		
VAS-34 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/8/2017 1230	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-35 Flow Rate	(scfm)	TBD	TBD	NO		
VAS-35 Pressure	(psig)	10 - 20	30	↓		
VAS-36 Flow Rate	(scfm)	TBD	TBD			
VAS-36 Pressure	(psig)	10 - 20	30			
VAS-37 Flow Rate	(scfm)	TBD	TBD			
VAS-37 Pressure	(psig)	10 - 20	30			
VAS-38 Flow Rate	(scfm)	TBD	TBD			
VAS-38 Pressure	(psig)	10 - 20	30			
VAS-39 Flow Rate	(scfm)	TBD	TBD			
VAS-39 Pressure	(psig)	10 - 20	30			
VAS-40 Flow Rate	(scfm)	TBD	TBD			
VAS-40 Pressure	(psig)	10 - 20	30			
VAS-41 Flow Rate	(scfm)	TBD	TBD		3.9	
VAS-41 Pressure	(psig)	20-Oct	30		2	
VAS-42 Flow Rate	(scfm)	TBD	TBD		NO	
VAS-42 Pressure	(psig)	10 - 20	30		NO	
VAS-43 Flow Rate	(scfm)	TBD	TBD		4.8	
VAS-43 Pressure	(psig)	10 - 20	30	25		
VAS-44 Flow Rate	(scfm)	TBD	TBD	4.4		
VAS-44 Pressure	(psig)	10 - 20	30	26		
VAS-45 Flow Rate	(scfm)	TBD	TBD	3.9		
VAS-45 Pressure	(psig)	10 - 20	30	5		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure	
BCA-01 Flow Rate	(scfm)	TBD	TBD	7.8		
BCA-01 Pressure	(psig)	0 - 5	5	8		
BCA-02 Flow Rate	(scfm)	TBD	TBD	7.8		
BCA-02 Pressure	(psig)	0 - 5	5	7		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
BRS-01 Flow Rate	(scfm)	TBD	TBD	NO		
BRS-01 Pressure	(psig)	10 - 20	30	↓		
BRS-02 Flow Rate	(scfm)	TBD	TBD			
BRS-02 Pressure	(psig)	10 - 20	30			
BRS-03 Flow Rate	(scfm)	TBD	TBD			
BRS-03 Pressure	(psig)	10 - 20	30			





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
8/18/2017 1230	SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		8 SCEN
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		ALL OK
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		OK
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		empt, over flow jug, drain
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	June 2017	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No	March 2018	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No	June 2017	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → Clean air intake filter for ACH1 using creek water supply

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
6/16/2017 0945 1540	SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	2253:25	2256:29
Air Compressor 1 Load Time	(hours)	NA	NA	830:53	831:53
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	185	193
Air Compressor 1 Pressure	(psig)	90 - 110	100	112	112
Air Compressor 2 Run Time	(hours)	NA	NA	NOT OPERATING	NOT OPERATING
Air Compressor 2 Load Time	(hours)	NA	NA	↓	↓
Air Compressor 2 Temp	(F)	60 - 100	110	↓	↓
Air Compressor 2 Pressure	(psig)	90 - 110	100	↓	↓
Receiver Tank Pressure	(psig)	90 - 110	100	115	115
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	105	110
Manifold Temperature	(F)	60 - 100	110	83	94
Manifold Flow Rate	(scfm)	TBD	TBD	241.5	351.2
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	45.0	90.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	79.0	88.6
HAS-1 Valve Position	(%)	TBD	TBD	8.4	4.9
HAS-1 Pressure	(psig)	10 - 20	30	18	19
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	72.0	86.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	64.1	84.7
HAS-2 Valve Position	(%)	TBD	TBD	7.3	7.1
HAS-2 Pressure	(psig)	10 - 20	30	19	18
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	38.6	45.0
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	37.3	38.6
HAS-3 Valve Position	(%)	TBD	TBD	3.5	4.5
HAS-3 Pressure	(psig)	10 - 20	30	14	17

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	Installed condensate drains on positioning valve control air and on shop air.

<b>Notes (include alarms since previous visit):</b>
→ increased horizontal wells from 0.1 SCFM/FT to 0.12 SCFM/FT.
→ increased adhoan/capboard crack wells from 1.0 - 1.5 SCFM to 1.5 - 2.0 SCFM
→ Decreased Brown's creek aerator 5 from 8 SCFM to 4 SCFM.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
8/16/2017 0946 1540	SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	4.5	Not Operating
VAS-01 Pressure	(psig)	10 - 20	30	15	
VAS-02 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-02 Pressure	(psig)	10 - 20	30	13	
VAS-03 Flow Rate	(scfm)	TBD	TBD	1.3	
VAS-03 Pressure	(psig)	10 - 20	30	1	
VAS-04 Flow Rate	(scfm)	TBD	TBD	1.3	
VAS-04 Pressure	(psig)	10 - 20	30	0	
VAS-05 Flow Rate	(scfm)	TBD	TBD	1.7	
VAS-05 Pressure	(psig)	10 - 20	30	0	
VAS-06 Flow Rate	(scfm)	TBD	TBD	1.5	
VAS-06 Pressure	(psig)	10 - 20	30	1	
VAS-07 Flow Rate	(scfm)	TBD	TBD	0.7	
VAS-07 Pressure	(psig)	10 - 20	30	4	
VAS-08 Flow Rate	(scfm)	TBD	TBD	1.0	
VAS-08 Pressure	(psig)	10 - 20	30	5	
VAS-09 Flow Rate	(scfm)	TBD	TBD	3.7	
VAS-09 Pressure	(psig)	10 - 20	30	3	
VAS-10 Flow Rate	(scfm)	TBD	TBD	3.8	
VAS-10 Pressure	(psig)	10 - 20	30	4	
VAS-11 Flow Rate	(scfm)	TBD	TBD	Not Operating	3.9
VAS-11 Pressure	(psig)	10 - 20	30		8
VAS-12 Flow Rate	(scfm)	TBD	TBD		2.0
VAS-12 Pressure	(psig)	10 - 20	30		3
VAS-13 Flow Rate	(scfm)	TBD	TBD		1.6
VAS-13 Pressure	(psig)	10 - 20	30		2
VAS-14 Flow Rate	(scfm)	TBD	TBD		2.0
VAS-14 Pressure	(psig)	10 - 20	30		1
VAS-15 Flow Rate	(scfm)	TBD	TBD		1.5
VAS-15 Pressure	(psig)	10 - 20	30		2
VAS-16 Flow Rate	(scfm)	TBD	TBD		1.4
VAS-16 Pressure	(psig)	10 - 20	30		2
VAS-17 Flow Rate	(scfm)	TBD	TBD		1.4
VAS-17 Pressure	(psig)	10 - 20	30		3



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
6/16/17 0845 1546	Scott Simola		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	4.0	Not operating
VAS-18 Pressure	(psig)	10 - 20	30	1	
VAS-19 Flow Rate	(scfm)	TBD	TBD	Not operating	3.9
VAS-19 Pressure	(psig)	10 - 20	30		7
VAS-20 Flow Rate	(scfm)	TBD	TBD	4.1	Not operating
VAS-20 Pressure	(psig)	10 - 20	30	18	
VAS-21 Flow Rate	(scfm)	TBD	TBD	4.6	
VAS-21 Pressure	(psig)	10 - 20	30	21	
VAS-22 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-22 Pressure	(psig)	10 - 20	30	22	
VAS-23 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-23 Pressure	(psig)	10 - 20	30	26	
VAS-24 Flow Rate	(scfm)	TBD	TBD	3.5	
VAS-24 Pressure	(psig)	10 - 20	30	28	
VAS-25 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-25 Pressure	(psig)	10 - 20	30	20	
VAS-26 Flow Rate	(scfm)	TBD	TBD	4.6	
VAS-26 Pressure	(psig)	10 - 20	30	26	
VAS-27 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-27 Pressure	(psig)	10 - 20	30	25	
VAS-28 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-28 Pressure	(psig)	10 - 20	30	19	
VAS-29 Flow Rate	(scfm)	TBD	TBD	4.1	
VAS-29 Pressure	(psig)	10 - 20	30	18	
VAS-30 Flow Rate	(scfm)	TBD	TBD	4.2	
VAS-30 Pressure	(psig)	10 - 20	30	2	
VAS-31 Flow Rate	(scfm)	TBD	TBD	4.4	
VAS-31 Pressure	(psig)	10 - 20	30	27	
VAS-32 Flow Rate	(scfm)	TBD	TBD	Not operating	4.1
VAS-32 Pressure	(psig)	10 - 20	30		17
VAS-33 Flow Rate	(scfm)	TBD	TBD		4.3
VAS-33 Pressure	(psig)	10 - 20	30		20
VAS-34 Flow Rate	(scfm)	TBD	TBD		4.1
VAS-34 Pressure	(psig)	10 - 20	30		19



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/16/2017 0945	Scott Galda		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	NOT OPERATING ↓	3.8
VAS-35 Pressure	(psig)	10 - 20	30		13
VAS-36 Flow Rate	(scfm)	TBD	TBD		4.2
VAS-36 Pressure	(psig)	10 - 20	30		10
VAS-37 Flow Rate	(scfm)	TBD	TBD		3.5
VAS-37 Pressure	(psig)	10 - 20	30		0
VAS-38 Flow Rate	(scfm)	TBD	TBD		4.0
VAS-38 Pressure	(psig)	10 - 20	30		2
VAS-39 Flow Rate	(scfm)	TBD	TBD		4.3
VAS-39 Pressure	(psig)	10 - 20	30		10
VAS-40 Flow Rate	(scfm)	TBD	TBD		3.3
VAS-40 Pressure	(psig)	10 - 20	30		20
VAS-41 Flow Rate	(scfm)	TBD	TBD		NOT OPERATING
VAS-41 Pressure	(psig)	20-Oct	30		-
VAS-42 Flow Rate	(scfm)	TBD	TBD		3.7
VAS-42 Pressure	(psig)	10 - 20	30		8
VAS-43 Flow Rate	(scfm)	TBD	TBD		NOT OPERATING
VAS-43 Pressure	(psig)	10 - 20	30		↓
VAS-44 Flow Rate	(scfm)	TBD	TBD		↓
VAS-44 Pressure	(psig)	10 - 20	30		↓
VAS-45 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-45 Pressure	(psig)	10 - 20	30	↓	
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	8.0	3.7
BCA-01 Pressure	(psig)	0 - 5	5	8	2
BCA-02 Flow Rate	(scfm)	TBD	TBD	7.7	3.9
BCA-02 Pressure	(psig)	0 - 5	5	6	2
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD	NOT OPERATING	NOT OPERATING
BRS-01 Pressure	(psig)	10 - 20	30	↓	↓
BRS-02 Flow Rate	(scfm)	TBD	TBD	↓	↓
BRS-02 Pressure	(psig)	10 - 20	30	↓	↓
BRS-03 Flow Rate	(scfm)	TBD	TBD	↓	↓
BRS-03 Pressure	(psig)	10 - 20	30	↓	↓



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
6/16/2017 6:45	Scott Smith	✓	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	June 22nd	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No	March 2018	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

→ cleaned compressor air inlet filters w/ newly installed water/water hose onsite.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
4/22/21 1315	Scott Swick		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	
Air Compressor 1 Run Time	(hours)	NA	NA	2397:21	
Air Compressor 1 Load Time	(hours)	NA	NA	881:06	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	188	
Air Compressor 1 Pressure	(psig)	90 - 110	100	111	
Air Compressor 2 Run Time	(hours)	NA	NA	NOT OPERATING	
Air Compressor 2 Load Time	(hours)	NA	NA		
Air Compressor 2 Temp	(F)	60 - 100	110	↓	
Air Compressor 2 Pressure	(psig)	90 - 110	100		
Receiver Tank Pressure	(psig)	90 - 110	100	115	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	111	
Manifold Temperature	(F)	60 - 100	110	83	
Manifold Flow Rate	(scfm)	TBD	TBD	371	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	113.0	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	123.4	
HAS-1 Valve Position	(%)	TBD	TBD	10.2	
HAS-1 Pressure	(psig)	10 - 20	30	20	
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	108.0	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	187.6	
HAS-2 Valve Position	(%)	TBD	TBD	8.2	
HAS-2 Pressure	(psig)	10 - 20	30	21	
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	56.0	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	52.4	
HAS-3 Valve Position	(%)	TBD	TBD	4.8	
HAS-3 Pressure	(psig)	10 - 20	30	16	

<b>Parts Needed:</b>	
<b>Parts Installed:</b>	

<b>Notes (include alarms since previous visit):</b>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
6/22/2017 1315	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	NOT OPERATING	
VAS-01 Pressure	(psig)	10 - 20	30		
VAS-02 Flow Rate	(scfm)	TBD	TBD		
VAS-02 Pressure	(psig)	10 - 20	30		
VAS-03 Flow Rate	(scfm)	TBD	TBD		
VAS-03 Pressure	(psig)	10 - 20	30		
VAS-04 Flow Rate	(scfm)	TBD	TBD		
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD		
VAS-09 Pressure	(psig)	10 - 20	30		
VAS-10 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-10 Pressure	(psig)	10 - 20	30		
VAS-11 Flow Rate	(scfm)	TBD	TBD	5.1	
VAS-11 Pressure	(psig)	10 - 20	30	10	
VAS-12 Flow Rate	(scfm)	TBD	TBD	2.2	
VAS-12 Pressure	(psig)	10 - 20	30	5	
VAS-13 Flow Rate	(scfm)	TBD	TBD	2.2	
VAS-13 Pressure	(psig)	10 - 20	30	3	
VAS-14 Flow Rate	(scfm)	TBD	TBD	2.2	
VAS-14 Pressure	(psig)	10 - 20	30	3	
VAS-15 Flow Rate	(scfm)	TBD	TBD	2.2	
VAS-15 Pressure	(psig)	10 - 20	30	5	
VAS-16 Flow Rate	(scfm)	TBD	TBD	1.6	
VAS-16 Pressure	(psig)	10 - 20	30	5	
VAS-17 Flow Rate	(scfm)	TBD	TBD	1.6	
VAS-17 Pressure	(psig)	10 - 20	30	5	





Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
6/22/2017 1315	SCOTT SWIDA	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	Not Operating	
VAS-18 Pressure	(psig)	10 - 20	30	11	
VAS-19 Flow Rate	(scfm)	TBD	TBD	5.1	
VAS-19 Pressure	(psig)	10 - 20	30	9	
VAS-20 Flow Rate	(scfm)	TBD	TBD	5.1	
VAS-20 Pressure	(psig)	10 - 20	30	17	
VAS-21 Flow Rate	(scfm)	TBD	TBD	5.4	
VAS-21 Pressure	(psig)	10 - 20	30	22	
VAS-22 Flow Rate	(scfm)	TBD	TBD	5.4	
VAS-22 Pressure	(psig)	10 - 20	30	21	
VAS-23 Flow Rate	(scfm)	TBD	TBD	5.0	
VAS-23 Pressure	(psig)	10 - 20	30	28	
VAS-24 Flow Rate	(scfm)	TBD	TBD	4.9	
VAS-24 Pressure	(psig)	10 - 20	30	28	
VAS-25 Flow Rate	(scfm)	TBD	TBD	4.9	
VAS-25 Pressure	(psig)	10 - 20	30	20	
VAS-26 Flow Rate	(scfm)	TBD	TBD	5.4	
VAS-26 Pressure	(psig)	10 - 20	30	24	
VAS-27 Flow Rate	(scfm)	TBD	TBD	5.0	
VAS-27 Pressure	(psig)	10 - 20	30	25	
VAS-28 Flow Rate	(scfm)	TBD	TBD	4.5	
VAS-28 Pressure	(psig)	10 - 20	30	10	
VAS-29 Flow Rate	(scfm)	TBD	TBD	5.0	
VAS-29 Pressure	(psig)	10 - 20	30	9	
VAS-30 Flow Rate	(scfm)	TBD	TBD	4.6	
VAS-30 Pressure	(psig)	10 - 20	30	0	
VAS-31 Flow Rate	(scfm)	TBD	TBD	5.3	
VAS-31 Pressure	(psig)	10 - 20	30	28	
VAS-32 Flow Rate	(scfm)	TBD	TBD	NOT OPERATING	
VAS-32 Pressure	(psig)	10 - 20	30		
VAS-33 Flow Rate	(scfm)	TBD	TBD		
VAS-33 Pressure	(psig)	10 - 20	30		
VAS-34 Flow Rate	(scfm)	TBD	TBD		
VAS-34 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
6/22/2017 1345	SCOTT SIMPSON		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD	NOT OPERATING ↓	
VAS-35 Pressure	(psig)	10 - 20	30		
VAS-36 Flow Rate	(scfm)	TBD	TBD		
VAS-36 Pressure	(psig)	10 - 20	30		
VAS-37 Flow Rate	(scfm)	TBD	TBD		
VAS-37 Pressure	(psig)	10 - 20	30		
VAS-38 Flow Rate	(scfm)	TBD	TBD		
VAS-38 Pressure	(psig)	10 - 20	30		
VAS-39 Flow Rate	(scfm)	TBD	TBD		
VAS-39 Pressure	(psig)	10 - 20	30		
VAS-40 Flow Rate	(scfm)	TBD	TBD		
VAS-40 Pressure	(psig)	10 - 20	30		
VAS-41 Flow Rate	(scfm)	TBD	TBD		
VAS-41 Pressure	(psig)	20-Oct	30		
VAS-42 Flow Rate	(scfm)	TBD	TBD		
VAS-42 Pressure	(psig)	10 - 20	30		
VAS-43 Flow Rate	(scfm)	TBD	TBD		
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD	4.8	
VAS-45 Pressure	(psig)	10 - 20	30	6	
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	3.8	
BCA-01 Pressure	(psig)	0 - 5	5	5	
BCA-02 Flow Rate	(scfm)	TBD	TBD	3.8	
BCA-02 Pressure	(psig)	0 - 5	5	5	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD	NOT OPERATING ↓	
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
9/22/17	SCOTT POWELL		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No	4 SCFM, no issues	
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No	ECS	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No	No issues	
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		new drains are functioning as intended
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	September 2017	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No	September 2017	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: Increase flows per conversation w/ Scott Powell:

- HAS wells to 0.15/SCFM/ft screen
- vertical wells from 4 - 5 SCFM
- select cupboard creek wells increased by 0.5 SCFM
- Aerators left @ 4 SCFM

Attachment D  
Bills of Lading



# NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

4317-2

If waste is asbestos waste, complete Sections I, II, III and IV  
If waste is NOT asbestos waste, complete Sections I, II and III

### I. GENERATOR (Generator completes la-r)

a. Generator's US EPA ID Number		b. Manifest Document Number		c. Page 1 of		
d. Generator's Name and Location: Plantation Pipe Line 112 Lewis Dr Belton, SC 29627 f. Phone: 704-399-6327			e. Generator's Mailing Address: Same			
g. Phone:			If owner of the generating facility differs from the generator, provide:			
h. Owner's Name:			i. Owner's Phone No.:			
j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	Type	n. Total Quantity	o. Unit Wt/Vol
3115173413	8/30/2017	IDW Soil				
GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.						
p. Generator Authorized Agent Name (Print) <i>Johnny Topira - EHS Specialist</i>		q. Signature <i>[Signature]</i>		r. Date <i>3/31/17</i>		

### II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address:		
b. Phone:		
c. Driver Name (Print) <i>Tancred...</i>	d. Signature <i>[Signature]</i>	e. Date

### III. DESTINATION (Generator complete IIIa-c and Destination Site completes III d-g)

a. Disposal Facility and Site Address: Upstate Regional Landfill 868 Wildcat Road Enoree, SC 29335 b. Phone: 864-969-4460	c. US EPA Number	d. Discrepancy Indication Space:
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.		
e. Name of Authorized Agent (Print)	f. Signature	g. Date

### IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:		c. Responsible Agency Name and Address:	
b. Phone:		d. Phone:	
e. Special Handling Instructions and Additional Information:			
f. <input type="checkbox"/> Friable <input type="checkbox"/> Non-Friable <input type="checkbox"/> Both % Friable % Non-Friable			
OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.			
g. Operator's Name and Title (Print) <i>Meredith...</i>		h. Signature <i>[Signature]</i>	
		i. Date <i>4-3-17</i>	
*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both			

SITE UPSTATE REGIONAL MSW LANDFILL 864-969-4460  
 868 Wildcat Road -Enoree, SC 29335

SITE01	TICKET #	1065768	CELL
WEIGHMASTER		Maranda S.	
DATE/TIME IN		4/3/17 2:56 pm	DATE/TIME OUT 2:56 pm
VEHICLE		A&D219	CONTAINER
REFERENCE		4317-2	
BILL OF LADING			

CUSTOMER 000716  
 A & D ENVIRONMENTAL - NO FEES  
 PO BOX 484  
 HIGH POINT, NC 27261  
 Contract:3115173413  
 Generator:Plantation Pipe Line

SCALE IN GROSS WEIGHT	53,100	NET TONS	5.21	INBOUND
TARE OUT TARE WEIGHT	42,680	NET WEIGHT	10,420	INVOICE

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	Tracking QTY				
5.21	tn	SW-CONT SOIL Origin:ANDERSON CO SC 100%				

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE \_\_\_\_\_



# NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV  
 If waste is NOT asbestos waste, complete Sections I, II and III

## I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number		b. Manifest Document Number <b>041M708-1</b>		c. Page 1 of 1	
g. Generator's Name and Location: Plantation Pipe Line 112 Lewis Dr Belton, SC 29827 f. Phone: 704-389-6327			h. Generator's Mailing Address: Same		
i. Owner of the generating facility offers from the generator, provide:			g. Phone:		
h. Owner's Name:			i. Owner's Phone No.:		
j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No. Type	n. Total Quantity	o. Unit Weight
3115473413	5/30/2017	IDW Soil	01 cm	5	T
GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.					
p. Generator Authorized Agent Name (Print) <i>Johnny Tapra - EHS Specialist</i>		q. Signature <i>[Signature]</i>		r. Date 3/31/17	

## II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address: <i>And Environmental Services (SC) LLC 1741 Calks Ferry Rd Lexington SC 29073</i>		
b. Phone: <i>803-957-2115</i>		
c. Driver Name (Print) <i>Dominic Bryant</i>	d. Signature <i>[Signature]</i>	e. Date <i>4-18-17</i>

## III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address: Upstate Regional Landfill 888 Wildcat Road Enoree, SC 29335 b. Phone: 864-969-4461		c. US EPA Number	d. Discrepancy Indication Space:
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.			
e. Name of Authorized Agent (Print) <i>[Signature]</i>		f. Signature <i>[Signature]</i>	g. Date <i>4-18-17</i>

## IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:		c. Responsible Agency Name and Address:	
b. Phone:		d. Phone:	
e. Special Handling Instructions and Additional Information:			
f. <input type="checkbox"/> Friable <input type="checkbox"/> Non-Friable <input type="checkbox"/> Both % Friable % Non-Friable			
OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.			
g. Operator's Name and Title (Print)		h. Signature	
		i. Date	
*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both.			



Union County Landfill  
868 Wildcat Road  
Enoree, SC 29335

15427

Phone: (864) 969-4460  
Fax: (864) 969-4473

DATE: 4-18-17 TRUCK #: A40209  
TICKET #: \_\_\_\_\_ HAULING CO.: A20  
CUSTOMER NAME: Plantation Pipe Line

GROSS WEIGHT 44600  
TARE WEIGHT 39140  
NET WEIGHT 5460  
TOTAL TONS 2.73

[Signature]  
Scale Operator

[Signature]  
Driver Signature





504-1020

115682

# A&D Environmental Services

# Bill of Lading / Material Manifest

A&D Job No: <b>219091</b>	Generator ID Number	Page 1 of <b>1</b>	Emergency Response Phone <b>800-434-7750</b>	Tracking Number <b>04357</b>
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Generator's Name and Mailing Address  
**Kinder Morgan  
112 Lewis Drive  
Belton, SC 29627**

Generator's site address (if different from mailing address)

Transporter 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/>	Company Name <b>A&amp;D Environmental Services, Inc.</b>	US EPA ID No. <b>NCD98623222</b>
Transporter 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/>	Company Name <b>A&amp;D Environmental Services (SC), LLC</b>	US EPA ID No. <b>SCD987598331</b>

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
<b>A&amp;D Environmental Services, Inc. 2718 Uwaharrie Road Archdale, NC 27263 336-434-7750 NCD986232221</b>	<b>A&amp;D Environmental Services, Inc. 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628</b>	<b>A&amp;D Environmental Services (SC), LLC 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501</b>	<b>A&amp;D Environmental Services (SC), LLC 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331</b>	<b>A&amp;D Environmental Services (SC), LLC 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677</b>

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
X	<b>UN1203 Gasoline 3 II plus water Water mixture w/GAS</b>	<b>1</b>	<b>TT</b>	<b>4500</b>	<b>G</b>	<b>20150163</b>
<b>Petroleum Products for Recycle</b>						
X	NA1993, Diesel fuel, 3, III					ERG# 126
X	NA1993, Fuel oil (No. 1, 2, 4, 5 or 6), 3, III					ERG# 129
X	UN1203, Gasoline, 3, II <b>+ water water</b>					ERG# 128
X	NA1270, Petroleum Oil, 3, III					ERG# 128

<b>Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle</b>							
HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III	Wet NiCad Batteries	
X					UN3030, Lithium batteries, 9, II	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MV/LV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Officer's Printed / Typed Name <b>On behalf of Kinder Morgan Justine McLann</b>	Signature <i>Justine McLann</i>	Month <b>4</b>	Day <b>19</b>	Year <b>17</b>
Transporter 1 Printed / Typed Name <b>Tim Coty</b>	Signature <i>Tim Coty</i>	Month <b>4</b>	Day <b>19</b>	Year <b>17</b>
Transporter 2 Printed / Typed Name	Signature	Month	Day	Year

Discrepancy Indication / Additional Information:

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed / Typed Name <b>Davis Chapp</b>	Signature <i>Davis Chapp</i>	Month <b>04</b>	Day <b>19</b>	Year <b>17</b>
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# A&D Environmental Services

# Bill of Lading / Material Manifest

VT-1024

115681

A&D Job No: 219079 Generator ID Number: 1 Page 1 of 1 Emergency Response Phone: 800-434-7750 Tracking Number: 04358

Generator's Name and Mailing Address: Kindred Morgan  
112 Lewis Drive  
Bethun, SC 29627  
 Generator's site address (if different from mailing address):

Transporter 1  2  Company Name: A&D Environmental Services, Inc. US EPA ID No: NCD98623222

Transporter 1  2  Company Name: A&D Environmental Services (SC), LLC US EPA ID No: SCD987598331

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
<b>A&amp;D Environmental Services, Inc.</b> 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	<b>A&amp;D Environmental Services, Inc.</b> 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	<b>A&amp;D Environmental Services (SC), LLC</b> 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501	<b>A&amp;D Environmental Services (SC), LLC</b> 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	<b>A&amp;D Environmental Services (SC), LLC</b> 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
X	<u>Water mixture w/GAS</u>	<u>1</u>	<u>TT</u>		<u>G</u>	<u>3733</u>

Petroleum Products for Recycle						
HM	No.	Type	QTY	Wt/Vol	Profile Number	
X	NA1993, Diesel fuel, 3, III					ERG# 128
X	NA1993, Fuel oil (No. 1, 2, 4, 5 or 6), 3, III					ERG# 128
X	UN1203, Gasoline, 3, II <u>+ water</u>		<u>1</u>	<u>TT</u>	<u>393</u>	ERG# 128
X	NA1270, Petroleum Oil, 3, III					ERG# 128

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle							
HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III ERG# 172	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III ERG# 172	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II ERG# 171	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III ERG# 154	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III ERG# 154	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III ERG# 154	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II ERG# 138	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Officer's Printed / Typed Name: Justine McLann Signature: Justine McLann Month: 4 Day: 19 Year: 17

Transporter 1 Printed / Typed Name: David Johnson Signature: [Signature] Month: 4 Day: 19 Year: 17

Transporter 2 Printed / Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Discrepancy Indication / Additional information: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed / Typed Name: Chuck Elmore Signature: Chuck Elmore Month: 4 Day: 19 Year: 17

**DESIGNATED FACILITY TO GENERATOR**



# A&D Environmental Services

# Bill of Lading / Material Manifest

504-1020

115682

A&D Job No: 21974 Generator ID Number: 1 Page 1 of 1 Emergency Response Phone: **800-434-7750** Tracking Number: **04357**

Generator's Name and Mailing Address: Walter Morgan  
112 Lewis Drive  
Rock Hill, SC 29747

Generator's site address (if different from mailing address):

Transporter 1  2  Company Name: **A&D Environmental Services, Inc.** US EPA ID No: **NCD98623222**

Transporter 1  2  Company Name: **A&D Environmental Services (SC), LLC** US EPA ID No: **SCD987598331**

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
<b>A&amp;D Environmental Services, Inc.</b> 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	<b>A&amp;D Environmental Services, Inc.</b> 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	<b>A&amp;D Environmental Services (SC), LLC</b> 1915 Brentwood Street High Point, NC 27280 336-882-8000 NCR000002501	<b>A&amp;D Environmental Services (SC), LLC</b> 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	<b>A&amp;D Environmental Services (SC), LLC</b> 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
X	Water mixture w/ GAS	1	TT	4500	G	

Petroleum Products for Recycle		No.	Type	QTY	Wt/Vol	Profile Number
X	NA1993, Diesel fuel, 3, III		ERG# 128			
X	NA1993, Fuel oil (No. 1, 2, 4, 5 or 6), 3, III		ERG# 128			
X	UN1203, Gasoline, 3, II		ERG# 128			
X	NA1270, Petroleum Oil, 3, III		ERG# 128			

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle							
HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III	ERG# 172	Mercury Containing Articles
X					RQ, UN2809, Mercury, 8, III	ERG# 172	Mercury
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II	ERG# 171	TSCA Exempt PCB Lamp Ballasts
X					UN2800, Batteries, wet, nonspillable, 8, III	ERG# 154	Sealed Lead Acid Batteries
X					UN2794, Batteries, wet, filled with acid, 8, III	ERG# 154	Lead Acid Batteries
X					UN2795, Batteries, wet, filled with alkali, 8, III	ERG# 154	Wet NiCad Batteries
X					UN3090, Lithium batteries, 9, II	ERG# 138	Lithium Batteries
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	ERG# 154	Alkaline Batteries
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	ERG# 154	NiCad Batteries
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))		Fluorescent lamps 4 or <
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))		Fluorescent lamps 4 or >
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))		Circular-U-tube lamps
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))		Compact Lamps
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))		Shattershield
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))		HID/MVUV Lamps
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))		Incandescent Lamps
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)		Non-PCB Light Ballasts
					Electronic Equipment for Recycle (Not DOT-Regulated)		Electronics

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Shipper's Printed/Typed Name: <u>Justin McCann</u>	Signature: <u>Justin McCann</u>	Month: <u>4</u>	Day: <u>18</u>	Year: <u>17</u>
Transporter 1 Printed/Typed Name: <u>Tim Coyle</u>	Signature: <u>Tim Coyle</u>	Month: <u>4</u>	Day: <u>19</u>	Year: <u>17</u>
Transporter 2 Printed/Typed Name:	Signature:	Month:	Day:	Year:

Discrepancy Indication / Additional Information:

Month: Day: Year:

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed/Typed Name: Signature: Month: Day: Year:

GENERATOR'S/SHIPPER'S INITIAL COPY

## A & D ENVIRONMENTAL SERVICES (SC), LLC.

1741 Calks Ferry Road • Lexington, SC 29073  
(803) 957-9175

255 Service Bay Road • Mauldin, SC 29662  
(864) 234-0055

1915 Brentwood Street • High Point, NC 27260  
(336) 882-8000

SHIPPER <i>Kinack Morgan</i>		LOADING CITY/STATE <i>Belton SC</i>			MANIFEST NO. <i>115682</i>	
CONSIGNEE <i>A &amp; D Environmental</i>		DESTINATION <i>Archdale NC</i>				
		TRACTOR NO. <i>0226</i>	TRAILER NO. <i>5471020</i>	BOX NO.	DATE SHIPPED <i>4/19/17</i>	
					LOAD NO.	
COMP NO	LOADING TIME OF	COMMODITY	UNIT	QUANTITY	QUANTITY	
						Gross
						Tere
		<i>.5 Pump time</i>				Net
						Tons
LOADING TIME		IN <i>0900</i> M. OUT <i>1000</i> M.			AUTHORIZATION – LOADING DEMURRAGE	
		DETENTION RECORD			EXPLAIN TIME SPENT	
UNLOADING TIME		IN _____ M. OUT _____ M.			AUTHORIZATION – UNLOADING DEMURRAGE	
GOVERNED BY TARIFFS AND CLASSIFICATIONS ISSUED BY THE CARRIER AND/OR ITS AGENTS						
				SHIPPER PER <i>Kinack Morgan</i>		
				CARRIER PER <i>Finley</i>		
RECEIVED THE ABOVE DESCRIBED PROPERTY IN GOOD CONDITION EXCEPT AS NOTED.						
FIRM _____						
BY _____						
SHOW COMPLETE COMPANY NAME AND SIGNATURE INITIALS NOT ACCEPTED						DELIVERY DATE





# A&D Environmental Services

# Bill of Lading / Material Manifest

VT-1024

115681

A&D Job No: 319074 Generator ID Number: \_\_\_\_\_ Page 1 of \_\_\_\_\_ Emergency Response Phone: **800-434-7750** Tracking Number: **04358**

Generator's Name and Mailing Address: Wunder Design  
112 Lewis Drive  
Bethesda, MD 20814  
 Generator's site address (if different from mailing address): \_\_\_\_\_

Transporter 1  2  Company Name: **A&D Environmental Services, Inc.** US EPA ID No. **NCD98623222**

Transporter 1  2  Company Name: **A&D Environmental Services (SC), LLC** US EPA ID No. **SCD987598331**

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
<b>A&amp;D Environmental Services, Inc.</b> 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	<b>A&amp;D Environmental Services, Inc.</b> 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	<b>A&amp;D Environmental Services (SC), LLC</b> 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501	<b>A&amp;D Environmental Services (SC), LLC</b> 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	<b>A&amp;D Environmental Services (SC), LLC</b> 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
X	Water mixture w/ BPS	1	TT		G	2922
<b>Petroleum Products for Recycle</b>						
X	NA1993, Diesel fuel, 3, III					
X	NA1993, Fuel oil (No 1,2,4,5 or 6), 3, III					
X	UN1203, Gasoline, 3, II					
X	NA1270, Petroleum Oil, 3, III					

HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4 or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4 or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

**Generator's Certification:** This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Officer's Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Transporter 1 Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Transporter 2 Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Discrepancy Indication / Additional Information: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_



# A&D Environmental Services

# Bill of Lading / Material Manifest

0114321

A&D Job No: \_\_\_\_\_ Generator ID Number: \_\_\_\_\_ Page 1 of \_\_\_\_\_ Emergency Response Phone: **800-434-7750** Tracking Number: **07362**

Generator's Name and Mailing Address: **Kindra Morgan, 112 Lewis Dr, Bepton, SC 29627**  
 Generator's site address (if different from mailing address): \_\_\_\_\_

Transporter 1  2  Company Name: **A&D Environmental Services, Inc.** US EPA ID No: **NCD98623222**  
 Transporter  2  Company Name: **A&D Environmental Services (SC), LLC** US EPA ID No: **SCD987596331**

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
<b>A&amp;D Environmental Services, Inc.</b> 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	<b>A&amp;D Environmental Services, Inc.</b> 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	<b>A&amp;D Environmental Services (SC), LLC</b> 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR00002501	<b>A&amp;D Environmental Services (SC), LLC</b> 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987596331	<b>A&amp;D Environmental Services (SC), LLC</b> 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
	<b>Petroleum Contact Water non-Hazardous/non-Regulated</b>	<b>01</b>	<b>TT</b>	<b>4800</b>	<b>G</b>	
	<b>Petroleum Products for Recycle</b>					
X	NA1993, Diesel fuel, 3, III, ERG# 128					
X	NA1993, Fuel oil (No. 1, 2, 4, 5 or 6), 3, III, ERG# 128					
X	UN1203, Gasoline, 3, II, ERG# 128					
X	NA1270, Petroleum Oil, 3, III, ERG# 128					

HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RO, UN2809, Mercury contained in manufactured articles, 8, III ERG# 172	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III ERG# 172	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II ERG# 171	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III ERG# 154	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III ERG# 154	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III ERG# 154	Wet NiCad Batteries	
X					UN3090, Lithium Batteries, 9, II ERG# 138	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shatterfield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 781.

Generator's/Officer's Printed/Typed Name: **Alan Gilsdorf** Signature: \_\_\_\_\_ Month: **5** Day: **22** Year: **17**

Transporter 1 Printed/Typed Name: **Domino Bryant** Signature: \_\_\_\_\_ Month: **5** Day: **22** Year: **17**

Transporter 2 Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Discrepancy Indication / Additional Information: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Typed Name: **Chuck E. Moore** Signature: \_\_\_\_\_ Month: **5** Day: **22** Year: **17**





# A&D Environmental Services

# Bill of Lading / Material Manifest

A&D Job No: \_\_\_\_\_ Generator ID Number: \_\_\_\_\_ Page 1 of \_\_\_\_\_ Emergency Response Phone: **800-434-7750** Tracking Number: **07230**

Generator's Name and Mailing Address: *Kinder Morgan Pharms Hill*  
*124 Lewis Drive Dillon SC*  
 Generator's site address (if different from mailing address): \_\_\_\_\_

Transporter 1  2  Company Name: **A&D Environmental Services, Inc.** US EPA ID No: **NCD98623222**

Transporter 1  2  Company Name: **A&D Environmental Services (SC), LLC** US EPA ID No: **SCD987598331**

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
<b>A&amp;D Environmental Services, Inc.</b> 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	<b>A&amp;D Environmental Services, Inc.</b> 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	<b>A&amp;D Environmental Services (SC), LLC</b> 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501	<b>A&amp;D Environmental Services (SC), LLC</b> 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	<b>A&amp;D Environmental Services (SC), LLC</b> 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
	<i>PCW water</i>	<i>1</i>	<i>77</i>	<i>4700</i>	<i>6</i>	

Petroleum Products for Recycle						
X	NA1993, Diesel fuel, 3, III	ERG# 128	No.	Type	QTY	Wt/Vol
X	NA1993, Fuel oil (No. 1, 2, 4, 5 or 6), 3, III	ERG# 128				
X	UN1203, Gasoline, 3, II	ERG# 128				
X	NA1270, Petroleum Oil, 3, III	ERG# 128				

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle								
HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy	
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III	Mercury Containing Articles		
X					RQ, UN2608, Mercury, 8, III	Mercury		
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II	TSCA Exempt PCB Lamp Ballasts		
X					UN2800, Batteries, wet, nonspillable, 8, III	Sealed Lead Acid Batteries		
X					UN2794, Batteries, wet, filled with acid, 8, III	Lead Acid Batteries		
X					UN2795, Batteries, wet, filled with alkali, 8, III	Wet NiCad Batteries		
X					UN3090, Lithium batteries, 9, II	Lithium Batteries		
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	Alkaline Batteries		
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	NiCad Batteries		
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or <		
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or >		
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular/U-tube lamps		
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps		
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shattershield		
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MVUV Lamps		
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps		
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts		
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics		

**Generator's Certification:** This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Officer's Printed/Typed Name: *Wes Hallman* Signature: \_\_\_\_\_ Month: *6* Day: *7* Year: *17*

Transporter 1 Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Transporter 2 Printed/Typed Name: *Doug Johnson* Signature: \_\_\_\_\_ Month: *6* Day: *7* Year: *17*

Discrepancy Indication / Additional Information: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed/Typed Name: *Travis C. Clegg* Signature: \_\_\_\_\_ Month: *10* Day: *6* Year: *17*



Trailer # 878  
**A&D Environmental Services**

**Bill of Lading / Material Manifest**

A&D Job No: **219094** Generator ID Number: \_\_\_\_\_ Page 1 of **1** Emergency Response Phone: **800-434-7750** Tracking Number: **16150**

Generator's Name and Mailing Address: **Kinder Morgan, 112 Lewis Drive, Belton SC 29627**  
 Generator's site address (if different from mailing address): \_\_\_\_\_

Transporter 1  2  Company Name: **A&D Environmental Services, Inc.** US EPA ID No: **NCD98623222**  
 Transporter 1  2  Company Name: **A&D Environmental Services (SC), LLC** US EPA ID No: **SCD987598331**

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
<b>A&amp;D Environmental Services, Inc.</b> 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	<b>A&amp;D Environmental Services, Inc.</b> 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	<b>A&amp;D Environmental Services (SC), LLC</b> 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501	<b>A&amp;D Environmental Services (SC), LLC</b> 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	<b>A&amp;D Environmental Services (SC), LLC</b> 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
	<b>Gasoline + water mix</b>	<b>1</b>	<b>TT</b>	<b>4967 G</b>		
<b>Petroleum Products for Recycle</b>						
		No.	Type	QTY	Wt/Vol	Profile Number
X	NA1993, Diesel fuel, 3, III					
X	NA1993, Fuel oil (No. 1,2,4,5 or 6), 3, III					
X	UN1203, Gasoline, 3, II					
X	NA1270, Petroleum Oil, 3, III	<b>01</b>	<b>TT</b>		<b>G</b>	<b>2015-0163</b>

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle							
HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Officer's Printed / Typed Name: **Johanne Patterson - Behalf - Morgan** Signature: \_\_\_\_\_ Month: **6** Day: **29** Year: **17**  
 Transporter 1 Printed / Typed Name: **Johanne Patterson** Signature: \_\_\_\_\_ Month: **6** Day: **29** Year: **17**  
 Transporter 2 Printed / Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

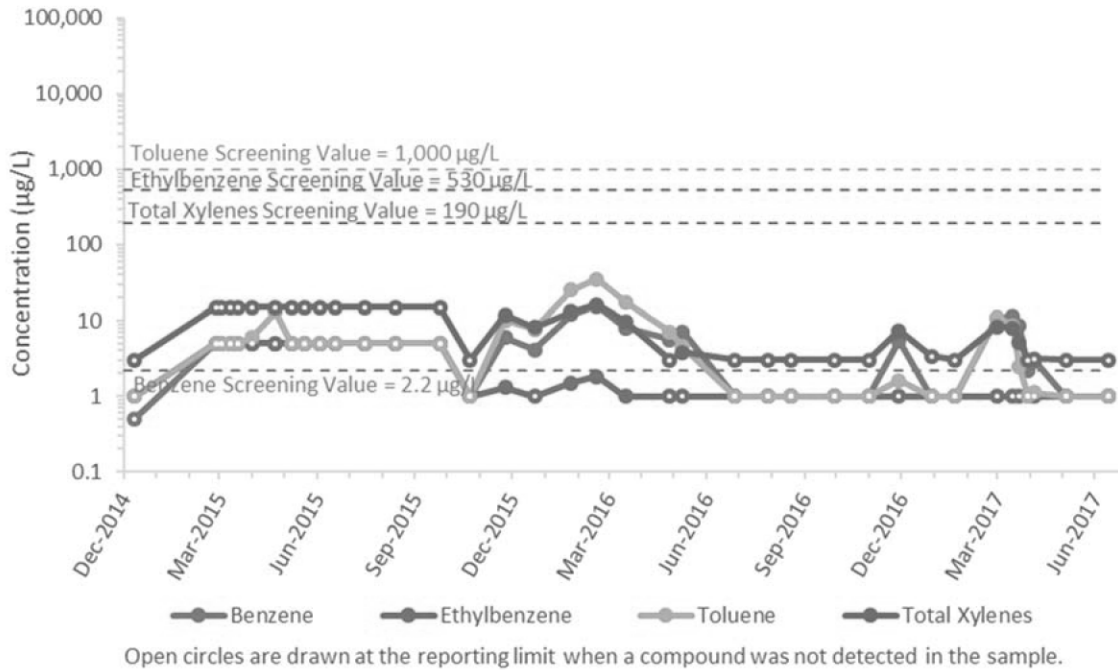
Discrepancy Indication / Additional Information: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.  
 Printed / Typed Name: **MAULS CLAPP** Signature: \_\_\_\_\_ Month: **06** Day: **29** Year: **17**

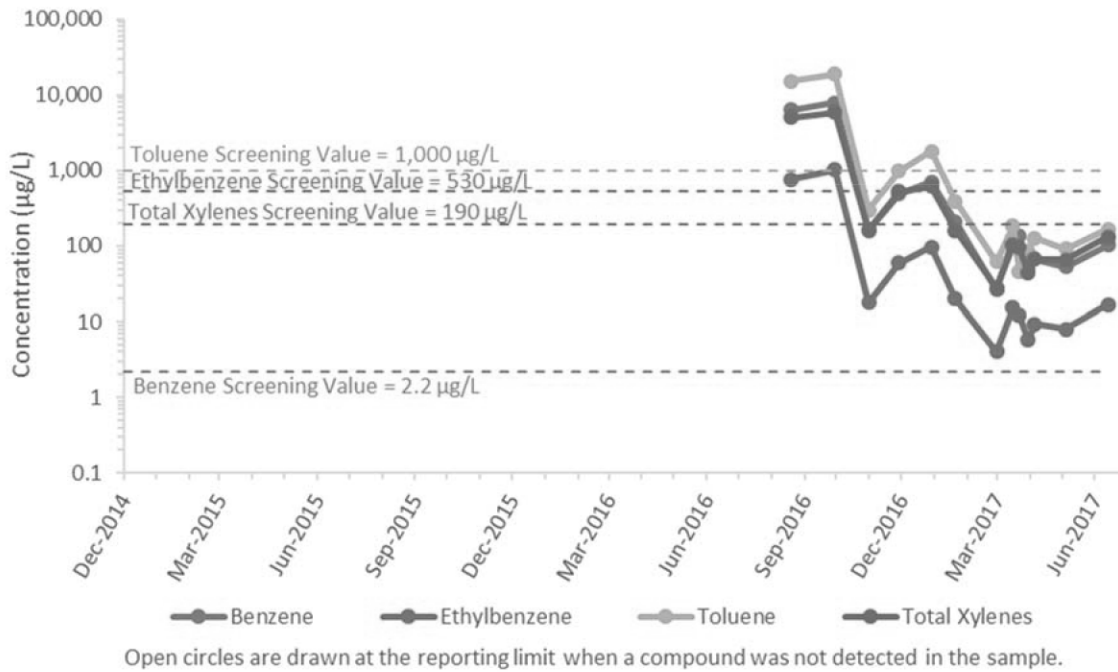


Attachment E  
Surface Water Analytical Trends

### SW-02

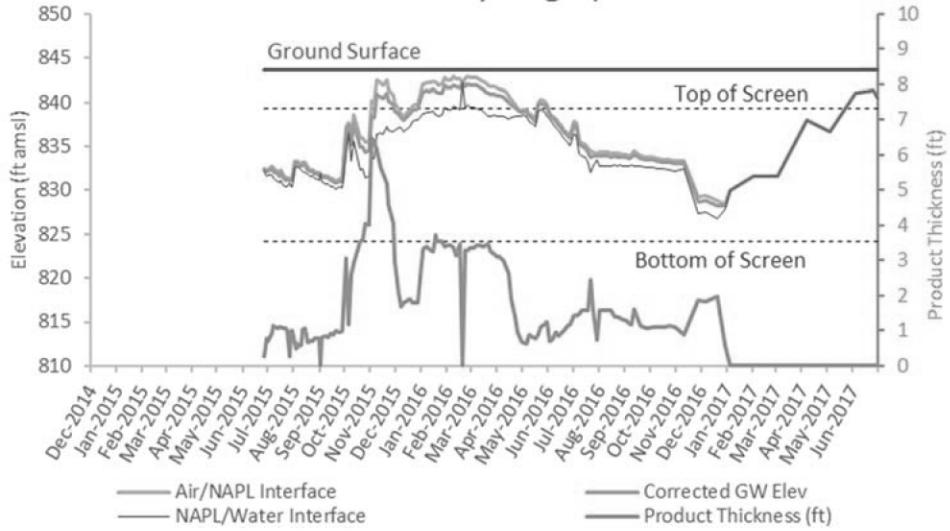


### SW-12

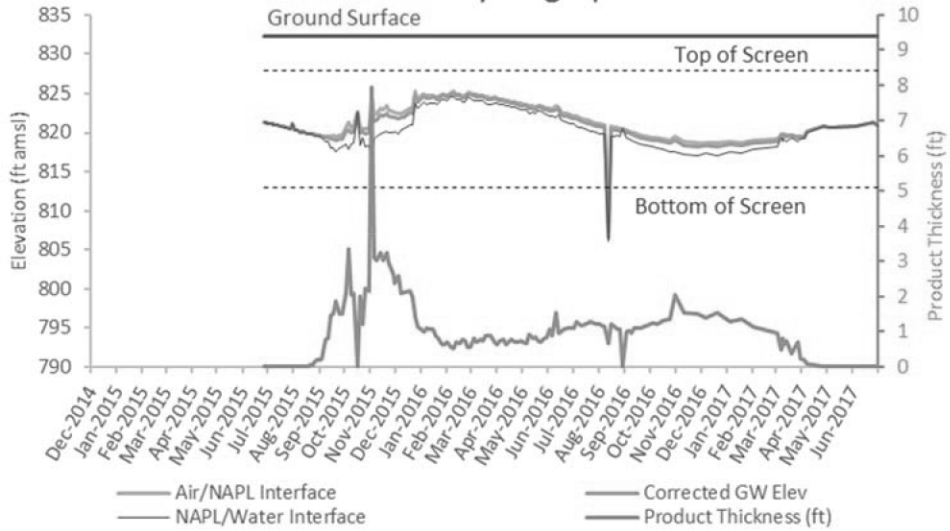


Attachment F  
Product Thickness Trends

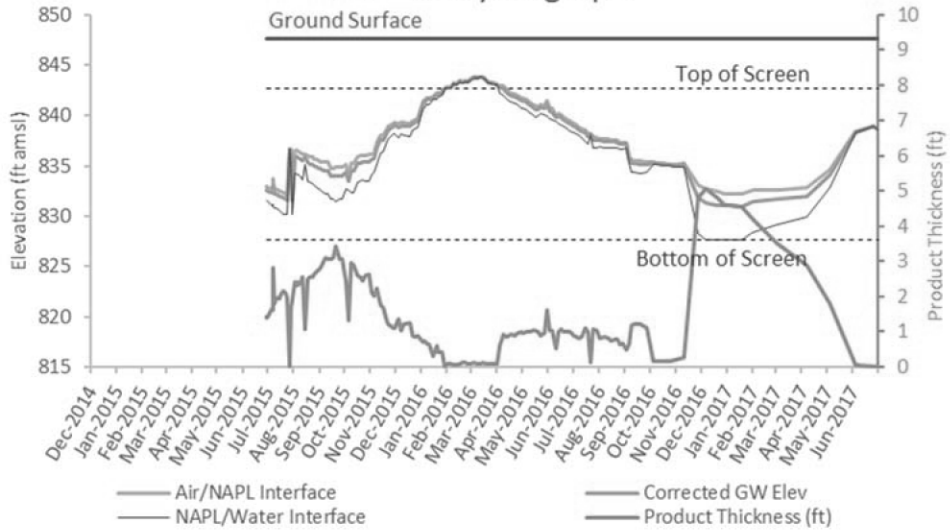
### MW-09 Hydrograph

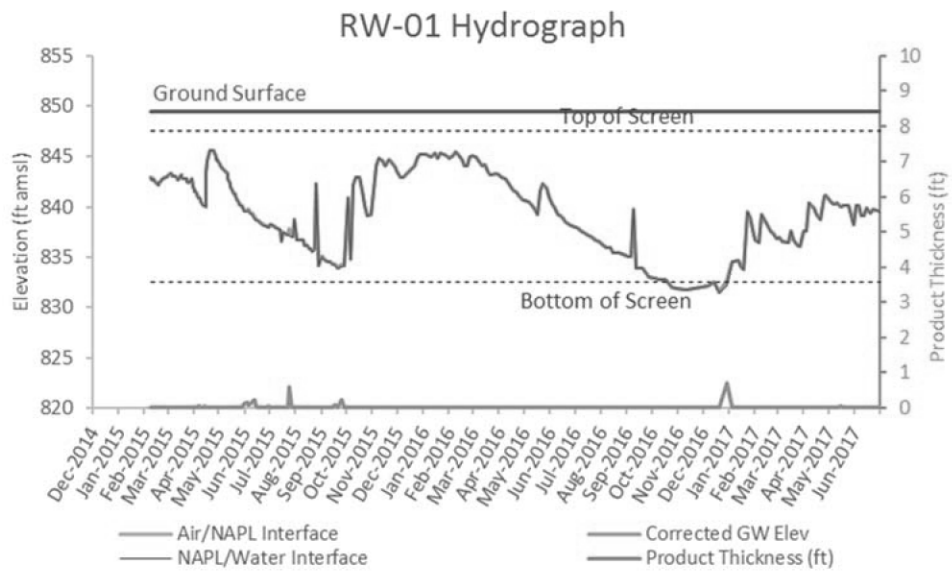
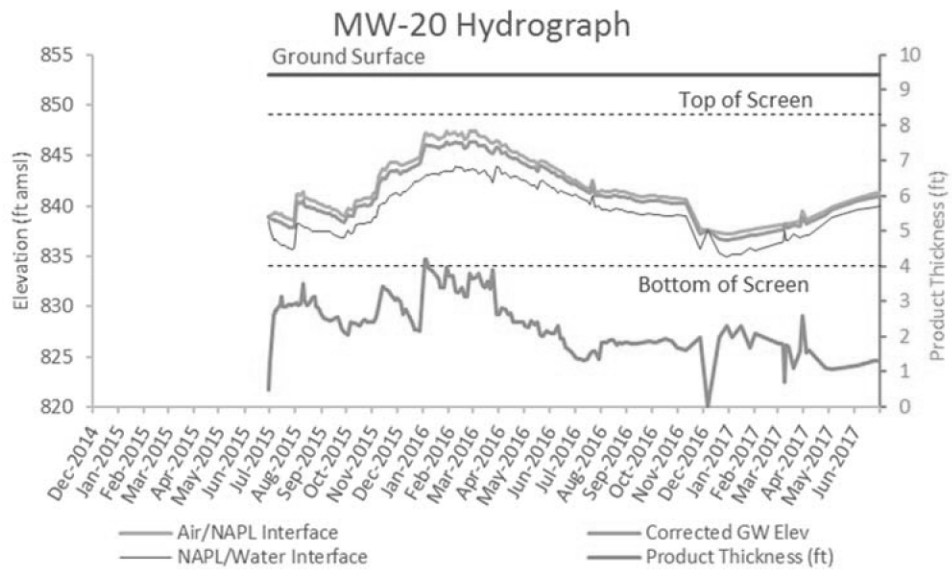
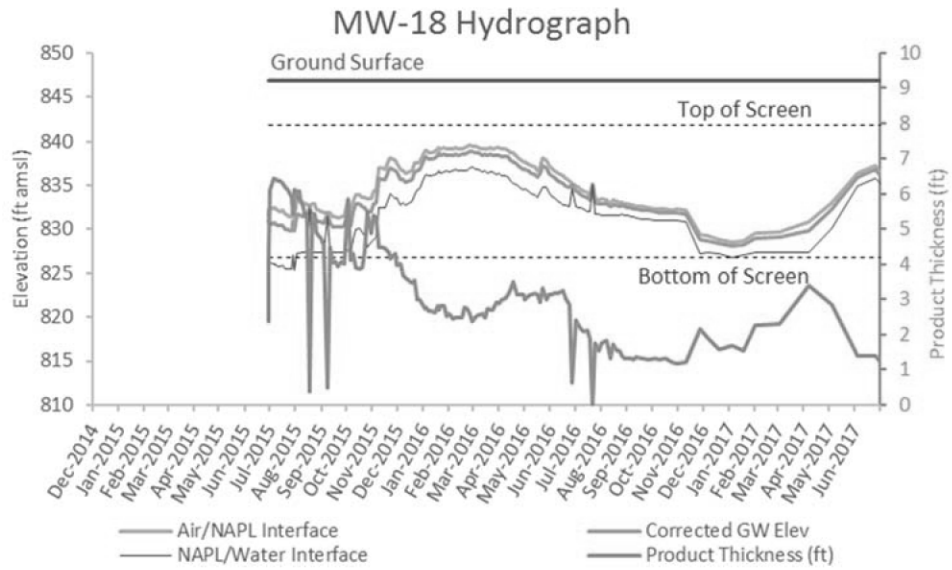


### MW-12 Hydrograph

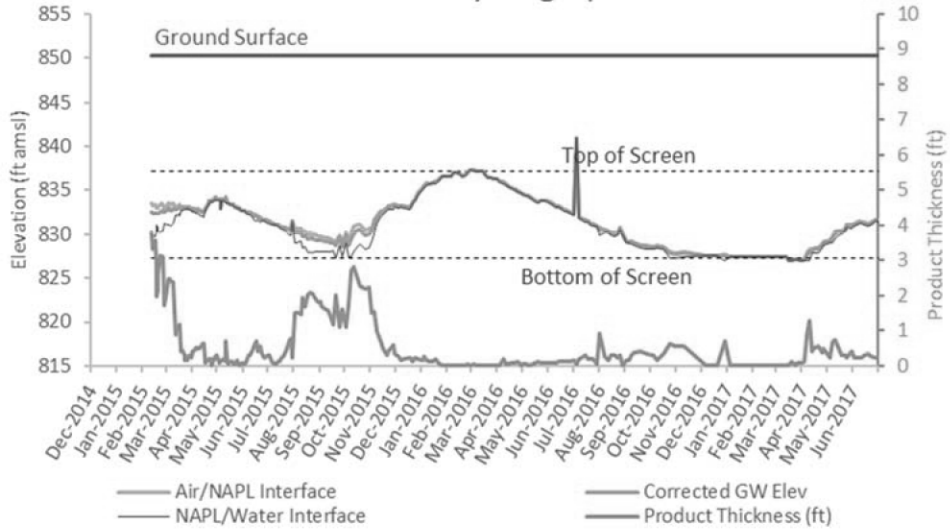


### MW-16 Hydrograph

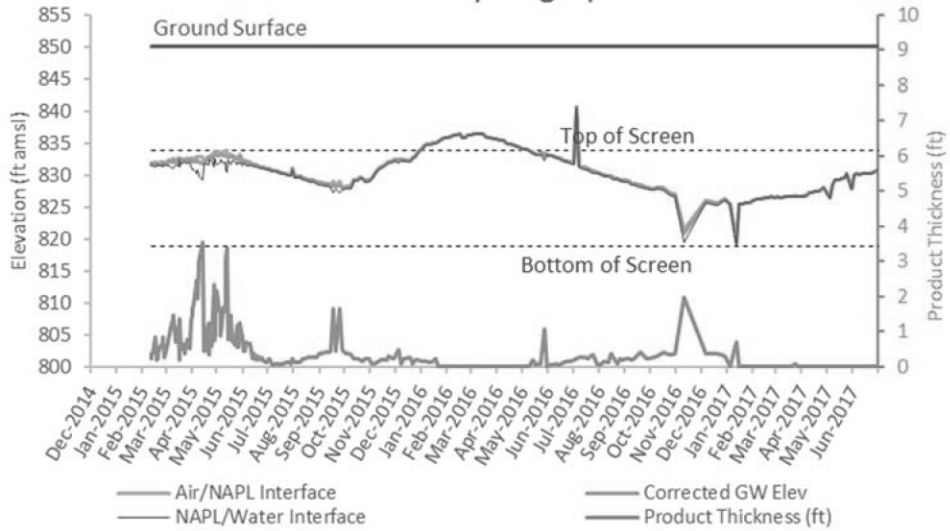




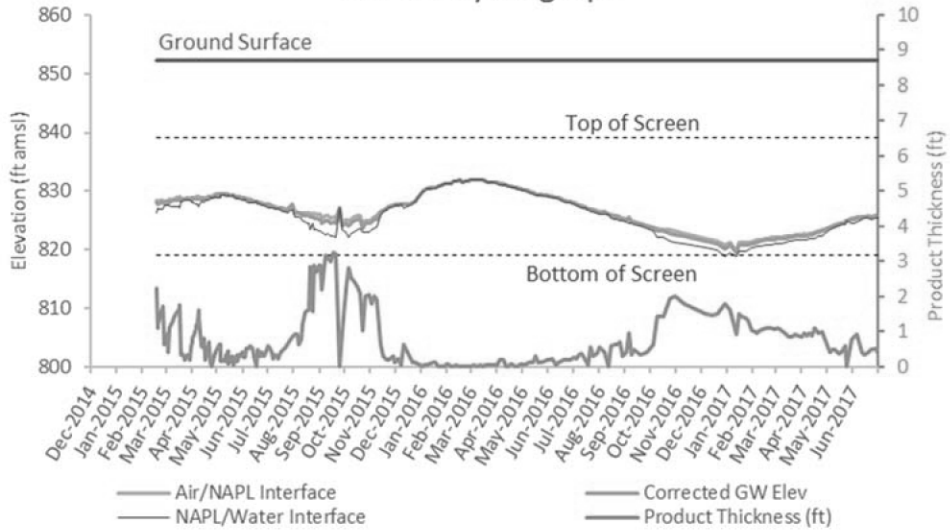
### RW-02 Hydrograph



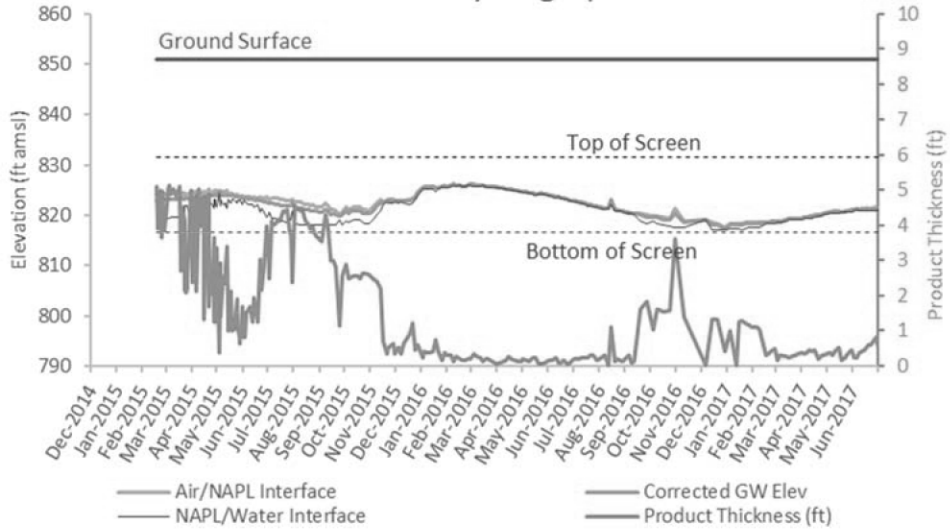
### RW-03 Hydrograph



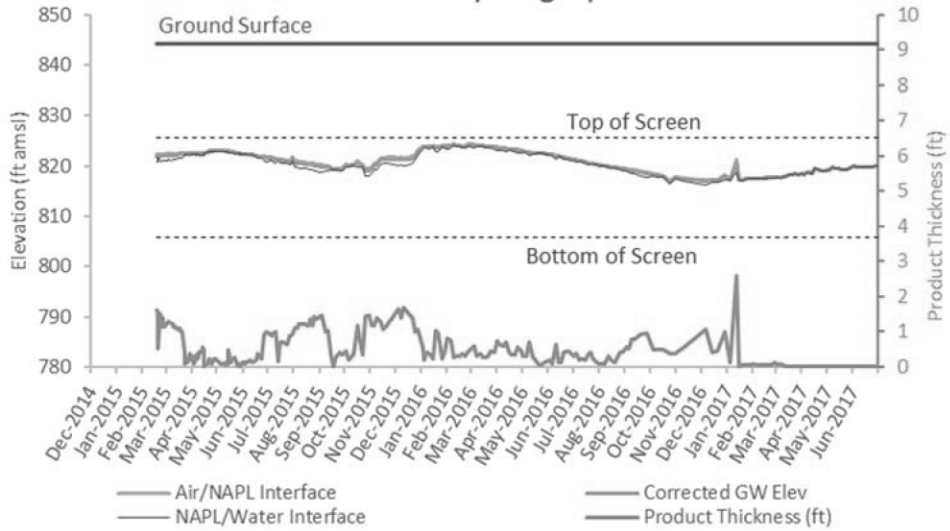
### RW-04 Hydrograph



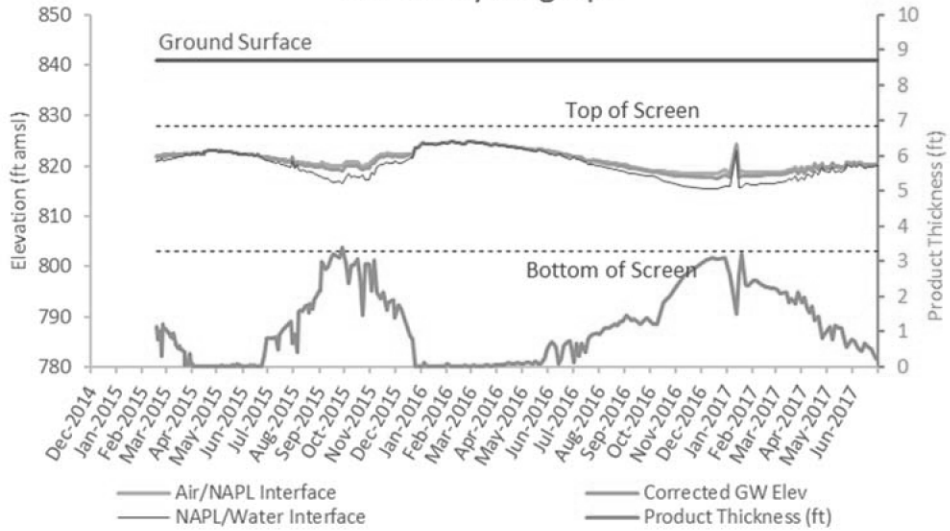
### RW-05 Hydrograph



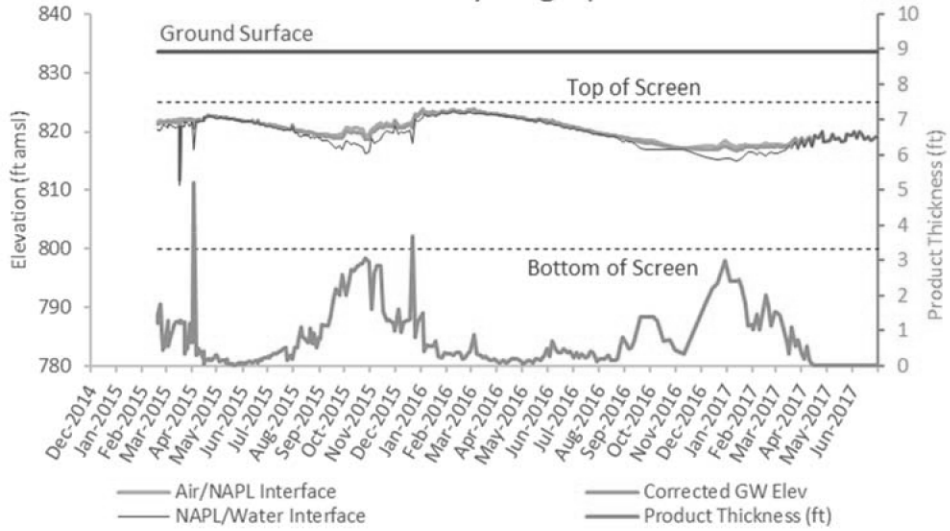
### RW-06 Hydrograph



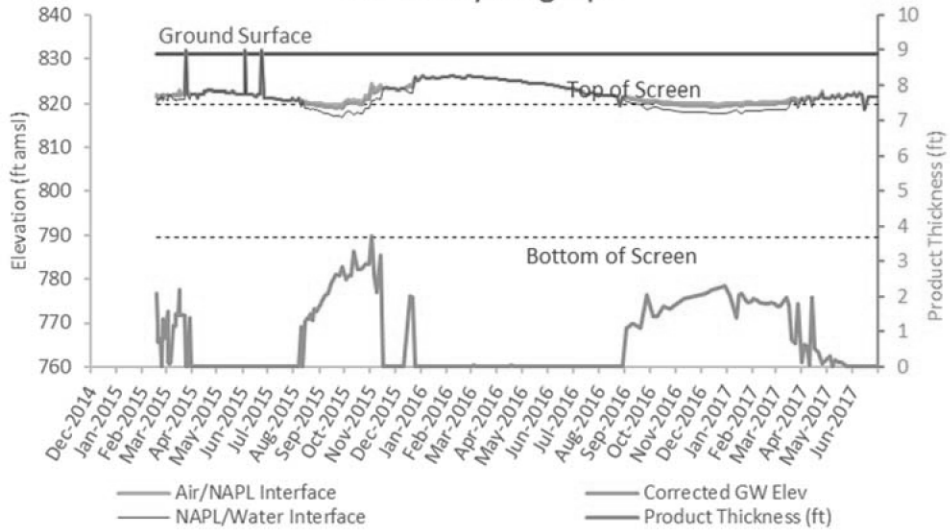
### RW-07 Hydrograph



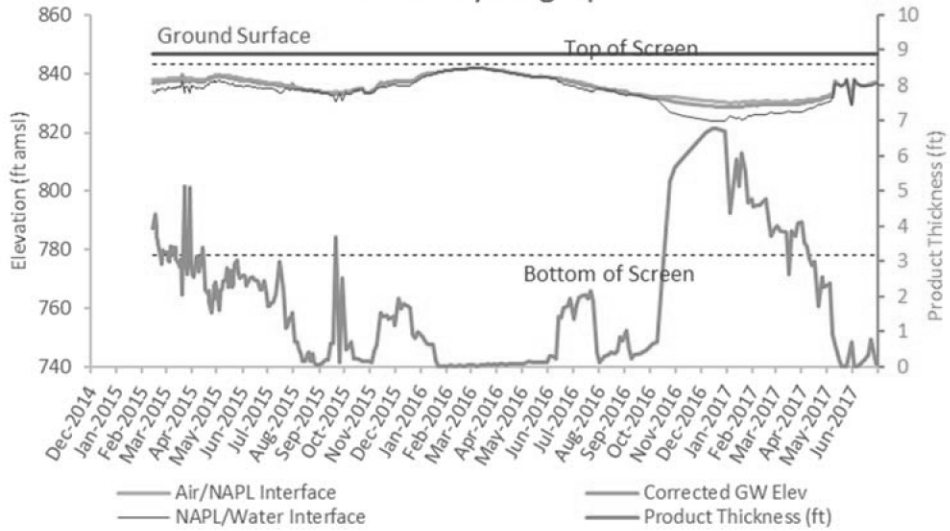
### RW-08 Hydrograph



### RW-09 Hydrograph

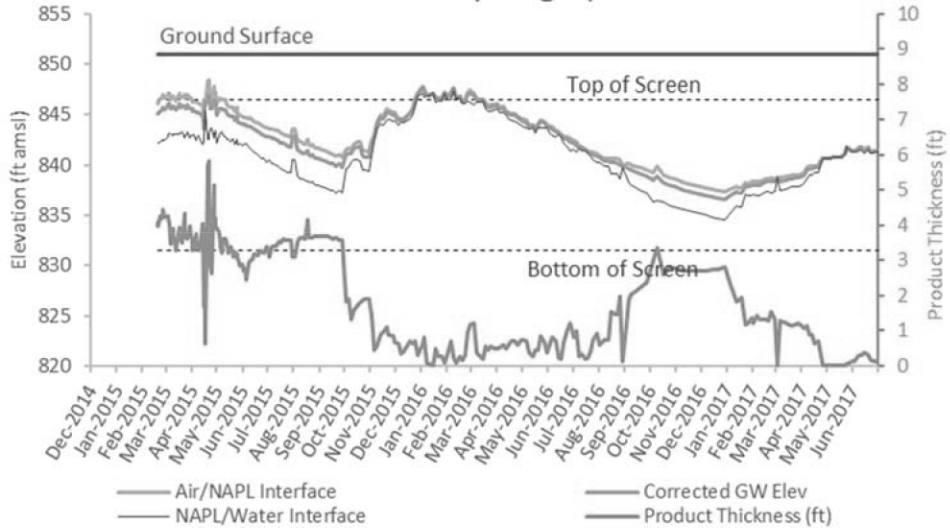


### RW-10 Hydrograph

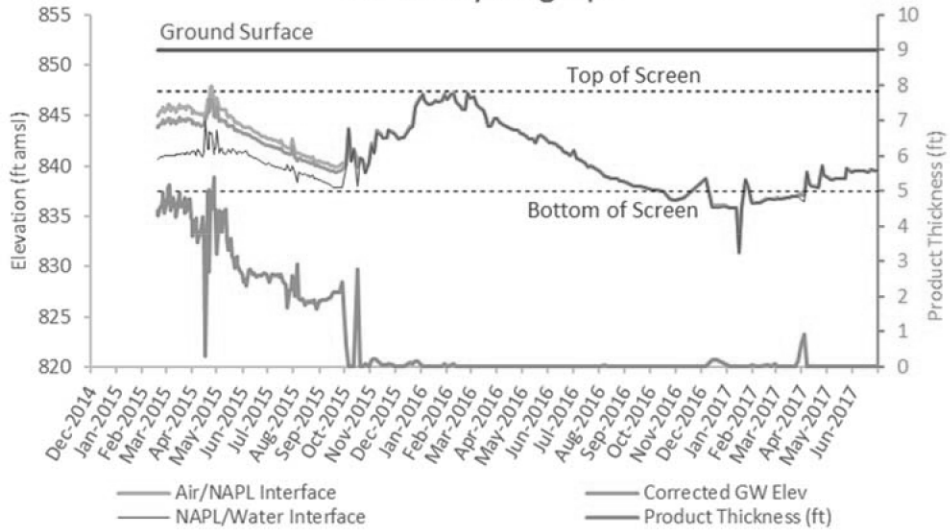




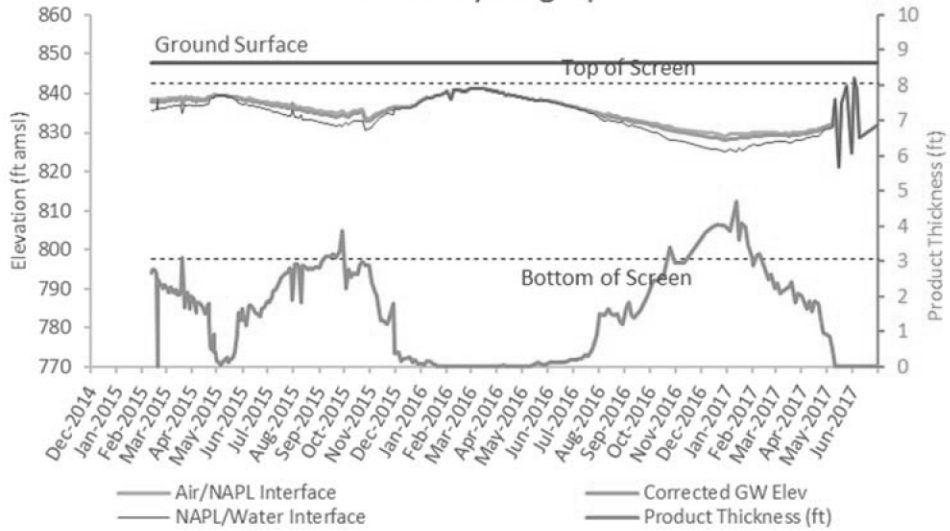
### RW-11 Hydrograph



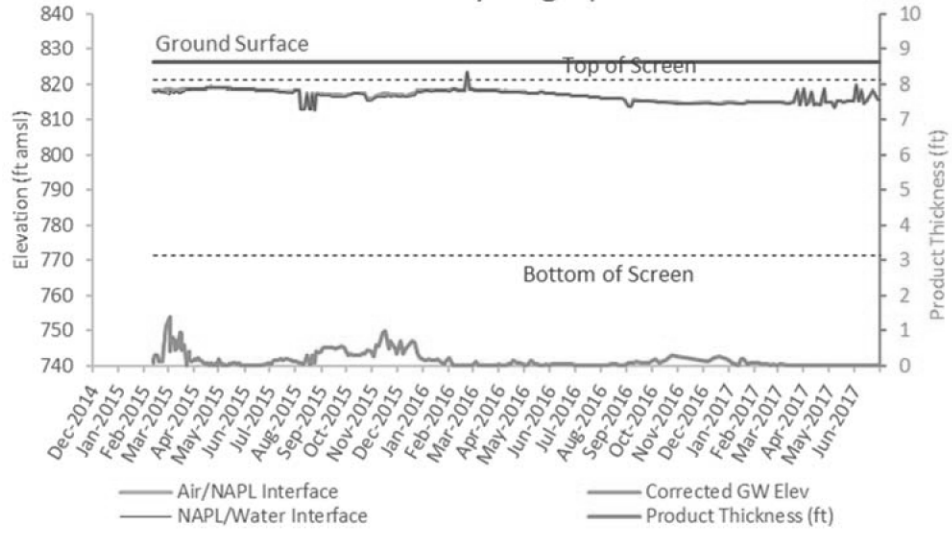
### RW-12 Hydrograph



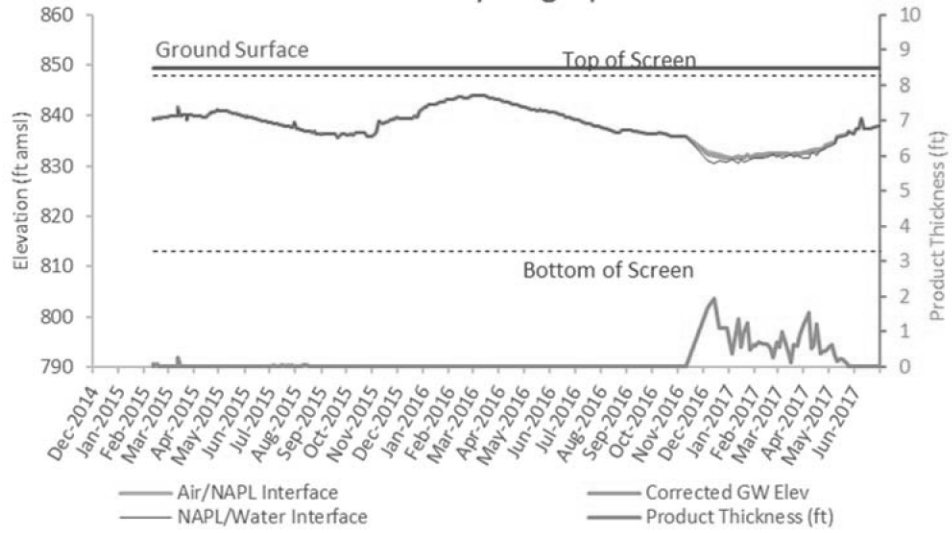
### RW-13 Hydrograph



### RW-14 Hydrograph



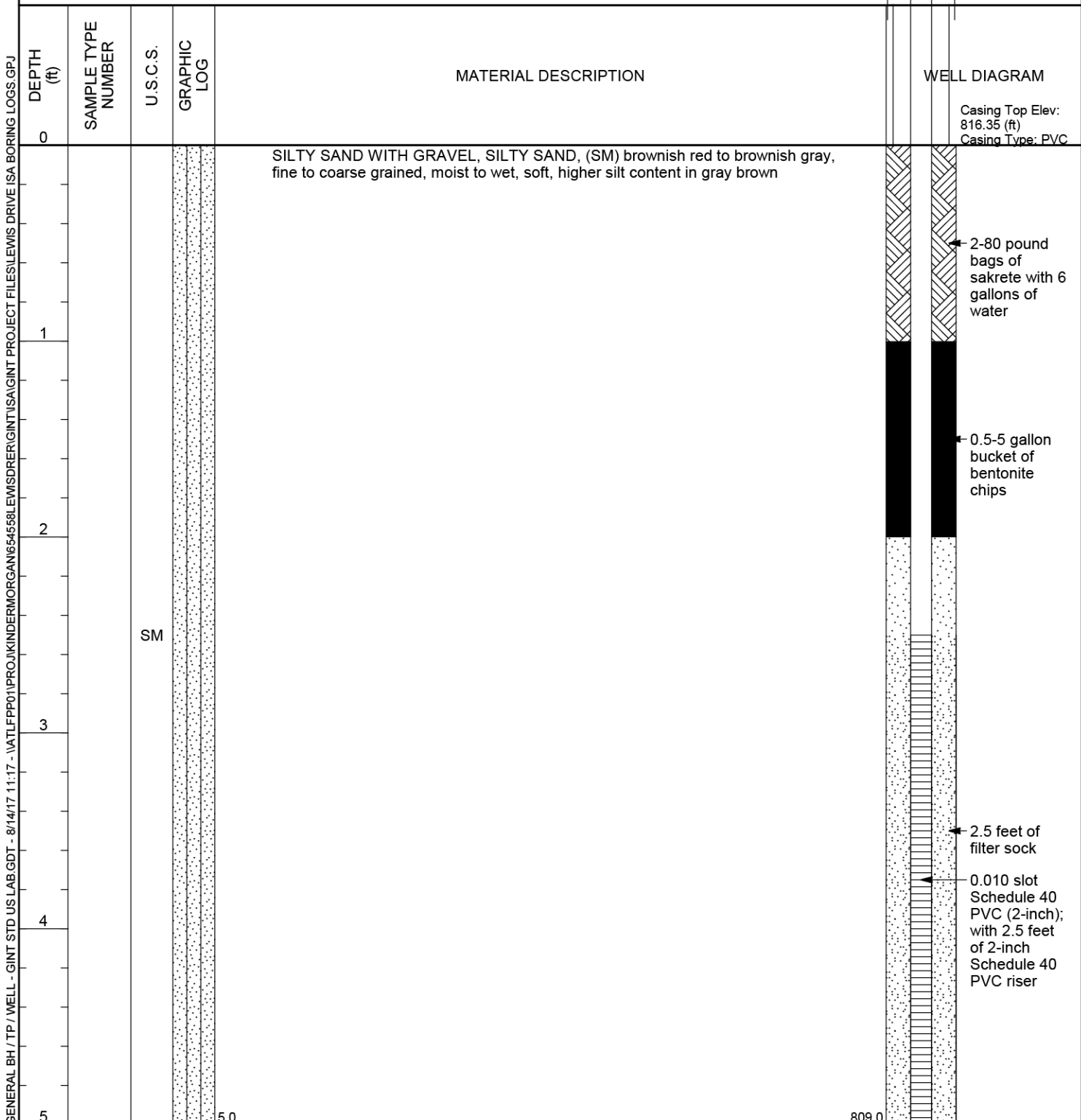
### RW-15 Hydrograph



Attachment G  
Soil Boring Log and Well Completion  
Diagram (MW-34)

**ch2m:** CH2M HILL  
 6600 Peachtree Dunwoody Road, 400 Embassy Row, Suite 600  
 Atlanta, GA 30328

**CLIENT** Plantation Pipe Line Company **PROJECT NAME** Lewis Drive Remediation  
**PROJECT NUMBER** 684910 **PROJECT LOCATION** Belton, South Carolina  
**DATE STARTED** 3/6/17 **COMPLETED** 3/6/17 **GROUND ELEVATION** 813.99 ft **HOLE SIZE** 4 inches  
**DRILLING CONTRACTOR** AE Drilling **GROUND WATER LEVELS:**  
**DRILLING METHOD** Hand Auger **AT TIME OF DRILLING** ---  
**LOGGED BY** J. McCann **CHECKED BY** --- **AT END OF DRILLING** ---  
**NOTES** --- **AFTER DRILLING** ---



Bottom of borehole at 5.0 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 8/14/17 11:17 - \\ATLFP001\PROJ\KINDERMORGAN\65458\LEWISDRER\GINT\GINT PROJECT FILES\LEWIS DRIVE ISA BORING LOGS.GPJ