SOIL RESPONSE ACTION COMPLETION REPORT, REVISION 1

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1 INTRODUCTION

This Soil Response Action Completion Report ("the SRACR") summarizes the results of the August through October 2012 soil response actions on the W. R. Grace & Co - Conn. (Grace) property. The purpose of the response action was to excavate and dispose of soil with concentrations of poly chlorinated biphenyls (PCBs), poly aromatic hydrocarbons (PAHs) and potentially volatile organic compounds (VOCs) exceeding Record of Decision (ROD) (EPA, 1989) action levels. This report provides a summary of the response actions taken to address soil with detected concentrations exceeding ROD action levels and has been revised in response to comments provided by EPA on June 5, 2013 (EPA, 2013). The soil response action was conducted in accordance with the Soil Management Evaluation and Response Plan (Revision 1) (the "Response Plan"), (Tetra Tech GEO and JG Environmental, 2012) which was updated to reflect the May 21, 2012 (Tetra Tech GEO, 2012) responses to Environmental Protection Agency (EPA) draft comments dated May 11, 2012 (EPA, 2012). On May 22, 2012 Grace received EPA approval of the Response Plan. During the course of implementing the work, EPA's contractor was periodically on-site conducting field oversight of the work including overseeing soil excavation, soil management, post excavation soil sample collection and soil backfilling.

In accordance with the Response Plan, soil with detected concentrations exceeding ROD action levels was excavated from three areas of the property. Confirmatory soil samples were collected as proposed in the Response Plan. Section 2 of this SRACR describes how the soil samples were collected and analyzed. Section 3 provides a summary of the excavation and confirmatory soil sample results. Section 4 presents a re-evaluation of cPAH concentrations using relative potency factors. Section 5 presents the conclusions and Section 6 provides reference cited in this SRACR.

2 SAMPLING AND ANALYSIS PROCEDURES

This section describes how the confirmatory soil samples were collected and analyzed.

2.1 SOIL SAMPLING

The confirmatory soil samples were collected from the excavated areas after the proposed limits of the excavations were reached. The samples from the three proposed excavation areas were collected between August 27, 2012 and September 24, 2012. Soil samples from these areas were collected from the sides and bases of excavations as necessary to confirm that soil with detected concentrations exceeding ROD action levels was removed. The soil samples were collected according to the procedures described in the Soil Management Work Plan (Revision 1) (Tetra Tech GEO, 2011).

2.2 SAMPLE ANALYSIS

The confirmatory soil samples were sent to Alpha Analytical for analysis. Depending on which excavation the samples were collected from, they were analyzed for PCBs, VOCs or PAHs using the following procedures:

- PCBs - EPA Method 8082 with Microwave Extraction Method 3546;
- VOCs - EPA Method 8260B with low-level detection limits; and
- PAHs - EPA Method 8270CSIM.

Table 2-1 summarizes the location, depth, number of soil samples and analytical methods for each of the three excavation areas at the site. Detection limits were below ROD action levels for all parameters in all but three samples. The detection limits for four VOCs in three soil samples collected between the Former Warehouse and 1974 Building Addition exceeded the ROD action levels. This is discussed more fully in Section 3.2.2. One equipment blank was collected for each analytical method or sample method combination. A trip blank was included in coolers containing VOC samples. Table 2-2 shows the results for the equipment blank and trip blank analyzed for VOCs, Table 2-3 shows the results for the three equipment blanks analyzed for PAHs and Table 2-4 shows the results for the three equipment blanks analyzed for PCBs. As shown in the tables, there were no issues with the equipment or trip blank results.

To assure that sample integrity was maintained, site sample labeling, chain-of-custody forms, and packing and shipping requirements for the project samples were handled according to the procedures described in the Soil Management Work Plan (Revision 1) (Tetra Tech GEO, 2011).

3 SUMMARY OF EXCAVATION AND DISPOSAL

As proposed in Section 4 of the Response Plan (TT GEO, 2012), soil with detected concentrations exceeding ROD action levels was excavated from the following three geographic areas:

- Passivating Area Drain Line (SS-14 and SS-17);
- Between Former Warehouse and 1974 Building Addition (ECS-13); and
- South Drainage Ditch (ECS-SS-1 and ECS-SS-2).

The soil excavation areas are shown on Figure 3-1. This section of the report summarizes the excavation and confirmatory sampling done in each area, as well as the disposal of the soil and the air monitoring done during soil excavation.

3.1 SURVEYING

The areas proposed for excavation were delineated based on the results of soil sample analyses as discussed in the Response Plan (Tetra Tech GEO and JG Environmental, 2012). The proposed excavation areas were located and staked by Meridian Associates based on coordinates of the mapped areas presented in the Response Plan (Tetra Tech GEO and JG Environmental, 2012). In addition, Meridian Associates, a Massachusetts licensed surveyor, installed reference stakes near each excavation area. The locations for confirmatory soil samples and limits of excavation were determined based on these reference stakes.

3.2 EXCAVATION

ENPRO Services, Inc., (ENPRO) was subcontracted to excavate and dispose of soil exceeding ROD action levels. Each excavation area was cleared and grubbed, as necessary. Above ground vegetation was chipped and/or logged and left on-site, while below ground vegetation (i.e. root balls) was stockpiled for off-site disposal. Excavated material was staged on-site on polyethylene sheeting, surrounded by hay bales and covered each day. Soil from each excavation area was staged separately. A water truck was used for dust control on an as needed basis. Water used for decontamination was contained and transferred to holding tanks. Water that accumulated in the bottom of excavations was vacuumed out, as necessary, and stored in holding

tanks. The water generated during these activities was treated in the on-site groundwater treatment system. Photographs of various aspects of the soil excavation activities are included in Attachment A.

The excavations were backfilled with granular fill obtained from Brox Industries in Dracut, Massachusetts. A sample of the fill material was collected and analyzed for VOCs, semi-VOCs, VPH, pesticides, herbicides, PCBs, PAHs and metals prior to bringing any fill to the site. The results of the fill analyses, included in Attachment B, show that concentrations of all parameters were below Massachusetts Contingency Plan Method 1 Soil Category S-1 standards. All field work was completed in accordance with the Soil Management Work Plan (Revision 1) (Tetra Tech GEO, 2012) and the site Health and Safety Plan (GeoTrans, 2010). Representatives from EPA were on-site conducting oversight during most of the 2012 field work activities.

3.2.1 PASSIVATING AREA DRAIN LINE (SS-14 AND SS-17)

Soil from Areas A and B in the passivating area drain line area, shown on Figure 3-2, was excavated to a depth of 3 feet below ground surface (bgs). No confirmatory soil samples were collected from Area A because the results from the soil samples collected from this area in 2011 were sufficient to define the limits of the required excavation area. Confirmatory samples CS-01 through CS-03 were collected from Area B from a depth of one to two feet and analyzed for PCBs. The locations of these samples are shown on Figure 3-2 and the results of the soil samples are summarized in Table 3-1. The PCB concentrations from samples collected from Area B were below the ROD action level. As a result, no further excavation was necessary. Areas A and B were backfilled with laboratory-tested clean fill. A total of 32.4 tons of soil was excavated from this area and disposed of off-site as described in Section 3.3. Photographs of the passivating area drain line area excavation are included in Attachment A.

3.2.2 BETWEEN FORMER WAREHOUSE AND 1974 BUILDING ADDITION (ECS-13)

The area between the former warehouse and 1974 building addition (ECS-13) was originally excavated to a depth of approximately nine feet. Confirmatory samples CS-04 through CS-09 were collected from the excavation sidewalls and base as shown in Figure 3-2. Samples were collected from depths ranging between five and nine feet bgs and analyzed for PCBs. Because the detection limits for several VOCs that were reported to be not detected were greater

than ROD action levels in one soil sample collected in this area in 2005 and in two soil samples collected in 2011 additional confirmatory samples were collected using EnCore® Samplers and analyzed for VOCs. The 2012 VOC soil sample results are summarized in Table 3-2 and the PCB soil sample results are summarized in Table 3-3.

3.2.2.1 VOCs

No VOCs in the ten samples collected during the first phase of excavation were detected above ROD action levels. However, the detection limits for four VOCs (chloroform, tetrachloroethene (PCE), trans-1,2-dichloroethene (trans-1,2-DCE) and trichloroethene (TCE)) in three of the soil samples (CS-04 at 7 to 8 feet bgs; CS-06 at 9 feet bgs; CS-08 at 9 feet bgs) exceeded ROD action levels. Consequently, the analytical laboratory reported the results for all parameters from all samples in the sample delivery group (SDG) (L1215303) containing these three samples down to the Method Detection Limit (MDL). As a result, the MDL-based non-detect results for chloroform, PCE and trans-1,2-DCE in all three soil samples were determined to be below the ROD action levels. The MDL-based non-detect results for TCE in the three soil samples remained slightly above the ROD action level of 13 µg/L, with TCE reported to be not detected at MDLs of 16 µg/L, 17 µg/L and 20 µg/L. Table 3-2 lists the reporting limit and MDL for all non-detect VOC results. The laboratory report for SDG L1215303 is included in Attachment C.

As mentioned above, VOC analyses were done on soil samples from this area because a few historic not detected results had detection limits that were above ROD action levels. Elevated concentrations of VOCs in soil had not ever been detected in this portion of the Site. A soil sample collected at ECS-13 in 2005 did not detect the presence of PCE or TCE, but the detection limits exceeded ROD action levels. As a result, 12 additional soil samples were collected in the vicinity of ECS-13 during the 2011 soil investigation and analyzed for VOCs.

As summarized in the Response Plan (Tetra Tech GEO and JG Environmental, 2012), no VOCs in the twelve 2011 soil samples were detected at concentrations that exceeded ROD action levels. However, in two of the samples with reported non-detectable concentrations, the detection limits were greater than ROD action levels for chloroform, PCE, TCE and trans-1,2-DCE. Table 3-4 summarizes the VOC results from the three historic soil samples, the sample collected in 2005 and the two samples collected in 2011, in which the detection limits for several

VOCs reported to be non-detectable exceeded ROD action levels. At our request, the laboratory re-issued the laboratory report for the 2011 soil samples, and was able to report the results based on the MDL. This brought the non-detect results for chloroform, PCE and trans-1,2-DCE in the two 2011 soil samples below the ROD action levels. The MDL-based detection limit for TCE remained slightly above the ROD action level of 13 µg/L, with TCE reported to be not detected at MDLs of 18 µg/L and 19 µg/L. Table 3-4 lists the reporting detection limit and MDL for all non-detect VOC results from the two soil samples collected in 2011. The re-issued laboratory report for the 2011 soil samples (SDG L1119827) is included in Attachment C.

The data show that VOC concentrations in soil are not a concern in this area. No VOCs were detected above ROD action levels in any of the twenty three soil samples collected in this area between 2005 and 2012. This is further supported by the fact that groundwater VOC concentrations in monitoring wells located in this area (G15S, G15D, G25S and G25D) were below ROD cleanup goals when they were decommissioned in 2006.

3.2.2.2 PCBs

As shown in Table 3-3, PCB concentrations in three samples (CS-06 at five to seven feet bgs and nine feet bgs, and CS-08 at nine feet bgs) exceeded the ROD action level of 1,040 µg/Kg. As a result of the PCB detections, the excavation was extended approximately two feet to the north and the northern portion of the excavation was deepened by approximately one foot. Figure 3-2 shows the approximate extent of the excavation. Three additional confirmatory samples were collected for PCB analysis at CS-08 and CS-21. The sample depths ranged between 5 and 10 feet bgs. PCB concentrations in these three samples were below the ROD action level, and this area was backfilled with laboratory tested clean fill. A total of 104.27 tons of soil were excavated from this area and disposed of off-site. Photographs of the excavation of the area between the former warehouse and 1974 building addition are included in Attachment A.

3.2.2.3 WATER AND PIPE

During the second phase of excavation in this area, groundwater accumulated in the bottom of the excavation. Prior to placement of backfill, approximately 1,800 gallons of water

were removed from the excavation, placed in holding tanks and subsequently pumped through the Grace treatment system.

An approximately two-foot long pipe segment was encountered about three feet bgs into the west sidewall of the excavation. A black tar-like material was found hardened to the inside bottom of the pipe segment. At the request of EPA, a sample of this hardened material was collected and analyzed for PCBs and PAHs. No PCBs or cPAHs were detected in the material; however, detection limits were elevated. PAH and PCB analytical results are summarized in Tables 3-5 and 3-6, respectively. In response to a request by EPA, a three-foot deep and twenty-foot long exploratory trench was excavated at the edge of the pavement to the west of the area where the pipe segment was found. This was done to determine if the detected pipe segment was part of a longer pipe. No evidence of additional piping was found and the trench was backfilled with the soil excavated from the trench. The approximate locations where the pipe segment was found and where the exploratory trench was dug are shown on Figure 3-2. A photograph of the pipe segment is included in Attachment A. The pipe segment was disposed off-site along with the soil excavated from this area.

3.2.3 SOUTH DRAINAGE DITCH (ECS-SS-1 AND ECS-SS-2)

Prior to excavation, trees and other vegetation were removed from the area in and around the South Drainage Ditch to provide access. Trees were logged and large woody debris was chipped and spread on-site. Root balls were staged at the western end of the ditch on plastic sheeting and were disposed of off-site with soil material removed from the ditch. Erosion control was installed in the eastern end of the South Drainage Ditch using hay bales and silt fencing to mitigate any soil movement into Snyder Creek during the excavation.

The South Drainage Ditch was excavated beginning at the eastern end and moving westward. As per the Response Plan, the ditch was excavated to a depth of approximately two feet below the surface of the ditch and the area around SM-32 was excavated to a depth of approximately four feet below the surface of the ditch. A total of 14 confirmatory samples were collected from the sidewalls and base of the initial excavation area at locations CS-10 through CS-20. Samples were analyzed for cPAHs. Confirmatory sample locations are shown in Figure 3-3 and the analytical results are summarized in Table 3-7. Concentrations of cPAHs in two samples from the area of SM-32 and three samples located at the western end of the ditch,

exceeded the ROD action level of 690 µg/Kg. The four confirmatory samples collected along the ditch were below the ROD action level.

As a result of the cPAH detections, a second phase of excavation was done in the area of SM-32 and at the west end of the ditch. In the area of SM-32, the excavation was extended approximately two feet to the south and deepened so the entire bottom was at the same elevation, approximately six feet below the lowest original point of the ditch bottom. Five additional confirmatory samples were collected at locations CS-20, CS-26 and CS-27, from the sidewalls and base of the excavation. The west end of the drainage ditch was extended approximately two feet to the south, west and north around the perimeter. The bottom was deepened so the entire bottom was one-foot deeper than the previously deepest point. Seven additional confirmatory samples were collected (CS-22 through CS-25) from the sidewalls and base of the excavation. The confirmatory samples were analyzed for cPAHs.

Concentrations of cPAHs from the second round of confirmatory samples from the SM-32 area were below the ROD action level, so excavation was deemed to be complete in this area. Concentrations of cPAHs in five of seven samples from the west end of the drainage ditch exceeded the ROD action level of 690 µg/Kg. Therefore, this excavation was extended approximately two feet to the north, west, and south. It was also deepened by three feet across the area. After the third-phase of excavation, eleven additional confirmatory samples were collected from the sidewalls and base of the excavation at CS-25, and CS-28 through CS-30. These samples were analyzed for cPAHs.

Concentrations of cPAHs in four of eleven samples from the third round of confirmatory samples in the west end of the drainage ditch exceeded the ROD action level of 690 µg/Kg. As a result, the excavation was extended approximately two feet to the west and south to a depth of eight feet below the surrounding grade (approximately four feet below the original ditch bottom). Six additional confirmatory samples were collected from the sidewalls and base of the excavation at CS-31 through CS-32 and analyzed for cPAHs. During this phase of excavation, a dark layer of soil material was observed. Samples CS-31 (0.5 to 1.5 feet bgs) and CS-31 (8 feet bgs) were collected above and below the dark layer, respectively.

Concentrations of cPAHs in four of the six samples collected during the fourth confirmatory sampling round were above the ROD action level. Excavation was halted in order

to review the data and develop a plan for moving forward. A total of 757.34 tons of soil from the South Drainage Ditch was excavated and disposed of off-site. Photographs of the South Drainage Ditch excavation are included in Attachment A.

During the second-phase of excavation, groundwater accumulated in the bottom of the SM-32 area excavation. Approximately 300 gallons of water were removed from the excavation, placed in holding tanks, and treated at the Grace treatment system.

Following completion of the excavation, the south drainage ditch was reconstructed. Laboratory tested clean fill was used to replace most of the excavated material. The clean fill was covered with woven geotextile then approximately twelve inches of riprap was place on the geotextile. The ditch was reconstructed to accommodate the drain lines discharging to the ditch and sloped appropriately to drain to the east into Snyder Creek. Disturbed areas adjacent to the South Drainage Ditch that were not covered with riprap were seeded, fertilized and mulched. Prior to backfilling, poly sheeting was placed at the western end of the excavation to mark the boundary between the backfill and native soil.

3.3 SOIL DISPOSAL

Prior to off-site transport and disposal, the excavated soil from each area was sampled and analyzed for disposal characterization. The results of the disposal characterization samples analyses are included in Attachment D. Following receipt of the analytical results, waste profiles were prepared and submitted to the disposal facility for approval. Following approval by the disposal facility to accept the material, EPA was notified that Waste Management of New Hampshire, located in Rochester New Hampshire was selected as the disposal facility. On September 20, 2012, and prior to any off-site disposal, EPA provided approval of the disposal facility. The excavated soil, miscellaneous tree stumps, and brush was loaded and transported via truck to the disposal facility. Any scrap pipe that was encountered during excavation was disposed of off-site along with the other excavated material. All material sent off site was disposed of as non-hazardous waste. As indicated in Table 3-8, a total of 894 tons of soil, including miscellaneous tree stumps and brush, was sent off-site for disposal.

3.4 AIR MONITORING

Continuous air monitoring was done by ENPRO during active excavation at each area. A photoionization detector (PID) was used to detect VOCs. The PID was operated by a dedicated field person, who checked the readout of the meter every few minutes. In addition, the PID stored the maximum detected reading each day. Table 3-9 summarizes the maximum PID result for each day of active excavation. As shown in Table 3-9, the maximum PID reading detected during active excavation was 6 ppm. This reading was collected on August 29, 2012 during excavation of the South Drainage Ditch. Two instantaneous readings above 0 ppm were observed on that day, one of 4 ppm and one of 6 ppm. The readings are believed to be a result of the PID being in close proximity to the exhaust of a nearby truck. PID readings above 0 ppm were not sustained.

4 SOUTH DRAINAGE DITCH EVALUATION

As discussed in Section 3.2.3, the western end of the South Drainage Ditch was excavated in four phases due to total cPAH concentrations in confirmatory soil samples that exceeded the ROD action level of 690 µg/Kg. After the fourth phase of excavation, the total cPAH concentrations in four of the six confirmatory samples exceeded the ROD action level. At that point, work was halted and the western edge of the ditch was lined with poly sheeting and backfilled. This section describes the history of the South Drainage Ditch as well as a re-evaluation of cPAH concentrations using relative potency factors as recommended by EPA.

4.1 HISTORY OF SOUTH DRAINAGE DITCH

A review of the history of the South Drainage Ditch suggests that the source of cPAHs in the western end of the South Drainage Ditch could be related to the historic filling of the ditch. Currently, the South Drainage Ditch is an open, rock-armored, approximately 20-foot wide swale that drains from west to east. The western end of the open South Drainage Ditch ends near the asphalt driveway that leads to the Groundwater Treatment system. The ditch was originally constructed to provide drainage for agricultural use of the land prior to Grace ownership of the property. Historically, the drainage ditch extended west beyond the area where the 2012 excavation was stopped and it received water from the former building roof drain. Based on historic information, the functional western edge of the west-east sloping South Drainage Ditch was likely approximately 30 feet east of the original building, around the area of groundwater monitoring well clusters G13 and G14. The portion of the west-east trending drainage ditch between the area of the G13 and G14 well clusters and the current western edge of the open South Drainage Ditch was filled in to facilitate building expansion on the site. The approximate location of the filled portion of the South Drainage Ditch is shown on Figure 3-1.

A review of available soil quality data for the site identified PAH results from three soil borings drilled in 2005 in the filled portion of the South Drainage Ditch. The cPAH concentrations from three soil samples and one duplicate soil sample collected from soil borings ECS-10, ECS-10A and ECS-13 are summarized in Table 4-1. The locations of the four soil samples are shown on Figure 4-1. cPAHs were not detected in three of the four soil samples. The total cPAH concentration in the fourth sample, a duplicate sample from ECS-10A, was 736

µg/kg, slightly above the ROD action level of 690 µg/kg. No cPAHs were detected in the non-duplicate sample at the same location.

4.2 EVALUATION OF CPAH CONCENTRATIONS

At a December 14, 2012 meeting between EPA, MassDEP and Grace, EPA indicated that it would be appropriate to re-evaluate total cPAH concentrations by taking into account relative potency factors for individual cPAHs. When the action level presented in the ROD was derived, all cPAHs were considered equally potent as carcinogens, and the action level of 690 µg/Kg was established on that basis. However, in 1993, EPA published *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons* (EPA, 1993) which relates the potency of the other cPAHs to the potency of benzo(a)pyrene. Relative potency factors are used to convert each individual cPAH compound concentration into an equivalent concentration of benzo(a)pyrene. To assess potential cancer risks in a technically appropriate manner (EPA, 1993), benzo(a)pyrene equivalent concentrations were calculated and compared to the ROD cPAH action level developed for the Site to determine if the action level had been exceeded. The total benzo(a)pyrene equivalent concentration is then used to determine the total carcinogenic risk. Consequently, to fairly assess potential cancer risks, it is appropriate to compare total benzo(a)pyrene equivalent concentrations to the ROD cPAH action level developed for a site, rather than comparing total cPAH concentrations, which does not account for potency, to the ROD action level, to determine whether the action level has been exceeded.

Table 4-1 summarizes the cPAH concentrations from the four ECS soil boring samples previously collected from the filled portion of the South Drainage Ditch, as well as the cPAH concentrations of the six soil samples collected after the fourth phase of excavation at the western end of the South Drainage Ditch. These results represent the cPAH concentrations remaining in the filled portion of the South Drainage Ditch. Also shown in Table 4-1 are the relative potency factors for each cPAH and the benzo(a)pyrene equivalent concentration for each soil sample. As shown in Table 4-1, the total benzo(a)pyrene equivalent concentration in all ten of the soil samples is below the ROD carcinogenic PAH action level of 690 µg/Kg. Therefore, this evaluation demonstrates that soils containing cPAH concentrations detected in excess of the ROD action level have been removed from the site, and no further action is necessary.

5 CONCLUSIONS

As described in Section 3, soil with detected concentrations exceeding ROD action levels was excavated from the following three geographic areas:

- Passivating Area Drain Line (SS-14 and SS-17);
- Between Former Warehouse and 1974 Building Addition (ECS-13); and
- South Drainage Ditch (ECS-SS-1 and ECS-SS-2).

Post excavation sampling results demonstrate that excavation activities completed in 2012 were successful in removing all soil with concentrations detected in excess of ROD action levels from the site. No further action on the soils is necessary.

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TABLES

Table 2-1. Summary of Soil Sampling Locations, Depths, and Analyses

Location	Sample Depths	Number of Samples	Analysis
Passivating Area Drain Line (SS-14 & SS-17) CS-01 through CS-03	1-2 feet bgs	3	PCBs by EPA Method 8082 with Microwave Extraction Method 3546
Between Former Warehouse and 1974 Building Additon (ECS-13) CS-04 through CS-09; CS-21	5-7, 7-8, 9, 10 feet bgs	13	PCBs by EPA Method 8082 with Microwave Extraction Method 3546
Between Former Warehouse and 1974 Building Additon (ECS-13) CS-04 through CS-09	5-7, 7-8, 9 feet bgs	10	VOCs by EPA Method 8260B with low-level detection limits
South Drainage Ditch (ECS-SS-1 & ECS-SS-2) CS-10 through CS-20; CS-22 through CS-33	0.5-1.5, 4, 6, 7, 8, 10, 11.5 feet bgs	43	cPAHs by EPA Method 8270CSIM

Table 2-2. VOC Concentrations in Equipment & Trip Blanks

Type	Equipment Blank	Trip Blank
Field Sample ID	CS-07-EBBH	TB-082712
Sample Date	8/27/2012	8/27/2012
1,1,1,2-Tetrachloroethane	ND (0.50, 0.16)	ND (0.50, 0.16)
1,1,1-Trichloroethane	ND (0.50, 0.16)	ND (0.50, 0.16)
1,1,2,2-Tetrachloroethane	ND (0.50, 0.19)	ND (0.50, 0.19)
1,1,2-Trichloroethane	ND (0.75, 0.26)	ND (0.75, 0.26)
1,1,2-trichlorotrifluoroethane	ND (10, 0.23)	ND (10, 0.23)
1,1-Dichloroethane	ND (0.75, 0.22)	ND (0.75, 0.22)
1,1-Dichloroethene	ND (0.50, 0.18)	ND (0.50, 0.18)
1,1-Dichloropropene	ND (2.5, 0.26)	ND (2.5, 0.26)
1,2,3-Trichlorobenzene	ND (2.5, 0.23)	ND (2.5, 0.23)
1,2,3-Trichloropropane	ND (5.0, 0.43)	ND (5.0, 0.43)
1,2,4,5-Tetramethylbenzene	ND (2.0, 0.1)	ND (2.0, 0.1)
1,2,4-Trichlorobenzene	ND (2.5, 0.22)	ND (2.5, 0.22)
1,2,4-Trimethylbenzene	ND (2.5, 0.27)	ND (2.5, 0.27)
1,2-Dibromo-3-chloropropane	ND (2.5, 0.33)	ND (2.5, 0.33)
1,2-Dibromoethane	ND (2.0, 0.32)	ND (2.0, 0.32)
1,2-Dichlorobenzene	ND (2.5, 0.18)	ND (2.5, 0.18)
1,2-Dichloroethane	ND (0.50, 0.16)	ND (0.50, 0.16)
1,2-Dichloropropane	ND (1.8, 0.3)	ND (1.8, 0.3)
1,3,5-Trimethylbenzene	ND (2.5, 0.21)	ND (2.5, 0.21)
1,3-Dichlorobenzene	ND (2.5, 0.19)	ND (2.5, 0.19)
1,3-Dichloropropane	ND (2.5, 0.21)	ND (2.5, 0.21)
1,4-Dichlorobenzene	ND (2.5, 0.22)	ND (2.5, 0.22)
1,4-Dichlorobutane	ND (5.0, 0.47)	ND (5.0, 0.47)
1,4-Dioxane	ND (250, 76)	ND (250, 76)
2,2-Dichloropropane	ND (2.5, 0.4)	ND (2.5, 0.4)
2-Butanone	ND (5.0, 1.9)	ND (5.0, 1.9)
2-Chloroethylvinyl ether	ND (10, 0.4)	ND (10, 0.4)
2-Hexanone	ND (5.0, 0.58)	ND (5.0, 0.58)
4-Ethyltoluene	ND (2.0, 0.42)	ND (2.0, 0.42)
4-Methyl-2-pentanone	ND (5.0, 0.42)	ND (5.0, 0.42)
Acetone	ND (5.0, 1.6)	ND (5.0, 1.6)
Acrylonitrile	ND (5.0, 0.43)	ND (5.0, 0.43)
Benzene	ND (0.50, 0.19)	ND (0.50, 0.19)
Bromobenzene	ND (2.5, 0.18)	ND (2.5, 0.18)
Bromochloromethane	ND (2.5, 0.33)	ND (2.5, 0.33)
Bromodichloromethane	0.92	ND (0.50, 0.19)
Bromoform	ND (2.0, 0.25)	ND (2.0, 0.25)
Bromomethane	ND (1.0, 0.26)	ND (1.0, 0.26)
Carbon disulfide	ND (5.0, 0.3)	ND (5.0, 0.3)
Carbon tetrachloride	ND (0.50, 0.16)	ND (0.50, 0.16)
Chlorobenzene	ND (0.50, 0.19)	ND (0.50, 0.19)
Chloroethane	ND (1.0, 0.23)	ND (1.0, 0.23)
Chloroform	5.8	ND (0.75, 0.2)
Chloromethane	ND (2.5, 0.28)	ND (2.5, 0.28)
cis-1,2-Dichloroethene	ND (0.50, 0.19)	ND (0.50, 0.19)
cis-1,3-Dichloropropene	ND (0.50, 0.14)	ND (0.50, 0.14)
Cyclohexane	ND (10, 0.24)	ND (10, 0.24)
Dibromochloromethane	ND (0.50, 0.19)	ND (0.50, 0.19)

Table 2-2. VOC Concentrations in Equipment & Trip Blanks

Type	Equipment Blank	Trip Blank
Field Sample ID	CS-07-EBBH	TB-082712
Sample Date	8/27/2012	8/27/2012
Dibromomethane	ND (5.0, 0.36)	ND (5.0, 0.36)
Dichlorodifluoromethane	ND (5.0, 0.3)	ND (5.0, 0.3)
Ethyl Acetate	ND (10, 0.72)	ND (10, 0.72)
Ethyl ether	ND (2.5, 0.2)	ND (2.5, 0.2)
Ethyl methacrylate	ND (5.0, 0.61)	ND (5.0, 0.61)
Ethylbenzene	ND (0.50, 0.26)	ND (0.50, 0.26)
Ethyl-Tert-Butyl-Ether	ND (2.0, 0.46)	ND (2.0, 0.46)
Halothane	ND (2.5, 3.7)	ND (2.5, 3.7)
Hexachlorobutadiene	ND (0.50, 0.23)	ND (0.50, 0.23)
Isopropyl Ether	ND (2.0, 0.16)	ND (2.0, 0.16)
Isopropylbenzene	ND (0.50, 0.19)	ND (0.50, 0.19)
Methyl cyclohexane	ND (10, 0.29)	ND (10, 0.29)
Methyl tert butyl ether	ND (1.0, 0.16)	ND (1.0, 0.16)
Methylene chloride	ND (3.0, 0.54)	ND (3.0, 0.54)
Naphthalene	ND (2.5, 0.22)	ND (2.5, 0.22)
n-Butylbenzene	ND (0.50, 0.2)	ND (0.50, 0.2)
n-Propylbenzene	ND (0.50, 0.17)	ND (0.50, 0.17)
o-Chlorotoluene	ND (2.5, 0.18)	ND (2.5, 0.18)
o-Xylene	ND (1.0, 0.33)	ND (1.0, 0.33)
p/m-Xylene	ND (1.0, 0.35)	ND (1.0, 0.35)
p-Chlorotoluene	ND (2.5, 0.18)	ND (2.5, 0.18)
p-Diethylbenzene	ND (2.0, 0.11)	ND (2.0, 0.11)
p-Isopropyltoluene	ND (0.50, 0.19)	ND (0.50, 0.19)
sec-Butylbenzene	ND (0.50, 0.18)	ND (0.50, 0.18)
Styrene	ND (1.0, 0.36)	ND (1.0, 0.36)
Tert-Butyl Alcohol	ND (10, 0.9)	ND (10, 0.9)
tert-Butylbenzene	ND (2.5, 0.3)	ND (2.5, 0.3)
Tertiary-Amyl Methyl Ether	ND (2.0, 0.38)	ND (2.0, 0.38)
Tetrachloroethene	ND (0.50, 0.18)	ND (0.50, 0.18)
Tetrahydrofuran	ND (5.0, 1.3)	ND (5.0, 1.3)
Toluene	ND (0.75, 0.23)	ND (0.75, 0.23)
trans-1,2-Dichloroethene	ND (0.75, 0.21)	ND (0.75, 0.21)
trans-1,3-Dichloropropene	ND (0.50, 0.16)	ND (0.50, 0.16)
trans-1,4-Dichloro-2-butene	ND (2.5, 0.17)	ND (2.5, 0.17)
Trichloroethene	ND (0.50, 0.17)	ND (0.50, 0.17)
Trichlorofluoromethane	ND (2.5, 0.27)	ND (2.5, 0.27)
Vinyl acetate	ND (5.0, 0.31)	ND (5.0, 0.31)
Vinyl chloride	ND (1.0, 0.22)	ND (1.0, 0.22)

Concentrations in µg/kg

ND (1.0, 0.22) - Not detected at (reporting limit, method detection limit).

Equipment blank for VOCs collected from backhoe

Table 2-3. PAH Concentrations in Equipment Blanks

Type	Equipment Blank	Equipment Blank	Equipment Blank
Field Sample ID	CS-14-EBBO	CS-14-EBSC	CS-26-EBBH
Sample Date	8/29/2012	8/29/2012	9/7/2012
1-Methylnaphthalene	ND (0.19)	ND (0.20)	ND (0.20)
2-Chloronaphthalene	ND (0.19)	ND (0.20)	ND (0.20)
2-Methylnaphthalene	ND (0.19)	ND (0.20)	ND (0.20)
Acenaphthene	ND (0.19)	ND (0.20)	ND (0.20)
Acenaphthylene	ND (0.19)	ND (0.20)	ND (0.20)
Anthracene	ND (0.19)	ND (0.20)	ND (0.20)
Benzo(a)anthracene	ND (0.19)	ND (0.20)	ND (0.20)
Benzo(a)pyrene	ND (0.19)	ND (0.20)	ND (0.20)
Benzo(b)fluoranthene	ND (0.19)	ND (0.20)	ND (0.20)
Benzo(ghi)perylene	ND (0.19)	ND (0.20)	ND (0.20)
Benzo(k)fluoranthene	ND (0.19)	ND (0.20)	ND (0.20)
Chrysene	ND (0.19)	ND (0.20)	ND (0.20)
Dibenzo(a,h)anthracene	ND (0.19)	ND (0.20)	ND (0.20)
Fluoranthene	ND (0.19)	ND (0.20)	ND (0.20)
Fluorene	ND (0.19)	ND (0.20)	ND (0.20)
Hexachlorobenzene	ND (0.77)	ND (0.80)	ND (0.80)
Hexachlorobutadiene	ND (0.48)	ND (0.50)	ND (0.50)
Hexachloroethane	ND (0.77)	ND (0.80)	ND (0.80)
Indeno(1,2,3-c,d)pyrene	ND (0.19)	ND (0.20)	ND (0.20)
Naphthalene	ND (0.19)	ND (0.20)	ND (0.20)
Pentachlorophenol	ND (0.77)	ND (0.80)	ND (0.80)
Phenanthrene	ND (0.19)	ND (0.20)	ND (0.20)
Pyrene	ND (0.19)	ND (0.20)	ND (0.20)

Concentrations in µg/kg

ND (28) - Not detected at detection limit indicated in parentheses.

Equipment blank for cPAHs collected from sampling bowl (EBBO), sampling scoop (EBSC), and backhoe (EBBH).

Table 2-4. PCB Concentrations of Equipment Blanks

Field Sample ID	Equipment Blank	Equipment Blank	Equipment Blank
Sample Location	CS-03-EBBO	CS-03-EBSC	CS-07-EBBH
Sample Date	8/27/2012	8/27/2012	8/27/2012
Aroclor 1016	ND (0.250, 0.066)	ND (0.250, 0.066)	ND (0.250, 0.066)
Aroclor 1221	ND (0.250, 0.064)	ND (0.250, 0.064)	ND (0.250, 0.064)
Aroclor 1232	ND (0.250, 0.037)	ND (0.250, 0.037)	ND (0.250, 0.037)
Aroclor 1242	ND (0.250, 0.072)	ND (0.250, 0.072)	ND (0.250, 0.072)
Aroclor 1248	ND (0.250, 0.061)	ND (0.250, 0.061)	ND (0.250, 0.061)
Aroclor 1254	ND (0.250, 0.041)	ND (0.250, 0.041)	ND (0.250, 0.041)
Aroclor 1260	ND (0.250, 0.038)	ND (0.250, 0.038)	ND (0.250, 0.038)
Aroclor 1262	ND (0.250, 0.035)	ND (0.250, 0.035)	ND (0.250, 0.035)
Aroclor 1268	ND (0.250, 0.045)	ND (0.250, 0.045)	ND (0.250, 0.045)

Concentrations in µg/kg

ND (0.250, 0.066) - Not detected at (reporting limit, method detection limit).

Equipment blank for cPAHs collected from sampling bowl (EBBO), sampling scoop (EBSC), and backhoe (EBBH).

Table 3-1. PCB Concentrations in Soil Samples Collected from the Passivating Area Drain Line (SS-14 & SS-17)

Location	CS-01	CS-02	CS-03
Sample Date	8/27/12	8/27/12	8/27/12
Depth (feet)	1-2	1-2	1-2
Aroclor 1016	ND (34.8, 6.86)	ND (35.0, 6.91)	ND (34.2, 6.76)
Aroclor 1221	ND (34.8, 10.5)	ND (35.0, 10.5)	ND (34.2, 10.3)
Aroclor 1232	ND (34.8, 7.38)	ND (35.0, 7.43)	ND (34.2, 7.27)
Aroclor 1242	ND (34.8, 6.6)	ND (35.0, 6.64)	ND (34.2, 6.5)
Aroclor 1248	ND (34.8, 4.2)	ND (35.0, 4.23)	ND (34.2, 4.14)
Aroclor 1254	389	86.0	99.1
Aroclor 1260	ND (34.8, 6.03)	ND (35.0, 6.07)	ND (34.2, 5.94)
Aroclor 1262	ND (34.8, 2.57)	ND (35.0, 2.59)	ND (34.2, 2.53)
Aroclor 1268	ND (34.8, 5.04)	ND (35.0, 5.07)	ND (34.2, 4.96)

Concentrations in µg/kg

ND (34.8, 6.68) - Not detected at (reporting limit, method detection limit).

Table 3-2. VOC Concentrations in Soil Samples Collected from Former Warehouse and 1974 Building Addition (ECS-13)

Sample Location	ROD Action Level	CS-04	CS-04	CS-05	CS-05	CS-06
Sample Date		8/27/12	8/27/12	8/27/12	8/27/12	8/27/12
Excavation Phase		1	1	1	1	1
Depth (Feet)		7-8	9	5-7	9	5-7
1,1,1,2-Tetrachloroethane	-	ND (57, 19)	ND (1.1, 0.36)	ND (1.1, 0.36)	ND (1.1, 0.36)	ND (1.0, 0.34)
1,1,1-Trichloroethane	613	ND (57, 12)	ND (1.1, 0.22)	ND (1.1, 0.22)	ND (1.1, 0.22)	ND (1.0, 0.21)
1,1,2,2-Tetrachloroethane	-	ND (57, 16)	ND (1.1, 0.32)	ND (1.1, 0.31)	ND (1.1, 0.32)	ND (1.0, 0.3)
1,1,2-Trichloroethane	-	ND (85, 23)	ND (1.7, 0.46)	ND (1.6, 0.45)	ND (1.6, 0.45)	ND (1.6, 0.42)
1,1,2-trichlorotrifluoroethane	-	ND (1100, 53)	ND (22, 1)	ND (22, 1)	ND (22, 1)	ND (21, 0.97)
1,1-Dichloroethane	-	ND (85, 13)	ND (1.7, 0.26)	ND (1.6, 0.26)	ND (1.6, 0.26)	ND (1.6, 0.24)
1,1-Dichloroethene	-	ND (57, 19)	ND (1.1, 0.37)	ND (1.1, 0.36)	ND (1.1, 0.36)	ND (1.0, 0.34)
1,1-Dichloropropene	-	ND (280, 32)	ND (5.6, 0.62)	ND (5.4, 0.6)	ND (5.5, 0.61)	ND (5.2, 0.58)
1,2,3-Trichlorobenzene	-	ND (280, 53)	ND (5.6, 1)	ND (5.4, 1)	ND (5.5, 1)	ND (5.2, 0.96)
1,2,3-Trichloropropane	-	ND (570, 24)	ND (11, 0.46)	ND (11, 0.46)	ND (11, 0.46)	ND (10, 0.43)
1,2,4,5-Tetramethylbenzene	-	ND (230, 10)	ND (4.4, 0.2)	ND (4.4, 0.2)	ND (4.4, 0.2)	ND (4.1, 0.19)
1,2,4-Trichlorobenzene	-	ND (280, 50)	ND (5.6, 0.96)	ND (5.4, 0.95)	ND (5.5, 0.96)	ND (5.2, 0.9)
1,2,4-Trimethylbenzene	-	ND (280, 87)	ND (5.6, 1.7)	ND (5.4, 1.7)	ND (5.5, 1.7)	ND (5.2, 1.6)
1,2-Dibromo-3-chloropropane	-	ND (280, 84)	ND (5.6, 1.6)	ND (5.4, 1.6)	ND (5.5, 1.6)	ND (5.2, 1.5)
1,2-Dibromoethane	-	ND (230, 12)	ND (4.4, 0.24)	ND (4.4, 0.23)	ND (4.4, 0.24)	ND (4.1, 0.22)
1,2-Dichlorobenzene	-	ND (280, 21)	ND (5.6, 0.4)	ND (5.4, 0.4)	ND (5.5, 0.4)	ND (5.2, 0.38)
1,2-Dichloroethane	-	ND (57, 17)	ND (1.1, 0.32)	ND (1.1, 0.32)	ND (1.1, 0.32)	ND (1.0, 0.3)
1,2-Dichloropropane	-	ND (200, 14)	ND (3.9, 0.28)	ND (3.8, 0.27)	ND (3.8, 0.28)	ND (3.6, 0.26)
1,3,5-Trimethylbenzene	-	ND (280, 78)	ND (5.6, 1.5)	ND (5.4, 1.5)	ND (5.5, 1.5)	ND (5.2, 1.4)
1,3-Dichlorobenzene	-	ND (280, 21)	ND (5.6, 0.42)	ND (5.4, 0.41)	ND (5.5, 0.41)	ND (5.2, 0.39)
1,3-Dichloropropane	-	ND (280, 13)	ND (5.6, 0.26)	ND (5.4, 0.26)	ND (5.5, 0.26)	ND (5.2, 0.24)
1,4-Dichlorobenzene	-	ND (280, 17)	ND (5.6, 0.34)	ND (5.4, 0.33)	ND (5.5, 0.34)	ND (5.2, 0.32)
1,4-Dioxane	-	ND (5700, 990)	ND (110, 19)	ND (110, 19)	ND (110, 19)	ND (100, 18)
2,2-Dichloropropane	-	ND (280, 69)	ND (5.6, 1.3)	ND (5.4, 1.3)	ND (5.5, 1.3)	ND (5.2, 1.2)
2-Butanone	-	ND (570, 220)	ND (11, 4.3)	ND (11, 4.2)	ND (11, 4.3)	ND (10, 4)
2-Chloroethylvinyl ether	-	ND (1100, 18)	ND (22, 0.35)	ND (22, 0.34)	ND (22, 0.34)	ND (21, 0.32)
2-Hexanone	-	ND (570, 72)	ND (11, 1.4)	ND (11, 1.4)	ND (11, 1.4)	ND (10, 1.3)
4-Ethyltoluene	-	ND (230, 5.5)	ND (4.4, 0.11)	ND (4.4, 0.1)	ND (4.4, 0.11)	ND (4.1, 0.1)
4-Methyl-2-pentanone	-	ND (570, 100)	ND (11, 2)	ND (11, 1.9)	ND (11, 1.9)	ND (10, 1.8)
Acetone	-	ND (2000, 180)	9 J	ND (39, 3.5)	27 J	ND (37, 3.4)
Acrolein	-	ND (1400, 170)	ND (28, 3.3)	ND (27, 3.3)	ND (28, 3.3)	ND (26, 3.1)
Acrylonitrile	-	ND (230, 68)	ND (4.4, 1.3)	ND (4.4, 1.3)	ND (4.4, 1.3)	ND (4.1, 1.2)
Benzene	-	ND (57, 11)	ND (1.1, 0.21)	ND (1.1, 0.21)	ND (1.1, 0.21)	ND (1.0, 0.2)
Bromobenzene	-	ND (280, 19)	ND (5.6, 0.37)	ND (5.4, 0.36)	ND (5.5, 0.36)	ND (5.2, 0.34)
Bromochloromethane	-	ND (280, 20)	ND (5.6, 0.4)	ND (5.4, 0.39)	ND (5.5, 0.39)	ND (5.2, 0.37)
Bromodichloromethane	-	ND (57, 22)	ND (1.1, 0.43)	ND (1.1, 0.42)	ND (1.1, 0.42)	ND (1.0, 0.4)
Bromoform	-	ND (230, 64)	ND (4.4, 1.2)	ND (4.4, 1.2)	ND (4.4, 1.2)	ND (4.1, 1.2)
Bromomethane	-	ND (110, 33)	ND (2.2, 0.65)	ND (2.2, 0.63)	ND (2.2, 0.64)	ND (2.1, 0.6)
Carbon disulfide	-	ND (570, 15)	0.28 J	ND (11, 0.28)	0.35 J	ND (10, 0.27)
Carbon tetrachloride	-	ND (57, 16)	ND (1.1, 0.31)	ND (1.1, 0.3)	ND (1.1, 0.31)	ND (1.0, 0.29)
Chlorobenzene	-	ND (57, 14)	ND (1.1, 0.27)	ND (1.1, 0.27)	ND (1.1, 0.27)	ND (1.0, 0.26)
Chloroethane	-	ND (110, 25)	ND (2.2, 0.49)	ND (2.2, 0.48)	ND (2.2, 0.48)	ND (2.1, 0.46)
Chloroform	63	ND (85, 18)	ND (1.7, 0.36)	ND (1.6, 0.35)	ND (1.6, 0.36)	ND (1.6, 0.34)
Chloromethane	-	ND (280, 45)	ND (5.6, 0.87)	ND (5.4, 0.85)	ND (5.5, 0.86)	ND (5.2, 0.81)
cis-1,2-Dichloroethene	-	ND (57, 14)	ND (1.1, 0.28)	ND (1.1, 0.28)	ND (1.1, 0.28)	ND (1.0, 0.26)
cis-1,3-Dichloropropene	-	ND (57, 15)	ND (1.1, 0.3)	ND (1.1, 0.29)	ND (1.1, 0.29)	ND (1.0, 0.28)
Cyclohexane	-	ND (1100, 1100)	ND (22, 22)	ND (22, 22)	ND (22, 22)	ND (21, 21)
Dibromochloromethane	-	ND (57, 18)	ND (1.1, 0.36)	ND (1.1, 0.35)	ND (1.1, 0.35)	ND (1.0, 0.33)
Dibromomethane	-	ND (570, 25)	ND (11, 0.48)	ND (11, 0.47)	ND (11, 0.48)	ND (10, 0.45)
Dichlorodifluoromethane	-	ND (570, 99)	ND (11, 1.9)	ND (11, 1.9)	ND (11, 1.9)	ND (10, 1.8)
Ethyl Acetate	-	ND (1100, 1100)	ND (22, 22)	ND (22, 22)	ND (22, 22)	ND (21, 21)
Ethyl ether	-	ND (280, 20)	ND (5.6, 0.4)	ND (5.4, 0.39)	ND (5.5, 0.4)	ND (5.2, 0.37)
Ethyl methacrylate	-	ND (570, 84)	ND (11, 1.6)	ND (11, 1.6)	ND (11, 1.6)	ND (10, 1.5)
Ethylbenzene	-	ND (57, 22)	ND (1.1, 0.42)	ND (1.1, 0.41)	ND (1.1, 0.42)	ND (1.0, 0.39)
Ethyl-Tert-Butyl-Ether	-	ND (230, 50)	ND (4.4, 0.97)	ND (4.4, 0.95)	ND (4.4, 0.96)	ND (4.1, 0.91)
Halothane	-	ND (2300, 420)	ND (44, 8.2)	ND (44, 8.1)	ND (44, 8.2)	ND (41, 7.7)
Hexachlorobutadiene	-	ND (280, 24)	ND (5.6, 0.47)	ND (5.4, 0.46)	ND (5.5, 0.46)	ND (5.2, 0.44)
Isopropyl Ether	-	ND (230, 54)	ND (4.4, 1.1)	ND (4.4, 1)	ND (4.4, 1)	ND (4.1, 0.99)
Isopropylbenzene	-	ND (57, 11)	ND (1.1, 0.21)	ND (1.1, 0.21)	ND (1.1, 0.21)	ND (1.0, 0.2)
Methyl Acetate	-	ND (1100, 1100)	ND (22, 22)	ND (22, 22)	ND (22, 22)	ND (21, 21)
Methyl cyclohexane	-	ND (230, 230)	ND (4.4, 4.4)	ND (4.4, 4.4)	ND (4.4, 4.4)	ND (4.1, 4.1)

Table 3-2. VOC Concentrations in Soil Samples Collected from Former Warehouse and 1974 Building Addition (ECS-13)

Sample Location	ROD Action Level	CS-04	CS-04	CS-05	CS-05	CS-06
Sample Date		8/27/12	8/27/12	8/27/12	8/27/12	8/27/12
Excavation Phase		1	1	1	1	1
Depth (Feet)		7-8	9	5-7	9	5-7
Methyl tert butyl ether	-	ND (110, 38)	ND (2.2, 0.73)	ND (2.2, 0.72)	ND (2.2, 0.73)	ND (2.1, 0.68)
Methylene chloride	-	ND (570, 110)	ND (11, 2.2)	ND (11, 2.2)	ND (11, 2.2)	ND (10, 2.1)
Naphthalene	-	ND (280, 47)	ND (5.6, 0.91)	ND (5.4, 0.9)	ND (5.5, 0.9)	ND (5.2, 0.85)
n-Butylbenzene	-	ND (57, 11)	ND (1.1, 0.22)	ND (1.1, 0.22)	ND (1.1, 0.22)	ND (1.0, 0.21)
n-Propylbenzene	-	ND (57, 13)	ND (1.1, 0.26)	ND (1.1, 0.25)	ND (1.1, 0.26)	ND (1.0, 0.24)
o-Chlorotoluene	-	ND (280, 18)	ND (5.6, 0.35)	ND (5.4, 0.34)	ND (5.5, 0.34)	ND (5.2, 0.32)
o-Xylene	-	ND (110, 32)	ND (2.2, 0.63)	ND (2.2, 0.62)	ND (2.2, 0.63)	ND (2.1, 0.59)
p/m-Xylene	-	ND (110, 26)	ND (2.2, 0.51)	ND (2.2, 0.5)	ND (2.2, 0.5)	ND (2.1, 0.47)
p-Chlorotoluene	-	ND (280, 16)	ND (5.6, 0.32)	ND (5.4, 0.31)	ND (5.5, 0.31)	ND (5.2, 0.29)
p-Diethylbenzene	-	ND (230, 11)	ND (4.4, 0.22)	ND (4.4, 0.22)	ND (4.4, 0.22)	ND (4.1, 0.21)
p-Isopropyltoluene	-	ND (57, 11)	ND (1.1, 0.22)	ND (1.1, 0.21)	ND (1.1, 0.21)	ND (1.0, 0.2)
sec-Butylbenzene	-	ND (57, 12)	ND (1.1, 0.24)	ND (1.1, 0.23)	ND (1.1, 0.23)	ND (1.0, 0.22)
Styrene	-	ND (110, 35)	ND (2.2, 0.68)	ND (2.2, 0.67)	ND (2.2, 0.68)	ND (2.1, 0.64)
Tert-Butyl Alcohol	-	ND (5700, 71)	ND (110, 1.4)	ND (110, 1.4)	ND (110, 1.4)	ND (100, 1.3)
tert-Butylbenzene	-	ND (280, 32)	ND (5.6, 0.62)	ND (5.4, 0.61)	ND (5.5, 0.62)	ND (5.2, 0.58)
Tertiary-Amyl Methyl Ether	-	ND (230, 58)	ND (4.4, 1.1)	ND (4.4, 1.1)	ND (4.4, 1.1)	ND (4.1, 1)
Tetrachloroethene	37	ND (57, 16)	ND (1.1, 0.32)	1.2	ND (1.1, 0.32)	0.85 J
Tetrahydrofuran	-	ND (1100, 64)	ND (22, 1.2)	ND (22, 1.2)	ND (22, 1.2)	ND (21, 1.2)
Toluene	-	ND (85, 11)	ND (1.7, 0.21)	ND (1.6, 0.21)	ND (1.6, 0.21)	ND (1.6, 0.2)
trans-1,2-Dichloroethene	83	ND (85, 17)	ND (1.7, 0.33)	ND (1.6, 0.33)	ND (1.6, 0.33)	ND (1.6, 0.31)
trans-1,3-Dichloropropene	-	ND (57, 19)	ND (1.1, 0.37)	ND (1.1, 0.37)	ND (1.1, 0.37)	ND (1.0, 0.35)
trans-1,4-Dichloro-2-butene	-	ND (280, 84)	ND (5.6, 1.6)	ND (5.4, 1.6)	ND (5.5, 1.6)	ND (5.2, 1.5)
Trichloroethene	13	ND (57, 16)	ND (1.1, 0.31)	ND (1.1, 0.31)	ND (1.1, 0.31)	0.3 J
Trichlorofluoromethane	-	ND (280, 25)	ND (5.6, 0.48)	ND (5.4, 0.47)	ND (5.5, 0.48)	ND (5.2, 0.45)
Vinyl acetate	-	ND (570, 78)	ND (11, 1.5)	ND (11, 1.5)	ND (11, 1.5)	ND (10, 1.4)
Vinyl chloride	-	ND (110, 32)	ND (2.2, 0.62)	ND (2.2, 0.6)	ND (2.2, 0.61)	ND (2.1, 0.58)

Table 3-2. VOC Concentrations in Soil Samples Collected from Former Warehouse and 1974 Building Addition (ECS-13)

Sample Location	ROD Action Level	CS-06	CS-07	CS-07	CS-08	CS-09
Sample Date		8/27/12	8/27/12	8/27/12	8/27/12	8/27/12
Excavation Phase		1	1	1	1	1
Depth (Feet)		9	7-8	9	9	9
1,1,1,2-Tetrachloroethane	-	ND (70, 23)	ND (1.0, 0.34)	ND (1.0, 0.34)	ND (61, 20)	ND (1.0, 0.35)
1,1,1-Trichloroethane	613	ND (70, 14)	ND (1.0, 0.21)	ND (1.0, 0.21)	ND (61, 12)	ND (1.0, 0.22)
1,1,2,2-Tetrachloroethane	-	ND (70, 20)	ND (1.0, 0.3)	ND (1.0, 0.3)	ND (61, 18)	ND (1.0, 0.31)
1,1,2-Trichloroethane	-	ND (100, 29)	ND (1.5, 0.42)	ND (1.6, 0.43)	ND (91, 25)	ND (1.6, 0.44)
1,1,2-trichlorotrifluoroethane	-	ND (1400, 65)	ND (20, 0.96)	ND (21, 0.98)	ND (1200, 56)	ND (21, 0.99)
1,1-Dichloroethane	-	ND (100, 16)	ND (1.5, 0.24)	ND (1.6, 0.25)	ND (91, 14)	ND (1.6, 0.25)
1,1-Dichloroethene	-	ND (70, 23)	ND (1.0, 0.34)	ND (1.0, 0.35)	ND (61, 20)	ND (1.0, 0.35)
1,1-Dichloropropene	-	ND (350, 39)	ND (5.1, 0.57)	ND (5.2, 0.58)	ND (300, 34)	ND (5.3, 0.59)
1,2,3-Trichlorobenzene	-	ND (350, 65)	ND (5.1, 0.95)	ND (5.2, 0.97)	ND (300, 56)	ND (5.3, 0.98)
1,2,3-Trichloropropane	-	ND (700, 29)	ND (10, 0.43)	ND (10, 0.44)	ND (610, 25)	ND (10, 0.44)
1,2,4,5-Tetramethylbenzene	-	ND (280, 13)	ND (4.1, 0.18)	ND (4.2, 0.19)	ND (240, 11)	ND (4.2, 0.19)
1,2,4-Trichlorobenzene	-	ND (350, 61)	ND (5.1, 0.89)	ND (5.2, 0.91)	ND (300, 53)	ND (5.3, 0.92)
1,2,4-Trimethylbenzene	-	ND (350, 110)	ND (5.1, 1.6)	ND (5.2, 1.6)	ND (300, 93)	ND (5.3, 1.6)
1,2-Dibromo-3-chloropropane	-	ND (350, 100)	ND (5.1, 1.5)	ND (5.2, 1.6)	ND (300, 90)	ND (5.3, 1.6)
1,2-Dibromoethane	-	ND (280, 15)	ND (4.1, 0.22)	ND (4.2, 0.22)	ND (240, 13)	ND (4.2, 0.23)
1,2-Dichlorobenzene	-	ND (350, 25)	ND (5.1, 0.37)	ND (5.2, 0.38)	ND (300, 22)	ND (5.3, 0.39)
1,2-Dichloroethane	-	ND (70, 20)	ND (1.0, 0.3)	ND (1.0, 0.31)	ND (61, 18)	ND (1.0, 0.31)
1,2-Dichloropropane	-	ND (240, 18)	ND (3.6, 0.26)	ND (3.7, 0.26)	ND (210, 15)	ND (3.7, 0.27)
1,3,5-Trimethylbenzene	-	ND (350, 96)	ND (5.1, 1.4)	ND (5.2, 1.4)	ND (300, 83)	ND (5.3, 1.4)
1,3-Dichlorobenzene	-	ND (350, 26)	ND (5.1, 0.38)	ND (5.2, 0.39)	ND (300, 23)	ND (5.3, 0.4)
1,3-Dichloropropane	-	ND (350, 16)	ND (5.1, 0.24)	ND (5.2, 0.24)	ND (300, 14)	ND (5.3, 0.25)
1,4-Dichlorobenzene	-	ND (350, 21)	ND (5.1, 0.31)	ND (5.2, 0.32)	ND (300, 18)	ND (5.3, 0.32)
1,4-Dioxane	-	ND (7000, 1200)	ND (100, 18)	ND (100, 18)	ND (6100, 1000)	ND (100, 18)
2,2-Dichloropropane	-	ND (350, 85)	ND (5.1, 1.2)	ND (5.2, 1.3)	ND (300, 74)	ND (5.3, 1.3)
2-Butanone	-	ND (700, 270)	ND (10, 4)	ND (10, 4.1)	ND (610, 240)	ND (10, 4.1)
2-Chloroethylvinyl ether	-	ND (1400, 22)	ND (20, 0.32)	ND (21, 0.33)	ND (1200, 19)	ND (21, 0.33)
2-Hexanone	-	ND (700, 88)	ND (10, 1.3)	ND (10, 1.3)	ND (610, 76)	ND (10, 1.3)
4-Ethyltoluene	-	ND (280, 6.8)	ND (4.1, 0.1)	ND (4.2, 0.1)	ND (240, 5.9)	ND (4.2, 0.1)
4-Methyl-2-pentanone	-	ND (700, 120)	ND (10, 1.8)	ND (10, 1.8)	ND (610, 110)	ND (10, 1.9)
Acetone	-	ND (2500, 230)	ND (37, 3.3)	7.1 J	ND (2200, 200)	7.6 J
Acrolein	-	ND (1700, 210)	ND (26, 3.1)	ND (26, 3.2)	ND (1500, 180)	ND (26, 3.2)
Acrylonitrile	-	ND (280, 84)	ND (4.1, 1.2)	ND (4.2, 1.2)	ND (240, 73)	ND (4.2, 1.3)
Benzene	-	ND (70, 13)	ND (1.0, 0.2)	ND (1.0, 0.2)	ND (61, 12)	ND (1.0, 0.2)
Bromobenzene	-	ND (350, 23)	ND (5.1, 0.34)	ND (5.2, 0.35)	ND (300, 20)	ND (5.3, 0.35)
Bromochloromethane	-	ND (350, 25)	ND (5.1, 0.37)	ND (5.2, 0.37)	ND (300, 22)	ND (5.3, 0.38)
Bromodichloromethane	-	ND (70, 27)	ND (1.0, 0.39)	ND (1.0, 0.4)	ND (61, 23)	ND (1.0, 0.41)
Bromoform	-	ND (280, 78)	ND (4.1, 1.1)	ND (4.2, 1.2)	ND (240, 68)	ND (4.2, 1.2)
Bromomethane	-	ND (140, 41)	ND (2.0, 0.6)	ND (2.1, 0.61)	ND (120, 35)	ND (2.1, 0.62)
Carbon disulfide	-	ND (700, 18)	ND (10, 0.26)	ND (10, 0.27)	ND (610, 16)	ND (10, 0.27)
Carbon tetrachloride	-	ND (70, 19)	ND (1.0, 0.28)	ND (1.0, 0.29)	ND (61, 17)	ND (1.0, 0.3)
Chlorobenzene	-	ND (70, 17)	ND (1.0, 0.25)	ND (1.0, 0.26)	ND (61, 15)	ND (1.0, 0.26)
Chloroethane	-	ND (140, 31)	ND (2.0, 0.45)	ND (2.1, 0.46)	ND (120, 27)	ND (2.1, 0.46)
Chloroform	63	ND (100, 23)	ND (1.5, 0.33)	ND (1.6, 0.34)	ND (91, 20)	ND (1.6, 0.34)
Chloromethane	-	ND (350, 55)	ND (5.1, 0.8)	ND (5.2, 0.82)	ND (300, 48)	ND (5.3, 0.83)
cis-1,2-Dichloroethene	-	ND (70, 18)	ND (1.0, 0.26)	ND (1.0, 0.27)	ND (61, 16)	ND (1.0, 0.27)
cis-1,3-Dichloropropene	-	ND (70, 19)	ND (1.0, 0.27)	ND (1.0, 0.28)	ND (61, 16)	ND (1.0, 0.28)
Cyclohexane	-	ND (1400, 1400)	ND (20, 20)	ND (21, 21)	ND (1200, 1200)	ND (21, 21)
Dibromochloromethane	-	ND (70, 22)	ND (1.0, 0.33)	ND (1.0, 0.34)	ND (61, 19)	ND (1.0, 0.34)
Dibromomethane	-	ND (700, 30)	ND (10, 0.44)	ND (10, 0.46)	ND (610, 26)	ND (10, 0.46)
Dichlorodifluoromethane	-	ND (700, 120)	ND (10, 1.8)	ND (10, 1.8)	ND (610, 100)	ND (10, 1.8)
Ethyl Acetate	-	ND (1400, 1400)	ND (20, 20)	ND (21, 21)	ND (1200, 1200)	ND (21, 21)
Ethyl ether	-	ND (350, 25)	ND (5.1, 0.37)	ND (5.2, 0.38)	ND (300, 22)	ND (5.3, 0.38)
Ethyl methacrylate	-	ND (700, 100)	ND (10, 1.5)	ND (10, 1.5)	ND (610, 89)	ND (10, 1.6)
Ethylbenzene	-	ND (70, 26)	ND (1.0, 0.39)	ND (1.0, 0.4)	ND (61, 23)	ND (1.0, 0.4)
Ethyl-Tert-Butyl-Ether	-	ND (280, 61)	ND (4.1, 0.9)	ND (4.2, 0.92)	ND (240, 53)	ND (4.2, 0.93)
Halothane	-	ND (2800, 520)	ND (41, 7.6)	ND (42, 7.8)	ND (2400, 450)	ND (42, 7.8)
Hexachlorobutadiene	-	ND (350, 30)	ND (5.1, 0.43)	ND (5.2, 0.44)	ND (300, 26)	ND (5.3, 0.45)
Isopropyl Ether	-	ND (280, 67)	ND (4.1, 0.98)	ND (4.2, 1)	ND (240, 58)	ND (4.2, 1)
Isopropylbenzene	-	ND (70, 14)	ND (1.0, 0.2)	ND (1.0, 0.2)	ND (61, 12)	ND (1.0, 0.2)
Methyl Acetate	-	ND (1400, 1400)	ND (20, 20)	ND (21, 21)	ND (1200, 1200)	ND (21, 21)
Methyl cyclohexane	-	ND (280, 280)	ND (4.1, 4.1)	ND (4.2, 4.2)	ND (240, 240)	ND (4.2, 4.2)

Table 3-2. VOC Concentrations in Soil Samples Collected from Former Warehouse and 1974 Building Addition (ECS-13)

Sample Location	ROD Action Level	CS-06	CS-07	CS-07	CS-08	CS-09
Sample Date		8/27/12	8/27/12	8/27/12	8/27/12	8/27/12
Excavation Phase		1	1	1	1	1
Depth (Feet)		9	7-8	9	9	9
Methyl tert butyl ether	-	ND (140, 46)	ND (2.0, 0.68)	ND (2.1, 0.69)	ND (120, 40)	ND (2.1, 0.7)
Methylene chloride	-	ND (700, 140)	ND (10, 2)	ND (10, 2.1)	ND (610, 120)	ND (10, 2.1)
Naphthalene	-	ND (350, 58)	ND (5.1, 0.84)	ND (5.2, 0.86)	ND (300, 50)	ND (5.3, 0.87)
n-Butylbenzene	-	ND (70, 14)	ND (1.0, 0.2)	ND (1.0, 0.21)	ND (61, 12)	ND (1.0, 0.21)
n-Propylbenzene	-	ND (70, 16)	ND (1.0, 0.24)	ND (1.0, 0.24)	ND (61, 14)	ND (1.0, 0.25)
o-Chlorotoluene	-	ND (350, 22)	ND (5.1, 0.32)	ND (5.2, 0.33)	ND (300, 19)	ND (5.3, 0.33)
o-Xylene	-	ND (140, 40)	ND (2.0, 0.58)	ND (2.1, 0.6)	ND (120, 34)	ND (2.1, 0.6)
p/m-Xylene	-	ND (140, 32)	ND (2.0, 0.47)	ND (2.1, 0.48)	ND (120, 28)	ND (2.1, 0.48)
p-Chlorotoluene	-	ND (350, 20)	ND (5.1, 0.29)	ND (5.2, 0.3)	ND (300, 17)	ND (5.3, 0.3)
p-Diethylbenzene	-	ND (280, 14)	ND (4.1, 0.2)	ND (4.2, 0.21)	ND (240, 12)	ND (4.2, 0.21)
p-Isopropyltoluene	-	ND (70, 14)	ND (1.0, 0.2)	ND (1.0, 0.2)	ND (61, 12)	ND (1.0, 0.21)
sec-Butylbenzene	-	ND (70, 15)	ND (1.0, 0.22)	ND (1.0, 0.22)	ND (61, 13)	ND (1.0, 0.22)
Styrene	-	ND (140, 43)	ND (2.0, 0.63)	ND (2.1, 0.64)	ND (120, 37)	ND (2.1, 0.65)
Tert-Butyl Alcohol	-	ND (7000, 88)	ND (100, 1.3)	ND (100, 1.3)	ND (6100, 76)	ND (100, 1.3)
tert-Butylbenzene	-	ND (350, 39)	ND (5.1, 0.57)	ND (5.2, 0.59)	ND (300, 34)	ND (5.3, 0.59)
Tertiary-Amyl Methyl Ether	-	ND (280, 71)	ND (4.1, 1)	ND (4.2, 1)	ND (240, 61)	ND (4.2, 1.1)
Tetrachloroethene	37	ND (70, 20)	ND (1.0, 0.3)	ND (1.0, 0.3)	ND (61, 18)	ND (1.0, 0.31)
Tetrahydrofuran	-	ND (1400, 79)	ND (20, 1.2)	ND (21, 1.2)	ND (1200, 68)	ND (21, 1.2)
Toluene	-	ND (100, 13)	ND (1.5, 0.19)	ND (1.6, 0.2)	ND (91, 12)	ND (1.6, 0.2)
trans-1,2-Dichloroethene	83	ND (100, 21)	ND (1.5, 0.31)	ND (1.6, 0.31)	ND (91, 18)	ND (1.6, 0.32)
trans-1,3-Dichloropropene	-	ND (70, 24)	ND (1.0, 0.34)	ND (1.0, 0.35)	ND (61, 20)	ND (1.0, 0.36)
trans-1,4-Dichloro-2-butene	-	ND (350, 100)	ND (5.1, 1.5)	ND (5.2, 1.5)	ND (300, 90)	ND (5.3, 1.6)
Trichloroethene	13	ND (70, 20)	ND (1.0, 0.29)	ND (1.0, 0.3)	ND (61, 17)	ND (1.0, 0.3)
Trichlorofluoromethane	-	ND (350, 30)	ND (5.1, 0.45)	ND (5.2, 0.46)	ND (300, 26)	ND (5.3, 0.46)
Vinyl acetate	-	ND (700, 96)	ND (10, 1.4)	ND (10, 1.4)	ND (610, 83)	ND (10, 1.4)
Vinyl chloride	-	ND (140, 39)	ND (2.0, 0.57)	ND (2.1, 0.58)	ND (120, 34)	ND (2.1, 0.59)

Concentrations in µg/kg

ND (62, 12) - Not detected at (reporting limit, method detection limit).

Shaded - Results are from samples collected in areas that were later excavated.

J - Estimated value.

Table 3-3. PCB Concentrations in Soil Samples Collected from Former Warehouse and 1974 Building Addition (ECS-13)

Location	CS-04	CS-04	CS-05	CS-05	CS-06	CS-06	CS-07	CS-07	CS-08	CS-08	CS-09	CS-21	CS-21
Sample Date	8/27/12	8/27/12	8/27/12	8/27/12	8/27/12	8/27/12	8/27/12	8/27/12	8/27/12	8/31/12	8/27/12	8/31/12	8/31/12
Excavation Phase	1	1	1	1	1	1	1	1	1	2	1	2	2
Depth (feet)	7-8	9	5-7	9	5-7	9	7-8	9	9	10	9	10	5-7
Aroclor 1016	ND (34.8, 6.87)	ND (36.6, 7.24)	ND (35.1, 6.94)	ND (35.5, 7.01)	ND (705, 139)	ND (404, 79.9)	ND (34.2, 6.75)	ND (35.6, 7.02)	ND (187, 36.9)	ND (37.1)	ND (36.1, 7.14)	ND (35.2)	ND (35.4)
Aroclor 1221	ND (34.8, 10.5)	ND (36.6, 11)	ND (35.1, 10.6)	ND (35.5, 10.7)	ND (705, 213)	ND (404, 122)	ND (34.2, 10.3)	ND (35.6, 10.7)	ND (187, 56.4)	ND (37.1)	ND (36.1, 10.9)	ND (35.2)	ND (35.4)
Aroclor 1232	ND (34.8, 7.39)	ND (36.6, 7.78)	ND (35.1, 7.46)	ND (35.5, 7.54)	ND (705, 150)	ND (404, 85.9)	ND (34.2, 7.26)	ND (35.6, 7.56)	ND (187, 39.7)	ND (37.1)	ND (36.1, 7.67)	ND (35.2)	ND (35.4)
Aroclor 1242	ND (34.8, 6.61)	ND (36.6, 6.95)	ND (35.1, 6.66)	ND (35.5, 6.74)	ND (705, 134)	ND (404, 76.8)	ND (34.2, 6.48)	ND (35.6, 6.75)	ND (187, 35.5)	ND (37.1)	ND (36.1, 6.86)	ND (35.2)	ND (35.4)
Aroclor 1248	ND (34.8, 4.21)	ND (36.6, 4.43)	ND (35.1, 4.25)	ND (35.5, 4.29)	ND (705, 85.3)	ND (404, 48.9)	ND (34.2, 4.13)	ND (35.6, 4.3)	ND (187, 22.6)	ND (37.1)	ND (36.1, 4.37)	ND (35.2)	ND (35.4)
Aroclor 1254	356	ND (36.6, 5.78)	245	16.4 J	**4230**	**2030**	ND (34.2, 5.38)	ND (35.6, 5.61)	**1140**	188	26.1 J	ND (35.2)	ND (35.4)
Aroclor 1260	ND (34.8, 6.04)	ND (36.6, 6.36)	ND (35.1, 6.09)	ND (35.5, 6.16)	ND (705, 122)	ND (404, 70.2)	ND (34.2, 5.93)	ND (35.6, 6.17)	ND (187, 32.5)	ND (37.1)	ND (36.1, 6.27)	ND (35.2)	ND (35.4)
Aroclor 1262	ND (34.8, 2.57)	ND (36.6, 2.71)	ND (35.1, 2.6)	ND (35.5, 2.62)	ND (705, 52.2)	ND (404, 29.9)	ND (34.2, 2.53)	ND (35.6, 2.63)	ND (187, 13.8)	ND (37.1)	ND (36.1, 2.67)	ND (35.2)	ND (35.4)
Aroclor 1268	ND (34.8, 5.05)	ND (36.6, 5.32)	ND (35.1, 5.09)	ND (35.5, 5.15)	ND (705, 102)	ND (404, 58.7)	ND (34.2, 4.96)	ND (35.6, 5.16)	ND (187, 27.1)	ND (37.1)	ND (36.1, 5.24)	ND (35.2)	ND (35.4)

Concentrations in µg/kg

ND (28) - Not detected at detection limit indicated in parentheses.

ND (34.8, 6.68) - Not detected at (reporting limit, method detection limit).

Shaded - Results are from samples collected in areas that were later excavated.

Bold - PCB concentration excceds the ROD action level of 1040 µg/kg.

J - Estimated value.

Table 3-4. Summary of Historic VOC Soil Sample Results with Detection Limits Above ROD Action Levels.

Location	ROD Action Level	ECS-13	SM-19	SM-21
Date		4/8/05	11/29/11	11/29/11
Depth (feet below ground surface)		5-7	7-7.3	7.7-8
1,1,1,2-Tetrachloroethane	-	ND (46.2)	ND (62, 20)	ND (62, 20)
1,1,1-Trichloroethane	613	ND (46.2)	ND (62, 12)	ND (62, 13)
1,1,2,2-Tetrachloroethane	-	ND (46.2)	ND (62, 18)	ND (62, 18)
1,1,2-Trichloroethane	-	ND (46.2)	ND (92, 25)	ND (94, 26)
1,1,2-trichlorotrifluoroethane	-	NA	ND (1200, 58)	ND (1200, 58)
1,1-Dichloroethane	-	ND (46.2)	ND (92, 14)	ND (94, 15)
1,1-Dichloroethene	-	ND (46.2)	ND (62, 20)	ND (62, 21)
1,1-Dichloropropene	-	ND (46.2)	ND (310, 34)	ND (310, 35)
1,2,3-Trichlorobenzene	-	ND (46.2)	ND (310, 57)	ND (310, 58)
1,2,3-Trichloropropane	-	ND (46.2)	ND (620, 26)	ND (620, 26)
1,2,4,5-Tetramethylbenzene	-	NA	ND (250, 11)	ND (250, 11)
1,2,4-Trichlorobenzene	-	ND (46.2)	ND (310, 54)	ND (310, 54)
1,2,4-Trimethylbenzene	-	ND (46.2)	ND (310, 94)	ND (310, 95)
1,2-Dibromo-3-chloropropane	-	ND (92.3)	ND (310, 91)	ND (310, 92)
1,2-Dibromoethane	-	ND (46.2)	ND (250, 13)	ND (250, 13)
1,2-Dichlorobenzene	-	ND (46.2)	ND (310, 22)	ND (310, 23)
1,2-Dichloroethane	-	ND (46.2)	ND (62, 18)	ND (62, 18)
1,2-Dichloropropane	-	ND (46.2)	ND (220, 16)	ND (220, 16)
1,3,5-Trimethylbenzene	-	ND (46.2)	ND (310, 85)	ND (310, 86)
1,3-Dichlorobenzene	-	ND (46.2)	ND (310, 23)	ND (310, 23)
1,3-Dichloropropane	-	ND (46.2)	ND (310, 14)	ND (310, 15)
1,4-Dichlorobenzene	-	ND (46.2)	ND (310, 19)	ND (310, 19)
1,4-Dioxane	-	ND (923)	ND (6200, 1100)	ND (6200, 1100)
2,2-Dichloropropane	-	ND (46.2)	ND (310, 75)	ND (310, 76)
2-Butanone	-	ND (462)	ND (620, 240)	ND (620, 240)
2-Chloroethylvinyl ether	-	NA	ND (1200, 19)	ND (1200, 20)
2-Hexanone	-	ND (462)	ND (620, 78)	ND (620, 78)
4-Ethyltoluene	-	NA	ND (250, 6)	ND (250, 6)
4-Methyl-2-pentanone	-	ND (462)	ND (620, 110)	ND (620, 110)
Acetone	-	ND (923)	ND (2200, 200)	ND (2200, 200)
Acrylonitrile	-	ND (46.2)	ND (250, 74)	ND (250, 75)
Benzene	-	ND (46.2)	ND (62, 12)	ND (62, 12)
Bromobenzene	-	ND (46.2)	ND (310, 20)	ND (310, 21)
Bromochloromethane	-	ND (46.2)	ND (310, 22)	ND (310, 22)
Bromodichloromethane	-	ND (46.2)	ND (62, 24)	ND (62, 24)
Bromoform	-	ND (46.2)	ND (250, 69)	ND (250, 70)
Bromomethane	-	ND (92.3)	ND (120, 36)	ND (120, 36)
Carbon disulfide	-	ND (231)	ND (620, 16)	ND (620, 16)
Carbon tetrachloride	-	ND (46.2)	ND (62, 17)	ND (62, 17)
Chlorobenzene	-	ND (46.2)	ND (62, 15)	ND (62, 15)
Chloroethane	-	ND (92.3)	ND (120, 27)	ND (120, 27)
Chloroform	63	ND (46.2)	ND (92, 20)	ND (94, 20)
Chloromethane	-	ND (92.3)	ND (310, 48)	ND (310, 49)
cis-1,2-Dichloroethene	-	ND (46.2)	ND (62, 16)	ND (62, 16)
cis-1,3-Dichloropropene	-	ND (46.2)	ND (62, 16)	ND (62, 17)
Cyclohexane	-	NA	ND (1200, 1200)	ND (1200, 1200)
Dibromochloromethane	-	ND (46.2)	ND (62, 20)	ND (62, 20)
Dibromomethane	-	ND (46.2)	ND (620, 27)	ND (620, 27)
Dichlorodifluoromethane	-	ND (92.3)	ND (620, 110)	ND (620, 110)
Ethyl Acetate	-	NA	1600	1600
Ethyl ether	-	ND (46.2)	ND (310, 22)	ND (310, 22)
Ethyl methacrylate	-	NA	ND (620, 91)	ND (620, 92)
Ethylbenzene	-	ND (46.2)	ND (62, 23)	ND (62, 24)

Table 3-4. Summary of Historic VOC Soil Sample Results with Detection Limits Above ROD Action Levels.

Location	ROD Action Level	ECS-13	SM-19	SM-21
Date		4/8/05	11/29/11	11/29/11
Depth (feet below ground surface)		5-7	7-7.3	7.7-8
Ethyl-Tert-Butyl-Ether	-	ND (46.2)	ND (250, 54)	ND (250, 55)
Halothane	-	NA	ND (2500, 460)	ND (2500, 460)
Hexachlorobutadiene	-	ND (46.2)	ND (310, 26)	ND (310, 26)
Isopropyl Ether	-	ND (46.2)	ND (250, 59)	ND (250, 59)
Isopropylbenzene	-	ND (46.2)	ND (62, 12)	ND (62, 12)
Methyl Acetate	-	NA	ND (1200, 1200)	ND (1200, 1200)
Methyl cyclohexane	-	NA	ND (250, 250)	ND (250, 250)
Methyl tert butyl ether	-	ND (46.2)	ND (120, 41)	ND (120, 41)
Methylene chloride	-	ND (462)	ND (620, 70)	ND (620, 71)
Naphthalene	-	ND (46.2)	ND (310, 51)	ND (310, 51)
n-Butylbenzene	-	ND (46.2)	ND (62, 12)	ND (62, 12)
n-Propylbenzene	-	ND (46.2)	ND (62, 14)	ND (62, 14)
o-Chlorotoluene	-	ND (46.2)	ND (310, 19)	ND (310, 20)
o-Xylene	-	ND (46.2)	ND (120, 35)	ND (120, 36)
p/m-Xylene	-	ND (46.2)	ND (120, 28)	ND (120, 28)
p-Chlorotoluene	-	ND (46.2)	ND (310, 18)	ND (310, 18)
p-Diethylbenzene	-	NA	ND (250, 12)	ND (250, 12)
p-Isopropyltoluene	-	ND (46.2)	ND (62, 12)	ND (62, 12)
sec-Butylbenzene	-	ND (46.2)	ND (62, 13)	ND (62, 13)
Styrene	-	ND (46.2)	ND (120, 38)	ND (120, 38)
Tert-Butyl Alcohol	-	ND (462)	ND (6200, 77)	ND (6200, 78)
tert-Butylbenzene	-	ND (46.2)	ND (310, 34)	ND (310, 35)
Tertiary-Amyl Methyl Ether	-	ND (46.2)	ND (250, 62)	ND (250, 63)
Tetrachloroethene	37	ND (46.2)	ND (62, 18)	ND (62, 18)
Tetrahydrofuran	-	ND (462)	ND (1200, 70)	ND (1200, 70)
Toluene	-	ND (46.2)	ND (92, 12)	ND (94, 12)
trans-1,2-Dichloroethene	83	ND (46.2)	ND (92, 18)	ND (94, 19)
trans-1,3-Dichloropropene	-	ND (46.2)	ND (62, 21)	ND (62, 21)
trans-1,4-Dichloro-2-butene	-	NA	ND (310, 91)	ND (310, 92)
Trichloroethene	13	ND (46.2)	ND (62, 17)	ND (62, 18)
Trichlorofluoromethane	-	ND (46.2)	ND (310, 27)	ND (310, 27)
Vinyl acetate	-	NA	ND (620, 84)	ND (620, 85)
Vinyl chloride	-	ND (46.2)	ND (120, 34)	ND (120, 34)

Concentrations in µg/kg
ND (62, 12) - Not detected at (reporting limit, method detection limit).
ND (28) - Not detected at detection limit indicated in parentheses.
NA - Not analyzed

Table 3-5. PAH Concentrations in Material Found in Pipe Segment

Field Sample ID	PIPE-091212
Sample Date	9/12/2012
1-Methylnaphthalene	ND (28000)
2-Chloronaphthalene	ND (28000)
2-Methylnaphthalene	ND (28000)
Acenaphthene	ND (28000)
Acenaphthylene	ND (28000)
Anthracene	ND (28000)
Benzo(a)anthracene	ND (28000)
Benzo(a)pyrene	ND (28000)
Benzo(b)fluoranthene	ND (28000)
Benzo(ghi)perylene	ND (28000)
Benzo(k)fluoranthene	ND (28000)
Chrysene	ND (28000)
Dibenzo(a,h)anthracene	ND (28000)
Fluoranthene	ND (28000)
Fluorene	ND (28000)
Hexachlorobenzene	ND (28000)
Hexachlorobutadiene	ND (28000)
Hexachloroethane	ND (28000)
Indeno(1,2,3-c,d)pyrene	ND (28000)
Naphthalene	ND (28000)
Pentachlorophenol	ND (110000)
Phenanthrene	ND (28000)
Pyrene	ND (28000)

Concentrations in µg/kg

ND (28) - Not detected at detection limit indicated in parentheses.

Table 3-6. PCB Concentrations in Material Found in Pipe Segment

Field Sample ID	PIPE-091212
SampleDate	9/12/2012
Aroclor 1016	ND (2870)
Aroclor 1221	ND (2870)
Aroclor 1232	ND (2870)
Aroclor 1242	ND (2870)
Aroclor 1248	ND (2870)
Aroclor 1254	ND (2870)
Aroclor 1260	ND (2870)
Aroclor 1262	ND (2870)
Aroclor 1268	ND (2870)

Concentrations in µg/kg

ND (28) - Not detected at detection limit indicated in parentheses.

Table 3-7. PAH Concentrations in Soil Samples Collected from South Drainage Ditch (ECS-SS-1 & ECS-SS-2)

Excavation Area	**Along South Drainage Ditch**				**SM-32 Area**					
Location	CS-13	CS-14	CS-15	CS-16	CS-17	CS-17	CS-18	CS-18	CS-19	CS-19
Sample Date	8/29/12	8/29/12	8/28/12	8/28/12	8/29/12	8/29/12	8/28/12	8/29/12	8/28/12	8/29/12
Excavation Phase	1	1	1	1	1	1	1	1	1	1
Depth bgs (feet)	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	4	0.5-1.5	4	0.5-1.5	4
1-Methylnaphthalene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
2-Chloronaphthalene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
2-Methylnaphthalene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Acenaphthene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Acenaphthylene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Anthracene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Benzo(a)anthracene*	21	54	ND (13)	ND (15)	420	83	ND (13)	ND (13)	ND (13)	36
Benzo(a)pyrene*	30	83	ND (13)	ND (15)	620	100	ND (13)	ND (13)	ND (13)	39
Benzo(b)fluoranthene*	39	120	ND (13)	ND (15)	680	110	ND (13)	ND (13)	ND (13)	40
Benzo(ghi)perylene	32	89	ND (13)	ND (15)	540	86	ND (13)	ND (13)	ND (13)	29
Benzo(k)fluoranthene*	34	93	ND (13)	ND (15)	490	86	ND (13)	ND (13)	ND (13)	32
Chrysene*	34	87	ND (13)	ND (15)	410	66	ND (13)	ND (13)	ND (13)	27
Dibenzo(a,h)anthracene*	ND (13)	15	ND (13)	ND (15)	120	20	ND (13)	ND (13)	ND (13)	ND (14)
Fluoranthene	63	160	ND (13)	ND (15)	610	120	ND (13)	ND (13)	ND (13)	56
Fluorene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Hexachlorobenzene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Hexachlorobutadiene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Hexachloroethane	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Indeno(1,2,3-c,d)pyrene*	37	100	ND (13)	ND (15)	650	100	ND (13)	ND (13)	ND (13)	36
Naphthalene	ND (13)	ND (13)	ND (13)	ND (15)	ND (80)	ND (14)	ND (13)	ND (13)	ND (13)	ND (14)
Pentachlorophenol	ND (52)	ND (54)	ND (51)	ND (60)	ND (320)	ND (55)	ND (54)	ND (53)	ND (52)	ND (54)
Phenanthrene	20	46	ND (13)	ND (15)	ND (80)	14	ND (13)	ND (13)	ND (13)	ND (14)
Pyrene	49	120	ND (13)	ND (15)	560	110	ND (13)	ND (13)	ND (13)	49
Total cPAHs	195	552	ND	ND	**3390**	565	ND	ND	ND	210

Table 3-7. PAH Concentrations in Soil Samples Collected from South Drainage Ditch (ECS-SS-1 & ECS-SS-2)

Excavation Area	SM-32 Area						West End of Drainage Ditch			
Location	CS-20	CS-20	CS-26	CS-26	CS-27	CS-27	CS-10	CS-11	CS-12	CS-22
Sample Date	8/29/12	9/7/12	9/7/12	9/7/12	9/7/12	9/7/12	8/29/12	8/29/12	8/29/12	9/6/12
Excavation Phase	1	2	2	2	2	2	1	1	1	2
Depth bgs (feet)	4	6	0.5-1.5	6	0.5-1.5	6	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5
1-Methylnaphthalene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
2-Chloronaphthalene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
2-Methylnaphthalene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Acenaphthene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Acenaphthylene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Anthracene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Benzo(a)anthracene*	220	ND (7.3)	75	ND (7.4)	19	ND (7.3)	1000	180	220	ND (13)
Benzo(a)pyrene*	280	ND (7.3)	100	ND (7.4)	24	ND (7.3)	1500	240	230	ND (13)
Benzo(b)fluoranthene*	330	ND (7.3)	110	ND (7.4)	30	ND (7.3)	1900	270	270	ND (13)
Benzo(ghi)perylene	240	ND (7.3)	85	ND (7.4)	21	ND (7.3)	1600	220	200	ND (13)
Benzo(k)fluoranthene*	230	ND (7.3)	84	ND (7.4)	22	ND (7.3)	1400	240	230	ND (13)
Chrysene*	210	ND (7.3)	69	ND (7.4)	24	ND (7.3)	1500	200	270	ND (13)
Dibenzo(a,h)anthracene*	54	ND (7.3)	20	ND (7.4)	ND (7.0)	ND (7.3)	260	34	ND (68)	ND (13)
Fluoranthene	430	ND (7.3)	110	ND (7.4)	53	ND (7.3)	3000	420	680	ND (13)
Fluorene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Hexachlorobenzene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Hexachlorobutadiene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Hexachloroethane	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Indeno(1,2,3-c,d)pyrene*	290	ND (7.3)	100	ND (7.4)	25	ND (7.3)	1900	260	250	ND (13)
Naphthalene	ND (15)	ND (7.3)	ND (8.6)	ND (7.4)	ND (7.0)	ND (7.3)	ND (140)	ND (14)	ND (68)	ND (13)
Pentachlorophenol	ND (59)	ND (29)	ND (34)	ND (30)	ND (28)	ND (29)	ND (560)	ND (54)	ND (270)	ND (53)
Phenanthrene	73	ND (7.3)	13	ND (7.4)	20	ND (7.3)	980	100	340	ND (13)
Pyrene	360	ND (7.3)	99	ND (7.4)	40	ND (7.3)	2300	330	500	ND (13)
Total cPAHs	**1614**	ND	558	ND	144	ND	**9460**	**1424**	**1470**	ND

Table 3-7. PAH Concentrations in Soil Samples Collected from South Drainage Ditch (ECS-SS-1 & ECS-SS-2)

Excavation Area	West End of Drainage Ditch									
Location	CS-22	CS-23	CS-23	CS-24	CS-24	CS-25	CS-25	CS-28	CS-28	CS-29
Sample Date	9/6/12	9/6/12	9/6/12	9/6/12	9/6/12	9/6/12	9/12/12	9/12/12	9/12/12	9/12/12
Excavation Phase	2	2	2	2	2	2	3	3	3	3
Depth bgs (feet)	7	0.5-1.5	7	0.5-1.5	7	3	6	0.5-1.5	10	0.5-1.5
1-Methylnaphthalene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
2-Chloronaphthalene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
2-Methylnaphthalene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Acenaphthene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Acenaphthylene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Anthracene	ND (17)	ND (70)	ND (69)	ND (69)	74	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Benzo(a)anthracene*	ND (17)	690	260	1200	1800	160	ND (14)	30	ND (15)	1100
Benzo(a)pyrene*	ND (17)	880	320	1400	2100	240	14	36	ND (15)	1300
Benzo(b)fluoranthene*	ND (17)	1000	430	1400	2000	330	ND (14)	44	ND (15)	1400
Benzo(ghi)perylene	ND (17)	840	330	1100	1700	290	ND (14)	32	ND (15)	1000
Benzo(k)fluoranthene*	ND (17)	940	310	1200	1800	230	ND (14)	31	ND (15)	980
Chrysene*	ND (17)	880	330	1000	1400	270	ND (14)	39	ND (15)	880
Dibenzo(a,h)anthracene*	ND (17)	140	ND (69)	260	370	ND (70)	ND (14)	ND (27)	ND (15)	440
Fluoranthene	ND (17)	1800	660	2200	3100	480	23	73	ND (15)	1700
Fluorene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Hexachlorobenzene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Hexachlorobutadiene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Hexachloroethane	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Indeno(1,2,3-c,d)pyrene*	ND (17)	980	380	1400	2000	320	ND (14)	29	ND (15)	970
Naphthalene	ND (17)	ND (70)	ND (69)	ND (69)	ND (72)	ND (70)	ND (14)	ND (27)	ND (15)	ND (67)
Pentachlorophenol	ND (67)	ND (280)	ND (280)	ND (280)	ND (290)	ND (280)	ND (56)	ND (110)	ND (59)	ND (270)
Phenanthrene	ND (17)	520	200	380	420	150	ND (14)	31	ND (15)	170
Pyrene	ND (17)	1400	510	1800	2600	380	19	57	ND (15)	1500
Total cPAHs	ND	**5510**	**2030**	**7860**	**11470**	**1550**	14	209	ND	**7070**

Table 3-7. PAH Concentrations in Soil Samples Collected from South Drainage Ditch (ECS-SS-1 & ECS-SS-2)

Excavation Area	West End of Drainage Ditch									
Location	CS-29	CS-29	CS-29	CS-30	CS-30	CS-30	CS-30	CS-31	CS-31	CS-32
Sample Date	9/14/12	9/14/12	9/12/12	9/12/12	9/14/12	9/14/12	9/12/12	9/24/12	9/24/12	9/24/12
Excavation Phase	3	3	3	3	3	3	3	4	4	4
Depth bgs (feet)	5	8	10	0.5-1.5	5	8	11.5	0.5-1.5	8	0.5-1.5
1-Methylnaphthalene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
2-Chloronaphthalene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
2-Methylnaphthalene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
Acenaphthene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	18	ND (28)
Acenaphthylene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
Anthracene	ND (32)	ND (16)	ND (15)	ND (28)	18	ND (13)	ND (14)	ND (27)	78	ND (28)
Benzo(a)anthracene*	340	31	ND (15)	140	180	ND (13)	ND (14)	350	280	110
Benzo(a)pyrene*	420	32	ND (15)	170	210	ND (13)	ND (14)	380	280	160
Benzo(b)fluoranthene*	420	28	ND (15)	200	270	ND (13)	ND (14)	330	300	170
Benzo(ghi)perylene	360	23	ND (15)	140	180	ND (13)	ND (14)	350	270	200
Benzo(k)fluoranthene*	420	26	ND (15)	130	180	ND (13)	ND (14)	360	260	170
Chrysene*	340	34	ND (15)	130	190	ND (13)	ND (14)	280	300	160
Dibenzo(a,h)anthracene*	140	ND (16)	ND (15)	60	68	ND (13)	ND (14)	140	100	67
Fluoranthene	660	79	ND (15)	230	360	ND (13)	ND (14)	580	680	250
Fluorene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	22	ND (28)
Hexachlorobenzene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
Hexachlorobutadiene	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
Hexachloroethane	ND (32)	ND (16)	ND (15)	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
Indeno(1,2,3-c,d)pyrene*	340	22	ND (15)	130	160	ND (13)	ND (14)	320	240	170
Naphthalene	ND (32)	ND (16)	20	ND (28)	ND (13)	ND (13)	ND (14)	ND (27)	ND (13)	ND (28)
Pentachlorophenol	ND (130)	ND (62)	ND (59)	ND (110)	ND (53)	ND (54)	ND (57)	ND (110)	ND (53)	ND (110)
Phenanthrene	110	48	ND (15)	35	100	ND (13)	ND (14)	100	340	71
Pyrene	550	61	ND (15)	210	300	ND (13)	ND (14)	500	520	220
Total cPAHs	**2420**	173	ND	**960**	**1258**	ND	ND	**2160**	**1760**	**1007**

Table 3-7. PAH Concentrations in Soil Samples Collected from South Drainage Ditch (ECS-SS-1 & ECS-SS-2)

Excavation Area	**West End of Drainage Ditch**		
Location	CS-32	CS-33	CS-33
Sample Date	9/24/12	9/24/12	9/24/12
Excavation Phase	4	4	4
Depth bgs (feet)	8	0.5-1.5	8
1-Methylnaphthalene	ND (14)	ND (140)	ND (14)
2-Chloronaphthalene	ND (14)	ND (140)	ND (14)
2-Methylnaphthalene	ND (14)	ND (140)	ND (14)
Acenaphthene	ND (14)	ND (140)	ND (14)
Acenaphthylene	ND (14)	ND (140)	ND (14)
Anthracene	ND (14)	ND (140)	ND (14)
Benzo(a)anthracene*	ND (14)	250	ND (14)
Benzo(a)pyrene*	ND (14)	270	ND (14)
Benzo(b)fluoranthene*	ND (14)	220	ND (14)
Benzo(ghi)perylene	ND (14)	290	ND (14)
Benzo(k)fluoranthene*	ND (14)	320	ND (14)
Chrysene*	ND (14)	290	ND (14)
Dibenzo(a,h)anthracene*	ND (14)	ND (140)	ND (14)
Fluoranthene	ND (14)	610	ND (14)
Fluorene	ND (14)	ND (140)	ND (14)
Hexachlorobenzene	ND (14)	ND (140)	ND (14)
Hexachlorobutadiene	ND (14)	ND (140)	ND (14)
Hexachloroethane	ND (14)	ND (140)	ND (14)
Indeno(1,2,3-c,d)pyrene*	ND (14)	250	ND (14)
Naphthalene	ND (14)	ND (140)	ND (14)
Pentachlorophenol	ND (55)	ND (560)	ND (54)
Phenanthrene	ND (14)	270	ND (14)
Pyrene	ND (14)	470	ND (14)
Total cPAHs	ND	**1600**	ND

Concentrations in µg/kg

ND (68) - Not detected at detection limit indicated in parentheses.

Shaded - Results are from samples collected in areas that were later excavated.

Bold - cPAH concentration excceds the ROD action level of 690 µg/kg.

Table 3-8. Soil Disposal Summary

Area	Disposed Soil (tons)
Passivating Area Drain Line (SS-14 and SS-17)	32.4
Between Former Warehouse and 1974 Building Addition (ECS-13)	104.27
South Drainage Ditch (ECS-SS-1 AND ECS-SS-2)	757.34
Total	**894.01**

Table 3-9. Air Monitoring Summary.

Date	Maximum PID Reading (ppm)
8/27/2012	0
8/28/2012	0
8/29/2012	6*
8/31/2012	0
9/6/2012	0
9/7/2012	0.01
9/12/2012	0
9/24/2012	0

* Two instantaneous reading were observed, one of 4 ppm and one of 6 ppm. The readings are believed to be a result of the PID being in close proximity to the exhaust of a nearby truck. PID readings above 0 ppm were not sustained.

Table 4-1. Benzo(a)pyrene Equivalent Concentrations

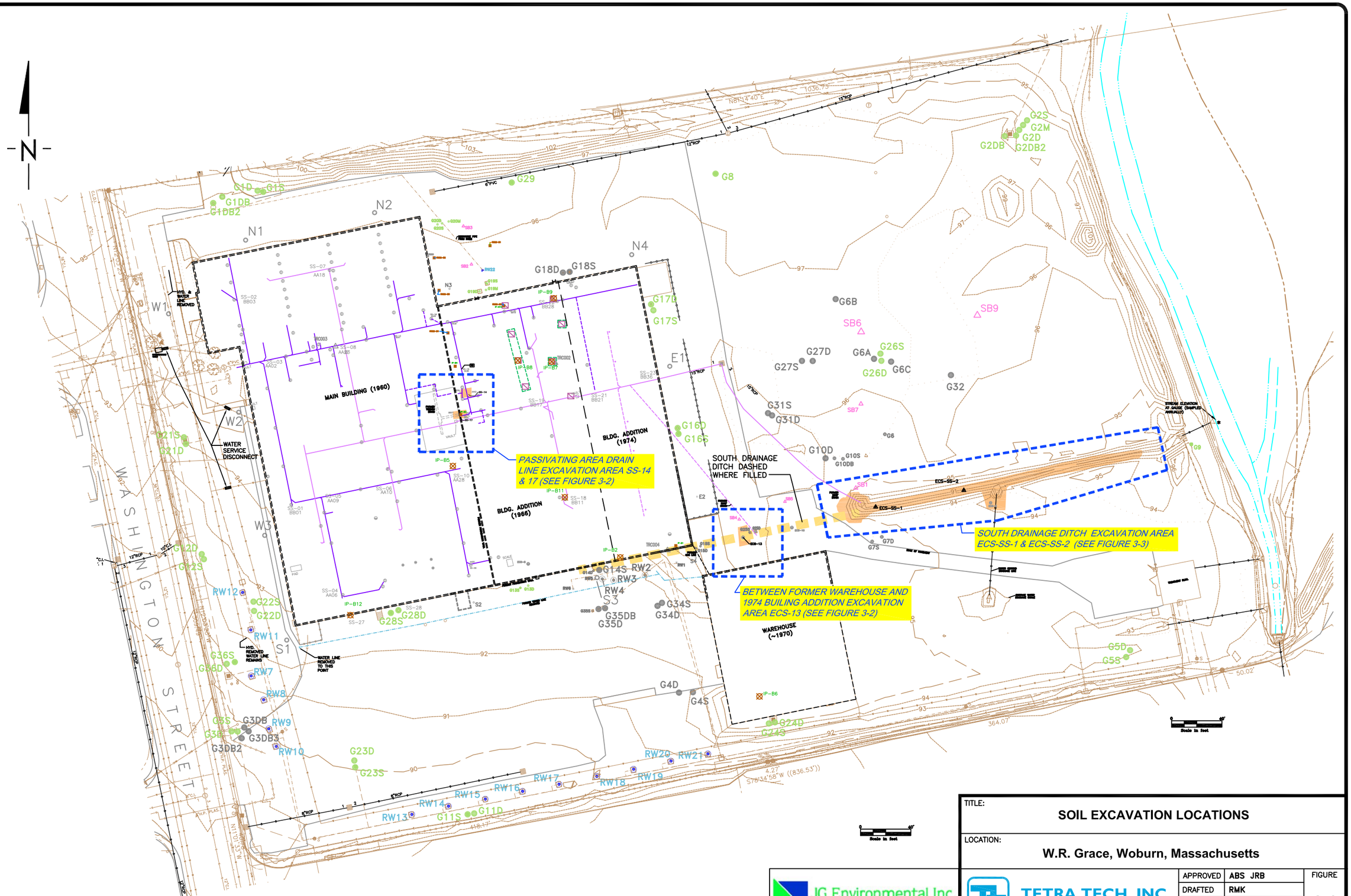
Location	Relative Potency Factor[1]	ECS-10		ECS-10A		ECS-10A-DUP		ECS-13	
Sample Date		4/7/05		4/8/05		4/8/05		4/7/05	
Depth (feet below ground surface)		10-12		10-12		10-12		5-7	
Chemical		Conc.	BaPEQ	Conc.	BaPEQ	Conc.	BaPEQ	Conc.	BaPEQ
Benzo(a)anthracene	0.1	<156	<7.8	<159	<7.95	410 J	41	<161	<8.05
Benzo(a)pyrene	1	<156	<78	<159	<79.5	<152	<76	<161	<80.5
Benzo(b)fluoranthene	0.1	<156	<7.8	<159	<7.95	326 J	32.6	<161	<8.05
Benzo(k)fluoranthene	0.01	<156	<0.78	<159	<0.8	<152	<0.76	<161	<0.81
Chrysene	0.001	<156	<0.08	<159	<0.08	<152	<0.08	<161	<0.08
Dibenzo(a,h)anthracene	1	<156	<78	<159	<79.5	<759	<379.5	<161	<80.5
Indeno(1,2,3-cd)pyrene	0.1	<156	<7.8	<159	<7.95	<152	<7.6	<161	<8.05
Total Concentration		ND	<180	ND	<184	***736***	<538	ND	<186

Table 4-1. Benzo(a)pyrene Equivalent Concentrations

Location	Relative Potency Factor[1]	CS-31		CS-31		CS-32		CS-32		CS-33		CS-33	
Sample Date		9/24/12		9/24/12		9/24/12		9/24/12		9/24/12		9/24/12	
Depth (feet below ground surface)		0.5-1.5		8		0.5-1.5		8		0.5-1.5		8	
Chemical		Conc.	BaPEQ	Conc.	BaPEQ	Conc.	BaPEQ	Conc.	BaPEQ	Conc.	BaPEQ	Conc.	BaPEQ
Benzo(a)anthracene	0.1	350	35	280	28	110	11	14 U	<0.7	250	25	14 U	<0.7
Benzo(a)pyrene	1	380	380	280	280	160	160	14 U	<7	270	270	14 U	<7
Benzo(b)fluoranthene	0.1	330	33	300	30	170	17	14 U	<0.7	220	22	14 U	<0.7
Benzo(k)fluoranthene	0.01	360	3.6	260	2.6	170	1.7	14 U	<0.07	320	3.2	14 U	<0.07
Chrysene	0.001	280	0.28	300	0.3	160	0.16	14 U	<0.01	290	0.29	14 U	<0.01
Dibenzo(a,h)anthracene	1	140	140	100	100	67	67	14 U	<7	140 U	<70	14 U	<7
Indeno(1,2,3-cd)pyrene	0.1	320	32	240	24	170	17	14 U	<0.7	250	25	14 U	<0.7
Total Concentration		***2,160***	624	***1,760***	465	***1,007***	274	ND	<16	***1,600***	<415	ND	<16

Concentrations are in µg/kg.
ND = Not detected
< and U = Not detected at detection limit indicated
BaPEQ = Benzo(a)pyrene equivalent concentration.
BaPEQ = Relative Potency Factor x Carcinogenic PAH concentration. A value of one half the detection limit used for non-detects.
1 - EPA, 1993: Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons.
Bold-Italic- cPAH concentration excceds the ROD action level of 690 µg/kg.

FIGURES



TITLE: **SOIL EXCAVATION LOCATIONS**

LOCATION: **W.R. Grace, Woburn, Massachusetts**

JG Environmental Inc. WATER RESOURCES CONSULTING

TETRA TECH, INC

APPROVED	ABS JRB	FIGURE
DRAFTED	RMK	3-1
PROJECT#	117-3008	
DATE	JAN 2013	

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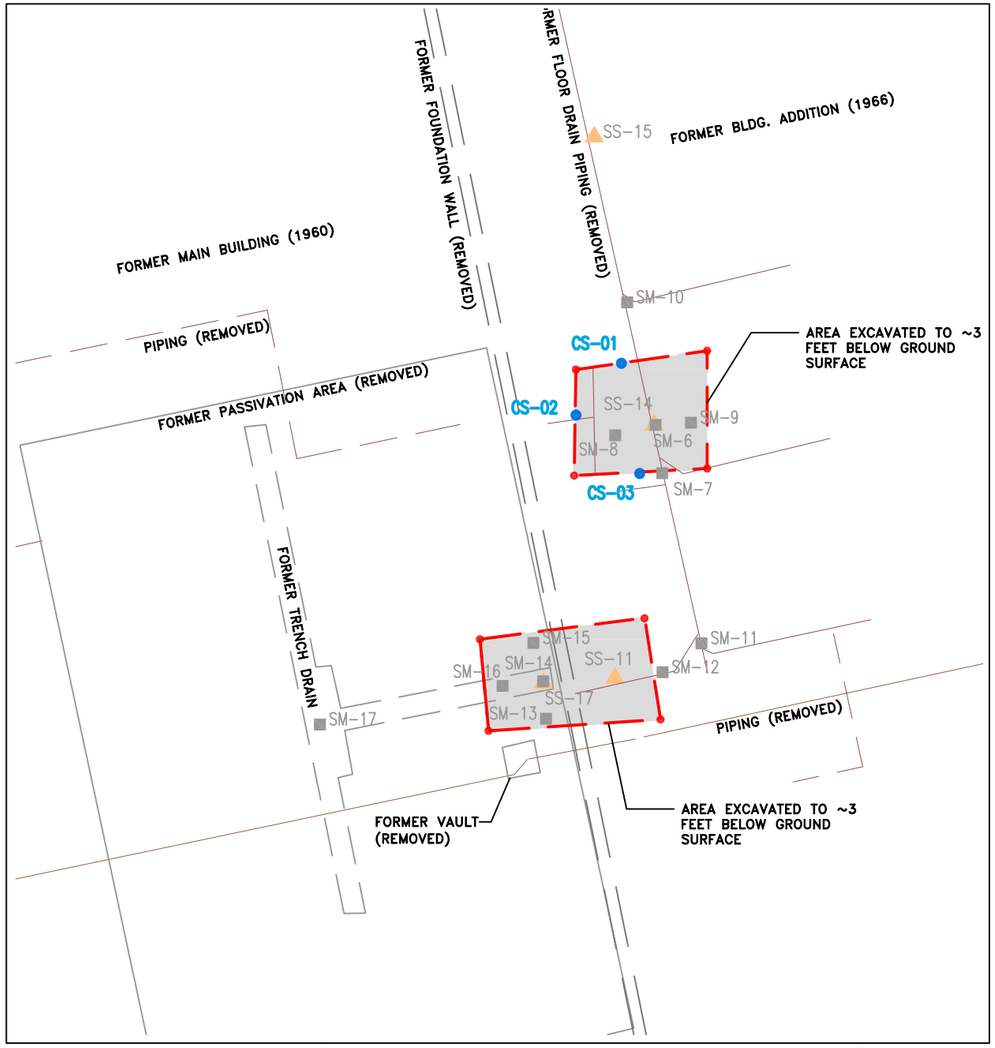
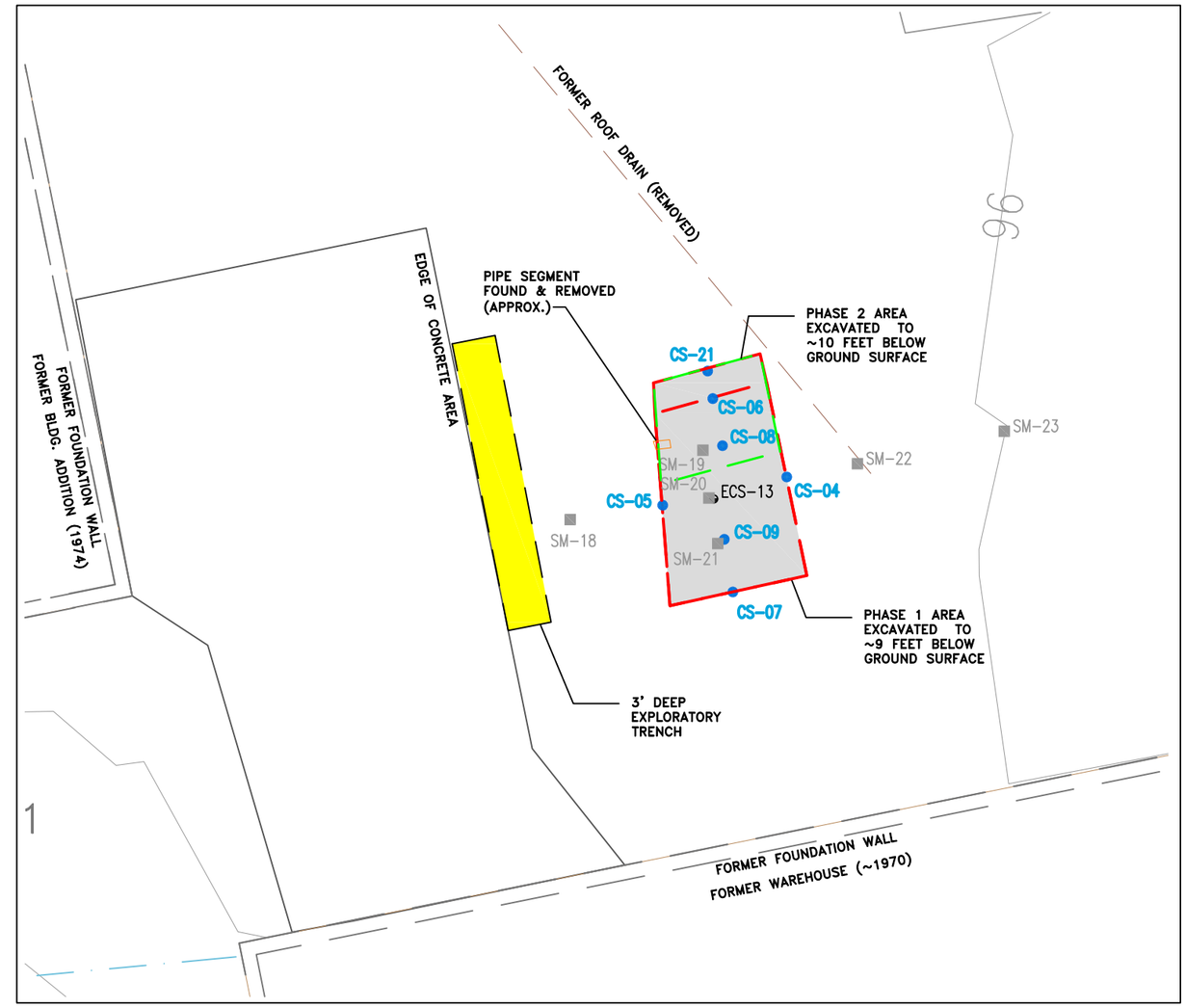


PASSIVATING AREA DRAIN LINE (SS-14 AND SS-17)



BETWEEN FORMER WAREHOUSE AND 1974 BUILDING ADDITION (ECS-13)

N

EXPLANTION

APPROXIMATE EXTENT OF EXCAVATION (2012)

CS-14 ● CONFIRMATORY SOIL SAMPLE LOCATION (2012)

APPROXIMATE LOCATION OF EXPLORATORY TRENCH (2012)

SAMPLE LOCATIONS PRIOR TO SOIL EXCAVATION

SM-28 ■ TWO DEPTH SOIL SAMPLE LOCATION (2011)

SM-25 ▲ SURFICIAL SOIL SAMPLE LOCATION (2011)

ECS-SS-1 △ DECATHLON SOIL SAMPLE (ECS, 2005)

ECS-10A ⊖ DECATHLON SOIL BORING (ECS, 2005)

SS-11 ▲ BUILDING DEMOLITION PRE-DETERMINED TEST PIT/SOIL SAMPLING LOCATIONS (SS-# = SOIL SAMPLE ID.)

0 10'
Scale in feet

TITLE: **PASSIVATION AREA DRAIN LINE AND FORMER WAREHOUSE EXCAVATION AREAS**

LOCATION: **W.R. Grace, Woburn, Massachusetts**

JG Environmental Inc. WATER RESOURCES CONSULTING

TETRA TECH, INC

APPROVED	ABS JRB	FIGURE
DRAFTED	RMK	3-2
PROJECT#	117-3008	
DATE	JAN 2013	

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PHASE 3 – EXCAVATED SO ENTIRE AREA ~6 FEET BELOW LOWEST POINT OF ORIGINAL DITCH BOTTOM (~10 FEET BELOW GRADE SURROUNDING DITCH)

FORMER ROOF DRAIN (REMOVED)

PHASE 2 – EXCAVATED SO ENTIRE AREA ~3 FEET BELOW LOWEST POINT OF ORIGINAL DITCH BOTTOM (~7 FEET BELOW GRADE SURROUNDING DITCH)

PHASE 1 – EXCAVATED TO ~2 FEET BELOW ORIGINAL DITCH SURFACE

CS-28 CS-31 CS-23 CS-29 CS-32 CS-22 CS-10 CS-11 CS-25 CS-24 CS-12 CS-30 CS-33 CS-13 CS-14 CS-20 CS-19 CS-18 CS-17 CS-26 CS-27 CS-15 CS-16

SM-27 SM-24 SM-26 SM-25 SM-28 SM-31 SM-30 SM-29 SM-32 SM-33 SM-34 SM-35 SM-36

ECS-SS-1 ECS-SS-2 ECS-8 ECS-10A

95 91 94 95 94 96

PHASE 1 – EXCAVATED TO ~4 FEET BELOW ORIGINAL DITCH SURFACE

PHASE 2 – EXCAVATED SO ENTIRE AREA ~6 FEET BELOW LOWEST POINT OF ORIGINAL DITCH BOTTOM

PHASE 4 – EXCAVATED SO ENTIRE AREA ~4 FEET BELOW LOWEST POINT OF ORIGINAL DITCH BOTTOM (~8 FEET BELOW GRADE SURROUNDING DITCH)

EDGE OF PAVEMENT

UNDER GROUND DRAINAGE LINE

EDGE OF PAVEMENT

TREATMENT B

SURFACE WATER DRAINAGE SWALE

S-10

EXPLANTION

N

APPROXIMATE EXTENT OF EXCAVATION (2012)

CS-14 ● CONFIRMATORY SOIL SAMPLE LOCATION (2012)

SAMPLE LOCATIONS PRIOR TO SOIL EXCAVATION

SM-28 ■ TWO DEPTH SOIL SAMPLE LOCATION (2011)

SM-25 ▲ SURFICIAL SOIL SAMPLE LOCATION (2011)

ECS-SS-1 △ DECATHLON SOIL SAMPLE (ECS, 2005)

ECS-10A ⊖ DECATHLON SOIL BORING (ECS, 2005)

0 20'
Scale in feet

JG Environmental Inc.
WATER RESOURCES CONSULTING

TETRA TECH, INC

TITLE: SOUTH DRAINAGE DITCH EXCAVATION AREA

LOCATION: W.R. Grace, Woburn, Massachusetts

APPROVED	ABS JRB	FIGURE
DRAFTED	RMK	3-3
PROJECT#	117-3008	
DATE	JAN 2013	

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FORMER ROOF DRAIN (REMOVED)

FORMER ROOF DRAIN (REMOVED)

FORMER BLDG. ADDITION (1974)

FORMER FOUNDATION WALL

EDGE OF PAVEMENT

96

G25S

G25D

CS-21

CS-06

CS-08

CS-05

CS-04

CS-09

CS-07

ECS-13

ECS-9

G15S

G15D

RW1

APPROXIMATE EXTENT OF EXCAVATION

APPROXIMATE LOCATION OF SOUTH DRAINAGE DITCH DASHED WHERE FILLED

ECS-10

ECS-10A

CS-28

CS-31

CS-22

CS-10

CS-23

CS-29

CS-11

CS-25

ECS-SS-1

CS-32

CS-24

CS-12

CS-30

CS-33

APPROXIMATE EXTENT OF EXCAVATION

G7D

G7S

FORMER FOUNDATION WALL

FORMER WAREHOUSE (~1970)

N

EXPLANTION

AREA OF SOIL EXCAVATION

CS-14 CONFIRMATORY SOIL SAMPLE LOCATION (2012)

G25D ABANDONED MONITORING WELL

ECS-SS-1 DECATHLON SOIL SAMPLE (ECS, 2005)

ECS-10A DECATHLON SOIL BORING (ECS, 2005)

0 12ft.

Scale in feet

TITLE: WEST END OF SOUTH DRAINAGE DITCH

LOCATION: W.R. Grace, Woburn, Massachusetts

JG Environmental Inc. WATER RESOURCES CONSULTING

TETRA TECH, INC

APPROVED	ABS JRB	FIGURE
DRAFTED	RMK	4-1
PROJECT#	117-3008	
DATE	JAN 2013	

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ATTACHMENT A

SOIL EXCAVATION PHOTOGRAPHIC LOG

Attachment A
Photograph Log
2012 Soil Excavation

Photo #	Direction	Description
1	SOUTH	PASSIVATING AREA PRE-EXCAVATION
2	SOUTHEAST	PASSIVATING AREA (A & B) POST EXCAVATION
3	NORTH	PASSIVATING AREA BACKFILLED
4	SOUTH	FORMER WAREHOUSE AREA PRE-EXCAVATION
5	SOUTH	FORMER WAREHOUSE AREA PHASE 1 EXCAVATION
6	NORTH	FORMER WAREHOUSE AREA PHASE 2 EXCAVATION
7	WEST	PIPE SEGMENT IN WEST SIDEWALL FORMER WAREHOUSE AREA
8	WEST	PIPE SEGMENT
9	NORTH	FORMER WAREHOUSE AREA BACKFILLED
10	EAST	SOUTH DRAINAGE DITCH PRE-EXCAVATION/CLEARING
11	EAST	SOUTH DRAINAGE DITCH PHASE I EXCAVATION
12	EAST	EROSION CONTROL
13	EAST	SOUTH DRAINAGE DITCH PHASE 1 EXCAVATION
14	EAST	WEST END, SOUTH DRAINAGE DITCH PHASE 2 EXCAVATION
15	NORTHEAST	SM-32 AREA PHASE II EXCAVATION
16	EAST	WEST END, SOUTH DRAINAGE DITCH PHASE 3 EXCAVATION
17	WEST	WEST END, SOUTH DRAINAGE DITCH PHASE 4 EXCAVATION
18	EAST	SOUTH DRAINAGE DITCH BACKFILLED
19	WEST	EXTENT OF SOIL STAGED ONSITE
20	NORTH	EXPLORATORY TRENCH NEAR FORMER WAREHOUSE AREA

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

Photo 20

ATTACHMENT B

FILL CHARACTERIZATION ANALYTICAL RESULTS

Attachment B. Fill Characterization Results

		Sample ID	BROX 3/4" Stockpile
		Sample Collection Date	8/15/2012
Parameter	Units	S-1 Soil Standards	Result
GC/MS VOA BY 8260C			
1,1,1,2-Tetrachloroethane	ug/Kg	100	< 2.1
1,1,1-Trichloroethane	ug/Kg	30000	< 2.1
1,1,2,2-Tetrachloroethane	ug/Kg	5	< 2.1
1,1,2-Trichloroethane	ug/Kg	100	< 2.1
1,1-Dichloroethane	ug/Kg	400	< 2.1
1,1-Dichloroethene	ug/Kg	3000	< 2.1
1,1-Dichloropropene	ug/Kg	NA	< 2.1
1,2,3-Trichlorobenzene	ug/Kg	NA	< 2.1
1,2,3-Trichloropropane	ug/Kg	100000	< 2.1
1,2,4-Trichlorobenzene	ug/Kg	2000	< 2.1
1,2,4-Trimethylbenzene	ug/Kg	1000000	< 2.1
1,2-Dibromo-3-Chloropropane	ug/Kg	10000	< 21
1,2-Dichlorobenzene	ug/Kg	9000	< 2.1
1,2-Dichloroethane	ug/Kg	100	< 2.1
1,2-Dichloropropane	ug/Kg	100	< 2.1
1,3,5-Trimethylbenzene	ug/Kg	10000	< 2.1
1,3-Dichlorobenzene	ug/Kg	1000	< 2.1
1,3-Dichloropropane	ug/Kg	500000	< 2.1
1,4-Dichlorobenzene	ug/Kg	700	< 2.1
1,4-Dioxane	ug/Kg	200	**< 210**
2,2-Dichloropropane	ug/Kg	NA	< 2.1
2-Butanone (MEK)	ug/Kg	4000	< 21 *
2-Chlorotoluene	ug/Kg	100000	< 2.1
2-Hexanone	ug/Kg	100000	< 21 *
4-Chlorotoluene	ug/Kg	NA	< 2.1
4-Isopropyltoluene	ug/Kg	100000	< 2.1
4-Methyl-2-pentanone (MIBK)	ug/Kg	400	< 21
Acetone	ug/Kg	6000	< 210 *
Benzene	ug/Kg	2000	< 2.1
Bromobenzene	ug/Kg	100000	< 2.1
Bromoform	ug/Kg	100	< 2.1
Bromomethane	ug/Kg	500	< 4.1
Carbon disulfide	ug/Kg	100000	< 2.1
Carbon tetrachloride	ug/Kg	5000	< 2.1
Chlorobenzene	ug/Kg	1000	< 2.1
Chlorobromomethane	ug/Kg	NA	< 2.1
Chlorodibromomethane	ug/Kg	5	< 2.1
Chloroethane	ug/Kg	100000	< 4.1
Chloroform	ug/Kg	300	< 2.1
Chloromethane	ug/Kg	100000	< 4.1 *

Attachment B. Fill Characterization Results

		Sample ID	BROX 3/4" Stockpile
		Sample Collection Date	8/15/2012
Parameter	Units	S-1 Soil Standards	Result
cis-1,2-Dichloroethene	ug/Kg	300	< 2.1
cis-1,3-Dichloropropene	ug/Kg	10	< 2.1
Dibromomethane	ug/Kg	500000	< 2.1
Dichlorobromomethane	ug/Kg	100	< 2.1
Dichlorodifluoromethane	ug/Kg	1000000	< 4.1
Ethyl ether	ug/Kg	100000	< 2.1
Ethylbenzene	ug/Kg	40000	< 2.1
Ethylene Dibromide	ug/Kg	100	< 2.1
Hexachlorobutadiene	ug/Kg	6000	< 2.1
Isopropyl ether	ug/Kg	100000	< 2.1
Isopropylbenzene	ug/Kg	1000000	< 2.1
Methyl tert-butyl ether	ug/Kg	100	< 2.1
Methylene Chloride	ug/Kg	100	< 8.3
m-Xylene & p-Xylene	ug/Kg	300000	< 4.1
Naphthalene	ug/Kg	4000	< 21
n-Butylbenzene	ug/Kg	NA	< 2.1
N-Propylbenzene	ug/Kg	100000	< 2.1
o-Xylene	ug/Kg	300000	< 2.1
sec-Butylbenzene	ug/Kg	NA	< 2.1
Styrene	ug/Kg	3000	< 2.1
Tert-amyl methyl ether	ug/Kg	NA	< 2.1
Tert-butyl ethyl ether	ug/Kg	NA	< 2.1
tert-Butylbenzene	ug/Kg	100000	< 2.1
Tetrachloroethene	ug/Kg	1000	< 2.1
Tetrahydrofuran	ug/Kg	500000	< 41
Toluene	ug/Kg	30000	< 2.1
trans-1,2-Dichloroethene	ug/Kg	1000	< 2.1
trans-1,3-Dichloropropene	ug/Kg	10	< 2.1
Trichloroethene	ug/Kg	300	< 2.1
Trichlorofluoromethane	ug/Kg	1000000	< 4.1
Vinyl chloride	ug/Kg	600	< 2.1
GC/MS SEMI VOA BY 8270D			
1,2,4-Trichlorobenzene	ug/Kg	2000	< 340
1,2-Dichlorobenzene	ug/Kg	9000	< 340
1,3-Dichlorobenzene	ug/Kg	1000	< 340
1,4-Dichlorobenzene	ug/Kg	700	< 340
2,2'-oxybis[1-chloropropane]	ug/Kg	700	< 340
2,4,5-Trichlorophenol	ug/Kg	4000	< 340
2,4,6-Trichlorophenol	ug/Kg	700	< 340
2,4-Dichlorophenol	ug/Kg	700	< 340
2,4-Dimethylphenol	ug/Kg	700	< 340

Attachment B. Fill Characterization Results

		Sample ID	BROX 3/4" Stockpile
		Sample Collection Date	8/15/2012
Parameter	Units	S-1 Soil Standards	Result
2,4-Dinitrophenol	ug/Kg	3000	< 340
2,4-Dinitrotoluene	ug/Kg	700	< 340
2,6-Dinitrotoluene	ug/Kg	100000	< 340
2-Chloronaphthalene	ug/Kg	1000000	< 340
2-Chlorophenol	ug/Kg	700	< 340
2-Methylnaphthalene	ug/Kg	700	< 170
2-Methylphenol	ug/Kg	500000	< 340
2-Nitrophenol	ug/Kg	100000	< 340
3 & 4 Methylphenol	ug/Kg	500000	< 340
3,3'-Dichlorobenzidine	ug/Kg	1000	< 690
4-Bromophenyl phenyl ether	ug/Kg	100000	< 340
4-Chloroaniline	ug/Kg	1000	< 690
4-Nitrophenol	ug/Kg	100000	< 1700
Acenaphthene	ug/Kg	4000	< 170
Acenaphthylene	ug/Kg	1000	< 170
Acetophenone	ug/Kg	1000000	< 340
Aniline	ug/Kg	1000000	< 1700 *
Anthracene	ug/Kg	1000000	< 170
Azobenzene	ug/Kg	NA	< 340
Benzo[a]anthracene	ug/Kg	7000	< 170
Benzo[a]pyrene	ug/Kg	2000	< 170
Benzo[b]fluoranthene	ug/Kg	7000	< 170
Benzo[g,h,i]perylene	ug/Kg	1000000	< 170
Benzo[k]fluoranthene	ug/Kg	70000	< 180
Bis(2-chloroethoxy)methane	ug/Kg	500000	< 340
Bis(2-chloroethyl)ether	ug/Kg	700	< 340
Bis(2-ethylhexyl) phthalate	ug/Kg	200000	< 340
Butyl benzyl phthalate	ug/Kg	100000	< 340
Chrysene	ug/Kg	70000	< 170
Dibenz(a,h)anthracene	ug/Kg	700	< 170
Dibenzofuran	ug/Kg	100000	< 340
Diethyl phthalate	ug/Kg	10000	< 340
Dimethyl phthalate	ug/Kg	30000	< 340
Di-n-butyl phthalate	ug/Kg	50000	< 340
Di-n-octyl phthalate	ug/Kg	1000000	< 340
Fluoranthene	ug/Kg	1000000	< 170
Fluorene	ug/Kg	1000000	< 170
Hexachlorobenzene	ug/Kg	700	< 340
Hexachlorobutadiene	ug/Kg	6000	< 340
Hexachloroethane	ug/Kg	700	< 340
Indeno[1,2,3-cd]pyrene	ug/Kg	7000	< 340

Attachment B. Fill Characterization Results

		Sample ID	BROX 3/4" Stockpile
		Sample Collection Date	8/15/2012
Parameter	Units	S-1 Soil Standards	Result
Isophorone	ug/Kg	100000	< 340
Naphthalene	ug/Kg	4000	< 170
Nitrobenzene	ug/Kg	500000	< 340
Pentachlorophenol	ug/Kg	3000	< 1700
Phenanthrene	ug/Kg	10000	< 170
Phenol	ug/Kg	1000	< 340
Pyrene	ug/Kg	1000000	< 170
GC VOA BY MAVPH			
Benzene	mg/Kg	2	< 0.049
C5-C8 Aliphatics (adjusted)	mg/Kg	100	< 2.5
C5-C8 Aliphatics (unadjusted)	mg/Kg	NA	< 2.5
C9-C10 Aromatics	mg/Kg	100	< 2.5
C9-C12 Aliphatics (adjusted)	mg/Kg	1000	< 2.5
C9-C12 Aliphatics (unadjusted)	mg/Kg	NA	< 2.5
Ethylbenzene	mg/Kg	40	< 0.049
Methyl tert-butyl ether	mg/Kg	0.1	< 0.049
m-Xylene & p-Xylene	mg/Kg	300	< 0.098
Naphthalene	mg/Kg	4	< 0.25
o-Xylene	mg/Kg	300	< 0.049
Toluene	mg/Kg	30	< 0.049
Total VPH	mg/Kg	NA	< 2.5
GC SEMI VOA BY 8081A			
4,4'-DDD	ug/Kg	4000	< 9.9
4,4'-DDE	ug/Kg	3000	< 9.9
4,4'-DDT	ug/Kg	3000	< 9.9
Aldrin	ug/Kg	40	< 9.9
alpha-BHC	ug/Kg	50000	< 9.9
beta-BHC	ug/Kg	10000	< 9.9
Chlordane (technical)	ug/Kg	700	< 200
delta-BHC	ug/Kg	10000	< 9.9
Dieldrin	ug/Kg	50	< 9.9
Endosulfan I	ug/Kg	500	< 9.9
Endosulfan II	ug/Kg	500	< 9.9
Endosulfan sulfate	ug/Kg	NA	< 9.9
Endrin	ug/Kg	8000	< 9.9
Endrin ketone	ug/Kg	NA	< 9.9
gamma-BHC (Lindane)	ug/Kg	3	< 3.0
Heptachlor	ug/Kg	200	< 9.9
Heptachlor epoxide	ug/Kg	90	< 9.9
Hexachlorobenzene	ug/Kg	700	< 9.9 *
Methoxychlor	ug/Kg	200000	< 9.9

Attachment B. Fill Characterization Results

		Sample ID	BROX 3/4" Stockpile
		Sample Collection Date	8/15/2012
Parameter	Units	S-1 Soil Standards	Result
GC SEMI VOA BY 8082			
PCB-1016	ug/Kg	2000	< 99
PCB-1221	ug/Kg	2000	< 99
PCB-1232	ug/Kg	2000	< 99
PCB-1242	ug/Kg	2000	< 99
PCB-1248	ug/Kg	2000	< 99
PCB-1254	ug/Kg	2000	< 99
PCB-1260	ug/Kg	2000	< 99
PCB-1262	ug/Kg	2000	< 99
PCB-1268	ug/Kg	2000	< 99
GC SEMI VOA BY 8151A			
2,4,5-T	ug/Kg	NA	< 18
2,4-D	ug/Kg	NA	< 18
2,4-DB	ug/Kg	NA	< 18 *
Dalapon	ug/Kg	NA	< 18
Dicamba	ug/Kg	NA	< 18
Dichlorprop	ug/Kg	NA	< 18
Dinoseb	ug/Kg	NA	< 18
MCPA	ug/Kg	NA	< 1800
MCPP	ug/Kg	NA	< 1800
Silvex (2,4,5-TP)	ug/Kg	NA	< 18 *
GC SEMI VOA BY MA-EPH			
2-Methylnaphthalene	mg/Kg	0.7	< 0.33
Acenaphthene	mg/Kg	4	< 0.33
Acenaphthylene	mg/Kg	1	< 0.33
Anthracene	mg/Kg	1000	< 0.33
Benzo[a]anthracene	mg/Kg	7	< 0.33
Benzo[a]pyrene	mg/Kg	2	< 0.33
Benzo[b]fluoranthene	mg/Kg	7	< 0.33
Benzo[g,h,i]perylene	mg/Kg	1000	< 0.33
Benzo[k]fluoranthene	mg/Kg	70	< 0.33
C11-C22 Aromatics (Adjusted)	mg/Kg	1000	< 3.3
C11-C22 Aromatics (unadjusted)	mg/Kg	NA	< 3.3
C19-C36 Aliphatics	mg/Kg	3000	< 3.3
C9-C18 Aliphatics	mg/Kg	1000	< 3.3
Chrysene	mg/Kg	70	< 0.33
Dibenz(a,h)anthracene	mg/Kg	0.7	< 0.33
Fluoranthene	mg/Kg	1000	< 0.33
Fluorene	mg/Kg	1000	< 0.33
Indeno[1,2,3-cd]pyrene	mg/Kg	7	< 0.33
Naphthalene	mg/Kg	4	< 0.33

Attachment B. Fill Characterization Results

		Sample ID	BROX 3/4" Stockpile
		Sample Collection Date	8/15/2012
Parameter	Units	S-1 Soil Standards	Result
Phenanthrene	mg/Kg	10	< 0.33
Pyrene	mg/Kg	1000	< 0.33
Total EPH	mg/Kg	NA	< 3.3
METALS BY 6010C			
Arsenic	mg/Kg	20	3.1
Barium	mg/Kg	1000	21 B
Beryllium	mg/Kg	100	0.14 J
Cadmium	mg/Kg	2	< 0.26
Chromium	mg/Kg	30	23
Copper	mg/Kg	1000	8.8 B
Iron	mg/Kg	NA	12000 B
Lead	mg/Kg	300	0.44 J
Manganese	mg/Kg	NA	140
Selenium	mg/Kg	400	< 0.66
Silver	mg/Kg	100	< 0.66
METALS BY 7471B			
Mercury	mg/Kg	20	< 0.11
GENERAL CHEMISTRY BY MOISTURE			
Percent Moisture	%	NA	2.9
Percent Solids	%	NA	97

Note
% - percent
mg/Kg - milligrams per kilogram
ug/Kg - micrograms per kilogram
* - LCS or LCSD exceeds the control limits
B - Compound was found in the blank and sample.

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S-1 Soil Standards - Massachusetts Contingency Plan Method 1 Soil Category S-1 standards

ATTACHMENT C

LABORATORY REPORTS FOR SDGS L1215303 AND L1119827 (ON CD)

ANALYTICAL REPORT

Lab Number:	L1119827
Client:	Tetra Tech Geo 1 Monarch Drive Suite 202 LIttleton, MA 01460
ATTN:	Chris Coner
Phone:	(978) 952-0120
Project Name:	WR GRACE WOBURN
Project Number:	117-3008070
Report Date:	05/23/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1119827-01	TB-112911	WOBURN, MA	11/29/11 00:00
L1119827-02	SM-18-6	WOBURN, MA	11/29/11 09:30
L1119827-03	SM-18-8	WOBURN, MA	11/29/11 09:38
L1119827-04	SM-19-6	WOBURN, MA	11/29/11 10:35
L1119827-05	SM-19-8	WOBURN, MA	11/29/11 10:40
L1119827-06	SM-20-6	WOBURN, MA	11/29/11 11:10
L1119827-07	SM-20-8	WOBURN, MA	11/29/11 11:15
L1119827-08	SM-21-6	WOBURN, MA	11/29/11 12:15
L1119827-09	SM-21-8	WOBURN, MA	11/29/11 12:18
L1119827-10	SM-21-TEB	WOBURN, MA	11/29/11 12:20
L1119827-11	SM-22-6	WOBURN, MA	11/29/11 13:45
L1119827-12	SM-22-8	WOBURN, MA	11/29/11 13:50
L1119827-13	SM-23-6	WOBURN, MA	11/29/11 14:15
L1119827-14	SM-23-8	WOBURN, MA	11/29/11 14:20

Project Name: WR GRACE WOBURN **Lab Number:** L1119827
Project Number: 117-3008070 **Report Date:** 05/23/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	WR GRACE WOBURN	**Lab Number:**	L1119827
Project Number:	117-3008070	**Report Date:**	05/23/13

Case Narrative (continued)

Report Submission

This report replaces the report issued on February 2, 2012. All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

A previously-issued report replaced the report issued December 6, 2011. The results for 1,2,3-Trichlorobenzene by method 8260B are now included on samples L1119827-02 through -09 and -11 through -14.

PCBs

L1119827-04, -05, -06, and -09 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

The surrogate recoveries for L1119827-04, -05, -06, and -09 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (All at 0%) due to the dilutions required to quantitate the samples. Re-extractions were not required; therefore, the results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 05/23/13

ORGANICS

VOLATILES

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-01	Date Collected:	11/29/11 00:00
Client ID:	TB-112911	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260B		
Analytical Date:	12/05/11 13:02		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.54	1
1,1-Dichloroethane	ND		ug/l	0.75	0.22	1
Chloroform	0.88		ug/l	0.75	0.20	1
Carbon tetrachloride	ND		ug/l	0.50	0.16	1
1,2-Dichloropropane	ND		ug/l	1.8	0.30	1
Dibromochloromethane	ND		ug/l	0.50	0.19	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.26	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.40	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.19	1
Trichlorofluoromethane	ND		ug/l	2.5	0.27	1
1,2-Dichloroethane	ND		ug/l	0.50	0.16	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.26	1
Bromoform	ND		ug/l	2.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.19	1
Benzene	ND		ug/l	0.50	0.19	1
Toluene	ND		ug/l	0.75	0.23	1
Ethylbenzene	ND		ug/l	0.50	0.26	1
Chloromethane	0.34	J	ug/l	2.5	0.28	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	1.0	0.22	1
Chloroethane	ND		ug/l	1.0	0.23	1
1,1-Dichloroethene	ND		ug/l	0.50	0.18	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.21	1
Trichloroethene	ND		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-01 Date Collected: 11/29/11 00:00

Client ID: TB-112911 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	2.5	0.22	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.35	1
o-Xylene	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	5.0	0.36	1
1,4-Dichlorobutane	ND		ug/l	5.0	0.47	1
1,2,3-Trichloropropane	ND		ug/l	5.0	0.43	1
Styrene	ND		ug/l	1.0	0.36	1
Dichlorodifluoromethane	ND		ug/l	5.0	0.30	1
Acetone	2.0	J	ug/l	5.0	1.6	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	0.31	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.58	1
Ethyl methacrylate	ND		ug/l	5.0	0.61	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	2.5	0.33	1
Tetrahydrofuran	ND		ug/l	5.0	1.3	1
2,2-Dichloropropane	ND		ug/l	2.5	0.40	1
1,2-Dibromoethane	ND		ug/l	2.0	0.32	1
1,3-Dichloropropane	ND		ug/l	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	2.5	0.18	1
n-Butylbenzene	ND		ug/l	0.50	0.20	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	2.5	0.30	1
o-Chlorotoluene	ND		ug/l	2.5	0.18	1
p-Chlorotoluene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.23	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	2.5	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.21	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-01 Date Collected: 11/29/11 00:00

Client ID: TB-112911 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.27	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	2.5	0.20	1
Ethyl Acetate	ND		ug/l	10	0.72	1
Diisopropyl Ether	ND		ug/l	2.0	0.16	1
Cyclohexane	ND		ug/l	10	0.24	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	0.46	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.38	1
1,4-Dioxane	ND		ug/l	250	76.	1
Freon-113	ND		ug/l	10	0.23	1
Methyl cyclohexane	ND		ug/l	10	0.29	1
p-Diethylbenzene	ND		ug/l	2.0	0.11	1
p-Ethyltoluene	ND		ug/l	2.0	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.10	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	114		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	100		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-02	Date Collected:	11/29/11 09:30
Client ID:	SM-18-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 15:51		
Analyst:	BN		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.27	1
Chloroform	ND		ug/kg	1.7	0.38	1
Carbon tetrachloride	ND		ug/kg	1.2	0.32	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.29	1
Dibromochloromethane	ND		ug/kg	1.2	0.37	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.48	1
2-Chloroethylvinyl ether	ND		ug/kg	23	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.34	1
Chlorobenzene	ND		ug/kg	1.2	0.29	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.50	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.34	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.24	1
Bromodichloromethane	ND		ug/kg	1.2	0.45	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.39	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.31	1
1,1-Dichloropropene	ND		ug/kg	5.8	0.65	1
Bromoform	ND		ug/kg	4.6	1.3	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.34	1
Benzene	ND		ug/kg	1.2	0.22	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.2	0.44	1
Chloromethane	ND		ug/kg	5.8	0.91	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	2.3	0.64	1
Chloroethane	ND		ug/kg	2.3	0.51	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.38	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.35	1
Trichloroethene	ND		ug/kg	1.2	0.33	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.42	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.44	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-02 Date Collected: 11/29/11 09:30

Client ID: SM-18-6 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.36	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.77	1
p/m-Xylene	ND		ug/kg	2.3	0.53	1
o-Xylene	ND		ug/kg	2.3	0.66	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.30	1
Dibromomethane	ND		ug/kg	12	0.50	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.49	1
Styrene	ND		ug/kg	2.3	0.71	1
Dichlorodifluoromethane	ND		ug/kg	12	2.0	1
Acetone	ND		ug/kg	42	3.8	1
Carbon disulfide	ND		ug/kg	12	0.30	1
2-Butanone	ND		ug/kg	12	4.5	1
Vinyl acetate	ND		ug/kg	12	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	2.0	1
2-Hexanone	ND		ug/kg	12	1.5	1
Ethyl methacrylate	ND		ug/kg	12	1.7	1
Acrylonitrile	ND		ug/kg	4.6	1.4	1
Bromochloromethane	ND		ug/kg	5.8	0.42	1
Tetrahydrofuran	ND		ug/kg	23	1.3	1
2,2-Dichloropropane	ND		ug/kg	5.8	1.4	1
1,2-Dibromoethane	ND		ug/kg	4.6	0.25	1
1,3-Dichloropropane	ND		ug/kg	5.8	0.27	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	5.8	0.38	1
n-Butylbenzene	ND		ug/kg	1.2	0.23	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	5.8	0.65	1
o-Chlorotoluene	ND		ug/kg	5.8	0.36	1
p-Chlorotoluene	ND		ug/kg	5.8	0.33	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	1.7	1
Hexachlorobutadiene	ND		ug/kg	5.8	0.49	1
Isopropylbenzene	ND		ug/kg	1.2	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.23	1
Naphthalene	ND		ug/kg	5.8	0.96	1
n-Propylbenzene	ND		ug/kg	1.2	0.27	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	1.1	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	1.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.8	1.8	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-02	Date Collected:	11/29/11 09:30
Client ID:	SM-18-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	1.7	1
Halothane	ND		ug/kg	46	8.6	1
Ethyl ether	ND		ug/kg	5.8	0.42	1
Methyl Acetate	ND		ug/kg	23	23.	1
Ethyl Acetate	ND		ug/kg	23	23.	1
Diisopropyl Ether	ND		ug/kg	4.6	1.1	1
Cyclohexane	ND		ug/kg	23	23.	1
Tert-Butyl Alcohol	ND		ug/kg	120	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.6	1.0	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.6	1.2	1
1,4-Dioxane	ND		ug/kg	120	20.	1
Methyl cyclohexane	ND		ug/kg	4.6	4.6	1
Freon-113	ND		ug/kg	23	1.1	1
p-Diethylbenzene	ND		ug/kg	4.6	0.23	1
p-Ethyltoluene	ND		ug/kg	4.6	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.6	0.21	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	108		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-03	Date Collected:	11/29/11 09:38
Client ID:	SM-18-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 10:41		
Analyst:	BN		
Percent Solids:	89%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	13		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.26	1
Chloroform	ND		ug/kg	1.6	0.36	1
Carbon tetrachloride	ND		ug/kg	1.1	0.31	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.28	1
Dibromochloromethane	ND		ug/kg	1.1	0.35	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.45	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.34	1
Tetrachloroethene	1.8		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.27	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.48	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.22	1
Bromodichloromethane	ND		ug/kg	1.1	0.42	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
1,1-Dichloropropene	ND		ug/kg	5.5	0.61	1
Bromoform	ND		ug/kg	4.4	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.32	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.42	1
Chloromethane	ND		ug/kg	5.5	0.86	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	2.2	0.61	1
Chloroethane	ND		ug/kg	2.2	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.33	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	0.40	1
1,3-Dichlorobenzene	ND		ug/kg	5.5	0.41	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-03 Date Collected: 11/29/11 09:38

Client ID: SM-18-8 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.5	0.34	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.73	1
p/m-Xylene	ND		ug/kg	2.2	0.50	1
o-Xylene	ND		ug/kg	2.2	0.63	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.28	1
Dibromomethane	ND		ug/kg	11	0.48	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.46	1
Styrene	ND		ug/kg	2.2	0.68	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	15	J	ug/kg	40	3.6	1
Carbon disulfide	ND		ug/kg	11	0.28	1
2-Butanone	ND		ug/kg	11	4.3	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.9	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1
Bromochloromethane	ND		ug/kg	5.5	0.39	1
Tetrahydrofuran	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.5	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.24	1
1,3-Dichloropropane	ND		ug/kg	5.5	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.5	0.36	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.23	1
tert-Butylbenzene	ND		ug/kg	5.5	0.62	1
o-Chlorotoluene	ND		ug/kg	5.5	0.34	1
p-Chlorotoluene	ND		ug/kg	5.5	0.31	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.46	1
Isopropylbenzene	ND		ug/kg	1.1	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.21	1
Naphthalene	ND		ug/kg	5.5	0.90	1
n-Propylbenzene	ND		ug/kg	1.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	0.96	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	1.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.5	1.7	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-03	Date Collected:	11/29/11 09:38
Client ID:	SM-18-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	1.6	1
Halothane	ND		ug/kg	44	8.2	1
Ethyl ether	ND		ug/kg	5.5	0.40	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.4	1.0	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	0.96	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.4	4.4	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.4	0.22	1
p-Ethyltoluene	ND		ug/kg	4.4	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	106		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-04	Date Collected:	11/29/11 10:35
Client ID:	SM-19-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 11:09		
Analyst:	BN		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	7.2	J	ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.25	1
Chloroform	ND		ug/kg	1.6	0.34	1
Carbon tetrachloride	ND		ug/kg	1.1	0.30	1
1,2-Dichloropropane	ND		ug/kg	3.7	0.27	1
Dibromochloromethane	ND		ug/kg	1.1	0.34	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.44	1
2-Chloroethylvinyl ether	ND		ug/kg	21	0.33	1
Tetrachloroethene	1.8		ug/kg	1.1	0.31	1
Chlorobenzene	ND		ug/kg	1.1	0.26	1
Trichlorofluoromethane	ND		ug/kg	5.3	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.22	1
Bromodichloromethane	ND		ug/kg	1.1	0.41	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.36	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.28	1
1,1-Dichloropropene	ND		ug/kg	5.3	0.59	1
Bromoform	ND		ug/kg	4.2	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.31	1
Benzene	ND		ug/kg	1.1	0.20	1
Toluene	0.50	J	ug/kg	1.6	0.20	1
Ethylbenzene	ND		ug/kg	1.1	0.40	1
Chloromethane	ND		ug/kg	5.3	0.83	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	2.1	0.59	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.32	1
Trichloroethene	ND		ug/kg	1.1	0.30	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	0.39	1
1,3-Dichlorobenzene	ND		ug/kg	5.3	0.40	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-04 Date Collected: 11/29/11 10:35

Client ID: SM-19-6 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.3	0.32	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.70	1
p/m-Xylene	ND		ug/kg	2.1	0.49	1
o-Xylene	ND		ug/kg	2.1	0.61	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.27	1
Dibromomethane	ND		ug/kg	11	0.46	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.44	1
Styrene	ND		ug/kg	2.1	0.65	1
Dichlorodifluoromethane	ND		ug/kg	11	1.8	1
Acetone	9.5	J	ug/kg	38	3.4	1
Carbon disulfide	ND		ug/kg	11	0.27	1
2-Butanone	ND		ug/kg	11	4.1	1
Vinyl acetate	ND		ug/kg	11	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.9	1
2-Hexanone	ND		ug/kg	11	1.3	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrylonitrile	ND		ug/kg	4.2	1.3	1
Bromochloromethane	ND		ug/kg	5.3	0.38	1
Tetrahydrofuran	ND		ug/kg	21	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.3	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.2	0.23	1
1,3-Dichloropropane	ND		ug/kg	5.3	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.35	1
Bromobenzene	ND		ug/kg	5.3	0.35	1
n-Butylbenzene	ND		ug/kg	1.1	0.21	1
sec-Butylbenzene	3.0		ug/kg	1.1	0.23	1
tert-Butylbenzene	ND		ug/kg	5.3	0.60	1
o-Chlorotoluene	ND		ug/kg	5.3	0.33	1
p-Chlorotoluene	ND		ug/kg	5.3	0.30	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.3	0.45	1
Isopropylbenzene	0.34	J	ug/kg	1.1	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.21	1
Naphthalene	ND		ug/kg	5.3	0.87	1
n-Propylbenzene	ND		ug/kg	1.1	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.3	0.98	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.3	0.92	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.3	1.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.3	1.6	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-04	Date Collected:	11/29/11 10:35
Client ID:	SM-19-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	1.6	1
Halothane	ND		ug/kg	42	7.9	1
Ethyl ether	ND		ug/kg	5.3	0.38	1
Methyl Acetate	ND		ug/kg	21	21.	1
Ethyl Acetate	ND		ug/kg	21	21.	1
Diisopropyl Ether	ND		ug/kg	4.2	1.0	1
Cyclohexane	ND		ug/kg	21	21.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.2	0.93	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.2	1.1	1
1,4-Dioxane	ND		ug/kg	110	18.	1
Methyl cyclohexane	ND		ug/kg	4.2	4.2	1
Freon-113	ND		ug/kg	21	0.99	1
p-Diethylbenzene	ND		ug/kg	4.2	0.21	1
p-Ethyltoluene	ND		ug/kg	4.2	0.10	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.2	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	119		70-130
Dibromofluoromethane	109		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-05	Date Collected:	11/29/11 10:40
Client ID:	SM-19-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 14:54		
Analyst:	BN		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	620	70.	1
1,1-Dichloroethane	ND		ug/kg	92	14.	1
Chloroform	ND		ug/kg	92	20.	1
Carbon tetrachloride	ND		ug/kg	62	17.	1
1,2-Dichloropropane	ND		ug/kg	220	16.	1
Dibromochloromethane	ND		ug/kg	62	20.	1
1,1,2-Trichloroethane	ND		ug/kg	92	25.	1
2-Chloroethylvinyl ether	ND		ug/kg	1200	19.	1
Tetrachloroethene	ND		ug/kg	62	18.	1
Chlorobenzene	ND		ug/kg	62	15.	1
Trichlorofluoromethane	ND		ug/kg	310	27.	1
1,2-Dichloroethane	ND		ug/kg	62	18.	1
1,1,1-Trichloroethane	ND		ug/kg	62	12.	1
Bromodichloromethane	ND		ug/kg	62	24.	1
trans-1,3-Dichloropropene	ND		ug/kg	62	21.	1
cis-1,3-Dichloropropene	ND		ug/kg	62	16.	1
1,1-Dichloropropene	ND		ug/kg	310	34.	1
Bromoform	ND		ug/kg	250	69.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	62	18.	1
Benzene	ND		ug/kg	62	12.	1
Toluene	ND		ug/kg	92	12.	1
Ethylbenzene	ND		ug/kg	62	23.	1
Chloromethane	ND		ug/kg	310	48.	1
Bromomethane	ND		ug/kg	120	36.	1
Vinyl chloride	ND		ug/kg	120	34.	1
Chloroethane	ND		ug/kg	120	27.	1
1,1-Dichloroethene	ND		ug/kg	62	20.	1
trans-1,2-Dichloroethene	ND		ug/kg	92	18.	1
Trichloroethene	ND		ug/kg	62	17.	1
1,2-Dichlorobenzene	ND		ug/kg	310	22.	1
1,3-Dichlorobenzene	ND		ug/kg	310	23.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-05 Date Collected: 11/29/11 10:40

Client ID: SM-19-8 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	310	19.	1
Methyl tert butyl ether	ND		ug/kg	120	41.	1
p/m-Xylene	ND		ug/kg	120	28.	1
o-Xylene	ND		ug/kg	120	35.	1
cis-1,2-Dichloroethene	ND		ug/kg	62	16.	1
Dibromomethane	ND		ug/kg	620	27.	1
1,2,3-Trichloropropane	ND		ug/kg	620	26.	1
Styrene	ND		ug/kg	120	38.	1
Dichlorodifluoromethane	ND		ug/kg	620	110	1
Acetone	ND		ug/kg	2200	200	1
Carbon disulfide	ND		ug/kg	620	16.	1
2-Butanone	ND		ug/kg	620	240	1
Vinyl acetate	ND		ug/kg	620	84.	1
4-Methyl-2-pentanone	ND		ug/kg	620	110	1
2-Hexanone	ND		ug/kg	620	78.	1
Ethyl methacrylate	ND		ug/kg	620	91.	1
Acrylonitrile	ND		ug/kg	250	74.	1
Bromochloromethane	ND		ug/kg	310	22.	1
Tetrahydrofuran	ND		ug/kg	1200	70.	1
2,2-Dichloropropane	ND		ug/kg	310	75.	1
1,2-Dibromoethane	ND		ug/kg	250	13.	1
1,3-Dichloropropane	ND		ug/kg	310	14.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	62	20.	1
Bromobenzene	ND		ug/kg	310	20.	1
n-Butylbenzene	ND		ug/kg	62	12.	1
sec-Butylbenzene	ND		ug/kg	62	13.	1
tert-Butylbenzene	ND		ug/kg	310	34.	1
o-Chlorotoluene	ND		ug/kg	310	19.	1
p-Chlorotoluene	ND		ug/kg	310	18.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	310	91.	1
Hexachlorobutadiene	ND		ug/kg	310	26.	1
Isopropylbenzene	ND		ug/kg	62	12.	1
p-Isopropyltoluene	ND		ug/kg	62	12.	1
Naphthalene	ND		ug/kg	310	51.	1
n-Propylbenzene	ND		ug/kg	62	14.	1
1,2,3-Trichlorobenzene	ND		ug/kg	310	57.	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	54.	1
1,3,5-Trimethylbenzene	ND		ug/kg	310	85.	1
1,2,4-Trimethylbenzene	ND		ug/kg	310	94.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-05	Date Collected:	11/29/11 10:40
Client ID:	SM-19-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	310	91.	1
Halothane	ND		ug/kg	2500	460	1
Ethyl ether	ND		ug/kg	310	22.	1
Methyl Acetate	ND		ug/kg	1200	1200	1
Ethyl Acetate	1600		ug/kg	1200	1200	1
Diisopropyl Ether	ND		ug/kg	250	59.	1
Cyclohexane	ND		ug/kg	1200	1200	1
Tert-Butyl Alcohol	ND		ug/kg	6200	77.	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	250	54.	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	250	62.	1
1,4-Dioxane	ND		ug/kg	6200	1100	1
Methyl cyclohexane	ND		ug/kg	250	250	1
Freon-113	ND		ug/kg	1200	58.	1
p-Diethylbenzene	ND		ug/kg	250	12.	1
p-Ethyltoluene	ND		ug/kg	250	6.0	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	250	11.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	103		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-06	Date Collected:	11/29/11 11:10
Client ID:	SM-20-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 11:36		
Analyst:	BN		
Percent Solids:	88%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	4.7	J	ug/kg	10	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.24	1
Chloroform	ND		ug/kg	1.5	0.34	1
Carbon tetrachloride	ND		ug/kg	1.0	0.29	1
1,2-Dichloropropane	ND		ug/kg	3.6	0.26	1
Dibromochloromethane	ND		ug/kg	1.0	0.33	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.42	1
2-Chloroethylvinyl ether	ND		ug/kg	21	0.32	1
Tetrachloroethene	4.9		ug/kg	1.0	0.30	1
Chlorobenzene	ND		ug/kg	1.0	0.25	1
Trichlorofluoromethane	ND		ug/kg	5.2	0.45	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.21	1
Bromodichloromethane	ND		ug/kg	1.0	0.40	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
1,1-Dichloropropene	ND		ug/kg	5.2	0.57	1
Bromoform	ND		ug/kg	4.1	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.30	1
Benzene	ND		ug/kg	1.0	0.20	1
Toluene	ND		ug/kg	1.5	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.39	1
Chloromethane	ND		ug/kg	5.2	0.81	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	2.1	0.57	1
Chloroethane	ND		ug/kg	2.1	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.31	1
Trichloroethene	ND		ug/kg	1.0	0.29	1
1,2-Dichlorobenzene	ND		ug/kg	5.2	0.38	1
1,3-Dichlorobenzene	ND		ug/kg	5.2	0.39	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-06 Date Collected: 11/29/11 11:10

Client ID: SM-20-6 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.2	0.32	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.68	1
p/m-Xylene	ND		ug/kg	2.1	0.47	1
o-Xylene	ND		ug/kg	2.1	0.59	1
cis-1,2-Dichloroethene	0.32	J	ug/kg	1.0	0.26	1
Dibromomethane	ND		ug/kg	10	0.45	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.43	1
Styrene	ND		ug/kg	2.1	0.63	1
Dichlorodifluoromethane	ND		ug/kg	10	1.8	1
Acetone	ND		ug/kg	37	3.3	1
Carbon disulfide	ND		ug/kg	10	0.26	1
2-Butanone	ND		ug/kg	10	4.0	1
Vinyl acetate	ND		ug/kg	10	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.8	1
2-Hexanone	ND		ug/kg	10	1.3	1
Ethyl methacrylate	ND		ug/kg	10	1.5	1
Acrylonitrile	ND		ug/kg	4.1	1.2	1
Bromochloromethane	ND		ug/kg	5.2	0.37	1
Tetrahydrofuran	ND		ug/kg	21	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.2	1.2	1
1,2-Dibromoethane	ND		ug/kg	4.1	0.22	1
1,3-Dichloropropane	ND		ug/kg	5.2	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.34	1
Bromobenzene	ND		ug/kg	5.2	0.34	1
n-Butylbenzene	ND		ug/kg	1.0	0.21	1
sec-Butylbenzene	ND		ug/kg	1.0	0.22	1
tert-Butylbenzene	ND		ug/kg	5.2	0.58	1
o-Chlorotoluene	ND		ug/kg	5.2	0.32	1
p-Chlorotoluene	ND		ug/kg	5.2	0.29	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	1.5	1
Hexachlorobutadiene	ND		ug/kg	5.2	0.44	1
Isopropylbenzene	ND		ug/kg	1.0	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.20	1
Naphthalene	ND		ug/kg	5.2	0.85	1
n-Propylbenzene	ND		ug/kg	1.0	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.2	0.95	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.2	0.90	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.2	1.4	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.2	1.6	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-06	Date Collected:	11/29/11 11:10
Client ID:	SM-20-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1
Halothane	ND		ug/kg	41	7.6	1
Ethyl ether	ND		ug/kg	5.2	0.37	1
Methyl Acetate	ND		ug/kg	21	21.	1
Ethyl Acetate	ND		ug/kg	21	21.	1
Diisopropyl Ether	ND		ug/kg	4.1	0.98	1
Cyclohexane	ND		ug/kg	21	21.	1
Tert-Butyl Alcohol	ND		ug/kg	100	1.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.1	0.90	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.1	1.0	1
1,4-Dioxane	ND		ug/kg	100	18.	1
Methyl cyclohexane	ND		ug/kg	4.1	4.1	1
Freon-113	ND		ug/kg	21	0.96	1
p-Diethylbenzene	ND		ug/kg	4.1	0.21	1
p-Ethyltoluene	ND		ug/kg	4.1	0.10	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.1	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	106		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-07	Date Collected:	11/29/11 11:15
Client ID:	SM-20-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 12:05		
Analyst:	BN		
Percent Solids:	90%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	6.2	J	ug/kg	11	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.26	1
Chloroform	ND		ug/kg	1.7	0.36	1
Carbon tetrachloride	ND		ug/kg	1.1	0.31	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.28	1
Dibromochloromethane	ND		ug/kg	1.1	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.46	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.35	1
Tetrachloroethene	1.2		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.27	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.48	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.22	1
Bromodichloromethane	ND		ug/kg	1.1	0.43	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.62	1
Bromoform	ND		ug/kg	4.4	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.32	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.7	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.42	1
Chloromethane	ND		ug/kg	5.6	0.87	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	2.2	0.62	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.33	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.40	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.42	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-07 Date Collected: 11/29/11 11:15

Client ID: SM-20-8 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.34	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.73	1
p/m-Xylene	ND		ug/kg	2.2	0.51	1
o-Xylene	ND		ug/kg	2.2	0.63	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.28	1
Dibromomethane	ND		ug/kg	11	0.48	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.46	1
Styrene	ND		ug/kg	2.2	0.68	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	15	J	ug/kg	40	3.6	1
Carbon disulfide	ND		ug/kg	11	0.28	1
2-Butanone	ND		ug/kg	11	4.3	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	2.0	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1
Bromochloromethane	ND		ug/kg	5.6	0.40	1
Tetrahydrofuran	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.6	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.24	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.6	0.37	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
tert-Butylbenzene	ND		ug/kg	5.6	0.62	1
o-Chlorotoluene	ND		ug/kg	5.6	0.35	1
p-Chlorotoluene	ND		ug/kg	5.6	0.32	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.47	1
Isopropylbenzene	ND		ug/kg	1.1	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.22	1
Naphthalene	ND		ug/kg	5.6	0.91	1
n-Propylbenzene	ND		ug/kg	1.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.96	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	1.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	1.7	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-07	Date Collected:	11/29/11 11:15
Client ID:	SM-20-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1
Halothane	ND		ug/kg	44	8.2	1
Ethyl ether	ND		ug/kg	5.6	0.40	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.4	1.1	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	0.97	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.4	4.4	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.4	0.22	1
p-Ethyltoluene	ND		ug/kg	4.4	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	106		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-08	Date Collected:	11/29/11 12:15
Client ID:	SM-21-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 12:32		
Analyst:	BN		
Percent Solids:	91%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	6.5	J	ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.26	1
Chloroform	ND		ug/kg	1.6	0.36	1
Carbon tetrachloride	ND		ug/kg	1.1	0.31	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.28	1
Dibromochloromethane	ND		ug/kg	1.1	0.35	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.45	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.34	1
Tetrachloroethene	4.6		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.27	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.48	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.22	1
Bromodichloromethane	ND		ug/kg	1.1	0.42	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
1,1-Dichloropropene	ND		ug/kg	5.5	0.61	1
Bromoform	ND		ug/kg	4.4	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.32	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.42	1
Chloromethane	ND		ug/kg	5.5	0.86	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	2.2	0.61	1
Chloroethane	ND		ug/kg	2.2	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.33	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	0.40	1
1,3-Dichlorobenzene	ND		ug/kg	5.5	0.41	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-08 Date Collected: 11/29/11 12:15

Client ID: SM-21-6 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.5	0.34	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.73	1
p/m-Xylene	ND		ug/kg	2.2	0.50	1
o-Xylene	ND		ug/kg	2.2	0.63	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.28	1
Dibromomethane	ND		ug/kg	11	0.48	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.46	1
Styrene	ND		ug/kg	2.2	0.67	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	ND		ug/kg	40	3.6	1
Carbon disulfide	ND		ug/kg	11	0.28	1
2-Butanone	ND		ug/kg	11	4.3	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.9	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1
Bromochloromethane	ND		ug/kg	5.5	0.39	1
Tetrahydrofuran	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.5	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.24	1
1,3-Dichloropropane	ND		ug/kg	5.5	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.5	0.36	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.23	1
tert-Butylbenzene	ND		ug/kg	5.5	0.62	1
o-Chlorotoluene	ND		ug/kg	5.5	0.34	1
p-Chlorotoluene	ND		ug/kg	5.5	0.31	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.46	1
Isopropylbenzene	ND		ug/kg	1.1	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.21	1
Naphthalene	ND		ug/kg	5.5	0.90	1
n-Propylbenzene	ND		ug/kg	1.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	0.96	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	1.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.5	1.7	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-08 Date Collected: 11/29/11 12:15

Client ID: SM-21-6 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	1.6	1
Halothane	ND		ug/kg	44	8.1	1
Ethyl ether	ND		ug/kg	5.5	0.39	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.4	1.0	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	0.96	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.4	4.4	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.4	0.22	1
p-Ethyltoluene	ND		ug/kg	4.4	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	107		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-09	Date Collected:	11/29/11 12:18
Client ID:	SM-21-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 15:22		
Analyst:	BN		
Percent Solids:	89%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	620	71.	1
1,1-Dichloroethane	ND		ug/kg	94	15.	1
Chloroform	ND		ug/kg	94	20.	1
Carbon tetrachloride	ND		ug/kg	62	17.	1
1,2-Dichloropropane	ND		ug/kg	220	16.	1
Dibromochloromethane	ND		ug/kg	62	20.	1
1,1,2-Trichloroethane	ND		ug/kg	94	26.	1
2-Chloroethylvinyl ether	ND		ug/kg	1200	20.	1
Tetrachloroethene	ND		ug/kg	62	18.	1
Chlorobenzene	ND		ug/kg	62	15.	1
Trichlorofluoromethane	ND		ug/kg	310	27.	1
1,2-Dichloroethane	ND		ug/kg	62	18.	1
1,1,1-Trichloroethane	ND		ug/kg	62	13.	1
Bromodichloromethane	ND		ug/kg	62	24.	1
trans-1,3-Dichloropropene	ND		ug/kg	62	21.	1
cis-1,3-Dichloropropene	ND		ug/kg	62	17.	1
1,1-Dichloropropene	ND		ug/kg	310	35.	1
Bromoform	ND		ug/kg	250	70.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	62	18.	1
Benzene	ND		ug/kg	62	12.	1
Toluene	ND		ug/kg	94	12.	1
Ethylbenzene	ND		ug/kg	62	24.	1
Chloromethane	ND		ug/kg	310	49.	1
Bromomethane	ND		ug/kg	120	36.	1
Vinyl chloride	ND		ug/kg	120	34.	1
Chloroethane	ND		ug/kg	120	27.	1
1,1-Dichloroethene	ND		ug/kg	62	21.	1
trans-1,2-Dichloroethene	ND		ug/kg	94	19.	1
Trichloroethene	ND		ug/kg	62	18.	1
1,2-Dichlorobenzene	ND		ug/kg	310	23.	1
1,3-Dichlorobenzene	ND		ug/kg	310	23.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-09 Date Collected: 11/29/11 12:18

Client ID: SM-21-8 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	310	19.	1
Methyl tert butyl ether	ND		ug/kg	120	41.	1
p/m-Xylene	ND		ug/kg	120	28.	1
o-Xylene	ND		ug/kg	120	36.	1
cis-1,2-Dichloroethene	ND		ug/kg	62	16.	1
Dibromomethane	ND		ug/kg	620	27.	1
1,2,3-Trichloropropane	ND		ug/kg	620	26.	1
Styrene	ND		ug/kg	120	38.	1
Dichlorodifluoromethane	ND		ug/kg	620	110	1
Acetone	ND		ug/kg	2200	200	1
Carbon disulfide	ND		ug/kg	620	16.	1
2-Butanone	ND		ug/kg	620	240	1
Vinyl acetate	ND		ug/kg	620	85.	1
4-Methyl-2-pentanone	ND		ug/kg	620	110	1
2-Hexanone	ND		ug/kg	620	78.	1
Ethyl methacrylate	ND		ug/kg	620	92.	1
Acrylonitrile	ND		ug/kg	250	75.	1
Bromochloromethane	ND		ug/kg	310	22.	1
Tetrahydrofuran	ND		ug/kg	1200	70.	1
2,2-Dichloropropane	ND		ug/kg	310	76.	1
1,2-Dibromoethane	ND		ug/kg	250	13.	1
1,3-Dichloropropane	ND		ug/kg	310	15.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	62	20.	1
Bromobenzene	ND		ug/kg	310	21.	1
n-Butylbenzene	ND		ug/kg	62	12.	1
sec-Butylbenzene	ND		ug/kg	62	13.	1
tert-Butylbenzene	ND		ug/kg	310	35.	1
o-Chlorotoluene	ND		ug/kg	310	20.	1
p-Chlorotoluene	ND		ug/kg	310	18.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	310	92.	1
Hexachlorobutadiene	ND		ug/kg	310	26.	1
Isopropylbenzene	ND		ug/kg	62	12.	1
p-Isopropyltoluene	ND		ug/kg	62	12.	1
Naphthalene	ND		ug/kg	310	51.	1
n-Propylbenzene	ND		ug/kg	62	14.	1
1,2,3-Trichlorobenzene	ND		ug/kg	310	58.	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	54.	1
1,3,5-Trimethylbenzene	ND		ug/kg	310	86.	1
1,2,4-Trimethylbenzene	ND		ug/kg	310	95.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-09 Date Collected: 11/29/11 12:18

Client ID: SM-21-8 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	310	92.	1
Halothane	ND		ug/kg	2500	460	1
Ethyl ether	ND		ug/kg	310	22.	1
Methyl Acetate	ND		ug/kg	1200	1200	1
Ethyl Acetate	1600		ug/kg	1200	1200	1
Diisopropyl Ether	ND		ug/kg	250	59.	1
Cyclohexane	ND		ug/kg	1200	1200	1
Tert-Butyl Alcohol	ND		ug/kg	6200	78.	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	250	55.	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	250	63.	1
1,4-Dioxane	ND		ug/kg	6200	1100	1
Methyl cyclohexane	ND		ug/kg	250	250	1
Freon-113	ND		ug/kg	1200	58.	1
p-Diethylbenzene	ND		ug/kg	250	12.	1
p-Ethyltoluene	ND		ug/kg	250	6.0	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	250	11.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-10	Date Collected:	11/29/11 12:20
Client ID:	SM-21-TEB	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260B		
Analytical Date:	12/05/11 13:27		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.54	1
1,1-Dichloroethane	ND		ug/l	0.75	0.22	1
Chloroform	1.5		ug/l	0.75	0.20	1
Carbon tetrachloride	ND		ug/l	0.50	0.16	1
1,2-Dichloropropane	ND		ug/l	1.8	0.30	1
Dibromochloromethane	ND		ug/l	0.50	0.19	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.26	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.40	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.19	1
Trichlorofluoromethane	ND		ug/l	2.5	0.27	1
1,2-Dichloroethane	ND		ug/l	0.50	0.16	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.26	1
Bromoform	ND		ug/l	2.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.19	1
Benzene	ND		ug/l	0.50	0.19	1
Toluene	ND		ug/l	0.75	0.23	1
Ethylbenzene	ND		ug/l	0.50	0.26	1
Chloromethane	0.42	J	ug/l	2.5	0.28	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	1.0	0.22	1
Chloroethane	ND		ug/l	1.0	0.23	1
1,1-Dichloroethene	ND		ug/l	0.50	0.18	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.21	1
Trichloroethene	ND		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-10 Date Collected: 11/29/11 12:20

Client ID: SM-21-TEB Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	2.5	0.22	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.35	1
o-Xylene	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	5.0	0.36	1
1,4-Dichlorobutane	ND		ug/l	5.0	0.47	1
1,2,3-Trichloropropane	ND		ug/l	5.0	0.43	1
Styrene	ND		ug/l	1.0	0.36	1
Dichlorodifluoromethane	ND		ug/l	5.0	0.30	1
Acetone	ND		ug/l	5.0	1.6	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	0.31	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.58	1
Ethyl methacrylate	ND		ug/l	5.0	0.61	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	2.5	0.33	1
Tetrahydrofuran	ND		ug/l	5.0	1.3	1
2,2-Dichloropropane	ND		ug/l	2.5	0.40	1
1,2-Dibromoethane	ND		ug/l	2.0	0.32	1
1,3-Dichloropropane	ND		ug/l	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	2.5	0.18	1
n-Butylbenzene	ND		ug/l	0.50	0.20	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	2.5	0.30	1
o-Chlorotoluene	ND		ug/l	2.5	0.18	1
p-Chlorotoluene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.23	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	2.5	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.21	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-10	Date Collected:	11/29/11 12:20
Client ID:	SM-21-TEB	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.27	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	2.5	0.20	1
Ethyl Acetate	ND		ug/l	10	0.72	1
Diisopropyl Ether	ND		ug/l	2.0	0.16	1
Cyclohexane	ND		ug/l	10	0.24	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	0.46	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.38	1
1,4-Dioxane	ND		ug/l	250	76.	1
Freon-113	ND		ug/l	10	0.23	1
Methyl cyclohexane	ND		ug/l	10	0.29	1
p-Diethylbenzene	ND		ug/l	2.0	0.11	1
p-Ethyltoluene	ND		ug/l	2.0	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.10	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	116		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	101		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-11	Date Collected:	11/29/11 13:45
Client ID:	SM-22-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 13:01		
Analyst:	BN		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	8.1	J	ug/kg	11	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.27	1
Chloroform	ND		ug/kg	1.7	0.37	1
Carbon tetrachloride	ND		ug/kg	1.1	0.32	1
1,2-Dichloropropane	ND		ug/kg	4.0	0.29	1
Dibromochloromethane	ND		ug/kg	1.1	0.37	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.47	1
2-Chloroethylvinyl ether	ND		ug/kg	23	0.36	1
Tetrachloroethene	1.4		ug/kg	1.1	0.33	1
Chlorobenzene	ND		ug/kg	1.1	0.28	1
Trichlorofluoromethane	ND		ug/kg	5.7	0.50	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.34	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.23	1
Bromodichloromethane	ND		ug/kg	1.1	0.44	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.39	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
1,1-Dichloropropene	ND		ug/kg	5.7	0.64	1
Bromoform	ND		ug/kg	4.6	1.3	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.33	1
Benzene	ND		ug/kg	1.1	0.22	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.44	1
Chloromethane	ND		ug/kg	5.7	0.90	1
Bromomethane	ND		ug/kg	2.3	0.67	1
Vinyl chloride	ND		ug/kg	2.3	0.64	1
Chloroethane	ND		ug/kg	2.3	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.38	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.34	1
Trichloroethene	ND		ug/kg	1.1	0.32	1
1,2-Dichlorobenzene	ND		ug/kg	5.7	0.42	1
1,3-Dichlorobenzene	ND		ug/kg	5.7	0.43	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-11 Date Collected: 11/29/11 13:45

Client ID: SM-22-6 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.7	0.35	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.76	1
p/m-Xylene	ND		ug/kg	2.3	0.52	1
o-Xylene	ND		ug/kg	2.3	0.65	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.29	1
Dibromomethane	ND		ug/kg	11	0.50	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.48	1
Styrene	ND		ug/kg	2.3	0.70	1
Dichlorodifluoromethane	ND		ug/kg	11	2.0	1
Acetone	29	J	ug/kg	41	3.7	1
Carbon disulfide	ND		ug/kg	11	0.30	1
2-Butanone	ND		ug/kg	11	4.4	1
Vinyl acetate	ND		ug/kg	11	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	11	2.0	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.7	1
Acrylonitrile	ND		ug/kg	4.6	1.4	1
Bromochloromethane	ND		ug/kg	5.7	0.41	1
Tetrahydrofuran	ND		ug/kg	23	1.3	1
2,2-Dichloropropane	ND		ug/kg	5.7	1.4	1
1,2-Dibromoethane	ND		ug/kg	4.6	0.25	1
1,3-Dichloropropane	ND		ug/kg	5.7	0.27	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.38	1
Bromobenzene	ND		ug/kg	5.7	0.38	1
n-Butylbenzene	ND		ug/kg	1.1	0.23	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
tert-Butylbenzene	ND		ug/kg	5.7	0.64	1
o-Chlorotoluene	ND		ug/kg	5.7	0.36	1
p-Chlorotoluene	ND		ug/kg	5.7	0.33	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.7	1.7	1
Hexachlorobutadiene	ND		ug/kg	5.7	0.48	1
Isopropylbenzene	ND		ug/kg	1.1	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.22	1
Naphthalene	ND		ug/kg	5.7	0.94	1
n-Propylbenzene	ND		ug/kg	1.1	0.27	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.7	1.1	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.7	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.7	1.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.7	1.8	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-11	Date Collected:	11/29/11 13:45
Client ID:	SM-22-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	1.7	1
Halothane	ND		ug/kg	46	8.5	1
Ethyl ether	ND		ug/kg	5.7	0.41	1
Methyl Acetate	ND		ug/kg	23	23.	1
Ethyl Acetate	ND		ug/kg	23	23.	1
Diisopropyl Ether	ND		ug/kg	4.6	1.1	1
Cyclohexane	ND		ug/kg	23	23.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.6	1.0	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.6	1.2	1
1,4-Dioxane	ND		ug/kg	110	20.	1
Methyl cyclohexane	ND		ug/kg	4.6	4.6	1
Freon-113	ND		ug/kg	23	1.1	1
p-Diethylbenzene	ND		ug/kg	4.6	0.23	1
p-Ethyltoluene	ND		ug/kg	4.6	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.6	0.21	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	108		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-12	Date Collected:	11/29/11 13:50
Client ID:	SM-22-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 13:29		
Analyst:	BN		
Percent Solids:	88%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	7.5	J	ug/kg	11	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.26	1
Chloroform	ND		ug/kg	1.7	0.36	1
Carbon tetrachloride	ND		ug/kg	1.1	0.31	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.28	1
Dibromochloromethane	ND		ug/kg	1.1	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.46	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.35	1
Tetrachloroethene	1.7		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.27	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.48	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.33	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.23	1
Bromodichloromethane	ND		ug/kg	1.1	0.43	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.38	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.62	1
Bromoform	ND		ug/kg	4.4	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.32	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.7	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.42	1
Chloromethane	ND		ug/kg	5.6	0.87	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	2.2	0.62	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.33	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.40	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.42	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-12 Date Collected: 11/29/11 13:50

Client ID: SM-22-8 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.34	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.74	1
p/m-Xylene	ND		ug/kg	2.2	0.51	1
o-Xylene	ND		ug/kg	2.2	0.63	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.28	1
Dibromomethane	ND		ug/kg	11	0.48	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.47	1
Styrene	ND		ug/kg	2.2	0.68	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	ND		ug/kg	40	3.6	1
Carbon disulfide	ND		ug/kg	11	0.29	1
2-Butanone	ND		ug/kg	11	4.3	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	2.0	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1
Bromochloromethane	ND		ug/kg	5.6	0.40	1
Tetrahydrofuran	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.6	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.24	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.6	0.37	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
tert-Butylbenzene	ND		ug/kg	5.6	0.62	1
o-Chlorotoluene	ND		ug/kg	5.6	0.35	1
p-Chlorotoluene	ND		ug/kg	5.6	0.32	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.47	1
Isopropylbenzene	ND		ug/kg	1.1	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.22	1
Naphthalene	ND		ug/kg	5.6	0.92	1
n-Propylbenzene	ND		ug/kg	1.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.97	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	1.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	1.7	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-12	Date Collected:	11/29/11 13:50
Client ID:	SM-22-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1
Halothane	ND		ug/kg	44	8.2	1
Ethyl ether	ND		ug/kg	5.6	0.40	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.4	1.1	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	0.98	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.4	4.4	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.4	0.22	1
p-Ethyltoluene	ND		ug/kg	4.4	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	107		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-13	Date Collected:	11/29/11 14:15
Client ID:	SM-23-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 13:58		
Analyst:	BN		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	6.6	J	ug/kg	11	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.26	1
Chloroform	ND		ug/kg	1.7	0.36	1
Carbon tetrachloride	ND		ug/kg	1.1	0.31	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.28	1
Dibromochloromethane	ND		ug/kg	1.1	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.46	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.35	1
Tetrachloroethene	2.0		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.28	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.49	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.33	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.23	1
Bromodichloromethane	ND		ug/kg	1.1	0.43	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.38	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.62	1
Bromoform	ND		ug/kg	4.5	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.32	1
Benzene	ND		ug/kg	1.1	0.22	1
Toluene	ND		ug/kg	1.7	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.42	1
Chloromethane	ND		ug/kg	5.6	0.88	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	2.2	0.62	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.34	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.41	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.42	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-13 Date Collected: 11/29/11 14:15

Client ID: SM-23-6 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.34	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.74	1
p/m-Xylene	ND		ug/kg	2.2	0.51	1
o-Xylene	ND		ug/kg	2.2	0.64	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.29	1
Dibromomethane	ND		ug/kg	11	0.49	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.47	1
Styrene	ND		ug/kg	2.2	0.69	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	ND		ug/kg	40	3.6	1
Carbon disulfide	ND		ug/kg	11	0.29	1
2-Butanone	ND		ug/kg	11	4.3	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	2.0	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrylonitrile	ND		ug/kg	4.5	1.3	1
Bromochloromethane	ND		ug/kg	5.6	0.40	1
Tetrahydrofuran	ND		ug/kg	22	1.3	1
2,2-Dichloropropane	ND		ug/kg	5.6	1.4	1
1,2-Dibromoethane	ND		ug/kg	4.5	0.24	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.37	1
Bromobenzene	ND		ug/kg	5.6	0.37	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
tert-Butylbenzene	ND		ug/kg	5.6	0.63	1
o-Chlorotoluene	ND		ug/kg	5.6	0.35	1
p-Chlorotoluene	ND		ug/kg	5.6	0.32	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.47	1
Isopropylbenzene	ND		ug/kg	1.1	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.22	1
Naphthalene	ND		ug/kg	5.6	0.92	1
n-Propylbenzene	ND		ug/kg	1.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.97	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	1.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	1.7	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-13	Date Collected:	11/29/11 14:15
Client ID:	SM-23-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1
Halothane	ND		ug/kg	45	8.3	1
Ethyl ether	ND		ug/kg	5.6	0.40	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.5	1.1	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.5	0.98	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.5	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.5	4.5	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.5	0.22	1
p-Ethyltoluene	ND		ug/kg	4.5	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.5	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	108		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-14	Date Collected:	11/29/11 14:20
Client ID:	SM-23-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	12/04/11 14:26		
Analyst:	BN		
Percent Solids:	82%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	7.0	J	ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.28	1
Chloroform	ND		ug/kg	1.8	0.38	1
Carbon tetrachloride	ND		ug/kg	1.2	0.33	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.29	1
Dibromochloromethane	ND		ug/kg	1.2	0.38	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.48	1
2-Chloroethylvinyl ether	ND		ug/kg	23	0.37	1
Tetrachloroethene	1.3		ug/kg	1.2	0.34	1
Chlorobenzene	ND		ug/kg	1.2	0.29	1
Trichlorofluoromethane	ND		ug/kg	5.9	0.51	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.34	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.24	1
Bromodichloromethane	ND		ug/kg	1.2	0.45	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.39	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.31	1
1,1-Dichloropropene	ND		ug/kg	5.9	0.65	1
Bromoform	ND		ug/kg	4.7	1.3	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.34	1
Benzene	ND		ug/kg	1.2	0.22	1
Toluene	ND		ug/kg	1.8	0.22	1
Ethylbenzene	ND		ug/kg	1.2	0.44	1
Chloromethane	ND		ug/kg	5.9	0.92	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	2.3	0.65	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.39	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.35	1
Trichloroethene	ND		ug/kg	1.2	0.33	1
1,2-Dichlorobenzene	ND		ug/kg	5.9	0.43	1
1,3-Dichlorobenzene	ND		ug/kg	5.9	0.44	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-14 Date Collected: 11/29/11 14:20

Client ID: SM-23-8 Date Received: 11/29/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.9	0.36	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.78	1
p/m-Xylene	ND		ug/kg	2.3	0.54	1
o-Xylene	ND		ug/kg	2.3	0.67	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.30	1
Dibromomethane	ND		ug/kg	12	0.51	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.49	1
Styrene	ND		ug/kg	2.3	0.72	1
Dichlorodifluoromethane	ND		ug/kg	12	2.0	1
Acetone	ND		ug/kg	42	3.8	1
Carbon disulfide	ND		ug/kg	12	0.30	1
2-Butanone	ND		ug/kg	12	4.5	1
Vinyl acetate	ND		ug/kg	12	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	2.1	1
2-Hexanone	ND		ug/kg	12	1.5	1
Ethyl methacrylate	ND		ug/kg	12	1.7	1
Acrylonitrile	ND		ug/kg	4.7	1.4	1
Bromochloromethane	ND		ug/kg	5.9	0.42	1
Tetrahydrofuran	ND		ug/kg	23	1.3	1
2,2-Dichloropropane	ND		ug/kg	5.9	1.4	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.25	1
1,3-Dichloropropane	ND		ug/kg	5.9	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	5.9	0.39	1
n-Butylbenzene	ND		ug/kg	1.2	0.23	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	5.9	0.66	1
o-Chlorotoluene	ND		ug/kg	5.9	0.37	1
p-Chlorotoluene	ND		ug/kg	5.9	0.33	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.9	1.7	1
Hexachlorobutadiene	ND		ug/kg	5.9	0.50	1
Isopropylbenzene	ND		ug/kg	1.2	0.23	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.23	1
Naphthalene	ND		ug/kg	5.9	0.96	1
n-Propylbenzene	ND		ug/kg	1.2	0.27	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.9	1.1	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.9	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.9	1.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.9	1.8	1

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-14	Date Collected:	11/29/11 14:20
Client ID:	SM-23-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	1.7	1
Halothane	ND		ug/kg	47	8.7	1
Ethyl ether	ND		ug/kg	5.9	0.42	1
Methyl Acetate	ND		ug/kg	23	23.	1
Ethyl Acetate	ND		ug/kg	23	23.	1
Diisopropyl Ether	ND		ug/kg	4.7	1.1	1
Cyclohexane	ND		ug/kg	23	23.	1
Tert-Butyl Alcohol	ND		ug/kg	120	1.5	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.7	1.0	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.7	1.2	1
1,4-Dioxane	ND		ug/kg	120	20.	1
Methyl cyclohexane	ND		ug/kg	4.7	4.7	1
Freon-113	ND		ug/kg	23	1.1	1
p-Diethylbenzene	ND		ug/kg	4.7	0.23	1
p-Ethyltoluene	ND		ug/kg	4.7	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.7	0.21	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	108		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 02-04,06-08,11-14 Batch: WG505773-3					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.24
Chloroform	ND		ug/kg	1.5	0.32
Carbon tetrachloride	ND		ug/kg	1.0	0.28
1,2-Dichloropropane	ND		ug/kg	3.5	0.25
Dibromochloromethane	ND		ug/kg	1.0	0.32
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.41
2-Chloroethylvinyl ether	ND		ug/kg	20	0.31
Tetrachloroethene	ND		ug/kg	1.0	0.29
Chlorobenzene	ND		ug/kg	1.0	0.25
Trichlorofluoromethane	ND		ug/kg	5.0	0.44
1,2-Dichloroethane	ND		ug/kg	1.0	0.29
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.20
Bromodichloromethane	ND		ug/kg	1.0	0.38
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.34
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
1,1-Dichloropropene	ND		ug/kg	5.0	0.56
Bromoform	ND		ug/kg	4.0	1.1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.29
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.38
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	2.0	0.55
Chloroethane	ND		ug/kg	2.0	0.44
1,1-Dichloroethene	ND		ug/kg	1.0	0.33
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.30
Trichloroethene	ND		ug/kg	1.0	0.28
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.36

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 02-04,06-08,11-14 Batch: WG505773-3					
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.38
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.30
Methyl tert butyl ether	ND		ug/kg	2.0	0.66
p/m-Xylene	ND		ug/kg	2.0	0.46
o-Xylene	ND		ug/kg	2.0	0.57
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.26
Dibromomethane	ND		ug/kg	10	0.43
1,2,3-Trichloropropane	ND		ug/kg	10	0.42
Styrene	ND		ug/kg	2.0	0.61
Dichlorodifluoromethane	ND		ug/kg	10	1.7
Acetone	ND		ug/kg	36	3.2
Carbon disulfide	ND		ug/kg	10	0.26
2-Butanone	ND		ug/kg	10	3.9
Vinyl acetate	ND		ug/kg	10	1.4
4-Methyl-2-pentanone	ND		ug/kg	10	1.8
2-Hexanone	ND		ug/kg	10	1.2
Ethyl methacrylate	ND		ug/kg	10	1.5
Acrylonitrile	ND		ug/kg	4.0	1.2
Bromochloromethane	ND		ug/kg	5.0	0.36
Tetrahydrofuran	ND		ug/kg	20	1.1
2,2-Dichloropropane	ND		ug/kg	5.0	1.2
1,2-Dibromoethane	ND		ug/kg	4.0	0.21
1,3-Dichloropropane	ND		ug/kg	5.0	0.23
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.33
Bromobenzene	ND		ug/kg	5.0	0.33
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.21
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.31
p-Chlorotoluene	ND		ug/kg	5.0	0.28

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 02-04,06-08,11-14 Batch: WG505773-3					
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	1.5
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.19
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.82
n-Propylbenzene	ND		ug/kg	1.0	0.23
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.92
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.87
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	1.4
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	1.5
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.5
Halothane	ND		ug/kg	40	7.4
Ethyl ether	ND		ug/kg	5.0	0.36
Methyl Acetate	ND		ug/kg	20	20.
Ethyl Acetate	ND		ug/kg	20	20.
Diisopropyl Ether	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	20	20.
Tert-Butyl Alcohol	ND		ug/kg	100	1.2
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.88
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	1.0
1,4-Dioxane	ND		ug/kg	100	17.
Methyl cyclohexane	ND		ug/kg	4.0	4.0
Freon-113	ND		ug/kg	20	0.93
p-Diethylbenzene	ND		ug/kg	4.0	0.20
p-Ethyltoluene	ND		ug/kg	4.0	0.10
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.18

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 02-04,06-08,11-14 Batch: WG505773-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	105		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05,09 Batch: WG506013-3					
Methylene chloride	ND		ug/kg	500	57.
1,1-Dichloroethane	ND		ug/kg	75	12.
Chloroform	ND		ug/kg	75	16.
Carbon tetrachloride	ND		ug/kg	50	14.
1,2-Dichloropropane	ND		ug/kg	180	12.
Dibromochloromethane	ND		ug/kg	50	16.
1,1,2-Trichloroethane	ND		ug/kg	75	20.
2-Chloroethylvinyl ether	ND		ug/kg	1000	16.
Tetrachloroethene	ND		ug/kg	50	14.
Chlorobenzene	ND		ug/kg	50	12.
Trichlorofluoromethane	ND		ug/kg	250	22.
1,2-Dichloroethane	ND		ug/kg	50	15.
1,1,1-Trichloroethane	ND		ug/kg	50	10.
Bromodichloromethane	ND		ug/kg	50	19.
trans-1,3-Dichloropropene	ND		ug/kg	50	17.
cis-1,3-Dichloropropene	ND		ug/kg	50	13.
1,1-Dichloropropene	ND		ug/kg	250	28.
Bromoform	ND		ug/kg	200	56.
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	14.
Benzene	ND		ug/kg	50	9.6
Toluene	ND		ug/kg	75	9.5
Ethylbenzene	ND		ug/kg	50	19.
Chloromethane	ND		ug/kg	250	39.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	100	28.
Chloroethane	ND		ug/kg	100	22.
1,1-Dichloroethene	ND		ug/kg	50	16.
trans-1,2-Dichloroethene	ND		ug/kg	75	15.
Trichloroethene	ND		ug/kg	50	14.
1,2-Dichlorobenzene	ND		ug/kg	250	18.
1,3-Dichlorobenzene	ND		ug/kg	250	19.

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05,09 Batch: WG506013-3					
1,4-Dichlorobenzene	ND		ug/kg	250	15.
Methyl tert butyl ether	ND		ug/kg	100	33.
p/m-Xylene	ND		ug/kg	100	23.
o-Xylene	ND		ug/kg	100	28.
cis-1,2-Dichloroethene	ND		ug/kg	50	13.
Dibromomethane	ND		ug/kg	500	22.
1,2,3-Trichloropropane	ND		ug/kg	500	21.
Styrene	ND		ug/kg	100	31.
Dichlorodifluoromethane	ND		ug/kg	500	87.
Acetone	ND		ug/kg	1800	160
Carbon disulfide	ND		ug/kg	500	13.
2-Butanone	ND		ug/kg	500	190
Vinyl acetate	ND		ug/kg	500	68.
4-Methyl-2-pentanone	ND		ug/kg	500	88.
2-Hexanone	ND		ug/kg	500	63.
Ethyl methacrylate	ND		ug/kg	500	74.
Acrylonitrile	ND		ug/kg	200	60.
Bromochloromethane	ND		ug/kg	250	18.
Tetrahydrofuran	ND		ug/kg	1000	56.
2,2-Dichloropropane	ND		ug/kg	250	60.
1,2-Dibromoethane	ND		ug/kg	200	11.
1,3-Dichloropropane	ND		ug/kg	250	12.
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	16.
Bromobenzene	ND		ug/kg	250	16.
n-Butylbenzene	ND		ug/kg	50	10.
sec-Butylbenzene	ND		ug/kg	50	11.
tert-Butylbenzene	ND		ug/kg	250	28.
o-Chlorotoluene	ND		ug/kg	250	16.
p-Chlorotoluene	ND		ug/kg	250	14.
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	74.
Hexachlorobutadiene	ND		ug/kg	250	21.

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05,09 Batch: WG506013-3					
Isopropylbenzene	ND		ug/kg	50	9.6
p-Isopropyltoluene	ND		ug/kg	50	9.7
Naphthalene	ND		ug/kg	250	41.
n-Propylbenzene	ND		ug/kg	50	12.
1,2,3-Trichlorobenzene	ND		ug/kg	250	46.
1,2,4-Trichlorobenzene	ND		ug/kg	250	43.
1,3,5-Trimethylbenzene	ND		ug/kg	250	69.
1,2,4-Trimethylbenzene	ND		ug/kg	250	76.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	74.
Halothane	ND		ug/kg	2000	370
Ethyl ether	ND		ug/kg	250	18.
Methyl Acetate	ND		ug/kg	1000	1000
Ethyl Acetate	ND		ug/kg	1000	1000
Diisopropyl Ether	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	1000	1000
Tert-Butyl Alcohol	ND		ug/kg	5000	62.
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	44.
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	50.
1,4-Dioxane	ND		ug/kg	5000	870
Methyl cyclohexane	ND		ug/kg	200	200
Freon-113	ND		ug/kg	1000	47.
p-Diethylbenzene	ND		ug/kg	200	10.
p-Ethyltoluene	ND		ug/kg	200	4.8
1,2,4,5-Tetramethylbenzene	ND		ug/kg	200	9.0

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/04/11 09:46
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05,09 Batch: WG506013-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	105		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/05/11 11:20
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,10 Batch: WG506129-3					
Methylene chloride	ND		ug/l	3.0	0.54
1,1-Dichloroethane	ND		ug/l	0.75	0.22
Chloroform	ND		ug/l	0.75	0.20
Carbon tetrachloride	ND		ug/l	0.50	0.16
1,2-Dichloropropane	ND		ug/l	1.8	0.30
Dibromochloromethane	ND		ug/l	0.50	0.19
1,1,2-Trichloroethane	ND		ug/l	0.75	0.26
2-Chloroethylvinyl ether	ND		ug/l	10	0.40
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.19
Trichlorofluoromethane	ND		ug/l	2.5	0.27
1,2-Dichloroethane	ND		ug/l	0.50	0.16
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.26
Bromoform	ND		ug/l	2.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.19
Benzene	ND		ug/l	0.50	0.19
Toluene	ND		ug/l	0.75	0.23
Ethylbenzene	ND		ug/l	0.50	0.26
Chloromethane	0.44	J	ug/l	2.5	0.28
Bromomethane	ND		ug/l	1.0	0.26
Vinyl chloride	ND		ug/l	1.0	0.22
Chloroethane	ND		ug/l	1.0	0.23
1,1-Dichloroethene	ND		ug/l	0.50	0.18
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.21
Trichloroethene	ND		ug/l	0.50	0.17
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/05/11 11:20
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,10 Batch: WG506129-3					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.22
Methyl tert butyl ether	ND		ug/l	1.0	0.16
p/m-Xylene	ND		ug/l	1.0	0.35
o-Xylene	ND		ug/l	1.0	0.33
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Dibromomethane	ND		ug/l	5.0	0.36
1,4-Dichlorobutane	ND		ug/l	5.0	0.47
1,2,3-Trichloropropane	ND		ug/l	5.0	0.43
Styrene	ND		ug/l	1.0	0.36
Dichlorodifluoromethane	ND		ug/l	5.0	0.30
Acetone	ND		ug/l	5.0	1.6
Carbon disulfide	ND		ug/l	5.0	0.30
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	0.31
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
2-Hexanone	ND		ug/l	5.0	0.58
Ethyl methacrylate	ND		ug/l	5.0	0.61
Acrylonitrile	ND		ug/l	5.0	0.43
Bromochloromethane	ND		ug/l	2.5	0.33
Tetrahydrofuran	ND		ug/l	5.0	1.3
2,2-Dichloropropane	ND		ug/l	2.5	0.40
1,2-Dibromoethane	ND		ug/l	2.0	0.32
1,3-Dichloropropane	ND		ug/l	2.5	0.21
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16
Bromobenzene	ND		ug/l	2.5	0.18
n-Butylbenzene	ND		ug/l	0.50	0.20
sec-Butylbenzene	ND		ug/l	0.50	0.18
tert-Butylbenzene	ND		ug/l	2.5	0.30
o-Chlorotoluene	ND		ug/l	2.5	0.18
p-Chlorotoluene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/05/11 11:20
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,10 Batch: WG506129-3					
Hexachlorobutadiene	ND		ug/l	0.50	0.23
Isopropylbenzene	ND		ug/l	0.50	0.19
p-Isopropyltoluene	ND		ug/l	0.50	0.19
Naphthalene	ND		ug/l	2.5	0.22
n-Propylbenzene	ND		ug/l	0.50	0.17
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.21
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.27
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17
Ethyl ether	ND		ug/l	2.5	0.20
Ethyl Acetate	ND		ug/l	10	0.72
Diisopropyl Ether	ND		ug/l	2.0	0.16
Cyclohexane	ND		ug/l	10	0.24
Tert-Butyl Alcohol	ND		ug/l	10	0.90
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	0.46
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.38
1,4-Dioxane	ND		ug/l	250	76.
Freon-113	ND		ug/l	10	0.23
Methyl cyclohexane	ND		ug/l	10	0.29
p-Diethylbenzene	ND		ug/l	2.0	0.11
p-Ethyltoluene	ND		ug/l	2.0	0.42
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.10

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 12/05/11 11:20
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,10 Batch: WG506129-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	115		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 02-04,06-08,11-14 Batch: WG505773-1 WG505773-2								
Chlorobenzene	101		99		75-125	2		30
Benzene	110		108		75-125	2		30
Toluene	97		95		75-125	2		30
1,1-Dichloroethene	103		100		65-135	3		30
Trichloroethene	108		108		75-125	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		106		70-130
Toluene-d8	96		95		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	107		106		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 05,09 Batch: WG506013-1 WG506013-2								
Chlorobenzene	101		99		75-125	2		30
Benzene	110		108		75-125	2		30
Toluene	97		95		75-125	2		30
1,1-Dichloroethene	103		100		65-135	3		30
Trichloroethene	108		108		75-125	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		106		70-130
Toluene-d8	96		95		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	107		106		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,10 Batch: WG506129-1 WG506129-2								
Chlorobenzene	94		94		75-130	0		25
Benzene	84		83		76-127	1		25
Toluene	94		94		76-125	0		25
1,1-Dichloroethene	81		80		61-145	1		25
Trichloroethene	83		82		71-120	1		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		101		70-130
Toluene-d8	115		115		70-130
4-Bromofluorobenzene	105		106		70-130
Dibromofluoromethane	101		100		70-130

PCBS

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-02	Date Collected:	11/29/11 09:30
Client ID:	SM-18-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 19:10	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	86%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.6	7.23	1
Aroclor 1221	ND		ug/kg	36.6	11.0	1
Aroclor 1232	ND		ug/kg	36.6	7.78	1
Aroclor 1242	ND		ug/kg	36.6	6.95	1
Aroclor 1248	ND		ug/kg	36.6	4.43	1
Aroclor 1254	ND		ug/kg	36.6	5.77	1
Aroclor 1260	13.9	J	ug/kg	36.6	6.35	1
Aroclor 1262	ND		ug/kg	36.6	2.71	1
Aroclor 1268	ND		ug/kg	36.6	5.31	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	73		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-03	Date Collected:	11/29/11 09:38
Client ID:	SM-18-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 19:23	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	89%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.5	7.00	1
Aroclor 1221	ND		ug/kg	35.5	10.7	1
Aroclor 1232	ND		ug/kg	35.5	7.53	1
Aroclor 1242	ND		ug/kg	35.5	6.73	1
Aroclor 1248	ND		ug/kg	35.5	4.29	1
Aroclor 1254	ND		ug/kg	35.5	5.59	1
Aroclor 1260	ND		ug/kg	35.5	6.16	1
Aroclor 1262	ND		ug/kg	35.5	2.62	1
Aroclor 1268	ND		ug/kg	35.5	5.14	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	62		30-150
Decachlorobiphenyl	62		30-150
2,4,5,6-Tetrachloro-m-xylene	64		30-150
Decachlorobiphenyl	61		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-04	D	Date Collected:	11/29/11 10:35
Client ID:	SM-19-6		Date Received:	11/29/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082		Extraction Date:	11/30/11 20:59
Analytical Date:	12/06/11 11:35		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	12/01/11
Percent Solids:	87%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	375	74.1	10
Aroclor 1221	ND		ug/kg	375	113.	10
Aroclor 1232	ND		ug/kg	375	79.7	10
Aroclor 1242	ND		ug/kg	375	71.2	10
Aroclor 1248	ND		ug/kg	375	45.4	10
Aroclor 1260	ND		ug/kg	375	65.2	10
Aroclor 1262	ND		ug/kg	375	27.8	10
Aroclor 1268	ND		ug/kg	375	54.4	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-04	D	Date Collected:	11/29/11 10:35
Client ID:	SM-19-6		Date Received:	11/29/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082		Extraction Date:	11/30/11 20:59
Analytical Date:	12/06/11 11:35		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	12/01/11
Percent Solids:	87%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	2800		ug/kg	375	59.2	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-05	D	Date Collected:	11/29/11 10:40
Client ID:	SM-19-8		Date Received:	11/29/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082		Extraction Date:	11/30/11 20:59
Analytical Date:	12/06/11 11:49		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	12/01/11
Percent Solids:	87%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	361	71.3	10
Aroclor 1221	ND		ug/kg	361	109.	10
Aroclor 1232	ND		ug/kg	361	76.7	10
Aroclor 1242	ND		ug/kg	361	68.5	10
Aroclor 1248	ND		ug/kg	361	43.7	10
Aroclor 1260	ND		ug/kg	361	62.6	10
Aroclor 1262	ND		ug/kg	361	26.7	10
Aroclor 1268	ND		ug/kg	361	52.4	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-05	D	Date Collected:	11/29/11 10:40
Client ID:	SM-19-8		Date Received:	11/29/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082		Extraction Date:	11/30/11 20:59
Analytical Date:	12/06/11 11:49		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	12/01/11
Percent Solids:	87%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	2640		ug/kg	361	56.9	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-06	D	Date Collected:	11/29/11 11:10
Client ID:	SM-20-6		Date Received:	11/29/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082		Extraction Date:	11/30/11 20:59
Analytical Date:	12/06/11 12:02		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	12/01/11
Percent Solids:	88%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	362	71.6	10
Aroclor 1221	ND		ug/kg	362	109.	10
Aroclor 1232	ND		ug/kg	362	77.0	10
Aroclor 1242	ND		ug/kg	362	68.8	10
Aroclor 1248	ND		ug/kg	362	43.9	10
Aroclor 1260	ND		ug/kg	362	62.9	10
Aroclor 1262	ND		ug/kg	362	26.8	10
Aroclor 1268	ND		ug/kg	362	52.6	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-06	D	Date Collected:	11/29/11 11:10
Client ID:	SM-20-6		Date Received:	11/29/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082		Extraction Date:	11/30/11 20:59
Analytical Date:	12/06/11 12:02		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	12/01/11
Percent Solids:	88%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	928		ug/kg	362	57.2	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-07	Date Collected:	11/29/11 11:15
Client ID:	SM-20-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 20:16	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.3	7.16	1
Aroclor 1221	ND		ug/kg	36.3	10.9	1
Aroclor 1232	ND		ug/kg	36.3	7.70	1
Aroclor 1242	ND		ug/kg	36.3	6.88	1
Aroclor 1248	ND		ug/kg	36.3	4.39	1
Aroclor 1260	ND		ug/kg	36.3	6.29	1
Aroclor 1262	ND		ug/kg	36.3	2.68	1
Aroclor 1268	ND		ug/kg	36.3	5.26	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	59		30-150
2,4,5,6-Tetrachloro-m-xylene	60		30-150
Decachlorobiphenyl	68		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1119827

Project Number: 117-3008070 **Report Date:** 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-07	Date Collected:	11/29/11 11:15
Client ID:	SM-20-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 20:16	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	71.2		ug/kg	36.3	5.72	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	59		30-150
2,4,5,6-Tetrachloro-m-xylene	60		30-150
Decachlorobiphenyl	68		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-08	Date Collected:	11/29/11 12:15
Client ID:	SM-21-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 20:29	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	91%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	34.4	6.80	1
Aroclor 1221	ND		ug/kg	34.4	10.4	1
Aroclor 1232	ND		ug/kg	34.4	7.31	1
Aroclor 1242	ND		ug/kg	34.4	6.53	1
Aroclor 1248	ND		ug/kg	34.4	4.16	1
Aroclor 1254	28.4	J	ug/kg	34.4	5.42	1
Aroclor 1260	12.7	J	ug/kg	34.4	5.97	1
Aroclor 1262	ND		ug/kg	34.4	2.54	1
Aroclor 1268	ND		ug/kg	34.4	4.99	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	55		30-150
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	58		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070
Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-09	D	Date Collected:	11/29/11 12:18
Client ID:	SM-21-8		Date Received:	11/29/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082		Extraction Date:	11/30/11 20:59
Analytical Date:	12/06/11 12:15		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	12/01/11
Percent Solids:	89%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	1850	365.	50
Aroclor 1221	ND		ug/kg	1850	557.	50
Aroclor 1232	ND		ug/kg	1850	392.	50
Aroclor 1242	ND		ug/kg	1850	351.	50
Aroclor 1248	ND		ug/kg	1850	224.	50
Aroclor 1254	15900		ug/kg	1850	291.	50
Aroclor 1260	ND		ug/kg	1850	321.	50
Aroclor 1262	ND		ug/kg	1850	137.	50
Aroclor 1268	ND		ug/kg	1850	268.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-11	Date Collected:	11/29/11 13:45
Client ID:	SM-22-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 20:55	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	87%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.1	7.52	1
Aroclor 1221	ND		ug/kg	38.1	11.5	1
Aroclor 1232	ND		ug/kg	38.1	8.08	1
Aroclor 1242	ND		ug/kg	38.1	7.22	1
Aroclor 1248	ND		ug/kg	38.1	4.60	1
Aroclor 1254	435		ug/kg	38.1	6.00	1
Aroclor 1260	ND		ug/kg	38.1	6.60	1
Aroclor 1262	ND		ug/kg	38.1	2.81	1
Aroclor 1268	ND		ug/kg	38.1	5.52	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	60		30-150
Decachlorobiphenyl	61		30-150
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	90		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-12	Date Collected:	11/29/11 13:50
Client ID:	SM-22-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 21:08	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	88%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.9	7.08	1
Aroclor 1221	ND		ug/kg	35.9	10.8	1
Aroclor 1232	ND		ug/kg	35.9	7.62	1
Aroclor 1242	ND		ug/kg	35.9	6.81	1
Aroclor 1248	ND		ug/kg	35.9	4.34	1
Aroclor 1254	ND		ug/kg	35.9	5.65	1
Aroclor 1260	ND		ug/kg	35.9	6.22	1
Aroclor 1262	ND		ug/kg	35.9	2.65	1
Aroclor 1268	ND		ug/kg	35.9	5.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	55		30-150
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	69		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-13	Date Collected:	11/29/11 14:15
Client ID:	SM-23-6	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 20:59
Analytical Date:	12/01/11 21:21	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	86%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	37.2	7.35	1
Aroclor 1221	ND		ug/kg	37.2	11.2	1
Aroclor 1232	ND		ug/kg	37.2	7.90	1
Aroclor 1242	ND		ug/kg	37.2	7.06	1
Aroclor 1248	ND		ug/kg	37.2	4.50	1
Aroclor 1254	200		ug/kg	37.2	5.86	1
Aroclor 1260	ND		ug/kg	37.2	6.46	1
Aroclor 1262	ND		ug/kg	37.2	2.75	1
Aroclor 1268	ND		ug/kg	37.2	5.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	54		30-150
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	54		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID:	L1119827-14	Date Collected:	11/29/11 14:20
Client ID:	SM-23-8	Date Received:	11/29/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082	Extraction Date:	11/30/11 21:00
Analytical Date:	12/01/11 21:35	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	12/01/11
Percent Solids:	82%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	12/01/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.9	7.68	1
Aroclor 1221	ND		ug/kg	38.9	11.7	1
Aroclor 1232	ND		ug/kg	38.9	8.26	1
Aroclor 1242	ND		ug/kg	38.9	7.38	1
Aroclor 1248	ND		ug/kg	38.9	4.70	1
Aroclor 1254	21.5	J	ug/kg	38.9	6.13	1
Aroclor 1260	ND		ug/kg	38.9	6.75	1
Aroclor 1262	ND		ug/kg	38.9	2.88	1
Aroclor 1268	ND		ug/kg	38.9	5.64	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	61		30-150
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	65		30-150

Project Name: WR GRACE WOBURN

Project Number: 117-3008070

Lab Number: L1119827

Report Date: 05/23/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082
Analytical Date: 12/01/11 21:48
Analyst: KB

Extraction Method: EPA 3546
Extraction Date: 11/30/11 20:59
Cleanup Method1: EPA 3665A
Cleanup Date1: 12/01/11
Cleanup Method2: EPA 3660B
Cleanup Date2: 12/01/11

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 02-09,11-14 Batch: WG505387-1					
Aroclor 1016	ND		ug/kg	31.7	6.27
Aroclor 1221	ND		ug/kg	31.7	9.58
Aroclor 1232	ND		ug/kg	31.7	6.74
Aroclor 1242	ND		ug/kg	31.7	6.02
Aroclor 1248	ND		ug/kg	31.7	3.84
Aroclor 1254	ND		ug/kg	31.7	5.00
Aroclor 1260	ND		ug/kg	31.7	5.51
Aroclor 1262	ND		ug/kg	31.7	2.35
Aroclor 1268	ND		ug/kg	31.7	4.60

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	72		30-150
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	74		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: WR GRACE WOBURN

Project Number: 117-3008070

Lab Number: L1119827

Report Date: 05/23/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 02-09,11-14 Batch: WG505387-2 WG505387-3								
Aroclor 1016	70		62		40-140	12		50
Aroclor 1260	72		68		40-140	6		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	72		68		30-150
Decachlorobiphenyl	75		75		30-150
2,4,5,6-Tetrachloro-m-xylene	72		68		30-150
Decachlorobiphenyl	74		71		30-150

INORGANICS
&
MISCELLANEOUS

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-02
Client ID: SM-18-6
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 09:30
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86		%	0.10	NA	1	-	11/30/11 13:50	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-03
Client ID: SM-18-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 09:38
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-04
Client ID: SM-19-6
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 10:35
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-05
Client ID: SM-19-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 10:40
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-06
Client ID: SM-20-6
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 11:10
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-07
Client ID: SM-20-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 11:15
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-08
Client ID: SM-21-6
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 12:15
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-09
Client ID: SM-21-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 12:18
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-11
Client ID: SM-22-6
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 13:45
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-12
Client ID: SM-22-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 13:50
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-13
Client ID: SM-23-6
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 14:15
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

SAMPLE RESULTS

Lab ID: L1119827-14
Client ID: SM-23-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 11/29/11 14:20
Date Received: 11/29/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82		%	0.10	NA	1	-	11/30/11 14:40	30,2540G	JL

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG505302-1 QC Sample: L1119824-44 Client ID: DUP Sample						
Solids, Total	85.	85	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 03-09,11-14 QC Batch ID: WG505326-1 QC Sample: L1119840-01 Client ID: DUP Sample						
Solids, Total	86.	85	%	1		20

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 11/29/2011 23:33

Cooler Information Custody Seal

Cooler	
A	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1119827-01A	Vial HCl preserved	A	N/A	3.9	Y	Absent	8260(14)
L1119827-02A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-02B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-02C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-02D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-02E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-02F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-02G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-02H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-03A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-03B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-03C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-03D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-03E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-03F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-03G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-03H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-04A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-04B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-04C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-04D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-04E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-04F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-04G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-04H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-05A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-05B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)

*Values in parentheses indicate holding time in days

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1119827-05C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-05D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-05E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-05F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-05G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-05H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-06A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-06B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-06C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-06D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-06E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-06F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-06G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-06H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-07A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-07B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-07C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-07D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-07E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-07F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-07G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-07H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-08A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-08B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-08C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-08D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-08E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-08F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-08G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-08H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-09A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-09B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-09C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-09D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-09E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-09F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)

*Values in parentheses indicate holding time in days

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1119827
Report Date: 05/23/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1119827-09G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-09H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-10A	Vial HCl preserved	A	N/A	3.9	Y	Absent	8260(14)
L1119827-10B	Vial HCl preserved	A	N/A	3.9	Y	Absent	8260(14)
L1119827-11A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-11B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-11C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-11D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-11E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-11F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-11G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-11H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-12A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-12B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-12C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-12D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-12E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-12F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-12G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-12H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-13A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-13B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-13C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-13D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-13E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-13F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-13G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-13H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)
L1119827-14A	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-14B	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-14C	5 gram Encore Sampler	A	N/A	3.9	Y	Absent	8260HLW(2)
L1119827-14D	Vial MeOH preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-14E	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-14F	Vial Water preserved split	A	N/A	3.9	Y	Absent	8260HLW(14)
L1119827-14G	Amber 120ml unpreserved	A	N/A	3.9	Y	Absent	PCB-8082(14)
L1119827-14H	Plastic 2oz unpreserved for TS	A	N/A	3.9	Y	Absent	TS(7)

*Values in parentheses indicate holding time in days

Project Name:	WR GRACE WOBURN	**Lab Number:**	L1119827
Project Number:	117-3008070	**Report Date:**	05/23/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: DU Report with "J" Qualifiers

Project Name:	WR GRACE WOBURN	**Lab Number:**	L1119827
Project Number:	117-3008070	**Report Date:**	05/23/13

Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name: WR GRACE WOBURN **Lab Number:** L1119827
Project Number: 117-3008070 **Report Date:** 05/23/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised December 19, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 6010C, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8330, 8151A, 8260B, 8260C, 8270C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9030B, 9040B, 9045C, 6010B, 6010C, 6020, 6020A, 7471A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8270D, 8330, 8151A, 8081A, 8081B, 8082, 8082A, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM2520B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012B, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C,

3546, 3580A, 5030B, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500NO3-F, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 355B0, 3580A, 3630C, 6020A, 8260B, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C,

8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 11/29/11

ALPHA Job #: L1119827

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: TetraTech GEO
Address: One Monarch Drive
Littleton, MA 01460
Phone: 978-952-0120
Fax: 978-952-0122
Email: grady.koniecznko@tetratech.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace Woburn
Project Location: Woburn, MA
Project #: 117-3008070
Project Manager: Anne Sheehan
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 12/6/11 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: Federal Criteria: Superfund Site

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Low Level VOC's-8260B - See Kevin Lavigne
See Parameter list in Site Work Plan

SAMPLE HANDLING
Filtration: ☐ Done ☒ Not needed ☐ Lab to do
Preservation: ☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260B Low	PCB 8082	Total Solids	Sample Specific Comments	Total # Bottles
19827.1	TB-112911	11/29/11	0700	Water	GMK	✓				1
2	SM-18-6	11/29/11	0930	Soil	GMK	✓	✓	✓		5
3	SM-18-8	11/29/11	0938	Soil	GMK	✓	✓	✓		5
4	SM-19-6	11/29/11	1035	Soil	GMK	✓	✓	✓		5
5	SM-19-8	11/29/11	1040	Soil	GMK	✓	✓	✓		5
6	SM-20-6	11/29/11	1110	Soil	GMK	✓	✓	✓		5
7	SM-20-8	11/29/11	1115	Soil	GMK	✓	✓	✓		5
8	SM-21-6	11/29/11	1215	Soil	GMK	✓	✓	✓		5
9	SM-21-8	11/29/11	1218	Soil	GMK	✓	✓	✓		5
10	SM-21-TEB	11/29/11	1220	Water	GMK	✓				2

Container Type: E/V A P
Preservative: A/B A A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	11/29/11 1510	[signature]	11/29/11 1510
[signature]	11/29/11 1645	[signature]	11/29/11 1645

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 11/29/11

ALPHA Job #: L1119827

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Tetra Tech GEO
Address: One Monarch Drive, Littleton, MA 01460
Phone: 978-952-0120
Fax: 978-952-0122
Email: grady.konieczka@tetratech.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace
Project Location: Woburn, MA
Project #: 117-3008070
Project Manager: Anne Sheehan
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 12/6/11 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: Federal | Criteria: Superfund

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Low Level VOC-8260B - See Kevin Lavishe
See Parameter List in Site Work Plan

SAMPLE HANDLING
Filtration ☐ Done ☒ Not needed ☐ Lab to do
Preservation ☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC 8260B Low	PCB 8082	Total Solids	Sample Specific Comments	Total # Bottles
L9827.11	SM-22-6	11/29/11	1345	Soil	GMK	✓	✓	✓		5
12	SM-22-8	11/29/11	1350	Soil	GMK	✓	✓	✓		5
13	SM-23-6	11/29/11	1415	Soil	GMK	✓	✓	✓		5
14	SM-23-8	11/29/11	1420	Soil	GMK	✓	✓	✓		5

Container Type	E	A	P
Preservative	A	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	11/29/11 1510	[signature]	11/29/11 1510
[signature]	11/29/11 1645	[signature]	11/29/11 1645

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ANALYTICAL REPORT

Lab Number:	L1215303
Client:	Tetra Tech Geo 1 Monarch Drive Suite 101 Littleton, MA 01460
ATTN:	Anne Sheehan
Phone:	(978) 952-0120
Project Name:	WR GRACE WOBURN
Project Number:	117-3008070
Report Date:	05/17/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1215303-01	CS-01-1-2	WOBURN, MA	08/27/12 10:10
L1215303-02	CS-02-1-2	WOBURN, MA	08/27/12 10:12
L1215303-03	CS-03-1-2	WOBURN, MA	08/27/12 10:14
L1215303-04	CS-04-7-8	WOBURN, MA	08/27/12 14:00
L1215303-05	CS-04-9	WOBURN, MA	08/27/12 15:40
L1215303-06	CS-05-5-7	WOBURN, MA	08/27/12 13:00
L1215303-07	CS-05-9	WOBURN, MA	08/27/12 15:00
L1215303-08	CS-06-5-7	WOBURN, MA	08/27/12 13:10
L1215303-09	CS-06-9	WOBURN, MA	08/27/12 15:15
L1215303-10	CS-07-7-8	WOBURN, MA	08/27/12 14:10
L1215303-11	CS-07-9	WOBURN, MA	08/27/12 15:55
L1215303-12	CS-07-EBBH	WOBURN, MA	08/27/12 14:20
L1215303-13	CS-08-9	WOBURN, MA	08/27/12 16:20
L1215303-14	CS-09-9	WOBURN, MA	08/27/12 16:35
L1215303-15	TB-082712	WOBURN, MA	08/27/12 00:00
L1215303-16	CS-03-EBSC	WOBURN, MA	08/27/12 10:16
L1215303-17	CS-03-EBBO	WOBURN, MA	08/27/12 10:18

Project Name: WR GRACE WOBURN **Lab Number:** L1215303
Project Number: 117-3008070 **Report Date:** 05/17/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: WR GRACE WOBURN **Lab Number:** L1215303
Project Number: 117-3008070 **Report Date:** 05/17/13

Case Narrative (continued)

Report Submission

This report replaces the report issued on August 29, 2012. All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1215303-04, -09, and -13: The analysis of Volatile Organics by EPA Method 5035/8260C Low Level could not be performed due to the elevated concentrations of non-target compounds in the sample.

PCBs

The surrogate recoveries for L1215303-08 and -09 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all at 0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 05/17/13

ORGANICS

VOLATILES

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-04	Date Collected:	08/27/12 14:00
Client ID:	CS-04-7-8	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 11:48		
Analyst:	BN		
Percent Solids:	90%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	570	110	1
1,1-Dichloroethane	ND		ug/kg	85	13.	1
Chloroform	ND		ug/kg	85	18.	1
Carbon tetrachloride	ND		ug/kg	57	16.	1
1,2-Dichloropropane	ND		ug/kg	200	14.	1
Dibromochloromethane	ND		ug/kg	57	18.	1
1,1,2-Trichloroethane	ND		ug/kg	85	23.	1
2-Chloroethylvinyl ether	ND		ug/kg	1100	18.	1
Tetrachloroethene	ND		ug/kg	57	16.	1
Chlorobenzene	ND		ug/kg	57	14.	1
Trichlorofluoromethane	ND		ug/kg	280	25.	1
1,2-Dichloroethane	ND		ug/kg	57	17.	1
1,1,1-Trichloroethane	ND		ug/kg	57	12.	1
Bromodichloromethane	ND		ug/kg	57	22.	1
trans-1,3-Dichloropropene	ND		ug/kg	57	19.	1
cis-1,3-Dichloropropene	ND		ug/kg	57	15.	1
1,1-Dichloropropene	ND		ug/kg	280	32.	1
Bromoform	ND		ug/kg	230	64.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	57	16.	1
Benzene	ND		ug/kg	57	11.	1
Toluene	ND		ug/kg	85	11.	1
Ethylbenzene	ND		ug/kg	57	22.	1
Chloromethane	ND		ug/kg	280	45.	1
Bromomethane	ND		ug/kg	110	33.	1
Vinyl chloride	ND		ug/kg	110	32.	1
Chloroethane	ND		ug/kg	110	25.	1
1,1-Dichloroethene	ND		ug/kg	57	19.	1
trans-1,2-Dichloroethene	ND		ug/kg	85	17.	1
Trichloroethene	ND		ug/kg	57	16.	1
1,2-Dichlorobenzene	ND		ug/kg	280	21.	1
1,3-Dichlorobenzene	ND		ug/kg	280	21.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-04 Date Collected: 08/27/12 14:00

Client ID: CS-04-7-8 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	280	17.	1
Methyl tert butyl ether	ND		ug/kg	110	38.	1
p/m-Xylene	ND		ug/kg	110	26.	1
o-Xylene	ND		ug/kg	110	32.	1
cis-1,2-Dichloroethene	ND		ug/kg	57	14.	1
Dibromomethane	ND		ug/kg	570	25.	1
1,2,3-Trichloropropane	ND		ug/kg	570	24.	1
Styrene	ND		ug/kg	110	35.	1
Dichlorodifluoromethane	ND		ug/kg	570	99.	1
Acetone	ND		ug/kg	2000	180	1
Carbon disulfide	ND		ug/kg	570	15.	1
2-Butanone	ND		ug/kg	570	220	1
Vinyl acetate	ND		ug/kg	570	78.	1
4-Methyl-2-pentanone	ND		ug/kg	570	100	1
2-Hexanone	ND		ug/kg	570	72.	1
Ethyl methacrylate	ND		ug/kg	570	84.	1
Acrolein	ND		ug/kg	1400	170	1
Acrylonitrile	ND		ug/kg	230	68.	1
Bromochloromethane	ND		ug/kg	280	20.	1
Tetrahydrofuran	ND		ug/kg	1100	64.	1
2,2-Dichloropropane	ND		ug/kg	280	69.	1
1,2-Dibromoethane	ND		ug/kg	230	12.	1
1,3-Dichloropropane	ND		ug/kg	280	13.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	57	19.	1
Bromobenzene	ND		ug/kg	280	19.	1
n-Butylbenzene	ND		ug/kg	57	11.	1
sec-Butylbenzene	ND		ug/kg	57	12.	1
tert-Butylbenzene	ND		ug/kg	280	32.	1
o-Chlorotoluene	ND		ug/kg	280	18.	1
p-Chlorotoluene	ND		ug/kg	280	16.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	280	84.	1
Hexachlorobutadiene	ND		ug/kg	280	24.	1
Isopropylbenzene	ND		ug/kg	57	11.	1
p-Isopropyltoluene	ND		ug/kg	57	11.	1
Naphthalene	ND		ug/kg	280	47.	1
n-Propylbenzene	ND		ug/kg	57	13.	1
1,2,3-Trichlorobenzene	ND		ug/kg	280	53.	1
1,2,4-Trichlorobenzene	ND		ug/kg	280	50.	1
1,3,5-Trimethylbenzene	ND		ug/kg	280	78.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-04	Date Collected:	08/27/12 14:00
Client ID:	CS-04-7-8	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	280	87.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	280	84.	1
Halothane	ND		ug/kg	2300	420	1
Ethyl ether	ND		ug/kg	280	20.	1
Methyl Acetate	ND		ug/kg	1100	1100	1
Ethyl Acetate	ND		ug/kg	1100	1100	1
Diisopropyl Ether	ND		ug/kg	230	54.	1
Cyclohexane	ND		ug/kg	1100	1100	1
Tert-Butyl Alcohol	ND		ug/kg	5700	71.	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	230	50.	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	230	58.	1
1,4-Dioxane	ND		ug/kg	5700	990	1
Methyl cyclohexane	ND		ug/kg	230	230	1
Freon-113	ND		ug/kg	1100	53.	1
p-Diethylbenzene	ND		ug/kg	230	11.	1
p-Ethyltoluene	ND		ug/kg	230	5.5	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	230	10.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	94		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-05	Date Collected:	08/27/12 15:40
Client ID:	CS-04-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 10:58		
Analyst:	BN		
Percent Solids:	90%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	2.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.26	1
Chloroform	ND		ug/kg	1.7	0.36	1
Carbon tetrachloride	ND		ug/kg	1.1	0.31	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.28	1
Dibromochloromethane	ND		ug/kg	1.1	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.46	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.35	1
Tetrachloroethene	ND		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.27	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.48	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.22	1
Bromodichloromethane	ND		ug/kg	1.1	0.43	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
1,1-Dichloropropene	ND		ug/kg	5.6	0.62	1
Bromoform	ND		ug/kg	4.4	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.32	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.7	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.42	1
Chloromethane	ND		ug/kg	5.6	0.87	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	2.2	0.62	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.33	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.40	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.42	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-05 Date Collected: 08/27/12 15:40

Client ID: CS-04-9 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.34	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.73	1
p/m-Xylene	ND		ug/kg	2.2	0.51	1
o-Xylene	ND		ug/kg	2.2	0.63	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.28	1
Dibromomethane	ND		ug/kg	11	0.48	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.46	1
Styrene	ND		ug/kg	2.2	0.68	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	9.0	J	ug/kg	40	3.6	1
Carbon disulfide	0.28	J	ug/kg	11	0.28	1
2-Butanone	ND		ug/kg	11	4.3	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	2.0	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrolein	ND		ug/kg	28	3.3	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1
Bromochloromethane	ND		ug/kg	5.6	0.40	1
Tetrahydrofuran	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.6	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.24	1
1,3-Dichloropropane	ND		ug/kg	5.6	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.6	0.37	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
tert-Butylbenzene	ND		ug/kg	5.6	0.62	1
o-Chlorotoluene	ND		ug/kg	5.6	0.35	1
p-Chlorotoluene	ND		ug/kg	5.6	0.32	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.47	1
Isopropylbenzene	ND		ug/kg	1.1	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.22	1
Naphthalene	ND		ug/kg	5.6	0.91	1
n-Propylbenzene	ND		ug/kg	1.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.96	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	1.5	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-05	Date Collected:	08/27/12 15:40
Client ID:	CS-04-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	1.7	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1
Halothane	ND		ug/kg	44	8.2	1
Ethyl ether	ND		ug/kg	5.6	0.40	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.4	1.1	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	0.97	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.4	4.4	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.4	0.22	1
p-Ethyltoluene	ND		ug/kg	4.4	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-06	Date Collected:	08/27/12 13:00
Client ID:	CS-05-5-7	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 11:25		
Analyst:	BN		
Percent Solids:	90%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	2.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.26	1
Chloroform	ND		ug/kg	1.6	0.35	1
Carbon tetrachloride	ND		ug/kg	1.1	0.30	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.27	1
Dibromochloromethane	ND		ug/kg	1.1	0.35	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.45	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.34	1
Tetrachloroethene	1.2		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.27	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.47	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.22	1
Bromodichloromethane	ND		ug/kg	1.1	0.42	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
1,1-Dichloropropene	ND		ug/kg	5.4	0.60	1
Bromoform	ND		ug/kg	4.4	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.31	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.41	1
Chloromethane	ND		ug/kg	5.4	0.85	1
Bromomethane	ND		ug/kg	2.2	0.63	1
Vinyl chloride	ND		ug/kg	2.2	0.60	1
Chloroethane	ND		ug/kg	2.2	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.33	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.4	0.40	1
1,3-Dichlorobenzene	ND		ug/kg	5.4	0.41	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-06 Date Collected: 08/27/12 13:00

Client ID: CS-05-5-7 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.4	0.33	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.72	1
p/m-Xylene	ND		ug/kg	2.2	0.50	1
o-Xylene	ND		ug/kg	2.2	0.62	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.28	1
Dibromomethane	ND		ug/kg	11	0.47	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.46	1
Styrene	ND		ug/kg	2.2	0.67	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	ND		ug/kg	39	3.5	1
Carbon disulfide	ND		ug/kg	11	0.28	1
2-Butanone	ND		ug/kg	11	4.2	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.9	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrolein	ND		ug/kg	27	3.3	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1
Bromochloromethane	ND		ug/kg	5.4	0.39	1
Tetrahydrofuran	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.4	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.23	1
1,3-Dichloropropane	ND		ug/kg	5.4	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.4	0.36	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.23	1
tert-Butylbenzene	ND		ug/kg	5.4	0.61	1
o-Chlorotoluene	ND		ug/kg	5.4	0.34	1
p-Chlorotoluene	ND		ug/kg	5.4	0.31	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.4	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.4	0.46	1
Isopropylbenzene	ND		ug/kg	1.1	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.21	1
Naphthalene	ND		ug/kg	5.4	0.90	1
n-Propylbenzene	ND		ug/kg	1.1	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.4	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.4	0.95	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.4	1.5	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-06	Date Collected:	08/27/12 13:00
Client ID:	CS-05-5-7	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.4	1.7	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.6	1
Halothane	ND		ug/kg	44	8.1	1
Ethyl ether	ND		ug/kg	5.4	0.39	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.4	1.0	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	0.95	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.4	4.4	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.4	0.22	1
p-Ethyltoluene	ND		ug/kg	4.4	0.10	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	103		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-07	Date Collected:	08/27/12 15:00
Client ID:	CS-05-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 11:53		
Analyst:	BN		
Percent Solids:	89%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	2.2	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.26	1
Chloroform	ND		ug/kg	1.6	0.36	1
Carbon tetrachloride	ND		ug/kg	1.1	0.31	1
1,2-Dichloropropane	ND		ug/kg	3.8	0.28	1
Dibromochloromethane	ND		ug/kg	1.1	0.35	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.45	1
2-Chloroethylvinyl ether	ND		ug/kg	22	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.27	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.48	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.22	1
Bromodichloromethane	ND		ug/kg	1.1	0.42	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
1,1-Dichloropropene	ND		ug/kg	5.5	0.61	1
Bromoform	ND		ug/kg	4.4	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.32	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.42	1
Chloromethane	ND		ug/kg	5.5	0.86	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	2.2	0.61	1
Chloroethane	ND		ug/kg	2.2	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.33	1
Trichloroethene	ND		ug/kg	1.1	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	0.40	1
1,3-Dichlorobenzene	ND		ug/kg	5.5	0.41	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-07 Date Collected: 08/27/12 15:00

Client ID: CS-05-9 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.5	0.34	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.73	1
p/m-Xylene	ND		ug/kg	2.2	0.50	1
o-Xylene	ND		ug/kg	2.2	0.63	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.28	1
Dibromomethane	ND		ug/kg	11	0.48	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.46	1
Styrene	ND		ug/kg	2.2	0.68	1
Dichlorodifluoromethane	ND		ug/kg	11	1.9	1
Acetone	27	J	ug/kg	40	3.6	1
Carbon disulfide	0.35	J	ug/kg	11	0.28	1
2-Butanone	ND		ug/kg	11	4.3	1
Vinyl acetate	ND		ug/kg	11	1.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.9	1
2-Hexanone	ND		ug/kg	11	1.4	1
Ethyl methacrylate	ND		ug/kg	11	1.6	1
Acrolein	ND		ug/kg	28	3.3	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1
Bromochloromethane	ND		ug/kg	5.5	0.39	1
Tetrahydrofuran	ND		ug/kg	22	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.5	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.24	1
1,3-Dichloropropane	ND		ug/kg	5.5	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.5	0.36	1
n-Butylbenzene	ND		ug/kg	1.1	0.22	1
sec-Butylbenzene	ND		ug/kg	1.1	0.23	1
tert-Butylbenzene	ND		ug/kg	5.5	0.62	1
o-Chlorotoluene	ND		ug/kg	5.5	0.34	1
p-Chlorotoluene	ND		ug/kg	5.5	0.31	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.46	1
Isopropylbenzene	ND		ug/kg	1.1	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.21	1
Naphthalene	ND		ug/kg	5.5	0.90	1
n-Propylbenzene	ND		ug/kg	1.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	1.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	0.96	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	1.5	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-07	Date Collected:	08/27/12 15:00
Client ID:	CS-05-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.5	1.7	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	1.6	1
Halothane	ND		ug/kg	44	8.2	1
Ethyl ether	ND		ug/kg	5.5	0.40	1
Methyl Acetate	ND		ug/kg	22	22.	1
Ethyl Acetate	ND		ug/kg	22	22.	1
Diisopropyl Ether	ND		ug/kg	4.4	1.0	1
Cyclohexane	ND		ug/kg	22	22.	1
Tert-Butyl Alcohol	ND		ug/kg	110	1.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	0.96	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1.1	1
1,4-Dioxane	ND		ug/kg	110	19.	1
Methyl cyclohexane	ND		ug/kg	4.4	4.4	1
Freon-113	ND		ug/kg	22	1.0	1
p-Diethylbenzene	ND		ug/kg	4.4	0.22	1
p-Ethyltoluene	ND		ug/kg	4.4	0.11	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.4	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-08	Date Collected:	08/27/12 13:10
Client ID:	CS-06-5-7	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 12:20		
Analyst:	BN		
Percent Solids:	91%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	2.1	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.24	1
Chloroform	ND		ug/kg	1.6	0.34	1
Carbon tetrachloride	ND		ug/kg	1.0	0.29	1
1,2-Dichloropropane	ND		ug/kg	3.6	0.26	1
Dibromochloromethane	ND		ug/kg	1.0	0.33	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.42	1
2-Chloroethylvinyl ether	ND		ug/kg	21	0.32	1
Tetrachloroethene	0.85	J	ug/kg	1.0	0.30	1
Chlorobenzene	ND		ug/kg	1.0	0.26	1
Trichlorofluoromethane	ND		ug/kg	5.2	0.45	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.21	1
Bromodichloromethane	ND		ug/kg	1.0	0.40	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
1,1-Dichloropropene	ND		ug/kg	5.2	0.58	1
Bromoform	ND		ug/kg	4.1	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.30	1
Benzene	ND		ug/kg	1.0	0.20	1
Toluene	ND		ug/kg	1.6	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.39	1
Chloromethane	ND		ug/kg	5.2	0.81	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	2.1	0.58	1
Chloroethane	ND		ug/kg	2.1	0.46	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.31	1
Trichloroethene	0.30	J	ug/kg	1.0	0.29	1
1,2-Dichlorobenzene	ND		ug/kg	5.2	0.38	1
1,3-Dichlorobenzene	ND		ug/kg	5.2	0.39	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-08 Date Collected: 08/27/12 13:10

Client ID: CS-06-5-7 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.2	0.32	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.68	1
p/m-Xylene	ND		ug/kg	2.1	0.47	1
o-Xylene	ND		ug/kg	2.1	0.59	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.26	1
Dibromomethane	ND		ug/kg	10	0.45	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.43	1
Styrene	ND		ug/kg	2.1	0.64	1
Dichlorodifluoromethane	ND		ug/kg	10	1.8	1
Acetone	ND		ug/kg	37	3.4	1
Carbon disulfide	ND		ug/kg	10	0.27	1
2-Butanone	ND		ug/kg	10	4.0	1
Vinyl acetate	ND		ug/kg	10	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.8	1
2-Hexanone	ND		ug/kg	10	1.3	1
Ethyl methacrylate	ND		ug/kg	10	1.5	1
Acrolein	ND		ug/kg	26	3.1	1
Acrylonitrile	ND		ug/kg	4.1	1.2	1
Bromochloromethane	ND		ug/kg	5.2	0.37	1
Tetrahydrofuran	ND		ug/kg	21	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.2	1.2	1
1,2-Dibromoethane	ND		ug/kg	4.1	0.22	1
1,3-Dichloropropane	ND		ug/kg	5.2	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.34	1
Bromobenzene	ND		ug/kg	5.2	0.34	1
n-Butylbenzene	ND		ug/kg	1.0	0.21	1
sec-Butylbenzene	ND		ug/kg	1.0	0.22	1
tert-Butylbenzene	ND		ug/kg	5.2	0.58	1
o-Chlorotoluene	ND		ug/kg	5.2	0.32	1
p-Chlorotoluene	ND		ug/kg	5.2	0.29	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	1.5	1
Hexachlorobutadiene	ND		ug/kg	5.2	0.44	1
Isopropylbenzene	ND		ug/kg	1.0	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.20	1
Naphthalene	ND		ug/kg	5.2	0.85	1
n-Propylbenzene	ND		ug/kg	1.0	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.2	0.96	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.2	0.90	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.2	1.4	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-08	Date Collected:	08/27/12 13:10
Client ID:	CS-06-5-7	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.2	1.6	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1
Halothane	ND		ug/kg	41	7.7	1
Ethyl ether	ND		ug/kg	5.2	0.37	1
Methyl Acetate	ND		ug/kg	21	21.	1
Ethyl Acetate	ND		ug/kg	21	21.	1
Diisopropyl Ether	ND		ug/kg	4.1	0.99	1
Cyclohexane	ND		ug/kg	21	21.	1
Tert-Butyl Alcohol	ND		ug/kg	100	1.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.1	0.91	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.1	1.0	1
1,4-Dioxane	ND		ug/kg	100	18.	1
Methyl cyclohexane	ND		ug/kg	4.1	4.1	1
Freon-113	ND		ug/kg	21	0.97	1
p-Diethylbenzene	ND		ug/kg	4.1	0.21	1
p-Ethyltoluene	ND		ug/kg	4.1	0.10	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.1	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-09	Date Collected:	08/27/12 15:15
Client ID:	CS-06-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 12:14		
Analyst:	BN		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	700	140	1
1,1-Dichloroethane	ND		ug/kg	100	16.	1
Chloroform	ND		ug/kg	100	23.	1
Carbon tetrachloride	ND		ug/kg	70	19.	1
1,2-Dichloropropane	ND		ug/kg	240	18.	1
Dibromochloromethane	ND		ug/kg	70	22.	1
1,1,2-Trichloroethane	ND		ug/kg	100	29.	1
2-Chloroethylvinyl ether	ND		ug/kg	1400	22.	1
Tetrachloroethene	ND		ug/kg	70	20.	1
Chlorobenzene	ND		ug/kg	70	17.	1
Trichlorofluoromethane	ND		ug/kg	350	30.	1
1,2-Dichloroethane	ND		ug/kg	70	20.	1
1,1,1-Trichloroethane	ND		ug/kg	70	14.	1
Bromodichloromethane	ND		ug/kg	70	27.	1
trans-1,3-Dichloropropene	ND		ug/kg	70	24.	1
cis-1,3-Dichloropropene	ND		ug/kg	70	19.	1
1,1-Dichloropropene	ND		ug/kg	350	39.	1
Bromoform	ND		ug/kg	280	78.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	70	20.	1
Benzene	ND		ug/kg	70	13.	1
Toluene	ND		ug/kg	100	13.	1
Ethylbenzene	ND		ug/kg	70	26.	1
Chloromethane	ND		ug/kg	350	55.	1
Bromomethane	ND		ug/kg	140	41.	1
Vinyl chloride	ND		ug/kg	140	39.	1
Chloroethane	ND		ug/kg	140	31.	1
1,1-Dichloroethene	ND		ug/kg	70	23.	1
trans-1,2-Dichloroethene	ND		ug/kg	100	21.	1
Trichloroethene	ND		ug/kg	70	20.	1
1,2-Dichlorobenzene	ND		ug/kg	350	25.	1
1,3-Dichlorobenzene	ND		ug/kg	350	26.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-09 Date Collected: 08/27/12 15:15

Client ID: CS-06-9 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	350	21.	1
Methyl tert butyl ether	ND		ug/kg	140	46.	1
p/m-Xylene	ND		ug/kg	140	32.	1
o-Xylene	ND		ug/kg	140	40.	1
cis-1,2-Dichloroethene	ND		ug/kg	70	18.	1
Dibromomethane	ND		ug/kg	700	30.	1
1,2,3-Trichloropropane	ND		ug/kg	700	29.	1
Styrene	ND		ug/kg	140	43.	1
Dichlorodifluoromethane	ND		ug/kg	700	120	1
Acetone	ND		ug/kg	2500	230	1
Carbon disulfide	ND		ug/kg	700	18.	1
2-Butanone	ND		ug/kg	700	270	1
Vinyl acetate	ND		ug/kg	700	96.	1
4-Methyl-2-pentanone	ND		ug/kg	700	120	1
2-Hexanone	ND		ug/kg	700	88.	1
Ethyl methacrylate	ND		ug/kg	700	100	1
Acrolein	ND		ug/kg	1700	210	1
Acrylonitrile	ND		ug/kg	280	84.	1
Bromochloromethane	ND		ug/kg	350	25.	1
Tetrahydrofuran	ND		ug/kg	1400	79.	1
2,2-Dichloropropane	ND		ug/kg	350	85.	1
1,2-Dibromoethane	ND		ug/kg	280	15.	1
1,3-Dichloropropane	ND		ug/kg	350	16.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	70	23.	1
Bromobenzene	ND		ug/kg	350	23.	1
n-Butylbenzene	ND		ug/kg	70	14.	1
sec-Butylbenzene	ND		ug/kg	70	15.	1
tert-Butylbenzene	ND		ug/kg	350	39.	1
o-Chlorotoluene	ND		ug/kg	350	22.	1
p-Chlorotoluene	ND		ug/kg	350	20.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	350	100	1
Hexachlorobutadiene	ND		ug/kg	350	30.	1
Isopropylbenzene	ND		ug/kg	70	14.	1
p-Isopropyltoluene	ND		ug/kg	70	14.	1
Naphthalene	ND		ug/kg	350	58.	1
n-Propylbenzene	ND		ug/kg	70	16.	1
1,2,3-Trichlorobenzene	ND		ug/kg	350	65.	1
1,2,4-Trichlorobenzene	ND		ug/kg	350	61.	1
1,3,5-Trimethylbenzene	ND		ug/kg	350	96.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-09	Date Collected:	08/27/12 15:15
Client ID:	CS-06-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	350	110	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	350	100	1
Halothane	ND		ug/kg	2800	520	1
Ethyl ether	ND		ug/kg	350	25.	1
Methyl Acetate	ND		ug/kg	1400	1400	1
Ethyl Acetate	ND		ug/kg	1400	1400	1
Diisopropyl Ether	ND		ug/kg	280	67.	1
Cyclohexane	ND		ug/kg	1400	1400	1
Tert-Butyl Alcohol	ND		ug/kg	7000	88.	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	280	61.	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	280	71.	1
1,4-Dioxane	ND		ug/kg	7000	1200	1
Methyl cyclohexane	ND		ug/kg	280	280	1
Freon-113	ND		ug/kg	1400	65.	1
p-Diethylbenzene	ND		ug/kg	280	14.	1
p-Ethyltoluene	ND		ug/kg	280	6.8	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	280	13.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	93		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-10	Date Collected:	08/27/12 14:10
Client ID:	CS-07-7-8	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 10:27		
Analyst:	BN		
Percent Solids:	92%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	2.0	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.24	1
Chloroform	ND		ug/kg	1.5	0.33	1
Carbon tetrachloride	ND		ug/kg	1.0	0.28	1
1,2-Dichloropropane	ND		ug/kg	3.6	0.26	1
Dibromochloromethane	ND		ug/kg	1.0	0.33	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.42	1
2-Chloroethylvinyl ether	ND		ug/kg	20	0.32	1
Tetrachloroethene	ND		ug/kg	1.0	0.30	1
Chlorobenzene	ND		ug/kg	1.0	0.25	1
Trichlorofluoromethane	ND		ug/kg	5.1	0.45	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.21	1
Bromodichloromethane	ND		ug/kg	1.0	0.39	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
1,1-Dichloropropene	ND		ug/kg	5.1	0.57	1
Bromoform	ND		ug/kg	4.1	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.30	1
Benzene	ND		ug/kg	1.0	0.20	1
Toluene	ND		ug/kg	1.5	0.19	1
Ethylbenzene	ND		ug/kg	1.0	0.39	1
Chloromethane	ND		ug/kg	5.1	0.80	1
Bromomethane	ND		ug/kg	2.0	0.60	1
Vinyl chloride	ND		ug/kg	2.0	0.57	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.31	1
Trichloroethene	ND		ug/kg	1.0	0.29	1
1,2-Dichlorobenzene	ND		ug/kg	5.1	0.37	1
1,3-Dichlorobenzene	ND		ug/kg	5.1	0.38	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-10 Date Collected: 08/27/12 14:10

Client ID: CS-07-7-8 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.1	0.31	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.68	1
p/m-Xylene	ND		ug/kg	2.0	0.47	1
o-Xylene	ND		ug/kg	2.0	0.58	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.26	1
Dibromomethane	ND		ug/kg	10	0.44	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.43	1
Styrene	ND		ug/kg	2.0	0.63	1
Dichlorodifluoromethane	ND		ug/kg	10	1.8	1
Acetone	ND		ug/kg	37	3.3	1
Carbon disulfide	ND		ug/kg	10	0.26	1
2-Butanone	ND		ug/kg	10	4.0	1
Vinyl acetate	ND		ug/kg	10	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.8	1
2-Hexanone	ND		ug/kg	10	1.3	1
Ethyl methacrylate	ND		ug/kg	10	1.5	1
Acrolein	ND		ug/kg	26	3.1	1
Acrylonitrile	ND		ug/kg	4.1	1.2	1
Bromochloromethane	ND		ug/kg	5.1	0.37	1
Tetrahydrofuran	ND		ug/kg	20	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.1	1.2	1
1,2-Dibromoethane	ND		ug/kg	4.1	0.22	1
1,3-Dichloropropane	ND		ug/kg	5.1	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.34	1
Bromobenzene	ND		ug/kg	5.1	0.34	1
n-Butylbenzene	ND		ug/kg	1.0	0.20	1
sec-Butylbenzene	ND		ug/kg	1.0	0.22	1
tert-Butylbenzene	ND		ug/kg	5.1	0.57	1
o-Chlorotoluene	ND		ug/kg	5.1	0.32	1
p-Chlorotoluene	ND		ug/kg	5.1	0.29	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.1	1.5	1
Hexachlorobutadiene	ND		ug/kg	5.1	0.43	1
Isopropylbenzene	ND		ug/kg	1.0	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.20	1
Naphthalene	ND		ug/kg	5.1	0.84	1
n-Propylbenzene	ND		ug/kg	1.0	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.1	0.95	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.1	0.89	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.1	1.4	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-10	Date Collected:	08/27/12 14:10
Client ID:	CS-07-7-8	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.1	1.6	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.1	1.5	1
Halothane	ND		ug/kg	41	7.6	1
Ethyl ether	ND		ug/kg	5.1	0.37	1
Methyl Acetate	ND		ug/kg	20	20.	1
Ethyl Acetate	ND		ug/kg	20	20.	1
Diisopropyl Ether	ND		ug/kg	4.1	0.98	1
Cyclohexane	ND		ug/kg	20	20.	1
Tert-Butyl Alcohol	ND		ug/kg	100	1.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.1	0.90	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.1	1.0	1
1,4-Dioxane	ND		ug/kg	100	18.	1
Methyl cyclohexane	ND		ug/kg	4.1	4.1	1
Freon-113	ND		ug/kg	20	0.96	1
p-Diethylbenzene	ND		ug/kg	4.1	0.20	1
p-Ethyltoluene	ND		ug/kg	4.1	0.10	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.1	0.18	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-11	Date Collected:	08/27/12 15:55
Client ID:	CS-07-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 10:54		
Analyst:	BN		
Percent Solids:	90%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	2.1	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.25	1
Chloroform	ND		ug/kg	1.6	0.34	1
Carbon tetrachloride	ND		ug/kg	1.0	0.29	1
1,2-Dichloropropane	ND		ug/kg	3.7	0.26	1
Dibromochloromethane	ND		ug/kg	1.0	0.34	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.43	1
2-Chloroethylvinyl ether	ND		ug/kg	21	0.33	1
Tetrachloroethene	ND		ug/kg	1.0	0.30	1
Chlorobenzene	ND		ug/kg	1.0	0.26	1
Trichlorofluoromethane	ND		ug/kg	5.2	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.21	1
Bromodichloromethane	ND		ug/kg	1.0	0.40	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
1,1-Dichloropropene	ND		ug/kg	5.2	0.58	1
Bromoform	ND		ug/kg	4.2	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.30	1
Benzene	ND		ug/kg	1.0	0.20	1
Toluene	ND		ug/kg	1.6	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.40	1
Chloromethane	ND		ug/kg	5.2	0.82	1
Bromomethane	ND		ug/kg	2.1	0.61	1
Vinyl chloride	ND		ug/kg	2.1	0.58	1
Chloroethane	ND		ug/kg	2.1	0.46	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.31	1
Trichloroethene	ND		ug/kg	1.0	0.30	1
1,2-Dichlorobenzene	ND		ug/kg	5.2	0.38	1
1,3-Dichlorobenzene	ND		ug/kg	5.2	0.39	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-11 Date Collected: 08/27/12 15:55

Client ID: CS-07-9 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.2	0.32	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.69	1
p/m-Xylene	ND		ug/kg	2.1	0.48	1
o-Xylene	ND		ug/kg	2.1	0.60	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.27	1
Dibromomethane	ND		ug/kg	10	0.46	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.44	1
Styrene	ND		ug/kg	2.1	0.64	1
Dichlorodifluoromethane	ND		ug/kg	10	1.8	1
Acetone	7.1	J	ug/kg	38	3.4	1
Carbon disulfide	ND		ug/kg	10	0.27	1
2-Butanone	ND		ug/kg	10	4.1	1
Vinyl acetate	ND		ug/kg	10	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.8	1
2-Hexanone	ND		ug/kg	10	1.3	1
Ethyl methacrylate	ND		ug/kg	10	1.5	1
Acrolein	ND		ug/kg	26	3.2	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1
Bromochloromethane	ND		ug/kg	5.2	0.37	1
Tetrahydrofuran	ND		ug/kg	21	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.2	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.2	0.22	1
1,3-Dichloropropane	ND		ug/kg	5.2	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.34	1
Bromobenzene	ND		ug/kg	5.2	0.35	1
n-Butylbenzene	ND		ug/kg	1.0	0.21	1
sec-Butylbenzene	ND		ug/kg	1.0	0.22	1
tert-Butylbenzene	ND		ug/kg	5.2	0.59	1
o-Chlorotoluene	ND		ug/kg	5.2	0.33	1
p-Chlorotoluene	ND		ug/kg	5.2	0.30	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.2	0.44	1
Isopropylbenzene	ND		ug/kg	1.0	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.20	1
Naphthalene	ND		ug/kg	5.2	0.86	1
n-Propylbenzene	ND		ug/kg	1.0	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.2	0.97	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.2	0.91	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.2	1.4	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-11	Date Collected:	08/27/12 15:55
Client ID:	CS-07-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.2	1.6	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1
Halothane	ND		ug/kg	42	7.8	1
Ethyl ether	ND		ug/kg	5.2	0.38	1
Methyl Acetate	ND		ug/kg	21	21.	1
Ethyl Acetate	ND		ug/kg	21	21.	1
Diisopropyl Ether	ND		ug/kg	4.2	1.0	1
Cyclohexane	ND		ug/kg	21	21.	1
Tert-Butyl Alcohol	ND		ug/kg	100	1.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.2	0.92	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.2	1.0	1
1,4-Dioxane	ND		ug/kg	100	18.	1
Methyl cyclohexane	ND		ug/kg	4.2	4.2	1
Freon-113	ND		ug/kg	21	0.98	1
p-Diethylbenzene	ND		ug/kg	4.2	0.21	1
p-Ethyltoluene	ND		ug/kg	4.2	0.10	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.2	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-12	Date Collected:	08/27/12 14:20
Client ID:	CS-07-EBBH	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	08/28/12 11:11		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.54	1
1,1-Dichloroethane	ND		ug/l	0.75	0.22	1
Chloroform	5.8		ug/l	0.75	0.20	1
Carbon tetrachloride	ND		ug/l	0.50	0.16	1
1,2-Dichloropropane	ND		ug/l	1.8	0.30	1
Dibromochloromethane	ND		ug/l	0.50	0.19	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.26	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.40	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.19	1
Trichlorofluoromethane	ND		ug/l	2.5	0.27	1
1,2-Dichloroethane	ND		ug/l	0.50	0.16	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	0.92		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.26	1
Bromoform	ND		ug/l	2.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.19	1
Benzene	ND		ug/l	0.50	0.19	1
Toluene	ND		ug/l	0.75	0.23	1
Ethylbenzene	ND		ug/l	0.50	0.26	1
Chloromethane	ND		ug/l	2.5	0.28	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	1.0	0.22	1
Chloroethane	ND		ug/l	1.0	0.23	1
1,1-Dichloroethene	ND		ug/l	0.50	0.18	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.21	1
Trichloroethene	ND		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-12 Date Collected: 08/27/12 14:20

Client ID: CS-07-EBBH Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	2.5	0.22	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.35	1
o-Xylene	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	5.0	0.36	1
1,4-Dichlorobutane	ND		ug/l	5.0	0.47	1
1,2,3-Trichloropropane	ND		ug/l	5.0	0.43	1
Styrene	ND		ug/l	1.0	0.36	1
Dichlorodifluoromethane	ND		ug/l	5.0	0.30	1
Acetone	ND		ug/l	5.0	1.6	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	0.31	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.58	1
Ethyl methacrylate	ND		ug/l	5.0	0.61	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	2.5	0.33	1
Tetrahydrofuran	ND		ug/l	5.0	1.3	1
2,2-Dichloropropane	ND		ug/l	2.5	0.40	1
1,2-Dibromoethane	ND		ug/l	2.0	0.32	1
1,3-Dichloropropane	ND		ug/l	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	2.5	0.18	1
n-Butylbenzene	ND		ug/l	0.50	0.20	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	2.5	0.30	1
o-Chlorotoluene	ND		ug/l	2.5	0.18	1
p-Chlorotoluene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.23	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	2.5	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.21	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-12	Date Collected:	08/27/12 14:20
Client ID:	CS-07-EBBH	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.27	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Halothane	ND		ug/l	2.5	3.7	1
Ethyl ether	ND		ug/l	2.5	0.20	1
Ethyl Acetate	ND		ug/l	10	0.72	1
Diisopropyl Ether	ND		ug/l	2.0	0.16	1
Cyclohexane	ND		ug/l	10	0.24	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	0.46	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.38	1
1,4-Dioxane	ND		ug/l	250	76.	1
Freon-113	ND		ug/l	10	0.23	1
Methyl cyclohexane	ND		ug/l	10	0.29	1
p-Diethylbenzene	ND		ug/l	2.0	0.11	1
p-Ethyltoluene	ND		ug/l	2.0	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.10	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	101		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-13	Date Collected:	08/27/12 16:20
Client ID:	CS-08-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 12:42		
Analyst:	BN		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	610	120	1
1,1-Dichloroethane	ND		ug/kg	91	14.	1
Chloroform	ND		ug/kg	91	20.	1
Carbon tetrachloride	ND		ug/kg	61	17.	1
1,2-Dichloropropane	ND		ug/kg	210	15.	1
Dibromochloromethane	ND		ug/kg	61	19.	1
1,1,2-Trichloroethane	ND		ug/kg	91	25.	1
2-Chloroethylvinyl ether	ND		ug/kg	1200	19.	1
Tetrachloroethene	ND		ug/kg	61	18.	1
Chlorobenzene	ND		ug/kg	61	15.	1
Trichlorofluoromethane	ND		ug/kg	300	26.	1
1,2-Dichloroethane	ND		ug/kg	61	18.	1
1,1,1-Trichloroethane	ND		ug/kg	61	12.	1
Bromodichloromethane	ND		ug/kg	61	23.	1
trans-1,3-Dichloropropene	ND		ug/kg	61	20.	1
cis-1,3-Dichloropropene	ND		ug/kg	61	16.	1
1,1-Dichloropropene	ND		ug/kg	300	34.	1
Bromoform	ND		ug/kg	240	68.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	61	18.	1
Benzene	ND		ug/kg	61	12.	1
Toluene	ND		ug/kg	91	12.	1
Ethylbenzene	ND		ug/kg	61	23.	1
Chloromethane	ND		ug/kg	300	48.	1
Bromomethane	ND		ug/kg	120	35.	1
Vinyl chloride	ND		ug/kg	120	34.	1
Chloroethane	ND		ug/kg	120	27.	1
1,1-Dichloroethene	ND		ug/kg	61	20.	1
trans-1,2-Dichloroethene	ND		ug/kg	91	18.	1
Trichloroethene	ND		ug/kg	61	17.	1
1,2-Dichlorobenzene	ND		ug/kg	300	22.	1
1,3-Dichlorobenzene	ND		ug/kg	300	23.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-13 Date Collected: 08/27/12 16:20

Client ID: CS-08-9 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	300	18.	1
Methyl tert butyl ether	ND		ug/kg	120	40.	1
p/m-Xylene	ND		ug/kg	120	28.	1
o-Xylene	ND		ug/kg	120	34.	1
cis-1,2-Dichloroethene	ND		ug/kg	61	16.	1
Dibromomethane	ND		ug/kg	610	26.	1
1,2,3-Trichloropropane	ND		ug/kg	610	25.	1
Styrene	ND		ug/kg	120	37.	1
Dichlorodifluoromethane	ND		ug/kg	610	100	1
Acetone	ND		ug/kg	2200	200	1
Carbon disulfide	ND		ug/kg	610	16.	1
2-Butanone	ND		ug/kg	610	240	1
Vinyl acetate	ND		ug/kg	610	83.	1
4-Methyl-2-pentanone	ND		ug/kg	610	110	1
2-Hexanone	ND		ug/kg	610	76.	1
Ethyl methacrylate	ND		ug/kg	610	89.	1
Acrolein	ND		ug/kg	1500	180	1
Acrylonitrile	ND		ug/kg	240	73.	1
Bromochloromethane	ND		ug/kg	300	22.	1
Tetrahydrofuran	ND		ug/kg	1200	68.	1
2,2-Dichloropropane	ND		ug/kg	300	74.	1
1,2-Dibromoethane	ND		ug/kg	240	13.	1
1,3-Dichloropropane	ND		ug/kg	300	14.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	61	20.	1
Bromobenzene	ND		ug/kg	300	20.	1
n-Butylbenzene	ND		ug/kg	61	12.	1
sec-Butylbenzene	ND		ug/kg	61	13.	1
tert-Butylbenzene	ND		ug/kg	300	34.	1
o-Chlorotoluene	ND		ug/kg	300	19.	1
p-Chlorotoluene	ND		ug/kg	300	17.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	300	90.	1
Hexachlorobutadiene	ND		ug/kg	300	26.	1
Isopropylbenzene	ND		ug/kg	61	12.	1
p-Isopropyltoluene	ND		ug/kg	61	12.	1
Naphthalene	ND		ug/kg	300	50.	1
n-Propylbenzene	ND		ug/kg	61	14.	1
1,2,3-Trichlorobenzene	ND		ug/kg	300	56.	1
1,2,4-Trichlorobenzene	ND		ug/kg	300	53.	1
1,3,5-Trimethylbenzene	ND		ug/kg	300	83.	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-13	Date Collected:	08/27/12 16:20
Client ID:	CS-08-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	300	93.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	300	90.	1
Halothane	ND		ug/kg	2400	450	1
Ethyl ether	ND		ug/kg	300	22.	1
Methyl Acetate	ND		ug/kg	1200	1200	1
Ethyl Acetate	ND		ug/kg	1200	1200	1
Diisopropyl Ether	ND		ug/kg	240	58.	1
Cyclohexane	ND		ug/kg	1200	1200	1
Tert-Butyl Alcohol	ND		ug/kg	6100	76.	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	240	53.	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	240	61.	1
1,4-Dioxane	ND		ug/kg	6100	1000	1
Methyl cyclohexane	ND		ug/kg	240	240	1
Freon-113	ND		ug/kg	1200	56.	1
p-Diethylbenzene	ND		ug/kg	240	12.	1
p-Ethyltoluene	ND		ug/kg	240	5.9	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	240	11.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	94		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-14	Date Collected:	08/27/12 16:35
Client ID:	CS-09-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	08/29/12 11:21		
Analyst:	BN		
Percent Solids:	89%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	2.1	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.25	1
Chloroform	ND		ug/kg	1.6	0.34	1
Carbon tetrachloride	ND		ug/kg	1.0	0.30	1
1,2-Dichloropropane	ND		ug/kg	3.7	0.27	1
Dibromochloromethane	ND		ug/kg	1.0	0.34	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.44	1
2-Chloroethylvinyl ether	ND		ug/kg	21	0.33	1
Tetrachloroethene	ND		ug/kg	1.0	0.31	1
Chlorobenzene	ND		ug/kg	1.0	0.26	1
Trichlorofluoromethane	ND		ug/kg	5.3	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.22	1
Bromodichloromethane	ND		ug/kg	1.0	0.41	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.36	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
1,1-Dichloropropene	ND		ug/kg	5.3	0.59	1
Bromoform	ND		ug/kg	4.2	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.31	1
Benzene	ND		ug/kg	1.0	0.20	1
Toluene	ND		ug/kg	1.6	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.40	1
Chloromethane	ND		ug/kg	5.3	0.83	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	2.1	0.59	1
Chloroethane	ND		ug/kg	2.1	0.46	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.32	1
Trichloroethene	ND		ug/kg	1.0	0.30	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	0.39	1
1,3-Dichlorobenzene	ND		ug/kg	5.3	0.40	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-14 Date Collected: 08/27/12 16:35

Client ID: CS-09-9 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	5.3	0.32	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.70	1
p/m-Xylene	ND		ug/kg	2.1	0.48	1
o-Xylene	ND		ug/kg	2.1	0.60	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.27	1
Dibromomethane	ND		ug/kg	10	0.46	1
1,2,3-Trichloropropane	ND		ug/kg	10	0.44	1
Styrene	ND		ug/kg	2.1	0.65	1
Dichlorodifluoromethane	ND		ug/kg	10	1.8	1
Acetone	7.6	J	ug/kg	38	3.4	1
Carbon disulfide	ND		ug/kg	10	0.27	1
2-Butanone	ND		ug/kg	10	4.1	1
Vinyl acetate	ND		ug/kg	10	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.9	1
2-Hexanone	ND		ug/kg	10	1.3	1
Ethyl methacrylate	ND		ug/kg	10	1.6	1
Acrolein	ND		ug/kg	26	3.2	1
Acrylonitrile	ND		ug/kg	4.2	1.3	1
Bromochloromethane	ND		ug/kg	5.3	0.38	1
Tetrahydrofuran	ND		ug/kg	21	1.2	1
2,2-Dichloropropane	ND		ug/kg	5.3	1.3	1
1,2-Dibromoethane	ND		ug/kg	4.2	0.23	1
1,3-Dichloropropane	ND		ug/kg	5.3	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.35	1
Bromobenzene	ND		ug/kg	5.3	0.35	1
n-Butylbenzene	ND		ug/kg	1.0	0.21	1
sec-Butylbenzene	ND		ug/kg	1.0	0.22	1
tert-Butylbenzene	ND		ug/kg	5.3	0.59	1
o-Chlorotoluene	ND		ug/kg	5.3	0.33	1
p-Chlorotoluene	ND		ug/kg	5.3	0.30	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	1.6	1
Hexachlorobutadiene	ND		ug/kg	5.3	0.45	1
Isopropylbenzene	ND		ug/kg	1.0	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.21	1
Naphthalene	ND		ug/kg	5.3	0.87	1
n-Propylbenzene	ND		ug/kg	1.0	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.3	0.98	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.3	0.92	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.3	1.4	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-14	Date Collected:	08/27/12 16:35
Client ID:	CS-09-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/kg	5.3	1.6	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	1.6	1
Halothane	ND		ug/kg	42	7.8	1
Ethyl ether	ND		ug/kg	5.3	0.38	1
Methyl Acetate	ND		ug/kg	21	21.	1
Ethyl Acetate	ND		ug/kg	21	21.	1
Diisopropyl Ether	ND		ug/kg	4.2	1.0	1
Cyclohexane	ND		ug/kg	21	21.	1
Tert-Butyl Alcohol	ND		ug/kg	100	1.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.2	0.93	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.2	1.1	1
1,4-Dioxane	ND		ug/kg	100	18.	1
Methyl cyclohexane	ND		ug/kg	4.2	4.2	1
Freon-113	ND		ug/kg	21	0.99	1
p-Diethylbenzene	ND		ug/kg	4.2	0.21	1
p-Ethyltoluene	ND		ug/kg	4.2	0.10	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.2	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-15	Date Collected:	08/27/12 00:00
Client ID:	TB-082712	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	08/28/12 10:46		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.54	1
1,1-Dichloroethane	ND		ug/l	0.75	0.22	1
Chloroform	ND		ug/l	0.75	0.20	1
Carbon tetrachloride	ND		ug/l	0.50	0.16	1
1,2-Dichloropropane	ND		ug/l	1.8	0.30	1
Dibromochloromethane	ND		ug/l	0.50	0.19	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.26	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.40	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.19	1
Trichlorofluoromethane	ND		ug/l	2.5	0.27	1
1,2-Dichloroethane	ND		ug/l	0.50	0.16	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.26	1
Bromoform	ND		ug/l	2.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.19	1
Benzene	ND		ug/l	0.50	0.19	1
Toluene	ND		ug/l	0.75	0.23	1
Ethylbenzene	ND		ug/l	0.50	0.26	1
Chloromethane	ND		ug/l	2.5	0.28	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	1.0	0.22	1
Chloroethane	ND		ug/l	1.0	0.23	1
1,1-Dichloroethene	ND		ug/l	0.50	0.18	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.21	1
Trichloroethene	ND		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-15 Date Collected: 08/27/12 00:00

Client ID: TB-082712 Date Received: 08/27/12

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	2.5	0.22	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.35	1
o-Xylene	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	5.0	0.36	1
1,4-Dichlorobutane	ND		ug/l	5.0	0.47	1
1,2,3-Trichloropropane	ND		ug/l	5.0	0.43	1
Styrene	ND		ug/l	1.0	0.36	1
Dichlorodifluoromethane	ND		ug/l	5.0	0.30	1
Acetone	ND		ug/l	5.0	1.6	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	0.31	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.58	1
Ethyl methacrylate	ND		ug/l	5.0	0.61	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	2.5	0.33	1
Tetrahydrofuran	ND		ug/l	5.0	1.3	1
2,2-Dichloropropane	ND		ug/l	2.5	0.40	1
1,2-Dibromoethane	ND		ug/l	2.0	0.32	1
1,3-Dichloropropane	ND		ug/l	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	2.5	0.18	1
n-Butylbenzene	ND		ug/l	0.50	0.20	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	2.5	0.30	1
o-Chlorotoluene	ND		ug/l	2.5	0.18	1
p-Chlorotoluene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.23	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	2.5	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.21	1

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-15	Date Collected:	08/27/12 00:00
Client ID:	TB-082712	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.27	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Halothane	ND		ug/l	2.5	3.7	1
Ethyl ether	ND		ug/l	2.5	0.20	1
Ethyl Acetate	ND		ug/l	10	0.72	1
Diisopropyl Ether	ND		ug/l	2.0	0.16	1
Cyclohexane	ND		ug/l	10	0.24	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	0.46	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.38	1
1,4-Dioxane	ND		ug/l	250	76.	1
Freon-113	ND		ug/l	10	0.23	1
Methyl cyclohexane	ND		ug/l	10	0.29	1
p-Diethylbenzene	ND		ug/l	2.0	0.11	1
p-Ethyltoluene	ND		ug/l	2.0	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.10	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	100		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/28/12 09:04
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12,15 Batch: WG557500-3					
Methylene chloride	ND		ug/l	3.0	0.54
1,1-Dichloroethane	ND		ug/l	0.75	0.22
Chloroform	ND		ug/l	0.75	0.20
Carbon tetrachloride	ND		ug/l	0.50	0.16
1,2-Dichloropropane	ND		ug/l	1.8	0.30
Dibromochloromethane	ND		ug/l	0.50	0.19
1,1,2-Trichloroethane	ND		ug/l	0.75	0.26
2-Chloroethylvinyl ether	ND		ug/l	10	0.40
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.19
Trichlorofluoromethane	ND		ug/l	2.5	0.27
1,2-Dichloroethane	ND		ug/l	0.50	0.16
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.26
Bromoform	ND		ug/l	2.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.19
Benzene	ND		ug/l	0.50	0.19
Toluene	ND		ug/l	0.75	0.23
Ethylbenzene	ND		ug/l	0.50	0.26
Chloromethane	ND		ug/l	2.5	0.28
Bromomethane	ND		ug/l	1.0	0.26
Vinyl chloride	ND		ug/l	1.0	0.22
Chloroethane	ND		ug/l	1.0	0.23
1,1-Dichloroethene	ND		ug/l	0.50	0.18
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.21
Trichloroethene	ND		ug/l	0.50	0.17
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/28/12 09:04
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12,15 Batch: WG557500-3					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.22
Methyl tert butyl ether	ND		ug/l	1.0	0.16
p/m-Xylene	ND		ug/l	1.0	0.35
o-Xylene	ND		ug/l	1.0	0.33
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Dibromomethane	ND		ug/l	5.0	0.36
1,4-Dichlorobutane	ND		ug/l	5.0	0.47
1,2,3-Trichloropropane	ND		ug/l	5.0	0.43
Styrene	ND		ug/l	1.0	0.36
Dichlorodifluoromethane	ND		ug/l	5.0	0.30
Acetone	ND		ug/l	5.0	1.6
Carbon disulfide	ND		ug/l	5.0	0.30
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	0.31
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
2-Hexanone	ND		ug/l	5.0	0.58
Ethyl methacrylate	ND		ug/l	5.0	0.61
Acrylonitrile	ND		ug/l	5.0	0.43
Bromochloromethane	ND		ug/l	2.5	0.33
Tetrahydrofuran	ND		ug/l	5.0	1.3
2,2-Dichloropropane	ND		ug/l	2.5	0.40
1,2-Dibromoethane	ND		ug/l	2.0	0.32
1,3-Dichloropropane	ND		ug/l	2.5	0.21
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16
Bromobenzene	ND		ug/l	2.5	0.18
n-Butylbenzene	ND		ug/l	0.50	0.20
sec-Butylbenzene	ND		ug/l	0.50	0.18
tert-Butylbenzene	ND		ug/l	2.5	0.30
o-Chlorotoluene	ND		ug/l	2.5	0.18
p-Chlorotoluene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/28/12 09:04
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12,15 Batch: WG557500-3					
Hexachlorobutadiene	ND		ug/l	0.50	0.23
Isopropylbenzene	ND		ug/l	0.50	0.19
p-Isopropyltoluene	ND		ug/l	0.50	0.19
Naphthalene	ND		ug/l	2.5	0.22
n-Propylbenzene	ND		ug/l	0.50	0.17
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.21
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.27
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17
Halothane	ND		ug/l	2.5	3.7
Ethyl ether	ND		ug/l	2.5	0.20
Ethyl Acetate	ND		ug/l	10	0.72
Diisopropyl Ether	ND		ug/l	2.0	0.16
Cyclohexane	ND		ug/l	10	0.24
Tert-Butyl Alcohol	ND		ug/l	10	0.90
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	0.46
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.38
1,4-Dioxane	ND		ug/l	250	76.
Freon-113	ND		ug/l	10	0.23
Methyl cyclohexane	ND		ug/l	10	0.29
p-Diethylbenzene	ND		ug/l	2.0	0.11
p-Ethyltoluene	ND		ug/l	2.0	0.42
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.10

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/28/12 09:04
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12,15 Batch: WG557500-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	100		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 10-11,14 Batch: WG557798-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.24
Chloroform	ND		ug/kg	1.5	0.32
Carbon tetrachloride	ND		ug/kg	1.0	0.28
1,2-Dichloropropane	ND		ug/kg	3.5	0.25
Dibromochloromethane	ND		ug/kg	1.0	0.32
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.41
2-Chloroethylvinyl ether	ND		ug/kg	20	0.31
Tetrachloroethene	ND		ug/kg	1.0	0.29
Chlorobenzene	ND		ug/kg	1.0	0.25
Trichlorofluoromethane	ND		ug/kg	5.0	0.44
1,2-Dichloroethane	ND		ug/kg	1.0	0.29
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.20
Bromodichloromethane	ND		ug/kg	1.0	0.38
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.34
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
1,1-Dichloropropene	ND		ug/kg	5.0	0.56
Bromoform	ND		ug/kg	4.0	1.1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.29
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.38
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	2.0	0.55
Chloroethane	ND		ug/kg	2.0	0.44
1,1-Dichloroethene	ND		ug/kg	1.0	0.33
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.30
Trichloroethene	ND		ug/kg	1.0	0.28
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.36
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.38

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 10-11,14 Batch: WG557798-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.30
Methyl tert butyl ether	ND		ug/kg	2.0	0.66
p/m-Xylene	ND		ug/kg	2.0	0.46
o-Xylene	ND		ug/kg	2.0	0.57
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.26
Dibromomethane	ND		ug/kg	10	0.43
1,2,3-Trichloropropane	ND		ug/kg	10	0.42
Styrene	ND		ug/kg	2.0	0.61
Dichlorodifluoromethane	ND		ug/kg	10	1.7
Acetone	ND		ug/kg	36	3.2
Carbon disulfide	ND		ug/kg	10	0.26
2-Butanone	ND		ug/kg	10	3.9
Vinyl acetate	ND		ug/kg	10	1.4
4-Methyl-2-pentanone	ND		ug/kg	10	1.8
2-Hexanone	ND		ug/kg	10	1.2
Ethyl methacrylate	ND		ug/kg	10	1.5
Acrolein	ND		ug/kg	25	3.0
Acrylonitrile	ND		ug/kg	4.0	1.2
Bromochloromethane	ND		ug/kg	5.0	0.36
Tetrahydrofuran	ND		ug/kg	20	1.1
2,2-Dichloropropane	ND		ug/kg	5.0	1.2
1,2-Dibromoethane	ND		ug/kg	4.0	0.21
1,3-Dichloropropane	ND		ug/kg	5.0	0.23
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.33
Bromobenzene	ND		ug/kg	5.0	0.33
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.21
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.31
p-Chlorotoluene	ND		ug/kg	5.0	0.28
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	1.5

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 10-11,14 Batch: WG557798-3					
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.19
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.82
n-Propylbenzene	ND		ug/kg	1.0	0.23
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.92
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.87
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	1.4
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	1.5
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.5
Halothane	ND		ug/kg	40	7.4
Ethyl ether	ND		ug/kg	5.0	0.36
Methyl Acetate	ND		ug/kg	20	20.
Ethyl Acetate	ND		ug/kg	20	20.
Diisopropyl Ether	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	20	20.
Tert-Butyl Alcohol	ND		ug/kg	100	1.2
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.88
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	1.0
1,4-Dioxane	ND		ug/kg	100	17.
Methyl cyclohexane	ND		ug/kg	4.0	4.0
Freon-113	ND		ug/kg	20	0.93
p-Diethylbenzene	ND		ug/kg	4.0	0.20
p-Ethyltoluene	ND		ug/kg	4.0	0.10
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.18

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 10-11,14 Batch: WG557798-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:30
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05-08 Batch: WG557805-3					
Methylene chloride	2.2	J	ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.24
Chloroform	ND		ug/kg	1.5	0.32
Carbon tetrachloride	ND		ug/kg	1.0	0.28
1,2-Dichloropropane	ND		ug/kg	3.5	0.25
Dibromochloromethane	ND		ug/kg	1.0	0.32
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.41
2-Chloroethylvinyl ether	ND		ug/kg	20	0.31
Tetrachloroethene	ND		ug/kg	1.0	0.29
Chlorobenzene	ND		ug/kg	1.0	0.25
Trichlorofluoromethane	ND		ug/kg	5.0	0.44
1,2-Dichloroethane	ND		ug/kg	1.0	0.29
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.20
Bromodichloromethane	ND		ug/kg	1.0	0.38
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.34
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
1,1-Dichloropropene	ND		ug/kg	5.0	0.56
Bromoform	ND		ug/kg	4.0	1.1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.29
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.38
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	2.0	0.55
Chloroethane	ND		ug/kg	2.0	0.44
1,1-Dichloroethene	ND		ug/kg	1.0	0.33
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.30
Trichloroethene	ND		ug/kg	1.0	0.28
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.36
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.38

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:30
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05-08 Batch: WG557805-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.30
Methyl tert butyl ether	ND		ug/kg	2.0	0.66
p/m-Xylene	ND		ug/kg	2.0	0.46
o-Xylene	ND		ug/kg	2.0	0.57
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.26
Dibromomethane	ND		ug/kg	10	0.43
1,2,3-Trichloropropane	ND		ug/kg	10	0.42
Styrene	ND		ug/kg	2.0	0.61
Dichlorodifluoromethane	ND		ug/kg	10	1.7
Acetone	ND		ug/kg	36	3.2
Carbon disulfide	ND		ug/kg	10	0.26
2-Butanone	ND		ug/kg	10	3.9
Vinyl acetate	ND		ug/kg	10	1.4
4-Methyl-2-pentanone	ND		ug/kg	10	1.8
2-Hexanone	ND		ug/kg	10	1.2
Ethyl methacrylate	ND		ug/kg	10	1.5
Acrolein	ND		ug/kg	25	3.0
Acrylonitrile	ND		ug/kg	4.0	1.2
Bromochloromethane	ND		ug/kg	5.0	0.36
Tetrahydrofuran	ND		ug/kg	20	1.1
2,2-Dichloropropane	ND		ug/kg	5.0	1.2
1,2-Dibromoethane	ND		ug/kg	4.0	0.21
1,3-Dichloropropane	ND		ug/kg	5.0	0.23
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.33
Bromobenzene	ND		ug/kg	5.0	0.33
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.21
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.31
p-Chlorotoluene	ND		ug/kg	5.0	0.28
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	1.5

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:30
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05-08 Batch: WG557805-3					
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.19
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.82
n-Propylbenzene	ND		ug/kg	1.0	0.23
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.92
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.87
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	1.4
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	1.5
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.5
Halothane	ND		ug/kg	40	7.4
Ethyl ether	ND		ug/kg	5.0	0.36
Methyl Acetate	ND		ug/kg	20	20.
Ethyl Acetate	ND		ug/kg	20	20.
Diisopropyl Ether	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	20	20.
Tert-Butyl Alcohol	ND		ug/kg	100	1.2
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.88
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	1.0
1,4-Dioxane	ND		ug/kg	100	17.
Methyl cyclohexane	ND		ug/kg	4.0	4.0
Freon-113	ND		ug/kg	20	0.93
p-Diethylbenzene	ND		ug/kg	4.0	0.20
p-Ethyltoluene	ND		ug/kg	4.0	0.10
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.18

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:30
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 05-08 Batch: WG557805-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	102		70-130

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 04,09,13 Batch: WG557812-3					
Methylene chloride	ND		ug/kg	500	100
1,1-Dichloroethane	ND		ug/kg	75	12.
Chloroform	ND		ug/kg	75	16.
Carbon tetrachloride	ND		ug/kg	50	14.
1,2-Dichloropropane	ND		ug/kg	180	12.
Dibromochloromethane	ND		ug/kg	50	16.
1,1,2-Trichloroethane	ND		ug/kg	75	20.
2-Chloroethylvinyl ether	ND		ug/kg	1000	16.
Tetrachloroethene	ND		ug/kg	50	14.
Chlorobenzene	ND		ug/kg	50	12.
Trichlorofluoromethane	ND		ug/kg	250	22.
1,2-Dichloroethane	ND		ug/kg	50	15.
1,1,1-Trichloroethane	ND		ug/kg	50	10.
Bromodichloromethane	ND		ug/kg	50	19.
trans-1,3-Dichloropropene	ND		ug/kg	50	17.
cis-1,3-Dichloropropene	ND		ug/kg	50	13.
1,1-Dichloropropene	ND		ug/kg	250	28.
Bromoform	ND		ug/kg	200	56.
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	14.
Benzene	ND		ug/kg	50	9.6
Toluene	ND		ug/kg	75	9.5
Ethylbenzene	ND		ug/kg	50	19.
Chloromethane	ND		ug/kg	250	39.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	100	28.
Chloroethane	ND		ug/kg	100	22.
1,1-Dichloroethene	ND		ug/kg	50	16.
trans-1,2-Dichloroethene	ND		ug/kg	75	15.
Trichloroethene	ND		ug/kg	50	14.
1,2-Dichlorobenzene	ND		ug/kg	250	18.
1,3-Dichlorobenzene	ND		ug/kg	250	19.

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 04,09,13 Batch: WG557812-3					
1,4-Dichlorobenzene	ND		ug/kg	250	15.
Methyl tert butyl ether	ND		ug/kg	100	33.
p/m-Xylene	ND		ug/kg	100	23.
o-Xylene	ND		ug/kg	100	28.
cis-1,2-Dichloroethene	ND		ug/kg	50	13.
Dibromomethane	ND		ug/kg	500	22.
1,2,3-Trichloropropane	ND		ug/kg	500	21.
Styrene	ND		ug/kg	100	31.
Dichlorodifluoromethane	ND		ug/kg	500	87.
Acetone	ND		ug/kg	1800	160
Carbon disulfide	ND		ug/kg	500	13.
2-Butanone	ND		ug/kg	500	190
Vinyl acetate	ND		ug/kg	500	68.
4-Methyl-2-pentanone	ND		ug/kg	500	88.
2-Hexanone	ND		ug/kg	500	63.
Ethyl methacrylate	ND		ug/kg	500	74.
Acrolein	ND		ug/kg	1200	150
Acrylonitrile	ND		ug/kg	200	60.
Bromochloromethane	ND		ug/kg	250	18.
Tetrahydrofuran	ND		ug/kg	1000	56.
2,2-Dichloropropane	ND		ug/kg	250	60.
1,2-Dibromoethane	ND		ug/kg	200	11.
1,3-Dichloropropane	ND		ug/kg	250	12.
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	16.
Bromobenzene	ND		ug/kg	250	16.
n-Butylbenzene	ND		ug/kg	50	10.
sec-Butylbenzene	ND		ug/kg	50	11.
tert-Butylbenzene	ND		ug/kg	250	28.
o-Chlorotoluene	ND		ug/kg	250	16.
p-Chlorotoluene	ND		ug/kg	250	14.
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	74.

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 04,09,13 Batch: WG557812-3					
Hexachlorobutadiene	ND		ug/kg	250	21.
Isopropylbenzene	ND		ug/kg	50	9.6
p-Isopropyltoluene	ND		ug/kg	50	9.7
Naphthalene	ND		ug/kg	250	41.
n-Propylbenzene	ND		ug/kg	50	12.
1,2,3-Trichlorobenzene	ND		ug/kg	250	46.
1,2,4-Trichlorobenzene	ND		ug/kg	250	43.
1,3,5-Trimethylbenzene	ND		ug/kg	250	69.
1,2,4-Trimethylbenzene	ND		ug/kg	250	76.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	74.
Halothane	ND		ug/kg	2000	370
Ethyl ether	ND		ug/kg	250	18.
Methyl Acetate	ND		ug/kg	1000	1000
Ethyl Acetate	ND		ug/kg	1000	1000
Diisopropyl Ether	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	1000	1000
Tert-Butyl Alcohol	ND		ug/kg	5000	62.
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	44.
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	50.
1,4-Dioxane	ND		ug/kg	5000	870
Methyl cyclohexane	ND		ug/kg	200	200
Freon-113	ND		ug/kg	1000	47.
p-Diethylbenzene	ND		ug/kg	200	10.
p-Ethyltoluene	ND		ug/kg	200	4.8
1,2,4,5-Tetramethylbenzene	ND		ug/kg	200	9.0

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/12 10:00
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 04,09,13 Batch: WG557812-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,15 Batch: WG557500-1 WG557500-2								
Methylene chloride	98		94		70-130	4		20
1,1-Dichloroethane	92		90		70-130	2		20
Chloroform	94		88		70-130	7		20
Carbon tetrachloride	84		80		63-132	5		20
1,2-Dichloropropane	90		85		70-130	6		20
Dibromochloromethane	93		88		63-130	6		20
1,1,2-Trichloroethane	93		89		70-130	4		20
2-Chloroethylvinyl ether	83		86		70-130	4		20
Tetrachloroethene	88		83		70-130	6		20
Chlorobenzene	97		91		75-130	6		25
Trichlorofluoromethane	80		77		62-150	4		20
1,2-Dichloroethane	94		90		70-130	4		20
1,1,1-Trichloroethane	88		84		67-130	5		20
Bromodichloromethane	91		84		67-130	8		20
trans-1,3-Dichloropropene	88		88		70-130	0		20
cis-1,3-Dichloropropene	88		86		70-130	2		20
1,1-Dichloropropene	92		87		70-130	6		20
Bromoform	94		93		54-136	1		20
1,1,2,2-Tetrachloroethane	103		101		67-130	2		20
Benzene	92		90		70-130	2		25
Toluene	94		90		70-130	4		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,15 Batch: WG557500-1 WG557500-2								
Ethylbenzene	98		93		70-130	5		20
Chloromethane	86		76		64-130	12		20
Bromomethane	50		49		39-139	2		20
Vinyl chloride	91		87		55-140	4		20
Chloroethane	82		82		55-138	0		20
1,1-Dichloroethene	90		84		61-145	7		25
trans-1,2-Dichloroethene	90		87		70-130	3		20
Trichloroethene	88		84		70-130	5		25
1,2-Dichlorobenzene	98		96		70-130	2		20
1,3-Dichlorobenzene	98		95		70-130	3		20
1,4-Dichlorobenzene	96		94		70-130	2		20
Methyl tert butyl ether	96		94		63-130	2		20
p/m-Xylene	98		93		70-130	5		20
o-Xylene	93		87		70-130	7		20
cis-1,2-Dichloroethene	93		88		70-130	6		20
Dibromomethane	87		84		70-130	4		20
1,4-Dichlorobutane	104		106		70-130	2		20
1,2,3-Trichloropropane	101		102		64-130	1		20
Styrene	91		87		70-130	4		20
Dichlorodifluoromethane	88		84		36-147	5		20
Acetone	115		105		58-148	9		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,15 Batch: WG557500-1 WG557500-2								
Carbon disulfide	90		85		51-130	6		20
2-Butanone	104		105		63-138	1		20
Vinyl acetate	92		91		70-130	1		20
4-Methyl-2-pentanone	80		79		59-130	1		20
2-Hexanone	99		94		57-130	5		20
Ethyl methacrylate	89		87		70-130	2		20
Acrylonitrile	92		90		70-130	2		20
Bromochloromethane	92		90		70-130	2		20
Tetrahydrofuran	99		95		58-130	4		20
2,2-Dichloropropane	73		90		63-133	**21**	Q	20
1,2-Dibromoethane	96		93		70-130	3		20
1,3-Dichloropropane	95		92		70-130	3		20
1,1,1,2-Tetrachloroethane	95		91		64-130	4		20
Bromobenzene	98		98		70-130	0		20
n-Butylbenzene	96		94		53-136	2		20
sec-Butylbenzene	103		102		70-130	1		20
tert-Butylbenzene	101		100		70-130	1		20
o-Chlorotoluene	103		102		70-130	1		20
p-Chlorotoluene	104		102		70-130	2		20
1,2-Dibromo-3-chloropropane	98		97		41-144	1		20
Hexachlorobutadiene	91		85		63-130	7		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,15 Batch: WG557500-1 WG557500-2								
Isopropylbenzene	105		103		70-130	2		20
p-Isopropyltoluene	94		93		70-130	1		20
Naphthalene	97		96		70-130	1		20
n-Propylbenzene	103		103		69-130	0		20
1,2,3-Trichlorobenzene	92		89		70-130	3		20
1,2,4-Trichlorobenzene	93		92		70-130	1		20
1,3,5-Trimethylbenzene	105		104		64-130	1		20
1,3,5-Trichlorobenzene	93		91		70-130	2		20
1,2,4-Trimethylbenzene	101		99		70-130	2		20
trans-1,4-Dichloro-2-butene	92		102		70-130	10		20
Halothane	87		83		70-130	5		20
Ethyl ether	85		80		59-134	6		20
Methyl Acetate	84		90		70-130	7		20
Ethyl Acetate	96		93		70-130	3		20
Isopropyl Ether	93		90		70-130	3		20
Cyclohexane	86		83		70-130	4		20
tert-Butyl Alcohol	83		92		70-130	10		20
Ethyl-Tert-Butyl-Ether	93		90		70-130	3		20
Tertiary-Amyl Methyl Ether	91		88		66-130	3		20
1,4-Dioxane	91		70		56-162	**26**	Q	20
1,1,2-Trichloro-1,2,2-Trifluoroethane	89		86		70-130	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,15 Batch: WG557500-1 WG557500-2								
Methyl cyclohexane	90		88		70-130	2		20
1,4-Diethylbenzene	101		100		70-130	1		20
4-Ethyltoluene	107		105		70-130	2		20
1,2,4,5-Tetramethylbenzene	96		95		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		103		70-130
Toluene-d8	104		104		70-130
4-Bromofluorobenzene	108		111		70-130
Dibromofluoromethane	99		99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 10-11,14 Batch: WG557798-1 WG557798-2								
Methylene chloride	109		112		70-130	3		30
1,1-Dichloroethane	102		107		70-130	5		30
Chloroform	103		106		70-130	3		30
Carbon tetrachloride	100		107		70-130	7		30
1,2-Dichloropropane	103		107		70-130	4		30
Dibromochloromethane	99		104		70-130	5		30
1,1,2-Trichloroethane	102		108		70-130	6		30
2-Chloroethylvinyl ether	103		107		70-130	4		30
Tetrachloroethene	96		103		70-130	7		30
Chlorobenzene	99		105		70-130	6		30
Trichlorofluoromethane	109		113		70-139	4		30
1,2-Dichloroethane	102		105		70-130	3		30
1,1,1-Trichloroethane	99		104		70-130	5		30
Bromodichloromethane	101		104		70-130	3		30
trans-1,3-Dichloropropene	102		107		70-130	5		30
cis-1,3-Dichloropropene	107		110		70-130	3		30
1,1-Dichloropropene	100		106		70-130	6		30
Bromoform	98		104		70-130	6		30
1,1,2,2-Tetrachloroethane	100		105		70-130	5		30
Benzene	103		106		70-130	3		30
Toluene	96		103		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 10-11,14 Batch: WG557798-1 WG557798-2								
Ethylbenzene	99		105		70-130	6		30
Chloromethane	101		104		52-130	3		30
Bromomethane	114		114		57-147	0		30
Vinyl chloride	106		111		67-130	5		30
Chloroethane	110		114		50-151	4		30
1,1-Dichloroethene	102		109		65-135	7		30
trans-1,2-Dichloroethene	102		106		70-130	4		30
Trichloroethene	100		104		70-130	4		30
1,2-Dichlorobenzene	100		104		70-130	4		30
1,3-Dichlorobenzene	100		106		70-130	6		30
1,4-Dichlorobenzene	99		103		70-130	4		30
Methyl tert butyl ether	107		110		66-130	3		30
p/m-Xylene	100		106		70-130	6		30
o-Xylene	103		107		70-130	4		30
cis-1,2-Dichloroethene	103		108		70-130	5		30
Dibromomethane	107		110		70-130	3		30
1,4-Dichlorobutane	100		105		70-130	5		30
1,2,3-Trichloropropane	94		97		68-130	3		30
Styrene	104		109		70-130	5		30
Dichlorodifluoromethane	117		121		30-146	3		30
Acetone	115		115		54-140	0		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 10-11,14 Batch: WG557798-1 WG557798-2								
Carbon disulfide	100		105		59-130	5		30
2-Butanone	109		110		70-130	1		30
Vinyl acetate	106		108		70-130	2		30
4-Methyl-2-pentanone	102		107		70-130	5		30
2-Hexanone	101		103		70-130	2		30
Ethyl methacrylate	93		97		70-130	4		30
Acrolein	107		111			4		30
Acrylonitrile	109		112		70-130	3		30
Bromochloromethane	108		110		70-130	2		30
Tetrahydrofuran	107		109		66-130	2		30
2,2-Dichloropropane	103		107		70-130	4		30
1,2-Dibromoethane	100		105		70-130	5		30
1,3-Dichloropropane	102		106		69-130	4		30
1,1,1,2-Tetrachloroethane	99		104		70-130	5		30
Bromobenzene	98		104		70-130	6		30
n-Butylbenzene	100		107		70-130	7		30
sec-Butylbenzene	99		106		70-130	7		30
tert-Butylbenzene	100		107		70-130	7		30
1,3,5-trichlorobenzene	99		103		70-139	4		30
o-Chlorotoluene	101		106		70-130	5		30
p-Chlorotoluene	100		105		70-130	5		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 10-11,14 Batch: WG557798-1 WG557798-2								
1,2-Dibromo-3-chloropropane	100		106		68-130	6		30
Hexachlorobutadiene	97		102		67-130	5		30
Isopropylbenzene	99		106		70-130	7		30
p-Isopropyltoluene	100		107		70-130	7		30
Naphthalene	98		104		70-130	6		30
n-Propylbenzene	99		106		70-130	7		30
1,2,3-Trichlorobenzene	99		102		70-130	3		30
1,2,4-Trichlorobenzene	98		102		70-130	4		30
1,3,5-Trimethylbenzene	101		107		70-130	6		30
1,2,4-Trimethylbenzene	101		108		70-130	7		30
trans-1,4-Dichloro-2-butene	100		102		70-130	2		30
Halothane	104		108		70-130	4		20
Ethyl ether	124		112		67-130	10		30
Methyl Acetate	106		108		65-130	2		30
Ethyl Acetate	96		106		70-130	10		30
Cyclohexane	116		124		70-130	7		30
tert-Butyl Alcohol	107		109		70-130	2		30
Ethyl-Tert-Butyl-Ether	107		109		70-130	2		30
Tertiary-Amyl Methyl Ether	107		110		70-130	3		30
1,4-Dioxane	122		120		65-136	2		30
Methyl cyclohexane	114		122		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 10-11,14 Batch: WG557798-1 WG557798-2								
1,1,2-Trichloro-1,2,2-Trifluoroethane	121		128		70-130	6		30
1,4-Diethylbenzene	101		106		70-130	5		30
4-Ethyltoluene	101		107		70-130	6		30
1,2,4,5-Tetramethylbenzene	102		107		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		93		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	98		97		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 05-08 Batch: WG557805-1 WG557805-2								
Methylene chloride	103		108		70-130	5		30
1,1-Dichloroethane	106		114		70-130	7		30
Chloroform	108		111		70-130	3		30
Carbon tetrachloride	106		117		70-130	10		30
1,2-Dichloropropane	111		113		70-130	2		30
Dibromochloromethane	100		104		70-130	4		30
1,1,2-Trichloroethane	107		109		70-130	2		30
2-Chloroethylvinyl ether	111		113		70-130	2		30
Tetrachloroethene	98		108		70-130	10		30
Chlorobenzene	102		107		70-130	5		30
Trichlorofluoromethane	102		113		70-139	10		30
1,2-Dichloroethane	111		112		70-130	1		30
1,1,1-Trichloroethane	106		116		70-130	9		30
Bromodichloromethane	109		111		70-130	2		30
trans-1,3-Dichloropropene	110		112		70-130	2		30
cis-1,3-Dichloropropene	116		115		70-130	1		30
1,1-Dichloropropene	108		119		70-130	10		30
Bromoform	94		95		70-130	1		30
1,1,2,2-Tetrachloroethane	95		99		70-130	4		30
Benzene	108		114		70-130	5		30
Toluene	97		104		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070
Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 05-08 Batch: WG557805-1 WG557805-2								
Ethylbenzene	100		106		70-130	6		30
Chloromethane	95		107		52-130	12		30
Bromomethane	88		106		57-147	19		30
Vinyl chloride	86		97		67-130	12		30
Chloroethane	88		99		50-151	12		30
1,1-Dichloroethene	109		118		65-135	8		30
trans-1,2-Dichloroethene	106		114		70-130	7		30
Trichloroethene	106		113		70-130	6		30
1,2-Dichlorobenzene	98		100		70-130	2		30
1,3-Dichlorobenzene	99		102		70-130	3		30
1,4-Dichlorobenzene	98		102		70-130	4		30
Methyl tert butyl ether	115		117		66-130	2		30
p/m-Xylene	101		107		70-130	6		30
o-Xylene	104		110		70-130	6		30
cis-1,2-Dichloroethene	108		114		70-130	5		30
Dibromomethane	109		115		70-130	5		30
1,4-Dichlorobutane	98		98		70-130	0		30
1,2,3-Trichloropropane	103		106		68-130	3		30
Styrene	105		109		70-130	4		30
Dichlorodifluoromethane	128		**147**	Q	30-146	14		30
Acetone	92		104		54-140	12		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 05-08 Batch: WG557805-1 WG557805-2								
Carbon disulfide	107		118		59-130	10		30
2-Butanone	97		109		70-130	12		30
Vinyl acetate	98		102		70-130	4		30
4-Methyl-2-pentanone	102		106		70-130	4		30
2-Hexanone	96		102		70-130	6		30
Ethyl methacrylate	105		106		70-130	1		30
Acrolein	89		89			0		30
Acrylonitrile	99		105		70-130	6		30
Bromochloromethane	112		115		70-130	3		30
Tetrahydrofuran	102		108		66-130	6		30
2,2-Dichloropropane	114		124		70-130	8		30
1,2-Dibromoethane	99		106		70-130	7		30
1,3-Dichloropropane	104		110		69-130	6		30
1,1,1,2-Tetrachloroethane	99		103		70-130	4		30
Bromobenzene	100		102		70-130	2		30
n-Butylbenzene	100		107		70-130	7		30
sec-Butylbenzene	97		106		70-130	9		30
tert-Butylbenzene	98		105		70-130	7		30
1,3,5-trichlorobenzene	96		100		70-139	4		30
o-Chlorotoluene	97		102		70-130	5		30
p-Chlorotoluene	102		105		70-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 05-08 Batch: WG557805-1 WG557805-2								
1,2-Dibromo-3-chloropropane	73		91		68-130	22		30
Hexachlorobutadiene	90		97		67-130	7		30
Isopropylbenzene	96		104		70-130	8		30
p-Isopropyltoluene	96		105		70-130	9		30
Naphthalene	93		95		70-130	2		30
n-Propylbenzene	98		105		70-130	7		30
1,2,3-Trichlorobenzene	95		98		70-130	3		30
1,2,4-Trichlorobenzene	93		96		70-130	3		30
1,3,5-Trimethylbenzene	100		102		70-130	2		30
1,2,4-Trimethylbenzene	99		104		70-130	5		30
trans-1,4-Dichloro-2-butene	104		107		70-130	3		30
Halothane	101		112		70-130	10		20
Ethyl ether	106		113		67-130	6		30
Methyl Acetate	100		103		65-130	3		30
Ethyl Acetate	104		106		70-130	2		30
Cyclohexane	112		126		70-130	12		30
tert-Butyl Alcohol	96		96		70-130	0		30
Ethyl-Tert-Butyl-Ether	115		118		70-130	3		30
Tertiary-Amyl Methyl Ether	122		120		70-130	2		30
1,4-Dioxane	108		111		65-136	3		30
Methyl cyclohexane	119		**135**	Q	70-130	13		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070
Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 05-08 Batch: WG557805-1 WG557805-2								
1,1,2-Trichloro-1,2,2-Trifluoroethane	122		**134**	Q	70-130	9		30
1,4-Diethylbenzene	97		106		70-130	9		30
4-Ethyltoluene	98		105		70-130	7		30
1,2,4,5-Tetramethylbenzene	96		100		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		99		70-130
Toluene-d8	97		95		70-130
4-Bromofluorobenzene	100		98		70-130
Dibromofluoromethane	102		101		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 04,09,13 Batch: WG557812-1 WG557812-2								
Methylene chloride	109		112		70-130	3		30
1,1-Dichloroethane	102		107		70-130	5		30
Chloroform	103		106		70-130	3		30
Carbon tetrachloride	100		107		70-130	7		30
1,2-Dichloropropane	103		107		70-130	4		30
Dibromochloromethane	99		104		70-130	5		30
1,1,2-Trichloroethane	102		108		70-130	6		30
2-Chloroethylvinyl ether	103		107		70-130	4		30
Tetrachloroethene	96		103		70-130	7		30
Chlorobenzene	99		105		70-130	6		30
Trichlorofluoromethane	109		113		70-139	4		30
1,2-Dichloroethane	102		105		70-130	3		30
1,1,1-Trichloroethane	99		104		70-130	5		30
Bromodichloromethane	101		104		70-130	3		30
trans-1,3-Dichloropropene	102		107		70-130	5		30
cis-1,3-Dichloropropene	107		110		70-130	3		30
1,1-Dichloropropene	100		106		70-130	6		30
Bromoform	98		104		70-130	6		30
1,1,2,2-Tetrachloroethane	100		105		70-130	5		30
Benzene	103		106		70-130	3		30
Toluene	96		103		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 04,09,13 Batch: WG557812-1 WG557812-2								
Ethylbenzene	99		105		70-130	6		30
Chloromethane	101		104		52-130	3		30
Bromomethane	114		114		57-147	0		30
Vinyl chloride	106		111		67-130	5		30
Chloroethane	110		114		50-151	4		30
1,1-Dichloroethene	102		109		65-135	7		30
trans-1,2-Dichloroethene	102		106		70-130	4		30
Trichloroethene	100		104		70-130	4		30
1,2-Dichlorobenzene	100		104		70-130	4		30
1,3-Dichlorobenzene	100		106		70-130	6		30
1,4-Dichlorobenzene	99		103		70-130	4		30
Methyl tert butyl ether	107		110		66-130	3		30
p/m-Xylene	100		106		70-130	6		30
o-Xylene	103		107		70-130	4		30
cis-1,2-Dichloroethene	103		108		70-130	5		30
Dibromomethane	107		110		70-130	3		30
1,4-Dichlorobutane	100		105		70-130	5		30
1,2,3-Trichloropropane	94		97		68-130	3		30
Styrene	104		109		70-130	5		30
Dichlorodifluoromethane	117		121		30-146	3		30
Acetone	115		115		54-140	0		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 04,09,13 Batch: WG557812-1 WG557812-2								
Carbon disulfide	100		105		59-130	5		30
2-Butanone	109		110		70-130	1		30
Vinyl acetate	106		108		70-130	2		30
4-Methyl-2-pentanone	102		107		70-130	5		30
2-Hexanone	101		103		70-130	2		30
Ethyl methacrylate	93		97		70-130	4		30
Acrolein	107		111			4		30
Acrylonitrile	109		112		70-130	3		30
Bromochloromethane	108		110		70-130	2		30
Tetrahydrofuran	107		109		66-130	2		30
2,2-Dichloropropane	103		107		70-130	4		30
1,2-Dibromoethane	100		105		70-130	5		30
1,3-Dichloropropane	102		106		69-130	4		30
1,1,1,2-Tetrachloroethane	99		104		70-130	5		30
Bromobenzene	98		104		70-130	6		30
n-Butylbenzene	100		107		70-130	7		30
sec-Butylbenzene	99		106		70-130	7		30
tert-Butylbenzene	100		107		70-130	7		30
1,3,5-trichlorobenzene	99		103		70-139	4		30
o-Chlorotoluene	101		106		70-130	5		30
p-Chlorotoluene	100		105		70-130	5		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 04,09,13 Batch: WG557812-1 WG557812-2								
1,2-Dibromo-3-chloropropane	100		106		68-130	6		30
Hexachlorobutadiene	97		102		67-130	5		30
Isopropylbenzene	99		106		70-130	7		30
p-Isopropyltoluene	100		107		70-130	7		30
Naphthalene	98		104		70-130	6		30
n-Propylbenzene	99		106		70-130	7		30
1,2,3-Trichlorobenzene	99		102		70-130	3		30
1,2,4-Trichlorobenzene	98		102		70-130	4		30
1,3,5-Trimethylbenzene	101		107		70-130	6		30
1,2,4-Trimethylbenzene	101		108		70-130	7		30
trans-1,4-Dichloro-2-butene	100		102		70-130	2		30
Halothane	104		108		70-130	4		20
Ethyl ether	124		112		67-130	10		30
Methyl Acetate	106		108		65-130	2		30
Ethyl Acetate	96		106		70-130	10		30
Cyclohexane	116		124		70-130	7		30
tert-Butyl Alcohol	107		109		70-130	2		30
Ethyl-Tert-Butyl-Ether	107		109		70-130	2		30
Tertiary-Amyl Methyl Ether	107		110		70-130	3		30
1,4-Dioxane	122		120		65-136	2		30
Methyl cyclohexane	114		122		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 04,09,13 Batch: WG557812-1 WG557812-2								
1,1,2-Trichloro-1,2,2-Trifluoroethane	121		128		70-130	6		30
1,4-Diethylbenzene	101		106		70-130	5		30
4-Ethyltoluene	101		107		70-130	6		30
1,2,4,5-Tetramethylbenzene	102		107		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		94		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	98		97		70-130

PCBS

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-01	Date Collected:	08/27/12 10:10
Client ID:	CS-01-1-2	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/29/12 11:20	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	93%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	34.8	6.86	1
Aroclor 1221	ND		ug/kg	34.8	10.5	1
Aroclor 1232	ND		ug/kg	34.8	7.38	1
Aroclor 1242	ND		ug/kg	34.8	6.60	1
Aroclor 1248	ND		ug/kg	34.8	4.20	1
Aroclor 1254	389		ug/kg	34.8	5.48	1
Aroclor 1260	ND		ug/kg	34.8	6.03	1
Aroclor 1262	ND		ug/kg	34.8	2.57	1
Aroclor 1268	ND		ug/kg	34.8	5.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	58		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	65		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-02	Date Collected:	08/27/12 10:12
Client ID:	CS-02-1-2	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 17:48	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	92%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.0	6.91	1
Aroclor 1221	ND		ug/kg	35.0	10.5	1
Aroclor 1232	ND		ug/kg	35.0	7.43	1
Aroclor 1242	ND		ug/kg	35.0	6.64	1
Aroclor 1248	ND		ug/kg	35.0	4.23	1
Aroclor 1260	ND		ug/kg	35.0	6.07	1
Aroclor 1262	ND		ug/kg	35.0	2.59	1
Aroclor 1268	ND		ug/kg	35.0	5.07	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	87		30-150
Decachlorobiphenyl	72		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-02	Date Collected:	08/27/12 10:12
Client ID:	CS-02-1-2	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 17:48	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	92%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	86.0		ug/kg	35.0	5.51	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	71		30-150
2,4,5,6-Tetrachloro-m-xylene	87		30-150
Decachlorobiphenyl	72		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-03	Date Collected:	08/27/12 10:14
Client ID:	CS-03-1-2	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/29/12 11:33	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	92%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	34.2	6.76	1
Aroclor 1221	ND		ug/kg	34.2	10.3	1
Aroclor 1232	ND		ug/kg	34.2	7.27	1
Aroclor 1242	ND		ug/kg	34.2	6.50	1
Aroclor 1248	ND		ug/kg	34.2	4.14	1
Aroclor 1260	ND		ug/kg	34.2	5.94	1
Aroclor 1262	ND		ug/kg	34.2	2.53	1
Aroclor 1268	ND		ug/kg	34.2	4.96	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	70		30-150
Decachlorobiphenyl	63		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	66		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-03	Date Collected:	08/27/12 10:14
Client ID:	CS-03-1-2	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/29/12 11:33	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	92%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	99.1		ug/kg	34.2	5.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	70		30-150
Decachlorobiphenyl	63		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	66		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-04	Date Collected:	08/27/12 14:00
Client ID:	CS-04-7-8	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 18:14	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	34.8	6.87	1
Aroclor 1221	ND		ug/kg	34.8	10.5	1
Aroclor 1232	ND		ug/kg	34.8	7.39	1
Aroclor 1242	ND		ug/kg	34.8	6.61	1
Aroclor 1248	ND		ug/kg	34.8	4.21	1
Aroclor 1260	ND		ug/kg	34.8	6.04	1
Aroclor 1262	ND		ug/kg	34.8	2.57	1
Aroclor 1268	ND		ug/kg	34.8	5.05	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	70		30-150
Decachlorobiphenyl	60		30-150
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	68		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-04	Date Collected:	08/27/12 14:00
Client ID:	CS-04-7-8	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 18:14	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	356		ug/kg	34.8	5.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	70		30-150
Decachlorobiphenyl	60		30-150
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	68		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-05	Date Collected:	08/27/12 15:40
Client ID:	CS-04-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 19:20	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.6	7.24	1
Aroclor 1221	ND		ug/kg	36.6	11.0	1
Aroclor 1232	ND		ug/kg	36.6	7.78	1
Aroclor 1242	ND		ug/kg	36.6	6.95	1
Aroclor 1248	ND		ug/kg	36.6	4.43	1
Aroclor 1254	ND		ug/kg	36.6	5.78	1
Aroclor 1260	ND		ug/kg	36.6	6.36	1
Aroclor 1262	ND		ug/kg	36.6	2.71	1
Aroclor 1268	ND		ug/kg	36.6	5.32	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	75		30-150
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	72		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-06	Date Collected:	08/27/12 13:00
Client ID:	CS-05-5-7	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 19:34	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.1	6.94	1
Aroclor 1221	ND		ug/kg	35.1	10.6	1
Aroclor 1232	ND		ug/kg	35.1	7.46	1
Aroclor 1242	ND		ug/kg	35.1	6.66	1
Aroclor 1248	ND		ug/kg	35.1	4.25	1
Aroclor 1260	ND		ug/kg	35.1	6.09	1
Aroclor 1262	ND		ug/kg	35.1	2.60	1
Aroclor 1268	ND		ug/kg	35.1	5.09	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	63		30-150
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	70		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-06	Date Collected:	08/27/12 13:00
Client ID:	CS-05-5-7	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 19:34	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	245		ug/kg	35.1	5.54	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	63		30-150
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	70		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-07	Date Collected:	08/27/12 15:00
Client ID:	CS-05-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:06
Analytical Date:	08/28/12 19:47	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	89%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.5	7.01	1
Aroclor 1221	ND		ug/kg	35.5	10.7	1
Aroclor 1232	ND		ug/kg	35.5	7.54	1
Aroclor 1242	ND		ug/kg	35.5	6.74	1
Aroclor 1248	ND		ug/kg	35.5	4.29	1
Aroclor 1254	16.4	J	ug/kg	35.5	5.59	1
Aroclor 1260	ND		ug/kg	35.5	6.16	1
Aroclor 1262	ND		ug/kg	35.5	2.62	1
Aroclor 1268	ND		ug/kg	35.5	5.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	85		30-150
Decachlorobiphenyl	73		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-08	D	Date Collected:	08/27/12 13:10
Client ID:	CS-06-5-7		Date Received:	08/27/12
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082A		Extraction Date:	08/28/12 01:06
Analytical Date:	08/29/12 12:00		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	08/28/12
Percent Solids:	91%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	705	139.	20
Aroclor 1221	ND		ug/kg	705	213.	20
Aroclor 1232	ND		ug/kg	705	150.	20
Aroclor 1242	ND		ug/kg	705	134.	20
Aroclor 1248	ND		ug/kg	705	85.3	20
Aroclor 1260	ND		ug/kg	705	122.	20
Aroclor 1262	ND		ug/kg	705	52.2	20
Aroclor 1268	ND		ug/kg	705	102.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-08	D	Date Collected:	08/27/12 13:10
Client ID:	CS-06-5-7		Date Received:	08/27/12
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082A		Extraction Date:	08/28/12 01:06
Analytical Date:	08/29/12 12:00		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	08/28/12
Percent Solids:	91%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	4230		ug/kg	705	111.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-09	D	Date Collected:	08/27/12 15:15
Client ID:	CS-06-9		Date Received:	08/27/12
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082A		Extraction Date:	08/28/12 01:07
Analytical Date:	08/29/12 12:13		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	08/28/12
Percent Solids:	81%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	404	79.9	10
Aroclor 1221	ND		ug/kg	404	122.	10
Aroclor 1232	ND		ug/kg	404	85.9	10
Aroclor 1242	ND		ug/kg	404	76.8	10
Aroclor 1248	ND		ug/kg	404	48.9	10
Aroclor 1260	ND		ug/kg	404	70.2	10
Aroclor 1262	ND		ug/kg	404	29.9	10
Aroclor 1268	ND		ug/kg	404	58.7	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-09	D	Date Collected:	08/27/12 15:15
Client ID:	CS-06-9		Date Received:	08/27/12
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082A		Extraction Date:	08/28/12 01:07
Analytical Date:	08/29/12 12:13		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	08/28/12
Percent Solids:	81%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	2030		ug/kg	404	63.8	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150
Decachlorobiphenyl	**0**	Q	30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-10	Date Collected:	08/27/12 14:10
Client ID:	CS-07-7-8	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:07
Analytical Date:	08/28/12 20:27	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	92%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	34.2	6.75	1
Aroclor 1221	ND		ug/kg	34.2	10.3	1
Aroclor 1232	ND		ug/kg	34.2	7.26	1
Aroclor 1242	ND		ug/kg	34.2	6.48	1
Aroclor 1248	ND		ug/kg	34.2	4.13	1
Aroclor 1254	ND		ug/kg	34.2	5.38	1
Aroclor 1260	ND		ug/kg	34.2	5.93	1
Aroclor 1262	ND		ug/kg	34.2	2.53	1
Aroclor 1268	ND		ug/kg	34.2	4.96	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	52		30-150
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	62		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-11	Date Collected:	08/27/12 15:55
Client ID:	CS-07-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:07
Analytical Date:	08/28/12 20:40	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	90%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.6	7.02	1
Aroclor 1221	ND		ug/kg	35.6	10.7	1
Aroclor 1232	ND		ug/kg	35.6	7.56	1
Aroclor 1242	ND		ug/kg	35.6	6.75	1
Aroclor 1248	ND		ug/kg	35.6	4.30	1
Aroclor 1254	ND		ug/kg	35.6	5.61	1
Aroclor 1260	ND		ug/kg	35.6	6.17	1
Aroclor 1262	ND		ug/kg	35.6	2.63	1
Aroclor 1268	ND		ug/kg	35.6	5.16	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	61		30-150
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	65		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-12	Date Collected:	08/27/12 14:20
Client ID:	CS-07-EBBH	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	08/28/12 02:10
Analytical Date:	08/28/12 19:10	Cleanup Method1:	EPA 3665A
Analyst:	BL	Cleanup Date1:	08/28/12
		Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/l	0.250	0.066	1
Aroclor 1221	ND		ug/l	0.250	0.064	1
Aroclor 1232	ND		ug/l	0.250	0.037	1
Aroclor 1242	ND		ug/l	0.250	0.072	1
Aroclor 1248	ND		ug/l	0.250	0.061	1
Aroclor 1254	ND		ug/l	0.250	0.041	1
Aroclor 1260	ND		ug/l	0.250	0.038	1
Aroclor 1262	ND		ug/l	0.250	0.035	1
Aroclor 1268	ND		ug/l	0.250	0.045	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	87		30-150
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	89		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-13	D	Date Collected:	08/27/12 16:20
Client ID:	CS-08-9		Date Received:	08/27/12
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082A		Extraction Date:	08/28/12 01:07
Analytical Date:	08/29/12 12:26		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	08/28/12
Percent Solids:	87%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	187	36.9	5
Aroclor 1221	ND		ug/kg	187	56.4	5
Aroclor 1232	ND		ug/kg	187	39.7	5
Aroclor 1242	ND		ug/kg	187	35.5	5
Aroclor 1248	ND		ug/kg	187	22.6	5
Aroclor 1260	ND		ug/kg	187	32.5	5
Aroclor 1262	ND		ug/kg	187	13.8	5
Aroclor 1268	ND		ug/kg	187	27.1	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	72		30-150
Decachlorobiphenyl	66		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	74		30-150

Project Name: WR GRACE WOBURN **Lab Number:** L1215303

Project Number: 117-3008070 **Report Date:** 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-13	D	Date Collected:	08/27/12 16:20
Client ID:	CS-08-9		Date Received:	08/27/12
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	1,8082A		Extraction Date:	08/28/12 01:07
Analytical Date:	08/29/12 12:26		Cleanup Method1:	EPA 3665A
Analyst:	KB		Cleanup Date1:	08/28/12
Percent Solids:	87%		Cleanup Method2:	EPA 3660B
			Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1254	1140		ug/kg	187	29.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	72		30-150
Decachlorobiphenyl	66		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	74		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-14	Date Collected:	08/27/12 16:35
Client ID:	CS-09-9	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	08/28/12 01:07
Analytical Date:	08/28/12 21:07	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	08/28/12
Percent Solids:	89%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.1	7.14	1
Aroclor 1221	ND		ug/kg	36.1	10.9	1
Aroclor 1232	ND		ug/kg	36.1	7.67	1
Aroclor 1242	ND		ug/kg	36.1	6.86	1
Aroclor 1248	ND		ug/kg	36.1	4.37	1
Aroclor 1254	26.1	J	ug/kg	36.1	5.70	1
Aroclor 1260	ND		ug/kg	36.1	6.27	1
Aroclor 1262	ND		ug/kg	36.1	2.67	1
Aroclor 1268	ND		ug/kg	36.1	5.24	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	59		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	64		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-16	Date Collected:	08/27/12 10:16
Client ID:	CS-03-EBSC	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	08/28/12 02:10
Analytical Date:	08/28/12 19:24	Cleanup Method1:	EPA 3665A
Analyst:	BL	Cleanup Date1:	08/28/12
		Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/l	0.250	0.066	1
Aroclor 1221	ND		ug/l	0.250	0.064	1
Aroclor 1232	ND		ug/l	0.250	0.037	1
Aroclor 1242	ND		ug/l	0.250	0.072	1
Aroclor 1248	ND		ug/l	0.250	0.061	1
Aroclor 1254	ND		ug/l	0.250	0.041	1
Aroclor 1260	ND		ug/l	0.250	0.038	1
Aroclor 1262	ND		ug/l	0.250	0.035	1
Aroclor 1268	ND		ug/l	0.250	0.045	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	86		30-150
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	87		30-150

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID:	L1215303-17	Date Collected:	08/27/12 10:18
Client ID:	CS-03-EBBO	Date Received:	08/27/12
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	08/28/12 02:10
Analytical Date:	08/28/12 20:33	Cleanup Method1:	EPA 3665A
Analyst:	BL	Cleanup Date1:	08/28/12
		Cleanup Method2:	EPA 3660B
		Cleanup Date2:	08/28/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug/l	0.250	0.066	1
Aroclor 1221	ND		ug/l	0.250	0.064	1
Aroclor 1232	ND		ug/l	0.250	0.037	1
Aroclor 1242	ND		ug/l	0.250	0.072	1
Aroclor 1248	ND		ug/l	0.250	0.061	1
Aroclor 1254	ND		ug/l	0.250	0.041	1
Aroclor 1260	ND		ug/l	0.250	0.038	1
Aroclor 1262	ND		ug/l	0.250	0.035	1
Aroclor 1268	ND		ug/l	0.250	0.045	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	96		30-150
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	96		30-150

Project Name: WR GRACE WOBURN

Project Number: 117-3008070

Lab Number: L1215303

Report Date: 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 08/28/12 18:27
Analyst: KB

Extraction Method: EPA 3546
Extraction Date: 08/28/12 01:06
Cleanup Method1: EPA 3665A
Cleanup Date1: 08/28/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 08/28/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-11,13-14 Batch: WG557394-1					
Aroclor 1016	ND		ug/kg	33.0	6.52
Aroclor 1221	ND		ug/kg	33.0	9.96
Aroclor 1232	ND		ug/kg	33.0	7.01
Aroclor 1242	ND		ug/kg	33.0	6.26
Aroclor 1248	ND		ug/kg	33.0	3.99
Aroclor 1254	ND		ug/kg	33.0	5.20
Aroclor 1260	ND		ug/kg	33.0	5.73
Aroclor 1262	ND		ug/kg	33.0	2.44
Aroclor 1268	ND		ug/kg	33.0	4.79

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	61		30-150
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	64		30-150

Project Name: WR GRACE WOBURN

Project Number: 117-3008070

Lab Number: L1215303

Report Date: 05/17/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 08/28/12 19:38
Analyst: BL

Extraction Method: EPA 3510C
Extraction Date: 08/28/12 02:10
Cleanup Method1: EPA 3665A
Cleanup Date1: 08/28/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 08/28/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 12,16-17 Batch: WG557396-1					
Aroclor 1016	ND		ug/l	0.250	0.066
Aroclor 1221	ND		ug/l	0.250	0.064
Aroclor 1232	ND		ug/l	0.250	0.037
Aroclor 1242	ND		ug/l	0.250	0.072
Aroclor 1248	ND		ug/l	0.250	0.061
Aroclor 1254	ND		ug/l	0.250	0.041
Aroclor 1260	ND		ug/l	0.250	0.038
Aroclor 1262	ND		ug/l	0.250	0.035
Aroclor 1268	ND		ug/l	0.250	0.045

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	70		30-150
Decachlorobiphenyl	92		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	94		30-150

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070
Lab Number: L1215303
Report Date: 05/17/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01-11,13-14 Batch: WG557394-2 WG557394-3								
Aroclor 1016	76		74		40-140	3		50
Aroclor 1260	76		74		40-140	3		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		76		30-150
Decachlorobiphenyl	76		75		30-150
2,4,5,6-Tetrachloro-m-xylene	79		77		30-150
Decachlorobiphenyl	72		71		30-150

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 12,16-17 Batch: WG557396-2 WG557396-3								
Aroclor 1016	84		76		40-140	10		50
Aroclor 1260	69		73		40-140	5		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	93		71		30-150
Decachlorobiphenyl	100		91		30-150
2,4,5,6-Tetrachloro-m-xylene	92		74		30-150
Decachlorobiphenyl	97		93		30-150

INORGANICS
&
MISCELLANEOUS

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-01
Client ID: CS-01-1-2
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 10:10
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-02
Client ID: CS-02-1-2
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 10:12
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-03
Client ID: CS-03-1-2
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 10:14
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-04
Client ID: CS-04-7-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 14:00
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-05
Client ID: CS-04-9
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 15:40
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-06
Client ID: CS-05-5-7
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 13:00
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-07
Client ID: CS-05-9
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 15:00
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-08
Client ID: CS-06-5-7
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 13:10
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-09
Client ID: CS-06-9
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 15:15
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-10
Client ID: CS-07-7-8
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 14:10
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-11
Client ID: CS-07-9
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 15:55
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-13
Client ID: CS-08-9
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 16:20
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

SAMPLE RESULTS

Lab ID: L1215303-14
Client ID: CS-09-9
Sample Location: WOBURN, MA
Matrix: Soil

Date Collected: 08/27/12 16:35
Date Received: 08/27/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89		%	0.10	NA	1	-	08/27/12 22:00	30,2540G	RD

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-11,13-14 QC Batch ID: WG557377-1 QC Sample: L1215303-01 Client ID: CS-01-1-2						
Solids, Total	93.	94	%	1		20

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 08/27/2012 20:30

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1215303-01A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-02A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-03A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-04A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-04B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-04C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-04D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-04E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-04F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-04G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-05A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-05B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-05C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-05D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-05E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-05F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-05G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-06A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-06B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-06C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-06D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-06E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-06F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-06G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-07A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-07B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-07C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)

*Values in parentheses indicate holding time in days

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1215303-07D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-07E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-07F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-07G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-08A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-08B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-08C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-08D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-08E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-08F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-08G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-09A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-09B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-09C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-09D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-09E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-09F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-09G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-10A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-10B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-10C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-10D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-10E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-10F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-10G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-11A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-11B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-11C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-11D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-11E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-11F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-11G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-12A	Vial HCl preserved	A	N/A	3	Y	Absent	8260(14)
L1215303-12B	Vial HCl preserved	A	N/A	3	Y	Absent	8260(14)
L1215303-12C	Amber 1000ml unpreserved	A	7	3	Y	Absent	PCB-8082(7)
L1215303-12D	Amber 1000ml unpreserved	A	7	3	Y	Absent	PCB-8082(7)

*Values in parentheses indicate holding time in days

Project Name: WR GRACE WOBURN
Project Number: 117-3008070

Lab Number: L1215303
Report Date: 05/17/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1215303-13A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-13B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-13C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-13D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-13E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-13F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-13G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-14A	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-14B	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-14C	25 gram Encore Sampler	A	N/A	3	Y	Absent	8260HLW(2)
L1215303-14D	Vial MeOH preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-14E	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-14F	Vial Water preserved split	A	N/A	3	Y	Absent	8260HLW(14)
L1215303-14G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	PCB-8082(14),TS(7)
L1215303-15A	Vial HCl preserved	A	N/A	3	Y	Absent	8260(14)
L1215303-16A	Amber 1000ml unpreserved	A	7	3	Y	Absent	PCB-8082(7)
L1215303-16B	Amber 1000ml unpreserved	A	7	3	Y	Absent	PCB-8082(7)
L1215303-17A	Amber 1000ml unpreserved	A	7	3	Y	Absent	PCB-8082(7)
L1215303-17B	Amber 1000ml unpreserved	A	7	3	Y	Absent	PCB-8082(7)

Container Comments

L1215303-12C

L1215303-16A

L1215303-17B

*Values in parentheses indicate holding time in days

Project Name:	WR GRACE WOBURN	**Lab Number:**	L1215303
Project Number:	117-3008070	**Report Date:**	05/17/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: DU Report with "J" Qualifiers

Project Name:	WR GRACE WOBURN	**Lab Number:**	L1215303
Project Number:	117-3008070	**Report Date:**	05/17/13

Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name: WR GRACE WOBURN **Lab Number:** L1215303
Project Number: 117-3008070 **Report Date:** 05/17/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised December 19, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 6010C, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8330, 8151A, 8260B, 8260C, 8270C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9030B, 9040B, 9045C, 6010B, 6010C, 6020, 6020A, 7471A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8270D, 8330, 8151A, 8081A, 8081B, 8082, 8082A, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM2520B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012B, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C,

3546, 3580A, 5030B, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S2¯D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500NO3-F, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 355B0, 3580A, 3630C, 6020A, 8260B, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C,

8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 8/27/12

ALPHA Job #: L1215303

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: TetraTech GEO
Address: 1 Monarch Dr Ste 202
Littleton MA 01460
Phone: (978) 952-0120
Fax: (978) 952-022
Email: anne.sheehan@tetratech.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace Woburn
Project Location: Woburn MA
Project #: 117-30040070
Project Manager: Anne Sheehan
ALPHA Quote #:

Turn-Around Time

☒ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 8/29/12 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: 8260 VOCs; 8082 PCBs

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260 VOCs	8082 PCBs	Sample Specific Comments	TOTAL # BOTTLES
L1215303. 1	CS-01-1-2	8/27/12	1010	S	COC		X		
2	CS-02-1-2	8/27/12	1012	S	COC		X		
3	CS-03-1-2	8/27/12	1014	S	COC		X		
4	CS-04-7-8	8/27/12	1400	S	COC	X	X		
5	CS-04-9	8/27/12	1540	S	COC	X	X		
6	CS-05-5-7	8/27/12	1300	S	COC	X	X		
7	CS-05-9	8/27/12	1500	S	COC	X	X		
8	CS-06-5-7	8/27/12	1310	S	COC	X	X		
9	CS-06-9	8/27/12	1515	S	COC	X	X		
10	CS-07-7-8	8/27/12	1410	S	COC	X	X		

Container Type	E	A
Preservative	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/27/12 1620	[signature]	8/27/12 1620
[signature]	8/27/12 1730	[signature]	8/27/12 1730

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 8/27/12

ALPHA Job #: L1215303

Client Information

Client: Tetra Tech GEO

Address: 1 Monarch Dr Ste202 Littleton MA 01460

Phone: (978) 952-0120

Fax: (978) 952-0122

Email: anne.sheehan@tetratech.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace Woburn

Project Location: Woburn MA

Project #: 117-3008070

Project Manager: Anne Sheehan

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 8/29/12 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: 5260 VOCs; 8082 PCBs

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do

Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	5260 VOCs	8082 PCBs	Sample Specific Comments	TOTAL # BOTTLES
15303.11	CS-07-9	8/27/12	1555	S	COC	X	X		
12	CS-07-EBBH	8/27/12	1420	~~S~~ W	COC	X	X		
13	CS-08-9	8/27/12	1620	S	COC	X	X		
14	CS-09-9	8/27/12	1635	S	COC	X	X		
15	TB-042712	8/27/12	0700	W	COC	X			
16	CS-03-EBSC	8/27/12	1016	W	COC		X		
17	CS-03-EBSO	8/27/12	1016	W	COC		X		

Container Type	E2	A
Preservative	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/27/12 1620	[signature]	8/27/12 1620
[signature]	8/27/12 1730	[signature]	8/27/12 1730

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ATTACHMENT D

SOIL DISPOSAL CHARACTERIZATION ANALYTICAL RESULTS

Attachment D. Soil Disposal Characterization Analytical Results

Sample ID	Date	Description
S-1	8/29/2012	Soil disposal characterization sample associated with Passivating area drain line (SS-14 & SS-17)
S-2	8/29/2012	Soil disposal characterization sample associated with area Between Former Warehouse and 1974 Building Addition (ECS-13)
S-3	8/29/2012	Soil disposal characterization sample associated with South Drainage Ditch (ECS-SS-1 & ECS-SS-2)
S-3-1	9/13/2012	Soil disposal characterization sample associated with South Drainage Ditch (ECS-SS-1 & ECS-SS-2)

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: S-1
Date Collected: 08/29/12 12:10
Date Received: 08/30/12 18:30

Lab Sample ID: 360-42466-1
Matrix: Solid
Percent Solids: 94.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,1,1-Trichloroethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,1,2,2-Tetrachloroethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,1,2-Trichloroethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,1-Dichloroethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,1-Dichloroethene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,1-Dichloropropene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2,3-Trichlorobenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2,3-Trichloropropane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2,4-Trichlorobenzene	ND		110	52	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2,4-Trimethylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2-Dibromo-3-Chloropropane	ND		1100	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2-Dichlorobenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2-Dichloroethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,2-Dichloropropane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,3,5-Trimethylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,3-Dichlorobenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,3-Dichloropropane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
1,4-Dichlorobenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
2,2-Dichloropropane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
2-Butanone (MEK)	ND		1100	270	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
2-Chlorotoluene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
2-Hexanone	ND		1100	270	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
4-Chlorotoluene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
4-Isopropyltoluene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
4-Methyl-2-pentanone (MIBK)	ND		1100	270	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Acetone	ND	*	11000	4300	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Benzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Bromobenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Bromoform	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Bromomethane	ND		210	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Carbon tetrachloride	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Chlorobenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Chlorobromomethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Chlorodibromomethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Chloroethane	ND		210	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Chloroform	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Chloromethane	ND		210	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
cis-1,2-Dichloroethene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
cis-1,3-Dichloropropene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Dibromomethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Dichlorobromomethane	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Ethylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Ethylene Dibromide	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Hexachlorobutadiene	ND	*	110	44	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Isopropylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Methyl tert-butyl ether	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Methylene Chloride	ND		430	55	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
m-Xylene & p-Xylene	ND		210	55	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Naphthalene	ND		1100	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
n-Butylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
o-Xylene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
sec-Butylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Styrene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
tert-Butylbenzene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Tetrachloroethene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Toluene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
trans-1,2-Dichloroethene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
trans-1,3-Dichloropropene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Trichloroethene	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Trichlorofluoromethane	ND		210	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1
Vinyl chloride	ND		110	43	ug/Kg	☼	09/04/12 13:31	09/04/12 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*70 - 130*	*09/04/12 13:31*	*09/04/12 13:54*	*1*
Dibromofluoromethane	*93*		*70 - 130*	*09/04/12 13:31*	*09/04/12 13:54*	*1*
Toluene-d8 (Surr)	*113*		*70 - 130*	*09/04/12 13:31*	*09/04/12 13:54*	*1*

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,1,1-Trichloroethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,1,2,2-Tetrachloroethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,1,2-Trichloroethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,1-Dichloroethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,1-Dichloroethene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,1-Dichloropropene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2,3-Trichlorobenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2,3-Trichloropropane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2,4-Trichlorobenzene	ND		160	78	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2,4-Trimethylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2-Dibromo-3-Chloropropane	ND		1600	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2-Dichlorobenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2-Dichloroethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,2-Dichloropropane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,3,5-Trimethylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,3-Dichlorobenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,3-Dichloropropane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
1,4-Dichlorobenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
2,2-Dichloropropane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
2-Butanone (MEK)	ND		1600	410	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
2-Chlorotoluene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
2-Hexanone	ND		1600	410	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
4-Chlorotoluene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
4-Isopropyltoluene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
4-Methyl-2-pentanone (MIBK)	ND		1600	400	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Acetone	ND	*	16000	6400	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Benzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Bromobenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Bromomethane	ND		320	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Carbon tetrachloride	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Chlorobenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Chlorobromomethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Chlorodibromomethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Chloroethane	ND		320	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Chloroform	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Chloromethane	ND		320	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
cis-1,2-Dichloroethene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
cis-1,3-Dichloropropene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Dibromomethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Dichlorobromomethane	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Ethylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Ethylene Dibromide	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Hexachlorobutadiene	ND	*	160	66	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Isopropylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Methyl tert-butyl ether	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Methylene Chloride	ND		640	81	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
m-Xylene & p-Xylene	ND		320	81	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Naphthalene	ND		1600	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
n-Butylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
N-Propylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
o-Xylene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
sec-Butylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Styrene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
tert-Butylbenzene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Tetrachloroethene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Toluene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
trans-1,2-Dichloroethene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
trans-1,3-Dichloropropene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Trichloroethene	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Trichlorofluoromethane	ND		320	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1
Vinyl chloride	ND		160	64	ug/Kg	☼	09/04/12 13:31	09/04/12 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*70 - 130*	*09/04/12 13:31*	*09/04/12 14:16*	*1*
Dibromofluoromethane	*95*		*70 - 130*	*09/04/12 13:31*	*09/04/12 14:16*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*	*09/04/12 13:31*	*09/04/12 14:16*	*1*

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,1,1-Trichloroethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,1,2,2-Tetrachloroethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,1,2-Trichloroethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,1-Dichloroethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,1-Dichloroethene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,1-Dichloropropene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: S-3
Date Collected: 08/29/12 12:20
Date Received: 08/30/12 18:30

Lab Sample ID: 360-42466-3
Matrix: Solid
Percent Solids: 95.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,2,3-Trichloropropane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,2,4-Trichlorobenzene	ND		98	48	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,2,4-Trimethylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,2-Dibromo-3-Chloropropane	ND		980	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,2-Dichlorobenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,2-Dichloroethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,2-Dichloropropane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,3,5-Trimethylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,3-Dichlorobenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,3-Dichloropropane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
1,4-Dichlorobenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
2,2-Dichloropropane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
2-Butanone (MEK)	ND		980	250	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
2-Chlorotoluene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
2-Hexanone	ND		980	250	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
4-Chlorotoluene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
4-Isopropyltoluene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
4-Methyl-2-pentanone (MIBK)	ND		980	250	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Acetone	ND	*	9800	3900	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Benzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Bromobenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Bromoform	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Bromomethane	ND		200	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Carbon tetrachloride	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Chlorobenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Chlorobromomethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Chlorodibromomethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Chloroethane	ND		200	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Chloroform	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Chloromethane	ND		200	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
cis-1,2-Dichloroethene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
cis-1,3-Dichloropropene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Dibromomethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Dichlorobromomethane	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Ethylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Ethylene Dibromide	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Hexachlorobutadiene	ND	*	98	41	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Isopropylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Methyl tert-butyl ether	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Methylene Chloride	ND		390	50	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
m-Xylene & p-Xylene	ND		200	50	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Naphthalene	ND		980	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
n-Butylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
N-Propylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
o-Xylene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
sec-Butylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Styrene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
tert-Butylbenzene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Tetrachloroethene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Toluene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: S-3
Date Collected: 08/29/12 12:20
Date Received: 08/30/12 18:30

Lab Sample ID: 360-42466-3
Matrix: Solid
Percent Solids: 95.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
trans-1,3-Dichloropropene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Trichloroethene	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Trichlorofluoromethane	ND		200	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1
Vinyl chloride	ND		98	39	ug/Kg	☼	09/04/12 13:31	09/04/12 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 130*	*09/04/12 13:31*	*09/04/12 14:39*	*1*
Dibromofluoromethane	*93*		*70 - 130*	*09/04/12 13:31*	*09/04/12 14:39*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*	*09/04/12 13:31*	*09/04/12 14:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-1 | **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 | **Matrix: Solid**
Date Received: 08/30/12 18:30 | **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
1,2-Dichlorobenzene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
1,2-Diphenylhydrazine	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
1,3-Dichlorobenzene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
1,4-Dichlorobenzene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,2'-oxybis[1-chloropropane]	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,4,5-Trichlorophenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,4,6-Trichlorophenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,4-Dichlorophenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,4-Dimethylphenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,4-Dinitrophenol	ND		350	59	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,4-Dinitrotoluene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2,6-Dinitrotoluene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2-Chloronaphthalene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2-Chlorophenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2-Methylnaphthalene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2-Methylphenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2-Nitroaniline	ND		1800	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
2-Nitrophenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
3 & 4 Methylphenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
3,3'-Dichlorobenzidine	ND		710	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
3-Nitroaniline	ND		1800	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
4,6-Dinitro-2-methylphenol	ND		1800	120	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
4-Bromophenyl phenyl ether	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
4-Chloro-3-methylphenol	ND		710	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
4-Chloroaniline	ND		710	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
4-Chlorophenyl phenyl ether	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
4-Nitroaniline	ND		1800	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
4-Nitrophenol	ND		1800	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Acenaphthene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Acenaphthylene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Acetophenone	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Aniline	ND	*	1800	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Anthracene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Benzo[a]anthracene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Benzo[a]pyrene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Benzo[b]fluoranthene	**61**	**J**	180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Benzo[g,h,i]perylene	**54**	**J**	180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Benzo[k]fluoranthene	ND		190	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Benzoic acid	ND		1800	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Benzyl alcohol	ND		710	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Bis(2-chloroethoxy)methane	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Bis(2-chloroethyl)ether	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Bis(2-ethylhexyl) phthalate	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Butyl benzyl phthalate	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Chrysene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Di-n-butyl phthalate	ND		350	55	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Di-n-octyl phthalate	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Dibenz(a,h)anthracene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Dibenzofuran	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Diethyl phthalate	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Fluoranthene	**59**	**J**	180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Fluorene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Hexachlorobenzene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Hexachlorobutadiene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Hexachlorocyclopentadiene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Hexachloroethane	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Indeno[1,2,3-cd]pyrene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Isophorone	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
N-Nitrosodiphenylamine	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Naphthalene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Nitrobenzene	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Pentachlorophenol	ND		1800	93	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Phenanthrene	ND		180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Phenol	ND		350	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1
Pyrene	**79**	**J**	180	53	ug/Kg	☼	09/05/12 14:05	09/08/12 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*77*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:26*	*1*
2-Fluorobiphenyl	*66*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:26*	*1*
2,4,6-Tribromophenol (Surr)	*91*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:26*	*1*
Terphenyl-d14 (Surr)	*105*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:26*	*1*
Phenol-d5 (Surr)	*76*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:26*	*1*
Nitrobenzene-d5 (Surr)	*67*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:26*	*1*

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
1,2-Dichlorobenzene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
1,2-Diphenylhydrazine	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
1,3-Dichlorobenzene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
1,4-Dichlorobenzene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,2'-oxybis[1-chloropropane]	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,4,5-Trichlorophenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,4,6-Trichlorophenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,4-Dichlorophenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,4-Dimethylphenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,4-Dinitrophenol	ND		1800	310	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,4-Dinitrotoluene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2,6-Dinitrotoluene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2-Chloronaphthalene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2-Chlorophenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2-Methylnaphthalene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2-Methylphenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2-Nitroaniline	ND		9200	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
2-Nitrophenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
3 & 4 Methylphenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
3,3'-Dichlorobenzidine	ND		3700	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
3-Nitroaniline	ND		9200	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-2
Date Collected: 08/29/12 12:15
Date Received: 08/30/12 18:30

Lab Sample ID: 360-42466-2
Matrix: Solid
Percent Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		9200	650	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
4-Bromophenyl phenyl ether	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
4-Chloro-3-methylphenol	ND		3700	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
4-Chloroaniline	ND		3700	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
4-Chlorophenyl phenyl ether	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
4-Nitroaniline	ND		9200	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
4-Nitrophenol	ND		9200	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Acenaphthene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Acenaphthylene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Acetophenone	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Aniline	**440**	**J ***	9200	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Anthracene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Benzo[a]anthracene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Benzo[a]pyrene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Benzo[b]fluoranthene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Benzo[g,h,i]perylene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Benzo[k]fluoranthene	ND		980	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Benzoic acid	ND		9200	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Benzyl alcohol	ND		3700	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Bis(2-chloroethoxy)methane	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Bis(2-chloroethyl)ether	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Bis(2-ethylhexyl) phthalate	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Butyl benzyl phthalate	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Chrysene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Di-n-butyl phthalate	ND		1800	290	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Di-n-octyl phthalate	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Dibenz(a,h)anthracene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Dibenzofuran	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Diethyl phthalate	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Dimethyl phthalate	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Fluoranthene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Fluorene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Hexachlorobenzene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Hexachlorobutadiene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Hexachlorocyclopentadiene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Hexachloroethane	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Indeno[1,2,3-cd]pyrene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Isophorone	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
N-Nitrosodiphenylamine	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Naphthalene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Nitrobenzene	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Pentachlorophenol	ND		9200	490	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Phenanthrene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Phenol	ND		1800	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5
Pyrene	ND		920	280	ug/Kg	☼	09/05/12 14:05	09/08/12 03:57	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*70*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:57*	*5*
2-Fluorobiphenyl	*60*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:57*	*5*
2,4,6-Tribromophenol (Surr)	*73*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:57*	*5*
Terphenyl-d14 (Surr)	*95*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:57*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*70*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:57*	*5*
Nitrobenzene-d5 (Surr)	*61*		*30 - 130*	*09/05/12 14:05*	*09/08/12 03:57*	*5*

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
1,2-Dichlorobenzene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
1,2-Diphenylhydrazine	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
1,3-Dichlorobenzene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
1,4-Dichlorobenzene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,2'-oxybis[1-chloropropane]	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,4,5-Trichlorophenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,4,6-Trichlorophenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,4-Dichlorophenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,4-Dimethylphenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,4-Dinitrophenol	ND		1700	280	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,4-Dinitrotoluene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2,6-Dinitrotoluene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2-Chloronaphthalene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2-Chlorophenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2-Methylnaphthalene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2-Methylphenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2-Nitroaniline	ND		8500	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
2-Nitrophenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
3 & 4 Methylphenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
3,3'-Dichlorobenzidine	ND		3400	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
3-Nitroaniline	ND		8500	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
4,6-Dinitro-2-methylphenol	ND		8500	590	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
4-Bromophenyl phenyl ether	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
4-Chloro-3-methylphenol	ND		3400	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
4-Chloroaniline	ND		3400	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
4-Chlorophenyl phenyl ether	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
4-Nitroaniline	ND		8500	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
4-Nitrophenol	ND		8500	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Acenaphthene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Acenaphthylene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Acetophenone	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Aniline	ND	*	8500	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Anthracene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Benzo[a]anthracene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Benzo[a]pyrene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Benzo[b]fluoranthene	**260**	**J**	850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Benzo[g,h,i]perylene	**250**	**J**	850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Benzo[k]fluoranthene	ND		900	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Benzoic acid	ND		8500	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Benzyl alcohol	ND		3400	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Bis(2-chloroethoxy)methane	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Bis(2-chloroethyl)ether	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Bis(2-ethylhexyl) phthalate	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-3
Date Collected: 08/29/12 12:20
Date Received: 08/30/12 18:30

Lab Sample ID: 360-42466-3
Matrix: Solid
Percent Solids: 95.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Chrysene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Di-n-butyl phthalate	ND		1700	260	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Di-n-octyl phthalate	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Dibenz(a,h)anthracene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Dibenzofuran	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Diethyl phthalate	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Dimethyl phthalate	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Fluoranthene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Fluorene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Hexachlorobenzene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Hexachlorobutadiene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Hexachlorocyclopentadiene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Hexachloroethane	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Indeno[1,2,3-cd]pyrene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Isophorone	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
N-Nitrosodiphenylamine	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Naphthalene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Nitrobenzene	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Pentachlorophenol	ND		8500	450	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Phenanthrene	ND		850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Phenol	ND		1700	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5
Pyrene	**270**	**J**	850	250	ug/Kg	☼	09/05/12 14:05	09/08/12 04:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*67*		*30 - 130*	*09/05/12 14:05*	*09/08/12 04:28*	*5*
2-Fluorobiphenyl	*58*		*30 - 130*	*09/05/12 14:05*	*09/08/12 04:28*	*5*
2,4,6-Tribromophenol (Surr)	*74*		*30 - 130*	*09/05/12 14:05*	*09/08/12 04:28*	*5*
Terphenyl-d14 (Surr)	*85*		*30 - 130*	*09/05/12 14:05*	*09/08/12 04:28*	*5*
Phenol-d5 (Surr)	*65*		*30 - 130*	*09/05/12 14:05*	*09/08/12 04:28*	*5*
Nitrobenzene-d5 (Surr)	*57*		*30 - 130*	*09/05/12 14:05*	*09/08/12 04:28*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
2,4,5-Trichlorophenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
2,4,6-Trichlorophenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
2,4-Dinitrotoluene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
2-Methylphenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
3 & 4 Methylphenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
Hexachlorobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
Hexachlorobutadiene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
Hexachloroethane	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
Nitrobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1
Pentachlorophenol	ND		250	19	ug/L		09/06/12 09:42	09/07/12 23:19	1
Pyridine	ND		250	5.0	ug/L		09/06/12 09:42	09/07/12 23:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*15 - 110*	*09/06/12 09:42*	*09/07/12 23:19*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*09/06/12 09:42*	*09/07/12 23:19*	*1*
Nitrobenzene-d5 (Surr)	*73*		*30 - 130*	*09/06/12 09:42*	*09/07/12 23:19*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*09/06/12 09:42*	*09/07/12 23:19*	*1*
Terphenyl-d14 (Surr)	*120*		*30 - 130*	*09/06/12 09:42*	*09/07/12 23:19*	*1*
2-Fluorobiphenyl	*71*		*30 - 130*	*09/06/12 09:42*	*09/07/12 23:19*	*1*

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
2,4,5-Trichlorophenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
2,4,6-Trichlorophenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
2,4-Dinitrotoluene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
2-Methylphenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
3 & 4 Methylphenol	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
Hexachlorobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
Hexachlorobutadiene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
Hexachloroethane	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
Nitrobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1
Pentachlorophenol	ND		250	19	ug/L		09/06/12 09:42	09/07/12 23:50	1
Pyridine	ND		250	5.0	ug/L		09/06/12 09:42	09/07/12 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*09/06/12 09:42*	*09/07/12 23:50*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*09/06/12 09:42*	*09/07/12 23:50*	*1*
Nitrobenzene-d5 (Surr)	*74*		*30 - 130*	*09/06/12 09:42*	*09/07/12 23:50*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*09/06/12 09:42*	*09/07/12 23:50*	*1*
Terphenyl-d14 (Surr)	*118*		*30 - 130*	*09/06/12 09:42*	*09/07/12 23:50*	*1*
2-Fluorobiphenyl	*69*		*30 - 130*	*09/06/12 09:42*	*09/07/12 23:50*	*1*

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
2,4,5-Trichlorophenol	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Client Sample ID: S-3
Date Collected: 08/29/12 12:20
Date Received: 08/30/12 18:30

Lab Sample ID: 360-42466-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
2,4-Dinitrotoluene	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
2-Methylphenol	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
3 & 4 Methylphenol	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
Hexachlorobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
Hexachlorobutadiene	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
Hexachloroethane	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
Nitrobenzene	ND		50	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1
Pentachlorophenol	ND		250	19	ug/L		09/06/12 09:42	09/08/12 00:20	1
Pyridine	ND		250	5.0	ug/L		09/06/12 09:42	09/08/12 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*	*09/06/12 09:42*	*09/08/12 00:20*	*1*
2-Fluorophenol (Surr)	*39*		*15 - 110*	*09/06/12 09:42*	*09/08/12 00:20*	*1*
Nitrobenzene-d5 (Surr)	*77*		*30 - 130*	*09/06/12 09:42*	*09/08/12 00:20*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*09/06/12 09:42*	*09/08/12 00:20*	*1*
Terphenyl-d14 (Surr)	*123*		*30 - 130*	*09/06/12 09:42*	*09/08/12 00:20*	*1*
2-Fluorobiphenyl	*72*		*30 - 130*	*09/06/12 09:42*	*09/08/12 00:20*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
4,4'-DDE	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
4,4'-DDT	**27**	**p**	11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Aldrin	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
alpha-BHC	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
beta-BHC	ND		11	2.3	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Chlordane (technical)	ND		210	53	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
delta-BHC	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Dieldrin	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Endosulfan I	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Endosulfan II	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Endosulfan sulfate	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Endrin	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Endrin aldehyde	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Endrin ketone	ND		11	2.0	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
gamma-BHC (Lindane)	ND		3.2	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Heptachlor epoxide	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Methoxychlor	ND		11	3.0	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Toxaphene	ND		210	53	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
Heptachlor	**21**		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*49 - 141*	*09/05/12 14:09*	*09/06/12 12:00*	*1*
DCB Decachlorobiphenyl	*84*		*49 - 141*	*09/05/12 14:09*	*09/06/12 12:00*	*1*
Tetrachloro-m-xylene	*76*		*54 - 122*	*09/05/12 14:09*	*09/06/12 12:00*	*1*
Tetrachloro-m-xylene	*77*		*54 - 122*	*09/05/12 14:09*	*09/06/12 12:00*	*1*

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**83**		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
4,4'-DDE	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
4,4'-DDT	**110**		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Aldrin	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
alpha-BHC	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
beta-BHC	ND		11	2.3	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Chlordane (technical)	ND		210	53	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
delta-BHC	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Dieldrin	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Endosulfan I	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Endosulfan II	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Endosulfan sulfate	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Endrin	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Endrin aldehyde	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Endrin ketone	ND		11	2.0	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
gamma-BHC (Lindane)	ND		3.2	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Heptachlor epoxide	ND		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Methoxychlor	ND		11	3.1	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Toxaphene	ND		210	53	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
Heptachlor	**21**		11	1.6	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83		49 - 141	09/05/12 14:09	09/06/12 12:21	1
DCB Decachlorobiphenyl	83		49 - 141	09/05/12 14:09	09/06/12 12:21	1
Tetrachloro-m-xylene	83		54 - 122	09/05/12 14:09	09/06/12 12:21	1
Tetrachloro-m-xylene	85		54 - 122	09/05/12 14:09	09/06/12 12:21	1

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**18**		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
4,4'-DDE	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
4,4'-DDT	**25**		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Aldrin	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
alpha-BHC	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
beta-BHC	ND		10	2.2	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Chlordane (technical)	ND		200	51	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
delta-BHC	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Dieldrin	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Endosulfan I	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Endosulfan II	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Endosulfan sulfate	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Endrin	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Endrin aldehyde	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Endrin ketone	ND		10	1.9	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
gamma-BHC (Lindane)	ND		3.1	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Heptachlor epoxide	ND		10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Methoxychlor	ND		10	2.9	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Toxaphene	ND		200	51	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1
Heptachlor	**22**	**p**	10	1.5	ug/Kg	☼	09/05/12 14:09	09/06/12 12:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		49 - 141	09/05/12 14:09	09/06/12 12:43	1
DCB Decachlorobiphenyl	75		49 - 141	09/05/12 14:09	09/06/12 12:43	1
Tetrachloro-m-xylene	77		54 - 122	09/05/12 14:09	09/06/12 12:43	1
Tetrachloro-m-xylene	77		54 - 122	09/05/12 14:09	09/06/12 12:43	1

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		2.5	1.5	ug/L		09/05/12 16:17	09/06/12 14:50	1
Endrin	ND		0.50	0.10	ug/L		09/05/12 16:17	09/06/12 14:50	1
gamma-BHC (Lindane)	ND		0.50	0.12	ug/L		09/05/12 16:17	09/06/12 14:50	1
Heptachlor	ND		0.50	0.17	ug/L		09/05/12 16:17	09/06/12 14:50	1
Heptachlor epoxide	ND		0.50	0.10	ug/L		09/05/12 16:17	09/06/12 14:50	1
Methoxychlor	ND		0.50	0.37	ug/L		09/05/12 16:17	09/06/12 14:50	1
Toxaphene	ND		2.5	1.5	ug/L		09/05/12 16:17	09/06/12 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*21 - 115*	*09/05/12 16:17*	*09/06/12 14:50*	*1*
DCB Decachlorobiphenyl	*68*		*21 - 115*	*09/05/12 16:17*	*09/06/12 14:50*	*1*
Tetrachloro-m-xylene	*86*		*43 - 110*	*09/05/12 16:17*	*09/06/12 14:50*	*1*
Tetrachloro-m-xylene	*84*		*43 - 110*	*09/05/12 16:17*	*09/06/12 14:50*	*1*

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		2.5	1.5	ug/L		09/05/12 16:17	09/06/12 15:11	1
Endrin	ND		0.50	0.10	ug/L		09/05/12 16:17	09/06/12 15:11	1
gamma-BHC (Lindane)	ND		0.50	0.12	ug/L		09/05/12 16:17	09/06/12 15:11	1
Heptachlor	ND		0.50	0.17	ug/L		09/05/12 16:17	09/06/12 15:11	1
Heptachlor epoxide	ND		0.50	0.10	ug/L		09/05/12 16:17	09/06/12 15:11	1
Methoxychlor	ND		0.50	0.37	ug/L		09/05/12 16:17	09/06/12 15:11	1
Toxaphene	ND		2.5	1.5	ug/L		09/05/12 16:17	09/06/12 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*21 - 115*	*09/05/12 16:17*	*09/06/12 15:11*	*1*
DCB Decachlorobiphenyl	*67*		*21 - 115*	*09/05/12 16:17*	*09/06/12 15:11*	*1*
Tetrachloro-m-xylene	*76*		*43 - 110*	*09/05/12 16:17*	*09/06/12 15:11*	*1*
Tetrachloro-m-xylene	*74*		*43 - 110*	*09/05/12 16:17*	*09/06/12 15:11*	*1*

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		2.5	1.5	ug/L		09/05/12 16:17	09/06/12 15:32	1
Endrin	ND		0.50	0.10	ug/L		09/05/12 16:17	09/06/12 15:32	1
gamma-BHC (Lindane)	ND		0.50	0.12	ug/L		09/05/12 16:17	09/06/12 15:32	1
Heptachlor	ND		0.50	0.17	ug/L		09/05/12 16:17	09/06/12 15:32	1
Heptachlor epoxide	ND		0.50	0.10	ug/L		09/05/12 16:17	09/06/12 15:32	1
Methoxychlor	ND		0.50	0.37	ug/L		09/05/12 16:17	09/06/12 15:32	1
Toxaphene	ND		2.5	1.5	ug/L		09/05/12 16:17	09/06/12 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*21 - 115*	*09/05/12 16:17*	*09/06/12 15:32*	*1*
DCB Decachlorobiphenyl	*66*		*21 - 115*	*09/05/12 16:17*	*09/06/12 15:32*	*1*
Tetrachloro-m-xylene	*87*		*43 - 110*	*09/05/12 16:17*	*09/06/12 15:32*	*1*
Tetrachloro-m-xylene	*85*		*43 - 110*	*09/05/12 16:17*	*09/06/12 15:32*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		110	31	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1221	ND		110	61	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1232	ND		110	91	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1242	ND		110	37	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1248	ND		110	100	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1254	**210**		110	62	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1260	ND		110	45	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1262	ND		110	56	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1
PCB-1268	ND		110	51	ug/Kg	☼	09/05/12 14:09	09/06/12 11:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*30 - 150*	*09/05/12 14:09*	*09/06/12 11:38*	*1*
DCB Decachlorobiphenyl	*74*		*30 - 150*	*09/05/12 14:09*	*09/06/12 11:38*	*1*
Tetrachloro-m-xylene	*88*		*30 - 150*	*09/05/12 14:09*	*09/06/12 11:38*	*1*
Tetrachloro-m-xylene	*85*		*30 - 150*	*09/05/12 14:09*	*09/06/12 11:38*	*1*

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		110	32	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1221	ND		110	62	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1232	ND		110	92	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1242	ND		110	38	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1248	ND		110	100	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1254	**930**		110	62	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1260	ND		110	45	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1262	ND		110	57	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1
PCB-1268	ND		110	51	ug/Kg	☼	09/05/12 14:09	09/06/12 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*30 - 150*	*09/05/12 14:09*	*09/06/12 12:00*	*1*
DCB Decachlorobiphenyl	*84*		*30 - 150*	*09/05/12 14:09*	*09/06/12 12:00*	*1*
Tetrachloro-m-xylene	*90*		*30 - 150*	*09/05/12 14:09*	*09/06/12 12:00*	*1*
Tetrachloro-m-xylene	*96*		*30 - 150*	*09/05/12 14:09*	*09/06/12 12:00*	*1*

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		100	30	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1221	ND		100	59	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1232	ND		100	88	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1242	ND		100	36	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1248	ND		100	97	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1254	**140**		100	59	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1260	ND		100	43	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1262	ND		100	55	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1
PCB-1268	ND		100	49	ug/Kg	☼	09/05/12 14:09	09/06/12 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*30 - 150*	*09/05/12 14:09*	*09/06/12 12:21*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: S-3
Date Collected: 08/29/12 12:20
Date Received: 08/30/12 18:30

Lab Sample ID: 360-42466-3
Matrix: Solid
Percent Solids: 95.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		30 - 150	09/05/12 14:09	09/06/12 12:21	1
Tetrachloro-m-xylene	89		30 - 150	09/05/12 14:09	09/06/12 12:21	1
Tetrachloro-m-xylene	83		30 - 150	09/05/12 14:09	09/06/12 12:21	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: W.R. Grace MA

TestAmerica Job ID: 360-42466-1

Method: 8151A - Herbicides (GC)

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		86	20	ug/Kg	☼	09/04/12 08:05	09/06/12 20:43	1
2,4,5-T	ND		22	4.0	ug/Kg	☼	09/04/12 08:05	09/06/12 20:43	1
Silvex (2,4,5-TP)	ND		22	4.4	ug/Kg	☼	09/04/12 08:05	09/06/12 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*68*		*25 - 129*	*09/04/12 08:05*	*09/06/12 20:43*	*1*
2,4-Dichlorophenylacetic acid	*65*		*25 - 129*	*09/04/12 08:05*	*09/06/12 20:43*	*1*

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		89	21	ug/Kg	☼	09/04/12 08:05	09/06/12 21:07	1
2,4,5-T	ND		22	4.2	ug/Kg	☼	09/04/12 08:05	09/06/12 21:07	1
Silvex (2,4,5-TP)	ND		22	4.6	ug/Kg	☼	09/04/12 08:05	09/06/12 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*64*		*25 - 129*	*09/04/12 08:05*	*09/06/12 21:07*	*1*
2,4-Dichlorophenylacetic acid	*68*		*25 - 129*	*09/04/12 08:05*	*09/06/12 21:07*	*1*

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		84	20	ug/Kg	☼	09/04/12 08:05	09/06/12 21:31	1
2,4,5-T	ND		21	4.0	ug/Kg	☼	09/04/12 08:05	09/06/12 21:31	1
Silvex (2,4,5-TP)	ND		21	4.3	ug/Kg	☼	09/04/12 08:05	09/06/12 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*64*		*25 - 129*	*09/04/12 08:05*	*09/06/12 21:31*	*1*
2,4-Dichlorophenylacetic acid	*63*		*25 - 129*	*09/04/12 08:05*	*09/06/12 21:31*	*1*

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: W.R. Grace MA

TestAmerica Job ID: 360-42466-1

Method: 6010C - Metals (ICP)

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		1.3	0.14	mg/Kg	☼	08/31/12 10:29	08/31/12 15:44	1
Barium	24		0.63	0.15	mg/Kg	☼	08/31/12 10:29	08/31/12 15:44	1
Cadmium	0.077	J	0.25	0.0084	mg/Kg	☼	08/31/12 10:29	08/31/12 15:44	1
Chromium	16		0.63	0.15	mg/Kg	☼	08/31/12 10:29	08/31/12 15:44	1
Silver	ND		0.63	0.033	mg/Kg	☼	08/31/12 10:29	08/31/12 15:44	1
Lead	7.7	B	0.63	0.062	mg/Kg	☼	08/31/12 10:29	08/31/12 15:44	1
Selenium	ND		0.63	0.30	mg/Kg	☼	08/31/12 10:29	08/31/12 15:44	1

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.8		1.4	0.16	mg/Kg	☼	08/31/12 10:29	08/31/12 15:47	1
Barium	44		0.71	0.16	mg/Kg	☼	08/31/12 10:29	08/31/12 15:47	1
Cadmium	0.090	J	0.28	0.0094	mg/Kg	☼	08/31/12 10:29	08/31/12 15:47	1
Chromium	31		0.71	0.17	mg/Kg	☼	08/31/12 10:29	08/31/12 15:47	1
Silver	ND		0.71	0.037	mg/Kg	☼	08/31/12 10:29	08/31/12 15:47	1
Lead	8.6	B	0.71	0.070	mg/Kg	☼	08/31/12 10:29	08/31/12 15:47	1
Selenium	ND		0.71	0.34	mg/Kg	☼	08/31/12 10:29	08/31/12 15:47	1

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.4		1.3	0.15	mg/Kg	☼	08/31/12 10:29	08/31/12 15:50	1
Barium	27		0.67	0.15	mg/Kg	☼	08/31/12 10:29	08/31/12 15:50	1
Cadmium	0.29		0.27	0.0088	mg/Kg	☼	08/31/12 10:29	08/31/12 15:50	1
Chromium	23		0.67	0.16	mg/Kg	☼	08/31/12 10:29	08/31/12 15:50	1
Silver	ND		0.67	0.035	mg/Kg	☼	08/31/12 10:29	08/31/12 15:50	1
Lead	90	B	0.67	0.066	mg/Kg	☼	08/31/12 10:29	08/31/12 15:50	1
Selenium	ND		0.67	0.32	mg/Kg	☼	08/31/12 10:29	08/31/12 15:50	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: W.R. Grace MA

TestAmerica Job ID: 360-42466-1

Method: 6010C - Metals (ICP) - TCLP

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0065**	**J B**	0.050	0.0016	mg/L		09/05/12 10:32	09/05/12 16:05	5
Barium	**0.20**	**B**	0.050	0.012	mg/L		09/05/12 10:32	09/05/12 16:05	5
Cadmium	ND		0.0050	0.0012	mg/L		09/05/12 10:32	09/05/12 16:05	5
Chromium	**0.0027**	**J**	0.025	0.0026	mg/L		09/05/12 10:32	09/05/12 16:05	5
Lead	**0.011**	**J**	0.025	0.0055	mg/L		09/05/12 10:32	09/05/12 16:05	5
Selenium	ND		0.050	0.019	mg/L		09/05/12 10:32	09/05/12 16:05	5
Silver	ND		0.025	0.0043	mg/L		09/05/12 10:32	09/05/12 16:05	5

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.012**	**J B**	0.050	0.0016	mg/L		09/05/12 10:32	09/05/12 16:17	5
Barium	**0.34**	**B**	0.050	0.012	mg/L		09/05/12 10:32	09/05/12 16:17	5
Cadmium	**0.0014**	**J**	0.0050	0.0012	mg/L		09/05/12 10:32	09/05/12 16:17	5
Chromium	**0.0034**	**J**	0.025	0.0026	mg/L		09/05/12 10:32	09/05/12 16:17	5
Lead	**0.035**		0.025	0.0055	mg/L		09/05/12 10:32	09/05/12 16:17	5
Selenium	ND		0.050	0.019	mg/L		09/05/12 10:32	09/05/12 16:17	5
Silver	ND		0.025	0.0043	mg/L		09/05/12 10:32	09/05/12 16:17	5

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050	0.0016	mg/L		09/05/12 10:32	09/05/12 16:20	5
Barium	**0.16**	**B**	0.050	0.012	mg/L		09/05/12 10:32	09/05/12 16:20	5
Cadmium	**0.0029**	**J**	0.0050	0.0012	mg/L		09/05/12 10:32	09/05/12 16:20	5
Chromium	ND		0.025	0.0026	mg/L		09/05/12 10:32	09/05/12 16:20	5
Lead	**0.082**		0.025	0.0055	mg/L		09/05/12 10:32	09/05/12 16:20	5
Selenium	ND		0.050	0.019	mg/L		09/05/12 10:32	09/05/12 16:20	5
Silver	ND		0.025	0.0043	mg/L		09/05/12 10:32	09/05/12 16:20	5

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: W.R. Grace MA

TestAmerica Job ID: 360-42466-1

Method: 7470A - Mercury (CVAA) - TCLP

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00080	0.00064	mg/L		09/05/12 10:34	09/05/12 14:41	1

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00080	0.00064	mg/L		09/05/12 10:34	09/05/12 14:45	1

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00080	0.00064	mg/L		09/05/12 10:34	09/05/12 14:46	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: W.R. Grace MA

TestAmerica Job ID: 360-42466-1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.10	0.034	mg/Kg	☼	09/06/12 09:02	09/06/12 12:14	1

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 90.4**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.11	0.038	mg/Kg	☼	09/06/12 09:02	09/06/12 12:16	1

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30 — **Percent Solids: 95.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.033**	**J**	0.091	0.031	mg/Kg	☼	09/06/12 09:02	09/06/12 12:18	1

General Chemistry

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>200**				Fahrenheit			08/31/12 08:47	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		45	45	mg/Kg		09/06/12 07:30	09/07/12 12:52	1
Sulfide, Reactive	ND		100	100	mg/Kg		09/06/12 07:30	09/07/12 12:54	1
Percent Moisture	**5.9**		1.0	1.0	%			09/04/12 17:11	1
Percent Solids	**94**		1.0	1.0	%			09/04/12 17:11	1

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>200**				Fahrenheit			08/31/12 08:47	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		45	45	mg/Kg		09/06/12 08:30	09/07/12 12:52	1
Sulfide, Reactive	ND		100	100	mg/Kg		09/06/12 08:30	09/07/12 12:54	1
Percent Moisture	**9.6**		1.0	1.0	%			09/04/12 17:11	1
Percent Solids	**90**		1.0	1.0	%			09/04/12 17:11	1

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>200**				Fahrenheit			08/31/12 08:47	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		45	45	mg/Kg		09/06/12 09:30	09/07/12 12:52	1
Sulfide, Reactive	ND		100	100	mg/Kg		09/06/12 09:30	09/07/12 12:54	1
Percent Moisture	**4.4**		1.0	1.0	%			09/04/12 17:11	1
Percent Solids	**96**		1.0	1.0	%			09/04/12 17:11	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: W.R. Grace MA

TestAmerica Job ID: 360-42466-1

General Chemistry - Soluble

Client Sample ID: S-1 — **Lab Sample ID: 360-42466-1**
Date Collected: 08/29/12 12:10 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.55				SU			09/06/12 15:32	1

Client Sample ID: S-2 — **Lab Sample ID: 360-42466-2**
Date Collected: 08/29/12 12:15 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.63				SU			09/06/12 15:35	1

Client Sample ID: S-3 — **Lab Sample ID: 360-42466-3**
Date Collected: 08/29/12 12:20 — **Matrix: Solid**
Date Received: 08/30/12 18:30

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.23				SU			09/06/12 15:38	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method: 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,1,1-Trichloroethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,1,2,2-Tetrachloroethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,1,2-Trichloroethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,1-Dichloroethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,1-Dichloroethene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,1-Dichloropropene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2,3-Trichlorobenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2,3-Trichloropropane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2,4-Trichlorobenzene	ND		130	65	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2,4-Trimethylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2-Dibromo-3-Chloropropane	ND		1300	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2-Dichlorobenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2-Dichloroethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,2-Dichloropropane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,3,5-Trimethylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,3-Dichlorobenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,3-Dichloropropane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
1,4-Dichlorobenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
2,2-Dichloropropane	ND	*	130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
2-Butanone (MEK)	ND		1300	340	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
2-Chlorotoluene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
2-Hexanone	ND		1300	340	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
4-Chlorotoluene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
4-Isopropyltoluene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
4-Methyl-2-pentanone (MIBK)	ND		1300	330	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Acetone	ND		13000	5300	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Benzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Bromobenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Bromoform	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Bromomethane	ND	*	270	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Carbon tetrachloride	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Chlorobenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Chlorobromomethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Chlorodibromomethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Chloroethane	ND	*	270	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Chloroform	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Chloromethane	ND		270	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
cis-1,2-Dichloroethene	ND	*	130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
cis-1,3-Dichloropropene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Dibromomethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Dichlorobromomethane	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Ethylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Ethylene Dibromide	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Hexachlorobutadiene	ND		130	55	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Isopropylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Methyl tert-butyl ether	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Methylene Chloride	ND	*	530	68	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
m-Xylene & p-Xylene	ND		270	68	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Naphthalene	ND		1300	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
n-Butylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
o-Xylene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
sec-Butylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Styrene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
tert-Butylbenzene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Tetrachloroethene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Toluene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
trans-1,2-Dichloroethene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
trans-1,3-Dichloropropene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Trichloroethene	ND		130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Trichlorofluoromethane	ND	*	270	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1
Vinyl chloride	ND	*	130	53	ug/Kg	☼	09/20/12 16:07	09/23/12 08:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*70 - 130*	*09/20/12 16:07*	*09/23/12 08:20*	*1*
Dibromofluoromethane	*101*		*70 - 130*	*09/20/12 16:07*	*09/23/12 08:20*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*	*09/20/12 16:07*	*09/23/12 08:20*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		53	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
1,2-Dichlorobenzene	ND		53	10	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		53	18	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
1,3-Dichlorobenzene	ND		53	12	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
1,4-Dichlorobenzene	ND		53	21	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2,4,6-Trichlorophenol	ND		160	85	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2,4-Dichlorophenol	ND		160	21	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2,4-Dimethylphenol	ND		160	21	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2,4-Dinitrophenol	ND		350	85	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2,4-Dinitrotoluene	ND		210	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2,6-Dinitrotoluene	ND		210	22	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2-Chloronaphthalene	ND		53	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2-Chlorophenol	ND		53	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
2-Nitrophenol	ND		53	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
3,3'-Dichlorobenzidine	ND		110	19	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
4,6-Dinitro-2-methylphenol	ND		160	85	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
4-Bromophenyl phenyl ether	ND		53	14	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
4-Chlorophenyl phenyl ether	ND		53	14	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
4-Nitrophenol	ND		350	85	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Acenaphthene	ND		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Acenaphthylene	ND		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Anthracene	ND		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Benzidine	ND		700	350	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Benzo[a]anthracene	**74**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Benzo[a]pyrene	**91**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Benzo[b]fluoranthene	**160**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Benzo[g,h,i]perylene	**48**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Benzo[k]fluoranthene	**75**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Bis(2-chloroethoxy)methane	ND		110	23	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Bis(2-chloroethyl)ether	ND		110	2.1	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
bis (2-chloroisopropyl) ether	ND		110	10	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Bis(2-ethylhexyl) phthalate	**31**	**J B**	53	20	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Butyl benzyl phthalate	ND		53	11	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Chrysene	**130**		7.1	1.2	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Dibenz(a,h)anthracene	ND		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Diethyl phthalate	ND		53	17	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Dimethyl phthalate	ND		53	18	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Di-n-butyl phthalate	ND		53	16	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Di-n-octyl phthalate	ND		53	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Fluoranthene	**250**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Fluorene	**3.9**	**J**	7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Hexachlorobenzene	ND		7.1	2.2	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Hexachlorobutadiene	ND		53	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Hexachlorocyclopentadiene	ND		350	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Hexachloroethane	ND		53	9.6	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Indeno[1,2,3-cd]pyrene	**48**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Isophorone	ND		53	14	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Naphthalene	ND		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Nitrobenzene	ND		110	2.3	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
N-Nitrosodimethylamine	ND		110	17	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		53	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
N-Nitrosodiphenylamine	ND		53	22	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
4-Chloro-3-methylphenol	ND		160	22	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Pentachlorophenol	ND		160	85	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Phenanthrene	**120**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Phenol	ND		53	29	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1
Pyrene	**220**		7.1	3.5	ug/Kg	☼	09/17/12 12:48	09/19/12 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*61*		*24 - 110*	*09/17/12 12:48*	*09/19/12 18:58*	*1*
2-Fluorophenol (Surr)	*67*		*24 - 110*	*09/17/12 12:48*	*09/19/12 18:58*	*1*
2,4,6-Tribromophenol (Surr)	*48*		*10 - 110*	*09/17/12 12:48*	*09/19/12 18:58*	*1*
Nitrobenzene-d5 (Surr)	*62*		*20 - 110*	*09/17/12 12:48*	*09/19/12 18:58*	*1*
Phenol-d5 (Surr)	*68*		*26 - 110*	*09/17/12 12:48*	*09/19/12 18:58*	*1*
Terphenyl-d14 (Surr)	*93*		*36 - 110*	*09/17/12 12:48*	*09/19/12 18:58*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.050	0.00028	mg/L		09/18/12 11:44	09/20/12 12:41	1
1,2-Dichlorobenzene	ND		0.050	0.00029	mg/L		09/18/12 11:44	09/20/12 12:41	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.050	0.00029	mg/L		09/18/12 11:44	09/20/12 12:41	1
1,3-Dichlorobenzene	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
1,4-Dichlorobenzene	ND		0.0040	0.00034	mg/L		09/18/12 11:44	09/20/12 12:41	1
2,4,6-Trichlorophenol	ND		0.020	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
2,4-Dichlorophenol	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
2,4-Dimethylphenol	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
2,4-Dinitrophenol	ND		0.050	0.0024	mg/L		09/18/12 11:44	09/20/12 12:41	1
2,4-Dinitrotoluene	ND		0.020	0.00027	mg/L		09/18/12 11:44	09/20/12 12:41	1
2,6-Dinitrotoluene	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
2-Chloronaphthalene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
2-Chlorophenol	ND		0.050	0.00029	mg/L		09/18/12 11:44	09/20/12 12:41	1
2-Nitrophenol	ND		0.050	0.00028	mg/L		09/18/12 11:44	09/20/12 12:41	1
3,3'-Dichlorobenzidine	ND		0.050	0.00037	mg/L		09/18/12 11:44	09/20/12 12:41	1
4,6-Dinitro-2-methylphenol	ND		0.050	0.0024	mg/L		09/18/12 11:44	09/20/12 12:41	1
4-Bromophenyl phenyl ether	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
4-Chlorophenyl phenyl ether	ND		0.050	0.00030	mg/L		09/18/12 11:44	09/20/12 12:41	1
4-Nitrophenol	ND		0.050	0.0024	mg/L		09/18/12 11:44	09/20/12 12:41	1
Acenaphthene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Acenaphthylene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Anthracene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Benzidine	ND		0.050	0.0024	mg/L		09/18/12 11:44	09/20/12 12:41	1
Benzo[a]anthracene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Benzo[a]pyrene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Benzo[b]fluoranthene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Benzo[g,h,i]perylene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Benzo[k]fluoranthene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Bis(2-chloroethoxy)methane	ND		0.050	0.00032	mg/L		09/18/12 11:44	09/20/12 12:41	1
Bis(2-chloroethyl)ether	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
bis (2-chloroisopropyl) ether	ND		0.050	0.00040	mg/L		09/18/12 11:44	09/20/12 12:41	1
Bis(2-ethylhexyl) phthalate	**0.0052**	**J B**	0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
Butyl benzyl phthalate	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
Chrysene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Dibenz(a,h)anthracene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Diethyl phthalate	**0.0013**	**J**	0.050	0.00060	mg/L		09/18/12 11:44	09/20/12 12:41	1
Dimethyl phthalate	ND		0.050	0.00029	mg/L		09/18/12 11:44	09/20/12 12:41	1
Di-n-butyl phthalate	**0.0021**	**J B**	0.050	0.00067	mg/L		09/18/12 11:44	09/20/12 12:41	1
Di-n-octyl phthalate	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
Fluoranthene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Fluorene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Hexachlorobenzene	ND		0.020	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Hexachlorobutadiene	ND		0.020	0.00027	mg/L		09/18/12 11:44	09/20/12 12:41	1
Hexachlorocyclopentadiene	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
Hexachloroethane	ND		0.020	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Isophorone	ND		0.050	0.00027	mg/L		09/18/12 11:44	09/20/12 12:41	1
Naphthalene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Nitrobenzene	ND		0.0040	0.000040	mg/L		09/18/12 11:44	09/20/12 12:41	1
N-Nitrosodimethylamine	ND		0.050	0.00031	mg/L		09/18/12 11:44	09/20/12 12:41	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
N-Nitrosodiphenylamine	ND		0.050	0.00031	mg/L		09/18/12 11:44	09/20/12 12:41	1
4-Chloro-3-methylphenol	ND		0.050	0.00080	mg/L		09/18/12 11:44	09/20/12 12:41	1
Pentachlorophenol	ND		0.040	0.0024	mg/L		09/18/12 11:44	09/20/12 12:41	1
Phenanthrene	**0.00053**	**J**	0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1
Phenol	ND		0.050	0.00060	mg/L		09/18/12 11:44	09/20/12 12:41	1
Pyrene	ND		0.050	0.00010	mg/L		09/18/12 11:44	09/20/12 12:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*30 - 110*	*09/18/12 11:44*	*09/20/12 12:41*	*1*
2-Fluorophenol (Surr)	*66*		*20 - 110*	*09/18/12 11:44*	*09/20/12 12:41*	*1*
2,4,6-Tribromophenol (Surr)	*66*		*23 - 110*	*09/18/12 11:44*	*09/20/12 12:41*	*1*
Nitrobenzene-d5 (Surr)	*68*		*28 - 110*	*09/18/12 11:44*	*09/20/12 12:41*	*1*
Phenol-d5 (Surr)	*57*		*21 - 110*	*09/18/12 11:44*	*09/20/12 12:41*	*1*
Terphenyl-d14 (Surr)	*82*		*48 - 110*	*09/18/12 11:44*	*09/20/12 12:41*	*1*

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
4,4'-DDE	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
4,4'-DDT	**37**		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Aldrin	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
alpha-BHC	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
beta-BHC	ND	*	10	2.2	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Chlordane (technical)	ND		200	51	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
delta-BHC	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Dieldrin	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Endosulfan I	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Endosulfan II	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Endosulfan sulfate	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Endrin	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Endrin aldehyde	ND		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Endrin ketone	ND		10	1.9	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
gamma-BHC (Lindane)	ND		3.0	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Heptachlor epoxide	ND	*	10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Methoxychlor	ND		10	2.9	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Toxaphene	ND		200	51	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1
Heptachlor	**39**		10	1.5	ug/Kg	☼	09/17/12 15:50	09/18/12 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*49 - 141*	*09/17/12 15:50*	*09/18/12 13:46*	*1*
DCB Decachlorobiphenyl	*105*		*49 - 141*	*09/17/12 15:50*	*09/18/12 13:46*	*1*
Tetrachloro-m-xylene	*102*		*54 - 122*	*09/17/12 15:50*	*09/18/12 13:46*	*1*
Tetrachloro-m-xylene	*89*		*54 - 122*	*09/17/12 15:50*	*09/18/12 13:46*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
4,4'-DDE	ND		0.25	0.14	ug/L		09/19/12 15:46	09/19/12 17:38	1
4,4'-DDT	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
Aldrin	ND		0.50	0.13	ug/L		09/19/12 15:46	09/19/12 17:38	1
alpha-BHC	ND		0.50	0.14	ug/L		09/19/12 15:46	09/19/12 17:38	1
beta-BHC	ND		0.50	0.11	ug/L		09/19/12 15:46	09/19/12 17:38	1
Chlordane (technical)	ND		2.5	1.5	ug/L		09/19/12 15:46	09/19/12 17:38	1
delta-BHC	ND		0.50	0.11	ug/L		09/19/12 15:46	09/19/12 17:38	1
Dieldrin	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
Endosulfan I	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
Endosulfan II	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
Endosulfan sulfate	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
Endrin	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
Endrin aldehyde	ND		0.50	0.16	ug/L		09/19/12 15:46	09/19/12 17:38	1
Endrin ketone	ND		0.50	0.37	ug/L		09/19/12 15:46	09/19/12 17:38	1
gamma-BHC (Lindane)	ND		0.50	0.12	ug/L		09/19/12 15:46	09/19/12 17:38	1
Heptachlor epoxide	ND		0.50	0.10	ug/L		09/19/12 15:46	09/19/12 17:38	1
Methoxychlor	ND		0.50	0.37	ug/L		09/19/12 15:46	09/19/12 17:38	1
Toxaphene	ND		2.5	1.5	ug/L		09/19/12 15:46	09/19/12 17:38	1
Heptachlor	ND		0.50	0.17	ug/L		09/19/12 15:46	09/19/12 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*67*		*21 - 115*	*09/19/12 15:46*	*09/19/12 17:38*	*1*
DCB Decachlorobiphenyl	*53*		*21 - 115*	*09/19/12 15:46*	*09/19/12 17:38*	*1*
Tetrachloro-m-xylene	*84*		*43 - 110*	*09/19/12 15:46*	*09/19/12 17:38*	*1*
Tetrachloro-m-xylene	*83*		*43 - 110*	*09/19/12 15:46*	*09/19/12 17:38*	*1*

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		100	30	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1221	ND		100	59	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1232	ND		100	87	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1242	ND		100	36	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1248	ND		100	96	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1254	**270**		100	59	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1260	ND		100	43	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1262	ND		100	54	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1
PCB-1268	ND		100	49	ug/Kg	☼	09/17/12 15:50	09/18/12 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*134*		*30 - 150*	*09/17/12 15:50*	*09/18/12 13:42*	*1*
DCB Decachlorobiphenyl	*122*		*30 - 150*	*09/17/12 15:50*	*09/18/12 13:42*	*1*
Tetrachloro-m-xylene	*112*		*30 - 150*	*09/17/12 15:50*	*09/18/12 13:42*	*1*
Tetrachloro-m-xylene	*118*		*30 - 150*	*09/17/12 15:50*	*09/18/12 13:42*	*1*

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

Method: 8151A - Herbicides (GC)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		86	20	ug/Kg	☼	09/17/12 12:40	09/19/12 21:03	1
2,4,5-T	ND		21	4.0	ug/Kg	☼	09/17/12 12:40	09/19/12 21:03	1
Silvex (2,4,5-TP)	ND		21	4.4	ug/Kg	☼	09/17/12 12:40	09/19/12 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*68*		*25 - 129*	*09/17/12 12:40*	*09/19/12 21:03*	*1*

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

Method: 6010C - Metals (ICP)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.3**		1.3	0.15	mg/Kg	☼	09/14/12 09:23	09/14/12 15:53	1
Barium	**28**		0.65	0.15	mg/Kg	☼	09/14/12 09:23	09/14/12 15:53	1
Cadmium	**0.063**	**J**	0.26	0.0087	mg/Kg	☼	09/14/12 09:23	09/14/12 15:53	1
Chromium	**49**		0.65	0.16	mg/Kg	☼	09/14/12 09:23	09/14/12 15:53	1
Silver	ND		0.65	0.034	mg/Kg	☼	09/14/12 09:23	09/14/12 15:53	1
Lead	**8.8**	**B**	0.65	0.064	mg/Kg	☼	09/14/12 09:23	09/14/12 15:53	1
Selenium	ND		0.65	0.31	mg/Kg	☼	09/14/12 09:23	09/14/12 15:53	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

Method: 6010C - Metals (ICP) - TCLP

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050	0.0016	mg/L		09/18/12 09:59	09/20/12 14:16	5
Barium	**0.20**	**B**	0.050	0.012	mg/L		09/18/12 09:59	09/20/12 14:16	5
Cadmium	ND		0.0050	0.0012	mg/L		09/18/12 09:59	09/20/12 14:16	5
Chromium	ND		0.025	0.0026	mg/L		09/18/12 09:59	09/20/12 14:16	5
Lead	**0.013**	**J B**	0.025	0.0055	mg/L		09/18/12 09:59	09/20/12 14:16	5
Selenium	ND		0.050	0.019	mg/L		09/18/12 09:59	09/20/12 14:16	5
Silver	ND		0.025	0.0043	mg/L		09/18/12 09:59	09/20/12 14:16	5

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

Method: 7470A - Mercury (CVAA) - TCLP

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00080	0.00064	mg/L		09/18/12 10:15	09/18/12 14:10	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid
Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.10	0.034	mg/Kg	☼	09/17/12 09:57	09/17/12 14:13	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

General Chemistry

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>200**				Fahrenheit			09/20/12 12:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		45	45	mg/Kg		09/17/12 07:30	09/18/12 11:00	1
Sulfide, Reactive	ND		100	100	mg/Kg		09/17/12 08:37	09/18/12 11:00	1
Percent Moisture	**5.7**		1.0	1.0	%			09/17/12 15:30	1
Percent Solids	**94**		1.0	1.0	%			09/17/12 15:30	1

Client Sample Results

Client: Enpro Services, Inc.
Project/Site: WR Grace

TestAmerica Job ID: 360-42738-1

General Chemistry - Soluble

Client Sample ID: S-3-1
Date Collected: 09/13/12 10:30
Date Received: 09/13/12 17:50

Lab Sample ID: 360-42738-1
Matrix: Solid

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.56				SU			09/18/12 15:57	1

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
X	Surrogate is outside control limits
E	Result exceeded calibration range.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)